ARIB STD-T53-C.S0005-A

Upper Layer (Layer 3) Signaling Standard for cdma2000 Spread Spectrum Systems

Refer to "Industrial Property Rights (IPR)" in the preface of ARIB STD-T53 for Related Industrial Property Rights. Refer to "Notice" in the preface of ARIB STD-T53 for Copyrights.
Original Specification

This standard, ARIB-T53-C.S0005-A, was prepared by T53WG of Association of Radio Industries and Businesses (ARIB) based upon the 3GPP2 specification, C.S0005-A v6.0.

Modification to the original specification

3GPP2 C.S0005-A v6.0 allows country-specific use of Information Records and Data Burst Message. ANNEX 1 and 2 provide signaling formats of country-specific Information Records (Extended Record Type – International) and Data Burst Message (Extended Burst Type – International) for CDMA operation in Japan, respectively.

Notes

1. The method of ESN allocation shall be obtained from operators.
2. This standard is only applied to the Band Class 3 operation while other band operations have been specified. In addition, analog mode operation specified in this standard is not applicable in Japan.
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ADDENDUM INTRODUCTION

This addendum is provided to correct errors and omissions in the published version of 3GPP2 C.S0005-A. This addendum replaces 3GPP2 C.S0005-A.

Revisions are indicated by change bars located in the left or right hand margins, and also by specific markings applied to the text.

New text is underlined, as shown below.

Deleted text is crossed out, as shown below.

This is how deleted text is identified.

A modified figure is marked similarly to modified text. A new figure is underlined; a deleted figure is crossed out through the middle of the figure.

The table of contents does not identify revisions to any section heading, table, or figure.
1

2  No text

3
FOREWORD

1. General. This section defines the terms and numeric indications used in this document. This section also describes the time reference used in the CDMA system and the tolerances used throughout the document.

2. Requirements for Mobile Station CDMA Operation. This section describes the requirements for CDMA-analog dual-mode mobile stations operating in the CDMA mode. A mobile station complying with these requirements will be able to operate with CDMA base stations complying with this document.

3. Requirements for Base Station CDMA Operation. This section describes the requirements for CDMA base stations. A base station complying with these requirements will be able to operate in the CDMA mode with mobile stations complying with this document.

Annex A. Reserved.

Annex B. CDMA Call Flow Examples. This informative annex provides examples of simple call flows in the CDMA system.

Annex C. Reserved.

Annex D. CDMA Constants. This normative annex contains tables that give specific values for the constant identifiers found in Section 2 and Section 3.

Annex E. CDMA Retrievable and Settable Parameters. This normative annex describes the mobile station parameters that the base station can set and retrieve.

Annex F. Mobile Station Database. This informative annex describes a database model that can be used for dual-mode mobile stations complying with this document.

Annex G. Encryption Call Flows. This informative annex provides examples of extended encryption call flows in the CDMA system.
No text.
NOTES

1. Compatibility, as used in connection with cdma2000, is understood to mean: any cdma2000 mobile station is able to place and receive calls in cdma2000 and IS-95 systems. Conversely, any cdma2000 system is able to place and receive calls for CDMA cdma2000 and IS-95 mobile stations.

2. The term “dual-mode mobile station” indicates a mobile station capable of both analog (FM) and spread spectrum (CDMA) operation.

3. This compatibility specification is based upon spectrum allocations that have been defined by various governmental administrations.

4. Each mobile station is assigned a single unique 32-bit binary serial number (ESN) that cannot be changed by the subscriber without rendering the mobile station inoperative (see 2.3.2).

5. “Base station” refers to the functions performed in the fixed network. These functions typically distributed among cells, sectors, and mobile switching centers.

6. This standard uses the following verbal forms: “Shall” and “shall not” identify requirements strictly to be followed in order to conform with the standard and from which no deviation is permitted. “Should” and “should not” indicate that one of several possibilities is recommended as particularly suitable, without mentioning or excluding others; that a certain course of action is preferred but not necessarily required; or that (in the negative form) a certain possibility or course of action is discouraged but not prohibited. “May” and “need not” indicate a course of action permissible within the limits of the standard. “Can” and “cannot” are used for statements of possibility and capability, whether material, physical, or causal.

7. Footnotes appear at various points in this specification to elaborate and further clarify items discussed in the body of the specification.

8. Unless indicated otherwise, this document presents numbers in decimal form. Binary numbers are distinguished in the text by the use of single quotation marks.

9. The following operators define mathematical operations:

\[ x \] indicates multiplication.

\[ \lfloor x \rfloor \] indicates the largest integer less than or equal to x: \[ \lfloor 1.1 \rfloor = 1, \lfloor 1.0 \rfloor = 1. \]

\[ \lceil x \rceil \] indicates the smallest integer greater or equal to x: \[ \lceil 1.1 \rceil = 2, \lceil 2.0 \rceil = 2. \]

\[ |x| \] indicates the absolute value of x: \[ |-17| = 17, |17| = 17. \]

\[ \oplus \] indicates exclusive OR (modulo-2 addition).

\[ \min \{x, y\} \] indicates the minimum of x and y.

\[ \max \{x, y\} \] indicates the maximum of x and y.
x mod y indicates the remainder after dividing x by y: \( x \mod y = x - (y \times \lfloor \frac{x}{y} \rfloor) \).

10. While communication between Layer 3 and Layer 2 is specified, there is no requirement to implement layering.
REFERENCES

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.
1. Reserved.
5. Reserved.
22. TIA/EIA/IS-91, Mobile Station-Base Station Compatibility Standard for 800 MHz Analog Cellular, October 1994.
29. TSB50, User Interface for Authentication Key Entry, March 1993.
34. ANSI T1.625, Integrated Services Digital Network (ISDN) – Calling Line Identification Presentation and Restriction Supplementary Services.
36. CCITT X.25, Interface between Data Terminal Equipment (DTE) and Data Circuit-Terminating Equipment (DCE) for terminals operating in the packet mode and connected to public data networks by dedicated circuit, October 1996.
1. GENERAL

This section defines the terms and numeric indications used in this document. This section also describes the time reference used in the CDMA system and the tolerances used throughout the document.

1.1 Terms and Numeric Information

1.1.1 Terms

Abbreviated Alert. An abbreviated alert is used to remind the mobile station user that previously selected alternative routing features are still active.

AC. See Authentication Center.

Access Attempt. The entire process of sending one message and receiving (or failing to receive) an acknowledgment for that message, consisting of one or more access sub-attempts. See also Access Probe, Access Probe Sequence, and Access Sub-attempt.

Access Channel. A Reverse CDMA Channel used by mobile stations for communicating to the base station. The Access Channel is used for short signaling message exchanges such as call originations, responses to pages, and registrations. The Access Channel is a slotted random access channel.

Access Channel Message. The information part of an access probe consisting of the message body, length field, and CRC.

Access Channel Message Capsule. An Access Channel message plus the padding.

Access Channel Preamble. The preamble of an access probe consisting of a sequence of all-zero frames that are sent at the 4800 bps rate.

Access Channel Request Message. An Access Channel message that is autonomously generated by the mobile station. See also Access Channel Response Message.

Access Channel Response Message. A message on the Access Channel generated to reply to a message received from the base station.

Access Channel Slot. The assigned time interval for an access probe. An Access Channel slot consists of an integer number of frames. The transmission of an access probe is performed within the boundaries of an Access Channel slot.

Access Entry Handoff. The act of transferring reception of the Paging Channel from one base station to another, when the mobile station is transitioning from the Mobile Station Idle State to the System Access State.

Access Handoff. The act of transferring reception of the Paging Channel from one base station to another, when the mobile station is in the System Access State after an Access Attempt.

Access Overload Class. See Overload Class.

Access Probe. One Access Channel transmission consisting of a preamble and a message. The transmission is an integer number of frames in length and transmits one Access
Channel message. See also Access Probe Sequence, Access Sub-attempt, and Access Attempt.

**Access Probe Handoff.** A handoff that occurs while the mobile station is performing an Access Attempt in the *System Access State*.

**Access Probe Sequence.** A sequence of one or more access probes on the Access Channel. Other than the reported pilot information, the same Access Channel message content is transmitted in every access probe of an access sub-attempt. See also Access Probe, Access Sub-attempt, and Access Attempt.

**Access Sub-attempt.** A sequence of one or more access probe sequences on the Access Channel transmitted to one pilot, containing the same message content other than the reported pilot information. See also Access Probe, Access Probe Sequence, and Access Attempt.

**Acknowledgment.** A Layer 2 response by the mobile station or the base station confirming that a signaling message was received correctly.

**Action Time.** The time at which the action implied by a message should take effect.

**Active Set.** The set of pilots associated with the CDMA Channels containing Forward Traffic Channels assigned to a particular mobile station.

**Active User Zone.** A user zone in which the mobile station makes its presence known via an explicit registration in order to activate tiered service features. See also CDMA Tiered Services, User Zone, and Passive User Zone.

**Aging.** A mechanism through which the mobile station maintains in its Neighbor Set the pilots that have been recently sent to it from the base station and the pilots whose handoff drop timers have recently expired.

**A-key.** A secret, 64-bit pattern stored in the mobile station and HLR/AC. It is used to generate/update the mobile station’s Shared Secret Data.

**Assured Mode.** Mode of delivery that guarantees that a PDU will be delivered to the peer. A PDU sent in assured mode is retransmitted by the LAC sublayer, up to a maximum number of retransmissions, until the LAC entity at the sender receives an acknowledgement for the PDU. See also Confirmation of Delivery.

**Authentication.** A procedure used by a base station to validate a mobile station’s identity.

**Authentication Center (AC).** An entity that manages the authentication information related to the mobile station.

**Authentication Response (AUTHR).** An 18-bit output of the authentication algorithm. It is used, for example, to validate mobile station registrations, originations and terminations.

**Autonomous Registration.** A method of registration in which the mobile station registers without an explicit command from the base station.

**Auxiliary Pilot Channel.** A non-data-bearing, direct-sequence spread spectrum signal optionally transmitted by a CDMA base station.
**Auxiliary Transmit Diversity Pilot Channel.** A pilot channel, counterpart to an Auxiliary Pilot Channel, that is transmitted by a CDMA base station from the non-primary antenna when orthogonal transmit diversity is employed.

**Bad Frames.** Frames classified as insufficient frame quality or as 9600 bps primary traffic only, with bit errors. See also Good Frames.

**Band Class.** A set of CDMA frequency assignments and a numbering scheme for these channels. See also CDMA Frequency Assignment.

**Base Station.** A fixed station used for communicating with mobile stations. Depending upon the context, the term base station may refer to a cell, a sector within a cell, an MSC, or other part of the cellular wireless system. See also MSC.

**Base Station Authentication Response (AUTHBS).** An 18-bit pattern generated by the authentication algorithm. AUTHBS is used to confirm the validity of base station orders to update the Shared Secret Data.

**Base Station Random Variable (RANDBS).** A 32-bit random number generated by the mobile station for authenticating base station orders to update the Shared Secret Data.

**Blank-and-Burst.** The preemption of an entire Traffic Channel frame’s primary traffic by signaling traffic or secondary traffic. Blank-and-burst is performed on a frame-by-frame basis.

**BLOB.** Block of Bits.

**bps.** Bits per second.

**Broadcast Control Channel.** A code channel in a Forward CDMA Channel used for transmission of control information or broadcast messages from a base station to a mobile station.

**Broadcast Control Channel Number (BCN).** A number that identifies the Broadcast Control Channel. BCN number 1 corresponds to the Primary Broadcast Control Channel. BCN numbers 2 through 8 correspond to other Broadcast Control Channels (if any).

**Broadcast User Zone.** A user zone that is identified to the mobile station by means of broadcast messages. It corresponds to the RF coverage area of a particular set of cells and sectors. See also CDMA Tiered Services and Mobile-Specific User Zone.

**Call Disconnect.** The process that releases the resources handling a particular call. The disconnect process begins either when the mobile station user indicates the end of the call by generating an on-hook condition or other call-release mechanism, or when the base station initiates a release.

**Call History Parameter (COUNT).** A modulo-64 event counter maintained by the mobile station and Authentication Center that is used for clone detection.

**Candidate Frequency.** The frequency, either analog or CDMA, for which the base station specifies a search set, using a Candidate Frequency Search Request Message.
Candidate Set. The set of pilots that have been received with sufficient strength by the mobile station to be successfully demodulated, but have not been placed in the Active Set by the base station. See also Active Set, Neighbor Set, and Remaining Set.

CDMA. See Code Division Multiple Access.

CDMA Candidate Frequency. The Candidate Frequency specified for a search of CDMA pilots.

CDMA Channel. The set of channels transmitted between the base station and the mobile stations within a given CDMA Frequency Assignment. See also Forward CDMA Channel and Reverse CDMA Channel.

CDMA Channel Number. An 11-bit number that identifies a CDMA Frequency Assignment.

CDMA Frequency Assignment. A 1.23 or 3.69 MHz segment of spectrum. The center of a CDMA frequency assignment is given by a CDMA Channel Number.

CDMA Preferred Set. The set of CDMA channel numbers in a CDMA system corresponding to Frequency Assignments that a mobile station will normally search to acquire a CDMA Pilot Channel. For CDMA cellular systems, the primary and secondary channels comprise the CDMA Preferred Set.

CDMA Tiered Services. System features and services that are based on location, potentially including private networks. User zones establish the availability of services. See also User Zone, Broadcast User Zone, Mobile-Specific User Zone, Active User Zone, and Passive User Zone.

Center SR3 Frequency. The Spreading Rate 3 frequency that has the center frequency assignment.

Chip. See PN Chip.

Code Channel. A subchannel of a Forward CDMA Channel or Reverse CDMA Channel. Each subchannel uses an orthogonal Walsh function or quasi-orthogonal function.

Code Division Multiple Access (CDMA). A technique for spread-spectrum multiple-access digital communications that creates channels through the use of unique code sequences.

Code Symbol. The output of an error-correcting encoder. Information bits are input to the encoder and code symbols are output from the encoder. See Convolutional Code.

Configuration Change Indicator. A one-bit datum, sent on the Quick Paging Channel. Appearance of the Configuration Change Indicator in the Quick Paging Channel serves to alert a slotted mode mobile station, operating in the idle state, that, after performing an idle handoff, it should monitor the Paging Channel, the Forward Common Control Channel, or the Primary Broadcast Control Channel in order to determine if it should update its stored parameters.

Confirmation of Delivery. A notification sent by the LAC sublayer to Layer 3 at the sender, when the LAC entity at the sender receives the acknowledgment for a specific PDU sent in assured mode.
Convolutional Code. A type of error-correcting code. A code symbol can be considered as modulo 2 the convolution of the input data sequence with the impulse response of a generator function.

CRC. See Cyclic Redundancy Code.

Cyclic Redundancy Code (CRC). A class of linear error detecting codes that generate parity check bits by finding the remainder of a polynomial division. See also Frame Quality Indicator.

dBc. The ratio (in dB) of the sideband power of a signal, measured in a given bandwidth at a given frequency offset from the center frequency of the same signal, to the total inband power of the signal.

dBm. A measure of power expressed in terms of its ratio (in dB) to one milliwatt.

dBm/Hz. A measure of power spectral density. The ratio, dBm/Hz, is the power in one Hertz of bandwidth, where power is expressed in units of dBm.

dBW. A measure of power expressed in terms of its ratio (in dB) to one Watt.

Dedicated Control Channel. A portion of a Traffic Channel (Forward or Reverse) that carries a combination of user data, signaling, and power control information.

Deinterleaving. The process of unpermuting the symbols that were permuted by the interleaver. Deinterleaving is performed on received symbols prior to decoding.

Discontinuous Transmission (DTX). A mode of operation in which a base station or a mobile station switches its transmitter on and off on a particular code channel autonomously. For the case of DTX operation on the Forward Dedicated Control Channel, the Forward Power Control Subchannel is still transmitted.

Distance-Based Registration. An autonomous registration method in which the mobile station registers whenever it enters a cell whose distance from the cell in which the mobile station last registered exceeds a given threshold.

DTMF. See Dual-Tone Multifrequency.

Dual-Tone Multifrequency (DTMF). Signaling by the simultaneous transmission of two tones, one from a group of low frequencies and another from a group of high frequencies. Each group of frequencies consists of four frequencies.

$E_b$. A measure of the energy in a signal, at some point in a communication system, per information bit conveyed by that signal, or an average value of such energies. Its relevance to system performance is most often expressed by its ratio to additive noise and interference, such as in $E_b/N_0$ or $E_b/I_0$. Such ratios are dimensionless, and are usually expressed in dB units.

$E_c/I_0$. A notation used to represent a dimensionless ratio of the average power of some code-distinguished CDMA signal channel, typically a pilot, to the total power comprised of signal plus interference, within the signal bandwidth. It is usually expressed in dB units.

Effective Radiated Power (ERP). The product of the power supplied to the antenna and its gain relative to a half-wave dipole in a given direction.
**EIRP.** See Equivalent Isotropic Radiated Power.

**Electronic Serial Number (ESN).** A 32-bit number assigned by the mobile station manufacturer, uniquely identifying the mobile station equipment.

**Encoder Tail Bits.** A fixed sequence of bits added to the end of a block of data to reset the convolutional encoder to a known state.

**Enhanced Access Channel.** A reverse channel used by mobile station for communicating to the base station. The Enhanced Access Channel operates in the Basic Access Mode, and Reservation Access Mode. It is used for transmission of short messages, such as signaling, MAC messages, response to pages, and call originations. It can also be used to transmit moderate-sized data packets.

**Enhanced Access Channel Preamble.** A non-data bearing portion of the Enhanced Access probe sent by the mobile station to assist the base station in initial acquisition and channel estimation.

**Enhanced Access Channel Slot.** The assigned time interval for an enhanced access probe. An Enhanced Access Channel slot consists of an integer number of Enhanced Access Channel frames. The transmission of an enhanced access probe is performed within the boundaries of an Enhanced Access Channel slot.

**Enhanced Access Data.** The data transmitted while in the Basic Access Mode on the Enhanced Access Channel or while in the Reservation Access Mode on a Reverse Common Control Channel.

**Enhanced Access Header.** A frame containing access origination information transmitted immediately after the Enhanced Access Channel Preamble while in the Reservation Access Mode.


**Enhanced Access Probe Sequence.** A sequence of one or more Enhanced Access probes on the Enhanced Access Channel. See also Enhanced Access Probe.

**Equivalent Isotropically Radiated Power (EIRP).** The product of the power supplied to the antenna and the antenna gain in a direction relative to an isotropic antenna.

**Erasure Indicator Bit.** See [2].

**ERP.** See Effective Radiated Power.

**ESN.** See Electronic Serial Number.

**f-csch.** Forward common signaling logical channel.

**f-dsch.** Forward dedicated signaling logical channel.

**Fade Timer.** A timer kept by the mobile station as a measure of Forward Traffic Channel continuity. If the fade timer expires, the mobile station drops the call.

**Flash.** An indication sent on the Reverse CDMA Channel indicating that the user directed the mobile station to invoke special processing.
Foreign NID Roamer. A mobile station operating in the same system (SID) but in a
different network (NID) from the one in which service was subscribed. See also Foreign SID
Roamer and Roamer.

Foreign SID Roamer. A mobile station operating in a system (SID) other than the one from
which service was subscribed. See also Foreign NID Roamer and Roamer.

Forward CDMA Channel. A CDMA Channel from a base station to mobile stations. The
Forward CDMA Channel contains one or more code channels that are transmitted on a
CDMA Frequency Assignment using a particular pilot PN offset. The code channels are
associated with the Pilot Channel, Sync Channel, Paging Channels, Broadcast Control
Channel, Forward Common Control Channels, and Traffic Channels. The Forward CDMA
Channel always carries a Pilot Channel and may also carry up to one Sync Channel, up to
seven Paging Channels, one-up to eight Broadcast Control Channels, up to seven Forward
Common Control Channels and up to the maximum number of channels allowed for the
assigned Radio Configuration minus one Traffic Channels, as long as the total number of
channels, including the Pilot Channel, is no greater than the maximum number of channels
allowed for the assigned Radio Configuration (see [2] section 3.1.3.1.13).

Forward Common Control Channel. A control channel used for the transmission of digital
control information from a base station to one or more mobile stations.

Forward Dedicated Control Channel. A Dedicated Control Channel that is transmitted on
the Forward CDMA Channel.

Forward Fundamental Channel. A Fundamental Channel that is transmitted on the
Forward CDMA Channel.

Forward Pilot Channel. A non-data-bearing direct-sequence spread spectrum signal
transmitted continuously by each CDMA base station. The Forward Pilot Channel allows a
mobile station to acquire the timing of the Forward CDMA Channel, provides a phase
reference for coherent demodulation, and provides a means for signal strength comparisons
between base stations for determining when to handoff. Different base stations are
identified by different pilot PN sequence time phases. See also Pilot PN Sequence, Pilot PN
Sequence Offset.

Forward Supplemental Channel. A Supplemental Channel that is transmitted on the
Forward CDMA Channel.

Forward Supplemental Code Channel. A Supplemental Code Channel that is transmitted
on the Forward CDMA Channel.

Forward Traffic Channel. One or more code channels used to transport user and
signaling traffic from the base station to the mobile station. See Forward Fundamental
Code Channel, Forward Dedicated Control Channel, Forward Fundamental Channel,
Forward Supplemental, and Forward Supplemental Code Channel.

Forward Transmit Diversity Pilot Channel. A pilot channel transmitted by a CDMA base
station from the non-primary antenna when orthogonal transmit diversity is employed.

Frame. A basic timing interval in the system. For the Access Channel, Paging Channel,
Broadcast Control Channel, Forward Supplemental Code Channel, and Reverse
Supplemental Code Channel, a frame is 20 ms long. For the Forward Supplemental Channel and Reverse Supplemental channel, a frame is 20, 40, or 80 ms long. For the Sync Channel, a frame is 26.666... ms long. For the Forward Fundamental Channel, Forward Dedicated Control Channel, Reverse Fundamental Channel, and Reverse Dedicated Control Channel, a frame is 5 or 20 ms long. For the Enhance Access Channel, the Forward Common Control Channel, and the Reverse Common Control Channel, a frame is 5, 10 or 20 ms long.

**Frame Category.** A classification of a received Traffic Channel frame based upon transmission data rate, the frame contents (primary traffic, secondary traffic, or signaling traffic), and whether there are detected errors in the frame.

**Frame Offset.** A time skewing of Traffic Channel frames from System Time in integer multiples of 1.25 ms. The maximum frame offset is 18.75 ms.

**Frame Quality Indicator.** See [2].

**Full TMSI.** The combination of TMSI_ZONE and TMSI_CODE. The full TMSI is a globally unique address for the mobile station.

**Fundamental Channel.** A portion of a Traffic Channel that can carry a combination of primary data, secondary data, signaling, and power control information.

**Gating Rate Set.** This specifies the set of supported reverse pilot gating rates. The base station and the mobile station may support one or more gating rates.

**GHz.** Gigahertz ($10^9$ Hertz).

**Global Positioning System (GPS).** A US government satellite system that provides location and time information to users. See Navstar GPS Space Segment / Navigation User Interfaces ICD-GPS-200 for specifications.

**Good Frames.** Frames not classified as bad frames. See also Bad Frames.

**GPS.** See Global Positioning System.

**Handoff.** The act of transferring communication with a mobile station from one base station to another.

**Hard Handoff.** A handoff characterized by a temporary disconnection of the Traffic Channel. Hard handoffs occur when the mobile station is transferred between disjoint Active Sets, when the CDMA Frequency Assignment changes, when the frame offset changes, or when the mobile station is directed from a CDMA Traffic Channel to an analog voice channel. See also Soft Handoff.

**Hash Function.** A function used by the mobile station to select one out of N available resources. The hash function distributes the available resources uniformly among a random sample of mobile stations.

**Highest SR3 Frequency.** The SR3 frequency that has the highest frequency assignment.

**HLR.** See Home Location Register.

**Home Location Register (HLR).** The location register to which a MIN/IMSI is assigned for record purposes such as subscriber information.
**Home System.** The wirelesscellular or PCS system in which the mobile station subscribes for service.

**Hopping Pilot Beacon.** A pilot beacon that changes CDMA Frequency periodically to simulate multiple base stations operating on different frequencies. The transmission of the hopping pilot beacon is discontinuous on any CDMA Channel.

**Idle Handoff.** The act of transferring reception of the Paging Channel, Broadcast Control Channel or the Forward Common Control Channel from one base station to another, when the mobile station is in the Mobile Station Idle State.

**Implicit Registration.** A registration achieved by a successful transmission of an origination or page response on the r-csch.

**IMSI.** See International Mobile Station Identity.

**IMSI_M.** MIN-based IMSI using the lower 10 digits to store the MIN.

**IMSI_O.** Operational value of IMSI used by the mobile station for operation with the base station.

**IMSI_T.** True IMSI not associated with MIN. This could be 15 digits or fewer.

**Interleaving.** The process of permuting a sequence of symbols.

**International Mobile Station Identity (IMSI).** A method of identifying stations in the land mobile service as specified in [18].

**kHz.** Kilohertz \((10^3 \text{ Hertz})\).

**ksp.** Kilo-symbols per second \((10^3 \text{ symbols per second})\).

**LAC.** See Link Access Control.

**Layering.** A method of organization for communication protocols in which the transmitted or received information is transferred in pipeline fashion, within each station, in well-defined encapsulated data units between otherwise decoupled processing entities (“layers”). A layer is defined in terms of its communication protocol to a peer layer in another entity and the services it offers to the next higher layer in its own entity.

**Layer 1.** Layer 1 provides for the transmission and reception of radio signals between the base station and the mobile station. Also see Physical Layer.

**Layer 2.** Layer 2 provides for the correct transmission and reception of signaling messages, including partial duplicate detection. Layer 2 makes use of the services provided by Layer 1. See also Layering and Layer 3.

**Layer 3.** Layer 3 provides the control messaging for the wirelesscellular or PCS telephone system. Layer 3 originates and terminates signaling messages according to the semantics and timing of the communication protocol between the base station and the mobile station. Layer 3 makes use of the services provided by Layer 2. See also Layering and Layer 2.

**Link Access Control.** See LAC. The LAC Sublayer is the upper sublayer of Layer 2. It implements a data link protocol that provides for the correct transport and delivery of signaling messages generated by Layer 3. The LAC Sublayer makes use of the services...
Local Control. An optional mobile station feature used to perform manufacturer-specific functions.

Logical Channel. A communication path between the mobile station and the base station, described in terms of the intended use of, and access to, the transferred data, and direction of transfer. A logical channel can be “mapped” to and from one or more physical channels.

Logical-to-physical Mapping. The technique for forming associations between logical and physical channels.

Long Code. A PN sequence with period $2^{42} - 1$ that is used for scrambling on the Forward CDMA Channel and spreading on the Reverse CDMA Channel. The long code uniquely identifies a mobile station on both the Reverse Traffic Channel and the Forward Traffic Channel. The long code provides limited privacy. The long code also separates multiple Access Channels and Enhanced Access Channels on the same CDMA Channel. See also Public Long Code and Private Long Code.


Lowest SR3 Frequency. The SR3 frequency that has the lowest frequency assignment.

LSB. Least significant bit.

LTU. Logical Transmission Unit. One of more Type 3 MuxPDUs with a 16-bit CRC.

MAC. See Medium Access Control.

Maximal Length Sequence (m-sequence). A binary sequence of period $2^n - 1$, $n$ being a positive integer, with no internal periodicities. A maximal length sequence can be generated by a tapped $n$-bit shift register with linear feedback.

MCC. See Mobile Country Code.

Mcps. Megachips per second ($10^6$ chips per second).

MCSB. See Message Control and Status Block.

Mean Input Power. The total received calorimetric power measured in a specified bandwidth at the antenna connector, including all internal and external signal and noise sources.

Mean Output Power. The total transmitted calorimetric power measured in a specified bandwidth at the antenna connector when the transmitter is active.

Medium Access Control. See MAC. The MAC Sublayer is the lower sublayer of Layer 2. It implements the medium access protocol and is responsible for transport of LAC protocol data units using the services provided by Layer 1.

Message. A data structure that conveys control information or application information. A message consists of a length field (MSG_LENGTH), a message body (the part conveying the information), and a CRC.
Message Body. The part of the message contained between the length field (MSG_LENGTH) and the CRC field.

Message Capsule. A sequence of bits comprising a single message and padding. The padding always follows the message and may be of zero length.

Message Control and Status Block. In this document, a parameter block representing the PCI being transferred between Layer 3 and Layer 2.

Message CRC. The CRC check associated with a message. See also Cyclic Redundancy Code.

Message Field. A basic named element in a message. A message field may consist of zero or more bits.

Message Record. An entry in a message consisting of one or more fields that repeats in the message.

MHz. Megahertz ($10^6$ Hertz).

MIN. See Mobile Identification Number.

MNC. See Mobile Network Code.

Mobile Country Code (MCC). A part of the E.212 IMSI identifying the home country. See [18].

Mobile Directory Number. A dialable directory number that is not necessarily the same as the mobile station’s air interface identification, i.e., MIN, IMSI_M or IMSI_T.

Mobile Identification Number (MIN). The 34-bit number that is a digital representation of the 10-digit number assigned to a mobile station.

Mobile Network Code (MNC). A part of the E.212 IMSI identifying the home network within the home country. See [18].

Mobile Protocol Capability Indicator (MPCI). A 2-bit field used to indicate the mobile station’s capabilities.

Mobile-Specific User Zone. A user zone that is identified by the mobile station. The mobile station may consider parameters such as the identity of the serving system, cell, and sector, and the geographic location of that station in making the determination. See also CDMA Tiered Services, User Zone, Broadcast User Zone, Active User Zone, and Passive User Zone.

Mobile Station. A station in the Public Wireless Cellular Radio Telecommunications Service intended to be used while in motion or during halts at unspecified points. Mobile stations include portable units (e.g., hand-held personal units) and units installed in vehicles.

Mobile Station Class. A classification of mobile stations based on characteristics such as slotted operation and transmission power. See Table 2.3.3-1 of [12] and Table 2.3.3-1 of this document.

Mobile Station Identification Number (MSIN). A part of the E.212 IMSI identifying the mobile station within its home network. See [18].
Mobile Station Originated Call. A call originating from a mobile station.

Mobile Station Terminated Call. A call received by a mobile station (not to be confused with a disconnect or call release).

ms. Millisecond (10^-3 second).

MSB. Most significant bit.

MSC. See Mobile Switching Center.

MSIN. See Mobile Station Identification Number.

Multiplex Option. The ability of the multiplex sublayer and lower layers to be tailored to provide special capabilities. A multiplex option defines such characteristics as the frame format, the maximum number of Supplemental Code Channels supported, and the rate decision rules. See also Multiplex Sublayer.

Multiplex Sublayer. One of the conceptual layers of the system that multiplexes and demultiplexes primary traffic, secondary traffic, and signaling traffic.

NAM. See Number Assignment Module.

National Mobile Station Identity (NMSI). A part of the E.212 IMSI identifying the mobile station within its home country. The NMSI consists of the MNC and the MSIN. See [18].

NDSS. See Network Directed System Selection.

Neighbor Set. The set of pilots associated with the CDMA Channels that are probable candidates for handoff. Normally, the Neighbor Set consists of the pilots associated with CDMA Channels that cover geographical areas near the mobile station. See also Active Set, Candidate Set, Remaining Set, and Private Neighbor Set.

Network. A network is a subset of a wireless cellular or PCS system, such as an area-wide cellular network, a private group of base stations, or a group of base stations set up to handle a special requirement. A network can be as small or as large as needed, as long as it is fully contained within a system. See also System.

Network Directed System Selection (NDSS). A feature that allows the mobile station to automatically register with a preferred system while roaming, or to be automatically directed by a service provider, typically the home service provider, to a suggested system, regardless of the frequency band class, cellular band, or PCS frequency block.

Network Identification (NID). A number that uniquely identifies a network within a wireless cellular or PCS system. See also System Identification.

NID. See Network Identification.

NMSI. See National Mobile Station Identity.

Non-Autonomous Registration. A registration method in which the base station initiates registration. See also Autonomous Registration.

Non-Slotted Mode. An operation mode of the mobile station in which the mobile station continuously monitors the Paging Channel, or the Forward Common Control Channel/ Broadcast Control Channel.
ns. Nanosecond (10^{-9} second).

NULL. Any value that is not in the specified range of a field.

**Null Traffic Channel Data.** One or more frames of a specified data sequence sent at the lowest agreed-upon rate of the negotiated radio configuration. Null Traffic Channel data may be sent when there is no primary, secondary, or signaling traffic available. Null Traffic Channel data serves to maintain the connectivity between the mobile station and the base station.

**Number Assignment Module (NAM).** A set of MIN/IMSI-related parameters stored in the mobile station.

**Numeric Information.** Numeric information consists of parameters that appear as numeric fields in messages exchanged by the base station and the mobile station and information used to describe the operation of the mobile station.

**Optional Field.** A field defined within a message structure that is optionally transmitted to the message recipient.

**Order.** A type of message that contains control codes for either the mobile station or the base station.

**Ordered Registration.** A registration method in which the base station orders the mobile station to send registration related parameters.

**Orthogonal Transmit Diversity (OTD).** An optional method of transmission of the Forward CDMA Channel that uses two antennas, each transmitting a fraction of the code symbols. It can be used to enhance performance in the presence of multipath fading radio propagation.

**OTD.** See Orthogonal Transmit Diversity

**Overhead Message.** A message sent by the base station on the Paging Channel or the Primary Broadcast Control Channel to communicate base-station-specific and system-wide information to mobile stations.

**Overload Class (OLC).** The means used to control system access by mobile stations, typically in emergency or other overloaded conditions. Mobile stations are assigned one (or more) of sixteen overload classes. Access to the CDMA system can then be controlled on a per class basis by persistence values transmitted by the base station.

**PACA.** Priority Access and Channel Assignment. See PACA Call.

**PACA Call.** A priority mobile station originated call for which no traffic channel or voice channel was immediately available, and which has been queued for a priority access channel assignment.

**Packet.** The unit of information exchanged between the service option applications of the base station and the mobile station.

**Padding.** A sequence of bits used to fill from the end of a message to the end of a message capsule, typically to the end of the frame or half frame. All bits in the padding are ‘0’.

**Paging.** The act of seeking a mobile station when a call has been placed to that mobile
station.

**Paging Channel.** A code channel in a Forward CDMA Channel used for transmission of control information and pages from a base station to a mobile station.

**Paging Channel Slot.** An 80 ms interval on the Paging Channel. Mobile stations operating in the slotted mode are assigned specific slots in which they monitor messages from the base station.

**Paging Indicator.** A one-bit datum, sent on the Quick Paging Channel. Quick paging indicators are associated with mobile stations, in pairs, via a hashing algorithm. Appearance of both of its indicators in its assigned Quick Paging Channel slot serves to alert a slotted mode mobile station, operating in the idle state, that it should monitor the Paging Channel or the Forward Common Control Channel starting in the next slot. See also Quick Paging Channel.

**Parameter-Change Registration.** A registration method in which the mobile station registers when certain of its stored parameters change.

**Parity Check Bits.** Bits added to a sequence of information bits to provide error detection, correction, or both.

**Passive User Zone.** A user zone in which the implicit registration that takes place at call setup is sufficient to trigger a change in tiered service features. See also CDMA Tiered Services, User Zone, and Active User Zone.

**PCI.** See Protocol Control Information.

**PCS.** See Personal Communications Services.

**PCSC.** See Personal Communications Switching Center.

**PCS System.** See Personal Communications Services System.

**PDU.** See Protocol Data Unit.

**Personal Communications Services System.** A configuration of equipment that provides PCS radiotelephone services.

**Personal Communications Services (PCS).** A family of mobile and portable radio communications services for individuals and businesses that may be integrated with a variety of competing networks. Broadcasting is prohibited and fixed operations are to be ancillary to mobile operations.

**Personal Communications Switching Center (PCSC).** See Mobile Switching Center (MSC).

**Physical Channel.** A communication path between stations, described in terms of the RF characteristics such as coding, power control policies, etc.

**Physical Layer.** The part of the communication protocol between the mobile station and the base station that is responsible for the transmission and reception of data. The physical layer in the transmitting station is presented a frame by the multiplex sublayer and transforms it into an over-the-air waveform. The physical layer in the receiving station
transforms the waveform back into a frame and presents it to the multiplex sublayer above it.

**Pilot Beacon.** A transmit-only base station that broadcasts a Pilot Channel, a Sync Channel, optionally a Paging Channel or a Primary Broadcast Control Channel, but no Forward Common Control Channels and Forward Traffic Channels. The mobile station measures the pilot beacon to assist in CDMA hard handoffs and inter-frequency idle-mode handoffs.

**Pilot Channel.** A non-data-bearing signal transmitted by a CDMA station. See Forward Pilot Channel, Transmit Diversity Pilot Channel, Auxiliary Pilot Channel, Auxiliary Transmit Diversity Pilot Channel, and Reverse Pilot Channel.

**Pilot PN Chip.** One bit, or bit pair, of a pilot PN sequence, or the time interval corresponding thereto.

**Pilot PN Sequence.** A pair of modified maximal length PN sequences used to spread the quadrature components of a CDMA Channel.

**Pilot PN Sequence Offset.** The time offset of a Forward Pilot Channel from CDMA System time, as transmitted by the base station, expressed modulo the pilot period.

**Pilot PN Sequence Offset Index.** The pilot PN sequence offset in units of 64 PN chips of a Forward Pilot Channel, relative to the zero offset pilot PN sequence.

**Pilot Strength.** The ratio of pilot power to total power in the signal bandwidth of a CDMA Forward or Reverse Channel. See also $E_c/I_o$.

**PN.** Pseudonoise.

**PN Chip.** One bit in a PN sequence, or the time duration of such a bit. It corresponds to the smallest modulation interval in a CDMA system.

**PN Sequence.** Pseudonoise sequence. A deterministic, periodic binary sequence having limited statistical similarity to a Bernoulli (coin-tossing).

**Power Control Bit.** A bit sent on the Forward Power Control Subchannel or Reverse Power Control Subchannel to signal the mobile station or base station to increase or decrease its transmit power.

**Power Control Group.** A 1.25 ms interval on the Forward Traffic Channel and the Reverse Traffic Channel. See also Power Control Bit.

**Power-Down Registration.** An autonomous registration method in which the mobile station registers on power-down.

**Power Up Function.** A method by which the mobile station increases its output power to support location services.

**Power-Up Registration.** An autonomous registration method in which the mobile station registers on power-up.

**PPM.** Parts per million.

**Preamble.** See Access Channel Preamble and Traffic Channel Preamble.
**Primary CDMA Channel.** A pre-assigned channel in a CDMA Cellular System used by the mobile station for initial acquisition. See also Secondary CDMA Channel.

**Primary Paging Channel (CDMA).** The default code channel (code channel 1) assigned for paging on a CDMA Channel.

**Primary Pilot.** One of the three pilots on the Spreading Rate 3 Forward Channels. The primary pilot may be on any one of the SR3 frequencies and may have a higher transmission power comparing to the pilots on the other two SR3 frequencies.

**Primary Traffic.** The main traffic stream carried between the mobile station and the base station on the Traffic Channel. See also Secondary Traffic and Signaling Traffic.

**Primitive.** An atomic, well-defined method of transferring data and control information between two adjacent layers and sublayers. Conventionally represented as a function invocation with the data and/or control information as parameters.

**Private Long Code.** The long code characterized by the private long code mask. See also Long Code.

**Private Long Code Mask.** The long code mask used to form the private long code. See also Public Long Code Mask and Long Code.

**Private Neighbor Set.** The set of pilots associated with the private system base stations that are probable candidates for idle handoff. See also Active Set, Neighbor Set, Remaining Set, and CDMA Tiered Services.

**Protocol Control Information (PCI).** Data passed between adjacent layers in the protocol stack, together with the SDU, to assist a layer to properly encapsulate/decapsulate the SDU. Examples of PCI in this document are the MCSB and the PCSB.

**Protocol Data Unit.** Encapsulated data communicated between peer layers on the mobile station and base station. Unless specified otherwise, in this document PDU refers to the Layer 3 protocol data unit transferred at the interface between Layer 3 and Layer 2.

**Protocol Stack.** Conceptual model of the layered architecture for communication protocols (see Layering) in which layers within a station are represented in the order of their numeric designation and requiring that transferred data be processed sequentially by each layer, in the order of their representation. Graphically, the “stack” is drawn vertically, with the layer having the lowest numeric designation at the base.

**Public Long Code.** The long code characterized by the public long code mask.

**Public Long Code Mask.** The long code mask used to form the public long code. The mask contains a permutation of the bits of the ESN, and also includes the channel number when used for a Supplemental Code Channel. See also Private Long Code Mask and Long Code.

**PUF.** See Power Up Function.

**PUF Attempt.** A sequence of PUF probes sent by the mobile station in response to a Power Up Function Message.

**PUF Probe.** One or more consecutive frames on the Reverse Traffic Channel within which the mobile station transmits the PUF pulse.
**PUF Pulse.** Portion of PUF probe that may be transmitted at elevated output power.

**PUF Target Frequency.** The CDMA frequency assignment to which the base station directs a mobile station for transmitting the PUF probe.

**Punctured Code.** An error-correcting code generated from another error-correcting code by deleting (i.e., puncturing) code symbols from the coder output.

**QoS.** See Quality of Service.

**Quality of Service.** Set of parameters and procedures associated with a service and/or user, indicating some of the capabilities and constraints related to the delivery of the service to the user.

**Quick Paging.** A feature that permits mobile stations to further conserve battery power beyond the savings achieved by slotted mode operation. See also Paging Indicator and Configuration Change Indicator.

**Quick Paging Channel.** An uncoded, on-off-keyed (OOK) spread spectrum signal sent by base stations to inform slotted mode mobile stations, operating in the idle state, whether to monitor the Paging Channel or the Forward Common Control Channel. See also Quick Paging, Paging Indicator, and Configuration Change Indicator.

**Quick Paging Channel Slot.** An 80 ms interval on the Quick Paging Channel. See also Paging Indicator and Configuration Change Indicator.

**Quick Repeats.** Additional transmissions of identical copies of a message within a short interval to increase the probability that the message is received correctly.

**r-csch.** Reverse common signaling logical channel.

**r-dsch.** Reverse dedicated signaling logical channel.

**Radio Configuration.** A set of Forward Traffic Channel and Reverse Traffic Channel transmission formats that are characterized by physical layer parameters such as transmission rates, modulation characteristics and spreading rate. See Table 3.1.3.1-1 and Table 2.1.3.1-1 of [2].

**Radio Configuration Class.** A group of Radio Configurations. All Radio Configurations, for the Forward Traffic Channel and the Reverse Traffic Channel, are divided into three classes by the types of pre-spreading symbols (BPSK and QPSK) and spreading rates. RC Class 1 consists of RC 1 and RC 2 for the Forward Traffic Channel and the Reverse Traffic Channel. RC Class 2 consists of RC 3 and RC 4 of the Reverse Traffic Channel, and RC 3, RC 4 and RC 5 of the Forward Traffic Channel. RC Class 3 consists of RC 5 and RC 6 of the Reverse Traffic Channel, and RC 6, RC 7, RC 8, and RC 9 of the Forward Traffic Channel.

**RC.** See Radio Configuration.

**Registration.** The process by which a mobile station identifies its location and parameters to a base station.

**Registration Zone.** A collection of one or more base stations treated as a unit when determining whether a mobile station should perform zone-based registration. See also User Zone, with which it should not be confused.
**Release.** A process that the mobile station and base station use to inform each other of call disconnect.

**Remaining Set.** The set of all allowable pilot offsets as determined by PILOT_INC, excluding the pilot offsets of the pilots in the Active Set, Candidate Set, and Neighor Set. See also Active Set, Candidate Set, and Neighbor Set.

**Replay Attack.** An attempt by a third party to record an over-the-air message and send it later in time so as to mislead the receiver.

**Request.** A Layer 3 message generated by either the mobile station or the base station to retrieve information, ask for service, or command an action.

**Response.** A Layer 3 message generated as a result of another message, typically a request.

**Reverse CDMA Channel.** The CDMA Channel from the mobile station to the base station. From the base station’s perspective, the Reverse CDMA Channel is the sum of all mobile station transmissions on a CDMA Frequency Assignment.

**Reverse Dedicated Control Channel.** A Dedicated Control Channel that is transmitted on the Reverse CDMA Channel.

**Reverse Fundamental Channel.** A Fundamental Channel that is transmitted on the Reverse CDMA Channel.

**Reverse Pilot Channel.** A non-data-bearing direct-sequence spread spectrum signal transmitted by each CDMA mobile station whenever the Enhanced Access Channel, Reverse Common Control Channel, or Reverse Traffic Channel is enabled. The Reverse Pilot Channel allows a base station to acquire the timing of the Reverse CDMA Channel and provides a phase reference for coherent demodulation. The Reverse Pilot Channel may be transmitted either continuously or in gated mode.

**Reverse Supplemental Channel.** A Supplemental Channel that is transmitted on the Reverse CDMA Channel.

**Reverse Supplemental Code Channel.** A Supplemental Code Channel that is transmitted on the Reverse CDMA Channel.

**Reverse Traffic Channel.** A Traffic Channel on which data and signaling are transmitted from a mobile station to a base station. The Reverse Traffic Channel is composed of zero or one Reverse Fundamental Channel, zero to seven Reverse Supplemental Code Channels, zero to two Reverse Supplemental Channels, and zero or one Reverse Dedicated Control Channel.

**Roamer.** A mobile station operating in a wireless cellular system (or network) other than the one from which service was subscribed. See also Foreign NID Roamer and Foreign SID Roamer.

**SAP.** See Service Access Point.

**SCI.** See Synchronized Capsule Indicator Bit.

**SDU.** See Service Data Unit.
Search Window. The range of PN sequence offsets that a mobile station searches for a pilot.

Search Window Offset. PN sequence offset used by the mobile station to position the search window when searching for a pilot.

Secondary CDMA Channel. A pre-assigned channel in a CDMA Cellular System used by the mobile station for initial acquisition. See also Primary CDMA Channel.

Secondary Traffic. An additional traffic stream that can be carried between the mobile station and the base station on the Traffic Channel. See also Primary Traffic and Signaling Traffic.

Service Access Point. Conceptual point at the interface between two adjacent layers where services are provided to the upper layer and data and protocol information is exchanged between layers.

Service Configuration. The common attributes used by the mobile station and the base station to build and interpret Traffic Channel frames. Service configuration corresponds to the parameters contained in the Service Configuration information record and the Non-negotiable Service Configuration information record. Examples of such parameters include Forward and Reverse Traffic Channel multiplex options, Forward and Reverse Traffic Channel transmission rates, service option connections, and reverse pilot gating rate.

Service Data Unit. Data transferred between adjacent layers in the protocol stack. Unless specified otherwise in this document SDU refers to the Layer 3 service data unit being transferred to/from Layer 2.

Service Negotiation. The procedures used by the mobile station and base station to establish a service configuration. See also Service Option Negotiation.

Service Option. A service capability of the system. Service options may be applications such as voice, data, or facsimile. See [30].

Service Option Connection. A particular instance or session in which the service defined by a service option is used. Associated with a service option connection are a reference, which is used for uniquely identifying the service option connection, a service option, which specifies the particular type of service in use, a Forward Traffic Channel traffic type, which specifies what type of Forward Traffic Channel traffic is used to support the service option connection, and a Reverse Traffic Channel traffic type, which specifies what type of Reverse Traffic Channel traffic is used by the service option connection.

Service Option Connection Reference. A designator used by the base station and mobile station to uniquely identify a particular service option connection.

Service Option Negotiation. The procedures used by the mobile station and base station to establish a service configuration. Service option negotiation is similar to service negotiation, but allows less flexibility for specifying the attributes of the service configuration. See also Service Negotiation.

Service Redirection. The process by which the base station alters the system selection made by a mobile station. It can be used temporarily during maintenance and testing to divert subscribers to an alternate system.
Serving Frequency. The CDMA frequency on which a mobile station is currently communicating with one or more base stations.

Shared Secret Data (SSD). A 128-bit pattern stored in the mobile station (in semi-permanent memory) and known by the base station. SSD is a concatenation of two 64-bit subsets: SSD_A, which is used to support the authentication procedures, and SSD_B, which serves as one of the inputs to the process generating the encryption mask and private long code.

Short Message Services (SMS). A suite of services such as SMS Text Delivery, Digital Paging (i.e., Call Back Number - CBN), and Voice Mail Notification (VMN).

SID. See System Identification.

Signaling Traffic. Control messages that are carried between the mobile station and the base station on the Traffic Channel. See also Primary Traffic and Secondary Traffic.

Silent Re-origination. An autonomous attempt to re-origin a call after the mobile station Layer 3 receives an access attempt failure indication from Layer 2 following a user-initiated origination or a re-origination. Silent re-origination does not apply to any user-programmable capabilities or services, e.g. user-programmable automatic redial.

Slotted Mode. An operation mode of the mobile station in which the mobile station monitors only selected slots on the Paging Channel or the Forward Common Control Channel when in the Mobile Station Idle State.

Soft Handoff. A handoff occurring while the mobile station is in the Mobile Station Control on the Traffic Channel State. This handoff is characterized by commencing communications with a new base station on the same CDMA Frequency Assignment before terminating communications with an old base station. See also Hard Handoff.

SOM. Start-of-Message bit.

Space Time Spreading (STS). A forward link transmission method which transmits all forward link channel symbols on multiple antennas and spreads the symbols with complementary Walsh or quasi-orthogonal functions.

Spreading Rate. The PN chip rate of the system, defined as a multiple of 1.2288 Mcps.

Spreading Rate 1. A 1.2288 Mcps chip rate-based system using a direct-spread single carrier.

Spreading Rate 3. A 3.6864 Mcps chip rate-based system using three 1.2288 Mcps carriers on the Forward CDMA Channel. The Reverse CDMA Channel uses a 3.6864 Mcps direct-spread carrier.

sps. Symbols per second.

SR. See Spreading Rate.

SR1. See Spreading Rate 1.

SR3. See Spreading Rate 3.

SR3 Frequencies. CDMA frequencies for the three 1.2288 Mcps carriers on the Forward
CDMA Channel. SR3 frequencies include the lowest SR3 frequency, the center SR3 frequency, and the highest SR3 frequency.

**SR3 Primary Pilot.** See Primary Pilot.

**SSD.** See Shared Secret Data.

**Station Class Mark (SCM).** An identification of certain characteristics of a mobile station. Classes are defined in Table 2.3.3-1 of [12] and Table 6.3.3-1 of this document.

**Status Information.** The following status information is used to describe mobile station operation when using the analog system:

- **Serving-System Status.** Indicates whether a mobile station is tuned to channels associated with System A or System B.

- **First Registration ID Status.** A status variable used by the mobile station in association with its processing of received Registration ID messages.

- **First Location Area ID Status.** A status variable used by the mobile station in association with its processing of received Location Area ID messages.

- **Location Registration ID Status.** A status variable used by the mobile station in association with its processing of power-up registrations and location-based registrations.

- **First Idle ID Status.** A status variable used by the mobile station in association with its processing of the Idle Task.

- **Local Control Status.** Indicates whether a mobile station must respond to local control messages.

- **Roam Status.** Indicates whether a mobile station is in its home system.

- **Termination Status.** Indicates whether a mobile station must terminate the call when it is on an analog voice channel.

- **Update Protocol Capability Status.** Indicates whether the mobile station should report its protocol capability to the serving system.

**Supplemental Channel.** An optional portion of a Traffic Channel (Forward or Reverse Radio Configurations 3 and above) that operates in conjunction with a Fundamental Channel in that Traffic Channel, and (optionally) with other Supplemental Channels to provide higher data rate services.

**Supplemental Code Channel.** An optional portion of a Traffic Channel (Forward or Reverse Radio Configurations 1 and 2) that operates in conjunction with a Fundamental Code Channel in that Traffic Channel, and (optionally) with other Supplemental Code Channels to provide higher data rate services. On this channel a combination of primary data, secondary data, or both (but never signaling information) are transmitted.

**Symbol.** See Code Symbol and Modulation Symbol.

**Sync Channel.** Code channel 32 in the Forward CDMA Channel which transports the synchronization message to the mobile station.
Sync Channel Superframe. An 80 ms interval consisting of three Sync Channel frames (each 26.666... ms in length).

System. A system is a cellular telephone service or personal wireless communications service that covers a geographic area such as a city, metropolitan region, county, or group of counties. See also Network.

System Identification (SID). A number uniquely identifying a cellular or PCS wireless system.

System Time. The time reference used by the system. System Time is synchronous to UTC time (except for leap seconds) and uses the same time origin as GPS time. All base stations use the same System Time (within a small error). Mobile stations use the same System Time, offset by the propagation delay from the base station to the mobile station. See also Universal Coordinated Time.

Target Frequency. The CDMA frequency assignment to which the base station directs a mobile station in a handoff using an Extended Handoff Direction Message, a General Handoff Direction Message, or a Universal Handoff Direction Message.

TD. See Transmit Diversity.

Temporary Mobile Station Identity (TMSI). A temporary mobile station identification assigned by the base station.

Timer-Based Registration. A registration method in which the mobile station registers whenever a counter reaches a predetermined value. The counter is incremented an average of once per 80 ms period.

Time Reference. A reference established by the mobile station that is synchronous with the earliest arriving multipath component used for demodulation.

TMSI. See Temporary Mobile Station Identity.

TMSI Zone. The administrative zone that allows the TMSI to be reused. The TMSI_CODE has to be unique within a TMSI zone but may be reused in a different TMSI zone. The TMSI zone is identified by the field TMSI_ZONE.

Traffic Channel. A communication path between a mobile station and a base station used for user and signaling traffic. The term Traffic Channel implies a Forward Traffic Channel and Reverse Traffic Channel pair. See also Forward Traffic Channel and Reverse Traffic Channel.

Traffic Channel Preamble. For RC1 and RC2, a sequence of all-zero frames that is sent by the mobile station on the Reverse Traffic Channel as an aid to Traffic Channel acquisition. For RC3 to RC6 inclusive, the traffic preamble is the ungated transmission of the Reverse Pilot.

Transmit Diversity. See Orthogonal Transmit Diversity and Space Time Spreading.

Unassured Mode. Mode of delivery that does not guarantee that a PDU will be delivered to the peer. The LAC entity at the receiver does not acknowledge a PDU sent in unassured mode.
Unique Challenge-Response Procedure. An exchange of information between a mobile station and a base station for the purpose of confirming the mobile station’s identity. The procedure is initiated by the base station and is characterized by the use of a challenge-specific random number (i.e., RANDU) instead of the random variable broadcast globally (RAND).

Unique Random Variable (RANDU). A 24-bit random number generated by the base station in support of the Unique Challenge-Response procedure.

Universal Coordinated Time (UTC). An internationally agreed-upon time scale maintained by the Bureau International de l’Heure (BIH) used as the time reference by nearly all commonly available time and frequency distribution systems i.e., WWV, WWVH, LORAN-C, Transit, Omega, and GPS.

User Zone. An area within which CDMA Tiered Services may be provided. It may correspond to an RF coverage area, or it may be established independent of RF topology. User Zones are classified as broadcast versus mobile-specific, and as active versus passive. See Broadcast User Zone, Mobile-Specific User Zone, Active User Zone, and Passive User Zone. See also Registration Zone, with which it should not be confused.

User Zone Registration. An autonomous registration method in which the mobile station registers when it selects an active user zone while in the Idle State. See also Zone-Based Registration, with which it should not be confused.

Upper Layers. General reference to Layer 3 and the layers above it.

User Zone Exit parameter. A parameter used by the mobile station to determine if it should exit a User Zone.

UTC. Universal Temps Coordiné. See Universal Coordinated Time.

Voice Privacy. The process by which user voice transmitted over a CDMA Traffic Channel is afforded a modest degree of protection against eavesdropping over the air.

Walsh Chip. See [2].

Walsh Function. One of $2^N$ time orthogonal binary functions (note that the functions are orthogonal after mapping ‘0’ to 1 and ‘1’ to -1).

Wireless Local Loop. Wireless alternative access mechanism to provide standard telecommunication services using standard wireline terminal via a radio link between the network and customer premises equipment.

WLL. See Wireless Local Loop.

Zone-Based Registration. An autonomous registration method in which the mobile station registers whenever it enters a zone that is not in the mobile station’s zone list. See also User Zone Registration, with which it should not be confused.

Zone Timer. A timer used by the mobile station to remove outdated entries from its list of zones in which it has previously registered.

µs. Microsecond ($10^{-6}$ second).
1.1.2 Numeric Information

Numeric information is used to describe the operation of the mobile station. The following subscripts are used to clarify the use of the numeric information:

- “s” indicates a value stored in a mobile station’s temporary memory.
- “sv” indicates a stored value that varies as a mobile station processes various tasks.
- “sl” indicates the stored limits on values that vary.
- “r” indicates a value received by a mobile station over a forward analog control channel or a CDMA Forward Channel.
- “p” indicates a value set in a mobile station’s permanent security and identification memory.
- “s-p” indicates a value stored in a mobile station’s semi-permanent security and identification memory.

1.1.2.1 Reserved

1.1.2.2 CDMA Numeric Information

The following are internal values that are stored by the mobile station in temporary memory that are not sent over the air. See Annex F for values stored by the mobile station in permanent and semi-permanent memory.

- **1XRL_FREQ_OFFSET_s** – Frequency offset of the 1X reverse link.
- **A41_SYS_PAR_MSG_SEQ_s** – ANSI-41 System Parameters Message sequence number.
- **ACC_CHAN_s** – Number of Access Channels supported by the current Paging Channel.
- **ACC_ENT_HO_ORDER_s** – Access entry handoff permitted from the Mobile Station Order and Message Processing Operation of the Mobile Station Idle State.
- **ACCESS_ENTRY_HO_s** – Idle handoff permitted when entering the System Access State.
- **ACCESS_HO_s** – Handoff permitted after performing an access attempt while the mobile station is in the System Access State.
- **ACCESS_HO_ALLOWED_s** – Handoff permitted to the corresponding neighbor base station while in the System Access State.
- **ACCESS_HO_LIST** – List of pilots to which access handoff or access probe handoff is permitted.
- **ACC_HO_LIST_UPD_s** – Access handoff list update permitted indicator.
- **ACCESS_HO_MSG_RSP_s** – Access handoff permitted in the System Access State between the time that the mobile station receives a message and responds to that message.
- **ACCESS_PROBE_HO_s** – Access probe handoff permitted during an access attempt in the Mobile Station Origination Attempt Substate or the Page Response Substate.
**ACC_MSG_SEQs** – Last received Access Parameters Message or Enhanced Access Parameters Message sequence number.

**ACC_PROBE_HO_OTHER_MSGs** – Access probe handoff permitted for Access Channel messages other than the Origination Message and the Page Response Message.

**ACCT_INCL_EMGs** – Access Control based on Call Type (ACCT) applies to emergency calls indicator.

**ACCT_SO_GRP_LIST** – List of service option groups that have Access Control based on Call Type (ACCT) enabled.

**ACCT_SO_LIST** – List of individual service options that have Access Control based on Call Type (ACCT) enabled.

**ACH_ACC_TMOs** – Access Channel acknowledgment timeout, in units of 80 ms.

**ACK_WAITINGs[i]** – Acknowledgment status indicator for message sequence number i. Set to YES if an acknowledgment is pending for the message; otherwise, set to NO.

**ADD_INTERCEPTs** – The intercept in the inequality criterion for adding a pilot to the Active Set.

**AGEs** – Neighbor list age. For each pilot in the Neighbor Set, the mobile station increments this counter each time a Neighbor List Update Message or an Extended Neighbor List Update Message is received. When AGE exceeds NGBHR_MAX_AGE, the pilot is deleted from the Neighbor Set.

**ALIGN_TIMING_USEDs** – Indicates whether the mobile station aligns the times of visits away from the Serving Frequency, as requested by the base station, in the periodic search procedures.

**ANALOG_CHANs** – Analog channel number for CDMA-to-analog handoff.

**ANALOG_NGHBR_LIST** – List containing information about neighboring analog systems.

**AN_CHAN_TYPEs** – Analog voice channel type.

**ASSIGNED_QPAGECHs** – Assigned Quick Paging Channel number.

**AUTHs** – Current authentication mode.

**AUTO_MSG_INTERVAL** – Autonomous message interval.

**AUTO_MSG_SUPPORTED** – Autonomous message supported indicator.

**BAD_FRAMESs** – Forward Fundamental Channel bad frames count. The number of received bad forward Fundamental Channel frames.

**BASE_CLASSs** – Base station class of the current base station.

**BASE_IDs** – Base station identification of the current base station.

**BASE_LATs** – Latitude of the current base station, in units of 0.25 seconds.

**BASE_LONGs** – Longitude of the current base station, in units of 0.25 seconds.
BEGIN_PREAMBLE$\_s$ – A stored variable in the mobile station that contains the size of the preamble that shall be transmitted on a Reverse Supplemental Code Channel at the beginning of a Reverse Supplemental Code Channel transmission.

BKOFF$\_s$ – Access Channel probe sequence backoff range.

BRAT$\_s$ – Data rate of the Broadcast Control Channel.

BYPASS_ALERT_ANSWER$\_s$ – Mobile station termination bypass indicator. This is set to ‘1’ if the mobile station is to bypass the Waiting for Order Substate and the Waiting for Mobile Station Answer Substate, and proceed directly to the Conversation Substate when Layer 3 receives a forward dedicated channel-acquired indication from Layer 2.

CDMABAND$\_s$ – CDMA band class. The CDMA band class currently used by the mobile station.

CDMACH$\_s$ – CDMA Channel number. The CDMA Channel number currently used by the mobile station.

CF_CDMABAND$\_s$ – Candidate Frequency CDMA band class. The CDMA band class specified in the Candidate Frequency Search Request Message.

CF_CDMACH$\_s$ – Candidate Frequency CDMA Channel number. The CDMA Channel number specified in the Candidate Frequency Search Request Message.

CF_PILOT_INC$\_s$ – PILOT_INC to be used by the mobile station after an inter-frequency hard handoff to the CDMA Candidate Frequency is successfully completed.

CF_SEARCH_PRIORITY_INCL$\_s$ – Candidate Frequency neighbor pilots’ search priority included indicator.

CF_SRCH_OFFSET_INCL$\_s$ – Candidate Frequency neighbor pilot search window offset included indicator.

CF_SRCH_WIN_NGHBR_INCL$\_s$ – Candidate Frequency neighbor pilots’ search window included indicator.

CF_SRCH_WIN_NS$\_s$ – Search window size for the Candidate Frequency Search Set.

CF_SRCH_WIN_RS$\_s$ – Search window size to be used for the Remaining Set after an inter-frequency hard handoff to the CDMA Candidate Frequency is successfully completed.

CF_T_ADD$\_s$ – Pilot detection threshold to be used on the CDMA Candidate Frequency. The stored value is a positive value in units of 0.5 dB.

CH_IND$\_s$ – A two-bit physical channel indicator, based on the currently established physical channels. The least significant bit denotes the Fundamental Channel, and the most significant bit denotes the Dedicated Control Channel.

CHAN_LST_MSG_SEQ$\_s$ – CDMA Channel List Message sequence number.

CODE_CHAN_LIST – Code Channel List. A descriptive structure used to manage the Forward Fundamental Channel, and Forward Supplemental Code Channels, if any, associated with the mobile station’s Active Set.

COMPLETE_PUF_FRAME$\_s$ – Number of power control groups required to make the PUF
probe an integer number of frames.

**COMPLETE_SEARCH** – Flag to indicate if the mobile station is to complete the search of the Candidate Frequency Search Set after it has determined that the inter-frequency handoff attempt to the CDMA Candidate Frequency is unsuccessful.


**COUNTER_ENABLED** – Timer-based registration indicator. Set to YES if timer-based registration is enabled; otherwise, set to NO.

**C_SIG_ENCRYPT_MODE** – Common Channel signaling message encryption mode.

**CS_SUPPORTED** – Base station Concurrent Services supported indicator. This 1-bit field is set to ‘1’ if the base station supports concurrent connection of at least two services that use either Primary or Secondary traffic type-concurrent services.

**CURR_ACC_MSG_SEQ** – Current Access Parameters Message or Enhanced Access Parameters Message sequence number.

**CURRENT_ACTIVE_PILOT** – Identifies the current pilot in the Active Set during an access attempt.

**CURRENT_PUF_PROBE** – Number of the next PUF probe to be transmitted within the PUF attempt.

**DAYLT** – Daylight Savings Time indicator.

**DCCH_BAD_FRAMES** – Forward Dedicated Control Channel bad frames count. The number of received bad forward Dedicated Control Channel frames.

**DCCH_TOT_FRAMES** – Total forward Dedicated Control Channel frames received. The total number of received forward Dedicated Control Channel frames, counted for Forward Traffic Channel power control.

**DECORR** – Hashing function input used to decorrelate hashing function applications for the same mobile station.

**DEFAULT_CONFIG** – Mobile station current default configuration.

**DELETE_FOR_TMSI** – A storage variable in the mobile station that indicates whether the mobile station should delete its current TMSI if the TMSI was assigned in a different TMSI zone.

**DIFF_RX_PWR_THRESH** – Threshold for the difference between the received power on the Serving Frequency and the received power on the CDMA Candidate Frequency for the mobile station to search for pilots on the CDMA Candidate Frequency.

**DISTANCE** – Distance from registered base station to current base station, used for distance-based registration.
DROP_INTERCEPT – The intercept in the inequality criterion for dropping a pilot from the Active Set.

DSCC – Digital supervisory color code.

D_SIG_ENCRYPT_MODE – Dedicated Channel signaling message encryption mode.

DTX – Discontinuous transmission mode for analog channel assignment and CDMA-to-analog handoff.

EACH_ACC_TMO – Enhanced Access Channel acknowledgment timeout, in units of 20 ms.

EACH_SLOT – See [2].

EACH_SLOT_OFFSET – See [2].

EACH_SLOT_OFFSET2 – See [2].

EC_IO_THRESH – Pilot Ec/Io threshold used for system reselection.

EC_THRESH – Pilot power threshold used for system reselection.

ENC_KEY_SIZE – The key size used for signaling and user information encryption on common channel and dedicated channel.

ENC_KEY – The encryption key for signaling and user information encryption on common channel and dedicated channel.

ENC_SEQ – An 8-bit temporary variable for encryption/decryption.

ENCRYPT_MODE – Current message encryption mode.

EXCL_P_REV_MS – Exclude from redirection by MOB_P_REV indicator.

EXT_NGHBR_LST_MSG_SEQ – Extended Neighbor List Message sequence number.

EXT_CHAN_LIST – Extended CDMA Channel List Message sent indicator.

EXT_CHAN_LIST_MSG_SEQ – Extended CDMA Channel List Message sequence number.

EXT_DECRYPT_SEQ[i] – The 32-bit crypto-sync counter used to decrypt signaling messages, where \( i = 0 \) is for unassured messages and \( i = 1 \) is for assured messages.

EXT_ENCRYPT_SEQ[i] – The 32-bit crypto-sync counter used to encrypt signaling messages, where \( i = 0 \) is for unassured messages and \( i = 1 \) is for assured messages.

EXT_ENC_SEQ – A 32-bit temporary variable for encryption/decryption.

EXT_GLOBAL_REDIRECT – Extended Global Service Redirection Message sent indicator.

EXT_GLOB_SERV_REDIR_MSG_SEQ – Extended Global Service Redirection Message sequence number.

EXT_SYS_PARAMETER – Extended System Parameters Message sent indicator.

EXT_SYS_PAR_MSG_SEQ – Extended System Parameters Message sequence number.

FCCCH – Current Forward Common Control Channel number.
**FIRST_ACTIVE_PILOTs** – While the mobile station is in the *System Access State*, identifies the pilot to which the first access probe was transmitted, upon entering the *System Access State*.

**FOR_DURATIONs** – A stored variable in the mobile station that contains the duration (in units of 80 ms) of a forward Supplemental Code Channel transmission that begins at time FOR_START_TIMEs.

**FOR_FCH_RCs** – Forward Fundamental Channel Radio Configuration.

**FOR_FRAME_40_MAX_RATEs** – The maximum data rate for the mobile station’s transmission at 40 ms frame length on the Forward Supplemental Channel.

**FOR_FRAME_80_MAX_RATEs** – The maximum data rate for the mobile station’s transmission at 80 ms frame length on the Forward Supplemental Channel.

**FOR_LINKED_HDM_SEQs** – Storage variable containing the most recent forward sequence number of the *General Handoff Direction Message* to which a *Supplemental Channel Assignment Message* forward assignment was linked.

**FOR_NID_REGs** – Foreign NID roamer autonomous registration enable.

**FOR_RCs** – Forward Channel Radio Configuration.

**FOR_SCH_CC_INDEXs** – *Supplemental code channel index used on the Supplemental Channel.*

**FOR_SCH_DURATIOns** – A stored variable in the mobile station which contains the duration of a forward Supplemental Channel transmission which begins at time FOR_SCH_START_TIMEs.

**FOR_SCH_FRAME_LENGTHs** – The Forward Supplemental Channel frame length.

**FOR_SCH_RATEs** – The rate of the Forward Supplemental Channel.

**FOR_SCH_START_TIMEs** – A stored variable in the mobile station which contains the System Time, in units of System Time, in units of 80 ms, (modulo 64) at which the mobile station shall start (or resume) processing Forward Supplemental Channels.

**FOR_SID_REGs** – Foreign SID roamer autonomous registration enable.

**FOR_START_TIMEs** – A stored variable in the mobile station that contains the System Time, in units of 80 ms, (modulo 32) at which the mobile station shall start (or resume) processing Forward Supplemental Code Channels.

**FPC_DCCH_CURR_SETPTs** – Current power control subchannel outer loop setpoint for the Forward Dedicated Control Channel.

**FPC_DCCH_FERs** – Target frame error rate for the Forward Dedicated Control Channel.

**FPC_DCCH_MAX_SETPTs** – Maximum value of the power control subchannel outer loop setpoint for the Forward Dedicated Control Channel.

**FPC_DCCH_MIN_SETPTs** – Minimum value of the power control subchannel outer loop setpoint for the Forward Dedicated Control Channel.
FPC_DELTA_SCH_SETPTs – The difference between the Fundamental Channel current power control subchannel outer loop setpoint and the Supplemental Channel current power control subchannel outer loop setpoint.

FPC_DELTA_SETPTs – The difference between the Fundamental Channel current power control subchannel outer loop setpoint and the Dedicated Control Channel current power control subchannel outer loop setpoint.

FPC_FCH_CURR_SETPTs – Current power control subchannel outer loop setpoint for the Forward Fundamental Channel.

FPC_FCH_FERs – Target frame error rate for the Forward Fundamental Channel.

FPC_FCH_MAX_SETPTs – Maximum value of the power control subchannel outer loop setpoint for the Forward Fundamental Channel.

FPC_FCH_MIN_SETPTs – Minimum value of the power control subchannel outer loop setpoint for the Forward Fundamental Channel.

FPC_MODEs – Forward power control operating mode.

FPC_MODE_NO_SCHs – Forward power control operating mode except during the forward Supplemental Channel assignment interval.

FPC_MODE_SCHs – Forward power control operating mode during the forward Supplemental Channel assignment interval.

FPC_PRI_CHANs – Primary power control subchannel measured channel.

FPC_SEC_CHANs – Index of Forward Supplemental Channel to be measured by the secondary power control subchannel.

FPC_SCH_CURR_SETPTs[i] – Current power control subchannel outer loop setpoint for Forward Supplemental Channel i.

FPC_SCH_FERs[i] – Target frame error rate for Forward Supplemental Channel i.

FPC_SCH_MAX_SETPTs[i] – Maximum value of the power control subchannel outer loop setpoint for Forward Supplemental Channel i.

FPC_SCH_MIN_SETPTs[i] – Minimum value of the power control subchannel outer loop setpoint for Forward Supplemental Channel i.

FPC_SETPT_THRESHs – Power control subchannel outer loop setpoint report threshold for the Dedicated Control Channel.

FPC_SETPT_THRESH_SCHs – Power control subchannel outer loop setpoint report threshold for the Supplemental Channel.

FRAME_OFFSETs – Current Traffic Channel frame offset, in units of 1.25 ms.

GEN_NGHBR_LST_MSG_SEQs – General Neighbor List Message sequence number.

GLOBAL_REDIRECTs – Global Service Redirection Message sent indicator.

GLOB_SERV_REDIR_MSG_SEQs – Global Service Redirection Message sequence number.

GRANTED_MODEs – Mobile station current granted mode.
HASH_KEY – Hashing function input that determines the return value. Derived from IMSI_O.

HDM_SEQs – Last received Extended Handoff Direction Message, General Handoff Direction Message, or Universal Handoff Direction Message sequence number.

HOME_REGs – Home (non-roaming) autonomous registration enable.

IGNORE_ESCAMs – Identifies whether a mobile station will process the reverse supplemental channel assignment portion of the subsequent Supplemental Channel Assignment Message or Reverse Supplemental Channel Assignment Mini Message.

IGNORE_SCAMs – Identifies whether a mobile station will process the reverse supplemental code channel assignment portion of the subsequent Supplemental Channel Assignment Message.

IMSI_11_12s – The 11th and 12th digits of the IMSI used for address matching.

IMSI_O_ADDR_NUMs- The number of digits in the NMSI of the Operational IMSI (IMSI_O) minus four.

IMSI_O_Ss – The last 10-digits of Operational IMSI (IMSI_O).


INIT_PWRs – Initial power offset for Access Channel probes.

LC_STATEs – Long code state obtained from the Sync Channel Message.

LOGICAL_TO_PHYSICAL_MAPPING_TABLE[]s – This table contains the logical to physical mapping for signaling and user traffic.

LP_SECs – Leap seconds count (offset of CDMA system time from UTC).

LTM_OFFs – Local time offset from UTC, in units of 15 minutes.

MAX_CAP_SZs – Maximum number of Access Channel or Enhanced Access Channel frames in an Access Channel message capsule, less 3.

MAX_NUM_ALT_SOs – The maximum number of alternative service option numbers that the mobile station is allowed to include in the Origination Message or in the Page Response Message.

MAX_NUM_PROBE_HOs – The maximum number of times that a mobile station is permitted to perform an access probe handoff.

MAX_PWR_PUFs – Maximum number of PUF probes to be transmitted at maximum mobile station output power during a PUF attempt.

MAX_REQ_SEQs – Maximum number of access probe sequences for an Access Channel or Enhanced Access Channel request.

MAX_RSP_SEQs – Maximum number of access probe sequences for an Access Channel or Enhanced Access Channel response.

MAX_SLOT_CYCLE_INDEXs – Maximum value of the slot cycle index allowed by the current base station.
MCCs – The Mobile Country Code used for address matching.

MCC_Os – The Mobile Country Code of IMSI_O.

MC_RR_PAR_MSG_SEQs – MC-RR System Parameters Message sequence number.

MEMs – Analog message encryption mode for CDMA-to-analog handoff.

MIN_PILOT_EC_IO_THRESHs – Threshold for total E_c/I_o of pilots in the Serving Frequency Active Set used in the Periodic Serving Frequency Pilot Report Procedure.

MIN_PILOT_PWR_THRESHs – Threshold for total E_c of pilots in the Serving Frequency Active Set used in the Periodic Serving Frequency Pilot Report Procedure.

MIN_P_REVs – Minimum mobile station protocol revision level required for access to the CDMA system.

MIN>Total_PILOT_EC_IOs – Total pilot strength threshold for the mobile station to attempt to demodulate the Forward Traffic Channel on the CDMA Candidate Frequency.

MOB_QOSs – Indicator of whether the mobile station is allowed to request QoS settings in the Origination Message, Origination Continuation Message, or Enhanced Origination Message.

MOB_TERMs – Mobile station termination indicator. Set to ‘1’ if the mobile station will accept mobile station terminated calls in its current roaming status.

MSG_PSISTs – Persistence modifier for Access Channel message and Enhanced Access data transmissions.

MS_LATs – The latitude of the mobile station as estimated by the base station.

MS_LOC_TSTAMPs – The time corresponding to the estimate of mobile station’s latitude and longitude.

MS_LONGs – The longitude of the mobile station as estimated by the base station.

MS_INIT_POS_LOC_SUP_INDs – Mobile station initiated position location determination supported indicator.

MULT_NIDSs – Multiple NID storage indicator. Set to ‘1’ if the mobile station may store more than one entry in SID_NID_LISTs for each SID.

MULT_SIDSs – Multiple SID storage indicator. Set to ‘1’ if the mobile station may store entries in SID_NID_LISTs having different SIDs.

NAR_AN_CAPs – Narrow analog voice channel capability.

NDSS.ORIGs – NDSS Origination Indicator. Indicator used when the mobile station is NDSS-redirected while originating a call.

NGHBR_BANDs – Neighbor band class.

NGHBR_CONFIGs – Neighbor base station channel allocation configuration.

NGHBR_FREQs – Neighbor CDMA channel number.

NGHBR_LST_MSG_SEQs – Neighbor List Message sequence number.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGHBR_MAX_AGEs</td>
<td>Neighbor set maximum age for retention in the set.</td>
</tr>
<tr>
<td>NGHBR_PNs</td>
<td>Neighbor base station Pilot Channel PN sequence offset in units of 64 PN chips.</td>
</tr>
<tr>
<td>NGHBR_REC</td>
<td>Record containing information about a neighbor base station (see also NGHBR_REC_LIST).</td>
</tr>
<tr>
<td>NGHBR_REC_LIST</td>
<td>Neighbor base station record list. A descriptive structure used to manage the base station's information records about neighbor base stations (see also NGHBR_REC).</td>
</tr>
<tr>
<td>NGHBR_SET_ACCESS_INFOs</td>
<td>Neighbor Set access handoff or access probe handoff information included indicator.</td>
</tr>
<tr>
<td>NGHBR_SET_ENTRY_INFOs</td>
<td>Neighbor Set access entry handoff information included indicator.</td>
</tr>
<tr>
<td>NGHBR_SET_SIZEs</td>
<td>Size of the Neighbor Set.</td>
</tr>
<tr>
<td>NGHBR_TIMING_INCLs</td>
<td>Indicates that hopping pilot beacon timing information is included.</td>
</tr>
<tr>
<td>NGHBR_TX_DURATIONS</td>
<td>Hopping pilot beacon transmit time duration.</td>
</tr>
<tr>
<td>NGHBR_TX_OFFSETs</td>
<td>Hopping pilot beacon transmit time offset.</td>
</tr>
<tr>
<td>NGHBR_TX_PERIODs</td>
<td>Hopping pilot beacon transmit time period.</td>
</tr>
<tr>
<td>NIDs</td>
<td>Network identification. A network is a subset of the base stations within a wireless cellular or PCS system.</td>
</tr>
<tr>
<td>NOM_PWRs</td>
<td>Nominal transmit power offset. A correction factor to be used by mobile stations in the open loop power estimate.</td>
</tr>
<tr>
<td>NUM_ANALOG_NGHBRS</td>
<td>Number of neighboring analog systems.</td>
</tr>
<tr>
<td>NUM_FCCCHs</td>
<td>Number of Forward Common Control Channels supported on the current CDMA channel.</td>
</tr>
<tr>
<td>NUM_PREAMBLEs</td>
<td>Number of Traffic Channel preamble.</td>
</tr>
<tr>
<td>NUM_QPCHs</td>
<td>Number of Quick Paging Channels supported on the current CDMA channel.</td>
</tr>
<tr>
<td>NUM_REV_CODESs</td>
<td>A storage variable in the mobile station that contains the number of Reverse Supplemental Code Channels that will be utilized in the next Reverse Supplemental Code Channel transmission beginning at time REV_START_TIMEs. A value of 0 indicates no Reverse Supplemental Code Channel transmission will be permitted (i.e., there is no pending Reverse Supplemental Code Channel transmission).</td>
</tr>
<tr>
<td>NUM_STEPs</td>
<td>Number of access probes or enhanced access probes in a single access probe sequence or enhanced access probe sequence.</td>
</tr>
<tr>
<td>OTHER_REPORTED_LIST</td>
<td>List of other pilots that have pilot strengths exceeding T_ADD and that are not included in ACCESS_HO_LIST.</td>
</tr>
</tbody>
</table>
PACA\textsubscript{s} – PACA call indicator. Set to enabled to indicate that the mobile station is waiting for a priority access channel assignment; otherwise, set to disabled. In Sections 2 and 3, PACA\textsubscript{s} = 0 is equivalent to setting PACA\textsubscript{s} to disabled and PACA\textsubscript{s} = 1 is equivalent to setting PACA\textsubscript{s} to enabled.

PACA\_CANCEL – PACA call cancel indicator. Set to ‘1’ when the mobile station is directed by the user to cancel the PACA call; otherwise, set to ‘0’.

PACA\_SID\textsubscript{s} – PACA system identifier. Equal to the SID of the system on which the mobile station originated a PACA call.

PACA\_TIMEOUT\textsubscript{s} – PACA state timer duration. Specifies how long the mobile station should wait for a `PACA Message` from the base station.

PACKET\_ZONE\_ID\textsubscript{s} – Packet data services zone identifier of the base station.

PAGECH\textsubscript{s} – Current CDMA Paging Channel number.

PAGED – Indicator for a page match detected while the mobile station is in the System Access State.

PAGE\_CHAN\textsubscript{s} – Number of Paging Channels supported on the current CDMA channel.

PAM\_SZ\textsubscript{s} – Number of frames in the Access Channel or Enhanced Access Channel preamble, less 1.

PARAMETER\_REG\textsubscript{s} – Parameter-change registration enable.

PERIODIC\_SEARCH\textsubscript{s} – Flag to indicate if the mobile station is to perform a periodic search on the Candidate Frequency.

PGSLOT – Value obtained from the hashing function, used to determine the mobile station’s assigned Paging Channel slots.

PILOT\_ARRIVAL – Time of occurrence, as measured at the mobile station antenna connector, of the earliest arriving usable multipath component of the pilot. The arrival time is measured relative to the mobile station’s time reference.

PILOT\_INFO\_REQ\_SUPPORTED\textsubscript{s} – Pilot information request supported indicator.

PILOT\_GATING\_RATE\textsubscript{s} – Reverse pilot gating rate on the Reverse Pilot Channel.

PILOT\_GATING\_USE\_RATE – Reverse pilot gating rate enable indicator. It indicates whether or not the Reverse Pilot Channel is gated.

PILOT\_INC\textsubscript{s} – Pilot PN sequence offset index increment. The interval between pilots, in units of 64 PN chips, for base stations in a system.

PILOT\_PN\textsubscript{s} – Pilot Channel PN sequence offset, in units of 64 PN chips, for a base station.

PILOT\_PN\_PHASE – Calculated Pilot Channel PN phase, in chips, including the PN sequence offset and the arrival time relative to the mobile station’s time reference.

PILOT\_REPORT\textsubscript{s} – Pilot reporting indicator.

POTENTIAL\_CDMACH\textsubscript{s} – The CDMA Channel number that could potentially be used by the mobile station.
POWER_DOWN_REGs – Power down registration enable indicator.

POWER_UP_REGs – Power up registration enable indicator.

PPSMM_PERIODs – The period used in the Periodic Serving Frequency Pilot Report Procedure.

PRATs – Data rate of the Paging Channels.

P_REVs – Protocol revision level supported by a base station.

P_REV_IN_USEs – Protocol revision level currently in use by a mobile station.

PREF_MSID_TYPEs – Preferred mobile station identifier field type.

PREVIOUS_ACTIVE_PILOTs – Identifies the pilot, if any, which was in the Active Set immediately prior to the current pilot in the Active Set, during the current access attempt.

PRI_NGHBR_LISTs – Private Neighbor List Message sent indicator.

PRI_NGHBR_PNs – Private Neighbor base station Pilot Channel PN sequence offset in units of 64 PN chips.

PRI_NGHBR_RECs – Record containing information about a private neighbor base station (see also PRI_NGHBR_REC_LIST).

PRI_NGHBR_REC_LIST – Private neighbor base station record list. A descriptive structure used to manage the base station’s information records about private neighbor base stations (see also PRI_NGHBR_REC).

PRI_NGHBR_LST_MSG_SEQs – Private Neighbor List Message sequence number.

PROBE_BKOFFs – Access Channel probe backoff range, in slots.

PROBE_PN_RANs – Range for hashing function selection of the delay prior to transmission of Access Channel probes. Value is $\log_2(\text{range} + 1)$.

PSISTs – Persistence value for the mobile station’s overload class.

PUF_FREQ_INCLs – Flag to indicate whether the mobile station is to transmit a PUF probe on the serving frequency or on a target frequency.

PUF_INIT_PWRs – Power increase (in dB) of the first PUF pulse in a PUF attempt.

PUF_INTERVALs – Number of frames between the start of each PUF probe.

PUF_PULSE_SIZEs – Duration of a PUF pulse in power control groups.

PUF_PWR_STEPs – Amount (in dB) by which the mobile station is to increment the power of a PUF pulse above nominal power from one PUF pulse to the next.

PUF_SETUP_SIZEs – Number of power control groups within a PUF probe before the transmission of the PUF pulse.

PUF_SF_CDMABANDs – Serving Frequency CDMA band class.

PUF_SF_CDMACHs – Serving Frequency CDMA Channel number.

PUF_TF_CDMABANDs – Target Frequency CDMA band class.
PUF_TF_CDMACHs – Target Frequency CDMA Channel number.

PUF_TX_PWRs – Mobile station’s output power for the PUF pulse.

PWR_CNTL_STEPs – Power control step size assigned by the base station that the mobile station is to use for closed loop power control.

PWR_PERIOD_ENABLEs – Forward power control periodic reporting enabled indicator.

PWR_REP_DELAYs – Power report delay. The period that the mobile station waits following an autonomous Power Measurement Report before restarting frame counting for power control purposes.

PWR_REP_FRAMESs – Power control reporting frame count. The number of frames over which the mobile station is to count frame errors. Value is \(2 \times \log_2(\text{frames} / 5)\).

PWR_REP_THRESHs – Power control reporting threshold. The number of bad frames to be received in a measurement period before the mobile station is to generate a Power Measurement Report Message.

PWR_STEPs – Power increment for successive access probes, in units of 1.0 dB.

PWR_THRESH_ENABLEs – Forward power control threshold reporting enabled indicator.

QOF_IDs – Quasi-orthogonal function index on the Supplemental Channel.

QPAGECHs – Current Quick Paging Channel number.

QPCH_CCI_SUPPORTEDs – Flag to indicate if configuration change indicators are supported on the Quick Paging Channel.

QPCH_POWER_LEVEL_PAGEs – Relative power level of the transmitted Quick Paging Channel Paging Indicator modulation symbols, relative to the Forward Pilot Channel.

QPCH_POWER_LEVEL_CONFIGs – Relative power level of the transmitted Quick Paging Channel Configuration Change Indicator modulation symbols, relative to the Forward Pilot Channel.

QPCH_RATEs – Indicator rate of the current Quick Paging Channel(s).

QPCH_SUPPORTEDs – Flag to indicate if the Quick Paging Channel is supported by the base station.

RA – Random access channel number. The Access Channel number generated (pseudo-randomly) by the mobile station.

RANDs – Authentication random challenge value.

RANDC – The eight most-significant bits of the random challenge value used by the mobile station.

RANDOM_TIME – Random time. A portion of SYS_TIME used to seed the random number generator.

RC_CAP_REQUESTEDs – Radio Configuration Capability indicator. When set to “1” the mobile station shall include the Radio Configuration capabilities that it supports in the Origination Message and Page Response Message.
RCCCH_SLOTs – See [2].
RCCCH_SLOT_OFFSET1s – See [2].
RCCCH_SLOT_OFFSET2s – See [2].
REDIRECTIONs – Service redirection indicator. Set to enabled to indicate that service
redirection is currently in effect; otherwise, set to disabled.
REDIRECT_RECORDs – Holds the service redirection criteria specified in the redirection record
of the most recently received Global Service Redirection Message or Service Redirection
Message.
REG_COUNTs – The timer-based registration counter.
REG_COUNT_MAXs – Timer-based registration count limit. The timer-based registration
counter expiration value computed from REG_PRD.
REG_DISTs – Registration distance. Distance from last registration that causes a distance-
based registration to occur.
REG_ENABLEDs – Autonomous registrations enabled indicator.
REG_ENCRYPT_RESYNC – Encryption re-sync required registration indicator.
REGISTEREDs – Mobile station registered indicator.
REG_PRDs – Registration period. The time interval between timer-based registrations.
Value is $4 \times \log_2(\text{time} / 0.08 \text{ s}).$
REG_PSISTs – Persistence modifier for registration accesses (except ordered registrations).
REG_ZONEs – Registration zone number of the base station.
REJECT_UZIDs – User Zone identifier of the User Zone rejected by the base station.
RESELECT_INCLUDEDs – System reselection information included indicator. When this is
set to ‘1’, the system reselection procedure is enabled.
RESUME_PREAMBLEs – A storage variable in the mobile station that contains the size of
the preamble that shall be transmitted on a Reverse Supplemental Code Channel at the
beginning of transmission on a Reverse Supplemental Code Channel when resuming
transmission following an interruption when discontinuous transmission is occurring.
RETRY_DELAYs[i] – A storage variable in the mobile station that contains the system time
before which the mobile station may not transmit a specific message. The type of message
that cannot be transmitted is specified by RETRY_TYPE, represented here by i. A
RETRY_DELAYs[i] value of 0 indicates no retry delay is in effect, and a value of ‘11111111’
indicates an infinite retry delay.
RETRY_DELAY_UNITS – The units for the value of RETRY_DELAYs. Possible values are
1000ms and 60000ms.
RETRY_DELAY_VALUEs – The unitless value of the retry delay.
RETRY_TYPEs – The retry delay type. It specifies the type of message to which the retry
delay value applies. If set to a value of 0, it indicates that all retry delay values should be
cleared.

**RETURN_CAUSEs** – Reason for the mobile station registering or accessing the system.

**RETURN_IF_FAILs** – Return if fail indicator. Set to ‘1’ to indicate that mobile station is to return to the system from which it was redirected if it fails to acquire service on a system using specified redirection criteria. Otherwise, set to ‘0’.

**RETURN_IF_HANDOFF_FAILs** – Return if handoff fail indicator. Indicates if the mobile station is to resume using the Active Set on the Serving Frequency following an unsuccessful hard handoff attempt.

**REV_DTX_DURATIONs** – Maximum duration of time in units of 20 ms that the mobile station is allowed to stop transmitting on a Reverse Supplemental Code Channel or Reverse Supplemental Channel within the reverse assignment duration.

**REV_DURATIONs** – A stored variable in the mobile station that contains the duration (in units of 80 ms) of the Reverse Supplemental Code Channel transmission that will begin at time REV_START_TIMEs.

**REV_FCH_GATING_MODEs** – The reverse Fundamental Traffic Channel gating mode in Radio Configurations 3, 4, 5, and 6 where 50% of the PCGs in the 1500 bps and 1800 bps frames are gated off (see 2.1.3.7.8 of C.P0002-A). Set to ‘1’ if the mobile station is operating in the reverse fundamental channel gating mode.

**REV_FCH_RCs** – Reverse Fundamental Channel Radio Configuration.

**REV_FRAME_40_MAX_RATEs** – The maximum data rate for the mobile station’s transmission at 40 ms frame length on the Reverse Supplemental Channel.

**REV_FRAME_80_MAX_RATEs** – The maximum data rate for the mobile station’s transmission at 80 ms frame length on the Reverse Supplemental Channel.

**REV.Linked_HDM_SEQs** – Storage variable containing the most recent reverse sequence number of the General Handoff Direction Message to which a Supplemental Channel Assignment Message reverse assignment was linked.

**REV_PWR_CNTL_DELAYs** – The reverse link power control delay for the reverse fundamental channel gating mode in Radio Configurations 3, 4, 5, and 6 and the gated preamble transmission on the Enhanced Access Channel or the Reverse Common Control Channel. The delay is the time between the end of the reverse link PCG and the beginning of the forward link PCG minus one, when the round trip delay is zero.

**REV_RCs** – Reverse Channel Radio Configuration.

**REV_SCH_DTX_DURATIONs** – Maximum duration of time in units of 20 ms that the mobile station is allowed to stop transmitting on a Reverse Supplemental Channel within the reverse assignment duration.

**REV_SCH_DURATIONs** – A stored variable in the mobile station which contains the duration of the Reverse Supplemental Channel transmission which will begin at time REV_SCH_START_TIMEs.

**REV_SCH_FRAME_LENGTHs** – The Reverse Supplemental Channel frame length.
REV_SCH_RATEs – The rate of the Reverse Supplemental Channel.

REV_SCH_START_TIMEs – A stored variable in the mobile station which contains the System Time, in units of time specified by START_TIME_UNITs, (modulo 32) at which the mobile station shall start (or resume) processing Reverse Supplemental Channels.

REV_START_TIMEs – A stored variable in the mobile station that contains the next 80 ms frame boundary (modulo 64) on which the mobile station is assigned to start Reverse Supplemental Code Channel transmission.

REV_WALSH_IDs – Reverse Supplemental Channel Walsh cover Identifier.

RN_HASH_KEYs – Name of an internal variable having the same value as the mobile station’s ESN. This variable is used by procedures defined in [3].

ROAM_INDIs – Enhanced roaming indicator used for mobile station roaming condition display.

RS – Inter-probe sequence backoff. The delay in slots generated (pseudorandomly) by the mobile station following an unsuccessful access probe sequence or prior to the first access probe in a response attempt.

RT – Inter-probe backoff. The delay in slots generated (pseudorandomly) by the mobile station following an unacknowledged access probe.

SCCs – SAT color code for analog channel assignment and CDMA-to-analog handoff.

SCAM_FOR_DURATION_MODEs – Indicator for a specific or an indefinite Forward Supplemental Code Channel assignment duration.

SCAM_FOR_ORDERs – The stop or start command set by a Supplemental Channel Assignment Message that is linked to a General Handoff Direction Message.

SCAM_REV_DURATION_MODEs – Indicator for a specific or an indefinite Reverse Supplemental Code Channel assignment duration.

SCH_BAD_FRAMESs – Forward Supplemental Channel bad frames count. The number of received bad forward Supplemental Channel frames.

SCH_TOT_FRAMESs – Total forward Supplemental Channel frames received. The total number of received forward Supplemental Channel frames, counted for Forward Traffic Channel power control.

SYNC_IDs – Service Configuration Synchronization Identifier. This is a 16-bit CRC variable length computed over the entire identifier corresponding to the Service Configuration information record and Non-negotiable Service Configuration information record that may be stored by the mobile station and The SYNC_ID value is used for by the base station to determine whether these two information records should may be included in-from the Service Connect Message sent by the base station to the mobile station. The mobile station generates this parameter based on the Service Configuration information record and Non-negotiable Service Configuration information record stored at the mobile station (if stored), and sends it to the base station in the Origination Message or the Page Response Message. The base station computes this parameter based on these two information records targeted to be sent to the mobile station. If the computed value matches the one sent by
Based on the value of SYNC_ID sent by the mobile station, base station may not send these two information records over the air and expects the mobile station to start using the stored ones.

**SCRM_SEQ_NUMs** – Storage variable containing the most recently transmitted Supplemental Channel Request Message sequence number.

**SEARCH_MODEs** – Search mode to be used in a periodic search on the Candidate Frequency.

**SEARCH_OFFSETs** – Time offset of the start of the first search from the action time of the Candidate Frequency Search Request Message or the Candidate Frequency Search Control Message that starts a search.

**SEARCH_PERIODs** – Period for search on the Candidate Frequency.

**SEARCH_PRIORITYs** – Neighbor Pilot Channel search priority.

**SEARCH_PRIORITY_INCLs** – Search priorities included indicator.

**SEARCH_TIME_RESOLUTIONs** – Unit of delay used in the Candidate Frequency Search Report Message to report the total and maximum times away from the Serving Frequency.

**SENDING_RANDs** – ANSI-41 RAND Message sent indicator.

**SERV_NEGs** – Service negotiation indicator. Indicates whether the mobile station is to use service negotiation or service option negotiation.

**SERV_REQ_NUMs** – Service request sequence number. Sequence number to use when requesting a new service configuration.

**SERVSYSs** – Selected serving system indicator for Band Class 0. Set to SYS_A if the mobile station operates in system A; otherwise, set to SYS_B.

**SETTING_SEARCH_WIN** – SRCH_WIN_NGHBR Setting flag. Set to ‘1’ if the mobile station shall set the SRCH_WIN_NGHBR field of each NGHBR_REC to SEARCH_WIN_Ns for all NGHBR_SET_SIZEs entries upon receiving the System Parameters Message.

**SF_ADD_INTERCEPTs** – Intercept of the handoff add criterion for the Serving Frequency, stored during hard handoff.

**SF_CDMABANDs** – Serving Frequency CDMA band class, stored during hard handoff.

**SF_CDMACHs** – Serving Frequency CDMA Channel number, stored during hard handoff.

**SF_CODE_CHAN_LISTs** – Serving Frequency Code Channel List, stored during hard handoff.

**SF_DROP_INTERCEPTs** – Intercept of the handoff drop criterion for the Serving Frequency, stored during hard handoff.

**SF_ENCRYPT_MODEs** – Message encryption indicator for the Serving Frequency, stored during hard handoff.

**SF_FRAME_OFFSETs** – Traffic Channel frame offset used on the Serving Frequency, stored during hard handoff.
**SF NOM_PWR** - Nominal transmit power offset used on the Serving Frequency, stored during hard handoff.

**SF NOM_PWR_EXT** - Extended nominal transmit power offset indicator for the Serving Frequency, stored during hard handoff.

**SF_P_REVS** - Protocol revision level supported by the base station on the Serving Frequency.

**SF_P_REV_IN_USE** - Protocol revision level currently used by the mobile station on the Serving Frequency.

**SF_PRIVATE_LCM** - Private long code mask indicator for the Serving Frequency, stored during hard handoff.

**SF_SERV_NEG** - Service negotiation indicator for the Serving Frequency, stored during hard handoff.

**SF_SERVICE_CONFIG** - Service configuration (service configuration record and non-negotiable service configuration record) for the Serving Frequency.

**SF_SOFT_SLOPE** - Slope of the handoff add/drop criterion for the Serving Frequency, stored during hard handoff.

**SF_SRCH_WIN_A** - Search window size for the Active Set and Candidate Set used on the Serving Frequency, stored during hard handoff.

**SF_SRCH_WIN_N** - Search window size for the Neighbor Set used on the Serving Frequency, stored during hard handoff.

**SF_SRCH_WIN_R** - Search window size for the Remaining Set used on the Serving Frequency, stored during hard handoff.

**SF_T_ADD** - Pilot detection threshold used on the Serving Frequency, stored during hard handoff.

**SF_T_COMP** - Active Set versus Candidate Set comparison threshold used on the Serving Frequency, stored during hard handoff.

**SF_T_DROP** - Pilot drop threshold used on the Serving Frequency, stored during hard handoff.

**SF_T_TDROP** - Pilot drop timer value used on the Serving Frequency, stored during hard handoff.

**SF TOTAL EC_THRESH** - Threshold for total $E_c$ of pilots in the Serving Frequency Active Set used in the Candidate Frequency periodic search procedures.

**SF TOTAL EC IO_THRESH** - Threshold for total $E_c/I_0$ of pilots in the Serving Frequency Active Set used in the Candidate Frequency periodic search procedures.

**SID** - System identifier.

**SID NID LIST** - Registration SID, NID list. The SID, NID pairs in which the mobile station has registered.
SLOT_CYCLE_INDEX – Slot cycle index. Equal to the smaller of SLOT_CYCLE_INDEX and the received maximum slot cycle index.

SLOT_NUM – Paging Channel or Forward Common Control Channel slot number.

SOFT_SLOPE – The slope in the inequality criterion for adding a pilot to the Active Set, or dropping a pilot from the Active Set.

SO_REQ – Service option request number. The number of the service option requested by the mobile station during service option negotiation.

SR1_BRAT_NON_TDs – Spreading Rate 1 Broadcast data rate with no transmit diversity.

SR1_BRAT_TDs – Spreading Rate 1 Broadcast data rate with transmit diversity.

SR1_CRAT_NON_TDs – Spreading Rate 1 coding rate with no transmit diversity.

SR1_CRAT_TDs – Spreading Rate 1 coding rate with transmit diversity.

SR1_TD_MODEs – Spreading Rate 1 transmit diversity mode in support of OTD or STS.

SR1_TD_LEVELs – Spreading Rate 1 transmit diversity power level.

SR3_BRATs – Data rate of the Broadcast Control Channel on SR3 frequencies.

SR3_PRIMARY_PILOTs – Frequency offset of the primary SR3 pilot.

SR3_PILOT_POWER1s – The power level of the primary pilot with respect to the pilot on the lower frequency of the two remaining SR3 frequencies.

SR3_PILOT_POWER2s – The power level of the primary pilot with respect to the pilot on the higher frequency of the two remaining SR3 frequencies.

SRCH_OFFSET_INCLs – Neighbor pilot search window offset included indicator.

SRCH_OFFSET_NGHBRs – Neighbor pilot search window offset.

SRCH_WIN_As – Search window size for the Active Set and Candidate Set.

SRCH_WIN_NGHBRs – Neighbor Pilot Channel search window size.

SRCH_WIN_NGHBR_INCLs – Neighbor Pilot Channel search window size included indicator.

SRCH_WIN_Ns – Search window size for the Neighbor Set.

SRCH_WIN_Rs – Search window size for the Remaining Set.

START_TIME_UNITs – A stored variable in the mobile station which contains the time unit used for determining FOR_SCH_START_TIME and REV_SCH_START_TIME on Supplemental Channels.

SYS_PAR_MSG_SEQs – System Parameters Message sequence number.

SYS_TIMEs – Current value of CDMA system time as received in the Sync Channel Message.

TA – Acknowledgment response timeout.

T_ADDs – Pilot detection threshold. The stored value is a positive value in units of 0.5 dB.
**T_COMPs** – Active Set versus Candidate Set comparison threshold. The stored value is a positive value in units of 0.5 dB.

**T_DROPs** – Pilot drop threshold. The stored value is a positive value in units of 0.5 dB.

**TAGs** – Transaction identifier. This is a 4-bit parameter maintained by the mobile station which is used to uniquely identify a new call origination (via an *Enhanced Origination Message*) by the mobile station. When the mobile station is to send an *Enhanced Origination Message*, the mobile station increments the stored value of TAG and includes it in the message.

**TAG_OUTSTANDING_LIST** – List of outstanding TAG values. This corresponds to those values of TAG sent in the *Enhanced Origination Message* which have neither been accepted by the base station (by assigning the requested call) nor rejected by the base station.

**TEMP_SUBs** – User Zone temporary subscription flag.

**TF_CDMABANDs** – Target Frequency CDMA band class. The CDMA band class specified in the *Extended Handoff Direction Message* or the *General Handoff Direction Message*.

**TF_CDMACHs** – Target Frequency CDMA Channel number. The CDMA Channel number specified in the *Extended Handoff Direction Message* or the *General Handoff Direction Message*.

**TF_RESET_FPCs** – Flag to initialize the Forward Traffic Channel power control counters on the Target Frequency.

**TF_RESET_L2s** – Flag to reset acknowledgment procedures on the Target Frequency.

**TF_T_ADDs** – Pilot detection threshold to be used on the Target Frequency. The stored value is a positive value in units of 0.5 dB.

**TF_WAIT_TIMEs** – Maximum time that the mobile station may wait to receive a period of \((N11m \times 20)\) ms with sufficient signal quality (e.g. good frames) on the CDMA Target Frequency.

**TMSI_ZONEs** – TMSI zone number of the base station.

**TMSI_ZONE_LENs** – The number of octets in TMSI zone.

**T_MULCHANs** – A storage variable in the mobile station that contains the threshold offset that the mobile station is to use when reporting neighbor pilot strength measurements in a *Supplemental Channel Request Message* *Reverse Supplemental Code Channel neighbor pilot strength measurement offset*. The stored value is a positive value in units of 0.5 dB.

**TOTAL_PUF_PROBESs** – Maximum number of PUF probes transmitted in a PUF attempt.

**TOTAL_ZONESs** – Number of registration zones to be retained in ZONE_LISTs.

**TOT_FRAMESs** – Total forward Fundamental Channel frames received. The total number of received forward Fundamental Channel frames, counted for Forward Traffic Channel power control.

**T_TDROPs** – Pilot drop timer value.
USE_FOR_HDM_SEQs – Storage variable containing a flag indicating a pending Supplemental Channel Assignment Message forward assignment that is linked to a General Handoff Direction Message.

USE_REV_HDM_SEQs – Storage variable containing a flag indicating a pending Supplemental Channel Assignment Message reverse assignment that is linked to a General Handoff Direction Message.

USE_T_ADD_ABORTs – A storage variable in the mobile station that contains the Reverse Supplement Code Channel assignment T_ADD abort indicator.

USE_TMSIs – Base station’s preference of the use of TMSI.

USER_ZONE_IDs – User Zone Identification Message sent indicator.

USER_ZONE_ID_MSG_SEQs – User Zone Identification Message sequence number.

UZ_EXIT_IN_USEs – The User Zone Exit parameter that the mobile station received from the User Zone Identification Message broadcast by the last base station of the old user zone.

UZ_EXIT_RCVDs – The User Zone Exit parameter that the mobile station just received from the User Zone Identification Message broadcast by the currently serving base station.

UZIDs – User Zone identifier.

UZ_REC – Record containing information about a User Zone broadcast by the base station (see also UZ_REC_LIST).

UZ_REC_LIST – Broadcast User Zone record list. A descriptive structure used to manage the base station’s information records about broadcast User Zones (see also UZ_REC).

UZ_REVs – User Zone update revision number.

VMACs – Analog voice mobile station attenuation code for analog channel assignment or CDMA-to-analog handoff.

ZONE_LISTs – Registration zone list. List of zones in which the mobile station has registered.

ZONE_TIMERS – Zone timer length.
1.2 Signaling Architecture

Layer 3 signaling for cdma2000 is modeled as follows:

- **Protocol Layer.** Layer 3 generates Layer 3 PDUs and passes these PDUs to Lower Layers, where proper encapsulation into Lower Layer PDUs is performed. On the receiving end, Lower Layer PDUs are decapsulated and the resulting SDUs are sent from Lower Layers to Layer 3 for processing.

- **Service Access Points.** SAPs and corresponding communication primitives are defined between the Layer 3 and Lower Layers over the data plane. No SAPs are defined for communications through the control plane.

1.3 Signaling and Functionality

1.3.1 General Architecture

The general architecture is presented in Figure 1.3.1-1.

![Figure 1.3.1-1. cdma2000 Signaling – General Architecture](image)

1.3.2 Interface to Layer 2

The interface between Layer 3 and Layer 2 is a Service Access Point (SAP). At the SAP, Layer 3 and Layer 2 exchange Service Data Units (SDU) and interface control information in the form of Message Control and Status Blocks (MCSB) using a set of primitives.

1.3.2.1 Message Control and Status Block (MCSB)

The MCSB is a parameter block for the defined primitives, containing relevant information about an individual Layer 3 message (PDU), as well as instructions on how the message
may be handled or how it is to be (for transmission), or was (for reception), processed by
Layer 2. The MCSB is a conceptual construct and is not subject to detailed specification in
this document; however, it is envisioned the MCSB will contain information such as:

- The MSG_TAG. If the message is generated in response to a previously received
  message, the MSG_TYPE of the previously received message is also stored.
- The length of the PDU.
- Page record length parameters, i.e., values of the SDU_INCLUDED field for a Mobile
  Station-addressed record in a General Page Message, the
  EXT_MS_SDU_LENGTH_INCL and EXT_MS_SDU_LENGTH fields for a Mobile
  Station-addressed record in a Universal Page Message, and the
  EXT_BCAST_SDU_LENGTH_IND and EXT_BCAST_SDU_LENGTH fields for an
  Enhanced Broadcast record sent in a General Page Message or a Universal Page
  Message.
- A unique instance identifier associated with the message, which enables
  identification of a message for notifications of delivery/non-delivery or recovery
  procedures.
- Whether the message should be acknowledged at Layer 2 (i.e., delivered in assured
  mode or unassured mode).
- Whether notification of delivery is required.
- The identity of the addressee for the message.
- Whether the PDU delivered to Layer 3 is a duplicate (in cases where Layer 2 does
  not discard duplicates).
- Data needed by the authentication procedures (e.g., the CHARi fields of the
  Origination Message).
- Relevant PDU classification (e.g., registrations, originations), where processing at
  Layer 2 is sensitive to the kind of PDU being transferred.
- The encryption status of the logical channel.
- CDMA System Time corresponding to the frame in which the first or last bit of a
  message was received.
- Transmission instructions for Layer 2, such as an instruction to send a message
  with a certain priority (before, after, or by interrupting the transmission of other
  messages), an instruction regarding supervision, and so on.
- Abnormal conditions indications from Layer 2.

1.3.2.2 Interface Primitives

The following primitives are defined for communication between the Layer 3 and Layer 2:

Name: L2-Data.Request
Type: Request
Direction: Layer 3 to Layer 2
Parameters: PDU, MCSB
Action: The PDU is handed to Layer 2 for delivery across the radio interface.

Name: L2-Data.Confirm
Type: Confirm
Direction: Layer 2 to Layer 3
Parameters: MCSB
Action: Reception of the specified (in the MCSB) transmitted PDU was acknowledged at Layer 2 by the addressee.

Name: L2-Data.Indication
Type: Indication
Direction: Layer 2 to Layer 3
Parameters: PDU, MCSB
Action: The received PDU is handed to Layer 3.

Name: L2-Condition.Notification
Type: Indication
Direction: Layer 2 to Layer 3
Parameters: MCSB
Action: Layer 3 is notified of a relevant event (e.g. abnormal condition) detected at Layer 2. Details are indicated via the MCSB.

Name: L2-Supervision.Request
Type: Request
Direction: Layer 3 to Layer 2
Parameters: MCSB
Action: Layer 2 executes a control command as directed by Layer 3. This could be, for example, an order to abandon retransmission of a message or an order for local reset for the message sequence number, acknowledgment sequence number and duplicate detection.
1.3.3 Reserved

1.3.4 Functional Description

In the Data Plane, Layer 3 originates and terminates signaling data units according to the
semantic and timing of the communication protocol between the base station and the
mobile station. From a semantic point of view the signaling data units are referred to as
“messages” (or “orders”). From a protocol point of view, the signaling data units are PDUs.
In general, the language of this specification does not explicitly distinguish between the
terms “PDU” and “Message”. It is considered that the context provides enough information
to allow the reader to make the appropriate distinctions.

1.3.5 PDU Transmission and Reception

Layer 3 employs the services offered at the interface with Layer 2 to transfer PDUs to and
from the Layer 3 entity.

When requesting the transmission of a PDU, Layer 3 will typically specify whether the
transfer will be performed in assured mode or in unassured mode (for example, by setting
the proper parameters in the MCSB argument of the L2-Data.Request primitive). For
transmission in assured mode, Layer 3 may specify if confirmation of delivery of the PDU is
required.

Layer 2 guarantees that an assured mode PDU received from the transmitting Layer 3
entity is delivered to the receiving Layer 3 entity. Each assured mode PDU is delivered to
the receiving Layer 3 entity only once and without errors. Additionally, if the transmitting
Layer 3 entity requests confirmation of delivery of an assured mode PDU, Layer 2 will send
an indication to the transmitting Layer 3 entity (for example by using the L2-Data.Confirm
primitive) when Layer 2 receives an acknowledgment for that PDU. If Layer 2 is not able to
deliver an assured mode PDU, it sends an indication of the failure to Layer 3 which can
then take corrective action.

Layer 2 does not guarantee that an unassured mode PDU received from the transmitting
Layer 3 entity is delivered to the receiving Layer 3 entity. Thus, Layer 2 acknowledgments
may not be required for unassured mode PDUs. To increase the probability of delivery of
unassured mode PDUs, Layer 3 may request Layer 2 to send those PDUs multiple times in
quick repeat sequence and rely on the duplicate detection capabilities of the receiver to
achieve uniqueness of delivery.

Layer 3 can also request Layer 2 to perform a reset of the Layer 2 ARQ procedures (for
example, by using the L2-Supervision.Request primitive).
2. REQUIREMENTS FOR MOBILE STATION CDMA OPERATION

This section defines requirements that are specific to CDMA mobile station equipment and operation. A CDMA mobile station may support operation in one or more band classes.

2.1 Reserved

2.2 Reserved

2.3 Security and Identification

2.3.1 Mobile Station Identification Number

Mobile stations operating in the CDMA mode are identified by the International Mobile Station Identity (IMSI).\(^1\) Mobile Stations shall have two different identifiers, IMSI\(_T\) and IMSI\(_M\). The IMSI consists of up to 15 numerical characters (0-9). The first three digits of the IMSI are the Mobile Country Code (MCC), and the remaining digits are the National Mobile Station Identity (NMSI). The NMSI consists of the Mobile Network Code (MNC) and the Mobile Station Identification Number (MSIN). The IMSI structure is shown in Figure 2.3.1-1.

<table>
<thead>
<tr>
<th>MCC</th>
<th>MNC</th>
<th>MSIN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- 3 digits
- NMSI
- IMSI (\(\leq\) 15 digits)

MCC Mobile Country Code
MNC Mobile Network Code
MSIN Mobile Station Identifier Number
NMSI National Mobile Station Identity
IMSI International Mobile Station Identity

Figure 2.3.1-1. IMSI Structure

An IMSI that is 15 digits in length is called a class 0 IMSI (the NMSI is 12 digits in length); an IMSI that is less than 15 digits in length is called a class 1 IMSI (the NMSI is less than 12 digits in length).

IMSI_M is an IMSI that contains a MIN in the lower ten digits of the NMSI. An IMSI_M can be a class 0 or a class 1 IMSI. If the IMSI_M is not programmed, the mobile station shall set the four least-significant digits of the IMSI_M to the value of the ESN_p, converted directly from binary to decimal, modulo 10000, and the mobile station shall set the other digits to 0.

IMSI_T is an IMSI that is not associated with the MIN assigned to the mobile station. An IMSI_T can be a class 0 or class 1 IMSI. If the IMSI_T is not programmed, the mobile station shall set the four least-significant digits of the IMSI_T to the value of the ESN_p, converted directly from binary to decimal, modulo 10000, and the mobile station shall set the other digits to 0.

When operating in the CDMA mode the mobile station shall set its operational IMSI value, IMSI_O, to either the IMSI_M or the IMSI_T depending on the capabilities of the base station (See 2.6.2.2.5).

An IMSI_S is a 10-digit (34-bit) number derived from the IMSI. When an IMSI has ten or more digits, IMSI_S is equal to the last ten digits. When an IMSI has fewer than ten digits, the least significant digits of IMSI_S are equal to the IMSI and zeros are added to the most significant side to obtain a total of ten digits. A 10-digit IMSI_S consists of 3- and 7-digit parts, called IMSI_S2 and IMSI_S1, respectively, as illustrated in Figure 2.3.1-2. IMSI_S is mapped into a 34-bit number (see 2.3.1.1). The IMSI_S derived from IMSI_M is designated IMSI_M_S. The IMSI_S derived from IMSI_T is designated IMSI_T_S. The IMSI_S derived from IMSI_O is designated IMSI_O_S.

The mobile station shall have memory to store the 34-bit IMSI_M_S p and the 34-bit IMSI_T_S p. IMSI_M_S p is represented by the 10-bit IMSI_M_S2 p and the 24 bit IMSI_M_S1 p. IMSI_T_S p is represented by the 10-bit IMSI_T_S2 p and the 24 bit IMSI_T_S1 p.

When an IMSI has 12 or more digits, IMSI_11_12 is equal to the 11th and 12th digits of the IMSI. When an IMSI has fewer than 12 digits, digits with a value equal to zero are added to

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**Figure 2.3.1-2. IMSI_S Binary Mapping**

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When an IMSI has 12 or more digits, IMSI_11_12 is equal to the 11th and 12th digits of the IMSI. When an IMSI has fewer than 12 digits, digits with a value equal to zero are added to
the most significant side to obtain a total of 12 digits and the IMSI_11_12 is equal to the
11th and 12th digits of the resulting number.
IMSI_11_12 is encoded as described in 2.3.1.2. The mobile station shall have memory to
store the 7-bit IMSI_M_11_12p and the 7-bit IMSI_T_11_12p.
The 3-digit MCC is encoded as described in 2.3.1.3. The mobile station shall have memory
to store the 10-bit MCC_Mp and the 10-bit MCC_Tp.
If the mobile station has a class 1 IMSI_T, or IMSI_M, it shall have memory to store
IMSI_T_ADDR_NUMp and IMSI_M_ADDR_NUMp. IMSI_T_ADDR_NUMp is equal to the
number of digits in the NMSI\(^2\) minus four. IMSI_M_ADDR_NUMp is equal to the number of
digits in the NMSI of the IMSI_M minus four.

2.3.1.1 Encoding of IMSI_M_S and IMSI_T_S

The IMSI_M_S and IMSI_T_S binary mapping is defined as follows:
1. The first three digits of the IMSI_M_S and the first three digits of the IMSI_T_S are
mapped into ten bits (corresponding to IMSI_M_S2p and IMSI_T_S2p, respectively)
by the following coding algorithm:
   a. Represent these three digits as D_1 D_2 D_3 with the digit equal to zero being given
      the value of ten.
   b. Compute 100 \times D_1 + 10 \times D_2 + D_3 - 111.
   c. Convert the result in step b to binary by the standard decimal-to-binary
      conversion as shown in Table 2.3.1.1-1.

\(^2\) It is assumed that the number of digits in NMSI is greater than three.
### Table 2.3.1.1-1. Decimal to Binary Conversion Table

<table>
<thead>
<tr>
<th>Decimal Number</th>
<th>Binary Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0000000000</td>
</tr>
<tr>
<td>1</td>
<td>0000000001</td>
</tr>
<tr>
<td>2</td>
<td>0000000010</td>
</tr>
<tr>
<td>3</td>
<td>0000000011</td>
</tr>
<tr>
<td>4</td>
<td>0000000100</td>
</tr>
<tr>
<td>998</td>
<td>1111100110</td>
</tr>
<tr>
<td>999</td>
<td>1111100111</td>
</tr>
</tbody>
</table>

2. The second three digits of IMSI_M_S and the second three digits of IMSI_T_S are mapped into the ten most significant bits of IMSI_M_S1p and IMSI_T_S1p, respectively, by the coding algorithm indicated in 1.

3. The last four digits of IMSI_M_S and the last four digits of IMSI_T_S are mapped into the 14 least significant bits of IMSI_M_S1p and IMSI_T_S1p, respectively, as follows:
   a. The thousands digit is mapped into four bits by a Binary-Coded-Decimal (BCD) conversion, as shown in Table 2.3.1.1-2.
   b. The last three digits are mapped into ten bits by the coding algorithm indicated in 1.
The following example illustrates the IMSI_T_S2_p and IMSI_T_S1_p calculation procedure. Let the IMSI_T be the 9-digit number 123456789. Since the IMSI_T has fewer than ten digits, the nine least significant digits of the IMSI_T_S are equal to the IMSI_T digits and the most significant IMSI_T_S digit is set to zero. So the 10-digit IMSI_T_S is 012 345 6 789. IMSI_T_S2_p and IMSI_T_S1_p are calculated as follows:

- **IMSI_T_S2_p.** The ten-bit IMSI_T_S2_p is derived from the first three digits of the IMSI_T_S (i.e., 012):
  a. \( D_1 = 10; D_2 = 1; D_3 = 2. \)
  b. \( 100 \times D_1 + 10 \times D_2 + D_3 - 111 = 100 \times 10 + 10 \times 1 + 2 - 111 = 901. \)
  c. 901 in binary is ‘11 1000 0101’.

Therefore, IMSI_T_S2_p is ‘11 1000 0101’.

- **IMSI_T_S1_p.** The ten most significant bits of IMSI_T_S1_p are derived from the second three digits of the IMSI_T_S (i.e., 345):
  a. \( D_1 = 3; D_2 = 4; D_3 = 5. \)
  b. \( 100 \times D_1 + 10 \times D_2 + D_3 - 111 = 100 \times 3 + 10 \times 4 + 5 - 111 = 234. \)
  c. 234 in binary is ‘0011 1010 10’.

The next four most significant bits of IMSI_T_S1_p are derived from the thousands digit of the IMSI_T_S (i.e., 6) by BCD conversion: 6 in BCD is ‘0110’.

The ten least significant bits of IMSI_T_S1_p are derived from the last three digits of the IMSI_T_S (i.e., 789):
  a. \( D_1 = 7; D_2 = 8; D_3 = 9. \)
  b. \( 100 \times D_1 + 10 \times D_2 + D_3 - 111 = 100 \times 7 + 10 \times 8 + 9 - 111 = 678. \)
3GPP2 C.S0005-A v6.0

c. 678 in binary is ‘10 1010 0110’.
Therefore, IMSI_T_S1p is ‘0011 1010 1001 1010 0110’.

2.3.1.2 Encoding of IMSI_M_11_12 and IMSI_T_11_12
The IMSI_M_11_12 and IMSI_T_11_12 binary mapping is defined as follows:
1. Represent the 11th digit as D_{11} and the 12th digit as D_{12} with the digit equal to
zero being given the value of ten.
2. Compute \( 10 \times D_{12} + D_{11} - 11 \).
3. Convert the result in step 2 to binary by a standard decimal-to-binary conversion as
described in Table 2.3.1.1-1 and limit the resulting number to the 7 least significant
bits.

2.3.1.3 Encoding of the MCC_M and MCC_T
The MCC_M and MCC_T binary mapping is defined as follows:
1. Represent the 3-digit Mobile Country Code as D_1 D_2 D_3 with the digit equal to zero
being given the value of ten.
2. Compute \( 100 \times D_1 + 10 \times D_2 + D_3 - 111 \).
3. Convert the result in step (2) to binary by a standard decimal-to-binary conversion
as described in Table 2.3.1.1-1.

2.3.1.4 Mobile Directory Number
A Mobile Directory Number (MDN) is a dialable number associated with the mobile station
through a service subscription. A Mobile Directory Number is not necessarily the same as
the mobile station identification on the air interface, i.e., MIN, IMSI_M or IMSI_T. An MDN
consists of up to 15 digits. The mobile station should have memory to store at least one
Mobile Directory Number (see Table F.3-1).

2.3.2 Electronic Serial Number
The ESN is a 32-bit binary number that uniquely identifies the mobile station to any
wireless system. The ESN value is available to procedures in the mobile station as the
value of the variable ESN_p. The value of the variable RN_HASH_KEY_s is the same as the
value of the variable ESN_p, and need not be stored separately.

2.3.3 Station Class Mark
Class-of-station information referred to as the station class mark (SCM_p) must be stored in
a mobile station. The digital representation of this class mark is specified in Table 2.3.3-1.
Table 2.3.3-1. Station Class Mark

<table>
<thead>
<tr>
<th>Function</th>
<th>Bit(s)</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extended SCM Indicator</td>
<td>7</td>
<td>Band Classes 1,4 1XXXXXXX Other 0XXXXXXX</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other bands</td>
</tr>
<tr>
<td>Dual Mode</td>
<td>6</td>
<td>CDMA Only X0XXXXXX</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dual Mode X1XXXXXX</td>
</tr>
<tr>
<td>Slotted Class</td>
<td>5</td>
<td>Non-Slotted XX0XXXXX</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Slotted XX1XXXXX</td>
</tr>
<tr>
<td>IS-54 Power Class</td>
<td>4</td>
<td>Always 0 XXX0XXXXX</td>
</tr>
<tr>
<td>25 MHz Bandwidth</td>
<td>3</td>
<td>Always 1 XXXX1XXX</td>
</tr>
<tr>
<td>Transmission</td>
<td>2</td>
<td>Continuous XXXX0XX</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Discontinuous XXXX1XX</td>
</tr>
<tr>
<td>Power Class for Band Class 0 Analog Operation</td>
<td>1 - 0</td>
<td>Class I XXXXXX00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Class II XXXXXX01</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Class III XXXXXX10</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reserved XXXXXX11</td>
</tr>
</tbody>
</table>

If the mobile station supports analog mode operation in Band Class 0, the mobile station shall set the Power Class function bits to reflect its analog power class at Band Class 0, regardless of the band class in which it is operating; otherwise, the mobile station shall set these bits to ‘00’.

2.3.4 Registration Memory

The mobile station shall have memory to store one element in the zone-based registration list ZONE_LIST_s-p (see 2.6.5.1.5 and 2.6.5.5). This stored element shall include both REG_ZONE and the corresponding (SID, NID) pair. The data retention time under power-off conditions shall be at least 48 hours. If, after 48 hours, the data integrity cannot be guaranteed, then the entry in ZONE_LIST_s-p shall be deleted upon power-on.

The mobile station shall have memory to store one element in the system/network registration list SID_NID_LIST_s-p (see 2.6.5.1.5 and 2.6.5.5). The data retention time under power-off conditions shall be at least 48 hours. If, after 48 hours, the data integrity cannot be guaranteed, then the entry in SID_NID_LIST_s-p shall be deleted upon power-on.

The mobile station shall have memory to store the distance-based registration variables BASE_LAT_REG_s-p, BASE_LONG_REG_s-p, and REG_DIST_REG_s-p (see 2.6.5.1.4 and 2.6.5.5). The data retention time under power-off conditions shall be at least 48 hours. If, after 48 hours, the data integrity cannot be guaranteed, then REG_DIST_REG_s-p shall be set to zero upon power-on.
2.3.5 Access Overload Class

The 4-bit access overload class indicator (ACCOLC\textsubscript{p}) is used to identify which overload class controls access attempts by the mobile station and is used to identify redirected overload classes in global service redirection.

The mobile station shall store 4-bit access overload class (ACCOLC\textsubscript{p}). Mobile stations that are not for test or emergency use should be assigned to overload classes ACCOLC 0 through ACCOLC 9. For mobile stations that are classified as overload classes ACCOLC 0 through ACCOLC 9, the mobile station’s 4-bit access overload class indicator (ACCOLC\textsubscript{p}) shall be automatically derived from the last digit of the associated decimal representation of the IMSI\_M by a decimal to binary conversion as specified in Table 2.3.5-1. When a mobile station’s IMSI\_M is updated, the mobile station shall re-calculate the ACCOLC\textsubscript{p} as indicated above. Mobile stations designated for test use should be assigned to ACCOLC 10; mobile stations designated for emergency use should be assigned to ACCOLC 11. ACCOLC 12 through ACCOLC 15 are reserved.\textsuperscript{3} Programming the 4-bit ACCOLC\textsubscript{p} for overload classes ACCOLC 10 through ACCOLC 15 as specified in Table 2.3.5-2 shall require a special facility only available to equipment manufacturers and system operators.

The content of ACCOLC\textsubscript{p} shall not be visible through the mobile station’s display.

| Table 2.3.5-1. ACCOLC\textsubscript{p} Mapping for ACCOLC 0 through ACCOLC 9 |
|-----------------------------|-----------------------------|
| Last Digit of the Decimal Representation of the IMSI (binary) | ACCOLC\textsubscript{p} |
| 0 | 0000 |
| 1 | 0001 |
| 2 | 0010 |
| 3 | 0011 |
| 4 | 0100 |
| 5 | 0101 |
| 6 | 0110 |
| 7 | 0111 |
| 8 | 1000 |
| 9 | 1001 |

\textsuperscript{3} For more information, refer to [28].
Table 2.3.5-2. ACCOLCₚ Mapping for ACCOLC 10 through ACCOLC 15

<table>
<thead>
<tr>
<th>Overload Class (binary)</th>
<th>ACCOLCₚ</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>1010</td>
</tr>
<tr>
<td>11</td>
<td>1011</td>
</tr>
<tr>
<td>12</td>
<td>1100</td>
</tr>
<tr>
<td>13</td>
<td>1101</td>
</tr>
<tr>
<td>14</td>
<td>1110</td>
</tr>
<tr>
<td>15</td>
<td>1111</td>
</tr>
</tbody>
</table>

2.3.6 Public Long Code Mask

The Public Long Code Mask consists of 42 bits (see [2]). The 37 least significant bits (PLCM₃₇) are set as follows:

Bits M₃₆ through M₃₂ shall be set to ‘11000’; bits M₃₁ through M₀ shall be set to a permutation of the mobile station’s ESN as follows:

ESN = (E₃₁, E₃₀, E₂₉, E₂₈, E₂₇, E₂₆, E₂₅, ... E₂, E₁, E₀)


2.3.7 Reserved

2.3.8 Home System and Network Identification

In addition to the HOME_SIDₚ parameter that the mobile station stores for 800 MHz analog operation, the mobile station shall provide memory to store at least one home (SIDₚ, NIDₚ) pair. The mobile station shall also provide memory to store the 1-bit parameters MOB_TERM_HOMEₚ, MOB_TERM_FOR_SIDₚ, and MOB_TERM_FOR_NIDₚ (see 2.6.5.3).

2.3.9 Local Control Option

If the mobile station supports the local control option, a means shall be provided within the mobile station to enable or disable the local control option.

2.3.10 Preferred Operation Selection

2.3.10.1 Preferred System

If the mobile station supports operation in Band Class 0 or Band Class 3 (see [2]), a means shall be provided within the mobile station to identify the preferred system. In addition, the mobile station may provide a means for allowing operation only with System A or only with System B.
2.3.10.2 Preferred CDMA or Analog

If the mobile station supports operation in Band Class 0 (see [2]), a means may be provided within the mobile station to identify the preferred operation type as either CDMA mode or analog mode. In addition, the mobile station may provide a means for allowing operation only in the preferred mode.

2.3.11 Discontinuous Reception

The mobile station shall provide memory to store the preferred slot cycle index, SLOT_CYCLE_INDEX_p (see 2.6.2.1.3.2).

2.3.12 Authentication, Encryption of Signaling Information/User Data and Voice Privacy

2.3.12.1 Authentication

Authentication is the process by which information is exchanged between a mobile station and base station for the purpose of confirming the identity of the mobile station. A successful outcome of the authentication process occurs only when it can be demonstrated that the mobile station and base station possess identical sets of shared secret data.

The authentication algorithms are described in [15]. The interface (input and output parameters) for the algorithms is described in [23], Table 2.3.12.1-1 summarizes the setting of the input parameters of the Auth_Signature procedure for each of its uses in this standard.

For authentication purposes, the mobile station shall use IMSI_M if it is programmed; otherwise, the mobile station shall use IMSI_T. The base station uses the IMSI selected according to the same criteria.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>RAND_CHALLENGE</th>
<th>ESN</th>
<th>AUTH_DATA</th>
<th>SSD_AUTH</th>
<th>SAVE_REGS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unique Challenge (2.3.12.1.4)</td>
<td>RANDU and 8 LSBs of IMSI_S2</td>
<td>ESN_p</td>
<td>IMSI_S1</td>
<td>SSD_A</td>
<td>FALSE</td>
</tr>
<tr>
<td>Base Station Challenge</td>
<td>RANDBS</td>
<td>ESN_p</td>
<td>IMSI_S1</td>
<td>SSD_A</td>
<td>NEW</td>
</tr>
</tbody>
</table>

2.3.12.1.1 Shared Secret Data (SSD)

SSD is a 128-bit quantity that is stored in semi-permanent memory in the mobile station and is readily available to the base station. As depicted in Figure 2.3.12.1.1-1, SSD is partitioned into two distinct subsets. Each subset is used to support a different process.
SSD_A is used to support the authentication procedures and SSD_B is used to support voice privacy (see 2.3.12.3) and message encryption (see 2.3.12.2). SSD is generated according to the procedure specified in 2.3.12.1.5. The SSD shall not be accessible to the user.

2.3.12.1.2 Random Challenge Memory (RAND)

RAND is a 32-bit value held in the mobile station. When operating in CDMA mode, it is equal to the RAND value received in the last Access Parameters Message (see 3.7.2.3.2.2) or the ANSI-41 RAND Message (see 3.7.2.3.2.31) of the CDMA f-csch.

RANDs is used in conjunction with SSD_A and other parameters, as appropriate, to authenticate mobile station originations, terminations and registrations.

2.3.12.1.3 Call History Parameter (COUNTs-p)

COUNTs-p is a modulo-64 count held in the mobile station. COUNTs-p is updated by the mobile station when a Parameter Update Order is received on the f-dsch (see 3.7.4).

2.3.12.1.4 Unique Challenge-Response Procedure

The Unique Challenge-Response Procedure is initiated by the base station and can be carried out either on the f-csch and r-csch, or on the f-dsch and r-dsch. The procedure is as follows:

The base station generates the 24-bit quantity RANDU and sends it to the mobile station in the Authentication Challenge Message on either the f-csch or f-dsch. Upon receipt of the Authentication Challenge Message, the mobile station shall set the input parameters of the Auth_Signature procedure (see [23] section 2.3) as illustrated in Figure 2.3.12.1.5-3. The 24 most significant bits of the RAND_CHALLENGE input parameter shall be filled with RANDU, and the 8 least significant bits of RAND_CHALLENGE shall be filled with the 8 least significant bits of IMSI_S2.

The mobile station shall set the SAVE_REGISTERS input parameter to FALSE.

The mobile station shall then execute the Auth_Signature procedure. The 18-bit output AUTH_SIGNATURE shall be used to fill the AUTHU field of the Authentication Challenge Response Message, which shall be sent to the base station.

The base station computes the value of AUTHU in the same manner as the mobile station, but using its internally stored value of SSD_A. The base station compares its computed value of AUTHU to the value received from the mobile station. If the comparison fails, the base station may deny further access attempts by the mobile station, drop the call in progress, or initiate the process of updating SSD (see 2.3.12.1.5).
2.3.12.1.5 Updating the Shared Secret Data (SSD)

SSD is updated using the SSD_Generation procedure (see [23], section 2.2.1), initialized with mobile station specific information, random data, and the mobile station’s A-key. The A-key is 64 bits long. It is assigned to the mobile station and is stored in the mobile station’s permanent security and identification memory. The A-key is known only to the mobile station and to its associated Home Location Register/Authentication Center (HLR/AC) (see [13]). Non-manual methods, such as described in [26], are preferred for entry of the A-key into the mobile station. A manual method of entry that may be used when automated methods are not available is described in [29].

The SSD update procedure is performed as follows (see Figure 2.3.12.1.5-1):

The base station sends an SSD Update Message on either the f-csch or the f-dsch. The RANDSSD field of the SSD Update Message contains the same value used for the HLR/AC computation of SSD.

Upon receipt of the SSD Update Message the mobile station shall set the input parameters of the SSD_Generation procedure (see [23], section 2.2.1) as illustrated in Figure 2.3.12.1.5-2. The mobile station shall then execute the SSD_Generation procedure. The mobile station shall set SSD_A_NEW and SSD_B_NEW to the outputs of the SSD_Generation procedure.

The mobile station shall then select a 32-bit random number, RANDBS, and shall send it to the base station in a Base Station Challenge Order on the r-csch or r-dsch.

Both the mobile station and the base station shall then set the input parameters of the Auth_Signature procedure (see [23], section 2.3) as illustrated in Figure 2.3.12.1.5-3 and shall execute the Auth_Signature procedure.

The mobile station and base station shall set the SAVE_REGISTERS input parameter to FALSE.

The mobile station and base station shall execute the Auth_Signature procedure. AUTHBS is set to the 18-bit result AUTH_SIGNATURE. The base station sends its computed value of AUTHBS to the mobile station in a Base Station Challenge Confirmation Order on the f-csch or the f-dsch.

Upon receipt of the Base Station Challenge Confirmation Order the mobile station shall compare the received value of AUTHBS to its internally computed value. (If the mobile station receives a Base Station Challenge Confirmation Order when an SSD update is not in progress, the mobile station shall respond with an SSD Update Rejection Order.)

If the comparison is successful, the mobile station shall execute the SSD_Update procedure (see [23], section 2.2.2) to set SSD_A and SSD_B to SSD_A_NEW and SSD_B_NEW, respectively. The mobile station shall then send an SSD Update Confirmation Order to the base station, indicating successful completion of the SSD update.

If the comparison is not successful, the mobile station shall discard SSD_A_NEW and SSD_B_NEW. The mobile station shall then send an SSD Update Rejection Order to the base station, indicating unsuccessful completion of the SSD update.
Upon receipt of the **SSD Update Confirmation Order**, the base station sets SSD_A and SSD_B to the values received from the HLR/AC (see [13]).

If the mobile station fails to receive the **Base Station Challenge Confirmation Order** within $T_{64\text{m}}$ seconds of when the acknowledgment to the **Base Station Challenge Order** was received, the mobile station shall discard SSD_A_NEW and SSD_B_NEW. The mobile station shall then terminate the SSD update process.

![SSD Update Message Flow](image)
Figure 2.3.12.1.5-2. Computation of Shared Secret Data (SSD)

Figure 2.3.12.1.5-3. Computation of AUTHBS
2.3.12.2 Signaling Message Encryption

In an effort to enhance the authentication process and to protect sensitive subscriber information (such as PINs), a method is provided to encrypt certain fields of selected f-dsch or r-dsch signaling messages.

The following is a description of the messages on f-dsch (See section 2.3.12.2.1) and r-dsch (see 2.3.12.2.2) that are enciphered using the Cellular Message Encryption Algorithm (see section 2.5.1, [15]) or the Enhanced Cellular Message Encryption Algorithm (see section 2.5.2, [15]), and when ENCRYPT_MODE is set to ‘01’ or ‘10’. The availability of encryption algorithm information is under government control.

For each message, the enciphered fields are identified. The messages are grouped by channel designation.

Messages shall not be encrypted if authentication is not performed (AUTH is set to ‘00’). See [23] for details of the initialization and use of the encryption procedure.

Signaling message encryption is controlled for each call individually. If PREV_IN_USE is less than or equal to six, the mobile station identifies its encryption capability in the ENCRYPTION_SUPPORTED field in the Origination Message and the Page Response Message as shown in Table 2.7.1.3.2.4-5. If PREV_IN_USE is greater than or equal to seven, the mobile station identifies its encryption capability in the SIG_ENCRYPT_SUP field in Registration Message, Origination Message, Page Response Message, Security Mode Request Message, and the encryption capability information record in Status Response Message and Extended Status Response Message, as shown in Table 2.7.1.3.2.1-5. The initial encryption mode for the call is established by setting the ENCRYPT_MODE field to ‘00’, ‘01’, or ‘10’ in the Channel Assignment Message or in the Extended Channel Assignment Message. If ENCRYPT_MODE is set to ‘00’, message encryption is off. To turn encryption on after channel assignment, the base station sends one of the following f-dsch messages to the mobile station:

- Extended Handoff Direction Message with the ENCRYPT_MODE field set to ‘01’ or ‘10’
- General Handoff Direction Message with the ENCRYPT_MODE field set to ‘01’ or ‘10’
- Universal Handoff Direction Message with the ENCRYPT_MODE field set to ‘01’ or ‘10’
- Analog Handoff Direction Message with the MEM field set to ‘1’
- Message Encryption Mode Order with the ENCRYPT_MODE field set to ‘01’ or ‘10’

To turn signaling message encryption off, the base station sends one of the following f-dsch messages to the mobile station:

- Extended Handoff Direction Message with the ENCRYPT_MODE field set to ‘00’
- General Handoff Direction Message with the ENCRYPT_MODE field set to ‘00’
- Universal Handoff Direction Message with the ENCRYPT_MODE field set to ‘00’
Analog Handoff Direction Message with the MEM field set to ‘0’

Message Encryption Mode Order with the ENCRYPT_MODE field set to ‘00’

Encryption shall apply only to the part of the Layer 3 message specified below.

When encryption is off, all fields of all Layer 3 messages sent by the mobile station and base station are unencrypted.

When additional octets are inserted, the overall Lower Layers message length is updated to reflect the addition. Specific Layer 3 record length fields (e.g., RECORD_LEN, NUM_FIELDS, or NUM_DIGITS) shall not be affected by the insertion of additional bits.

If the Enhanced Cellular Message Encryption Algorithm is used, the following requirements apply:

- The mobile station and base station shall each maintain an 8-bit encryption sequence counter. The encryption sequence counter shall be incremented modulo 256 for each new encryption. The counter value, hereafter called ES_COUNT, shall be used to form the SYNC parameter of the Enhanced Cellular Message Encryption Algorithm as described below.
- As part of each encryption, an additional octet of value ES_COUNT shall be inserted immediately following the encrypted part of the message. This additional octet shall not be encrypted. The additional octet shall be removed from the message after decryption.

2.3.12.2.1 Encrypted Messages on the f-dsch

When encryption is on (ENCRYPT_MODEs equal to binary ‘01’ or ‘10’), the encryptable fields of the following messages sent on f-dsch, as listed below, shall be encrypted. All other messages sent on f-dsch shall be unencrypted.

1. Alert With Information Message (see 3.7.3.3.2.3) and Extended Alert With Information Message (see 3.7.3.3.2.42) are encrypted.

The type-specific fields of all information records (see 3.7.5) shall be encrypted. For each information record, the type-specific fields shall be treated by the encryption procedure as a new single message. If the type-specific fields of an information record consist of a single octet (RECORD_LEN field equal to 1), an additional octet of value ‘00000000’ shall be inserted following the information record and shall be encrypted as if part of the record. (If the RECORD_LEN field is 0, the information record contains no type-specific fields, and the record contains no encrypted data.)

No other fields in the Alert With Information Message and Extended Alert With Information Message are encrypted.

If the Enhanced Cellular Message Encryption Algorithm is used (ENCRYPT_MODEs equal to binary ‘10’), the following requirements apply for each information record:

- The DATA_TYPE parameter shall be set to ‘0’.
- The SYNC parameter shall be set as follows:
2. Flash With Information Message (see 3.7.3.3.2.14) and Extended Flash With Information Message (see 3.7.3.3.2.43) are encrypted.

   The type-specific fields of all information records (see 3.7.5) shall be encrypted. For each information record, the type-specific fields shall be treated by the encryption procedure as a new single message. If the type-specific fields of an information record consist of a single octet (RECORD_LEN field equal to 1), an additional octet of value ‘00000000’ shall be inserted following the information record and shall be encrypted as if part of the record. (If the RECORD_LEN field is 0, the information record contains no type-specific fields, and the record contains no encrypted data.)

   No other fields in the Flash With Information Message and Extended Flash With Information Message are encrypted.

   If the Enhanced Cellular Message Encryption Algorithm is used (ENCRYPT_MODE equals to binary ‘10’), the following requirements apply for each information record:
      - The DATA_TYPE parameter shall be set to ‘0’.
      - The SYNC parameter shall be set as follows:
         - SYNC[0] = ES_COUNT
         - SYNC[1] = RECORD_TYPE

3. Send Burst DTMF Message (see 3.7.3.3.2.9) is encrypted.

   The DIGITi fields of the Send Burst DTMF Message shall be encrypted. These fields are treated by the encryption procedure as a new single message, with the 4-bit digit codes packed into consecutive octets. If the NUM_DIGITS field contains an odd number, four bits of value ‘0000’ shall follow the last digit and shall be included in the encrypted message. If NUM_DIGITS is less than 3, an additional eight bits of value ‘00000000’ shall follow the DIGITi fields and shall be included in the encrypted part of the message.

   If the Enhanced Cellular Message Encryption Algorithm is used (ENCRYPT_MODE equals to binary ‘10’), the following requirements apply:
      - The DATA_TYPE parameter shall be set to ‘0’.
      - The SYNC parameter shall be set as follows:
         - SYNC[0] = ES_COUNT
         - SYNC[1] = MSG_TYPE = ‘00001001’

4. Continuous DTMF Tone Order (see 3.7.3.3.2.1) is encrypted.

   The 16 bits comprised of ADD_RECORD_LEN, the order-specific fields and the first five (5) bits of the RESERVED field shall be encrypted. These fields shall be treated by the encryption procedure as a new single message.

   If the Enhanced Cellular Message Encryption Algorithm is used (ENCRYPT_MODE equals to binary ‘10’), the following requirements apply:
      - The DATA_TYPE parameter shall be set to ‘0’.
      - The SYNC parameter shall be set as follows:
         - SYNC[0] = ES_COUNT
         - SYNC[1] = MSG_TYPE = ‘00001001’
equal to binary ‘10’), the following requirements apply:

- The DATA_TYPE parameter shall be set to ‘0’.
- The SYNC parameter shall be set as follows:
  - $SYNC[0] = ES\_COUNT$
  - $SYNC[1] = MSG\_TYPE = ‘00000001’$

5. **Data Burst Message** (see 3.7.3.3.2.4) is encrypted.

If BURST_TYPE is equal to ‘111110’ or ‘111111’, all CHARi fields after the first two shall be encrypted; otherwise, all CHARi fields shall be encrypted.

If the CHARi field consists of a single octet (NUM_FIELDS field equal to 1), an additional octet of value ‘00000000’ shall be inserted following the information record and shall be encrypted as if part of the record. (If the NUM_FIELDS field is 0, the information record contains no type-specific fields, and the record contains no encrypted data).

If the Cellular Message Encryption Algorithm is used (ENCRIPT_MODES equal to binary ‘01’), the following requirements apply:

- If BURST_TYPE is equal to ‘000011’ (SMS) or ‘000100’ (OTASP), the message shall be encrypted.
- For all other values of BURST_TYPE, the message shall be encrypted only if encryption is required by the service option standard governing use of the Data Burst Message; otherwise, the message shall not be encrypted.

If the Enhanced Cellular Message Encryption Algorithm is used (ENCRIPT_MODES equal to binary ‘10’), the following requirements apply:

- If BURST_TYPE is equal to ‘000100’ (OTASP), the DATA_TYPE parameter shall be set to ‘0’. Otherwise, the DATA_TYPE parameter shall be set to ‘1’.
- The SYNC parameter shall be set as follows:
  - $SYNC[0] = ES\_COUNT$
  - $SYNC[1] = MSG\_TYPE = ‘00000100’$

6. **Power Up Function Completion Message** (see 3.7.3.3.2.30) is encrypted.

If the LOC_IND field is set to ‘1’, the fields RESERVED (3 bits), MS_LAT (22 bits), MS_LONG (23 bits), and MS_LOC_TSTAMP (24 bits) are encrypted. These fields shall be treated by the encryption procedure as a new single message.

Otherwise, if the LOC_IND field is set to ‘0’, no fields in this message are encrypted.

If the Enhanced Cellular Message Encryption Algorithm is used (ENCRIPT_MODES equal to binary ‘10’), the following requirements apply:

- The DATA_TYPE parameter shall be set to ‘1’.
- The SYNC parameter shall be set as follows:
2.3.12.2.2 Encrypted Messages on the r-dsch

When encryption is on (ENCRYPT_MODE equals to binary ‘01’ or ‘10’) the encryptable fields of the following r-dsch Layer 3 messages, as listed below, shall be encrypted. All other r-dsch messages shall be unencrypted.

1. Origination Continuation Message (see 2.7.2.3.2.9) and Enhanced Origination Message are encrypted.

   The CHARi fields of the Origination Continuation Message and Enhanced Origination Message shall be encrypted. These fields shall be treated by the encryption procedure as a new single message, with the character codes packed into consecutive octets. If DIGIT_MODE is ‘0’ and the NUM_FIELDS field contains an odd number, four bits of value ‘0000’ shall follow the last digit and shall be included in the encrypted part of the message. In addition, if ENCRYPT_MODE is equal to ‘01’, the following requirement applies:

   - If DIGIT_MODE is ‘0’ and NUM_FIELDS is less than 3, or if DIGIT_MODE is ‘1’ and NUM_FIELDS is less than 2, an additional eight bits of value ‘00000000’ shall follow the CHARi fields and shall be included in the encrypted part of the message.

If the Enhanced Cellular Message Encryption Algorithm is used (ENCRYPT_MODE equal to binary ‘10’), the following requirements apply:

   - The DATA_TYPE parameter shall be set to ‘0’.
   - The SYNC parameter shall be set as follows:
     - SYNC[0] = ES_COUNT
     - SYNC[1] = MSG_TYPE = ‘00011001’ for Origination Continuation Message

The type-specific fields of all information records (see 2.7.4) in the Origination Continuation Message and Enhanced Origination Message shall be encrypted. For each information record, the type-specific fields shall be treated by the encryption procedure as a new single message. If the type-specific fields of an information record consist of a single octet (RECORD_LEN field equal to 1), an additional octet of value ‘00000000’ shall be inserted following the information record and shall be encrypted as if part of the record. (If the RECORD_LEN field is 0, the information record contains no type-specific fields, and the record contains no encrypted data.)

If the Enhanced Cellular Message Encryption Algorithm is used (ENCRYPT_MODE equal to binary ‘10’), the following requirements apply for each information record:

   - The DATA_TYPE parameter shall be set to ‘0’.
   - The SYNC parameter shall be set as follows:
2. Flash With Information Message (see 2.7.2.3.2.3) and Extended Flash With Information Message (see 2.7.2.3.2.32) are encrypted. The type-specific fields of all information records (see 2.7.4) shall be encrypted. For each information record, the type-specific fields shall be treated by the encryption procedure as a new single message. If the type-specific fields of an information record consist of a single octet (RECORD_LEN field equal to 1), an additional octet of value ‘00000000’ shall be inserted following the information record and shall be encrypted as if part of the record. (If the RECORD_LEN field is 0, the information record contains no type-specific fields, and the record contains no encrypted data.) No other fields in the Flash With Information Message and Extended Flash With Information Message are encrypted.

If the Enhanced Cellular Message Encryption Algorithm is used (ENCRYPT_MODE equal to binary ‘10’), the following requirements apply for each information record:

- The DATA_TYPE parameter shall be set to ‘0’.
- The SYNC parameter shall be set as follows:
  - SYNC[0] = ES_COUNT
  - SYNC[1] = RECORD_TYPE

3. Send Burst DTMF Message (see 2.7.2.3.2.7) is encrypted. The DIGITi fields of the Send Burst DTMF Message shall be encrypted. These fields shall be treated by the encryption procedure as a new single message, with the 4-bit digit codes packed into consecutive octets. If the NUM_DIGITS field contains an odd number, four bits of value ‘0000’ shall follow the last digit and shall be included in the encrypted message. If NUM_DIGITS is less than 3, an additional eight bits of value ‘00000000’ shall follow the DIGITi fields and shall be included in the encrypted part of the message.

If the Enhanced Cellular Message Encryption Algorithm is used (ENCRYPT_MODE equal to binary ‘10’), the following requirements apply:

- The DATA_TYPE parameter shall be set to ‘0’.
- The SYNC parameter shall be set as follows:
  -SYNC[0] = ES_COUNT
  -SYNC[1] = MSG_TYPE = ‘00000111’

4. Continuous DTMF Tone Order (see 2.7.2.3.2.1) is encrypted. The 16 bits comprised of ADD_RECORD_LEN, the order-specific fields and the first five (5) bits of the RESERVED field shall be encrypted. These fields shall be treated by the encryption procedure as a new single message.

If the Enhanced Cellular Message Encryption Algorithm is used (ENCRYPT_MODE equal to binary ‘10’), the following requirements apply:

- The DATA_TYPE parameter shall be set to ‘0’.
- The SYNC parameter shall be set as follows:
  -SYNC[0] = ES_COUNT
  -SYNC[1] = MSG_TYPE = ‘00000111’
equal to binary ‘10’), the following requirements apply:

- The DATA_TYPE parameter shall be set to ‘0’.
- The SYNC parameter shall be set as follows:
  - \( \text{SYNC}[0] = \text{ES\_COUNT} \)
  - \( \text{SYNC}[1] = \text{MSG\_TYPE} = ‘00000001’ \)

5. **Data Burst Message** (see 2.7.2.3.2.4) is encrypted.

If BURST_TYPE is equal to ‘111110’ or ‘111111’, all CHARi fields after the first two shall be encrypted; otherwise, all CHARi fields shall be encrypted.

If the CHARi field consists of a single octet (NUMFields field equal to 1), an additional octet of value ‘00000000’ shall be inserted following the information record and shall be encrypted as if part of the record. (If the NUM_FIELDS field is 0, the information record contains no type-specific fields, and the record contains no encrypted data).

If the Cellular Message Encryption Algorithm is used (ENCYP\_MODEs equal to binary ‘01’), the following requirements apply:

- If BURST_TYPE is equal to ‘000011’ (SMS) or ‘000100’ (OTASP), the message shall be encrypted.
- For all other values of BURST_TYPE, the message shall be encrypted only if encryption is required by the service option standard governing use of the Data Burst Message; otherwise, the message shall not be encrypted.

If the Enhanced Cellular Message Encryption Algorithm is used (ENCYP\_MODEs equal to binary ‘10’), the following requirements apply:

- If BURST_TYPE is equal to ‘000100’ (OTASP), the DATA_TYPE parameter shall be set to ‘0’. Otherwise, the DATA_TYPE parameter shall be set to ‘1’.
- The SYNC parameter shall be set as follows:
  - \( \text{SYNC}[0] = \text{ES\_COUNT} \)
  - \( \text{SYNC}[1] = \text{MSG\_TYPE} = ‘00000100’ \)

2.3.12.3 Voice Privacy

Also see [2].

Voice privacy is provided in the CDMA system by means of the private long code mask used for PN spreading.

Voice privacy is provided on the Traffic Channels only. All calls are initiated using the public long code mask for PN spreading. The mobile station user may request voice privacy during call setup using the *Origination Message* or *Page Response Message*, and during Traffic Channel operation using the *Long Code Transition Request Order*.

The transition to private long code mask shall not be performed if authentication is not performed (AUTHs is set to ‘00’ or mobile station unable to perform authentication).
To initiate a transition to the private or public long code mask, either the base station or the mobile station sends a *Long Code Transition Request Order* on the f-dsch or r-dsch. The mobile station actions in response to receipt of this order are specified in 2.6.4, and the base station actions in response to receipt of this order are specified in 3.6.4.

The base station can also cause a transition to the private or public long code mask by sending the *Extended Handoff Direction Message*, the *General Handoff Direction Message*, or the *Universal Handoff Direction Message* with the PRIVATE_LCM bit set appropriately.

### 2.3.12.4 Extended Encryption for Signaling Message and User Information

In an effort to enhance the authentication process and to protect sensitive subscriber information (such as PINs), a method is provided to encrypt selected f-dsch, r-dsch, f-csch, or r-csch Layer 3 signaling PDUs.

The availability of encryption algorithm information is under government control.

Extended encryption is an encryption framework used for encrypting/decrypting both signaling messages and user information on f/r-dsch or f/r-csch. Signaling message and user information encryption algorithms can be negotiated independently. Signaling message and user information encryption can be turned on or off independently.

**Signaling messages or user information** shall not be encrypted if authentication is not performed (i.e., when AUTH is set to ‘00’. See 2.3.12.1). See [23] for details of the initialization and use of the encryption procedure.

#### 2.3.12.4.1 Extended Encryption for Signaling Messages

**Signaling messages** with zero length shall be sent un-encrypted, in which case Layer 3 shall indicate to LAC layer that the messages are sent un-encrypted, and the following encryption/decryption procedures shall not be performed on the messages.

All mini messages shall be sent un-encrypted, in which case the following encryption/decryption procedures shall not be performed on the messages.

When sending a *Registration Accepted Order*, *Security Mode Command Message*, or *Base Station Reject Order*, the base station should use assured mode.

The initial encryption mode for the call is established by setting one of the following in the *Channel Assignment Message*, *Extended Channel Assignment Message*, *Registration Accepted Order*, or *Security Mode Command Message.:

- ENCRYPT_MODE field is set to ‘00’;
- ENCRYPT_MODE field is set to ‘11’ and the SIG_ENCRYPT_MODE field is set to ‘000’ or ‘001’.

If the ENCRYPT_MODE field is set to ‘00’, or if the ENCRYPT_MODE field is set to ‘11’ and the SIG_ENCRYPT_MODE field is set to ‘000’, message encryption is off. To turn encryption on after channel assignment, the base station sends one of the following f-dsch messages to the mobile station:
General Handoff Direction Message with the ENCRYPT_MODE field set to ‘11’ and the SIG_ENCRYPT_MODE field set to ‘001’.

Universal Handoff Direction Message with the ENCRYPT_MODE field set to ‘11’ and the SIG_ENCRYPT_MODE field set to ‘001’.

Security Mode Command Message with the ENCRYPT_MODE field set to ‘11’ and the SIG_ENCRYPT_MODE field set to ‘001’.

To turn signaling message encryption off, the base station sends one of the following f-dsch messages to the mobile station:

- General Handoff Direction Message with the ENCRYPT_MODE field set to ‘00’, or the ENCRYPT_MODE field set to ‘11’ and the SIG_ENCRYPT_MODE field set to ‘000’.
- Universal Handoff Direction Message with the ENCRYPT_MODE field set to ‘00’, or the ENCRYPT_MODE field set to ‘11’ and the SIG_ENCRYPT_MODE field set to ‘000’.
- Security Mode Command Message with the ENCRYPT_MODE field set to ‘00’, or the ENCRYPT_MODE field set to ‘11’ and the SIG_ENCRYPT_MODE field set to ‘000’.

2.3.12.4.1.1 Extended Encryption for Signaling on f/r-csch

To turn f/r-csch signaling encryption on or off, the base station sends a Registration Accepted Order or Security Mode Command Message on f-csch, with the C_SIG_ENCRYPT_MODE field set to one of the values specified in Table 3.7.4.5-1. The value of C_SIG_ENCRYPT_MODE is then stored in C_SIG_ENCRYPT_MODE.

If C_SIG_ENCRYPT_MODE is not equal to ‘000’ and ENC_KEY is not equal to NULL, all f/r-csch signaling messages shall be encrypted based on the value of C_SIG_ENCRYPT_MODE using the procedures specified in 2.3.12.4.1.3; except for the exceptions listed below in the rest of this section.

If the mobile station sends an encrypted Registration Message, Origination Message, or Page Response Message, and receives a layer 2 acknowledgement from the base station, but does not receive any Layer 3 message from the base station that the mobile station could decrypt successfully thereafter, then the mobile station should resend the same message un-encrypted.

On the f-csch, General Page Message, Universal Page Message, Registration Request Order, Authentication Challenge Message, and Registration Accepted Order shall be sent un-encrypted. Channel Assignment Message, Extended Channel Assignment Message, and Security Mode Command Message may be sent un-encrypted. All overhead messages and all signaling messages with a broadcast address type shall be sent un-encrypted.

On the r-csch, Registration Message, Page Response Message, Authentication Challenge Response Message, and Security Mode Request Message shall be sent un-encrypted. When sending an Origination Message, if all of the following conditions are true, the mobile station shall not include the dialed digits in the Origination Message, and the mobile station shall include the dialed digits in the Origination Continuation Message:

- The base station supports extended encryption;
• C_SIG_ENCRYPT_MODE is equal to ‘000’ or ENC_KEY is equal to NULL;
• C_SIG_ENCRYPT_REQ is set to ‘1’ or D_SIG_ENCRYPT_REQ is set to ‘1’ in the Origination Message;
• The mobile station does not recognize that this is an emergency call.

2.3.12.4.1.2 Extended Encryption for Signaling on f/r-dsch

The initial mode of extended encryption for f/r-dsch signaling messages is established by sending a Channel Assignment Message or Extended Channel Assignment Message with the ENCRYPT_MODE field set to ‘11’ and the D_SIG_ENCRYPT_MODE field set to one of the values specified in Table 3.7.4.5-1. The value of D_SIG_ENCRYPT_MODE is then stored in D_SIG_ENCRYPT_MODE.

To turn f/r-dsch signaling encryption on or off after channel assignment, the base station sends a General Handoff Direction Message or Universal Handoff Direction Message with the ENCRYPT_MODE field and the D_SIG_ENCRYPT_MODE field set accordingly. Alternatively, the base station may send a Security Mode Command Message on f-dsch with the D_SIG_ENCRYPT_MODE field set accordingly.

If D_SIG_ENCRYPT_MODE is not equal to ‘000’ and ENC_KEY is not equal to NULL, all f/r-dsch signaling messages shall be encrypted based on the value of D_SIG_ENCRYPT_MODE using the procedures specified in 2.3.12.4.1.3, except for the exceptions listed below in the rest of this section.

On the f-dsch, the Security Mode Command Message may be sent un-encrypted. The Base Station Reject Order shall be sent un-encrypted.

On the r-dsch, the Security Mode Request Message shall be sent un-encrypted.

2.3.12.4.1.3 Signaling Encryption/Decryption Procedures

In order to perform signaling encryption/decryption on f/r-csch or f/r-dsch, both the mobile station and the base station shall each maintain the following 32-bit counters:

• EXT_ENCRYPT_SEQ[i] (the 32-bit crypto-sync for encryption, i = 0 and 1)
• EXT_DECRYPT_SEQ[i] (the 32-bit crypto-sync for decryption, i = 0 and 1)

The above counters in the base station and the mobile station shall only be initialized by a Registration Accepted Order, Channel Assignment Message, Extended Channel Assignment Message, or Security Mode Command Message in response to a Registration Message, Origination Message, Page Response Message, or Security Mode Request Message that carries an ENC_SEQ_H field with a valid ENC_SEQ_H_SIG field. The response to a

---

4 If ENCRYPT_MODE is set to a value other than ‘11’, see section 2.3.12.2.1.
5 The mobile station should select a different value of ENC_SEQ_H every time ENC_SEQ_H is included in a message. This is to prevent the re-use of the same 24 most significant bits of the 32-bit crypto-sync.
Registration Message is a Registration Accepted Order. The response to an Origination Message or Page Response Message is a Channel Assignment Message or Extended Channel Assignment Message. The response to a Security Mode Request Message is a Security Mode Command Message.

Upon initialization of the crypto-sync counters, the following initialization shall be performed at the mobile station:

- The 24 most significant bits of EXT_ENCRYPT_SEQ[i] and EXT_DECRYPT_SEQ[i] shall be set to the value of the ENC_SEQ_H field included in the message for \( i = 0 \) and 1.
- The 8 least significant bits of EXT_ENCRYPT_SEQ[i] and EXT_DECRYPT_SEQ[i] shall be set to 0 for \( i = 0 \) and 1.

The sender shall perform the following procedures for each Layer 3 PDU (including all Layer 3 PDU retransmitted by Layer 3) that is to be encrypted:

If ENCRYPT_MODE_s is equal to ‘11’ and SIG_ENCRYPT_MODE_s is equal to ‘001’, the mobile station or the base station shall perform the following procedures for transmission of messages that are to be encrypted, in the order listed:

1. The sender shall append between 0 and 7 inclusive padding bits (set to any random combination of ‘0’s and ‘1’s) to the Layer 3 PDU such that the length of the padded Layer 3 PDU in bits is an integer multiple of eight (the padding bits become part of the L3 PDU).
2. The sender shall compute an 8-bit Layer 3 PDU CRC as specified in 2.3.12.4.1.4 over the un-encrypted Layer 3 PDU (including the padding bits, if any).
3. The sender shall append the 8-bit CRC to the end of the Layer 3 PDU.
4. The sender shall set EXT_ENC_SEQ to \((EXT_ENC_SEQ + 1) \mod 2^{32}\), and set ENC_SEQ to the 8 least significant bits of the crypto-sync, EXT_ENC_SEQ. If the PDU is to be transmitted on f/r-csch, let SDU_ENCRYPT_MODE equal C_SIG_ENCRYPT_MODE_s. If the PDU is to be transmitted on f/r-dsch, let SDU_ENCRYPT_MODE equal D_SIG_ENCRYPT_MODE_s. If the Layer 3 PDU uses unassured mode, let \( i = 0 \); otherwise, let \( i = 1 \).
5. The sender of the message shall encrypt the concatenated Layer 3 PDU and the 8-bit Layer 3 CRC using the encryption procedures specified in 2.3.12.4.1.2. Let EXT_ENC_SEQ equal EXT_ENC_SEQ[i]. Encrypt the concatenated Layer 3 PDU and the 8-bit CRC by using EXT_ENC_SEQ and the encryption algorithm specified by SDU_ENCRYPT_MODE, in accordance with 2.3.12.4.3.
6. Let ENC_SEQ be the 8 least significant bits of EXT_ENC_SEQ[i]. The sender shall pass the encrypted concatenated Layer 3 PDU and the 8-bit Layer 3 CRC, along with ENC_SEQ_s and the signaling encryption mode indicated by SIG_SDU_ENCRYPT_MODE_s, to the LAC layer.
7. Set EXT_ENC_SEQ[i] to \((EXT_ENC_SEQ[i] + 1) \mod 2^{32}\).
If ENCRYPT_MODE is not equal to ‘11’, or ENCRYPT_MODE is equal to ‘11’ and SIG_ENCRYPT_MODE is equal to ‘000’, the mobile station and base station shall not perform the above encryption procedures for Layer 3 PDU as specified in this section.

The mobile station or the base station shall perform the following procedures upon reception of encrypted messages (i.e., if SDU_ENCRYPT_MODE indicated by LAC Layer is equal to ‘001’), in the order listed:

1. The receiver of the message shall update EXT_ENC_SEQ as specified in 2.3.12.4.1.1 by using the 8-bit ENC_SEQ passed from the LAC Layer. If the Layer 3 PDU uses unassured mode, let $i = 0$ and $N = 8$; otherwise, let $i = 1$ and $N = 4$. Let $V$ be the 8 least significant bits of EXT_ENC_SEQ D[$i$]. Perform the duplicate detection procedures in accordance with 2.3.12.4.1.5 using $N$ and $V$, before proceeding further.

2. The receiver of the message shall set ENC_SEQ to ENC_SEQ, which is received from the LAC Layer. Construct EXT_ENC_SEQ as follows:

   If $(ENC_SEQ - V) \mod 256 < 128$:
   
   $EXT\_ENC\_SEQ[i] = (EXT\_DECRYPT\_SEQ[i] + (ENC_SEQ - V) \mod 256) \mod 2^{32}$

   Else:
   
   $EXT\_ENC\_SEQ[i] = (EXT\_DECRYPT\_SEQ[i] - (V - ENC_SEQ) \mod 256) \mod 2^{32}$

3. The receiver of the message shall remove the LAC Layer padding, at the end of the Layer 3 PDU, if any, such that the Layer 3 PDU is octet aligned.

4. The receiver of the message shall decrypt the concatenated Layer 3 PDU and the 8-bit Layer 3 CRC using EXT_ENC_SEQ and the encryption algorithm specified by SDU_ENCRYPT_MODE, in accordance with 2.3.12.4.3, the decryption procedures specified in 2.3.12.4.1.2.

5. The receiver of the message shall compute an 8-bit CRC as specified in 2.3.12.4.1.4 over the un-encrypted Layer 3 PDU (excluding the received 8-bit CRC).

6. The receiver of the message shall compare the value of the computed CRC with the decrypted 8-bit CRC. If the two CRCs are equal, the receiver shall declare that the decryption has been performed successfully; otherwise, the decryption is defined to be unsuccessful.

7. If the decryption was unsuccessful, the message shall be discarded; otherwise, if $(ENC\_SEQ - V) \mod 256 < 128$, the receiver shall set EXT_DECRYPT_SEQ[i] to EXT_ENC_SEQ.

8. If the base station cannot decrypt an Origination Message, the base station should send a Base Station Reject Order (ORDQ = ‘00000000’). If the base station cannot decrypt any other message, the base station should send a Base Station Reject Order (ORDQ = ‘00000001’).
2.3.12.4.1.4 Computation of the 8-bit Layer 3 PDU CRC Field

The generator polynomials for the 8-bit Layer 3 PDU CRC field shall be as follows:

\[ g(x) = x^8 + x^7 + x^4 + x^3 + x + 1 \]

The Layer 3 PDU CRC field shall be computed according to the following procedure using the logic shown in Figures 2.3.12.4.5-1:

- Initially, all shift register elements shall be set to logical one and the switches shall be set in the up position.
- The register shall be clocked a number of times equal to the number bits in the Layer 3 PDU with those bits as input.
- The switches shall be set in the down position so that the output is a modulo-2 addition with a ‘0’ and the successive shift register inputs are ‘0’.
- The register shall be clocked an additional 8 number of times.
- These additional bits shall be the Layer 3 PDU CRC field indicator bits.
- The bits shall be transmitted in the order calculated.

![Figure 2.3.12.4.1.4-1. 8-Bit Layer 3 SDU CRC Field Calculation](image)

2.3.12.4.1 Extended Encryption of Signaling Messages

All broadcast messages (messages that are not addressed to a particular mobile station) shall not be encrypted.

When ENCRIPT_MODE is equal to ‘11’ and SIG_ENCRYPT_MODE is equal to ‘001’ and when there is a valid encryption key, all Layer 3 PDU of the signaling messages with the following exceptions shall be encrypted as specified in 2.3.12.4:

- **General Page Message**
- **Universal Page Message**

If the mobile station sends an encrypted **Registration Message**, **Origination Message**, or a
Page Response Message, and receives a layer 2 acknowledgement from the base station, but
does not receive any layer 3 message from the base station that the mobile station could
decrypt successfully thereafter, then the mobile station should resend the same message
un-encrypted.

2.3.12.4.1.1 Extension of ENC_SEQ to EXT_ENC_SEQ for decryption

EXT_ENC_SEQ is the Extended Encryption Sequence Number that is used as one of the
inputs to the encryption algorithm as shown in Figure 2.3.12.4.2-1. The following formula
shall be used to update the 32-bit EXT_ENC_SEQ in the receiver from the 8-bit ENC_SEQ
passed by the LAC Layer:

\[
\text{If } (\text{ENC_SEQ} - \text{ENC_SEQ}) \mod 256 < 128:
\]

\[
\text{EXT_ENC_SEQ} = (\text{EXT_ENC_SEQ} + (\text{ENC_SEQ} - \text{ENC_SEQ}) \mod 256) \mod 2^{32}
\]

\[
\text{Else:}
\]

\[
\text{EXT_ENC_SEQ} = (\text{EXT_ENC_SEQ} - (\text{ENC_SEQ} - \text{ENC_SEQ}) \mod 256) \mod 2^{32},
\]

2.3.12.4.1.5 Duplicate Detection of Encrypted Messages

This section describes the duplicate detection of encrypted signaling messages (see the
decryption procedures at the receiver described in 2.3.12.4.1.3).

Given the value of the latest sequence number received, V, and the window size, N (see the
decryption procedures at the receiver described in 2.3.12.4.1.3), the 8-bit encryption
sequence number space at the receiver can be divided into the following three segments as
shown in Figure 2.3.12.4.1.5-1:

- Segment #1 - sequence numbers from \(((V - N + 1) \mod 256)\) to \(V\) inclusive (the anti-
  replay window)
- Segment #2 - sequence numbers from \(((V + 1) \mod 256)\) to \(((V + 127) \mod 256)\)
  inclusive (future sequence numbers)
- Segment #3 - sequence numbers from \(((V + 128) \mod 256)\) to \(((V - N) \mod 256)\)
  inclusive (past sequence numbers)
If the received sequence number, ENC_SEQ, belongs to segment #1, the receiver shall check whether ENC_SEQ has already been received. If ENC_SEQ has been received already, the receiver shall discard the message and shall not perform the remaining steps of the decryption procedures described in 2.3.12.4.1.3; otherwise, the receiver shall continue the decryption procedures described in 2.3.12.4.1.3.

If the received sequence number, ENC_SEQ, belongs to segment #2, the receiver shall continue the decryption procedures described in 2.3.12.4.1.3.

If the received sequence number, ENC_SEQ, belongs to segment #3, the receiver shall discard the message and shall not perform the remaining steps of the decryption procedures described in 2.3.12.4.1.3.

2.3.12.4.2 Extended Encryption for User Information

Extended encryption can be turned on or off independently for each individual service on f/r-dtch.

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The actual means of checking is left to implementation. One simple implementation is for the receiver to maintain an \( N \)-bit bitmap, \( w \), to represent the sequence numbers in segment #1. The order of \( w \) is most significant bit first (i.e., \( w[N-1], w[N-2], \ldots, w[1], w[0] \)). Let \( w[0] \) represents \( V \), \( w[1] \) represents \(((V - 1) \mod 256)\), etc. \( w[i] = '1' \) means sequence number \( i \) has already been received. When a message with sequence number \( i \) has been decrypted successfully, \( w[i] \) is set to ‘1’. Whenever \( V \) moves from \( V_1 \) to \( V_2 \), left-shift \( w \) \(((V_2 - V_1) \mod 256) \) times. Each time \( w \) is left-shifted, stuff a ‘0’ at the eight end of \( w \). After all the shifting, set \( w(0) \) to ‘1’.
The initial encryption mode of user information of a service is established by sending a Security Mode Command Message on f-csch or by setting the UI_ENCRYPT_MODE field in the Service Configuration information record, with the UI_ENCRYPT_MODE field set to one of the values specified in 3.7.5.7.3. The value of the UI_ENCRYPT_MODE field is then stored in SO_CON_REC_s[j].UI_ENCRYPT_MODE, where SO_CON_REC_s[j] is the service option connection record [see 2.6.4.1.12] corresponding to the service.

To turn user information encryption for a service on or off after channel assignment, the base station sends a Security Mode Command Message on f-dsch with the UI_ENCRYPT_MODE field set accordingly. Explicit action time should be used when sending the Security Mode Command Message.

User information shall be encrypted based on the value of SO_CON_REC_s[j].UI_ENCRYPT_MODE, where SO_CON_REC_s[j] is the service option connection record [see 2.6.4.1.12] corresponding to the service.

2.3.12.4.2.1 User Information Encryption/Decryption Procedures
[Reserved]

If extended encryption for user information is turned on for a service, the sender shall encrypt each data block [see [3]] from that service, in accordance with 2.3.12.4.3, before passing the data blocks to MAC Layer. On the receiver side, the receiver shall decrypt each data block for that service from MAC Layer, in accordance with 2.3.12.4.3, before passing them to that service.

2.3.12.4.3 Interface to the Encryption Algorithms

Figure 2.3.12.4.3-1 shows the structure for encrypting/decrypting both signaling messages and user information. Various encryption algorithms can be used with this structure. The encryption algorithm takes all or part of the following parameters as inputs, as illustrated in Figure 2.3.12.4.3-1. The actual inputs to the algorithm are specified in the rest of this section.

The encryption algorithm used takes all or part of the following parameters as input (as illustrated in Figure 2.3.12.4.1.3-1). The actual inputs to the algorithm are specified in this section.
This part is only performed at the receiver\(^2\).

Encryption Hook

\[
\text{compute} \quad \text{EXT\_ENC\_SEQ}_{s}
\]

\[
\text{SENTENCYPTION\_HOOK}_{s}(3), (4)
\]

Direction

\[
\text{sr\_id}
\]

Encryption Key

\[
1
\]

3

\[
\text{Encryption\_Input\_Parameters}
\]

Notes:

1) For encryption only
2) For decryption only
3) RLP generates the cryptosync value when RLP is used for a service option
4) The following value shall be used instead of EXT\_ENC\_SEQ for voice service: \(\lfloor \text{sys\_time}/20 \rfloor \mod 2^{32}\), where sys\_time is the system time, in units of ms, corresponding to the start of the frame that carries the voice information bits.
Notes:
(1) For encryption only
(2) For decryption only
(3) The following value shall be used instead of EXT_ENC_SEQ for voice service: $\lfloor \text{sys\_time}/20 \rfloor \mod 2^{32}$, where sys\_time is the system time, in units of ms, corresponding to the start of the frame that carries the voice information bits.
The inputs to the encryption algorithm are described as follows:

- **EXT_ENC_SEQ** - A 32-bit Extended Encryption Sequence Number stored in the sender or receiver (in the receiver, it is updated and derived from the 8-bit ENC_SEQ as described in 2.3.12.4.1.1) for encryption/decryption.

- **sr_id** - Service Reference Identifier (see [3]), which identifies the associated service option instance. The value of ‘000’ is reserved for signaling.

- **Direction** - The direction of the message data being transmitted encrypted/decrypted. This shall be set to ‘0’ if the message data is transmitted on or received on a forward link. Otherwise, it shall be set to ‘1’.

- **Encryption Key** – Session Key for Encryption. This shall be a result of successful Session Key Agreement between the base station and the mobile station. The Encryption Key shall be stored by the mobile station in a semi-permanent memory, \{ENC_KEY\_s[i], where i ranges from 0000 to 1111\}.

- **Channel_id** – Channel identifier, which identifies the physical channel that carries the data to be encrypted or decrypted. This is applicable only to user information encryption on f/r-dtch. Channel_id shall be set to, ‘000’ for Fundamental Channel, ‘001’ for Dedicated Control Channel, ‘010’ for Supplemental Code Channel, ‘011’ for Supplemental Channel 0, and ‘101’ for Supplemental Channel 1.

- **ACK_Mode** – The delivery mode (unassured or assured) of the signaling message. This shall be set to ‘0’ if the message is delivered using unassured mode; otherwise, this shall be set to ‘1’.

If the Enhanced Cellular Message Encryption Algorithm is used (ENCRYPT_MODE is equal to ‘11’ and SIG_ENCRYPT_MODE is equal to ‘001’), the following requirements apply for encrypting/decrypting signaling messages, the input parameters of the Enhanced Cellular Message Encryption Algorithm (see [23]) shall be set as follows:

- The DATA_TYPE parameter shall be set to ‘0’.

- The SYNC parameter shall be set as follows:
  - \( \text{SYNC}[0] = \text{ENC_SEQ}_{s}[7:0] \) when encrypting.
  - \( \text{SYNC}[0] = \text{ENC_SEQ} \) passed by the LAC Layer associated with the Layer 3 PDU when decrypting.
  - \( \text{SYNC}[1] = (\text{ACK_Mode} | \text{Direction} | \text{EXT_ENC_SEQ}_{s}[413:8]) \), where “\(|\)” denotes concatenation and \( \text{EXT_ENC_SEQ}_{s}[413:8] \) is bits 8 through 413 of \( \text{EXT_ENC_SEQ}_{s} \) (with the LSB being bit 0).

If the Rijndael Encryption Algorithm is used for encrypting/decrypting signaling messages,

\[ Z[y:x] \] denotes bit \( x \) to bit \( y \) of the binary value \( Z \) with bit 0 the least significant bit of \( Z \).
the input parameters of ESP_AES (see [33]) shall be set as follows:

- The key parameter shall be set to ENC_KEYs.
- The FRESH parameter shall be set to \((\text{ACK\ Mode} \ | \ sr\_id\ [2:0] \ | \ Direction \ | \ \text{EXT\ ENC\ SEQ\ [31:0]} \ | \ ‘000’)\).
- The FRESHSIZE parameter shall be set to 5.
- The BUF parameter shall be set to the pointer of the most significant bit of the buffer\textsuperscript{8} that contains the data to be encrypted or decrypted.
- The BIT_OFFSET parameter shall be set to the offset between the bit position of the most significant bit of the data to be encrypted/decrypted and the bit position of the most significant bit of the buffer (e.g., if the bit position of the most significant bit of the data to be encrypted/decrypted and the bit position of the most significant bit of the buffer are equal, BIT_OFFSET = 0).
- The BIT_COUNT parameter shall be set to the number of bits of the data to be encrypted/decrypted.

If the Rijndael Encryption Algorithm is used for encrypting/decrypting user information, the input parameters of ESP_AES (see [33]) shall be set as follows:

- The key parameter shall be set to ENC_KEYs.
- The FRESH parameter shall be set to \((sr\_id\ [2:0] \ | \ Direction \ | \ \lfloor \text{sys\_time}/20 \rfloor \mod 2^{32} \ | \ Channel\_id\ [2:0] \ | \ ‘0’)\), where sys_time is the system time, in units of ms, corresponding to the start of the physical layer frame that carries the data block(s).
- The FRESHSIZE parameter shall be set to 5.
- The BUF parameter shall be set to the pointer of the most significant bit of the buffer\textsuperscript{9} that contains the data to be encrypted or decrypted.
- The BIT_OFFSET parameter shall be set to the offset between the bit position of the most significant bit of the data to be encrypted/decrypted and the bit position of the most significant bit of the buffer (e.g., if the bit position of the most significant bit of the data to be encrypted/decrypted and the bit position of the most significant bit of the buffer are equal, BIT_OFFSET = 0).
- The BIT_COUNT parameter shall be set to the number of bits of the data to be encrypted/decrypted.

\textsuperscript{8} “Buffer” refers to the physical memory that stores the data to be encrypted or decrypted. The octets in the buffer are assumed to be most-significant first, and the first bit of the buffer is the most significant bit of the first octet.

\textsuperscript{9} “Buffer” refers to the implementation-dependent physical memory that stores the data to be encrypted or decrypted. The octets in the buffer are assumed to be most-significant first, and the first bit of the buffer is the most significant bit of the first octet.
2.3.12.4.2 Extended Encryption for Voice

Extended Encryption for voice service option is performed by means of the encryption procedures as specified in 2.3.12.4.1.2. If UI_ENCRYPT_MODE[i] is equal to '000', where i is the connection reference associated with the voice service option, the voice data shall not be encrypted. Instead of EXT_ENC_SEQ, the following value shall be used as an input to the encryption procedure specified in 2.3.12.4.1.2:

$$\left\lfloor \frac{\text{sys}\_\text{time}}{20} \right\rfloor \mod 2^{32}$$

where sys\_time is the system time, in units of ms, corresponding to the start of the frame that carries the information bits.

2.3.12.4.3 Encryption Negotiation

The mobile station shall indicate to the base station the encryption algorithms supported by using SIG_ENCRYPT SUP and UI_ENCRYPT SUP in one of the following messages:

- Registration Message
- Origination Message
- Page Response Message
- Security Mode Request Message
- Status Response Message (in Encryption Capability information record)
- Extended Status Response Message (in Encryption Capability information record)

The mobile station can also indicate to the base station the encryption algorithms supported by using SIG_ENCRYPT SUP and UI_ENCRYPT SUP in Encryption Capability information record in the Status Response Message or Extended Status Response Message.

The base station may turn on or turn off the encryption of the voice, data services, or signaling encryption with a Security Mode Command Message sent on f-dsch or f-csch. Similarly, the mobile station may propose to turn on or turn off the user information encryption or signaling encryption with a Security Mode Request Message sent on r-dsch or r-csch.

2.3.12.4.4 Computation of the 8-bit Layer 3 PDU CRC Field

The generator polynomials for the 8-bit Layer 3 PDU CRC field shall be as follows:

$$g(x) = x^8 + x^7 + x^4 + x^3 + x + 1$$

The Layer 3 PDU CRC field shall be computed according to the following procedure using the logic shown in Figures 2.3.12.4.4-1:

- Initially, all shift register elements shall be set to logical one and the switches shall be set in the up position.
- The register shall be clocked a number of times equal to the number bits in the Layer 3 PDU with those bits as input.
• The switches shall be set in the down position so that the output is a modulo-2 addition with a '0' and the successive shift register inputs are '0'.
• The register shall be clocked an additional 8 number of times.
• These additional bits shall be the Layer 3 PDU CRC field indicator bits.
• The bits shall be transmitted in the order calculated.
2.3.12.4.5 Computation of ENC_SEQ_H_SIG

The ENC_SEQ_H_SIG field (included in the Registration Message, Origination Message, Page Response Message, and Security Mode Request Message) is a signature of the 24 most significant 24 bits of the cryptosync (ENC_SEQ_H). The mobile station shall compute this 8-bit field as follows:

1. The mobile station shall construct the message bits as shown in Figure 2.3.12.4.5-1.
   - For messages that are sent on the r-csch, X is set to RAND_s. For messages that are sent on the r-dsch, X is set to \( \left\lfloor \frac{\text{sys time}}{20000} \right\rfloor \mod 2^{32} \), where sys time is the system time in ms at which the message is assembled.

2. The mobile station shall pad the message bits constructed in the previous step, as specified in FIPS PUB 180-1 (Federal Information Processing Standards Publication 180-1), and compute the 160-bit message digest as specified in FIPS PUB 180-1.

3. The mobile station shall store the 8 rightmost (least significant) bits of the message digest in ENC_SEQ_H_SIG.

2.3.13 Lock and Maintenance Required Orders

The mobile station shall have memory to store the lock reason code (LCKRSN_P_s-p) received in the Lock Until Power-Cycled Order. The data retention time under power-off conditions shall be at least 48 hours.
The mobile station shall have memory to store the maintenance reason code (MAINTRSN_{s-p}) received in the Maintenance Required Order. The data retention time under power-off conditions shall be at least 48 hours.

There are no requirements on the use of the lock and maintenance reason codes, and interpretation and use are implementation dependent.

2.3.14 Mobile Station Revision Identification

The mobile station shall provide memory to store the following parameters sent in the Status Message, the Status Response Message, or the Extended Status Response Message (Terminal Information information record):

- Mobile manufacturer code (MOB_MFG_CODE_{p})
- Manufacturer’s model number (MOB_MODEL_{p})
- Firmware revision number (MOB_FIRM_REV_{p})

In addition, the mobile station shall provide memory to store the following parameter for each supported band class:

- Protocol revision number (MOB_P_REV_{p})

2.3.15 Temporary Mobile Station Identity

2.3.15.1 Overview

The Temporary Mobile Station Identity (TMSI) is a temporary locally assigned number used for addressing the mobile station. The mobile station obtains a TMSI when assigned by the base station. The TMSI as a number does not have any association with the mobile station’s IMSI, ESN, or directory number all of which are permanent identifications.

A TMSI zone is an arbitrary set of base stations for the administrative assignment of TMSIs. A TMSI_CODE is uniquely assigned to a mobile station inside a TMSI zone. A TMSI zone is identified by the TMSI_ZONE field. The same TMSI_CODE may be reused to identify a different mobile station in a different TMSI zone. The pair (TMSI_ZONE, TMSI_CODE) is a globally unique identity for the mobile station. This pair is called the full TMSI. The TMSI_CODE can be two, three, or four octets in length. The TMSI_ZONE can range from 1 to 8 octets in length. Figure 2.3.15-1 shows an example of a TMSI_ZONE where the TMSI_ZONE is a subset of the NID (see 2.6.5.2).
The base station sends a *TMSI Assignment Message* to assign a TMSI. In response, the mobile station sends a *TMSI Assignment Completion Message*. The base station instructs the mobile station to delete the TMSI by sending a *TMSI Assignment Message* with all the bits in the TMSI_CODE field set equal to ‘1’.

The TMSI expiration time is used to automatically delete the assigned TMSI. The mobile station obtains the expiration time when the TMSI is assigned in the *TMSI Assignment Message*. The mobile station compares the expiration time to the current System Time when it powers up and periodically during operation.

Whenever the mobile station sends its full TMSI, the mobile station sets a timer, called the full-TMSI timer. If the full-TMSI timer expires, the mobile station deletes the TMSI by setting all bits in the TMSI_CODE field to ‘1’.

### 2.3.15.2 TMSI Assignment Memory

The mobile station shall provide memory to store the following parameters:

- 4-bit assigning TMSI zone length (ASSIGNING_TMSI_ZONE_LEN_{s-p})
- 8-octet assigning TMSI zone (ASSIGNING_TMSI_ZONE_{s-p})
- 4-octet TMSI code (TMSI_CODE_{s-p})
- 3-octet TMSI expiration time (TMSI_EXP_TIME_{s-p})
2.4 Accumulated Statistics

2.4.1 Monitored Quantities and Statistics

The mobile station shall store the value described in Table 2.4.1-1.

Table 2.4.1-1. Monitored Quantities and Statistics

<table>
<thead>
<tr>
<th>Quantity Identifier</th>
<th>Length (bits)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTHER_SYS_TIME</td>
<td>36</td>
<td>The SYS_TIME field from the most recently received Sync Channel Message</td>
</tr>
</tbody>
</table>

2.4.2 Accumulated Paging, Broadcast, and Forward Common Control Channel Statistics

The mobile station shall maintain the counters shown in Table 2.4.2-1. The counters shall have the length as specified in Table 2.4.2-1. The mobile station shall initialize each counter described herein to zero upon power-on; the mobile station shall not re-initialize any counter described herein at any other time except upon command from the base station. Each counter shall be maintained modulo $2^{\text{Length}}$, where Length is specified in Table 2.4.2-1.

The mobile station shall increment the counter PAG_6 each time that it declares a loss of the Paging Channel (see 2.6.2.1.1.4). The mobile station shall increment the counter PAG_7 for each idle handoff it performs. The mobile station shall increment the counter FCCCH_4 each time that it declares a loss of the Forward Common Control Channel (see 2.6.2.1.1.4). The mobile station shall increment the counter BCCH_5 each time that it declares a loss of the Broadcast Control Channel (see 2.6.2.1.1.4).

Table 2.4.2-1. Accumulated PCH/BCCH/F-CCCH Channel Statistics

<table>
<thead>
<tr>
<th>Counter Identifier</th>
<th>Length (bits)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAG_6</td>
<td>16</td>
<td>Number of times that the mobile station declared a loss of the Paging Channel</td>
</tr>
<tr>
<td>PAG_7</td>
<td>16</td>
<td>Number of mobile station idle handoffs</td>
</tr>
<tr>
<td>FCCCH_4</td>
<td>16</td>
<td>Number of times that the mobile station declared a loss of the Forward Common Control Channel</td>
</tr>
<tr>
<td>BCCH_5</td>
<td>16</td>
<td>Number of times that the mobile station declared a loss of the Broadcast Control Channel</td>
</tr>
</tbody>
</table>

2.5 Reserved
### 2.6 Layer 3 Processing

This section describes mobile station Layer 3 processing. It contains frequent references to the messages that flow between the mobile station and base station. While reading this section, it may be helpful to refer to the PDU formats (see 2.7 and 3.7), and to the message flow examples (see Annex B).

The mobile station shall ignore fields at the end of messages that do not exist in the protocol revision supported by the mobile station.

The values for the time and numerical constants used in this section (e.g., $T_{20m}$, $N_{4m}$) are specified in Annex D.

As illustrated in Figure 2.6-1, mobile station Layer 3 processing consists of the following states:

- **Mobile Station Initialization State** - In this state, the mobile station selects and acquires a system.

- **Mobile Station Idle State** - In this state, the mobile station monitors messages on the f-csch.

- **System Access State** - In this state, the mobile station sends messages to the base station on the r-csch and receives messages from the base station on the f-csch.

- **Mobile Station Control on the Traffic Channel State** - In this state, the mobile station communicates with the base station using the f/r-dsch and f/r-dtch.

After power is applied to the mobile station, it shall enter the **System Determination Substate** of the **Mobile Station Initialization State** with a power-up indication (see 2.6.1.1).
Figure 2.6-1. Mobile Station Layer 3 Processing States
2.6.1 Mobile Station Initialization State

In this state, the mobile station first selects a system to use. If the selected system is a CDMA system, the mobile station proceeds to acquire and then synchronize to the CDMA system. If the selected system is an analog system, the mobile station begins analog mode operation (see 2.6.1 of [6]).

As illustrated in Figure 2.6.1-1, the Mobile Station Initialization State consists of the following substates:

- **System Determination Substate** - In this substate, the mobile station selects which system to use.
- **Pilot Channel Acquisition Substate** - In this substate, the mobile station acquires the Pilot Channel of a CDMA system.
- **Sync Channel Acquisition Substate** - In this substate, the mobile station obtains system configuration and timing information for a CDMA system.
- **Timing Change Substate** - In this substate, the mobile station synchronizes its timing to that of a CDMA system.

While in the Mobile Station Initialization State, the mobile station shall update all active registration timers as specified in 2.6.5.5.1.2.
Power-up or Any Other State

System Determination Substate (2.6.1.1)

CDMA system selected

Pilot Channel Acquisition Substate (2.6.1.2)

Acquires Pilot Channel

Sync Channel Acquisition Substate (2.6.1.3)

Receives Sync Channel Message

Timing Change Substate (2.6.1.4)

Mobile Station Idle State

Note: Not all state transitions are shown.

Figure 2.6.1-1. Mobile Station Initialization State
2.6.1.1 System Determination Substate

In this substate, the mobile station selects the system to use.

Upon entering the *System Determination Substate*, the mobile station shall initialize registration parameters as specified in 2.6.5.5.1.1.

If the mobile station enters the *System Determination Substate* with a power-up indication, the mobile station shall set RAND_s to 0 (see 2.3.12.1.2), PACA_s to disabled, PACA_CANCEL to ‘0’, the PACA state timer to disabled, NDSS_ORIG_s to disabled, MAX_REDIRECT_DELAY_s to 31, REDIRECTION_s to disabled, all entries of SDB_SO_OMIT_s to ‘0’, and T_SLOTTED_s to T74m–KEY_s to NULL, and C_SIG_ENCRYPT_MODE_s to ‘000’. If the mobile station supports analog mode operation in Band Class 0, the mobile station shall set the First-Idle ID status to enabled (see [6]). The mobile station shall select a system in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the *System Determination Substate* with any indication other than a power-up indication, and if PACA_s is equal to enabled, the mobile station shall also set PACA_s to disabled, PACA_CANCEL to ‘0’, the PACA state timer to disabled, and should indicate to the user that the PACA call has been canceled.

If the mobile station enters the *System Determination Substate* with an acquisition failure indication, the mobile station shall perform the following:

- If REDIRECTION_s is equal to enabled, the mobile station shall attempt to select another system in accordance with the current redirection criteria (see 2.6.1.1.2). If the mobile station is able to select another system, the mobile station shall attempt to acquire the selected system (see 2.6.1.1.4). Otherwise, if the mobile station has exhausted all possible selections using the current redirection criteria, the mobile station shall perform the following:
  - The mobile station shall set REDIRECTION_s to disabled.
  - The mobile station shall set RETURN_CAUSE_s to ‘0001’.
  - If RETURN_IF_FAIL_s is equal to ‘1’, the mobile station shall attempt to select the system from which it was redirected and shall attempt to acquire the selected system (see 2.6.1.1.4). The precise process for determining how to select the system from which the mobile station was redirected is left to the mobile station manufacturer.
  - If RETURN_IF_FAIL_s is equal to ‘0’, the mobile station shall select a system other than the system from which it was redirected in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4). The precise process that the mobile station uses to avoid selecting the system from which it was redirected is left to the mobile station manufacturer.
If REDIRECTION\textsubscript{s} is equal to disabled, the mobile station shall select a system in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the System Determination Substate with a new system indication, the mobile station shall set REDIRECTION\textsubscript{s} to disabled. If NDSS\textsubscript{ORIG}\textsubscript{s} is enabled, the mobile station shall set NDSS\textsubscript{ORIG}\textsubscript{s} to disabled and should indicate to the user that the call origination has been canceled. The mobile station shall select a system in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the System Determination Substate with a CDMA available indication, the mobile station shall set REDIRECTION\textsubscript{s} to disabled. If NDSS\textsubscript{ORIG}\textsubscript{s} is enabled, the mobile station shall set NDSS\textsubscript{ORIG}\textsubscript{s} to disabled and should indicate to the user that the call origination is canceled. The mobile station should set CDMACH\textsubscript{s} to the CDMA Channel (CDMA\_FREQ) specified in the CDMA Capability Global Action Message and should attempt to acquire a CDMA system on the specified CDMA channel (see 2.6.1.1.4). If the mobile station does not attempt to acquire a CDMA system on the specified CDMA Channel, the mobile station shall select a system in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the System Determination Substate with an additional CDMA available indication, the mobile station shall set REDIRECTION\textsubscript{s} to disabled. If NDSS\textsubscript{ORIG}\textsubscript{s} is enabled, the mobile station shall set NDSS\textsubscript{ORIG}\textsubscript{s} to disabled and should indicate to the user that the call origination is canceled. The mobile station should set CDMACH\textsubscript{s} to the CDMA Channel (CDMA\_FREQ) specified in the CDMA Info Order and should attempt to acquire a CDMA system on the specified CDMA channel (see 2.6.1.1.4). If the mobile station does not attempt to acquire a CDMA system on the specified CDMA Channel, the mobile station shall select a system in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the System Determination Substate with a reselection indication, the mobile station shall set REDIRECTION\textsubscript{s} to disabled. If NDSS\textsubscript{ORIG}\textsubscript{s} is enabled, the mobile station shall set NDSS\textsubscript{ORIG}\textsubscript{s} to disabled and should indicate to the user that the call origination is canceled. The mobile station shall select a system in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the System Determination Substate with an encryption failure indication, the mobile station shall set REDIRECTION\textsubscript{s} to disabled, ENC\_KEY\textsubscript{s} to NULL, D\_SIG\_ENCRYPT\_MODE\textsubscript{s} to '000' and C\_SIG\_ENCRYPT\_MODE\textsubscript{s} to '000'. If NDSS\textsubscript{ORIG}\textsubscript{s} is enabled, the mobile station shall set NDSS\textsubscript{ORIG}\textsubscript{s} to disabled and should indicate to the user that the call origination is canceled. The mobile station shall select a system in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4).
If the mobile station enters the System Determination Substate with a system reselection indication, the mobile station shall set REDIRECTION\textsubscript{s} to disabled. If NDSS\_ORIG\textsubscript{s} is enabled, the mobile station shall set NDSS\_ORIG\textsubscript{s} to disabled and should indicate to the user that the call origination is canceled. The mobile station should attempt to select a system available for system reselection as specified in 2.6.1.1.3, and should attempt to acquire the selected system (see 2.6.1.1.4). The precise process for determining how to select such a system is left to the mobile station manufacturer. If the mobile station does not attempt to select such a system, the mobile station shall select a system in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the System Determination Substate with a rescan indication, the mobile station shall set REDIRECTION\textsubscript{s} to disabled. If NDSS\_ORIG\textsubscript{s} is enabled, the mobile station shall set NDSS\_ORIG\textsubscript{s} to disabled and should indicate to the user that the call origination is canceled. The mobile station shall select a system in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the System Determination Substate with a protocol mismatch indication, the mobile station shall perform the following:

- If REDIRECTION\textsubscript{s} is equal to enabled, the mobile station shall attempt to select another system in accordance with the current redirection criteria (see 2.6.1.1.2). If the mobile station is able to select another system, the mobile station shall attempt to acquire the selected system (see 2.6.1.1.4). Otherwise, if the mobile station has exhausted all possible selections using the current redirection criteria, the mobile station shall perform the following:
  - The mobile station shall set REDIRECTION\textsubscript{s} to disabled.
  - The mobile station shall set RETURN\_CAUSE\textsubscript{s} to '0010'.
  - If RETURN\_IF\_FAIL\textsubscript{s} is equal to '1', the mobile station shall attempt to select the system from which it was redirected and shall attempt to acquire the selected system (see 2.6.1.1.4). The precise process for determining how to select the system from which the mobile station was redirected is left to the mobile station manufacturer.
  - If RETURN\_IF\_FAIL\textsubscript{s} is equal to '0', the mobile station shall select a system other than the system from which it was redirected in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4). The precise process for determining how to avoid the system from which the mobile station was redirected is left to the mobile station manufacturer.

- If REDIRECTION\textsubscript{s} is equal to disabled, the mobile station shall select a system in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the System Determination Substate with a system lost indication, the mobile station shall set REDIRECTION\textsubscript{s} to disabled. If NDSS\_ORIG\textsubscript{s} is enabled, the
mobile station shall set NDSS_ORIGs to disabled and should indicate to the user that the
call origination is canceled. The mobile station should attempt to select the same system
that was lost, and should attempt to acquire the selected system (see 2.6.1.1.4). The
precise process for determining how to select the same system is left to the mobile station
manufacturer. If the mobile station does not attempt to select the same system, the mobile
station shall select a system in accordance with the custom system selection process (see
2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the System Determination Substate with a lock indication, the
mobile station shall set REDIRECTIONs to disabled. If NDSS_ORIGs is enabled, the mobile
station shall set NDSS_ORIGs to disabled and should indicate to the user that the call
origination is canceled. The mobile station shall select a system in accordance with the
custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected
system (see 2.6.1.1.4).

If the mobile station enters the System Determination Substate with an unlock indication,
the mobile station shall set REDIRECTIONs to disabled. If NDSS_ORIGs is enabled, the mobile
station shall set NDSS_ORIGs to disabled and should indicate to the user that the call
origination is canceled. The mobile station shall select a system in accordance with the
custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected
system (see 2.6.1.1.4).

If the mobile station enters the System Determination Substate with an access denied
indication, the mobile station shall set REDIRECTIONs to disabled. If NDSS_ORIGs is
enabled, the mobile station shall set NDSS_ORIGs to disabled and should indicate to the
user that the call origination is canceled. The mobile station shall select a system in
accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to
acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the System Determination Substate with an ACCT blocked
indication, the mobile station shall set REDIRECTIONs to disabled. If NDSS_ORIGs is
enabled, the mobile station shall set NDSS_ORIGs to disabled. The mobile station shall
select a system in accordance with the custom system selection process (see 2.6.1.1.1) and
shall attempt to acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the System Determination Substate with an NDSS off indication,
the mobile station shall set REDIRECTIONs to disabled. If NDSS_ORIGs is
enabled, the mobile station shall set NDSS_ORIGs to disabled and should indicate to the user that the
call origination is canceled. The mobile station shall select a system in accordance with the
custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected
system (see 2.6.1.1.4).

If the mobile station enters the System Determination Substate with a release indication and
REDIRECTIONs is equal to enabled, the mobile station shall attempt to select the same
system on which the release occurred and shall attempt to acquire the selected system (see
2.6.1.1.4). The precise process for determining how to select the same system is left to the
mobile station manufacturer. If REDIRECTIONs is equal to disabled, the mobile station
shall select a system in accordance with the custom system selection process (see 2.6.1.1.1)
and shall attempt to acquire the selected system (see 2.6.1.1.4). If NDSS_ORIG_S is enabled, the mobile station shall set NDSS_ORIG_S to disabled.

If the mobile station enters the System Determination Substate with an error indication, the mobile station shall set REDIRECTION_S to disabled. If NDSS_ORIG_S is enabled, the mobile station shall set NDSS_ORIG_S to disabled and should indicate to the user that the call origination is canceled. The mobile station shall select a system in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the System Determination Substate with a redirection indication, the mobile station shall set REDIRECTION_S to enabled. The mobile station shall delete all entries from the ZONE_LIST_S and SID_NID_LIST_S. The mobile station shall select a system in accordance with the current redirection criteria (see 2.6.1.1.2) and shall attempt to acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the System Determination Substate with a registration rejected indication, the mobile station shall perform the following:

- The mobile station shall delete the newly generated encryption key (if any).
- If REDIRECTION_S is equal to enabled, the mobile station shall perform the following:
  - The mobile station shall set REDIRECTION_S to disabled.
  - The mobile station shall set RETURN_CAUSE_S to ‘0011’.
  - If RETURN_IF_FAIL_S is equal to ‘1’, the mobile station shall attempt to select the system from which it was redirected and shall attempt to acquire the selected system (see 2.6.1.1.4). The precise process for determining how to select the system from which the mobile station was redirected is left to the mobile station manufacturer.
  - If RETURN_IF_FAIL_S is equal to ‘0’, the mobile station shall select a system other than the system from which it was redirected in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4). The precise process for determining how to avoid the system from which the mobile station was redirected is left to the mobile station manufacturer.
- If REDIRECTION_S is equal to disabled, the mobile station shall select a system in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the System Determination Substate with a wrong system indication, the mobile station shall perform the following:

- If REDIRECTION_S is equal to enabled, the mobile station shall attempt to select another system in accordance with the current redirection criteria (see 2.6.1.1.2). If the mobile station is able to select another system, the mobile station shall attempt to acquire the selected system (see 2.6.1.1.4). Otherwise, if the mobile station has exhausted all possible selections using the current redirection criteria, the mobile station shall perform the following:
– The mobile station shall set REDIRECTIONs to disabled.
– The mobile station shall set RETURN_CAUSEs to ‘0100’.
– If RETURN_IF_FAILs is equal to ‘1’, the mobile station shall attempt to select the system from which it was redirected and shall attempt to acquire the selected system (see 2.6.1.1.4). The precise process for determining how to select the system from which the mobile station was redirected is left to the mobile station manufacturer.
– If RETURN_IF_FAILs is equal to ‘0’, the mobile station shall select a system other than the system from which it was redirected in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4). The precise process for determining how to avoid the system from which the mobile station was redirected is left to the mobile station manufacturer.
– If REDIRECTIONs is equal to disabled, the mobile station shall select a system in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4).

If the mobile station enters the **System Determination Substate** with a wrong network indication, the mobile station shall perform the following:

– If REDIRECTIONs is equal to enabled, the mobile station shall attempt to select another system in accordance with the current redirection criteria (see 2.6.1.1.2). If the mobile station is able to select another system, the mobile station shall attempt to acquire the selected system (see 2.6.1.1.4). Otherwise, if the mobile station has exhausted all possible selections using the current redirection criteria, the mobile station shall perform the following:
   – The mobile station shall set REDIRECTIONs to disabled.
   – The mobile station shall set RETURN_CAUSEs to ‘0101’.
   – If RETURN_IF_FAILs is equal to ‘1’, the mobile station shall attempt to select the system from which it was redirected and shall attempt to acquire the selected system (see 2.6.1.1.4). The precise process for determining how to select the system from which the mobile station was redirected is left to the mobile station manufacturer.
   – If RETURN_IF_FAILs is equal to ‘0’, the mobile station shall select a system other than the system from which it was redirected in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4). The precise process for determining how to avoid the system from which the mobile station was redirected is left to the mobile station manufacturer.
   • If REDIRECTIONs is equal to disabled, the mobile station shall select a system in accordance with the custom system selection process (see 2.6.1.1.1) and shall attempt to acquire the selected system (see 2.6.1.1.4).
2.6.1.1.1 Custom System Selection Process

The precise process for custom system selection is left to the mobile station manufacturer.

The mobile station shall perform the custom system selection process as follows:

- The mobile station shall determine which system to use.
- If the mobile station is to use a CDMA system, it shall set CDMABAND\textsubscript{s} to the band class (see [30]) for the selected system.
- If the mobile station is to use a CDMA system with CDMABAND\textsubscript{s} = ‘00000’ or CDMABAND\textsubscript{s} = ‘00011’, it shall perform the following:
  - If the mobile station is to use System A, it shall set SERVSYS\textsubscript{s} to SYS\textsubscript{A}. If the mobile station is to use System B, it shall set SERVSYS\textsubscript{s} to SYS\textsubscript{B}.
  - The mobile station shall set CDMACH\textsubscript{s} either to the Primary or Secondary CDMA Channel number (see 2.1.1.1.1 of [2]) for the selected serving system (SERVSYS\textsubscript{s}). If the mobile station fails to acquire a CDMA system on the first CDMA Channel it tries, the mobile station should attempt to acquire on the alternate CDMA Channel (Primary or Secondary) before attempting other alternatives.
- If the mobile station is to use a CDMA system with CDMABAND\textsubscript{s} other than ‘00000’ or ‘00011’, it shall set CDMACH\textsubscript{s} to the CDMA Channel number (see 2.1.1.1.1 of [2]) for the selected system.

If the mobile station is to use System A of the 800 MHz analog system, it shall set SERVSYS\textsubscript{s} to SYS\textsubscript{A}. If the mobile station is to use System B of the 800 MHz analog system, it shall set SERVSYS\textsubscript{s} to SYS\textsubscript{B}.

2.6.1.1.2 System Selection Using Current Redirection Criteria

To perform system selection using current redirection criteria, the mobile station shall use information received either in a Service Redirection Message, a Global Service Redirection Message, or an Extended Global Service Redirection Message and stored in the variable REDIRECT\_REC\textsubscript{s}.

If the RECORD\_TYPE field of REDIRECT\_REC\textsubscript{s} is equal to ‘00000001’ and the mobile station supports Band Class 0, the mobile station shall perform system selection as follows:

- If the SYS\_ORDERING field is equal to ‘000’, the mobile station shall make sequential system selections as follows:
  - The mobile station shall set SERVSYS\textsubscript{s} either to SYS\textsubscript{A} or SYS\textsubscript{B}. The precise process for determining how many system selections to make and for determining whether to use SYS\textsubscript{A} or SYS\textsubscript{B} is left to the mobile station manufacturer.
- If the SYS\_ORDERING field is equal to ‘001’, the mobile station shall select no more than one system selection as follows:
– The mobile station shall set SERVSYSs to SYS_A.

• If the SYS_ORDERING field is equal to ‘010’, the mobile station shall select no more than one system selection as follows:
  – The mobile station shall set SERVSYSs to SYS_B.

• If the SYS_ORDERING field is equal to ‘011’, the mobile station shall make at most two sequential system selections as follows:
  – For the first system selection, the mobile station shall set SERVSYSs to SYS_A.
  – For the second system selection, the mobile station shall set SERVSYSs to SYS_B.

• If the SYS_ORDERING field is equal to ‘100’, the mobile station shall make at most 2 sequential system selections as follows:
  – For the first system selection, the mobile station shall set SERVSYSs to SYS_B.
  – For the second system selection, the mobile station shall set SERVSYSs to SYS_A.

• If the SYS_ORDERING field is equal to ‘101’, the mobile station shall make at most 2 sequential system selections as follows:
  – For the first system selection, the mobile station shall set SERVSYSs either to SYS_A or SYS_B. The precise process for determining whether to use SYS_A or SYS_B first is left to the mobile station manufacturer.
  – For the second system selection, the mobile station shall set SERVSYSs to SYS_B if SYS_A was used for the first selection, or to SYS_A if SYS_B was used for the first selection.

If the RECORD_TYPE field of REDIRECT_RECs is equal to ‘00000010’, the mobile station shall perform system selection as follows:

• If the mobile station supports CDMA mode operation in the band class identified by the BAND_CLASS field, the mobile station shall make at most n sequential system selections, where n is equal to the value of the NUM_CHANS field, as follows:
  – For the ith system selection, where i ranges from 1 to n, if the mobile station supports operation on the CDMA channel associated with the value of the ith occurrence of the CDMA_CHAN field, the mobile station shall set CDMACHs to the value of the ith occurrence of the CDMA_CHAN field and shall set CDMABANDs to the value specified in the BAND_CLASS field. If the mobile station does not support operation on the CDMA Channel associated with the value of the ith occurrence of the CDMA_CHAN field, the mobile station shall not make the ith system selection.

2.6.1.1.3 System Selection Using System Reselection Criteria

The precise process for selecting a system using system reselection criteria is left to the mobile station manufacturer. The mobile station should use information received in the
Neighbor List Message, Extended Neighbor List Message, General Neighbor List Message, or the Universal Neighbor List Message to perform the system reselection process as follows:

- If there are pilots in the Neighbor List on a different Frequency Assignment than that of the mobile station, the mobile station may select the CDMA system consisting of these neighbor pilots. If the mobile station is to use a CDMA system, it shall set CDMABANDS to the band class (see [30]) for the selected system and shall set CDMACHs to the CDMA Channel number (see 2.1.1.1 of [2]) for the selected system.

- If NUM_ANALOG_NGHBRs is not equal to '000', the mobile station may select an analog system as specified by ANALOG_NGHBR_LIST. If the mobile station is to use System A of the 800 MHz analog system, it shall set SERVSYSs to SYS_A. If the mobile station is to use System B of the 800 MHz analog system, it shall set SERVSYSs to SYS_B.

2.6.1.4 Acquiring the Selected System

The mobile station shall attempt to acquire the selected system as follows:

- If the selected system is an analog system, the mobile station shall enter the Initialization Task (see 2.6.1 of [6]).

- If the selected system is a CDMA system, the mobile station shall enter the Pilot Channel Acquisition Substate.

2.6.1.2 Pilot Channel Acquisition Substate

In this substate, the mobile station acquires the Pilot Channel of the selected CDMA system.

Upon entering the Pilot Channel Acquisition Substate, the mobile station shall tune to the CDMA Channel number equal to CDMACHs, shall set its code channel for the Pilot Channel (see 3.1.3.1.10 of [2]) and shall search for the Pilot Channel for no longer than T20m seconds (see Annex D). If the mobile station acquires the Pilot Channel, the mobile station shall enter the Sync Channel Acquisition Substate.

If the mobile station determines that it is unlikely to acquire the Pilot Channel within T20m seconds, the mobile station may enter the System Determination Substate with an acquisition failure indication (see 2.6.1.1). The time, to either acquire the Pilot Channel or determine that Pilot Channel acquisition is unlikely, shall not exceed T20m seconds (see Annex D), after which the mobile station shall enter the System Determination Substate with an acquisition failure indication (see 2.6.1.1).

2.6.1.3 Sync Channel Acquisition Substate

In this substate, the mobile station receives and processes the Sync Channel Message to obtain system configuration and timing information.

Upon entering the Sync Channel Acquisition Substate, the mobile station shall set its code channel for the Sync Channel (see [2]).
If the mobile station does not receive a valid *Sync Channel Message* within $T_{21m}$ seconds, the mobile station shall enter the *System Determination Substate* with an acquisition failure indication.

If the mobile station receives a valid *Sync Channel Message* within $T_{21m}$ seconds, but the protocol revision level supported by the mobile station ($\text{MOB}_P\text{REV}_p$ of the current band class) is less than the minimum protocol revision level supported by the base station ($\text{MIN}_P\text{REV}_r$), the mobile station shall enter the *System Determination Substate* with a protocol mismatch indication (see 2.6.1.1).

If the mobile station receives a valid *Sync Channel Message* within $T_{21m}$ seconds, but the values of the $\text{PRAT}_r$, the $\text{SR1}_\text{BRAT}_\text{NON-TD}_r$, the $\text{SR1}_\text{BRAT}_\text{TD}_r$, or the $\text{SR3}_\text{BRAT}_r$ fields are designated as reserved by the protocol revision level supported by the mobile station ($\text{MOB}_P\text{REV}_p$ of the current band class), the mobile station shall enter the *System Determination Substate* with a protocol mismatch indication (see 2.6.1.1).

If the mobile station receives a valid *Sync Channel Message* within $T_{21m}$ seconds and the protocol revision level supported by the mobile station ($\text{MOB}_P\text{REV}_p$ of the current band class) is greater than or equal to the minimum protocol revision level supported by the base station ($\text{MIN}_P\text{REV}_r$), the mobile station shall store the following information from the message:

- Protocol revision level ($P\text{REV}_S = P\text{REV}_r$)
- Minimum protocol revision level ($\text{MIN}_P\text{REV}_S = \text{MIN}_P\text{REV}_r$)
- System identification ($\text{SID}_S = \text{SID}_r$)
- Network identification ($\text{NID}_S = \text{NID}_r$)
- Pilot PN sequence offset index ($\text{PILOT}_\text{PN}_S = \text{PILOT}_\text{PN}_r$)
- Long code state ($\text{LC}\_\text{STATE}_S = \text{LC}\_\text{STATE}_r$)
- System Time ($\text{SYS}\_\text{TIME}_S = \text{SYS}\_\text{TIME}_r$)
- Paging Channel data rate ($\text{PRAT}_S = \text{PRAT}_r$)
- Protocol revision level currently in use ($P\text{REV}\_\text{IN\_USE}_S$ = the lesser value of $P\text{REV}_S$ and $\text{MOB}_P\text{REV}_p$ of the current band class)
- $\text{SR1}_\text{Non-TD}$ BCCH support indicator ($\text{SR1}_\text{BCCH}\_\text{SUPPORTED}_S^{\text{NON-TD\_INCL}} = \text{SR1}_\text{BCCH}\_\text{SUPPORTED}_r^{\text{NON-TD\_INCL}}$)
- $\text{SR1}_\text{TD}$ BCCH support indicator ($\text{SR1}_\text{TD\_INCL}_S = \text{SR1}_\text{TD\_INCL}_r$)
- If $\text{SR1}_\text{BCCH}\_\text{NON-TD\_INCL\_SUPPORTED}_r$ is equal to ‘1’:
  - $\text{SR1}_\text{BRAT}_\text{NON-TD}_S = \text{SR1}_\text{BRAT}_\text{NON-TD}_r$;
  - $\text{SR1}_\text{CRAT}_\text{NON-TD}_S = \text{SR1}_\text{CRAT}_\text{NON-TD}_r$;
  - $\text{BCCH}\_\text{CODE\_CHAN\_NON-TD}_S = \text{SR1}_\text{BCCH}\_\text{CODE\_CHAN\_NON-TD}_r$.  

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If SR1_TD_INCL is included and is equal to ‘1’, the mobile station supports the Transmit Diversity indicated by SR1_TD_MODE. If SR1_TD_INCL is included and is equal to ‘1’:

- SR1_BRAT_TD = SR1_BRAT_TD;
- SR1_CRAT_TD = SR1_CRAT_TD;
- BCCH_CODE_CHAN_TD = SR1_BCCH_CODE_CHAN_TD.

If the mobile station supports the Transmit Diversity, SR1_BCCH_NON_TD_INCL is equal to ‘1’, and SR1_TD_INCL is equal to ‘0’:

- SR1_BRAT_TD = SR1_BRAT_NON_TD;
- SR1_CRAT_TD = SR1_CRAT_NON_TD;
- BCCH_CODE_CHAN_TD = SR1_BCCH_CODE_CHAN_NON_TD.

SR3 support indicator (SR3_INCL = SR3_INCL)

The mobile station shall ignore any fields at the end of the Sync Channel Message that are not defined according to the protocol revision level (MOB_P_REV of the current band class) being used by the mobile station.

The mobile station may store the following information from the message:

- Number of leap seconds that have occurred since the start of System Time (LP_SEC = LP_SEC)
- Offset of local time from System Time (LTM_OFF = LTM_OFF)
- Daylight savings time indicator (DAYLT = DAYLT)

If REDIRECTION and NDSS_ORIG are equal to disabled, the mobile station may enter the System Determination Substate with a reselection indication (see 2.6.1.1).

If REDIRECTION is equal to enabled, the EXPECTED_SID field of REDIRECT_REC is not equal to 0, and SID is not equal to EXPECTED_SID, the mobile station shall enter the System Determination Substate with a wrong system indication (see 2.6.1.1). If REDIRECTION is equal to enabled, the EXPECTED_NID field of REDIRECT_REC is not equal to 65535, and NID is not equal to EXPECTED_NID, the mobile station shall enter the System Determination Substate with a wrong network indication.

If P_REV_IN_USE is less than 6, the mobile station shall set POTENTIAL_CDMACH equal to CDMA_FREQ.

If P_REV_IN_USE is equal to six, and the mobile station supports the Quick Paging Channel or any radio configuration in the Radio Configuration Class 2 or 3 (see 1.1.1), the mobile station shall set POTENTIAL_CDMACH equal to EXT_CDMA_FREQ; otherwise, the mobile station shall set POTENTIAL_CDMACH equal to CDMA_FREQ.

If P_REV_IN_USE is greater than six, the mobile station shall perform the following:

- If the mobile station supports Spreading Rate 3 on the common channels and
SR3_INCLs is equal to ‘1’, the mobile station shall set:

1. BRATs = SR3_BRATr;
2. BCCH_CODE_RATEs = 1/3;
3. BCCHs = SR3_BCCH_CODE_CHANr;
4. SR3_PRIMARY_PILOTs = SR3_PRIMARY_PILOTr;
5. SR3_PILOT_POWER1s = SR3_PILOT_POWER1r;
6. SR3_PILOT_POWER2s = SR3_PILOT_POWER2r;
7. If SR3_CENTER_FREQ_INCLr is equal to ‘1’, POTENTIAL_CDMACHs = SR3_CENTER_FREQr; otherwise, POTENTIAL_CDMACHs = EXT_CDMA_FREQr.

- If the mobile station does not support Spreading Rate 3 on the common channel or if SR3_INCLs is equal to ‘0’, the mobile station shall perform the following:

  - If SR1_BCCH_SUPPORTEDs is equal to ‘1’, the mobile station shall perform the following:
  
  - If SR1_TD_INCLr is equal to ‘1’ and the mobile station supports the Transmit Diversity mode specified by SR1_TD_MODEr, the mobile station shall set:
    
    + SR1_TD_MODEs = SR1_TD_MODEr
    + SR1_TD_POWER_LEVELs = SR1_TD_POWER_LEVELr
    + BRATs = SR1_BRAT_TDr
    + BCCH_CODE_RATEs = SR1_CRAT_TDr
    + BCCHs = SR1_BCCH_CODE_CHAN_TD
    + POTENTIAL_CDMACHs = SR1_CDMA_FREQ_TD
  
  - Otherwise, if SR1_BCCH_NON_TD_INCLr is equal to ‘1’, the mobile station shall set:
    
    + BRATs = SR1_BRAT_NON_TD
    + BCCH_CODE_RATEs = SR1_CRAT_NON_TD
    + BCCHs = SR1_BCCH_CODE_CHAN_NON_TD
    + If SR1_NON_TD_FREQ_INCLr is equal to ‘1’, POTENTIAL_CDMACHs = SR1_CDMA_FREQ_NON_TD; otherwise, POTENTIAL_CDMACHs = EXT_CDMA_FREQr
  
  - Otherwise, SR1_BCCH_SUPPORTEDs is equal to ‘0’, the mobile station shall
perform the following:

+ If the mobile station supports the Quick Paging Channel or any radio configuration in the Radio Configuration Class 2 or 3 (see 1.1.1), the mobile station shall set \( \text{POTENTIAL}_\text{CDMACH}_s = \text{EXT}_\text{CDMA}_\text{FREQ}_r \); otherwise, the mobile station shall set \( \text{POTENTIAL}_\text{CDMACH}_s = \text{CDMA}_\text{FREQ}_r \).

If \( \text{POTENTIAL}_\text{CDMACH}_s \) is different from \( \text{CDMACH}_s \), the mobile station shall set \( \text{CDMACH}_s = \text{POTENTIAL}_\text{CDMACH}_s \) and then tune to the CDMA Channel (CDMACH$_s$).

The mobile station shall enter the *Timing Change Substate*.

### 2.6.1.4 Timing Change Substate

Figure 2.6.1.4-1 illustrates the mobile station timing changes that occur in this substate. The mobile station synchronizes its long code timing and system timing to those of the CDMA system, using the PILOT_PNs, LC_STATEs, and SYS_TIMEs values obtained from the received *Sync Channel Message*. SYS_TIME$_s$ is equal to the System Time (see 1.3 of [2]) corresponding to 320 ms past the end of the last 80 ms superframe (see Figure 3.1.3.2.1-1 of [2]) of the received *Sync Channel Message* minus the pilot PN sequence offset. LC_STATEs is equal to the system long code state (see 2.1.3.1.12 of [2]) corresponding to SYS_TIME$_s$.

In the *Timing Change Substate*, the mobile station shall synchronize its long code timing to the CDMA system long code timing derived from LC_STATEs, and synchronize its system timing to the CDMA system timing derived from SYS_TIME$_s$.

The mobile station shall perform the following:

- If \( \text{SR1}_\text{BCCH}_\text{NON}_\text{TD}_\text{INCL}_s \) or \( \text{SR1}_\text{BCCH}_\text{SUPPORTED}_s \) is equal to ‘1’, or if \( \text{SR1}_\text{TD}_\text{INCL}_s \) is equal to ‘1’ and the mobile supports the transmit diversity mode specified by \( \text{SR1}_\text{TD}_\text{MODE}_s \), or if the mobile station supports Spreading Rate 3 on the common channel and \( \text{SR3}_\text{INCL}_s \) is equal to ‘1’, the mobile station shall:
  - Set the stored message sequence numbers CONFIG_MSG_SEQ$_s$, A41_SYS_PAR_MSG_SEQ$_s$, ACC_MSG_SEQ$_s$, MC_RR_PAR_MSG_SEQ$_s$, UNI_NGHBR_LST_MSG_SEQ$_s$, EXT_GLOB_SERV_REDIR_MSG_SEQ$_s$, EXT_CHAN_LST_MSG_SEQ$_s$, USER_ZONE_ID_MSG_SEQ$_s$ and PRI_NGHBR_LST_MSG_SEQ$_s$ variables to NULL (see 2.6.2.2);
  - Set the index number of the Primary Broadcast Control Channel (BCN) to 1;
  - Set IMSI$_{11\_12}$ and MCC$_s$ to NULL;
  - Perform registration initialization as specified in 2.6.5.1.3; and
  - If the bits of TMSI_CODE$_{s\_p}$ are not all equal to ‘1’ and if SYS_TIME$_s$ exceeds TMSI_EXP_TIME$_{s\_p} \times 2^{12}$, the mobile station shall set all the bits of TMSI_CODE$_{s\_p}$ to ‘1’.

- Otherwise, the mobile station shall:
  - Set PAGECH$_s$ to the Primary Paging Channel (see 3.1.3.4 of [2]);
– Set PAGE_CHANs to ‘1’;
– Set the stored message sequence numbers CONFIG_MSG_SEQs,
  SYS_PAR_MSG_SEQs, ACC_MSG_SEQs, NGHBR_LST_MSG_SEQs,
  GEN_NGHBR_LST_MSG_SEQs, EXT_NGHBR_LST_MSG_SEQs,
  CHAN_LST_MSG_SEQs, EXT_SYS_PAR_MSG_SEQs,
  GLOB_SERV_REDIR_MSG_SEQs, EXT_GLOB_SERV_REDIR_MSG_SEQs,
  EXT_CHAN_LST_MSG_SEQs, USER_ZONE_ID_MSG_SEQs and
  PRI_NGHBR_LST_MSG_SEQs variables to NULL (see 2.6.2.2);
– Set IMSI_11_12s and MCCs to NULL;
– Perform registration initialization as specified in 2.6.5.1.3; and
– If the bits of TMSI_CODEs-p are not all equal to ‘1’ and if SYS_TIMEs exceeds
  TMSI_EXP_TIMEs-p × 2^{12}, the mobile station shall set all the bits of
  TMSI_CODEs-p to ‘1’.

The mobile station shall enter the *Mobile Station Idle State*.

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**Figure 2.6.1.4-1. Mobile Station Internal Timing**
2.6.2 Mobile Station Idle State

In this state, the mobile station monitors the Paging Channel or the Quick Paging Channel or Forward Common Control Channel/Primary Broadcast Control Channel. The mobile station can receive messages, receive an incoming call (mobile station terminated call), initiate a call (mobile station originated call), cancel a PACA call, initiate a registration, or initiate a message transmission.

The mobile station may monitor the Quick Paging Channel to determine if it should receive messages from the Paging Channel or Forward Common Control Channel.

Upon entering the **Mobile Station Idle State from the Mobile Station Initialization State**, the mobile station shall perform the following:

- If $SR1_{BCCH\_NON\_TD\_INCL} \_SR1_{BCCH\_SUPPORTED}$ is equal to ‘1’, or if $SR1_{TD\_INCL}$ is equal to ‘1’ and the mobile station supports the transmit diversity mode specified by $SR1_{TD\_MODE}$, or if the mobile station supports Spreading Rate 3 on the common channel and $SR3\_INCL$ is equal to ‘1’, the mobile station shall perform the following:
  - Set its Primary Broadcast Control Channel code channel to $BCCH_s$,
  - Set the Primary Broadcast Control Channel data rate as determined by $BRAT_s$,
  - Set the Primary Broadcast Control Channel code rate as determined by $BCCH\_CODE\_RATE_s$,
  - Set SLOTTED_s to YES if $T\_SLOTTED_s$ is equal to ‘00000000’ or if the mobile station does not support the slotted timer; otherwise enable the $T_{MS\_Slotted}$ timer with the duration specified by $T\_SLOTTED_s$ and set SLOTTED_s to NO, and
  - Perform common channel supervision as specified in 2.6.2.1.1.4.

- Otherwise, the mobile station shall perform the following:
  - Set its code channel to $PAGECH_s$,
  - Set the Paging Channel data rate as determined by $PRAT_s$,
  - Set SLOTTED_s to YES if $T\_SLOTTED_s$ is equal to ‘00000000’ or if the mobile station does not support the slotted timer; otherwise enable the $T_{MS\_Slotted}$ timer with the duration specified by $T\_SLOTTED_s$ and set SLOTTED_s to NO, and
  - Perform Paging Channel supervision as specified in 2.6.2.1.4.

If $REDIRECTION_s$, $PACA_s$, and $NDSS\_ORIG_s$ are equal to disabled, the mobile station may exit the **Mobile Station Idle State** at any time and enter the **System Determination Substate** of the **Mobile Station Initialization State** with a reselection indication (see 2.6.1.1).

While in the **Mobile Station Idle State**, the mobile station shall perform the following procedures:

- The mobile station shall perform Paging Channel or Forward Common Control Channel monitoring procedures as specified in 2.6.2.1.1.
The mobile station shall perform message acknowledgment procedures as specified in 2.1.1.2 and 2.1.2.1 of [4].

The mobile station shall perform registration procedures as specified in 2.6.2.1.3.

The mobile station shall perform idle handoff procedures as specified in 2.6.2.1.4.

The mobile station shall perform system reselection procedures as specified in 2.6.2.1.6.


The mobile station shall perform the Mobile Station Page Match Operation as specified in 2.6.2.3 whenever it receives a mobile station-directed page.

The mobile station shall perform the Mobile Station Order and Message Processing Operation as specified in 2.6.2.4 whenever a message or order directed to the mobile station is received other than a mobile station-directed page.

The mobile station shall set NDSS_ORIGs to disabled if directed by the user to cancel the call origination.

The mobile station shall perform the Mobile Station Origination Operation as specified in 2.6.2.5 if directed by the user to initiate a call, or if NDSS_ORIGs is equal to enabled.

The mobile station shall not send any subsequent Origination Message containing the same packet data service option until the system time stored in RETRY_DELAYs[001]. At the system time stored in RETRY_DELAYs[001], the mobile station shall reset RETRY_DELAYs[001] to 0.

The mobile station shall perform the Mobile Station PACA Cancel Operation as specified in 2.6.2.8, if PACA is equal to enabled and any one of the following conditions is met:

- PACA_CANCEL is equal to ‘1’; or
- The mobile station is directed by the user to cancel the PACA call.

If the PACA state timer expires, the mobile station shall perform the following:

- The mobile station should enter the Update Overhead Information Substate of the System Access State (see 2.6.3) with an origination indication within $T_{33m}$ seconds to re-originate the PACA call.
Otherwise, the mobile station shall perform the Mobile Station PACA Cancel Operation as specified in 2.6.2.8.

- If the mobile station supports Data Burst Message transmission, it shall perform the Mobile Station Message Transmission Operation as specified in 2.6.2.6 if directed by the user to transmit a message.

- If the mobile station supports the Device Information Message on the r-csch, AUTO_MSG_SUPPORTED is equal to ‘1’, and the mobile station has detected a change in hook status since the last time when the mobile station sent hook status information, the mobile station shall perform the following:
  - If the autonomous message timer has expired or is disabled, the mobile station shall perform the Mobile Station Message Transmission Operation as specified in 2.6.2.6.
  - If the autonomous message timer has not expired, the mobile station shall set the autonomous message timer equal to AUTO_MSG_INTERVALS and shall restart the timer.

- The mobile station shall perform the Mobile Station Power-Down Operation as specified in 2.6.2.7 if directed by the user to power down.

- If the bits of TMSI_CODES-P are not all equal to ‘1’ and if System Time (in 80 ms units) exceeds TMSI_EXP_TIME × 212, the mobile station shall set all the bits of TMSI_CODES-P to ‘1’ within T66m seconds.

- If the full-TMSI timer expires or has expired, the mobile station shall set all the bits of TMSI_CODES-P to ‘1’. The mobile station shall update the registration variables as described in 2.6.5.2.5.

2.6.2.1 Idle Procedures

2.6.2.1.1 Forward Channel Monitoring Procedures

2.6.2.1.1.1 General Overview

The Paging Channel is divided into 80 ms slots called Paging Channel slots. Paging and control messages for a mobile station operating in the non-slotted mode can be received in any of the Paging Channel slots; therefore, the non-slotted mode of operation requires the mobile station to monitor all slots.

The Forward Common Control Channel is divided into 80 ms slots called Forward Common Control Channel slots. Paging and mobile directed messages for a mobile station operating in the non-slotted mode can be received in any of the Forward Common Control Channel slots. The overhead messages can be received on the Primary Broadcast Control Channel. Therefore, the non-slotted mode of operation requires the mobile station to continuously monitor the Forward Common Control Channel/Primary Broadcast Control Channel.
2.6.2.1.1.1 General Overview for Individually Addressed Messages

The Paging Channel or the Forward Common Control Channel protocol provides for scheduling the transmission of messages for a specific mobile station in certain assigned slots. Support of this feature is optional and may be enabled by each mobile station. A mobile station that monitors the Paging Channel or the Forward Common Control Channel only during certain assigned slots is referred to as operating in the slotted mode. During the slots in which the Paging Channel or the Forward Common Control Channel is not being monitored, the mobile station can stop or reduce its processing for power conservation. A mobile station may not operate in the slotted mode in any state except the **Mobile Station Idle State**.

A mobile station operating in the slotted mode generally monitors the Paging Channel or the Forward Common Control Channel for one or two slots per slot cycle. The mobile station can specify its preferred slot cycle using the SLOT_CYCLE_INDEX field in the **Registration Message**, **Origination Message**, or **Page Response Message**. The mobile station can also specify its preferred slot cycle using the SLOT_CYCLE_INDEX field of the **Terminal Information** record of the **Status Response Message** or the **Extended Status Response Message**. In addition, the mobile station can also specify its preferred slot cycle using the SLOT_CYCLE_INDEX field of the **Terminal Information** record of the **Status Response Message** or the **Status Message** when in the **Mobile Station Control on the Traffic Channel State**. The length of the slot cycle, $T$, in units of 1.28 seconds,¹ is given by

$$T = 2^i,$$

where $i$ is the selected slot cycle index (see 2.6.2.1.1.3).

A mobile station operating in the slotted mode may optionally monitor additional slots to receive broadcast messages and/or broadcast pages (see 2.6.2.1.1.3.3 and 2.6.2.1.1.3.4).

There are $16 \times T$ slots in a slot cycle. SLOT_NUM is the Paging Channel or the Forward Common Control Channel slot number, modulo the maximum length slot cycle (2048 slots). That is, the value of SLOT_NUM is

$$\text{SLOT_NUM} = \lfloor t/4 \rfloor \mod 2048,$$

where $t$ is the System Time in frames. For each mobile station, the starting times of its slot cycles are offset from the slot in which SLOT_NUM equals zero by a fixed, randomly selected number of slots as specified in 2.6.2.1.1.3.

Figure 2.6.2.1.1.1-1 shows an example for a slot cycle length of 1.28 seconds, in which the computed value of PGSLOT (see 2.6.2.1.1.3) is equal to 6, so that one of the mobile station’s slot cycles begins when SLOT_NUM equals 6. The mobile station begins monitoring the Paging Channel or the Forward Common Control Channel at the start of the slot in which SLOT_NUM equals 6. The next slot in which the mobile station must begin monitoring the

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¹ The minimum length slot cycle consists of 16 slots of 80 ms each, hence 1.28 seconds.
Paging Channel or the Forward Common Control Channel is 16 slots later, i.e., the slot in which SLOT_NUM is 22.

![Diagram showing system time and mobile station idle slotted mode structure example]

**Figure 2.6.2.1.1.1-1. Mobile Station Idle Slotted Mode Structure Example**

### 2.6.2.1.1.1.1 Overview of Stopping Monitoring via the General Page Message

Layer 3 determines when a mobile station operating in the slotted mode may stop monitoring the Paging Channel or the Forward Common Control Channel based upon indications received from Layer 2 (see 2.1.2.2.2.4.1 of [4]). When the *General Page Message* is used, Layer 2 determines whether there is an address mismatch or a broadcast address mismatch, based upon the address information received in the *General Page Message*. Based upon the address mismatch and broadcast address mismatch indications received from Layer 2, Layer 3 can determine when no further messages or records addressed to an individual mobile station will be present in the slot.

A *General Page Message* contains four fields: CLASS_0_DONE, CLASS_1_DONE, TMSI_DONE, and ORDERED_TMSIS, which indicate when a mobile station operating in the slotted mode may stop monitoring the Paging Channel or the Forward Common Control Channel.

When CLASS_0_DONE is set to ‘1’ during a mobile station’s assigned slot and the mobile station is operating in the slotted mode, no further messages or records addressed by a class 0 IMSI will be directed to the mobile station during the current slot. When CLASS_1_DONE is set to ‘1’ during a mobile station’s assigned slot and the mobile station is operating in the slotted mode, no further messages or records addressed by a class 1 IMSI will be directed to the mobile station during the current slot. Similarly, when TMSI_DONE is set to ‘1’ during a mobile station’s assigned slot and the mobile station is operating in the...
slotted mode, no further messages or records addressed by a TMSI will be directed to the mobile station during the current slot.

The field ORDERED_TMSIS, when set to ‘1’ during a mobile station’s assigned slot, indicates that the base station has ordered TMSI page records directed to mobile stations operating in the slotted mode so that the resulting TMSI_CODE values are in ascending order in the General Page Messages in the slot.

A mobile station which is operating in the slotted mode, has a class 0 IMSI assigned, and does not have a TMSI assigned (all the bits of TMSI_CODEs-p are equal to ‘1’), may stop monitoring the Paging Channel or the Forward Common Control Channel after processing a General Page Message containing CLASS_0_DONE equal to ‘1’. Similarly, a mobile station which is operating in the slotted mode, has a class 1 IMSI assigned, and does not have a TMSI assigned (all the bits of TMSI_CODEs-p are equal to ‘1’), may stop monitoring the Paging Channel or the Forward Common Control Channel after processing a General Page Message containing CLASS_1_DONE equal to ‘1’.

A mobile station which is operating in the slotted mode, has a class 0 IMSI assigned, and has a TMSI assigned (the bits of TMSI_CODEs-p are not all equal to ‘1’), may stop monitoring the Paging Channel or the Forward Common Control Channel after processing a General Page Message containing both CLASS_0_DONE equal to ‘1’ and TMSI_DONE equal to ‘1’. Similarly, a mobile station which is operating in the slotted mode, has a class 1 IMSI assigned, and has a TMSI assigned (the bits of TMSI_CODEs-p are not all equal to ‘1’), may stop monitoring the Paging Channel or the Forward Common Control Channel after processing a General Page Message containing both CLASS_1_DONE equal to ‘1’ and TMSI_DONE equal to ‘1’.

If ORDERED_TMSIS is equal to ‘1’ and CLASS_0_DONE is equal to ‘1’, a mobile station which has a class 0 IMSI assigned, is operating in the slotted mode, and has a TMSI assigned (the bits of TMSI_CODEs-p are not all equal to ‘1’), may stop monitoring the Paging Channel or the Forward Common Control Channel after processing a page record with a TMSI_CODE value of higher numerical value than TMSI_CODEs-p.

If ORDERED_TMSIS is equal to ‘1’ and CLASS_1_DONE is equal to ‘1’, a mobile station which has a class 1 IMSI assigned, is operating in the slotted mode, and has a TMSI assigned (the bits of TMSI_CODEs-p are not all equal to ‘1’), may stop monitoring the Paging Channel or the Forward Common Control Channel after processing a page record with a TMSI_CODE value of higher numerical value than TMSI_CODEs-p.

The mobile station continues to monitor the Paging Channel or the Forward Common Control Channel for one additional slot unless, within its assigned slot, the mobile station receives a General Page Message containing the appropriate indicator permitting it to stop monitoring the Paging Channel or the Forward Common Control Channel (CLASS_0_DONE, CLASS_1_DONE, TMSI_DONE, or ORDERED_TMSIS equal to ‘1’, whichever is appropriate). This allows the base station to carry over a message begun in the assigned slot into the following slot, if necessary.
2.6.2.1.1.1.2 Overview of Stopping Monitoring via the Universal Page Message

Layer 3 determines when a mobile station operating in the slotted mode may stop monitoring the Forward Common Control Channel based upon indications from Layer 2 (see 2.1.2.2.2.4.2 of [4]). When the Universal Page Message is used on the Forward Common Control Channel, Layer 2 determines whether there is an address mismatch or a broadcast address mismatch, based upon the address information received in the Universal Page Message. Based upon the address mismatch and broadcast address mismatch indications received from Layer 2, Layer 3 can determine when no further messages or records addressed to an individual mobile station will be present in the slot.

The Universal Page Message contains the READ_NEXT_SLOT field, which, when equal to ‘1’ and received in an assigned slot, indicates to a mobile station that it is to monitor the Forward Common Control Channel in time to receive the first bit of the slot following the assigned slot. This allows the base station to use both an assigned slot and the following slot for pages if all of the pages for an assigned slot cannot be fit into the assigned slot. The Universal Page Message also contains the READ_NEXT_SLOT_BCAST field, which, when equal to ‘1’ and received in an assigned slot or broadcast slot, indicates to a mobile station configured to receive broadcast messages that it is to monitor the Forward Common Control Channel in time to receive the first bit of the subsequent slot. This allows the base station to use the subsequent slot for enhanced broadcast pages if all of the enhanced broadcast pages for an assigned slot or broadcast slot cannot be fit into the slot.

2.6.2.1.1.2 Overview of Broadcast Messages on Paging Channel

The Paging Channel protocol provides two methods for the transmission of broadcast messages. Each method enables mobile stations operating in the slotted mode or in the non-slotted mode to receive broadcast messages. A broadcast message on the Paging Channel is a Data Burst Message that has a broadcast address type. A mobile station operating in the slotted mode has assigned slots that it monitors to receive Paging Channel messages (see 2.6.2.1.1.1). A broadcast page is a record within a General Page Message that has a broadcast address type. A base station may transmit a broadcast page in an assigned slot to inform mobile stations monitoring that slot that a broadcast message will be transmitted in a predetermined subsequent slot. A slot that a mobile station monitors in order to receive either a broadcast page or a broadcast message is referred to as a broadcast slot.

2.6.2.1.1.2.1 Method 1: Multi-Slot Broadcast Message Transmission

According to this method, a broadcast message is sent in a sufficient number of assigned slots such that it may be received by all mobile stations that are operating in the slotted mode.

Figure 2.6.2.1.1.2.1-1 shows an example for the case when the maximum slot cycle index is equal to 0. In this example, the broadcast message fits in a single slot. The Data Burst Message is transmitted in 16 consecutive slots.
2.6.2.1.1.1.2.2 Method 2: Periodic Broadcast Paging

According to this method, mobile stations configured to receive broadcast messages monitor a specific broadcast slot (the first slot of a broadcast paging cycle; see 2.6.2.1.1.3.3). There are two methods of sending broadcast messages used with Periodic Broadcast Paging.

If all of the broadcast messages to be transmitted fit within the first slot of a broadcast paging cycle, they may all be transmitted in this broadcast slot. If there is a single broadcast message to be transmitted, it may be transmitted beginning in this broadcast slot.

Alternately, one or more broadcast pages may be transmitted in the first slot of a broadcast paging cycle. Each broadcast page is associated with a subsequent broadcast slot. For each broadcast page, an associated broadcast message may be transmitted in the associated subsequent broadcast slot. The broadcast slot for the associated broadcast message is determined according to the position of the broadcast page within the General Page Message transmitted in the first slot of the broadcast paging cycle.

Figure 2.6.2.1.1.2.2-1 shows an example of Periodic Broadcast Paging when the broadcast index is set to 1. A General Page Message containing three broadcast pages is transmitted in the first slot of the broadcast paging cycle. For each of the three broadcast pages, a Data Burst Message is transmitted in a subsequent slot.
2.6.2.1.1.1.3 Overview of Broadcast Messages on Broadcast Control Channel

The Broadcast Control Channel/Forward Common Control Channel protocol provides two methods for the transmission of broadcast messages. Each method enables mobile stations operating in the slotted mode or in the non-slotted mode to receive broadcast messages on the Broadcast Control Channel. A broadcast message on the Broadcast Control Channel is a *Data Burst Message* that has a broadcast address type. A mobile station operating in the slotted mode has assigned Forward Common Control Channel slots that it monitors to receive Forward Common Control Channel messages (see 2.6.2.1.1.1). A mobile station operating in the slotted mode and configured to receive broadcast messages may also have special assigned Forward Common Control Channel slots, called broadcast slots, that it monitors to receive enhanced broadcast pages. An enhanced broadcast page is a record within a *General Page Message* or a *Universal Page Message* that has a broadcast address type and that includes broadcast message scheduling information. A base station may transmit an enhanced broadcast page in an assigned Forward Common Control Channel slot, or in a broadcast slot, to inform mobile stations that a broadcast message will be transmitted in a specified Broadcast Control Channel slot. The enhanced broadcast page identifies the Broadcast Control Channel and the slot the mobile station is to monitor to receive the broadcast message.

2.6.2.1.1.3.1 Method 1: Multi-Slot Enhanced Broadcast Paging

According to this method, an enhanced broadcast page is sent in a sufficient number of assigned slots on the Forward Common Control Channel such that it may be received by all mobile stations that are operating in the slotted mode.

Figure 2.6.2.1.1.3.1-1 shows an example for the case when the maximum slot cycle index is equal to 0. The enhanced broadcast page is transmitted in 16 consecutive slots.
Figure 2.6.2.1.1.3.1-1. Multi-Slot Enhanced Broadcast Paging Example

2.6.2.1.1.3.2 Method 2: Periodic Enhanced Broadcast Paging

According to this method, mobile stations configured to receive broadcast messages monitor a specific broadcast slot (the first slot of a broadcast paging cycle). One or more enhanced broadcast pages may be transmitted in the first slot of a broadcast paging cycle and/or in the subsequent slot. Each enhanced broadcast page is associated with a subsequent broadcast slot. The broadcast slot for the associated broadcast message is determined according to a time offset specified in the enhanced broadcast page. In addition, a broadcast slot for a repeat of the broadcast message can be specified via a time offset from the slot of the first broadcast message.

2.6.2.1.1.2 Non-Slotted Mode Requirements

A mobile station operating in the non-slotted mode shall monitor the Paging Channel or the Forward Common Control Channel/Primary Broadcast Control Channel at all times. If the mobile station declares a loss of the Paging Channel or the Forward Common Control Channel/Primary Broadcast Control Channel (see 2.6.2.1.1.4), the mobile station shall enter the System Determination Substate of the Mobile Station Initialization State with a system lost indication (see 2.6.1.1).

When a mobile station monitors the Paging Channel or the Forward Common Control Channel in any state other than the Mobile Station Idle State, it shall operate in the non-slotted mode.

A mobile station monitoring the Paging Channel shall operate in the non-slotted mode when PACAs is equal to enabled.

A mobile station monitoring the Paging Channel shall operate in the non-slotted mode when SLOTTEDs is equal to NO.

2.6.2.1.1.3 Slotted Mode Requirements

A mobile station monitoring the Paging Channel shall not operate in the slotted mode if any
of the of the following conditions are true:

- \( \text{SLOTTED}_s \) is equal to NO,
- Bit 5 of the station class mark is set to '0' (see 2.3.3),
- \( \text{PACA}_s \) is equal to enabled, or
- The mobile station’s configuration parameters are not current (see 2.6.2.2).

A mobile station monitoring the Forward Common Control Channel shall not operate in the slotted mode if either of the following conditions is true:

- Bit 5 of the station class mark is set to '0' (see 2.3.3), or
- The mobile station’s configuration parameters are not current (see 2.6.2.2).

A mobile station monitoring the Forward Common Control Channel with bit 5 of the station class mark set to ‘1’ shall monitor all Forward Common Control Channel slots (see 2.6.2.1.1.3.1) if either of the following conditions is true:

- \( \text{SLOTTED}_s \) is equal to NO, or
- \( \text{PACA}_s \) is equal to enabled.

During operation in the slotted mode, the mobile station shall ensure that its stored configuration parameter values are current (see 2.6.2.2).

If the mobile station declares a loss of the Paging Channel or the Forward Common Control Channel/Primary Broadcast Control Channel (see 2.6.2.1.1.4), the mobile station shall enter the System Determination Substate of the Mobile Station Initialization State with a system lost indication (see 2.6.1.1).

2.6.2.1.1.3.1 Monitoring Assigned Slots

If the mobile station does not support Quick Paging Channel operation or if \( \text{QPCH\_SUPPORTED}_s = '0', \) the mobile station shall monitor the Paging Channel or the Forward Common Control Channel in each of its assigned slots.

If the mobile station supports Quick Paging Channel operation and if \( \text{QPCH\_SUPPORTED}_s = '1', \) for each of its assigned slots, the mobile station shall perform the following:

- The mobile station should check its assigned paging indicators in the complete Quick Paging Channel slot immediately preceding its assigned Paging Channel or Forward Common Control Channel slot, as specified in 2.6.2.1.2.1; the mobile station shall monitor the assigned Paging Channel or Forward Common Control Channel slot if the paging indicators meet the conditions specified in 2.6.2.1.2.2.

- If the mobile station does not check its assigned paging indicators, the mobile station shall monitor its assigned Paging Channel or Forward Common Control Channel slot.

If the mobile station supports Quick Paging Channel operation, the mobile station is configured to receive broadcast messages, \( \text{BCAST\_INDEX}_s \) is not equal to '000', and \( \text{QPCH\_BI\_SUPPORTED}_s \) equals '1', then for each of its assigned broadcast slots on the Forward Common Control Channel, the mobile station shall perform the following:
The mobile station shall monitor each slot following an assigned slot in which the mobile station received a *Universal Page Message* with `READ_NEXT_SLOT` equal to ‘1’, and shall begin monitoring the Forward Common Control Channel in time to receive the first bit of the slot. If the mobile station is configured to receive broadcast messages, it shall monitor each slot following an assigned slot in which the mobile station received a *Universal Page Message* with `READ_NEXT SLOT_BCAST` equal to ‘1’, and shall begin monitoring the Forward Common Control Channel in time to receive the first bit of the slot.

If SLOTTED$_S$ is equal to NO or PACA$_S$ is equal to enabled, the mobile station may stop monitoring a Forward Common Control Channel slot when Layer 3 receives an address mismatch indication from Layer 2. When the mobile station stops monitoring a Forward Common Control Channel slot when SLOTTED$_S$ is equal to NO or PACA$_S$ is equal to enabled, the mobile station shall begin monitoring the subsequent Forward Common Control Channel slot in time to receive the first bit of the slot.

If the mobile station monitors a Paging Channel or Forward Common Control Channel slot, it shall begin monitoring the Paging Channel or the Forward Common Control Channel in time to receive the first bit of the slot. If the mobile station is not configured to receive broadcast addresses, the mobile station shall continue to monitor the Paging Channel or the Forward Common Control Channel until one of the following conditions is satisfied:

- Layer 3 receives an address mismatch indication from Layer 2 (see 2.1.2.2.2.4 of [4]); or
- The mobile station monitors the assigned slot and the slot following the assigned slot, and the mobile station receives at least one valid message (see 2.1.2.4.2 of [4]).

If the mobile station is configured to receive broadcast addresses and the mobile station is monitoring a Paging Channel, the mobile station shall continue to monitor the Paging Channel until one of the preceding conditions is satisfied and should monitor the Paging Channel until Layer 3 receives a broadcast address mismatch indication from Layer 2 (see 2.1.2.2.2.4 of [4]).

If the mobile station is configured to receive broadcast addresses and the mobile station is monitoring a Forward Common Control Channel Channel, the mobile station shall continue to monitor the the Forward Common Control Channel Channel until one of the preceding conditions is satisfied and should monitor the Forward Common Control Channel Channel until Layer 3 receives a broadcast address mismatch indication from Layer 2 (see 2.1.2.2.2.4 of [4]).

The mobile station shall monitor each slot following a broadcast slot in which the mobile station received a *Universal Page Message* with `READ_NEXT SLOT_BCAST` equal to ‘1’, and shall begin monitoring the Forward Common Control Channel in time to receive the first bit of the slot.
For each broadcast slot monitored to receive broadcast pages or broadcast messages that is not one of its assigned slots, the mobile station should begin monitoring the Paging Channel or the Forward Common Control Channel in the first bit of the broadcast slot. The mobile station should continue to monitor the Paging Channel or the Forward Common Control Channel until one of the following conditions is satisfied:

- Layer 3 receives a broadcast address mismatch indication from Layer 2; or
- The mobile station monitors the Paging Channel or the Forward Common Control Channel to receive all messages beginning in the broadcast slot and in the slot following the broadcast slot, and the mobile station receives at least one valid message (see 2.2.2.3.2 of [4]).

To determine its assigned slots, the mobile station shall use the hash function specified in 2.6.7.1 to select a number, PGSLOT, in the range 0 to 2047 (spanning the maximum slot cycle length, which is 163.84 seconds). The mobile station's assigned slots shall be those slots in which

\[ \lfloor \frac{t}{4} \rfloor - \text{PGSLOT} \mod (16 \times T) = 0, \]

where \( t \) is the System Time in frames and \( T \) is the slot cycle length in units of 1.28 seconds given by

\[ T = 2^i, \]

where \( i \) is the slot cycle index.

For each slot on the Broadcast Control Channel monitored to receive broadcast messages, the mobile station should begin monitoring the Broadcast Control Channel in the first bit of the slot. The mobile station should continue to monitor the Broadcast Control Channel until one of the following conditions is satisfied:

- The mobile station has monitored all frames of a Broadcast Control Channel slot and the frame quality for all of the frames of the slot was insufficient; or
- The mobile station monitors the Broadcast Control Channel slot specified by the enhanced broadcast page and the slot did not contain an SCI bit set to ‘1’ (see [4]).
- The mobile station has received a broadcast Data Burst Message having the same BURST_TYPE and broadcast address as the enhanced broadcast page which announced the Data Burst Message.

2.6.2.1.1.3.2 Determination of the Slot Cycle Index

If the SID and NID of the current base station (SID_s and NID_s, as stored from the System Parameters Message or ANSI-41 System Parameters Message) do not match any entry of SID_NID_LIST_s, the mobile station shall use a slot cycle index no greater than the smaller of MAX_SLOT_CYCLE_INDEX_s and 1; otherwise, the mobile station shall use a slot cycle index no greater than SLOT_CYCLE_INDEX_s (see 2.6.2.2.1.6).

If the mobile station is directed by the user to modify the preferred slot cycle index (SLOT_CYCLE_INDEX_p), the mobile station shall perform parameter-change registration (see 2.6.5.1.6).
2.6.2.1.3.3 Slot Cycles for Broadcast Message Transmission

2.6.2.1.3.3.1 Slot Cycles for Broadcast Message Transmission on the Paging Channel

Distribution of broadcast messages relies on specially defined Paging Channel slot cycles. The definitions are as follows:

Maximum paging cycle: On the Paging Channel, a maximum paging cycle is a Paging Channel slot cycle (see 2.6.2.1.3.1) having a duration of M slots such that:

\[ M = 2^i \times 16, \ 0 \leq i \leq 7 \]

where \( i = \text{MAX_SLOT_CYCLE_INDEX}_s \) as received in the System Parameters Message.

The first slot of each maximum paging cycle is any Paging Channel slot in which

\[ \lfloor t/4 \rfloor \mod M = 0, \]

where \( t \) represents system time in frames.

Broadcast paging cycle: On the Paging Channel, a broadcast paging cycle is a Paging Channel slot cycle (see 2.6.2.1.3.1) having a duration of \( B + 3 \) slots where:

\[ B = 2^i \times 16, \ 1 \leq i \leq 7 \]

where \( i = \text{BCAST_INDEX}_s \) as received in the Extended System Parameters Message, or set by default when the Extended System Parameters Message is not sent.

The first slot of each broadcast paging cycle is any Paging Channel slot in which

\[ \lfloor t/4 \rfloor \mod (B + 3) = 0, \]

where \( t \) represents system time in frames.

2.6.2.1.3.3.2 Slot Cycles for Broadcast Message Transmission on the Forward Common Control Channel

Distribution of broadcast messages relies on specially defined Forward Common Control Channel slot cycles. The definitions are as follows:

Maximum paging cycle: On the Forward Common Control Channel, a maximum paging cycle is a Forward Common Channel slot cycle (see 2.6.2.1.3.1) having a duration of \( M \) slots such that:

\[ M = 2^i \times 16, \ 0 \leq i \leq 7 \]

where \( i = \text{MAX_SLOT_CYCLE_INDEX}_s \) as received in the MC-RR Parameters Message.

The first slot of each maximum paging cycle is any Forward Common Control Channel slot in which

\[ \lfloor t/4 \rfloor \mod M = 0, \]
where \( t \) represents system time in frames.

**Broadcast paging cycle:** On the Forward Common Control Channel, a broadcast paging cycle is a Forward Common Control Channel slot cycle (see 2.6.2.1.1.3.1) having a duration of \( B + 7 \) slots where:

\[
B = 2^{1+i} \times 16, \quad 1 \leq i \leq 7
\]

where \( i = \text{BCAST\_INDEX}_s \) as received in the *MC-RR Parameters Message*.

The first slot of each broadcast paging cycle is any Forward Common Control Channel slot in which

\[
\left\lfloor \frac{t}{4} \right\rfloor \mod (B + 7) = 0,
\]

where \( t \) represents system time in frames.

### 2.6.2.1.1.3.4 Monitoring Paging Channel Broadcasts

The following requirements apply to mobile stations monitoring the Paging Channel and supporting the reception of broadcast messages.

If \( \text{BCAST\_INDEX}_s \) is equal to ‘000’, the mobile station shall monitor only its assigned Paging Channel slots (see 2.6.2.1.1.3.1).

If \( \text{BCAST\_INDEX}_s \) is not equal to ‘000’, and the mobile station is configured to receive messages addressed to broadcast addresses, the mobile station should also monitor the Paging Channel beginning with the first slot of each broadcast paging cycle (see 2.6.2.1.1.3.3).

If the mobile station receives a broadcast page containing a burst type and broadcast address that the mobile station has been configured to receive (see 2.6.2.3), the mobile station should monitor the slot in which the corresponding broadcast Paging Channel message will be sent, determined as follows:

- The mobile station shall consider a broadcast page to have been received in the paging slot in which the *General Page Message* containing the broadcast page began.
- If \( \text{BCAST\_INDEX}_s \) is not equal to ‘000’, the paging slot containing the broadcast page is defined as the reference slot.
- Let \( n \) represent the ordinal number of the broadcast page relative to other broadcast pages that are contained in the same *General Page Message* \((n = 1, 2, 3,...)\). The mobile station should monitor the Paging Channel slot that occurs \( n \times 3 \) paging slots after the reference slot.

After receiving a broadcast message or a broadcast page and a corresponding broadcast Paging Channel message when \( \text{BCAST\_INDEX}_s \) is not equal to ‘000’, the mobile station should discard all further broadcast pages and all further broadcast Paging Channel messages containing the same BURST_TYPE and BC_ADDR fields that are received within \( 4 \times (B + 3) \) paging slots of the first paging slot in the broadcast paging cycle in which the
broadcast page or broadcast message was first received. (B + 3 is the duration of the broadcast paging cycle as defined in 2.6.2.1.1.3.3).

2.6.2.1.1.3.5 Support of Broadcast Delivery Options on the Paging Channel

A mobile station configured to receive broadcast messages shall support reception of broadcast messages transmitted using Multi-Slot Broadcast Message Transmission (see 3.6.2.4.1.2.1.1).

A mobile station configured to receive broadcast messages shall support reception of broadcast messages transmitted using Periodic Broadcast Paging (see 3.6.2.4.1.2.1.2).

2.6.2.1.1.3.6 Monitoring the Forward Common Control Channel for the Enhanced Broadcast Page

The following requirements apply to mobile stations monitoring the Forward Common Control Channel and supporting the reception of broadcast messages.

If BCAST_INDEXs is equal to ‘000’, the mobile station shall monitor only its assigned Quick Paging Channel slots or its assigned Forward Common Control Channel slots (see 2.6.2.1.2) for enhanced broadcast pages.

If BCAST_INDEXs is not equal to ‘000’, and the mobile station is configured to receive messages addressed to broadcast addresses, the mobile station should also monitor the Quick Paging Channel broadcast slots or the Forward Common Control Channel broadcast slots (see 2.6.2.1.2) beginning with the first slot of each broadcast paging cycle.

If the mobile station receives an enhanced broadcast page containing a burst type and broadcast address that the mobile station has been configured to receive, the mobile station should monitor at least one Broadcast Control Channel slot in which the corresponding broadcast message will be sent, determined as follows:

- The mobile station shall monitor the Broadcast Control Channel slot which begins 40 ms × (1 + TIME_OFFSET) later than the beginning of the slot in which the message containing the enhanced broadcast page began or the Broadcast Control Channel slot which begins 40 ms × (1 + REPEAT_TIME_OFFSET) later than the Broadcast Control Channel slot in which the first transmission began.

After receiving an enhanced broadcast page and a corresponding broadcast message when BCAST_INDEXs is not equal to ‘000’, the mobile station should discard all further enhanced broadcast pages containing the same BURST_TYPE and having the same broadcast address that are received within 4 × (B + 7) slots of the first slot in the broadcast paging cycle in which the enhanced broadcast page was received. (B + 7 is the duration of the broadcast paging cycle as defined in 2.6.2.1.1.3.3.1). The mobile station should ignore broadcast messages for which a corresponding enhanced broadcast page was not received.

If the mobile station received an enhanced broadcast page and a corresponding broadcast message, and the broadcast message announced by a pending enhanced broadcast page containing the same BURST_TYPE and having the same broadcast address has not yet been received, the mobile station shall ignore the pending enhanced broadcast page.
2.6.2.1.3.7 Support of Broadcast Delivery Options on the Forward Common Control Channel/Broadcast Control Channel

A mobile station configured to receive broadcast messages shall support reception of broadcast messages transmitted using Multi-Slot Enhanced Broadcast Paging (see 2.6.2.1.1.3.1).

A mobile station configured to receive broadcast messages shall support reception of broadcast messages transmitted using Periodic Enhanced Broadcast Paging (see 2.6.2.1.1.3.2).

2.6.2.1.4 Common Channel Supervision

The mobile station shall monitor the Paging Channel, the Forward Common Control Channel, or the Primary Broadcast Control Channel as specified in 2.6.2.1.1. The mobile station shall set a timer for $T_{30m}$ seconds whenever it begins to monitor the Paging Channel, the Forward Common Control Channel, or the Primary Broadcast Control Channel. The mobile station shall reset the timer for $T_{30m}$ seconds whenever it gets an indication that a valid message was received on the Paging Channel, the Forward Common Control Channel, or the Primary Broadcast Control Channel, whether addressed to the mobile station or not (see 2.1.2.3.2 of [4]). The mobile station shall disable the timer when it is not monitoring the Paging Channel, the Forward Common Control Channel, or the Primary Broadcast Control Channel. If the timer expires, the mobile station shall declare a loss of the Paging Channel, the Forward Common Control Channel, or the Primary Broadcast Control Channel.

2.6.2.1.2 Quick Paging Channel Monitoring Procedures

2.6.2.1.2.1 Overview

The Quick Paging Channel is divided into 80 ms slots called Quick Paging Channel slots.

The Quick Paging Channel protocol provides for scheduling the transmission of paging indicators for a mobile station in Quick Paging Channel slots assigned to the mobile station. Support of this feature is optional.

The Quick Paging Channel protocol provides for scheduling the transmission of configuration change indicators for mobile stations in Quick Paging Channel slots. Support of this feature is optional.

The Quick Paging Channel protocol provides for scheduling the transmission of broadcast indicators for mobile stations in Quick Paging Channel broadcast slots. Support of this feature is optional.

If the mobile station is operating in the slotted mode and it supports the Quick Paging Channel, and QPCH_SUPPORTEDs is equal to ‘1’, the mobile station monitors paging indicators on the Quick Paging Channel as follows:

The mobile station’s assigned Quick Paging Channel slots are offset from its assigned Paging Channel slots or its assigned Forward Common Control Channel slots by 100 ms, as shown in Figure 2.6.2.1.2.1-1. Two paging indicators are assigned to a mobile station in its
assigned Quick Paging Channel slot. In the following, $t^*$ is the start time of the mobile station's assigned Paging Channel or Forward Common Control Channel slot. According to the hash function specified in 2.6.7.1, paging indicators are assigned as follows:

- The first paging indicator for the mobile station is assigned between $(t^*-100)$ ms and $(t^*-80)$ ms (marked as 1 in Figure 2.6.2.1.2.1-1) and the second paging indicator is assigned between $(t^*-60)$ ms and $(t^*-40)$ ms (marked as 3 in the figure); or

- The first paging indicator for the mobile station is assigned between $(t^*-80)$ ms and $(t^*-60)$ ms (marked as 2 in the figure) and the second paging indicator is assigned between $(t^*-40)$ ms and $(t^*-20)$ ms (marked as 4 in the figure).

If the mobile station is operating in the slotted mode and it supports the Quick Paging Channel, the mobile station can, when performing an idle handoff to a base station whose Paging Channel or Forward Common Control Channel/Primary Broadcast Control Channel has recently been monitored, monitor one or more configuration change indicators. Configuration change indicators are scheduled every 40 ms on the first Quick Paging Channel.

If the mobile station is operating in the slotted mode, is configured to receive the broadcast messages, supports the Quick Paging Channel, BCAST_INDEXs is not equal to '000', QPCH_SUPPORTEDs is equal to '1', and QPCH_BI_SUPPORTEDs is equal to '1', the mobile station monitors broadcast indicators on the Quick Paging Channel as follows:

- The mobile station’s assigned Quick Paging Channel broadcast slots are offset from its assigned Forward Common Control Channel broadcast slots by 100 ms, as shown in Figure 2.6.2.1.2.1-1.

- The mobile station monitors one or more broadcast indicators in an assigned Quick Paging Channel broadcast slot.
Figure 2.6.2.1.2.1-1. Quick Paging Channel Timeline
2.6.2.1.2.2 Requirements

A mobile station operating in the slotted mode should monitor the paging indicators in the mobile station’s assigned Quick Paging Channel slot if all of the following conditions hold:

- The mobile station supports the Quick Paging Channel;
- $\text{QPCH\_SUPPORTED}_s = '1$; and
- The mobile station is not monitoring the Paging Channel or the Forward Common Control Channel.

The mobile station’s assigned Quick Paging Channel slots shall be those slots in which

$$\lfloor (t+5)/4 \rfloor - \text{PGSLOT} \mod (16 \times T) = 0.$$  

where $t$ is the System Time in frames, PGSLOT is selected in the range 0 to 2047 by using the hash function specified in 2.6.7.1, and $T$ is the slot cycle length in units of 1.28 seconds such that

$$T = 2^i,$$

and $i$ is the slot cycle index.

To determine the position of the mobile station’s two assigned paging indicators respective to the beginning of the mobile station’s assigned Quick Paging Channel slot, the mobile station shall use the hash function specified in 2.6.7.1. The R1 and R2 outputs of the hashing algorithm correspond to an indicator bit position relative to the beginning of the Quick Paging Channel slot. The hashing algorithm is so devised that two paging indicators (R1 and R2) for a mobile station will be in the first and third quarter slot or the second and fourth quarter slot.

If the mobile station checks assigned paging indicators, the mobile station shall perform the following:

- If the mobile station detects that one of the paging indicators is set to “OFF”, the mobile station need not detect another paging indicator.
- If the mobile station does not detect that at least one of the paging indicators is set to “OFF”, the mobile station shall monitor its assigned Paging Channel or Forward Common Control Channel slot immediately following its assigned Quick Paging Channel slot.

When performing an idle handoff to a base station whose Paging Channel or Forward Common Control Channel was previously monitored, a mobile station operating in the slotted mode should monitor one or more configuration change indicators on the first Quick Paging Channel slot.

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2 A case for which the mobile station may not be able to detect that at least one of the paging indicators is set to “OFF” is for a mobile station that misses a part of or its entire Quick Paging Channel slot during overhead information update. In this case, the mobile station monitors its assigned Paging Channel slot.
Paging Channel for the new base station if all of the following conditions hold:

- The mobile station supports the Quick Paging Channel;
- The mobile station has knowledge that the new base station supports the Quick Paging Channel;
- The mobile station has knowledge that the new base station supports configuration change indicators,
- The mobile station is not monitoring the Paging Channel or the Forward Common Control Channel; and
- No more than $T_{31m}$ seconds have elapsed since the mobile station last received a valid message on the new Paging Channel or the new Forward Common Control Channel.

Before monitoring a configuration change indicator, the mobile station shall perform the following:

- The mobile station shall set `ASSIGNED_QPAGECH` equal to `QPAGECH`, and
- The mobile station shall set `QPAGECH` equal to 1.

Before monitoring a paging indicator subsequent to monitoring a configuration change indicator, the mobile station shall set `QPAGECH` equal to `ASSIGNED_QPAGECH`.

If the Quick Paging Channel data rate is 2400 bps (indicator rate is 4800 bps), the bit positions of the mobile station’s first pair of configuration change indicators shall be the last two bits in the first 40 ms half of a Quick Paging Channel slot. The bit positions of the mobile station’s second pair of configuration change indicators shall be the last two bits in a Quick Paging Channel slot.

If the Quick Paging Channel data rate is 4800 bps (indicator rate is 9600 bps), the bit positions of the mobile station’s first four configuration change indicators shall be the last four bits in the first 40 ms half of a Quick Paging Channel slot. The bit positions of the mobile station’s second four configuration change indicators shall be the last four bits in a Quick Paging Channel slot.

If the mobile station monitors a configuration change indicator and determines that it is set to “OFF”, the mobile station can enter or remain in the slotted mode after an idle handoff (see 2.6.2.1.4.2).

If a mobile station is operating in the slotted mode and is configured to receive broadcast messages, it should monitor the broadcast indicators in the mobile station’s assigned Quick Paging Channel broadcast slot if all of the following conditions hold:

- The mobile station supports the Quick Paging Channel;
- `BCAST_INDEX` is not equal to ‘000’
- `QPCH_BI_SUPPORTED` = ‘1’; and
- The mobile station is not monitoring the Forward Common Control Channel or the Primary Broadcast Control Channel.
The mobile station’s assigned Quick Paging Channel broadcast slots shall be those slots in which

\[ \lfloor (t+5)/4 \rfloor \mod (B + 7) = 0. \]

where \( t \) is the System Time in frames, and \( B \) is the broadcast paging cycle such that \( B = 2^{1+i} \times 16, 1 \leq i \leq 7 \) and \( i = \text{BCAST\_INDEX}_s \) as received in the MC-RR Parameters Message.

The mobile station should monitor one or more broadcast indicators on the Quick Paging Channel. If the Quick Paging Channel data rate is 2400 bps (indicator rate is 4800 bps), the bit positions of the mobile station’s first pair of broadcast indicators shall be the two bits prior to the last two bits in the first 40 ms half of a Quick Paging Channel slot. The bit positions of the mobile station’s second pair of broadcast indicators shall be the two bits prior to the last two bits in a Quick Paging Channel slot.

If the Quick Paging Channel data rate is 4800 bps (indicator rate is 9600 bps), the bit positions of the mobile station’s first four broadcast indicators shall be the four bits prior to the last four bits in the first 40 ms half of a Quick Paging Channel slot. The bit positions of the mobile station’s second four broadcast indicators shall be the four bits prior to the last four bits in a Quick Paging Channel slot.

If the mobile station monitors broadcast indicators and determines that they are not set to “OFF”, the mobile station should perform the following:

- The mobile station should receive its assigned broadcast slot on the Forward Common Control Channel immediately following its assigned Quick Paging Channel broadcast slot.

2.6.2.1.3 Registration

While in the Mobile Station Idle State, the mobile station shall perform the registration procedures specified in 2.6.5.5.2.1.

2.6.2.1.4 Idle Handoff

2.6.2.1.4.1 Pilot Search

An idle handoff occurs when a mobile station has moved from the coverage area of one base station into the coverage area of another base station during the Mobile Station Idle State. If the mobile station detects a Pilot Channel signal from another base station that is sufficiently stronger than that of the current base station, the mobile station determines that an idle handoff should occur. When multiple idle handoff candidates are available, the mobile station should select, if any, a candidate which supports Primary Broadcast Control Channel.

Pilot Channels are identified by their offsets relative to the zero offset pilot PN sequence (see 3.1.3.2.1). Pilot offsets are grouped into sets describing their status with regard to pilot searching.

The following sets of pilot offsets are defined for a mobile station in the Mobile Station Idle State. Each pilot offset is a member of only one set.

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• Active Set: The pilot offset of the Forward CDMA Channel whose Paging Channel or Forward Common Control Channel is being monitored.

• Neighbor Set: The offsets of the Pilot Channels that are likely candidates for idle handoff. The members of the Neighbor Set are specified in the Neighbor List Message, Extended Neighbor List Message, and the General Neighbor List Message on the Paging Channel, and the Universal Neighbor List Message on the Primary Broadcast Control Channel.

• Remaining Set: The set of all possible pilot offsets in the current system (integer multiples of PILOT_INCs) on the current CDMA Frequency Assignment, excluding the pilots in the Neighbor Set and the Active Set.

• Private Neighbor Set: The offsets of the Pilot Channels for the private systems that are likely candidates for idle handoff. The members of the Private Neighbor Set are specified in the Private Neighbor List Message.

The mobile station shall support a Neighbor Set size of at least $N_{8m}$ pilots (see Annex D).

In the *Mobile Station Idle State*, the mobile station shall continuously search for the strongest Pilot Channel signal on the corresponding CDMA Frequency Assignment whenever it monitors the Paging Channel or the Forward Common Control Channel.

The mobile station may search other frequencies and band classes. For example, if a pilot in the Neighbor Set or in the Private Neighbor Set is on a different Frequency Assignment than that of the mobile station, this frequency should be included in the search criteria. Search performance criteria are defined in [11].

This search should be governed by the following:

• Active Set: The search window size for the pilot in the Active Set shall be the number of PN chips specified in Table 2.6.6.2.1-1 corresponding to $SRCH\_WIN\_A_s$.

  The mobile station should center the search window for the pilot of the Active Set around the earliest arriving usable multipath component of the pilot. If the mobile station receives a value greater than or equal to 13 for $SRCH\_WIN\_A_r$, it may store and use the value 13 in $SRCH\_WIN\_A_s$.

• Neighbor Set: The search window size for each pilot in the Neighbor Set shall be the number of PN chips specified in Table 2.6.6.2.1-1 corresponding to $SRCH\_WIN\_NGHBR_{8s}$ field of the NGHBR_REC for the pilot. The mobile station should center the search window for each pilot in the Neighbor Set around the pilot's PN sequence offset plus the corresponding $SRCH\_OFFSET\_NGHBR_{8s}$ (see Table 2.6.6.2.1-2) using timing defined by the mobile station’s time reference (see 2.1.5 of [2]). The mobile station should use the $SEARCH\_PRIORITY$ field of the NGHBR_REC for the corresponding pilot to schedule its neighbor search. If $ADD\_PILOT\_REC\_INCL$ field of the NGHBR_REC for the corresponding pilot is equal to ‘1’, the mobile station shall use the information included in the $NGHBR\_PILOT\_REC$ field for searching the neighbor.
If the mobile station supports hopping pilot beacons and the TIMING_INCL field of the NGHBR_REC for the corresponding pilot is equal to ‘1’, then the mobile station shall use the information included in the NGHBR_TX_OFFSET, NGHBR_TX_DURATI0N, and NGHBR_TX_PERI0D fields of the NGHBR_REC for the corresponding pilot to schedule the time for searching the neighbor.

- Remaining Set: The search window size for each pilot in the Remaining Set shall be the number of PN chips specified in Table 2.6.6.2.1-1 corresponding to SRCH_WIN_Rs. The mobile station should center the search window for each pilot in the Remaining Set around the pilot’s PN sequence offset using timing defined by the mobile station’s time reference (see 2.1.5 of [2]). The mobile station should only search for Remaining Set pilots whose pilot PN sequence offset indices are equal to integer multiples of PILOT_INCs.

- Private Neighbor Set: The search window size for each pilot in the Private Neighbor Set shall be the number of PN chips specified in Table 2.6.6.2.1-1 corresponding to SRCH_WIN_PRI_NGHBRs field of the PRI_NGHBR_REC for the pilot. The mobile station should center the search window for each pilot in the Private Neighbor Set around the pilot’s PN sequence offset using timing defined by the mobile station’s time reference (see 2.1.5 of [2]).

If the mobile station determines that one of the Neighbor Set, Private Neighbor Set or Remaining Set Pilot Channel signals is sufficiently stronger (see [11]) than the Pilot Channel of the Active Set, the mobile station should perform an idle handoff as specified in 2.6.2.1.4.2.

A mobile station operating in slotted mode, which is successfully demodulating the Paging Channel or the Forward Common Control Channel, should not perform an idle handoff while it is required to monitor its assigned slot (see 2.6.2.1.1.3.1).

2.6.2.1.4.2 Idle Handoff Procedures

While performing an idle handoff, the mobile station should not begin operating in non-slotted mode after the idle handoff if all of the following conditions hold:

- The mobile station supports the Quick Paging Channel;
- The mobile station has knowledge that the new base station supports configuration change indicators;
- The mobile station determines that the Quick Paging Channel configuration change indicator for the new Quick Paging Channel is set to “OFF” (see 2.6.2.1.2.1); and
- No more than T31m seconds have elapsed since the mobile station last received a valid message on the new Paging Channel or Forward Common Control Channel/Primary Broadcast Control Channel.

Otherwise, the mobile station shall operate in non-slotted mode until the mobile station has received at least one valid configuration message or mobile station-addressed page on the new Paging Channel or Forward Common Control Channel/Primary Broadcast Control Channel. Following the reception of this message the mobile station may resume slotted mode operation in accordance with 2.6.2.1.1.3. After performing an idle handoff, the
mobile station shall discard all unprocessed messages received on the old Paging Channel
or Forward Common Control Channel/Primary Broadcast Control Channel.

If the new base station is listed in NGHBR_REC_LIST for the old base station (see 2.6.2.2.3,
2.6.2.2.7, and 2.6.2.1.4.1), the mobile station shall use the corresponding 3-bit
NGHBR_CONFIG field to determine the actions required to transition to the new base
station. If the new base station is not listed in NGHBR_REC_LIST for the old base station,
the mobile station shall perform the handoff operation using the same procedure as for a
pilot in NGHBR_REC_LIST with the NGHBR_CONFIG field set to '011'.

If the mobile station is currently monitoring the Paging Channel and selected a neighbor
base station for idle handoff which supports Primary Broadcast Control Channel, the
mobile station shall perform the following:

- The mobile station shall enter the System Determination Substate of the Mobile Station
  Initialization State with a new system indication, upon performing idle handoff to this
  neighbor base station.

- The mobile station shall not perform any of the remaining procedures in this section.

If the NGHBR_CONFIG field is '000', the mobile station shall perform the following:

  - The mobile station shall set ACC_MSG_SEQs and CURR_ACC_MSG_SEQ to NULL
    (see 2.6.2.2) and shall set PILOT_PNs to the pilot offset index of the base station
    transmitting the new Paging Channel or Forward Common Control
    Channel/Primary Broadcast Control Channel.

  - If the mobile station has not stored configuration parameters for the new Paging
    Channel or Forward Common Control Channel and Primary Broadcast Control
    Channel, or if the stored information is not current, the mobile station shall perform
    the following:

    - If the mobile station has monitored the Paging Channel before the idle handoff,
      the mobile station shall set CONFIG_MSG_SEQs, SYS_PAR_MSG_SEQs,
      NGHBR_LST_MSG_SEQs, EXT_NGHBR_LST_MSG_SEQs,
      GEN_NGHBR_LST_MSG_SEQs, CHAN_LST_MSG_SEQs,
      EXT_SYS_PAR_MSG_SEQs, GLOB_SERV_REDIR_MSG_SEQs,
      EXT_GLOB_SERV_REDIR_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs,
      USER_ZONE_ID_MSG_SEQs, and PRI_NGHBR_LST_MSG_SEQs to NULL.

    - If the mobile station has monitored the Forward Common Control
      Channel/Primary Broadcast Control Channel before the idle handoff, the mobile
      station shall set CONFIG_MSG_SEQs, A41_SYS_PAR_MSG_SEQs,
      UNI_NGHBR_LST_MSG_SEQs, MC_RR_PAR_MSG_SEQs,
      EXT_GLOB_SERV_REDIR_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs,
      USER_ZONE_ID_MSG_SEQs, and PRI_NGHBR_LST_MSG_SEQs to NULL.
If the stored information for the new Paging Channel or the Forward Common Control Channel and Primary Broadcast Control Channel is current, the mobile station shall set CONFIG_MSG_SEQs to the stored information for the new Paging Channel or Forward Common Control Channel and Primary Broadcast Control Channel, and the mobile station shall set NGHBR_REC_LIST to the stored information for the new Paging Channel or the new Forward Common Control Channel and Primary Broadcast Control Channel.

If the associated NGHBR_BANDs or NGHBR_FREQs of the new base station in NGHBR_REC_LIST of the old base station is not equal to CDMABANDs and CDMACHs respectively, the mobile station shall set CDMABANDs to NGHBR_BANDs, CDMACHs to NGHBR_FREQs, and tune to the new CDMA Channel. The mobile station shall begin monitoring the Paging Channel or the Forward Common Control Channel/Primary Broadcast Control Channel of the new base station, using the same rate, code rate, and code channel, as applicable.

If PACA is equal to enabled, the mobile station shall enter the Update Overhead Information Substate of the System Access State (see 2.6.3) with an origination indication within T33m seconds to re-originate the PACA call using the new base station.

If the NGHBR_CONFIG field is '001', the mobile station shall perform the following:

- The mobile station shall set ACC_MSG_SEQs and CURR_ACC_MSG_SEQ to NULL and shall set PILOT_PNs to the pilot offset index of the base station transmitting the new Paging Channel.

- If the stored information for Primary Paging Channel or any of the Paging Channels on the associated NGHBR_FREQs of the new base station in NGHBR_REC_LIST of the old base station is current, the mobile station shall perform the following:
  - The mobile station shall use the hash algorithm specified in 2.6.7.1 to select a new Paging Channel number in the range 1 to PAGE_CHANs, where PAGE_CHANs is the value stored for the Paging Channel whose stored information is current. The mobile station shall store the new Paging Channel number as PAGECHs. The mobile station shall perform the following:
    + If the mobile station has not stored configuration parameters for the new Paging Channel, or if the stored parameters are not current (see 2.6.2.2), the mobile station shall set CONFIG_MSG_SEQs, SYS_PAR_MSG_SEQs, NGHBR_LST_MSG_SEQs, EXT_NGHBR_LST_MSG_SEQs, GEN_NGHBR_LST_MSG_SEQs, Chan_LST_MSG_SEQs, EXT_SYS_PAR_MSG_SEQs, USER_ZONE_ID_MSG_SEQs, PRI_NGHBR_LST_MSG_SEQs, and EXT_GLOB_SERV_REDIR_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs, and GLOB_SERV_REDIR_MSG_SEQs to NULL.
+ If the stored information for the new Paging Channel is current, the mobile station shall set CONFIG_MSG_SEQs to the stored information for the new Paging Channel and set NGHBR_REC_LIST to the stored information for the new Paging Channel.

- If the mobile station has monitored the Forward Common Control Channel/Primary Broadcast Control Channel before the idle handoff, the mobile station shall set Paging Channel data rate, PRATs = ‘00’.

- If the associated NGHBR_BANDs or NGHBR_FREQs of the new base station in NGHBR_REC_LIST of the old base station is not equal to CDMA_BANDs and CDMA_CHs respectively, the mobile station shall set CDMA_BANDs to NGHBR_BANDs, CDMA_CHs to NGHBR_FREQs, and tune to the new CDMA Channel. The mobile station shall begin monitoring the new Paging Channel of the new base station.

• If none of the Paging Channel stored information on the associated NGHBR_FREQs of the new base station in NGHBR_REC_LIST of the old base station are current, the mobile station shall perform the following:

  - The mobile station shall set CONFIG_MSG_SEQs, SYS_PAR_MSG_SEQs, NGHBR_LST_MSG_SEQs, EXT_NGHBR_LST_MSG_SEQs, GEN_NGHBR_LST_MSG_SEQs, CHAN_LST_MSG_SEQs, EXT_SYS_PAR_MSG_SEQs, GLOB_SERV_REDIR_MSG_SEQs, EXT_GLOB_SERV_REDIR_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs, USER_ZONE_ID_MSG_SEQs, and PRI_NGHBR_LST_MSG_SEQs to NULL.

  - If the mobile station has monitored the Forward Common Control Channel/Primary Broadcast Control Channel before the idle handoff, the mobile station shall set Paging Channel data rate, PRATs = ‘00’.

  - The mobile station shall set PAGE_CHANs to ‘1’ and PAGECHs to the Primary Paging Channel. If the associated NGHBR_BANDs or NGHBR_FREQs of the new base station in NGHBR_REC_LIST of the old base station is not equal to CDMA_BANDs and CDMA_CHs respectively, the mobile station shall set CDMA_BANDs to NGHBR_BANDs, CDMA_CHs to NGHBR_FREQs, and tune to the new CDMA Channel. The mobile station shall begin monitoring the Primary Paging Channel of the new base station.

• If PACA_s is equal to enabled, the mobile station shall enter the Update Overhead Information Substate of the System Access State (see 2.6.3) with an origination indication within T33m seconds to re-originate the PACA call using the new base station.

If the NGHBR_CONFIG field is ‘010’, the mobile station shall perform the following:
• The mobile station shall set ACC_MSG_SEQs and CURR_ACC_MSG_SEQ to NULL and shall set PILOT_PNs to the pilot offset index of the base station transmitting the new Paging Channel or Forward Common Control Channel/Primary Broadcast Control Channel.

• If the mobile station has monitored the Paging Channel before the idle handoff, the mobile station shall perform the following:

  - If the stored information for Primary Paging Channel or any of the Paging Channels on the target frequency or any of the frequencies of the new base station is current, the mobile station shall perform the following:

    + The mobile station shall use the hash algorithm specified in 2.6.7.1 and the stored value of the number of CDMA channels to determine the new CDMA Channel and shall set FREQ_NEW to this new CDMA Channel. The mobile station shall perform the following:

      o If the stored information for any of the Paging Channels on the CDMA channel specified by FREQ_NEW is current, the mobile station shall perform the following:

        ◊ The mobile station shall use the hash algorithm specified in 2.6.7.1 to select a new Paging Channel number in the range 1 to PAGE_CHANs, where PAGE_CHANs is the value stored for the Paging Channel whose stored information is current. The mobile station shall store the new Paging Channel number as PAGECHs. The mobile station shall perform the following:

          - If the mobile station has not stored configuration parameters for the new Paging Channel, or if the stored parameters are not current (see 2.6.2.2), the mobile station shall set CONFIG_MSG_SEQs, SYS_PAR_MSG_SEQs, NGHBR_LST_MSG_SEQs, EXT_NGHBR_LST_MSG_SEQs, CHAN_LST_MSG_SEQs, EXT_SYS_PAR_MSG_SEQs, USER_ZONE_ID_MSG_SEQs, PRI_NGHBR_LST_MSG_SEQs, and EXT_GLOB_SERV_REDIR_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs, and GLOB_SERV_REDIR_MSG_SEQs to NULL.

          - If the stored information for the new Paging Channel is current, the mobile station shall set CONFIG_MSG_SEQs to the stored information for the new Paging Channel and set NGHBR_REC_LIST to the stored information for the new Paging Channel.
If the band class corresponding to FREQ_NEW is not equal to CDMABANDs of the old base station or FREQ_NEW is not equal to CDMACHs of the old base station, the mobile station shall set CDMABANDs to band class corresponding to FREQ_NEW and shall set CDMACHs to FREQ_NEW, and tune to the new CDMA Channel. The mobile station shall begin monitoring the new Paging Channel of the new base station.

- If none of the Paging Channel stored information on the CDMA channel specified by FREQ_NEW are current, the mobile station shall perform the following:

  - The mobile station shall set CONFIG_MSG_SEQs, SYS_PAR_MSP_SEQs, NGHBR_LST_MSG_SEQs, EXT_NGHBR_LST_MSG_SEQs, GEN_NGHBR_LST_MSG_SEQs, CHAN_LST_MSG_SEQs, EXT_SYS_PAR_MSG_SEQs, GLOB_SERV_REDIR_MSG_SEQs, EXT_GLOB_SERV_REDIR_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs, USER_ZONE_ID_MSG_SEQs, and PRI_NGHBR_LST_MSG_SEQs to NULL.

  - The mobile station shall set PAGE_CHANs to ‘1’ and PAGECHs to the Primary Paging Channel. If the band class corresponding to FREQ_NEW is not equal to CDMABANDs of the old base station or FREQ_NEW is not equal to CDMACHs of the old base station, the mobile station shall set CDMABANDs to band class corresponding to FREQ_NEW and shall set CDMACHs to FREQ_NEW, and tune to the new CDMA Channel. The mobile station shall begin monitoring the Primary Paging Channel of the new base station.

- If none of the Paging Channel stored information on any of the frequencies of the new base station are current, the mobile station shall perform the following:

  + The mobile station shall set CONFIG_MSG_SEQs, SYS_PAR_MSG_SEQs, NGHBR_LST_MSG_SEQs, EXT_NGHBR_LST_MSG_SEQs, GEN_NGHBR_LST_MSG_SEQs, CHAN_LST_MSG_SEQs, EXT_SYS_PAR_MSG_SEQs, GLOB_SERV_REDIR_MSG_SEQs, EXT_GLOB_SERV_REDIR_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs, USER_ZONE_ID_MSG_SEQs, and PRI_NGHBR_LST_MSG_SEQs to NULL.

  + The mobile station shall set PAGE_CHANs to ‘1’ and PAGECHs to the Primary Paging Channel. If the associated NGHBR_BANDs or NGHBR_FREQs of the new base station in NGHBR_REC_LIST of the old base station is not equal to CDMABANDs and CDMACHs of the old base station respectively, the mobile station shall set CDMABANDs to NGHBR_BANDs, and CDMACHs to NGHBR_FREQs; otherwise, the mobile station shall set CDMACHs as follows:
If the Extended CDMA Channel List Message is being sent on the old base station, set CDMACHs to the first CDMA Channel given in the Extended CDMA Channel List Message for the old base station.

Otherwise, set CDMACHs to the first CDMA Channel given in the CDMA Channel List Message for the old base station.

Then the mobile station shall tune to the new CDMA channel and begin monitoring the Primary Paging Channel of the new base station.

- If the mobile station has monitored the Forward Common Control Channel/Primary Broadcast Control Channel before the idle handoff, the mobile station shall perform the following:
  - If the stored information for any of the Forward Common Control Channels and Primary Broadcast Control Channel on any of the frequencies of the new base station is current, the mobile station shall perform the following:
    - The mobile station shall use the hash algorithm specified in 2.6.7.1 and the stored value of the number of CDMA channels to determine the new CDMA Channel and shall set FREQ_NEW to this new CDMA Channel. The mobile station shall perform the following:
      - If the stored information for any of the Forward Common Control Channels and Primary Broadcast Control Channel on the CDMA channel specified by FREQ_NEW is current, the mobile station shall perform the following:
        - The mobile station shall use the hash algorithm specified in 2.6.7.1 to select a new Forward Common Control Channel number in the range 1 to NUM_FCCCHs, where NUM_FCCCHs is the stored value. The mobile station shall store the new Forward Common Control Channel number as FCCCH_IDs.
        - If the stored information for this new Forward Common Control Channel and Primary Broadcast Control Channel is current, the mobile station shall perform the following:
          - The mobile station shall set CONFIG_MSG_SEQs to the stored information for this new Forward Common Control Channel and Primary Broadcast Control Channel and the mobile station shall set NGHBR_REC_LIST to the stored information for this new Forward Common Control Channel and Primary Broadcast Control Channel.
– If the band class corresponding to FREQ_NEW is not equal to
CDMABANDs of the old base station or FREQ_NEW is not equal to
CDMACHs of the old base station, the mobile station shall set
CDMABANDs to band class corresponding to FREQ_NEW and
shall set CDMACHs to FREQ_NEW, and tune to the new CDMA
Channel. The mobile station shall begin monitoring the new
Forward Common Control Channel/Primary Broadcast Control
Channel of the new base station.

◊ If the stored information for this new Forward Common Control
Channel and Primary Broadcast Control Channel is not current, the
mobile station shall perform the following:

– The mobile station shall set CONFIG_MSG_SEQs,
A41_SYS_PAR_MSG_SEQs, UNI_NGHBR_LST_MSG_SEQs,
MC_RR_PAR_MSG_SEQs, EXT_GLOB_SERV_REDIR_MSG_SEQs,
EXT_CHAN_LST_MSG_SEQs, USER_ZONE_ID_MSG_SEQs, and
PRI_NGHBR_LST_MSG_SEQs to NULL.

– If the band class corresponding to FREQ_NEW is not equal to
CDMABANDs of the old base station or FREQ_NEW is not equal to
CDMACHs of the old base station, the mobile station shall set
CDMABANDs to band class corresponding to FREQ_NEW and
shall set CDMACHs to FREQ_NEW, and tune to the new CDMA
Channel. The mobile station shall begin monitoring the Primary
Broadcast Control Channel of the new base station.

◊ If none of the Forward Common Control Channel and Primary Broadcast
Control Channel stored information on the CDMA channel specified by
FREQ_NEW are current, the mobile station shall perform the following:

◊ The mobile station shall set CONFIG_MSG_SEQs,
A41_SYS_PAR_MSG_SEQs, UNI_NGHBR_LST_MSG_SEQs,
MC_RR_PAR_MSG_SEQs, EXT_GLOB_SERV_REDIR_MSG_SEQs,
EXT_CHAN_LST_MSG_SEQs, USER_ZONE_ID_MSG_SEQs, and
PRI_NGHBR_LST_MSG_SEQs to NULL.

◊ If the associated NGHBR_BANDs of the new base station in
NGHBR_REC_LIST of the old base station is not equal to
CDMABANDs or the associated NGHBR_FREQs of the new base
station in NGHBR_REC_LIST of the old base station is not equal to
CDMACHs of the old base station, the mobile station shall set
CDMABANDs to NGHBR_BANDs, CDMACHs to NGHBR_FREQs, and
tune to the new CDMA Channel. Otherwise, the mobile station shall
set CDMACHs to the first CDMA Channel given in the Extended
CDMA Channel List Message for the old base station and tune to the
new CDMA channel.
Then the mobile station shall begin monitoring the Primary Broadcast Control Channel of the new base station, using the same rate, code rate, and code channel.

- If none of the Forward Common Control Channel and Primary Broadcast Control Channel stored information on any of the frequencies of the new base station are current, the mobile station shall perform the following:
  + The mobile station shall set CONFIG_MSG_SEQs, A41_SYS_PAR_MSG_SEQs, UNI_NGHBR_LST_MSG_SEQs, MC_RR_PAR_MSG_SEQs, EXT_GLOB_SERV_REDIR_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs, USER_ZONE_ID_MSG_SEQs, and PRI_NGHBR_LST_MSG_SEQs to NULL.
  + If the associated NGHBR_BANDs or NGHBR_FREQs of the new base station in NGHBR_REC_LIST of the old base station is not equal to CDMABANDs and CDMACHs of the old base station respectively, the mobile station shall set CDMABANDs to NGHBR_BANDs, CDMACHs to NGHBR_FREQs, and tune to the new CDMA Channel. Otherwise, the mobile station shall set CDMACHs to the first CDMA Channel given in the Extended CDMA Channel List Message for the old base station and tune to the new CDMA channel.
  + Then the mobile station shall begin monitoring the Primary Broadcast Control Channel of the new base station, using the same rate, code rate, and code channel.

- If PACA is equal to enabled, the mobile station shall enter the Update Overhead Information Substate of the System Access State (see 2.6.3) with an origination indication within T33m seconds to re-originate the PACA call using the new base station.

If the NGHBR_CONFIG field is ‘011’, the mobile station shall perform the following:

- Enter the System Determination Substate of the Mobile Station Initialization State with a new system indication (see 2.6.1.1).

If the NGHBR_CONFIG field is ‘100’, the mobile station shall perform the following:

- The mobile station shall set ACC_MSG_SEQs and CURR_ACC_MSG_SEQ to NULL (see 2.6.2.2) and shall set PILOT_PNs to the pilot offset index of the base station transmitting the new Forward Common Control Channel/Primary Broadcast Control Channel.

- If the stored information for any of the Forward Common Control Channels and Primary Broadcast Control Channel on the associated NGHBR_FREQs of the new base station in NGHBR_REC_LIST of the old base station is current, the mobile station shall perform the following:
- The mobile station shall use the hash algorithm specified in 2.6.7.1 to select a new Forward Common Control Channel number in the range 1 to NUM_FCCCHs, where NUM_FCCCHs is the stored value. The mobile station shall store the new Forward Common Control Channel number as FCCCH_IDs.

- If the mobile station has not stored configuration parameters for this new Forward Common Control Channel and Primary Broadcast Control Channel, or if the stored information is not current, the mobile station shall perform the following:

  + The mobile station shall set CONFIG_MSG_SEQs, A41_SYS_PAR_MSG_SEQs, UNI_NGHBR_LST_MSG_SEQs, MC_RR_PAR_MSG_SEQs, EXT_GLOB_SERV_REDIR_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs, USER_ZONE_ID_MSG_SEQs, and PRI_NGHBR_LST_MSG_SEQs to NULL.

  + If the associated NGHBR_BANDs or NGHBR_FREQs of the new base station in NGHBR_REC_LIST of the old base station is not equal to CDMABANDs and CDMAChannel respectively, the mobile station shall set CDMABANDs to NGHBR_BANDs, CDMAChannel to NGHBR_FREQs, and tune to the new CDMA Channel.

  + Then the mobile station shall begin monitoring the Primary Broadcast Control Channel of the new base station, using the same rate, code rate, and code channel.

- If the stored information for this new Forward Common Control Channel and Primary Broadcast Control Channel is current, the mobile station shall perform the following:

  + The mobile station shall set CONFIG_MSG_SEQs to the stored information for this new Forward Common Control Channel and Primary Broadcast Control Channel and the mobile station shall set NGHBR_REC_LIST to the stored information for this new Forward Common Control Channel and Primary Broadcast Control Channel.

  + If the associated NGHBR_BANDs or NGHBR_FREQs of the new base station in NGHBR_REC_LIST of the old base station is not equal to CDMABANDs and CDMAChannel respectively, the mobile station shall set CDMABANDs to NGHBR_BANDs, CDMAChannel to NGHBR_FREQs, and tune to the new CDMA Channel. The mobile station shall begin monitoring the new Forward Common Control Channel/Primary Broadcast Control Channel of the new base station.

- If none of the Forward Common Control Channel and Primary Broadcast Control Channel stored information on the associated NGHBR_FREQs of the new base station in NGHBR_REC_LIST of the old base station are current, the mobile station shall perform the following:
The mobile station shall set CONFIG_MSG_SEQs, A41_SYS_PAR_MSG_SEQs, UNI_NGHBR_LST_MSG_SEQs, MC_RR_PAR_MSG_SEQs, EXT_GLOB_SERV_REDIR_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs, USER_ZONE_ID_MSG_SEQs, and PRI_NGHBR_LST_MSG_SEQs to NULL.

If the associated NGHBR_BANDs or NGHBR_FREQs of the new base station in NGHBR_REC_LIST of the old base station is not equal to CDMABANDs and CDMACHs respectively, the mobile station shall set CDMABANDs to NGHBR_BANDs, CDMACHs to NGHBR_FREQs, and tune to the new CDMA Channel.

The mobile station shall begin monitoring the Primary Broadcast Control Channel of the new base station, using the same rate, code rate, and code channel.

- If PACA_s is equal to enabled, the mobile station shall enter the Update Overhead Information Substate of the System Access State (see 2.6.3) with an origination indication within T33m seconds to re-originate the PACA call using the new base station.

2.6.2.1.5 Primary Broadcast Control Channel Monitoring

2.6.2.1.5.1 General Overview

The Broadcast Control Channel is divided into 40, 80, or 160 ms slots called the Broadcast Control Channel slots (see 3.1.3.5 in [2]). The Primary Broadcast Control Channel will be used for control messages. Support for the Primary Broadcast Control Channel is mandatory for mobile stations. The Primary Broadcast Control Channel will operate with the Forward Common Control Channels and the Quick Paging Channels, or only with the Forward Common Control Channels.

After a mobile station acquires and synchronizes with a new base station that supports a Primary Broadcast Control Channel, the mobile station monitors the Primary Broadcast Control Channel to receive overhead information. Once the mobile station has received the updated overhead information from the Primary Broadcast Control Channel, the mobile station may begin to monitor a Forward Common Control Channel or a Quick Paging Channel, if it is supported.

2.6.2.1.5.2 Requirements

If the base station supports the Primary Broadcast Control Channel, the mobile station shall monitor the Primary Broadcast Control Channel for overhead messages. If the mobile station determines that the CONFIG_MSG_SEQ has changed, the mobile station shall monitor the Primary Broadcast Control Channel to receive updated overhead messages.

2.6.2.1.6 System Reselection Procedures

If the mobile station supports more than one operating mode or the Remaining
Set/Neighbor Set contains pilots on frequencies different from the current frequency, the mobile station shall enter the System Determination Substate of the Mobile Station Initialization State with a system reselection indication (see 2.6.1.1) if all of the following are true:

- \( \text{RESELECT_INCLUDED}_s \) is equal to '1';
- The following inequality is satisfied:
  \[ -20 \times \log_{10} \left( \frac{E_c}{I_o} \right) > \text{EC_IO_THRESH}_s \]
  where \( E_c/I_o \) is the measured \( E_c/I_o \) of the active pilot; and
- The following inequality is satisfied:
  \[ \text{pilot_power} < \text{EC_THRESH}_s - 115 \]
  where \( \text{pilot_power} \) (dBm/1.23 MHz) = \( 10 \times \log_{10} (PS) \) (dB) + mean input power (dBm/1.23 MHz) and \( PS \) is the strength of the active pilot, as specified in 2.6.6.2.2.

2.6.2.1.7 Slotted Timer Expiration

Upon expiration of the slotted TMS Slotted timer, the mobile station shall disable the timer and set SLOTTED\(_S\) to YES.

2.6.2.2 Response to Overhead Information Operation

The overhead messages on the Primary Broadcast Control Channel are:

- **ANSI-41 System Parameters Message**
- **MC-RR Parameters Message**
- **Enhanced Access Parameters Message**
- **Universal Neighbor List Message**
- **User Zone Identification Message**
- **Private Neighbor List Message**
- **Extended Global Service Redirection Message**
- **Extended CDMA Channel List Message**
- **ANSI-41 RAND Message**

The overhead messages on the Paging Channel are:

- **System Parameters Message**
- **Access Parameters Message**
- **Neighbor List Message**
- **CDMA Channel List Message**
- **Extended System Parameters Message**
- **Global Service Redirection Message**
The Response to Overhead Information Operation is performed whenever the mobile station receives an overhead message. The mobile station updates internally stored information from the received message’s data fields.

Configuration parameters and access parameters are received in the configuration messages and the Access Parameters Message or the Enhanced Access Parameters Message.

The configuration messages on the Primary Broadcast Control Channel are:

- ANSI-41 System Parameters Message
- MC-RR Parameters Message
- Universal Neighbor List Message
- User Zone Identification Message
- Private Neighbor List Message
- Extended Global Service Redirection Message
- Extended CDMA Channel List Message

The configuration messages on the Paging Channel are:

- System Parameters Message
- Neighbor List Message
- CDMA Channel List Message
- Extended System Parameters Message
- Global Service Redirection Message
- Extended Neighbor List Message
- General Neighbor List Message
- User Zone Identification Message
- Private Neighbor List Message
- Extended Global Service Redirection Message
- Extended CDMA Channel List Message

Associated with the set of configuration messages sent on each Paging Channel or Primary Broadcast Control Channel is a configuration message sequence number (CONFIG_MSG_SEQ). When the contents of one or more of the configuration messages
change, the configuration message sequence number is incremented. For each of the
configuration messages received, the mobile station stores the configuration message
sequence number contained in the configuration message (A41_SYS_PAR_MSG_SEQs,
MC_RR_PAR_MSG_SEQs, SYS_PAR_MSG_SEQs, NGHBR_LIST_MSG_SEQs,
EXT_NGHBR_LIST_MSG_SEQs, GEN_NGHBR_LIST_MSG_SEQs,
UNI_NGHBR_LIST_MSG_SEQs, EXT_SYS_PAR_MSG_SEQs,
GLOB_SERV_REDIR_MSG_SEQs, USER_ZONE_ID_MSG_SEQs,
EXT_CHAN_LIST_MSG_SEQs, EXT_GLOB_SERV_REDIR_MSG_SEQs, or
PRI_NGHBR_LIST_MSG_SEQs). The mobile station also stores the most recently received
configuration message sequence number (CONFIG_MSG_SEQs) contained in any message
(see 2.6.2.2.1, 2.6.2.2.3, 2.6.2.2.4, 2.6.2.2.5, 2.6.2.2.6, 2.6.2.2.7, 2.6.2.2.8, 2.6.2.2.9,
2.6.2.2.10, 2.6.2.2.11, 2.6.2.2.12, 2.6.2.2.13, 2.6.2.2.14, 2.6.2.2.17, and 2.6.2.3). The
mobile station examines the stored values of the configuration message sequence numbers
to determine whether the configuration parameters stored by the mobile station are
current.

The field EXT_SYS_PARAMETER in the System Parameters Message, when set equal to '0',
indicates that the base station is not sending the Extended System Parameters Message.
When the mobile station receives the System Parameters Message with the
EXT_SYS_PARAMETER field set equal to '0', the mobile station shall set
EXT_SYS_PAR_MSG_SEQs to CONFIG_MSG_SEQs to indicate that the Extended System
Parameters Message is current.

The field EXT_CHAN_LST in the System Parameters Message, when set equal to '0',
indicates that the base station is not sending the Extended CDMA Channel List Message.
When the mobile station receives the System Parameters Message with the EXT_CHAN_LST
field set equal to '0', the mobile station shall set EXT_CHAN_LIST_MSG_SEQs to
CONFIG_MSG_SEQs to indicate that the Extended CDMA Channel List Message is current.

The field GEN_NGHBR_LST in the System Parameters Message, when set equal to '0',
indicates that the base station is not sending the General Neighbor List Message. When the
mobile station receives the System Parameters Message with the GEN_NGHBR_LST field set
equal to '0', the mobile station shall set GEN_NGHBR_LIST_MSG_SEQs to
CONFIG_MSG_SEQs to indicate that the General Neighbor List Message is current.

The field EXT_NGHBR_LST in the System Parameters Message, when set equal to '0',
indicates that the base station is not sending the Extended Neighbor List Message. When the
mobile station receives the System Parameters Message with the EXT_NGHBR_LST field set
equal to '0', the mobile station shall set EXT_NGHBR_LIST_MSG_SEQs to
CONFIG_MSG_SEQs to indicate that the Extended Neighbor List Message is current.

The field GLOBAL_REDIRECT in the System Parameters Message, when set equal to '0',
indicates that the base station is not sending the Global Service Redirection Message. When the
mobile station receives the System Parameters Message with the GLOBAL_REDIRECT
field set equal to '0', the mobile station shall set GLOB_SERV_REDIR_MSG_SEQs to
CONFIG_MSG_SEQs to indicate that the Global Service Redirection Message is current.

The field EXT_GLOBAL_REDIRECT in the System Parameters Message or MC-RR Parameters
Message, when set equal to '0', indicates that the base station is not sending the Extended
Global Service Redirection Message. When the mobile station receives the System Parameters Message or MC-RR Parameters Message with the EXT_GLOBAL_REDIRECT field set equal to ‘0’, the mobile station shall set EXT_GLOB_SERV_REDIR_MSG_SEQs to CONFIG_MSG_SEQs to indicate that the Extended Global Service Redirection Message is current.

The field USER_ZONE_ID in the System Parameters Message or MC-RR Parameters Message, when set equal to ‘0’, indicates that the base station is not sending the User Zone Identification Message. When the mobile station receives the System Parameters Message or MC-RR Parameters Message with the USER_ZONE_ID field set equal to ‘0’, the mobile station shall set USER_ZONE_ID_MSG_SEQs to CONFIG_MSG_SEQs to indicate that the User Zone Identification Message is current.

The field PRI_NGHBR_LIST in the System Parameters Message or MC-RR Parameters Message, when set equal to ‘0’, indicates that the base station is not sending the Private Neighbor List Message. When the mobile station receives the System Parameters Message or MC-RR Parameters Message with the PRI_NGHBR_LIST field set equal to ‘0’, the mobile station shall set PRI_NGHBR_LIST_MSG_SEQs to CONFIG_MSG_SEQs to indicate that the Private Neighbor List Message is current.

The configuration message sequence number is also included in the General Page Message and the Universal Page Message. This allows the mobile station to determine whether the stored configuration parameters are current without waiting for a configuration message.

Access Parameters Messages or Enhanced Access Parameters Messages are independently sequence-numbered by the ACC_MSG_SEQ field. The mobile station stores the most recently received Access Parameters Message or Enhanced Access Parameters Messages sequence number (ACC_MSG_SEQs).

Paging Channels, Broadcast Control Channels, and Forward Common Control Channels shall be considered different if they are transmitted by different base stations, if they are transmitted on different code channels, or if they are transmitted on different CDMA Channels. Configuration and access parameters from one Paging Channel or Primary Broadcast Control Channel shall not be used while monitoring a different Paging Channel or Primary Broadcast Control Channel/Forward Common Control Channel except for registration and authentication parameters while the mobile station is performing an access probe handoff or access handoff. The mobile station shall ignore any overhead message whose PILOT_PN field is not equal to the pilot offset index (PILOT_PN) of the base station whose Paging Channel or Primary Broadcast Control Channel is being monitored.

The mobile station may store the configuration parameters from Paging Channels or Primary Broadcast Control Channel it has recently monitored. When a mobile station starts monitoring a Paging Channel or a Primary Broadcast Control Channel/Forward Common Control Channel that it has recently monitored, the mobile station can determine whether the stored parameters are current by examining the CONFIG_MSG_SEQs in a configuration message or a page message.

The mobile station shall use a special value, NULL, to be stored in place of sequence numbers for messages that have not been received or are marked as not current. The special value NULL shall be unequal to any valid message sequence number.
The mobile station shall consider the stored configuration parameters to be current only if all of the following conditions are true:

- If the mobile station is monitoring the Paging Channel, all stored configuration message sequence numbers (SYS_PAR_MSG_SEQs, NGBHR_LST_MSG_SEQs, EXT_NGBHR_LST_MSG_SEQs, CHAN_LST_MSG_SEQs, EXT_SYS_PAR_MSG_SEQs, GEN_NGBHR_LST_MSG_SEQs, USER_ZONE_ID_MSG_SEQs, PRI_NGBHR_LST_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs, EXT_GLOB_SERV_REDIR_MSG_SEQs and GLOB_SERV_REDIR_MSG_SEQs) are equal to CONFIG_MSG_SEQs; and

- If the mobile station is monitoring the Forward Common Control Channel/Primary Broadcast Control Channel, all stored configuration message sequence numbers (A41_SYS_PAR_MSG_SEQs, MC_RR_PAR_MSG_SEQs, UNI_NGBHR_LST_MSG_SEQs, USER_ZONE_ID_MSG_SEQs, PRI_NGBHR_LST_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs, and EXT_GLOB_SERV_REDIR_MSG_SEQs) are equal to CONFIG_MSG_SEQs; and

- CONFIG_MSG_SEQs is not equal to NULL; and

- No more than T31m seconds (see Annex D) have elapsed since the mobile station last received a valid message on the Paging Channel or the Primary Broadcast Control Channel/Forward Common Control Channel for which the parameters were stored.

If the configuration parameters are not current, the mobile station shall process the stored parameters upon receipt of the configuration messages as described in 2.6.2.2.1, 2.6.2.2.3, 2.6.2.2.4, 2.6.2.2.5, 2.6.2.2.6, 2.6.2.2.7, 2.6.2.2.8, 2.6.2.2.9, 2.6.2.2.10, 2.6.2.2.11, 2.6.2.2.12, 2.6.2.2.13, 2.6.2.2.14, and 2.6.2.2.17.

2.6.2.2.1 System Parameters Message

Whenever a System Parameters Message is received on the Paging Channel, the configuration message sequence number, CONFIG_MSG_SEQs, shall be compared to that stored in SYS_PAR_MSG_SEQs. If the comparison results in a match, the mobile station may ignore the message. If the comparison results in a mismatch, then the mobile station shall process the remaining fields in the message as described in 2.6.2.2.1.1, 2.6.2.2.1.2, 2.6.2.2.1.3, 2.6.2.2.1.4, 2.6.2.2.1.5, and 2.6.2.2.1.6, 2.6.2.2.1.7, 2.6.2.2.1.8, and 2.6.2.2.1.9.

If PAGE_CHAN, REG_PRD, BASE_LAT, BASE_LONG, or PWR_REP_THRESH are not within the valid ranges specified in 3.7.2.3.2.1, then the mobile station shall ignore the System Parameters Message that contains them.

If BAND_CLASS is equal to ‘00001’ and if either EXT_SYS_PARAMETERS or EXT_NGBHR_LST is not equal to ‘1’, or both, the mobile station shall ignore the System Parameters Message containing these fields.

2.6.2.2.1.1 Stored Parameters

The mobile station shall store the following parameters:

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- Configuration message sequence number
  \( (\text{CONFIG\_MSG\_SEQ}_s = \text{CONFIG\_MSG\_SEQ}_r, \)\)
- Base station identification \( (\text{BASE\_ID}_s = \text{BASE\_ID}_r) \)
- Base station class \( (\text{BASE\_CLASS}_s = \text{BASE\_CLASS}_r) \)
- Maximum slot cycle index
  \( (\text{MAX\_SLOT\_CYCLE\_INDEX}_s = \text{MAX\_SLOT\_CYCLE\_INDEX}_r) \)
- Home registration indicator \( (\text{HOME\_REG}_s = \text{HOME\_REG}_r) \)
- SID roamer registration indicator \( (\text{FOR\_SID\_REG}_s = \text{FOR\_SID\_REG}_r) \)
- NID roamer registration indicator \( (\text{FOR\_NID\_REG}_s = \text{FOR\_NID\_REG}_r) \)
- Power-up registration indicator \( (\text{POWER\_UP\_REG}_s = \text{POWER\_UP\_REG}_r) \)
- Power-down registration indicator \( (\text{POWER\_DOWN\_REG}_s = \text{POWER\_DOWN\_REG}_r) \)
- Parameter-change registration indicator \( (\text{PARAMETER\_REG}_s = \text{PARAMETER\_REG}_r) \)
- Search window size for the Active Set and Candidate Set
  \( (\text{SRCH\_WIN\_A}_s = \text{SRCH\_WIN\_A}_r) \)
- Search window size for the Neighbor Set \( (\text{SRCH\_WIN\_N}_s = \text{SRCH\_WIN\_N}_r) \)
- Search window size for the Remaining Set \( (\text{SRCH\_WIN\_R}_s = \text{SRCH\_WIN\_R}_r) \)
- Maximum age for retention of Neighbor Set members
  \( (\text{NGHBR\_MAX\_AGE}_s = \text{NGHBR\_MAX\_AGE}_r) \)
- Power control reporting threshold \( (\text{PWR\_REP\_THRESH}_s = \text{PWR\_REP\_THRESH}_r) \)
- Power control reporting frame count \( (\text{PWR\_REP\_FRAMES}_s = \text{PWR\_REP\_FRAMES}_r) \)
- Threshold report mode indicator
  \( (\text{PWR\_THRESH\_ENABLE}_s = \text{PWR\_THRESH\_ENABLE}_r) \)
- Periodic report mode indicator \( (\text{PWR\_PERIOD\_ENABLE}_s = \text{PWR\_PERIOD\_ENABLE}_r) \)
- Power report delay \( (\text{PWR\_REP\_DELAY}_s = \text{PWR\_REP\_DELAY}_r) \)
- Pilot detection threshold \( (\text{T\_ADD}_s = \text{T\_ADD}_r) \)
- Pilot drop threshold \( (\text{T\_DROP}_s = \text{T\_DROP}_r) \)
- Active Set versus Candidate Set comparison threshold \( (\text{T\_COMP}_s = \text{T\_COMP}_r) \)
- Drop timer value \( (\text{T\_TDROP}_s = \text{T\_TDROP}_r) \)
- Extended System Parameters Message sent
  \( (\text{EXT\_SYS\_PARAMETER}_s = \text{EXT\_SYS\_PARAMETER}_r) \)
- Global Service Redirection Message sent
  \( (\text{GLOBAL\_REDIRECT}_s = \text{GLOBAL\_REDIRECT}_r) \)
- Extended Global Service Redirection Message sent
  \( (\text{EXT\_GLOBAL\_REDIRECT}_s = \text{EXT\_GLOBAL\_REDIRECT}_r) \)
The mobile station shall also store the following parameters if the mobile station is not in the origination attempt substate or page response substate:

- System identification \((\text{SID}_s = \text{SID}_r)\)
- Network identification \((\text{NID}_s = \text{NID}_r)\)
- Registration zone \((\text{REG\_ZONE}_s = \text{REG\_ZONE}_r)\)
- Number of registration zones to be retained \((\text{TOTAL\_ZONES}_s = \text{TOTAL\_ZONES}_r)\)
- Zone timer length \((\text{ZONE\_TIMER}_s = \text{ZONE\_TIMER}_r)\)
- Multiple SID storage indicator \((\text{MULT\_SIDS}_s = \text{MULT\_SIDS}_r)\)
- Multiple NID storage indicator \((\text{MULT\_NIDS}_s = \text{MULT\_NIDS}_r)\)
- Registration period \((\text{REG\_PRD}_s = \text{REG\_PRD}_r)\)
- Base station latitude \((\text{BASE\_LAT}_s = \text{BASE\_LAT}_r)\)
- Base station longitude \((\text{BASE\_LONG}_s = \text{BASE\_LONG}_r)\)
- Registration distance \((\text{REG\_DIST}_s = \text{REG\_DIST}_r)\)

If EXT\_SYS\_PARAMETER\_s is equal to '0', then the mobile station shall perform the following:

- Set EXT\_SYS\_PAR\_MSG\_SEQ\_s to CONFIG\_MSG\_SEQ\_s.
- Set BCAST\_INDEX\_s to MAX\_SLOT\_CYCLE\_INDEX\_s.
- Set IMSI\_O to IMSI\_M by setting IMSI\_O\_S\_s to IMSI\_M\_S\_p (i.e., setting IMSI\_O\_S\_1\_s to IMSI\_M\_S\_1\_p and IMSI\_O\_S\_2\_s to IMSI\_M\_S\_2\_p), MCC\_O\_s to MCC\_M\_p, IMSI\_O\_11\_12\_s to IMSI\_M\_11\_12\_p, and IMSI\_O\_ADDR\_NUM\_s to IMSI\_M\_ADDR\_NUM\_p.
- Set RESELECT\_INCLUDED\_s to '0'.
- For Band Class 0, if the mobile station determines it is operating in Korea, set P\_REV\_s to '00000010'; otherwise, set P\_REV\_s to '00000011'. For Band Class 2 and Band Class 3, set P\_REV\_s to '00000011'. For Band Class 1 and Band Class 4, set P\_REV\_s to '00000001', and...
Set \( P_{\text{REV IN USE}} \) to the lesser value of \( P_{\text{REV}} \) and \( \text{MOB}_P_{\text{REV}} \) of the current band class.

If \( \text{EXT}_\text{CHAN}_\text{LST} \) is equal to ‘0’, then the mobile station shall set \( \text{EXT}_\text{CHAN}_\text{LST}_\text{MSG}_\text{SEQs} \) to \( \text{CONFIG}_\text{MSG}_\text{SEQs} \).

If \( \text{GLOBAL}_\text{REDIRECT} \) is equal to ‘0’, then the mobile station shall set \( \text{GLOB}_\text{SERV}_\text{REDIR}_\text{MSG}_\text{SEQs} \) to \( \text{CONFIG}_\text{MSG}_\text{SEQs} \).

If \( \text{EXT}_\text{GLOBAL}_\text{REDIRECT} \) is equal to ‘0’, then the mobile station shall set \( \text{EXT}_\text{GLOB}_\text{SERV}_\text{REDIR}_\text{MSG}_\text{SEQs} \) to \( \text{CONFIG}_\text{MSG}_\text{SEQs} \).

If \( \text{EXT}_\text{NGHBR}_\text{LST} \) is equal to ‘0’, then the mobile station shall set \( \text{EXT}_\text{NGHBR}_\text{LST}_\text{MSG}_\text{SEQs} \) to \( \text{CONFIG}_\text{MSG}_\text{SEQs} \).

If \( \text{GEN}_\text{NGHBR}_\text{LST} \) is equal to ‘0’, then the mobile station shall set \( \text{GEN}_\text{NGHBR}_\text{LST}_\text{MSG}_\text{SEQs} \) to \( \text{CONFIG}_\text{MSG}_\text{SEQs} \).

If \( \text{GEN}_\text{NGHBR}_\text{LST} \) is equal to ‘0’, then the mobile station shall perform the following:

- Set \( \text{GEN}_\text{NGHBR}_\text{LST}_\text{MSG}_\text{SEQs} \) to \( \text{CONFIG}_\text{MSG}_\text{SEQs} \).
- Set the \( \text{SRCH}_\text{WIN}_\text{NGHBR} \) field of \( \text{NGHBR}_\text{REC} \) to \( \text{SRCH}_\text{WIN}_N \) for all entries.
- Set the \( \text{SRCH}_\text{OFFSET}_\text{NGHBR} \) field of \( \text{NGHBR}_\text{REC} \) to ‘000’ for all entries.
- Set the \( \text{TIMING}_\text{INCL} \) field of \( \text{NGHBR}_\text{REC} \) to ‘0’ for all entries.
- Set \( \text{NUM}_\text{ANALOG}_\text{NGHBR} \) to ‘000’ and \( \text{ANALOG}_\text{NGHBR}_\text{LIST} \) to NULL.
- If \( \text{GEN}_\text{NGHBR}_\text{LST} \) is equal to ‘0’:
  - Set the \( \text{SEARCH}_\text{PRIORITY} \) field of the \( \text{NGHBR}_\text{REC} \) to ‘10’ (high) for all entries.
  - Set the \( \text{NGHBR}_\text{BAND} \) field of the \( \text{NGHBR}_\text{REC} \) to \( \text{CDMABAND} \) for all entries.
  - Set the \( \text{NGHBR}_\text{FREQ} \) field of the \( \text{NGHBR}_\text{REC} \) to \( \text{CDMACH} \) for all entries.

If \( \text{GEN}_\text{NGHBR}_\text{LST} \) is equal to ‘1’, \( \text{GEN}_\text{NGHBR}_\text{LST}_\text{MSG}_\text{SEQs} \) is equal to \( \text{CONFIG}_\text{MSG}_\text{SEQs} \), and \( \text{SETTING}_\text{SEARCH}_\text{WIN} \) is equal to ‘1’, the mobile station shall perform the following:

- Set the \( \text{SRCH}_\text{WIN}_\text{NGHBR} \) field of each \( \text{NGHBR}_\text{REC} \) to \( \text{SEARCH}_\text{WIN}_N \) for all \( \text{NGHBR}_\text{SET}_\text{SIZE} \) entries.
- Set \( \text{SETTING}_\text{SEARCH}_\text{WIN} \) to ‘0’.

If \( \text{USER}_\text{ZONE}_\text{ID} \) is equal to ‘0’, then the mobile station shall perform the following:

- Set \( \text{USER}_\text{ZONE}_\text{ID}_\text{MSG}_\text{SEQs} \) to \( \text{CONFIG}_\text{MSG}_\text{SEQs} \).
- Set the \( \text{UZID} \) field of the \( \text{UZ}_\text{REC} \) to ‘0000000000000000’ for all entries.
- Set the \( \text{UZ}_\text{REV} \) field of the \( \text{UZ}_\text{REC} \) to ‘0000’ for all entries.
- Set the \( \text{TEMP}_\text{SUB} \) field of the \( \text{UZ}_\text{REC} \) to ‘0’ for all entries.

If \( \text{USER}_\text{ZONE}_\text{ID} \) is equal to ‘1’ and the mobile station does not support Tiered Services, then the mobile station shall set \( \text{USER}_\text{ZONE}_\text{ID}_\text{MSG}_\text{SEQs} \) to \( \text{CONFIG}_\text{MSG}_\text{SEQs} \).

If \( \text{PRI}_\text{NGHBR}_\text{LST} \) is equal to ‘0’, then the mobile station shall set \( \text{PRI}_\text{NGHBR}_\text{LST}_\text{MSG}_\text{SEQs} \) to \( \text{CONFIG}_\text{MSG}_\text{SEQs} \).
If PRI_NGHBR_LIST is equal to ‘1’ and the mobile station does not support Tiered Services,
then the mobile station shall set PRI_NGHBR_LIST_MSG_SEQs to CONFIG_MSG_SEQs.
The mobile station shall ignore any fields at the end of the **System Parameters Message**
that are not defined according to the protocol revision level (MOB_P_REVp of the current band
class) being used by the mobile station.

### 2.6.2.2.1.2 Paging Channel Assignment Change

If the number of Paging Channels specified in the **System Parameters Message**
(PAGE_CHANr) is different from PAGE_CHANs, the mobile station shall use the hash
algorithm specified in 2.6.7.1 to select a new Paging Channel number in the range 1 to
PAGE_CHANr. The mobile station shall store the new Paging Channel number as
PAGECHs. The mobile station shall then set PAGE_CHANs to PAGE_CHANr. The mobile
station shall set ACC_MSG_SEQs to NULL. If the mobile station has not stored
configuration parameters for the new Paging Channel, or if the stored parameters are not
current (see 2.6.2.2), the mobile station shall set CONFIG_MSG_SEQs, SYS_PAR_MSG-
SEQs, NGHBR_LIST_MSG_SEQs, EXT_NGHBR_LIST_MSG_SEQs,
GEN_NGHBR_LIST_MSG_SEQs, CHAN_LIST_MSG_SEQs, EXT_SYS_PAR_MSG_SEQs,
USER_ZONE_ID_MSG_SEQs, PRI_NGHBR_LIST_MSG_SEQs, and
EXT_GLOB_SERV_REDIR_MSG_SEQs, EXT_CHAN_LIST_MSG_SEQs, and
GLOB_SERV_REDIR_MSG_SEQs to NULL. The mobile station shall then begin monitoring
the new Paging Channel as specified in 2.6.2.1.1.

### 2.6.2.2.1.3 RESCAN Parameter

If the RESCANr field in the **System Parameters Message** equals ‘1’, the mobile station shall
enter the **System Determination Substate** of the **Mobile Station Initialization State** with a
rescan indication (see 2.6.1.1).

### 2.6.2.2.1.4 Roaming Status

The mobile station shall determine the roaming status for the mobile station (see 2.6.5.3).
The mobile station should indicate to the user whether the mobile station is roaming.

### 2.6.2.2.1.5 Registration

The mobile station shall update stored variables and perform other registration procedures
as specified in 2.6.5.5.2.2.

### 2.6.2.2.1.6 Slot Cycle Index

The mobile station shall set SLOT_CYCLE_INDEXs to the smaller of: the preferred slot cycle
index SLOT_CYCLE_INDEXp and the maximum slot cycle index
MAX_SLOT_CYCLE_INDEXs. If the mobile station is operating in the slotted mode, it shall
set its slot cycle length as described in 2.6.2.1.1.3.
2.6.2.2.1.7 PACA Disable for SID Change

If \( \text{PACA}_s \) is equal to enabled, and \( \text{SID}_s \) is not equal to \( \text{PACA\_SID}_s \), the mobile station shall set \( \text{PACA}_s \) to disabled and \( \text{PACA\_CANCEL} \) to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.

2.6.2.2.1.8 Retry Delay Disable for Packet Zone ID or SID/NID Change

The mobile station shall set \( \text{RETRY\_DELAY}_{s[\text{RETRY\_TYPE}]} \) to 0 when the mobile station determines that the Packet Zone Identification or the System Identification/Network Identification (SID/NID pair) has been changed, where \( \text{RETRY\_TYPE} \) is equal to ‘001’, ‘010’, or ‘011’.

2.6.2.2.1.9 Encryption key reset for SID/NID Change

The mobile station shall reset \( \text{ENC\_KEY}_s \) to NULL when the mobile station determines that the System Identification/Network Identification (SID/NID pair) has been changed.

2.6.2.2 Access Parameters Message

Whenever an Access Parameters Message is received on the Paging Channel, the sequence number, \( \text{ACC\_MSG\_SEQ}_r \), shall be compared to \( \text{ACC\_MSG\_SEQ}_s \). If the comparison results in a match, the mobile station may ignore the message. If the comparison results in a mismatch, then the mobile station shall process the remaining fields in the message as follows.

If \( \text{PROBE\_PN\_RAN} \), \( \text{MAX\_REQ\_SEQ} \), or \( \text{MAX\_RSP\_SEQ} \) are not within the valid ranges specified in 3.7.2.3.2.2, then the mobile station shall ignore the Access Parameters Message that contains them.

The mobile station shall store the following parameters:

- **Access Parameters Message** sequence number (\( \text{ACC\_MSG\_SEQ}_s = \text{ACC\_MSG\_SEQ}_r \))
- Number of Access Channels (\( \text{ACC\_CHAN}_s = \text{ACC\_CHAN}_r \))
- Nominal transmit power offset (\( \text{NOM\_PWR}_s = \text{NOM\_PWR}_r \))
- Initial power offset for access (\( \text{INIT\_PWR}_s = \text{INIT\_PWR}_r \))
- Power increment (\( \text{PWR\_STEP}_s = \text{PWR\_STEP}_r \))
- Number of access probes (\( \text{NUM\_STEP}_s = \text{NUM\_STEP}_r \))
- Maximum Access Channel message capsule size (\( \text{MAX\_CAP\_SZ}_s = \text{MAX\_CAP\_SZ}_r \))
- Access Channel preamble length (\( \text{PAM\_SZ}_s = \text{PAM\_SZ}_r \))
- Persistence modifier for Access Channel attempts for registrations which are not responses to the Registration Request Order (\( \text{REG\_PSIST}_s = \text{REG\_PSIST}_r \))
- Persistence modifier for Access Channel attempts for message transmissions (\( \text{MSG\_PSIST}_s = \text{MSG\_PSIST}_r \))
If PSIST_EMG_INCL is equal to ‘0’, the mobile station shall set the persistence modifier for emergency calls from mobile stations in access overload classes 0 to 9 (PSIST_EMGs) to ‘000’; otherwise, the mobile station shall set PSIST_EMGs equal to PSIST_EMGr.

Time randomization for Access Channel probes
(PROBE_PN_RANs = PROBE_PN_RANr)

Acknowledgment timeout (ACH_ACC_TMOs = ACC_TMOr)

Access Channel probe backoff range (PROBE_BKOFFs = PROBE_BKOFFr)

Access Channel probe sequence backoff range (BKOFFs = BKOFFr)

Maximum number of probe sequences for an Access Channel request
(MAX_REQ_SEQs = MAX_REQ_SEQr)

Maximum number of probe sequences for an Access Channel response
(MAX_RSP_SEQs = MAX_RSP_SEQr)

If CDMABANDs is equal to ‘0’, the mobile station shall set extended nominal transmit power NOM_PWR_EXTs to ‘0’; otherwise, the mobile station shall store extended nominal transmit power (NOM_PWR_EXTs = NOM_PWR_EXTr).

IC threshold (IC_THRESHs = -7)

The mobile station shall also store the following parameters if the mobile station is not in the Origination Attempt Substate or Page Response Substate:

Authentication mode (if AUTHr is equal to ‘00’ or ‘01’, then AUTHs = AUTHr; otherwise AUTHs = ‘01’)

Random challenge value (RANDs = RANDr)

The mobile station shall ignore any fields at the end of the Access Parameters Message which are not defined according to the protocol revision level (MOB_P_REVp of the current band class) being used by the mobile station.

The mobile station shall store the persistence parameter number according to the following rule: If the mobile station’s access overload class is in the range 0-9, set PSISTs equal to PSIST(0-9)r; otherwise set PSISTs equal to PSIST(n)r, where n is equal to the mobile station access overload class.

The mobile station shall store the Access Control based on Call Type (ACCT) information as follows:

Set ACCT_SO_LIST to NULL.

Set ACCT_SO_GRP_LIST to NULL.

If ACCT_INCLr is equal to ‘1’ and ACCOLCr is in the range 0 to 9, then the mobile station shall perform the following:
– Set ACCT_INCL_EMGs to ACCT_INCL_EMGr.
– If ACCT_SO_INCLr is equal to ‘1’, then for each ACCT_SOir included in this message:
+ If ACCT_AOC_BITMAP_INCLᵣ is equal to ‘0’, or if ACCT_AOC_BITMAP_INCLᵣ is equal to ‘1’ and the bit in the associated ACCT_AOC_BITMAP1ᵣ corresponding to the mobile station’s ACCOLCᵢ (see Table 3.7.2.3.2.2-1) is equal to ‘1’, then add ACCT_SOᵣ to ACCT_SO_LIST.

− If ACCT_SO_GRP_INCLᵣ is equal to ‘1’, then for each ACCT_SO_GRPᵣ included in this message:
  + If ACCT_AOC_BITMAP_INCLᵣ is equal to ‘0’, or if ACCT_AOC_BITMAP_INCLᵣ is equal to ‘1’ and the bit in the associated ACCT_AOC_BITMAP2ᵣ corresponding to the mobile station’s ACCOLCᵢ (see Table 3.7.2.3.2.2-1) is equal to ‘1’, then add ACCT_SO_GRPᵣ to ACCT_SO_GRP_LIST.

The mobile station shall set CURR_ACC_MSG_SEQ equal to ACC_MSG_SEQₛ.

2.6.2.2.3 Neighbor List Message

Whenever a valid Neighbor List Message is received on the current Paging Channel (PAGECHₛ), the configuration message sequence number, CONFIG_MSG_SEQᵣ, shall be compared to that stored in NGHBR_LST_MSG_SEQₛ. If the comparison results in a match, the mobile station shall ignore the message. If the comparison results in a mismatch, then the mobile station shall process the remaining fields in the message as follows.

If the PILOT_INC field is not within the valid range specified in 3.7.2.3.2.3, then the mobile station shall ignore the Neighbor List Message that contains it.

The mobile station shall store the following parameters:

- Configuration message sequence number
  (CONFIG_MSG_SEQₛ = CONFIG_MSG_SEQᵣ,
  NGHBR_LST_MSG_SEQₛ = CONFIG_MSG_SEQᵣ)

- Pilot PN sequence offset increment (PILOT_INCₛ = PILOT_INCᵣ)

The mobile station shall set NGHBR_SET_SIZEₛ to the number of neighboring base stations contained in the Neighbor List Message.

For each of the neighboring base stations contained in the Neighbor List Message, the mobile station shall do the following:

- If the iᵗʰ occurrence of NGHBR_CONFIGᵣ is equal to ‘000’, ‘001’, or ‘010’, set the NGHBR_CONFIG field of NGHBR_REC[i] to the iᵗʰ occurrence of NGHBR_CONFIGᵣ; otherwise, set the NGHBR_CONFIG field of NGHBR_REC[i] to ‘011’.

- Set the NGHBR_PN field of NGHBR_REC[i] to the iᵗʰ occurrence of NGHBR_PNᵣ.

If GEN_NGHBR_LST_MSG_SEQₛ is not equal to CONFIG_MSG_SEQₛ, the mobile station shall perform the following:

- Set the SEARCH_PRIORITY field of the NGHBR_REC to ‘10’ (high) for all NGHBR_SET_SIZEₛ entries.

- Set the NGHBR_BAND field of NGHBR_REC to CDMABANDₛ for all NGHBR_SET_SIZEₛ entries.
Set the NGHBR_FREQ field of NGHBR_REC to CDMACHₜ for all NGHBR_SET_SIZEₜ entries.

Set the SRCH_WIN_NGHBR field of NGHBR_REC to SRCH_WIN_Nₜ for all NGHBR_SET_SIZEₜ entries.

Set the SRCH_OFFSET_NGHBR field of NGHBR_REC to ‘000’ for all entries.

Set NUM_ANALOG_NGHBRₜ to ‘000’ and set ANALOG_NGHBR_LIST to NULL.

The mobile station shall set the ACCESS_ENTRY_HO field of the NGHBR_REC to ‘0’ for all NGHBR_SET_SIZEₜ entries if any of the following conditions are met:

- EXT_SYS_PARAMETERₜ is equal to ‘0’,
- NGHBR_SET_ENTRY_INFOₜ is equal to ‘0’, or
- EXT_SYS_PAR_MSG_SEQₜ is not equal to CONFIG_MSG_SEQₜ.

The mobile station shall set the ACCESS_HO_ALLOWED field of the NGHBR_REC to ‘0’ for all NGHBR_SET_SIZEₜ entries if any of the following conditions are met:

- EXT_SYS_PARAMETERₜ is equal to ‘0’,
- NGHBR_SET_ACCESS_INFOₜ is equal to ‘0’, or
- EXT_SYS_PAR_MSG_SEQₜ is not equal to CONFIG_MSG_SEQₜ.

The mobile station shall update the idle handoff Neighbor Set (see 2.6.2.1.4) so that it consists only of pilot offsets listed in the Neighbor List Message. If the Neighbor List Message contains more pilot offsets than the mobile station can store, the mobile station shall store the pilot offsets beginning at the start of the Neighbor List Message, up to the limits of the mobile station’s Neighbor Set storage capacity.

2.6.2.2.4 CDMA Channel List Message

Whenever a CDMA Channel List Message is received on the Paging Channel, the configuration message sequence number, CONFIG_MSG_SEQᵣ, shall be compared to that stored in CHAN_LST_MSG_SEQᵣ. If the comparison results in a match, the mobile station may ignore the message. If the comparison results in a mismatch, then the mobile station shall process the remaining fields in the message as follows.

The mobile station shall store the following parameters:

- Configuration message sequence number
  (CONFIG_MSG_SEQᵣ = CONFIG_MSG_SEQᵣ,
   CHAN_LST_MSG_SEQᵣ = CONFIG_MSG_SEQᵣ)

The mobile station shall perform the following:

- If both SYS_PAR_MSG_SEQᵣ and EXT_SYS_PAR_MSG_SEQᵣ are is–current,
  - If EXT_CHAN_LISTᵣ is equal to ‘1’, the mobile station shall ignore this message.
  - If EXT_CHAN_LISTᵣ is equal to ‘0’, the mobile station shall process this message
    as described below.
• Otherwise, the mobile station shall process this message after SYS_PAR_MSG_SEQs
  and EXT_SYS_PAR_MSG_SEQs become current.

The mobile station shall use the hash algorithm specified in 2.6.7.1 and the number of
channels listed in the CDMA Channel List Message to determine the CDMA Channel
(Frequency Assignment) for its Paging Channel. If the CDMA Frequency Assignment has
changed (the computed CDMA Channel is different from CDMAChs), the mobile station
shall perform the following actions:

1. Set CDMAChs to the new CDMA Channel.
2. Set PAGE_CHANs to ‘1’.
3. Set PAGECHs to the Primary Paging Channel.
4. If the stored configuration parameters is not current (see 2.6.2.2) for the
   corresponding base station and frequency assignment, set CONFIG_MSG_SEQs,
   SYS_PAR_MSG_SEQs, NGHBRLST_MSG_SEQs, CHAN_LST_MSG_SEQs,
   EXT_NGHBRLST_MSG_SEQs, GEN_NGHBRLST_MSG_SEQs,
   EXT_SYS_PAR_MSG_SEQs, GLOB_SERV_REDIR_MSG_SEQs,
   USER_ZONE_ID_MSG_SEQs, PRI_NGHBRLST_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs,
   EXT_GLOB_SERV_REDIR_MSG_SEQs, and ACC_MSG_SEQs to NULL.
5. Tune to the new CDMA Channel.

2.6.2.2.5 Extended System Parameters Message

Whenever an Extended System Parameters Message is received on the Paging Channel, the
configuration message sequence number, CONFIG_MSG_SEQr, shall be compared to that
stored in EXT_SYS_PAR_MSG_SEQs. If the comparison results in a match, the mobile
station may ignore the message. If the comparison results in a mismatch, then the mobile
station shall process the remaining fields in the message as follows.

If the protocol revision level supported by the mobile station (MOB_P_REVp) is less than the
minimum protocol revision level supported by the base station (MIN_P_REVr), the mobile
station shall enter the System Determination Substate of the Mobile Station Initialization State
with a protocol mismatch indication (see 2.6.1.1). Otherwise, the mobile station shall store
the following parameters:

1. Configuration message sequence number
   (CONFIG_MSG_SEQs = CONFIG_MSG_SEQr,
    EXT_SYS_PAR_MSG_SEQs= CONFIG_MSG_SEQr)
2. Preferred Access Channel MSID type (PREF_MSID_TYPEs = PREF_MSID_TYPEr)
3. Broadcast slot cycle index (BCAST_INDEXs = BCAST_INDEXr)
4. The mobile station shall set its operational IMSI, IMSI_O, as follows:
   - If IMSI_T_SUPPORTEDr is equal to ‘0’, the mobile station shall set IMSI_O to
     IMSI_Mp.
   - If IMSI_T_SUPPORTEDr is equal to ‘1’ and the mobile station’s IMSI_Tp has been
     programmed, the mobile station shall set IMSI_O to IMSI_Tp.
– If IMSI_T_SUPPORTED_r is equal to ‘1’ and the mobile station’s IMSI_Tp has not
been programmed, the mobile station shall set IMSI_O to IMSI_Mp.

– If IMSI_O has been changed, the mobile station shall set SYS_PAR_MSG_SEQs
and CHAN_LST_MSG_SEQs and EXT_CHAN_LST_MSG_SEQs to NULL and set
PAGE_CHANs to ‘1’.

• If MCC_r = ‘1111111111’ and IMSI_11_12_r = ‘1111111’, the mobile station shall set
the IMSI_O to IMSI_Mp and store:
  – Mobile Country Code (MCC_s = MCC_Mp) and
  – IMSI 11th and 12th digits (IMSI_11_12_s = IMSI_M_11_12p);
  otherwise, the mobile station shall store:
    – Mobile Country Code (MCC_s = MCC_r) and
    – IMSI 11th and 12th digits (IMSI_11_12_s = IMSI_11_12_r).

• If IMSI_O is set to the IMSI_M, the mobile station shall set:
  – IMSI_O_S_s to IMSI_M_Sp (i.e., IMSI_O_S1_s to IMSI_M_S1_p and IMSI_O_S2_s to
    IMSI_M_S2_p)
  – IMSI_O_11_12_s to IMSI_M_11_12_p
  – MCC_O_s to MCC_M_p
  – IMSI_O_ADDR_NUM_s to IMSI_M_ADDR_NUM_p

• If IMSI_O is set to the IMSI_T, the mobile station shall set:
  – IMSI_O_S_s to IMSI_T_Sp (i.e., IMSI_O_S1_s to IMSI_T_S1_p and IMSI_O_S2_s to
    IMSI_T_S2_p).
  – IMSI_O_11_12_s to IMSI_T_11_12_p
  – MCC_O_s to MCC_T_p
  – IMSI_O_ADDR_NUM_s to IMSI_T_ADDR_NUM_p

  • If IMSI_O has been changed, the mobile station shall set SYS_PAR_MSG_SEQs,
    CHAN_LST_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs to NULL, and set PAGE_CHANs
to ‘1’, and set PAGECHs to the Primary Paging Channel.

• Protocol revision level (P_REV_s = P_REV_r) if included in the message; otherwise, set
  P_REV_s as follows:
    – For Band Class 0, if the mobile station determines it is operating in Korea, set
      P_REV_s to ‘00000010’; otherwise, set P_REV_s to ‘00000011’.
    – For Band Class 2 and Band Class 3, set P_REV_s to ‘00000011’.
    – For Band Class 1 and Band Class 4, set P_REV_s to ‘00000001’.
Minimum protocol revision level (MIN_P_REV = MIN_P_REV) if included in the message; otherwise, MIN_P_REV = ‘00000001’ for Band Class 0, MIN_P_REV = ‘00000001’ for Band Class 1 and Band Class 4, and MIN_P_REV = ‘00000011’ for Band Class 3.

Protocol revision level currently in use (P_REV_IN_USE = the lesser value of P_REV and MOB_P_REV of the current band class)

Slope of the handoff add/drop criterion (SOFT_SLOPE = SOFT_SLOPE) if included in the message; otherwise, SOFT_SLOPE = ‘000000’.

Intercept of the handoff add criterion (ADD_INTERCEPT = ADD_INTERCEPT)

Intercept of the handoff drop criterion (DROP_INTERCEPT = DROP_INTERCEPT)

Delete foreign TMSI (DELETE_FOR_TMSI = DELETE_FOR_TMSI)

Use TMSI (USE_TMSI = USE_TMSI)

TMSI zone length (TMSI_ZONE_LEN = TMSI_ZONE_LEN)

TMSI zone number (TMSI_ZONE = TMSI_ZONE)

Maximum number of alternative service options (MAX_NUM_ALT_SO = MAX_NUM_ALT_SO) if included in the message; otherwise, MAX_NUM_ALT_SO = ‘000’.

System reselection indicator (RESELECT_INCLUDED = RESELECT_INCLUDED) if included in the message; otherwise, RESELECT_INCLUDED = ‘0’.

Pilot reporting indicator (PILOT_REPORT = PILOT_REPORT)

Neighbor Set access entry handoff information indicator (NGHBR_SET_ENTRY_INFO = NGHBR_SET_ENTRY_INFO) if included in the message; otherwise, NGHBR_SET_ENTRY_INFO = ‘0’.

Neighbor Set access handoff information indicator (NGHBR_SET_ACCESS_INFO = NGHBR_SET_ACCESS_INFO) if included in the message; otherwise, NGHBR_SET_ACCESS_INFO = ‘0’.

Short Data Burst supported indicator (SDB_SUPPORTED = SDB_SUPPORTED)

Nominal reverse traffic channel output power offset relative to Reverse Pilot Channel power (RLGAIN_TRAFFIC_PILOT = RLGAIN_TRAFFIC_PILOT)

Broadcast GPS Assist Indicator (BROADCAST_GPS_ASST = BROADCAST_GPS_ASST)

Reverse Power Control Delay (REV_PWR_CNTL_DELAY = REV_PWR_CNTL_DELAY) if included

Permission for the mobile station to request QoS settings in the Origination Message, Origination Continuation Message, or Enhanced Origination Message (MOB_QOS = MOB_QOS)

If ENC_SUPPORTED\(_r\) is equal to ‘1’, the mobile station shall store:
– Signaling encryption supported indicator (SIG_ENCRYPT_SUP_s = SIG_ENCRYPT_SUP_r)

– User information encryption supported indicator (UI_ENCRYPT_SUP_s = UI_ENCRYPT_SUP_r)

--- Store encryption key indicator (STORE_KEY_s = STORE_KEY_r)

• Sync ID supported indicator (USE_SYNC_ID_s = USE_SYNC_ID_r)

• Concurrent services supported indicator (CS_SUPPORTED_s = CS_SUPPORTED_r)

• Primary Broadcast Control Channel supported indicator (BCCH_SUPPORTED_s = BCCH_SUPPORTED_r)

• Pilot information request supported indicator (PILOT_INFO_REQ_SUPPORTED_s = PILOT_INFO_REQ_SUPPORTED_r)

If BCCH_SUPPORTED_s equals ‘1’, the mobile station shall enter the System Determination Substate of the Mobile Station Initialization State with a new system indication.

If P_REV_IN_USE_s has been changed, the mobile station shall set ACC_MSG_SEQ_s, CURR_ACC_MSG_SEQ, SYS_PAR_MSG_SEQ_s, EXT_NGHBR_LST_MSG_SEQ_s, GEN_NGHBR_LST_MSG_SEQ_s, and GLOB_SERV_REDIR_MSG_SEQ_s to NULL.

If NGHBR_SET_ENTRY_INFO_s is equal to ‘1’, the mobile station shall store the access entry handoff in order and message processing operation indicator (ACC_ENT_HO_ORDER_s = ACC_ENT_HO_ORDER_r).

If the mobile station supports packet data service options and the PACKET_ZONE_ID field is included in the message, the mobile station shall store the packet data services zone identifier (PACKET_ZONE_ID_s = PACKET_ZONE_ID_r); otherwise, the mobile station shall set PACKET_ZONE_ID_s to ‘00000000’.

If RESELECT_INCLUDED_s is equal to ‘1’, the mobile station shall store:

• Pilot power threshold (EC_THRESH_s = EC_THRESH_r)

• Pilot Ec/Io threshold (EC_IO_THRESH_s = EC_IO_THRESH_r)

If NGHBR_SET_ACCESS_INFO_s is equal to ‘1’, the mobile station shall store:

• Access handoff permitted indicator (ACCESS_HO_s = ACCESS_HO_r)

• Access probe handoff permitted indicator (ACCESS_PROBE_HO_s = ACCESS_PROBE_HO_r)

• If ACCESS_PROBE_HO_s is equal to ‘1’, access handoff list update permitted indicator (ACC_HO_LIST_UPD_s = ACC_HO_LIST_UPD_r)

• Maximum number of times that the mobile station is permitted to perform an access probe handoff (MAX_NUM_PROBE_HO_s = MAX_NUM_PROBE_HO_r)

• Access handoff permitted for message response indicator (ACCESS_HO_MSG_RSP_s = ACCESS_HO_MSG_RSP_r)
Access probe handoff permitted for other messages indicator

\[ \text{ACC_PROBE_HO_OTHER_MSG_s} = \text{ACC_PROBE_HO_OTHER_MSG_r} \]

If \( NGHBR\_SET\_ENTRY\_INFO_s \) or \( NGHBR\_SET\_ACCESS\_INFO_s \) is equal to ‘1’, the mobile station shall store the size of the Neighbor Set \( (NGHBR\_SET\_SIZE_s = NGHBR\_SET\_SIZE_r) \).

If \( NGHBR\_SET\_ENTRY\_INFO_s \) is equal to ‘0’, then for all \( NGHBR\_SET\_SIZE_s \) occurrences of \( ACCESS\_ENTRY\_HO \), the mobile station shall set the \( ACCESS\_ENTRY\_HO \) field of \( NGHBR\_REC[i] \) to ‘0’.

If \( NGHBR\_SET\_ENTRY\_INFO_s \) is equal to ‘1’, then for all \( NGHBR\_SET\_SIZE_s \) occurrences of \( ACCESS\_ENTRY\_HO \), the mobile station shall set the \( ACCESS\_ENTRY\_HO \) field of \( NGHBR\_REC[i] \) to the \( i^{th} \) occurrence of \( ACCESS\_ENTRY\_HO_r \).

If \( NGHBR\_SET\_ACCESS\_INFO_s \) is equal to ‘0’, then for all \( NGHBR\_SET\_SIZE_s \) occurrences of \( ACCESS\_HO\_ALLOWED \), the mobile station shall set the \( ACCESS\_HO\_ALLOWED \) field of \( NGHBR\_REC[i] \) to ‘0’.

If \( NGHBR\_SET\_ACCESS\_INFO_s \) is equal to ‘1’, then for all \( NGHBR\_SET\_SIZE_s \) occurrences of \( ACCESS\_HO\_ALLOWED \), the mobile station shall set the \( ACCESS\_HO\_ALLOWED \) field of \( NGHBR\_REC[i] \) to the \( i^{th} \) occurrence of \( ACCESS\_HO\_ALLOWED_r \).

The mobile station shall set all bits of \( TMSI\_CODE_s-p \) to ‘1’ if all of the following conditions are met:

- The bits of \( TMSI\_CODE_s-p \) are not all equal to ‘1’,
- \( DELETE\_FOR\_TMSI_s \) is equal to ‘1’, and
- \( ASSIGNING\_TMSI\_ZONE\_LEN_s-p \) is not equal to \( TMSI\_ZONE\_LEN_s \), or the least significant \( ASSIGNING\_TMSI\_ZONE\_LEN_s-p \) octets of \( ASSIGNING\_TMSI\_ZONE_s-p \) are not equal to \( TMSI\_ZONE_s \).

If the mobile station supports the Quick Paging Channel operation:

- The mobile station shall set \( QPCH\_SUPPORTED_s \) to \( QPCH\_SUPPORTED_r \).
- If \( QPCH\_SUPPORTED_r = ‘1’ \):
  - The mobile station shall set \( QPCH\_RATE_s \) to \( QPCH\_RATE_r \).
  - If the number of Quick Paging Channels specified in the received message \( (NUM\_QPCH_r) \) is different from \( NUM\_QPCH_s \), the mobile station shall use the hash algorithm specified in 2.6.7.1 to select a new Quick Paging Channel number in the range 1 to \( NUM\_QPCH_r \). The mobile station shall store the new Quick Paging Channel number as \( QPAGECH_s \) and as \( ASSIGNED\_QPAGECH_s \). The mobile station shall then set \( NUM\_QPCH_s \) to \( NUM\_QPCH_r \).
  - The mobile station shall set \( QPCH\_POWER\_LEVEL\_PAGE_s \) to \( QPCH\_POWER\_LEVEL\_PAGE_r \).
  - The mobile station shall set \( QPCH\_CCI\_SUPPORTED_s \) to \( QPCH\_CCI\_SUPPORTED_r \).
– If \( QPCH\_CCI\_SUPPORTED_r = '1' \), the mobile station shall set 
\( QPCH\_POWER\_LEVEL\_CONFIG_s \) to \( QPCH\_POWER\_LEVEL\_CONFIG_r \).

If the mobile station supports the \textit{Device Information Message} on the r-csch, the mobile station shall store:

\begin{itemize}
  \item Autonomous message supported indicator 
  \( AUTO\_MSG\_SUPPORTED_s = AUTO\_MSG\_SUPPORTED_r \)
\end{itemize}

If \( AUTO\_MSG\_SUPPORTED_r \) is equal to ‘1’ and the mobile station supports the \textit{Device Information Message} on the r-csch, the mobile station shall store:

\begin{itemize}
  \item Autonomous message interval 
  \( AUTO\_MSG\_INTERVAL_s = AUTO\_MSG\_INTERVAL_r \)
\end{itemize}

The mobile station shall store mobile station initiated position location determination supported indicator \( MS\_INIT\_POS\_LOC\_SUP\_IND_s = MS\_INIT\_POS\_LOC\_SUP\_IND_r \).

2.6.2.2.6 Global Service Redirection Message

Whenever a \textit{Global Service Redirection Message} is received on the Paging Channel, the configuration message sequence number, \( CONFIG\_MSG\_SEQ_r \), shall be compared to that stored in \( GLOB\_SERV\_REDIR\_MSG\_SEQ_s \). If the comparison results in a match or if \( SYS\_PAR\_MSG\_SEQ_s \) is not current, the mobile station may ignore the message; otherwise, the mobile station shall store the following parameters:

\begin{itemize}
  \item Configuration message sequence number 
  \( CONFIG\_MSG\_SEQ_s = CONFIG\_MSG\_SEQ_r, \)
  \( GLOB\_SERV\_REDIR\_MSG\_SEQ_s = CONFIG\_MSG\_SEQ_r \)
  \item If the \( P\_REV\_IN\_USE_s \) is equal to or greater than 6, the mobile station shall 
  ignore this message, if any of the following conditions is true:
  \begin{itemize}
    \item \( EXT\_GLOBAL\_REDIRECT_s = '1' \)
    \item \( EXCL\_P\_REV\_MS_s = '1' \)
  \end{itemize}
\end{itemize}

If the subfield corresponding to the access overload class, \( ACCOLC_p \), of the mobile station is set equal to ‘1’ in the \( REDIRECT\_ACCOLC_r \) field of the received message, the mobile station shall store the following parameters and then shall enter the \textit{System Determination Substate} of the \textit{Mobile Station Initialization State} with a redirection indication (see 2.6.1.1):

\begin{itemize}
  \item Return if fail indicator \( RETURN\_IF\_FAIL_s = RETURN\_IF\_FAIL_r \)
  \item If \( DELETE\_TMSI_r \) is equal to ‘1’, the mobile station shall set all the bits of 
  \( TMSI\_CODE_s\_p \) to ‘1’
  \item Redirection record \( REDIRECT\_REC_s = \) redirection record from received message
  \item If \( RECORD\_TYPE_r = '00000001' \), the mobile station shall:
    \begin{itemize}
      \item Set \( CDMA\_MODE_s \) to ‘1’
      \item Set \( DIGITAL\_REG_s\_p \) to ‘00000000’
      \item Max delay upon redirection \( MAX\_REDIRECT\_DELAY_s = MAX\_REDIRECT\_DELAY_r \)
    \end{itemize}
\end{itemize}
2.6.2.2.7 Extended Neighbor List Message

Whenever a valid *Extended Neighbor List Message* is received on the current Paging Channel (PAGECHₙ), the configuration message sequence number, CONFIG_MSG_SEQᵣ, shall be compared to that stored in EXT_NGHBR_LST_MSG_SEQₛ. If the comparison results in a match, the mobile station may ignore the message. If the comparison results in a mismatch, then the mobile station shall process the remaining fields in the message as follows.

If the PILOT_INC field is not within the valid range specified in 3.7.2.3.2.14, then the mobile station shall ignore the *Extended Neighbor List Message* that contains it.

The mobile station shall store the following parameters:

- Configuration message sequence number
  
  \[\text{CONFIG_MSG_SEQₛ} = \text{CONFIG_MSG_SEQᵣ},\]
  \[\text{EXT_NGHBR_LST_MSG_SEQₛ} = \text{CONFIG_MSG_SEQᵣ},\]
  \[\text{NGHBR_LST_MSG_SEQₛ} = \text{CONFIG_MSG_SEQᵣ}\]

- Pilot PN sequence offset increment (PILOT_INCₛ = PILOT_INCᵣ)

The mobile station shall set NGHBR_SET_SIZEₛ to the number of neighboring base stations contained in the *Extended Neighbor List Message*.

For each of the neighboring base stations contained in the *Extended Neighbor List Message*, if FREQ_INCLᵣ equals ‘0’, or if FREQ_INCLᵣ equals ‘1’ and NGHBR_BANDᵣ is supported, the mobile station shall do the following:

- If the \(i\)th occurrence of NGHBR_CONFIGᵣ is equal to ‘000’, ‘001’, or ‘010’, set the NGHBR_CONFIG field of NGHBR_REC\([i]\) to the \(i\)th occurrence of NGHBR_CONFIGᵣ; otherwise, set the NGHBR_CONFIG field of NGHBR_REC\([i]\) to ‘011’.

- Set the NGHBR_PN field of NGHBR_REC\([i]\) to the \(i\)th occurrence of NGHBR_PNr.

- Set the SEARCH_PRIORITY field of NGHBR_REC\([i]\) to the \(i\)th occurrence of SEARCH_PRIORITYᵣ.

For each of the neighboring base stations contained in the *Extended Neighbor List Message*, if FREQ_INCLᵣ equals ‘1’ and NGHBR_BANDᵣ is supported, the mobile station shall also do the following:

- Set the NGHBR_BAND field of NGHBR_REC\([i]\) to the \(i\)th occurrence of NGHBR_BANDᵣ.

- Set the NGHBR_FREQ field of NGHBR_REC\([i]\) to the \(i\)th occurrence of NGHBR_FREQᵣ.

For each of the neighboring base stations contained in the *Extended Neighbor List Message*, if FREQ_INCLᵣ equals ‘0’, the mobile station shall also do the following:

- Set the NGHBR_BAND field of NGHBR_REC\([i]\) to CDMABANDₛ.

- Set the NGHBR_FREQ field of NGHBR_REC\([i]\) to CDMACHₛ.
If GEN_NGHBR_LST_MSG_SEQs is not equal to CONFIG_MSG_SEQs, the mobile station shall do the following:

- Set the SRCH_WIN_NGHBR field of NGHBR_REC to SRCH_WIN_Ns for all NGHBR_SET_SIZEs entries.
- Set the SRCH_OFFSET_NGHBR field of NGHBR_REC to ‘000’ for all entries.
- Set NUM_ANALOG_NGHBRs to ‘000’ and set ANALOG_NGHBR_LIST to NULL.

The mobile station shall set the ACCESS_ENTRY_HO field of the NGHBR_REC to ‘0’ for all NGHBR_SET_SIZEs entries if any of the following conditions are met:

- EXT_SYS_PARAMETERs is equal to ‘0’,
- NGHBR_SET_ENTRY_INFOs is equal to ‘0’, or
- EXT_SYS_PAR_MSG_SEQs is not equal to CONFIG_MSG_SEQs.

The mobile station shall set the ACCESS_HO_ALLOWED field of the NGHBR_REC to ‘0’ for all NGHBR_SET_SIZEs entries if any of the following conditions are met:

- EXT_SYS_PARAMETERs is equal to ‘0’,
- NGHBR_SET_ACCESS_INFOs is equal to ‘0’, or
- EXT_SYS_PAR_MSG_SEQs is not equal to CONFIG_MSG_SEQs.

The mobile station shall update the idle handoff Neighbor Set (see 2.6.2.1.4) so that it consists only of pilot offsets listed in the Extended Neighbor List Message. If the Extended Neighbor List Message contains more pilot offsets than the mobile station can store, the mobile station shall store the pilot offsets beginning at the start of the Extended Neighbor List Message, up to the limits of the mobile station’s Neighbor Set storage capacity.

2.6.2.2.8 General Neighbor List Message

Whenever a valid General Neighbor List Message is received on the current Paging Channel (PAGECHs), the configuration message sequence number, CONFIG_MSG_SEQr shall be compared to that stored in GEN_NGHBR_LST_MSG_SEQs. If the comparison results in a mismatch, then the mobile station shall process the remaining fields in the message as follows.

If the PILOT_INC field is not within the valid range specified in 3.7.2.3.2.22, then the mobile station shall ignore the General Neighbor List Message that contains it.

The mobile station shall store the following parameters:

- Configuration message sequence number
  (CONFIG_MSG_SEQs = CONFIG_MSG_SEQr,
   GEN_NGHBR_LST_MSG_SEQs = CONFIG_MSG_SEQr).
- Pilot PN sequence offset increment (PILOT_INCs = PILOT_INCr).

If NGHBR_CONFIG_PN_INCLr is equal to ‘1’ and FREQ_FIELDS_INCLr is equal to ‘1’, the mobile station shall store the following parameters:
The mobile station shall set \( \text{NGHBR\_SET\_SIZEs} \) to the number of neighboring base stations contained in the *General Neighbor List Message*.

For each of the neighboring base stations contained in the *General Neighbor List Message*, if \( \text{FREQ\_INCLr} \) equal ‘0’, or if \( \text{FREQ\_INCLr} \) equal ‘1’ and \( \text{NGHBR\_BANDr} \) is supported, the mobile station shall do the following:

- If \( \text{NGHBR\_CONFIG\_PN\_INCLr} \) is equal to ‘1’, set the \( \text{NGHBR\_CONFIG} \) and \( \text{NGHBR\_PN} \) fields as follows:
  - If the \( i \)th occurrence of \( \text{NGHBR\_CONFIGr} \) is equal to ‘000’, ‘001’, or ‘010’, set the \( \text{NGHBR\_CONFIG} \) field of \( \text{NGHBR\_REC}[i] \) to the \( i \)th occurrence of \( \text{NGHBR\_CONFIGr} \); otherwise, set the \( \text{NGHBR\_CONFIG} \) field of \( \text{NGHBR\_REC}[i] \) to ‘011’.
  - Set the \( \text{NGHBR\_PN} \) field of \( \text{NGHBR\_REC}[i] \) to the \( i \)th occurrence of \( \text{NGHBR\_PNr} \).

- If \( \text{NGHBR\_SRCH\_MODEr} = \text{'00'} \) or \( \text{'10'} \) and \( \text{EXT\_NGHBR\_LST\_MSG\_SEQs} \) is not equal to \( \text{CONFIG\_MSG\_SEQr} \), set \( \text{SEARCH\_PRIORITY} \) field of each \( \text{NGHBR\_REC} \) to ‘10’ (high) for all \( \text{NGHBR\_SET\_SIZEs} \) entries.

- If \( \text{NGHBR\_SRCH\_MODEr} = \text{'01'} \) or ‘11’, set the \( \text{SEARCH\_PRIORITY} \) field of \( \text{NGHBR\_REC}[i] \) to the \( i \)th occurrence of \( \text{SEARCH\_PRIORITYr} \).

- If \( \text{NGHBR\_SRCH\_MODEr} = \text{'00'} \) or ‘01’, set the \( \text{SRCH\_WIN\_NGHBR} \) field of each \( \text{NGHBR\_REC} \) to \( \text{SEARCH\_WINs} \) for all \( \text{NGHBR\_SET\_SIZEs} \) entries if \( \text{SYS\_PAR\_MSG\_SEQs} \) is equal to \( \text{CONFIG\_MSG\_SEQs} \); otherwise, set \( \text{SETTING\_SEARCH\_WIN} \) to ‘1’.

- If \( \text{USE\_TIMINGr} \) is equal to ‘1’, set the \( \text{TIMING\_INCL} \) field of \( \text{NGHBR\_REC}[i] \) to the \( i \)th occurrence of \( \text{TIMING\_INCLr} \); otherwise, set the \( \text{TIMING\_INCL} \) field of \( \text{NGHBR\_REC} \) to ‘0’ for all entries.
• If BCCH_IND_INCL_r is equal to ‘1’, set the BCCH_SUPPORT field of NGHBR_REC[i] to the i\textsuperscript{th} occurrence of BCCH_SUPPORT\_r; otherwise, set the BCCH_IND_INCL field of NGHBR_REC to ‘0’ for all entries.

For each of the neighboring base stations contained in the General Neighbor List Message, if FREQ\_FIELDS\_INCL_r equals ‘1’, FREQ\_INCL_r equals ‘1’, and NGHBR\_BAND_r is supported, the mobile station shall also perform the following:

• Set the NGHBR\_BAND field of NGHBR\_REC[i] to the i\textsuperscript{th} occurrence of NGHBR\_BAND\_r.

• Set the NGHBR\_FREQ field of NGHBR\_REC[i] to the i\textsuperscript{th} occurrence of NGHBR\_FREQ\_r.

For each of the neighboring base stations contained in the General Neighbor List Message, if USE\_TIMING_r is equal to ‘1’ and TIMING\_INCL_r equals ‘1’, the mobile station shall also perform the following:

• Set the NGHBR\_TX\_OFFSET field of NGHBR\_REC[i] to the i\textsuperscript{th} occurrence of NGHBR\_TX\_OFFSET\_r.

• If GLOBAL\_TIMING\_INCL_r is equal to ‘1’, then the mobile station shall:
  – Set the NGHBR\_TX\_DURATION field of NGHBR\_REC to GLOBAL\_TX\_DURATION\_r for all entries.
  – Set the NGHBR\_TX\_PERIOD field of NGHBR\_REC to GLOBAL\_TX\_PERIOD\_r for all entries.

• If GLOBAL\_TIMING\_INCL_r is equal to ‘0’, then the mobile station shall:
  – Set the NGHBR\_TX\_DURATION field of NGHBR\_REC[i] to the i\textsuperscript{th} occurrence of NGHBR\_TX\_DURATION\_r.
  – Set the NGHBR\_TX\_PERIOD field of NGHBR\_REC[i] to the i\textsuperscript{th} occurrence of NGHBR\_TX\_PERIOD\_r.

For each of the neighboring base stations contained in the General Neighbor List Message, if FREQ\_FIELDS\_INCL_r equals ‘1’ and FREQ\_INCL_r equals ‘0’, or if FREQ\_FIELDS\_INCL_r equals ‘0’ and EXT\_NGHBR\_LST\_MSG\_SEQ\_s is not equal to CONFIG\_MSG\_SEQ\_r, the mobile station shall also do the following:

• Set the NGHBR\_BAND field of NGHBR\_REC[i] to CDMABAND\_s.

• Set the NGHBR\_FREQ field of NGHBR\_REC[i] to CDMA\_CH_s.

The mobile station shall set the ACCESS\_ENTRY\_HO field of the NGHBR\_REC to ‘0’ for all NGHBR\_SET\_SIZE\_s entries if any of the following conditions are met:

• EXT\_SYS\_PARAMETER\_s is equal to ‘0’

• NGHBR\_SET\_ENTRY\_INFO\_s is equal to ‘0’, or

• EXT\_SYS\_PAR\_MSG\_SEQ\_s is not equal to CONFIG\_MSG\_SEQ\_s.
The mobile station shall set the ACCESS_HO_ALLOWED field of the NGHBR_REC to ‘0’ for all NGHBR_SET_SIZEs entries if any of the following conditions are met:

- EXT_SYS_PARAMETERs is equal to ‘0’
- NGHBR_SET_ACCESS_INFOs is equal to ‘0’, or
- EXT_SYS_PAR_MSG_SEQs is not equal to CONFIG_MSG_SEQs.

The mobile station shall update the idle handoff Neighbor Set (see 2.6.2.1.4) so that it consists only of pilot offsets listed in the General Neighbor List Message. If the General Neighbor List Message contains more pilot offsets than the mobile station can store, the mobile station shall store the pilot offsets beginning at the start of the General Neighbor List Message, up to the limits of the mobile station’s Neighbor Set storage capacity.

The mobile station shall set NUM_ANALOG_NGHBRS to NUM_ANALOG_NGHBRR, the number of neighboring analog systems contained in the General Neighbor List Message. For each of the neighboring analog systems contained in the General Neighbor List Message, the mobile station shall perform the following:

- Set the BAND_CLASS field of ANALOG_NGHBR_LIST[i] to the ith occurrence of BAND_CLASSr.
- Set the SYS_A_B field of ANALOG_NGHBR_LIST[i] to the ith occurrence of SYS_A_Br.

For each of the neighboring base stations contained in the General Neighbor List Message, the mobile station shall set the ADD_PILOT_REC_INCL field of NGHBR_REC[i] to the ith occurrence of ADD_PILOT_REC_INCLr. If ADD_PILOT_REC_INCLr equals ‘1’, for each pilot included in the message, the mobile station shall also perform the following:

- Set the NGHBR_PILOT_REC_TYPE field of NGHBR_PILOT_REC to NGHBR_PILOT_REC_TYPER.

- If NGHBR_PILOT_REC_TYPEr is equal to ‘000’. The mobile station shall:
  - Set the TD_POWER_LEVEL field of NGHBR_PILOT_REC to TD_POWER_LEVELr.
  - Set the TD_MODE field of NGHBR_PILOT_REC to TD_MODEr.

- If NGHBR_PILOT_REC_TYPEr is equal to ‘001’, the mobile station shall:
  - Set the AUX_PILOT_QOF field of NGHBR_PILOT_REC to QOFr.
  - Set the AUX_PILOT_WALSH_CODE field of NGHBR_PILOT_REC to AUX_PILOT_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.

- If NGHBR_PILOT_REC_TYPEr is equal to ‘010’, the mobile station shall:
  - Set the AUX_TD_POWER_LEVEL field of NGHBR_PILOT_REC to AUX_TD_POWER_LEVELr.
  - Set the TD_MODE field of NGHBR_PILOT_REC to TD_MODEr.
• If NGHBR_PILOT_REC_TYPE_r is equal to ‘011’, the mobile station shall:
  – Set the SR3_PRIMARY_PILOT field of NGHBR_PILOT_REC to SR3_PRIMARY_PILOT_r.
  – Set the SR3_PILOT_POWER1 field of NGHBR_PILOT_REC to SR3_PILOT_POWER1_r.
  – Set the SR3_PILOT_POWER2 field of NGHBR_PILOT_REC to SR3_PILOT_POWER2_r.
• If NGHBR_PILOT_REC_TYPE_r is equal to ‘100’, the mobile station shall:
  – Set the SR3_PRIMARY_PILOT field of NGHBR_PILOT_REC to SR3_PRIMARY_PILOT_r.
  – Set the SR3_PILOT_POWER1 field of NGHBR_PILOT_REC to SR3_PILOT_POWER1_r.
  – Set the SR3_PILOT_POWER2 field of NGHBR_PILOT_REC to SR3_PILOT_POWER2_r.
  – Set the AUX_PILOT_QOF field of NGHBR_PILOT_REC to QOF_r.
  – Set the AUX_PILOT_WALSH_CODE field of NGHBR_PILOT_REC to AUX_PILOT_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r.
  – If ADD_INFO_INCL1_r is equal to ‘1’, set the AUX_PILOT_QOF1 field of NGHBR_PILOT_REC to QOF1_r and set the AUX_PILOT_WALSH_CODE1 field of NGHBR_PILOT_REC to AUX_PILOT_WALSH1_r with the Walsh Code length specified by WALSH_LENGTH1_r.
  – Otherwise, set the AUX_PILOT_QOF1 field of NGHBR_PILOT_REC to QOF_r and set the AUX_PILOT_WALSH_CODE1 field of NGHBR_PILOT_REC to AUX_PILOT_WALSH_r with the Walsh Code length specified by WALSH_LENGTH1_r.
  – If ADD_INFO_INCL2_r is equal to ‘1’, set the AUX_PILOT_QOF2 field of NGHBR_PILOT_REC to QOF2_r and set the AUX_PILOT_WALSH_CODE2 field of NGHBR_PILOT_REC to AUX_PILOT_WALSH2_r with the Walsh Code length specified by WALSH_LENGTH2_r.
  – Otherwise, set the AUX_PILOT_QOF2 field of NGHBR_PILOT_REC to QOF_r and set the AUX_PILOT_WALSH_CODE2 field of NGHBR_PILOT_REC to AUX_PILOT_WALSH_r with the Walsh Code length specified by WALSH_LENGTH2_r.

2.6.2.2.9 User Zone Identification Message
Whenever a User Zone Identification Message is received on the Paging Channel or Primary Broadcast Control Channel, and if the mobile station supports Tiered Services, the mobile station shall compare the configuration message sequence number, CONFIG_MSG_SEQ_r, to that stored in USER_ZONE_ID_MSG_SEQ_s. If the comparison results in a match, the mobile station may ignore the message. If the comparison results in a mismatch, then the mobile station shall process the remaining fields in the message as follows.
The mobile station shall store the following parameters:

- Configuration message sequence number
  \[(\text{CONFIG\_MSG\_SEQ}_s = \text{CONFIG\_MSG\_SEQ}_r, \text{USER\_ZONE\_ID\_MSG\_SEQ}_s = \text{CONFIG\_MSG\_SEQ}_r)\]
- \text{UZ\_EXIT\_RCVD}_s = \text{UZ\_EXIT}_r

The mobile station shall set \text{NUM\_UZID}_s to the number of User Zones contained in the User Zone Identification Message.

For each User Zone contained in the User Zone Identification Message, the mobile station shall do the following:

- Set the UZID field of \text{UZ\_REC}(i) to the \(i^{th}\) occurrence of UZIDr.
- Set the UZ_REV field of the \text{UZ\_REC}(i) to the \(i^{th}\) occurrence of UZ_REVr.
- Set the TEMP_SUB field of the \text{UZ\_REC}(i) to the \(i^{th}\) occurrence of TEMP_SUBr.

2.6.2.2.10 Private Neighbor List Message

Whenever a Private Neighbor List Message is received on the Paging Channel or Primary Broadcast Control Channel, and if the mobile station supports Tiered Services, the mobile station shall compare the configuration message sequence number, \text{CONFIG\_MSG\_SEQ}_r, to that stored in \text{PRI\_NGHB\_LST\_MSG\_SEQ}_s. If the comparison results in a match, the mobile station may ignore the message. If the comparison results in a mismatch, then the mobile station shall process the remaining fields in the message as follows.

The mobile station shall store the following parameters:

- Configuration message sequence number
  \[(\text{CONFIG\_MSG\_SEQ}_s = \text{CONFIG\_MSG\_SEQ}_r, \text{PRI\_NGHB\_LST\_MSG\_SEQ}_s = \text{CONFIG\_MSG\_SEQ}_r)\]
- Common configuration included indicator \((\text{COMMON\_INCL}_s = \text{COMMON\_INCL}_r)\)

The mobile station shall set \text{NUM\_PRI\_NGHB}_s to the number of Private Neighbor base stations contained in the Private Neighbor List Message.

For each Private Neighbor base station contained in the Private Neighbor List Message the mobile station shall do the following:

- Set the SRCH\_WIN\_PRI\_NGHB field of \text{PRI\_NGHB\_REC}(i) to SRCH\_WIN\_PNr.
- Set the SID field of \text{PRI\_NGHB\_REC}(i) to the \(i^{th}\) occurrence SIDr.
- Set the NID field of \text{PRI\_NGHB\_REC}(i) to the \(i^{th}\) occurrence NIDr.
- Set the PRI\_NGHB\_PN field of \text{PRI\_NGHB\_REC}(i) to the \(i^{th}\) occurrence PRI\_NGHB\_PNr.
- If \text{COMMON\_INCL}_r is equal to ‘1’, then the mobile station shall:
  - Set the BAND\_CLASS field of \text{PRI\_NGHB\_REC}(i) to \text{COMMON\_BAND\_CLASS}_r.
  - Set the NGHB\_FREQ field of \text{PRI\_NGHB\_REC}(i) to \text{COMMON\_NGHB\_FREQ}_r.
If COMMON_INCL \( r \) is equal to ‘0’, then the mobile station shall:

- Set the BAND_CLASS field of PRI_NGHBR_REC(i) to the \( i^{th} \) occurrence of BAND_CLASS\( r \).
- Set the NGHBR_FREQ field of PRI_NGHBR_REC(i) to the \( i^{th} \) occurrence of NGHBR_FREQ\( r \).

If \( i^{th} \) occurrence of UZID_INCL\( r \) is equal to ‘0’, then the mobile station shall set the PS_NUM_UZID field of PRI_NGHBR_REC(i) to ‘0000’.

If \( i^{th} \) occurrence of UZID_INCL\( r \) is equal to ‘1’, then the mobile station shall set the PS_NUM_UZID field of PRI_NGHBR_REC(i) to the NUM_UZID\( r \) associated with the \( i^{th} \) occurrence of UZID_INCL\( r \).

For each User Zone supported by the \( i^{th} \) private system, the mobile station shall do the following:

- Set the PS_UZID(j) field of PRI_NGHBR_REC(i) to the \( j^{th} \) occurrence of UZID\( r \).
- Set the PS_UZ_REV(j) field of PRI_NGHBR_REC(i) to the \( j^{th} \) occurrence of UZ_REV\( r \).
- Set the PS_TEMP_SUB(j) field of PRI_NGHBR_REC(i) to the \( j^{th} \) occurrence of TEMP_SUB\( r \).

2.6.2.2.11 Extended Global Service Redirection Message

Whenever an Extended Global Service Redirection Message is received on the Paging Channel or Primary Broadcast Control Channel, the configuration message sequence number, CONFIG_MSG_SEQ\( r \), shall be compared to that stored in EXT_GLOB_SERV_REDIR_MSG_SEQs. If the comparison results in a match, the mobile station may ignore the message. If the comparison results in a mismatch, the mobile station shall store the following parameters:

- Configuration message sequence number
  
  (CONFIG_MSG_SEQs = CONFIG_MSG_SEQ\( r \),
  GLOB_SERV_REDIR_MSG_SEQs= CONFIG_MSG_SEQ\( r \),
  EXT_GLOB_SERV_REDIR_MSG_SEQs= CONFIG_MSG_SEQ\( r \))

The mobile station shall ignore the rest of the message if any of the following conditions is satisfied:

- The subfield corresponding to the access overload class, ACCOLC\( p \), of the mobile station is set equal to ‘0’ in the REDIRECT_ACCOLC\( r \) field of the received message,
- MOB_P_REV\( p \) is not in the redirection mobile protocol revision range (i.e., REDIRECT_P_REV_INCL\( r \) = ‘1’ and EXCL_P_REV_IND\( r \) = ‘0’, and MOB_P_REV\( p \) < REDIRECT_P_MIN\( r \) or MOB_P_REV\( p \) > REDIRECT_P_MAX\( r \)), or
- MOB_P_REV\( p \) is in the excluded mobile protocol revision range (i.e., REDIRECT_P_REV_INCL\( r \) = ‘1’ and EXCL_P_REV_IND\( r \) = ‘1’ and (REDIRECT_P_MIN\( r \) \( \leq \) MOB_P_REV\( p \) \( \leq \) REDIRECT_P_MAX\( r \))).
Otherwise, the mobile station shall store the following parameters and then shall enter the
System Determination Substate of the Mobile Station Initialization State with a redirection
indication (see 2.6.1.1):

- If DELETE_TMSI<sub>r</sub> is equal to ‘1’, the mobile station shall set all the bits of
  TMSI_CODE<sub>s-p</sub> to ‘1’.
- Return if fail indicator (RETURN_IF_FAIL<sub>s</sub> = RETURN_IF_FAIL<sub>r</sub>).
- Redirection record (REDIRECT_REC<sub>s</sub> = redirection record from received message)
- If RECORD_TYPE<sub>r</sub> = ‘00000001’, the mobile station shall:
  - Set CDMA_MODE<sub>s</sub> to ‘1’
  - Set DIGITAL_REG<sub>s-p</sub> to ‘00000000’
  - Max delay upon redirection (MAX_REDIRECT_DELAY<sub>s</sub> =
    MAX_REDIRECT_DELAY<sub>r</sub>)

2.6.2.2.12 Extended CDMA Channel List Message Overview

The mobile station may receive the Extended CDMA Channel List Message from the Paging
Channel or from the Primary Broadcast Control Channel. The mobile station shall follow
requirements defined in 2.6.2.2.12.1 or 2.6.2.2.12.2 to process the Extended CDMA Channel
List Message.

2.6.2.2.12.1 Extended CDMA Channel List Message on Paging Channel

Whenever an Extended CDMA Channel List Message is received on the Paging Channel, the
mobile station shall compare the configuration message sequence number,
CONFIG_MSG_SEQ<sub>r</sub>, to that stored in EXT_CHAN_LST_MSG_SEQ<sub>s</sub>. If the comparison
results in a match, the mobile station may ignore the message. If the comparison results in
a mismatch, then the mobile station shall process the remaining fields in the message as
follows:

The mobile station shall store the following parameters:

- Configuration message sequence number
  (CONFIG_MSG_SEQ<sub>s</sub> = CONFIG_MSG_SEQ<sub>r</sub>,
  EXT_CHAN_LST_MSG_SEQ<sub>s</sub> = CONFIG_MSG_SEQ<sub>r</sub>,
  CHAN_LST_MSG_SEQ<sub>s</sub> = CONFIG_MSG_SEQ<sub>r</sub>).

The mobile station shall determine the CDMA Channel (Frequency Assignment) for its
Paging Channel as follows:

- If RC_QPCH_SEL_INCL<sub>r</sub> is equal to ‘1’ and the mobile station is capable of RC
greater than 2 or capable of supporting Quick Paging Channel, the mobile station
shall eliminate those channels with RC_QPCH_HASH_IND<sub>r</sub> equal to ‘0’ from the
CDMA channel list and use the hash algorithm specified in 2.6.7.1 and the number
of channels whose RC_QPCH_HASH_IND<sub>r</sub> is equal to ‘1’ in the Extended CDMA
Channel List Message to determine the CDMA Channel (Frequency Assignment) for
its Paging Channel.
If RC_QPCH_SEL_INCL \( r \) is equal to ‘1’ and the mobile station is not capable of RC greater than 2 and not capable of supporting Quick Paging Channel, the mobile station shall use the hash algorithm specified in 2.6.7.1 and the number of channels in the Extended CDMA Channel List Message to determine the CDMA Channel (Frequency Assignment) for its Paging Channel.

If RC_QPCH_SEL_INCL \( r \) is equal to ‘0’, the mobile station shall use the hash algorithm specified in 2.6.7.1 and the number of channels in the Extended CDMA Channel List Message to determine the CDMA Channel (Frequency Assignment) for its Paging Channel.

If the CDMA Frequency Assignment has changed (the computed CDMA Channel is different from CDMACh\( s \)), the mobile station shall perform the following actions:

- If the stored configuration parameters is not current (see 2.6.2.2) for the corresponding base station and frequency assignment, the mobile station shall perform the following actions:
  - Set CDMACH\( s \) to the new CDMA Channel.
  - Set PAGE_CHAN\( s \) to ‘1’.
  - Set PAGECH\( s \) to the Primary Paging Channel.
  - Set CONFIG_MSG_SEQ\( s \), SYS_PAR_MSG_SEQ\( s \), NGHBR_LST_MSG_SEQ\( s \), CHAN_LST_MSG_SEQ\( s \), EXT_CHAN_LST_MSG_SEQ\( s \), EXT_NGHBR_LST_MSG_SEQ\( s \), GEN_NGHBR_LST_MSG_SEQ\( s \), EXT_SYS_PAR_MSG_SEQ\( s \), GLOB_SERV_REDIR_MSG_SEQ\( s \), EXT_GLOB_SERV_REDIR_MSG_SEQ\( s \), PRI_NGHBR_LST_MSG_SEQ\( s \), and ACC_MSG_SEQ\( s \) to NULL.
  - Tune to the new CDMA Channel.

- Otherwise, the mobile station shall perform the following actions:
  - Set CDMACH\( s \) to the new CDMA Channel.
  - The mobile station shall use the hash algorithm specified in 2.6.7.1 to select a new Paging Channel number in the range 1 to PAGE_CHAN\( s \), where PAGE_CHAN\( s \) is the value stored for the Paging Channel whose stored information is current. The mobile station shall store the new Paging Channel number as PAGECH\( s \).
  - Tune to the new CDMA Channel and shall begin monitoring the new Paging Channel.

2.6.2.2.12.2 Extended CDMA Channel List Message on Primary Broadcast Control Channel

Whenever the Extended CDMA Channel List Message is received on the Primary Broadcast Control Channel, the mobile station shall compare the configuration message sequence number, CONFIG_MSG_SEQ\( r \), to that stored in CONFIG_MSG_SEQ\( s \). If the comparison results in a match, the mobile station may ignore the message. If the comparison results in a mismatch, the mobile station shall process the remaining fields in the message as follows:
The mobile station shall store the following parameters:

- Configuration message sequence number
  \[ \text{CONFIG\_MSG\_SEQ}_s = \text{CONFIG\_MSG\_SEQ}_r, \]
  \[ \text{EXT\_CHAN\_LST\_MSG\_SEQ}_s = \text{CONFIG\_MSG\_SEQ}_r \].

To determine the CDMA Channel (Frequency Assignment) for its Primary Broadcast Control Channel, the mobile station shall first select a subset of CDMA channels from the *Extended CDMA Channel List Message* that will be used for channel hashing. The attributes for channel selection are support for RC greater than 2, Quick Paging Channel and transmit diversity. The mobile station shall first select the entire CDMA channel list for channel hashing. The mobile station shall then select the first subset as follows:

- If $\text{TD\_SEL\_INCL}_r$ is equal to ‘1’, the mobile station shall perform the following:
  - If the mobile station is capable of supporting the transmit diversity mode specified by $\text{TD\_MODE}_r$, the mobile station shall select those CDMA channels that have $\text{TD\_HASH\_IND}_r$ set to ‘1’ from the CDMA channel list for the first subset.
  - If the mobile station is not capable of supporting the transmit diversity mode specified by $\text{TD\_MODE}_r$, the mobile station shall select those CDMA channels that have $\text{TD\_HASH\_IND}_r$ set to ‘0’ from the CDMA channel list for the first subset. If this selected subset is empty, the mobile station shall not perform the remaining procedures in this section.

- If $\text{TD\_SEL\_INCL}_r$ is equal to ‘0’, the mobile station shall select the entire list for the first subset.

From this first subset, the mobile station shall select the final subset as follows:

- If $\text{RC\_QPCH\_SEL\_INCL}_r$ is equal to ‘1’ and the mobile station is capable of RC greater than 2 or capable of supporting QPCH, the mobile station shall select those CDMA channels with $\text{RC\_QPCH\_HASH\_IND}_r$ set to ‘1’ for the final subset for CDMA channel hashing. *If this list is empty, the mobile station shall use the first subset as the final subset for CDMA channel hashing.*

- Otherwise, the mobile station shall use the first subset as the final subset for CDMA channel hashing.

After the final subset has been selected, the mobile station shall use the hash algorithm specified in 2.6.7.1 with the number of channels in the final subset of the CDMA channel list to determine the CDMA Channel (Frequency Assignment) for its Primary Broadcast Control Channel.

If the CDMA Frequency Assignment has changed (the computed CDMA Channel is different from $\text{CDMACH}_s$), the mobile station shall perform the following:

- Set $\text{CDMACH}_s$ to the new CDMA Channel.
Set CONFIG_MSG_SEQs, A41_SYS_PAR_MSG_SEQs, MC_RR_PAR_MSG_SEQs, UNI_NGHBR_LST_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs, USER_ZONE_ID_MSG_SEQs, and PRI_NGHBR_LST_MSG_SEQs and ACC_MSG_SEQs to NULL

If the mobile station is operating in the Spreading Rate 1:

- If the assigned CDMA channel supports transmit diversity, the mobile station shall set the following fields corresponding to the assigned CDMA channel:
  + SR1_TD_POWER_LEVELs = TD_POWER_LEVELr.
  + SR1_TD_MODEs = TD_MODEr.
  + BRATs = SR1_BRAT_TDs.
  + BCCH_CODE_RATEs = SR1_CRAT_TDs.
  + BCCHs = BCCH_CODE_CHAN_TDs.

- Otherwise, the mobile station shall set the following fields corresponding to the assigned CDMA channel:
  + BRATs = SR1_BRAT_NON_TD_s,
  + BCCH_CODE_RATEs = SR1_CRAT_NON_TD_s,
  + BCCHs = BCCH_CODE_CHAN_NON_TD_s,

Tune to the new CDMA Channel

2.6.2.2.13 ANSI-41 System Parameters Message

Whenever an ANSI-41 System Parameters Message is received, the configuration message sequence number, CONFIG_MSG_SEQr, shall be compared to that stored in A41_SYS_PAR_MSG_SEQs. If the comparison results in a match, the mobile station may ignore the message. If the comparison results in a mismatch, then the mobile station shall process the remaining fields in the message as described in 2.6.2.2.13.1, 2.6.2.2.13.2, 2.6.2.2.13.3, and 2.6.2.2.13.4.

If REG_PRD is not within the valid range specified in 3.7.2.3.2.3, then the mobile station shall ignore the ANSI-41 System Parameters Message that contains it.

2.6.2.2.13.1 Stored Parameters

The mobile station shall store the following parameters:

- Configuration message sequence number
  (CONFIG_MSG_SEQs = CONFIG_MSG_SEQr,
   A41_SYS_PAR_MSG_SEQs = CONFIG_MSG_SEQr)
- Home registration indicator (HOME_REGs = HOME_REGr)
- SID roamer registration indicator (FOR_SID_REGs = FOR_SID_REGr)
- NID roamer registration indicator (FOR_NID_REGs = FOR_NID_REGr)
• Power-up registration indicator \( (\text{POWER\_UP\_REG}_s = \text{POWER\_UP\_REG}_r) \)
• Power-down registration indicator \( (\text{POWER\_DOWN\_REG}_s = \text{POWER\_DOWN\_REG}_r) \)
• Parameter-change registration indicator \( (\text{PARAMETER\_REG}_s = \text{PARAMETER\_REG}_r) \)
• Preferred Enhanced Access Channel MSID type \( (\text{PREF\_MSID\_TYPE}_s = \text{PREF\_MSID\_TYPE}_r) \)

The mobile station shall set its operational IMSI, IMSI_0, as follows:

- If \( \text{IMSI\_T\_SUPPORTED}_r \) is equal to ‘0’, the mobile station shall set IMSI_0 to IMSI_M_p.
- If \( \text{IMSI\_T\_SUPPORTED}_r \) is equal to ‘1’ and the mobile station’s IMSI_T_p has been programmed, the mobile station shall set IMSI_0 to IMSI_T_p.
- If \( \text{IMSI\_T\_SUPPORTED}_r \) is equal to ‘1’ and the mobile station’s IMSI_T_p has not been programmed, the mobile station shall set IMSI_0 to IMSI_M_p.
- If IMSI_0 has been changed, the mobile station shall set \( \text{A41\_SYMC\_RR\_PAR\_MSG\_SEQ}_s \) and \( \text{EXT\_CHAN\_LST\_MSG\_SEQ}_s \) to NULL and set \( \text{NUM\_FCCCH}_s \) to ‘1’ and \( \text{FCCCH\_IDS}_s \) to ‘1’.

• If \( \text{OTHER\_INFO\_INCL}_r \) is set to ‘1’, the mobile station shall store:
  - Base station identification \( (\text{BASE\_ID}_s = \text{BASE\_ID}_r) \)
  - If \( \text{MCC}_r = \text{‘1111111111’ and IMSI\_11\_12}_r = \text{‘1111111’} \), the mobile station shall set the IMSI_0 to IMSI_M_p and store:
    + Mobile Country Code \( (\text{MCC}_s = \text{MCC}_p) \) and
    + IMSI 11th and 12th digits \( (\text{IMSI\_11\_12}_s = \text{IMSI\_M\_11\_12}_p) \);
  - Otherwise, the mobile station shall store:
    + Mobile Country Code \( (\text{MCC}_s = \text{MCC}_r) \) and
    + IMSI 11th and 12th digits \( (\text{IMSI\_11\_12}_s = \text{IMSI\_11\_12}_r) \).
  - Broadcast GPS assist indicator \( (\text{BROADCAST\_GPS\_ASST}_s = \text{BROADCAST\_GPS\_ASST}_r) \)
  - Signaling encryption supported indicator \( (\text{SIG\_ENCRYPT\_SUP}_s = \text{SIG\_ENCRYPT\_SUP}_r) \)
  - Store encryption key indicator \( (\text{STORE\_KEY}_s = \text{STORE\_KEY}_r) \)
  - Concurrent services supported indicator \( (\text{CS\_SUPPORTED}_s = \text{CS\_SUPPORTED}_r) \)

• If IMSI_O is set to the IMSI_M, the mobile station shall set:
  - IMSI_O_S_s to IMSI_M_S_p (i.e., IMSI_O_S1_s to IMSI_M_S1_p and IMSI_O_S2_s to IMSI_M_S2_p)
  - IMSI_O_11_12_s to IMSI_M_11_12_p
  - MCC_O_s to MCC_M_p
If IMSI_O is set to the IMSI_T, the mobile station shall set:
- IMSI_O_Ss to IMSI_T_Sp (i.e., IMSI_O_S1s to IMSI_T_S1p and IMSI_O_S2s to IMSI_T_S2p).
- IMSI_O_11_12s to IMSI_T_11_12p
- MCC_Os to MCC_Tp
- IMSI_O_ADDR_NUMs to IMSI_T_ADDR_NUMp

- Delete foreign TMSI (DELETE_FOR_TMSIs = DELETE_FOR_TMSIp)
- Use TMSI (USE_TMSIs = USE_TMSIp)
- TMSI zone length (TMSI_ZONE_LENs = TMSI_ZONE_LENp)
- TMSI zone number (TMSI_ZONEs = TMSI_ZONEp)
- Maximum number of alternative service options (MAX_NUM_ALT_SO_s = MAX_NUM_ALT_SO_p) if included in the message; otherwise, MAX_NUM_ALT_SO_s = '000'.
- The mobile station shall set all bits of TMSI_CODEs-p to ‘1’ if all of the following conditions are met:
  - The bits of TMSI_CODEs-p are not all equal to ‘1’,
  - DELETE_FOR_TMSIs is equal to ‘1’, and
  - ASSIGNING_TMSI_ZONE_LENs-p is not equal to TMSI_ZONE_LENs, or the least significant ASSIGNING_TMSI_ZONE_LENs-p octets of ASSIGNING_TMSI_ZONEs-p are not equal to TMSI_ZONEs.

If the mobile station supports packet data service, the mobile station shall store the packet data services zone identifier (PACKET_ZONE_IDs = PACKET_ZONE_IDp); otherwise, the mobile station shall set PACKET_ZONE_IDs to ‘00000000’.

If the mobile station supports the Device Information Message on the r-csch, the mobile station shall store:
- Autonomous message supported indicator (AUTO_MSG_SUPPORTEDs = AUTO_MSG_SUPPORTEDp)

If AUTO_MSG_SUPPORTEDp is equal to ‘1’ and the mobile station supports the Device Information Message on the r-csch, the mobile station shall store:
- Autonomous message interval (AUTO_MSG_INTERVALs = AUTO_MSG_INTERVALp)

The mobile station shall store concurrent service supported indicator (CS_SUPPORTEDs = CS_SUPPORTEDp).

The mobile station shall store mobile station initiated position location determination supported indicator (MS_INIT_POS_LOC_SUP_INDs = MS_INIT_POS_LOC_SUP_INDp).

The mobile station shall also store the following parameters if the mobile station is not in
the Origination Attempt Substate or Page Response Substate:

- System identification \((S_{ID} = S_{IDT})\)
- Network identification \((N_{ID} = N_{IDT})\)
- Registration zone \((RZ_{ONE} = RZ_{ONE_T})\)
- Number of registration zones to be retained \((T_{OTAL}ZONES = T_{OTAL}ZONES_T})\)
- Zone timer length \((Z_{ONE}TIMER = Z_{ONE}TIMER_T})\)
- Multiple SID storage indicator \((MS_{SID} = MS_{SID_T})\)
- Multiple NID storage indicator \((MS_{NID} = MS_{NID_T})\)
- Registration period \((R_{PRD} = R_{PRD_T})\)
- If \(DIST\_REG\_INCL\) is equal to ‘1’, the mobile station shall store:
  - Registration distance \((RD_{DIST} = RD_{DIST_T})\)
- If \(DIST\_REG\_INCL\) is equal to ‘0’, then the mobile station shall set \(RD_{DIST}\) equal to ‘00000000000’.

The mobile station shall ignore any fields at the end of the ANSI-41 System Parameters Message that are not defined according to the protocol revision level \((MOB\_P\_REV)\) of the current band class being used by the mobile station.

2.6.2.2.13.2 Roaming Status
The mobile station shall determine the roaming status for the mobile station (see 2.6.5.3).

2.6.2.2.13.3 Registration
The mobile station should indicate to the user whether the mobile station is roaming.

2.6.2.2.13.4 PACA Disable for SID Change
If \(PACA\) is equal to enabled, and \(SID\) is not equal to \(PACA\_SID\), the mobile station shall set \(PACA\) to disabled and \(PACA\_CANCEL\) to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.

2.6.2.2.14 MC-RR Parameters Message
Whenever an MC-RR Parameters Message is received, the configuration message sequence number, \(CONFIG\_MSG\_SEQ\), shall be compared to that stored in \(MC\_RR\_PAR\_MSG\_SEQ\).

If the comparison results in a match, the mobile station may ignore the message. If the comparison results in a mismatch, then the mobile station shall process the remaining fields in the message as described in 2.6.2.2.14.1, 2.6.2.2.14.2, and 2.6.2.2.14.3.

If the protocol revision level supported by the mobile station \((MOB\_P\_REV)\) is less than the minimum protocol revision level supported by the base station \((MIN\_P\_REV)\), the mobile station shall enter the System Determination Substate of the Mobile Station Initialization State.
with a protocol mismatch indication (see 2.6.1.1).

If BASE_LAT, BASE_LONG, or PWR_REP_THRESH are not within the valid ranges specified in 3.7.2.3.2, then the mobile station shall ignore the MC-RR Parameters Message that contains them.

If the mobile station supports Spreading Rate 3 on the common channel and SR3_INCLs is equal to ‘1’, the mobile station shall set:

- \( BRAT_s = SR3_BRAT_r \),
- \( BCCH_s = SR3_BCCH_CODE_CHAN_r \),
- \( BCCH_CODE_RATE_s = 1/3 \),
- \( SR3_PRIMARY_PILOT_s = SR3_PRIMARY_PILOT_r \),
- \( SR3_PILOT_POWER1_s = SR3_PILOT_POWER1_r \),
- \( SR3_PILOT_POWER2_s = SR3_PILOT_POWER2_r \),
- If SR3_CENTER_FREQ_INCLr is equal to ‘1’, \( POTENTIAL_CDMACH_s = SR3_CENTER_FREQ_r \).

If \( POTENTIAL_CDMACH_s \) is different from CDMAH_s, the mobile station shall set \( CDMAH_s = POTENTIAL_CDMACH_s \) and then tune to the CDMA Channel (CDMAH_s).

2.6.2.2.14.1 Stored Parameters

The mobile station shall store the following parameters:

- Configuration message sequence number
  (\( CONFIG\_MSG\_SEQ_s = CONFIG\_MSG\_SEQ_r \),
  \( MC\_RR\_PAR\_MSG\_SEQ_s = CONFIG\_MSG\_SEQ_r \))
- Base station identification (\( BASE_ID_s = BASE_ID_r \))
- Protocol revision level (\( P\_REV_s = P\_REV_r \))
- Protocol revision level currently in use (\( P\_REV\_IN\_USE_s = \) the lesser value of \( P\_REV_s \) and \( MOB\_P\_REV_p \) of the current band class)
- Minimum protocol revision level (\( MIN\_P\_REV_s = MIN\_P\_REV_r \)).
- Search window size for the Active Set and Candidate Set
  (\( SRCH\_WIN\_A_s = SRCH\_WIN\_A_r \))
- Search window size for the Remaining Set (\( SRCH\_WIN\_R_s = SRCH\_WIN\_R_r \))
- Pilot detection threshold (\( T\_ADD_s = T\_ADD_r \))
- Pilot drop threshold (\( T\_DROP_s = T\_DROP_r \))
- Active Set versus Candidate Set comparison threshold (\( T\_COMP_s = T\_COMP_r \))
- Drop timer value (\( T\_TDROP_s = T\_TDROP_r \))
• Maximum age for retention of Neighbor Set members
  \[\text{NGHBR\_MAX\_AGE}_s = \text{NGHBR\_MAX\_AGE}_r\]

• Slope of the handoff add/drop criterion \(\text{SOFT\_SLOPE}_s = \text{SOFT\_SLOPE}_r\)
  if included in the message; otherwise, \(\text{SOFT\_SLOPE}_s = \text{‘000000’}\).

• Intercept of the handoff add criterion \(\text{ADD\_INTERCEPT}_s = \text{ADD\_INTERCEPT}_r\)

• Intercept of the handoff drop criterion \(\text{DROP\_INTERCEPT}_s = \text{DROP\_INTERCEPT}_r\)

• If ENC\_SUPPORTED\_r is equal to ‘1’, the mobile station shall store:
  - Signaling encryption supported indicator \(\text{SIG\_ENCRYPT\_SUP}_s = \text{SIG\_ENCRYPT\_SUP}_r\)
  - User information encryption supported indicator \(\text{UI\_ENCRYPT\_SUP}_s = \text{UI\_ENCRYPT\_SUP}_r\)
  - Store encryption key indicator \(\text{STORE\_KEY}_s = \text{STORE\_KEY}_r\)

If P\_REV\_IN\_USE\_s has been changed, the mobile station shall set ACC\_MSG\_SEQ\_s, CURR\_ACC\_MSG\_SEQ, A41\_SYS\_PAR\_MSG\_SEQ\_s, UNI\_NGHBR\_LST\_MSG\_SEQ\_s, and EXT\_GLOB\_SERV\_REDIR\_MSG\_SEQ\_s to NULL.

If CCH\_INFO\_INCL\_r is equal to ‘1’, the mobile station shall store:

• If MCC\_r = ‘11111111’ and IMSI\_11\_12\_r = ‘1111111’, the mobile station shall set
  the IMSI\_O to IMSI\_M\_p and store:
  - Mobile Country Code \(\text{MCC}_s = \text{MCC}_p\)
  - IMSI 11th and 12th digits \(\text{IMSI\_11\_12}_s = \text{IMSI\_M\_11\_12}_p\);

• Otherwise, the mobile station shall store:
  - Mobile Country Code \(\text{MCC}_s = \text{MCC}_r\)
  - IMSI 11th and 12th digits \(\text{IMSI\_11\_12}_s = \text{IMSI\_11\_12}_r\).

• If IMSI\_O has been changed, the mobile station shall set
  \(\text{EXT\_CHAN\_LST\_MSG\_SEQ}_s\) to NULL, and set \(\text{NUM\_FCCCH}_s\) to ‘1’ and \(\text{FCCCH\_ID}_s\)
  to ‘1’.

• Extended Global Service Redirection Message sent
  \(\text{EXT\_GLOBAL\_REDIRECT}_s = \text{EXT\_GLOBAL\_REDIRECT}_r\) if included; otherwise,
  \(\text{EXT\_GLOBAL\_REDIRECT}_s = \text{‘0’}\)

• User Zone Identification Message sent
  \(\text{USER\_ZONE\_ID}_s = \text{USER\_ZONE\_ID}_r\) if included; otherwise, \(\text{USER\_ZONE\_ID}_s = \text{‘0’}\)

• Private Neighbor List Message sent
  \(\text{PRI\_NGHBR\_LST}_s = \text{PRI\_NGHBR\_LST}_r\) if included; otherwise, \(\text{PRI\_NGHBR\_LST}_s = \text{‘0’}\)

• ANSI-41 RAND Message sent
  \(\text{SENDING\_RAND}_s = \text{SENDING\_RAND}_r\) if included; otherwise, \(\text{SENDING\_RAND}_s = \text{‘0’}\)
• Maximum slot cycle index
  (MAX_SLOT_CYCLE_INDEX_s = MAX_SLOT_CYCLE_INDEX_r)
• Power control reporting threshold (PWR_REP_THRESH_s = PWR_REP_THRESH_r)
• Power control reporting frame count (PWR_REP_FRAMES_s = PWR_REP_FRAMES_r)
• Threshold report mode indicator
  (PWR_THRESH_ENABLE_s = PWR_THRESH_ENABLE_r)
• Periodic report mode indicator (PWR_PERIOD_ENABLE_s = PWR_PERIOD_ENABLE_r).
• Power report delay (PWR_REP_DELAY_s = PWR_REP_DELAY_r)
• System reselection indicator (RESELECT_INCLUDED_s = RESELECT_INCLUDED_r).
  
  — Base station latitude (BASE_LAT_s = BASE_LAT_r)
  — Base station longitude (BASE_LONG_s = BASE_LONG_r)
• Pilot reporting indicator (PILOT_REPORT_s = PILOT_REPORT_r)
• Short Data Burst supported indicator (SDB_SUPPORTED_s = SDB_SUPPORTED_r)
• Broadcast GPS Assist Indicator (BROADCAST_GPS_ASST_s = BROADCAST_GPS_ASST_r)
• Nominal reverse traffic channel output power offset relative to Reverse Pilot Channel
  power (RLGAIN_TRAFFIC_PILOT_s = RLGAIN_TRAFFIC_PILOT_r)

  If NUM_FCCCH_r is not equal to ‘0’:
    — Number of the Forward Common Control Channels (NUM_FCCCH_s = NUM_FCCCH_r)
    — Data rate for the Forward Common Control Channels (FCCCH_RATE_s = FCCCH_RATE_r)
    — Code rate for the Forward Common Control Channels (FCCCH_CODE_RATE_s = FCCCH_CODE_RATE_r)
      — For i = 0 to NUM_FCCCH_r - 1, store the channel code index for each Forward
        Common Control Channel (FCCCH_CODE_CHAN_s[i] = FCCCH_CODE_CHAN_r[i])
• Number of Forward Common Control Channels (NUM_FCCCH_s = NUM_FCCCH_r)
• Data rate for the Forward Common Control Channels (FCCCH_RATE_s = FCCCH_RATE_r)
• Code rate for the Forward Common Control Channels (FCCCH_CODE_RATE_s = FCCCH_CODE_RATE_r)
• If NUM_FCCCH_r is not equal to ‘0’, then for i = 0 to NUM_FCCCH_r - 1, store the
  channel code index for each Forward Common Control Channel
  (FCCCH_CODE_CHAN_s[i] = FCCCH_CODE_CHAN_r[i])
• Broadcast index (BCAST_INDEX_s = BCAST_INDEX_r)
If NUM_BCCH_BCASTr is greater than ‘000’, i occurrences of the following fields, where i ranges from 1 to NUM_BCCH_BCASTr:

- Set the index number of the Broadcast Control Channel Number (BCN) to i+1
- BCCH walsh code index (BCCH_CODE_CHAN[BCNi]s = BCCH_CODE_CHAN[i]r)
- BCCH data rate (BRAT[BCNi]s = BRAT[i]r)
- BCCH code rate (BCCH_CODE_RATE[BCNi]s = BCCH_CODE_RATE[i]r)
- Set the index number of the Broadcast Control Channel (BCN)[i] to i+1
- Sync ID supported indicator (USE_SYNC_IDs = USE_SYNC_IDr)

Pilot information request supported indicator (PILOT_INFO_REQ_SUPPORTEDs = PILOT_INFO_REQ_SUPPORTEDr).

Access entry handoff in order and message processing operation indicator (ACC_ENT_HO_ORDERs = ACC_ENT_HO_ORDERr).

If REV_PWR_CNTL_DELAY_INCL is equal to ‘1’, reverse power control delay (REV_PWR_CNTL_DELAYs = REV_PWR_CNTL_DELAYr)

Permission indicator for the mobile station to request QoS settings in the Origination Message, Origination Continuation Message, or Enhanced Origination Message (MOB_QOSs = MOB_QOSr)

If RESELECT_INCLUDEDs is equal to ‘1’, the mobile station shall store:
- Pilot power threshold (EC_THRESHs = EC_THRESHr)
- Pilot E_c/I_o threshold (EC_IO_THRESHs = EC_IO_THRESHr)

Access handoff permitted indicator (ACCESS_HOs = ACCESS_HOr)

Access probe handoff permitted indicator (ACCESS_PROBE_HOs = ACCESS_PROBE_HOr)

If ACCESS_PROBE_HOs is equal to ‘1’, access handoff list update permitted indicator (ACC_HO_LIST_UPDs = ACC_HO_LIST_UPDr)

Maximum number of times that the mobile station is permitted to perform an access probe handoff (MAX_NUM_PROBE_HOs = MAX_NUM_PROBE_HOr)

Access handoff permitted for message response indicator (ACCESS_HO_MSG_RSPs = ACCESS_HO_MSG_RSPr)

Access probe handoff permitted for other messages indicator (ACC_PROBE_HO_OTHER_MSGs = ACC_PROBE_HO_OTHER_MSGr)

If USER_ZONE_IDs is equal to ‘0’, then the mobile station shall perform the following:
- Set USER_ZONE_ID_MSG_SEQs to CONFIG_MSG_SEQs.
- Set the UZID field of the UZ_REC to ‘0000000000000000’ for all entries.
- Set the UZ_REV field of the UZ_REC to ‘0000’ for all entries.
– Set the TEMP_SUB field of the UZ_REC to ‘0’ for all entries.

– If USER_ZONE_ID$s is equal to ‘1’ and the mobile station does not support Tiered
Services, then the mobile station shall set USER_ZONE_ID_MSG_SEQ$s to
CONFIG_MSG_SEQ$s.

– If PRI_NGHBR_LIST$s is equal to ‘0’, then the mobile station shall set
PRI_NGHBR_LIST_MSG_SEQ$s to CONFIG_MSG_SEQ$s.

– If PRI_NGHBR_LIST$s is equal to ‘1’ and the mobile station does not support Tiered
Services, then the mobile station shall set PRI_NGHBR_LIST_MSG_SEQ$s to
CONFIG_MSG_SEQ$s.

– If EXT_GLOBAL_REDIRECT$s is equal to ‘0’, then the mobile station shall set
EXT_GLOB_SERV_REDIR_MSG_SEQ$s to CONFIG_MSG_SEQ$s.

– If SENDING_RAND$s is equal to ‘1’ and the mobile station does not support Tiered
Services, then the mobile station shall set AUTH$s to ‘01’; otherwise, the mobile station shall set AUTH$s to
‘00’.

– If the mobile station is not in the Origination Attempt Substate or Page Response Substate, then the mobile station shall perform
the following: set AUTH$s to ‘01’; otherwise, the mobile station shall set AUTH$s to
‘00’.

– If SENDING_RAND$s is equal to ‘1’, the mobile station shall set AUTH$s to ‘01’;
otherwise, the mobile station shall set AUTH$s to ‘00’.

– If the mobile station is not in the Origination Attempt Substate or Page Response
Substate, then the mobile station shall store the following:

  – Base station latitude [BASE_LAT$s = BASE_LAT$r]

  – Base station longitude [BASE_LONG$s = BASE_LONG$r]

If CCH_INFO_INCL$r is equal to ‘1’ and the mobile station supports the Quick Paging
Channel operation:

– The mobile station shall set QPCH_SUPPORTED$s to QPCH_SUPPORTED$r.

– If QPCH_SUPPORTED$r = ‘1’:

  – The mobile station shall set QPCH_RATE$s to QPCH_RATE$r.

  – If the mobile station is monitoring the Primary Broadcast Control Channel in
Spreading Rate 1 and the number of Quick Paging Channels specified in the
received message (NUM_QPCH$r) is different from NUM_QPCH$s, the mobile
station shall use the hash algorithm specified in 2.6.7.1 to select a new Quick
Paging Channel number in the range 1 to NUM_QPCH$r. The mobile station shall
store the new Quick Paging Channel number as QPAGECH$s and as
ASSIGNED_QPAGECH$s. The mobile station shall then set NUM_QPCH$s to
NUM_QPCH$r.

  – If the mobile station is monitoring the Primary Broadcast Control Channel in
Spreading Rate 3 and the number of Quick Paging Channels specified in the
received message (NUM_QPCH$r) is different from NUM_QPCH$s, the mobile
station shall perform the following:
The mobile station shall use the hash algorithm specified in 2.6.7.1 to select a new Quick Paging Channel number in the range 1 to NUM_QPCH_r.

The mobile station shall store the new Quick Paging Channel number as QPAGECH_s and as ASSIGNED_QPAGECH_s.

For i = 0 to NUM_QPCH_s - 1, store the channel code index for each Quick Paging Channel (QPCH_CODE_CHAN_s[i] = QPCH_CODE_CHAN_r).

- The mobile station shall set QPCH_POWER_LEVEL_PAGE_s to QPCH_POWER_LEVEL_PAGE_r.
- The mobile station shall set QPCH_CCI_SUPPORTED_s to QPCH_CCI_SUPPORTED_r.
  - If QPCH_CCI_SUPPORTED_r = '1', the mobile station shall set QPCH_POWER_LEVEL_CONFIG_s to QPCH_POWER_LEVEL_CONFIG_r.
- The mobile station shall set QPCH_BI_SUPPORTED_s to QPCH_BI_SUPPORTED_r.
  - If QPCH_BI_SUPPORTED_r = '1', the mobile station shall set QPCH_POWER_LEVEL_BCAST_s to QPCH_POWER_LEVEL_BCAST_r.

The mobile station shall ignore any fields at the end of the MC-RR Parameters Message that are not defined according to the protocol revision level (MOB_P_REV_p of the current band class) being used by the mobile station.

2.6.2.2.14.2 Slot Cycle Index
The mobile station shall set SLOT_CYCLE_INDEX_s to the smaller of: the preferred slot cycle index SLOT_CYCLE_INDEX_p and the maximum slot cycle index MAX_SLOT_CYCLE_INDEX_s. If the mobile station is operating in the slotted mode, it shall set its slot cycle length as described in 2.6.2.1.1.3.

2.6.2.2.14.3 Forward Common Control Channel Assignment Change
If the number of Forward Common Control Channels specified in the MC-RR Parameters Message (NUM_FCCCH_r) is not equal to '0' and is different from NUM_FCCCH_s, the mobile station shall use the hash algorithm specified in 2.6.7.1 to select a new Forward Common Control Channel number in the range 1 to NUM_FCCCH_r and shall store this value as FCCCH_ID_s. If NUM_FCCCH_r is not equal to '0', the mobile station shall store the FCCCH rate (FCCCH_RATE_s = FCCCH_RATE_r), the FCCCH code rate (FCCCH_CODE_RATE_s = FCCCH_CODE_RATE_r), and store FCCCH_CODE_CHAN_s of the corresponding Forward Common Control Channel as FCCCH_CODE_RATE_s and FCCCH_CODE_CHAN_s. The mobile station shall then set NUM_FCCCH_s to NUM_FCCCH_r.

The mobile station shall set ACC_MSG_SEQ_s to NULL.

2.6.2.2.15 Enhanced Access Parameters Message
Whenever an Enhanced Access Parameters Message is received on the f-csch, the sequence number, ACC_MSG_SEQ_r, shall be compared to ACC_MSG_SEQ_s. If the comparison results in a match, the mobile station may ignore the message. If the comparison results in a mismatch, then the mobile station shall process the remaining fields in the message as
follows:

If PROBE_PN_RAN, MAX_REQ_SEQ, or MAX_RSP_SEQ are not within the valid ranges specified in 3.7.2.3.2.2, then the mobile station shall ignore the Enhanced Access Parameters Message that contains them.

The mobile station shall store the following parameters:

- Enhanced Access Parameters Message sequence number
  \(\text{ACC_MSG_SEQ_s} = \text{ACC_MSG_SEQ_r}\)

- Persistence related parameters:
  - If PSIST_PARMS_INCL is equal to ‘1’, store the following:
    + Persistence parameter number according to the following rule: If the mobile station’s access overload class is in the range 0-9 inclusive, set PSIST_s equal to PSIST(0-9)_EACH_r; otherwise set PSIST_s equal to PSIST[n]_EACH_r, where n is equal to the mobile station access overload class.
    + Persistence modifier for Enhanced Access Channel attempts for registrations which are not responses to the Registration Request Order \(\text{REG_PSIST_s} = \text{REG_PSIST_EACH_r}\).
    + Persistence modifier for Enhanced Access Channel attempts for message transmissions \(\text{MSG_PSIST_s} = \text{MSG_PSIST_EACH_r}\).
    + Persistence modifier for emergency calls by the mobile stations in access overload classes 0 to 9 \(\text{PSIST_EMG_s} = \text{PSIST_EMG_r}\).
  - If PSIST_PARMS_INCL is equal to ‘0’, store the following:
    + Set PSIST_s to ‘0’.
    + Persistence modifier for emergency calls by a mobile station in access overload classes 0 to 9 \(\text{PSIST_EMG_s} = \text{‘0’}\).
    + Persistence modifier for Enhanced Access Channel attempts for message transmissions \(\text{MSG_PSIST_s} = \text{‘0’}\).
    + Persistence modifier for Enhanced Access Channel attempts for registrations which are not responses to the Registration Request Order \(\text{REG_PSIST_s} = \text{‘0’}\).

The mobile station shall store the Access Control based on Call Type (ACCT) information as follows:

- Set ACCT_SO_LIST to NULL.
- Set ACCT_SO_GRP_LIST to NULL.
- If ACCT_INCL_r is equal to ‘1’ and ACCOLC_p is in the range 0 to 9, then the mobile station shall perform the following:
  + Set ACCT_INCL_EMG_s to ACCT_INCL_EMG_r.
  + If ACCT_SO_INCL_r is equal to ‘1’, then for each ACCT_SO_r included in this message:
If ACCT_AOC_BITMAP_INCL is equal to '0', or if ACCT_AOC_BITMAP_INCL is equal to '1' and the bit in the associated ACCT_AOC_BITMAP1 corresponding to the mobile station's ACCOLCp (see Table 3.7.2.3.2.2-1) is equal to '1', then add ACCT_SO to ACCT_SO_LIST.

If ACCT_SO_GRP_INCL is equal to '1', then for each ACCT_SO_GRP included in this message:

If ACCT_AOC_BITMAP_INCL is equal to '0', or if ACCT_AOC_BITMAP_INCL is equal to '1' and the bit in the associated ACCT_AOC_BITMAP2 corresponding to the mobile station's ACCOLCp (see Table 3.7.2.3.2.2-1) is equal to '1', then add ACCT_SO_GRP to ACCT_SO_GRP_LIST.

• Link Access Control related parameters:
  – Acknowledgment timeout (EACH_ACC_TMO = ACC_TMO)
  – Time randomization for Enhanced Access Channel probes (PROBE_PN_RAN = PROBE_PN_RAN)
  – Maximum number of probe sequences for an Enhanced Access Channel request (MAX_REQ_SEQ = MAX_REQ_SEQ)
  – Maximum number of probe sequences for an Enhanced Access Channel response (MAX_RSP_SEQ = MAX_RSP_SEQ)

• Mode Selection Table:
  NUM_MODE_SELECTION_ENTRIES = (NUM_MODE_SELECTION_ENTRIES + 1)

For i = 1 to NUM_MODE_SELECTION_ENTRIES:
  – MODE_SELECTION.ACCESS_MODE = ACCESS_MODE field of the ith occurrence of the record
  – MODE_SELECTION.ACCESS_MODE_MIN_DURATION = ACCESS_MODE_MIN_DURATION field of the ith occurrence of the record
  – MODE_SELECTION.ACCESS_MODE_MAX_DURATION = ACCESS_MODE_MAX_DURATION field of the ith occurrence of the record

• Reverse gain adjustment of the Enhanced Access Channel or Reverse Common Control Channel relative to the Reverse Pilot Channel (RLGAIN_COMMON_PILOT = RLGAIN_COMMON_PILOT)

• The threshold level at which the interference correction begins to be applied (IC_THRESH = - IC_THRESH)

• The maximum interference correction that can be applied (IC_MAX = IC_MAX)

• Mode-specific parameters for the Enhanced Access Channel:
For i = 1 to NUM_MODE_PARM_REC + 1:
  
  For j = 0 to 7:
    If the (j+1)th subfield of APPLICABLE_MODES is equal to ‘1’, store the
    following parameters:
    
    – Nominal transmit power offset on the Enhanced Access Channel
      (MODE_PARMS_s[j].EACH_NOM_PWR = EACH_NOM_PWR field of the i\textsuperscript{th}
      occurrence of the record)
    
    – Initial power offset for access on the Enhanced Access Channel
      (MODE_PARMS_s[j].EACH_INIT_PWR = EACH_INIT_PWR field of the i\textsuperscript{th}
      occurrence of the record)
    
    – Power increment on the Enhanced Access Channel
      (MODE_PARMS_s[j].EACH_PWR_STEP = EACH_PWR_STEP field of the i\textsuperscript{th}
      occurrence of the record)
    
    – Number of access probes on the Enhanced Access Channel
      (MODE_PARMS_s[j].EACH_NUM_STEP = EACH_NUM_STEP field of the i\textsuperscript{th}
      occurrence of the record)
    
    – Preamble enabled indicator on the Enhanced Access Channel
      (MODE_PARMS_s[j].EACH_PREAMBLE_ENABLED = EACH_PREAMBLE_E
      NABLED field of the i\textsuperscript{th} occurrence of the record)
    
    – Number of preamble fractions sent on the Enhanced Access Channel if
      MODE_PARMS_s[j].EACH_PREAMBLE_ENABLED is equal to ‘1’
      (MODE_PARMS_s[j].EACH_PREAMBLE_NUM_FRAC =
      EACH_PREAMBLE_NUM_FRAC field of the i\textsuperscript{th} occurrence of the record)
    
    – Fractional preamble duration on the Enhanced Access Channel if
      MODE_PARMS_s[j].EACH_PREAMBLE_ENABLED is equal to ‘1’
      (MODE_PARMS_s[j].EACH_PREAMBLE_FRAC_DURATION = EACH_PREAM
      BLE_FRAC_DURATION field of the i\textsuperscript{th} occurrence of the record)
    
    – Preamble gated-off duration on the Enhanced Access Channel if
      MODE_PARMS_s[j].EACH_PREAMBLE_ENABLED is equal to ‘1’
      (MODE_PARMS_s[j].EACH_PREAMBLE_OFF_DURATION = EACH_PREAM
      BLE_OFF_DURATION field of the i\textsuperscript{th} occurrence of the record)
    
    – Additional preamble duration on the Enhanced Access Channel if
      MODE_PARMS_s[j].EACH_PREAMBLE_ENABLED is equal to ‘1’
      (MODE_PARMS_s[j].EACH_PREAMBLE_ADD_DURATION =
      EACH_PREAMBLE_ADD_DURATION field of the i\textsuperscript{th} occurrence of the
      record)
    
    – Access threshold on the Enhanced Access Channel
      (MODE_PARMS_s[j].EACH_ACCESS_THRESH = EACH_ACCESS_THRESH
      field of the i\textsuperscript{th} occurrence of the record)
    
    – Enhanced Access Channel probe backoff range
(MODE_PARMSs\[j\].EACH_PROBE_BKOFF = EACH_PROBE_BKOFF field of the \(i^{th}\) occurrence of the record)

- Enhanced Access Channel probe sequence backoff range
  (MODE_PARMSs\[j\].EACH_BKOFF = EACH_BKOFF field of the \(i^{th}\) occurrence of the record)

- Enhanced Access Channel slot (MODE_PARMSs\[j\].EACH_SLOT = 1 + EACH_SLOT field of the \(i^{th}\) occurrence of the record)

- Enhanced Access Channel first slot offset
  (MODE_PARMSs\[j\].EACH SLOT_OFFSET1 = EACH_SLOT_OFFSET1 field of the \(i^{th}\) occurrence of the record)

- Enhanced Access Channel second slot offset
  (MODE_PARMSs\[j\].EACH SLOT_OFFSET2 = EACH_SLOT_OFFSET2 field of the \(i^{th}\) occurrence of the record)

- Additional parameters for the Basic Access Mode:

  If BA_PARMS_LEN is equal to ‘000’, set the Basic Access Mode supported indicator, BA_SUPPORTEDs, to ‘0’; otherwise store the following parameters:

  - Basic Access Mode supported indicator (BA_SUPPORTEDs = ‘1’)
  - Number of Enhanced Access Channels (NUM_EACH_BAs = \(1 + \text{NUM_EACH_BAr}\))
  - Rate words supported on the Enhanced Access Channels (EACH_BA_RATES_SUPPORTEDs = EACH_BA_RATES_SUPPORTEDr)

- Additional parameters for the Reservation Access Mode:

  If RA_PARMS_LEN is equal to ‘00000’, set the Reservation Access Mode supported indicator, RA_SUPPORTEDs, to ‘0’; otherwise store the following parameters, if included in the message:

  - Reservation Access Mode supported indicator (RA_SUPPORTEDs = ‘1’)
  - Number of Enhanced Access Channels (NUM_EACH_RAs = \(1 + \text{NUM_EACH_RAr}\))
  - Number of Common Assignment Channels (NUM_CACHs = \(1 + \text{NUM_CACHr}\))
  - Code rate of Common Assignment Channels (CACH_CODE_RATEs = CACH_CODE_RATEr)
  - For \(i = 0\) to NUM_CACHs - 1, store the channel code index for each Common Assignment Channel (CACH_CODE_CHANs\[i\] = CACH_CODE_CHANr).
  - Number of Reverse Common Control Channels (NUM_RCCCHs = \(1 + \text{NUM_RCCCHr}\))
  - Rate words supported on the Reverse Common Control Channels (RCCCH_RATES_SUPPORTEDs = RCCCH_RATES_SUPPORTEDr)
– Preamble enabled indicator on the Reverse Common Control Channels
  (RCCCH_PREAMBLE_ENABLED_S = RCCCH_PREAMBLE_ENABLED_r)

– Number of preamble fractions sent on the Reverse Common Control Channel if
  RCCCH_PREAMBLE_ENABLED_r is equal to ‘1’
  (RCCCH_PREAMBLE_NUM_FRAC_S = RCCCH_PREAMBLE_NUM_FRAC_r)

– Fractional preamble duration on the Reverse Common Control Channel if
  RCCCH_PREAMBLE_ENABLED_r is equal to ‘1’
  (RCCCH_PREAMBLE_FRAC_DURATION_S =
   RCCCH_PREAMBLE_FRAC_DURATION_r)

– Preamble gated-off duration on the Reverse Common Control Channel if
  RCCCH_PREAMBLE_ENABLED_r is equal to ‘1’
  (RCCCH_PREAMBLE_OFF_DURATION_S = RCCCH_PREAMBLE_OFF_DURATION_r)

– Additional preamble duration on the Reverse Common Control Channel if
  RCCCH_PREAMBLE_ENABLED_r is equal to ‘1’
  (RCCCH_PREAMBLE_ADD_DURATION_S =
   RCCCH_PREAMBLE_ADD_DURATION_r)

– Slot duration on the Reverse Common Control Channel (RCCCH_SLOT_S = 1 +
  RCCCH_SLOT_r)

– First slot offset of the Reverse Common Control Channel
  (RCCCH_SLOT_OFFSET1_S = RCCCH_SLOT_OFFSET1_r)

– Second slot offset of the Reverse Common Control Channel
  (RCCCH_SLOT_OFFSET2_S = RCCCH_SLOT_OFFSET2_r)

– Nominal transmit power offset on the Reverse Common Control Channel
  (RCCCH_NOM_PWR_S = RCCCH_NOM_PWR_r)

– Initial power offset for access on the Reverse Common Control Channel
  (RCCCH_INIT_PWR_S = RCCCH_INIT_PWR_r)

– Power Control delay for the Reservation Access Mode
  (RA_PC_DELAY_S = RA_PC_DELAY_r)

– Maximum delay to receive the Early Acknowledgment Channel Assignment
  Message on the Common Assignment Channel
  (EACAM_CACH_DELAY_S = EACAM_CACH_DELAY_r)

– Indicator for handoff supported on the Reverse Common Control Channels
  (RCCCH_HO_SUPPORTED_S = RCCCH_HO_SUPPORTED_r)

– Threshold for handoff on the Reverse Common Control Channels if
  RCCCH_HO_SUPPORTED_r is equal to ‘1’
  (RCCCH_HO_THRESH_S = RCCCH_HO_THRESH_r)

– Maximum delay to receive the Early Acknowledgment Channel Assignment
  Message and the Power Control Channel Assignment Message if
  RCCCH_HO_SUPPORTED_r is equal to ‘1’
  (EACAM_PCCAM_DELAY_S = EACAM_PCCAM_DELAY_r)
Number of Common Power Control Channels \( (\text{NUM\_CPCCH_s} = \{\text{NUM\_CPCCH_r} + 1\}) \)

Power control rate for the Common Power Control Channels
\( (\text{CPCCH\_RATE_s} = \text{CPCCH\_RATE_r}) \)

For \( i = 0 \) to \( \text{NUM\_CPCCH_s} - 1 \), store the channel code index for each Common Power Control Channel \( (\text{CPCCH\_CODE\_CHAN_s}[i] = \text{CPCCH\_CODE\_CHAN_r}) \)

Number of Power Control Subchannels for the Reservation Access Mode
\( (\text{NUM\_PCSCH\_RA_s} = \{\text{NUM\_PCSCH\_RA_r} + 1\}) \)

2.6.2.2.16 ANSI-41 RAND Message
Whenever an ANSI-41 RAND Message is received, the mobile station shall process the fields in the message as follows.
The mobile station shall store the following parameter if the mobile station is not in the Origination Attempt Substate or Page Response Substate:
- Random challenge value \( (\text{RAND_s} = \text{RAND_r}) \)
- Pilot PN sequence offset increment \( (\text{PILOT\_PN_s} = \text{PILOT\_PN_r}) \)
The mobile station shall ignore any fields at the end of the ANSI-41 RAND Message which are not defined according to the protocol revision level \( (\text{MOB\_P\_REV_p} \) of the current band class) being used by the mobile station.

2.6.2.2.17 Universal Neighbor List Message
Whenever a valid Universal Neighbor List Message is received on the Primary Broadcast Control Channel, the configuration message sequence number, \( \text{CONFIG\_MSG\_SEQ_r} \) shall be compared to that stored in \( \text{UNIV\_NGHB\_LST\_MSG\_SEQ_s} \). If the comparison results in a mismatch, then the mobile station shall process the remaining fields in the message as described below.
The mobile station shall store the following parameters:
- Configuration message sequence number
\( (\text{CONFIG\_MSG\_SEQ_s} = \text{CONFIG\_MSG\_SEQ_r}, \text{UNIV\_NGHB\_LST\_MSG\_SEQ_s} = \text{CONFIG\_MSG\_SEQ_r}) \).
If \( \text{RADIO\_INTERFACE\_TYPE_r} \) is equal to ‘0000’ but the \( \text{PILOT\_INC} \) field is not within the valid range specified in 3.7.2.3.2.33, then the mobile station shall ignore the entire record that contains it.
If \( \text{RADIO\_INTERFACE\_TYPE_r} \) is equal to ‘0000’ and the \( \text{PILOT\_INC} \) field is within the valid range specified in 3.7.2.3.2.33, the mobile station shall perform the following:
The mobile station shall store the Pilot PN sequence offset increment \( (\text{PILOT\_INC_s} = \text{PILOT\_INC_r}) \).
The mobile station shall set \( \text{NGHB\_SET\_SIZE_s} \) to \( \text{NUM\_NGHB\_R} \).
For each of the neighboring base stations contained in the *Universal Neighbor List Message*, if FREQ_INCL\textsubscript{r} is equal to ‘0’, or if FREQ_INCL\textsubscript{r} is equal to ‘1’ and NGHBR_BAND\textsubscript{r} is supported, the mobile station shall do the following:

- If the \textit{i}th occurrence of NGHBR_CONFIG\textsubscript{r} is equal to ‘000’, ‘001’, ‘010’, or ‘100’, set the NGHBR_CONFIG field of NGHBR_REC[i] to the \textit{i}th occurrence of NGHBR_CONFIG\textsubscript{r}; otherwise, set the NGHBR_CONFIG field of NGHBR_REC[i] to ‘011’.

- Set the NGHBR_PN field of NGHBR_REC[i] to the \textit{i}th occurrence of NGHBR_PN\textsubscript{r}.

- If NGHBR_CONFIG\textsubscript{r} is equal to ‘011’, set the BCCH_SUPPORT field of NGHBR_REC[i] to BCCH_SUPPORT\textsubscript{r} of the corresponding record.

- Set the ADD_PILOT_REC_INCL field of NGHBR_REC[i] to the \textit{i}th occurrence of ADD_PILOT_REC_INCL\textsubscript{r}. If ADD_PILOT_REC_INCL\textsubscript{r} equals ‘1’, for each pilot included in the message, the mobile station shall also perform the following:

  - Set the NGHBR_PILOT_REC_TYPE field of NGHBR_PILOT_REC to NGHBR_PILOT_REC_TYPE\textsubscript{r}.

  - If NGHBR_PILOT_REC_TYPE\textsubscript{r} is equal to ‘000’. The mobile station shall:

    + Set the TD_POWER_LEVEL field of NGHBR_PILOT_REC to TD_POWER_LEVEL\textsubscript{r}.

    + Set the TD_MODE field of NGHBR_PILOT_REC to TD_MODE\textsubscript{r}.

  - If NGHBR_PILOT_REC_TYPE\textsubscript{r} is equal to ‘001’, the mobile station shall:

    + Set the AUX_PILOT_QOF field of NGHBR_PILOT_REC to QOF\textsubscript{r}.

    + Set the AUX_PILOT_WALSH_CODE field of NGHBR_PILOT_REC to AUX_PILOT_WALSH\textsubscript{r} with the Walsh Code length specified by WALSH_LENGTH\textsubscript{r}.

  - If NGHBR_PILOT_REC_TYPE\textsubscript{r} is equal to ‘010’, the mobile station shall:

    + Set the AUX_PILOT_QOF field of NGHBR_PILOT_REC to QOF\textsubscript{r}.

    + Set the AUX_PILOT_WALSH_CODE field of NGHBR_PILOT_REC to AUX_WALSH\textsubscript{r} with the Walsh Code length specified by WALSH_LENGTH\textsubscript{r}.

    + Set the AUX_TD_POWER_LEVEL field of NGHBR_PILOT_REC to AUX_TD_POWER_LEVEL\textsubscript{r}.

    + Set the TD_MODE field of NGHBR_PILOT_REC to TD_MODE\textsubscript{r}.

  - If NGHBR_PILOT_REC_TYPE\textsubscript{r} is equal to ‘011’, the mobile station shall:

    + Set the SR3_PRIMARY_PILOT field of NGHBR_PILOT_REC to SR3_PRIMARY_PILOT\textsubscript{r}.

    + Set the SR3_PILOT_POWER1 field of NGHBR_PILOT_REC to SR3_PILOT_POWER1\textsubscript{r}.
+ Set the SR3_PILOT_POWER2 field of NGHBR_PILOT_REC to SR3_PILOT_POWER2r.

- If NGHBR_PILOT_REC_TYPE is equal to ‘100’, the mobile station shall:
  + Set the SR3_PRIMARY_PILOT field of NGHBR_PILOT_REC to SR3_PRIMARY_PILOTr.
  + Set the SR3_PILOT_POWER1 field of NGHBR_PILOT_REC to SR3_PILOT_POWER1r.
  + Set the SR3_PILOT_POWER2 field of NGHBR_PILOT_REC to SR3_PILOT_POWER2r.
  + Set the AUX_PILOT_QOF field of NGHBR_PILOT_REC to QOFr.
  + Set the AUX_PILOT_WALSH_CODE field of NGHBR_PILOT_REC to AUX_PILOT_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.
  + If ADD_INFO_INCL1r is equal to ‘1’, set the AUX_PILOT_QOF1 field of NGHBR_PILOT_REC to QOF1r and set the AUX_PILOT_WALSH_CODE1 field of NGHBR_PILOT_REC to AUX_PILOT_WALSH1r with the Walsh Code length specified by WALSH_LENGTH1r; otherwise, set the AUX_PILOT_QOF1 field of NGHBR_PILOT_REC to QOFr and set the AUX_PILOT_WALSH_CODE1 field of NGHBR_PILOT_REC to AUX_PILOT_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.
  + If ADD_INFO_INCL2r is equal to ‘1’, set the AUX_PILOT_QOF2 field of NGHBR_PILOT_REC to QOF2r and set the AUX_PILOT_WALSH_CODE2 field of NGHBR_PILOT_REC to AUX_PILOT_WALSH2r with the Walsh Code length specified by WALSH_LENGTH2r; otherwise, set the AUX_PILOT_QOF2 field of NGHBR_PILOT_REC to QOFr and set the AUX_PILOT_WALSH_CODE2 field of NGHBR_PILOT_REC to AUX_PILOT_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.

• If NGHBR_SRCH_MODEr = ‘00’ or ‘10’, set the SEARCH_PRIORITY field of each NGHBR_REC to ‘10’ (high) for all NGHBR_SET_SIZEs entries.
• If NGHBR_SRCH_MODEr = ‘01’ or ‘11’, set the SEARCH_PRIORITY field of NGHBR_REC[i] to the i\textsuperscript{th} occurrence of SEARCH_PRIORITYr.
• If NGHBR_SRCH_MODEr = ‘00’ or ‘01’, set the SRCH_WIN_NGHBR field of each NGHBR_REC to SRCH_WIN_Nr for all NGHBR_SET_SIZEs entries.
• If NGHBR_SRCH_MODEr = ‘00’ or ‘01’, set the SRCH_OFFSET_NGHBR field of each NGHBR_REC to ‘000’.
• If NGHBR_SRCH_MODEr = ‘10’ or ‘11’:
  - set the SRCH_WIN_NGHBR field of NGHBR_REC[i] to the i\textsuperscript{th} occurrence of SRCH_WIN_NGHBRr.
– if SRCH_OFFSET_INCL equals to ‘1’, set the SRCH_OFFSET_NGHBR field of NGHBR_REC[i] to the i^{th} occurrence of SRCH_OFFSET_NGHBR, and
– if SRCH_OFFSET_INCL equals to ‘0’, set the SRCH_OFFSET_NGHBR field of each NGHBR_REC to ‘000’.

• If USE_TIMING is equal to ‘1’, set the TIMING_INCL field of NGHBR_REC[i] to the i^{th} occurrence of TIMING_INCL; otherwise, set the TIMING_INCL field of NGHBR_REC to ‘0’ for all entries.

For each of the neighboring base stations contained in the Universal Neighbor List Message, if FREQ_FIELDS_INCL equals ‘1’, FREQ_INCL equals ‘1’, and NGHBR_BAND is supported, the mobile station shall also perform the following:

• Set the NGHBR_BAND field of NGHBR_REC[i] to the i^{th} occurrence of NGHBR_BAND.

• Set the NGHBR_FREQ field of NGHBR_REC[i] to the i^{th} occurrence of NGHBR_FREQ.

For each of the neighboring base stations contained in the Universal Neighbor List Message, if USE_TIMING is equal to ‘1’ and TIMING_INCL equals ‘1’, the mobile station shall also perform the following:

• Set the NGHBR_TX_OFFSET field of NGHBR_REC[i] to the i^{th} occurrence of NGHBR_TX_OFFSET.

• If GLOBAL_TIMING_INCL is equal to ‘1’, then the mobile station shall:
  – Set the NGHBR_TX_DURATION field of NGHBR_REC to GLOBAL_TX_DURATION for all entries.
  – Set the NGHBR_TX_PERIOD field of NGHBR_REC to GLOBAL_TX_PERIOD for all entries.

• If GLOBAL_TIMING_INCL is equal to ‘0’, then the mobile station shall:
  – Set the NGHBR_TX_DURATION field of NGHBR_REC[i] to the i^{th} occurrence of NGHBR_TX_DURATION.
  – Set the NGHBR_TX_PERIOD field of NGHBR_REC[i] to the i^{th} occurrence of NGHBR_TX_PERIOD.

For each of the neighboring base stations contained in the Universal Neighbor List Message, if FREQ_FIELDS_INCL equals ‘1’ and FREQ_INCL equals ‘0’ the mobile station shall also do the following:

• Set the NGHBR_BAND field of NGHBR_REC[i] to CDMABAND.

• Set the NGHBR_FREQ field of NGHBR_REC[i] to CDMACH.

If NGHBR_SET_ENTRY_INFO is equal to ‘0’, then for all NGHBR_SET_SIZE occurrences of ACCESS_ENTRY_HO, the mobile station shall set the ACCESS_ENTRY_HO field of NGHBR_REC[i] to ‘0’.
If NGHBR_SET_ENTRY_INFO is equal to ‘1’, then for all NGHBR_SET_SIZE occurrences of ACCESS_ENTRY_HO, the mobile station shall set the ACCESS_ENTRY_HO field of NGHBR_REC[i] to the i\textsuperscript{th} occurrence of ACCESS_ENTRY_HO.

If NGHBR_SET_ACCESS_INFO is equal to ‘0’, then for all NGHBR_SET_SIZE occurrences of ACCESS_HO_ALLOWED, the mobile station shall set the ACCESS_HO_ALLOWED field of NGHBR_REC[i] to ‘0’.

If NGHBR_SET_ACCESS_INFO is equal to ‘1’, then for all NGHBR_SET_SIZE occurrences of ACCESS_HO_ALLOWED, the mobile station shall set the ACCESS_HO_ALLOWED field of NGHBR_REC[i] to the i\textsuperscript{th} occurrence of ACCESS_HO_ALLOWED.

The mobile station shall update the idle handoff Neighbor Set (see 2.6.2.1.4) so that it consists only of pilot offsets listed in the Universal Neighbor List Message. If the Universal Neighbor List Message contains more pilot offsets than the mobile station can store, the mobile station shall store the pilot offsets beginning at the start of the Universal Neighbor List Message, up to the limits of the mobile station’s Neighbor Set storage capacity.

If RADIO_INTERFACE_TYPE is equal to ‘0001’, the mobile station shall process the fields contained in the record as follows:

The mobile station shall set NUM_ANALOG_NGHBRs to NUM_ANALOG_NGHBRs, the number of neighboring analog systems contained in the Universal Neighbor List Message. For each of the neighboring analog systems contained in the Universal Neighbor List Message, the mobile station shall perform the following:

- Set the BAND_CLASS field of ANALOG_NGHBR_LIST[i] to the i\textsuperscript{th} occurrence of BAND_CLASS.
- Set the SYS_A_B field of ANALOG_NGHBR_LIST[i] to the i\textsuperscript{th} occurrence of SYS_A_B.

2.6.2.3 Mobile Station Page Match Operation

The Mobile Station Page Match Operation is performed whenever the mobile station receives a mobile-station-addressed page or a broadcast page. If the mobile station receives a mobile-station-addressed page that contains the IMSI or TMSI assigned to the mobile station (see [4]) on the Paging Channel, the mobile station transmits a Page Response Message on the Access Channel. If the mobile station receives a mobile-station-addressed page that contains the IMSI or TMSI assigned to the mobile station (see [4]) on the Forward Common Control Channel, the mobile station transmits a Page Response Message or a General Page Message on the r-csch. If the mobile station is configured to receive broadcast messages and it receives a General Page Message that contains a burst type and broadcast address that the mobile station has been configured to receive (see [4]) on the Paging Channel, the mobile station performs the broadcast page procedures as described in 2.6.2.1.1.3.4. If the mobile station is configured to receive broadcast messages and it receives a General Page Message or a Universal Page Message that contains a burst type and broadcast address that the mobile station has been configured to receive (see [4]) on the Forward Common Control Channel, the mobile station performs the enhanced broadcast page procedures as described in 2.6.2.1.1.3.6.
When the mobile station receives a page message, it shall compare the configuration message sequence number, \( \text{CONFIG MSG SEQ}_r \), to \( \text{CONFIG MSG SEQ}_s \). If the comparison results in a mismatch, then the mobile station shall set \( \text{CONFIG MSG SEQ}_s \) to \( \text{CONFIG MSG SEQ}_r \). The mobile station shall also compare the \textit{Access Parameters Message} or the \textit{Enhanced Access Parameters Message} sequence number, \( \text{ACC MSG SEQ}_r \), with that stored in \( \text{ACC MSG SEQ}_s \). If the comparison results in a mismatch, then the mobile station shall set \( \text{ACC MSG SEQ}_s \) to NULL (see 2.6.2.2). The mobile station shall set \( \text{CURR ACC MSG SEQ} \) to \( \text{ACC MSG SEQ}_s \).

The mobile station shall process each record for which it declares a page match (see [4]).

If the mobile station receives a broadcast page that contains a burst type and broadcast address that the mobile station has been configured to receive on the Paging Channel, the mobile station should perform the broadcast page procedures described in 2.6.2.1.1.3.4. If the mobile station receives a broadcast page that contains a burst type and broadcast address that the mobile station has been configured to receive on the Forward Common Control Channel, the mobile station should perform the enhanced broadcast page procedures as described in 2.6.2.1.1.3.6.

If a page match is declared, the mobile station shall perform the following:

- The mobile station shall set \( \text{SYNC ID}_s \) to NULL if the mobile station is currently in a different SID, NID, or CDMA Channel than where the \( \text{SYNC ID}_s \) was stored.
- The mobile station shall enter the \textit{Update Overhead Information Substate} of the \textit{System Access State} (see 2.6.3.2) with a page response indication within \( T_{33m} \) seconds after the page message is received.

If a page match is declared and the mobile station determines that it should be monitoring a neighboring base station, the mobile station may perform an access entry handoff to the neighboring base station, if all of the following conditions hold:

- The neighboring base station is listed in \( \text{NGHBR REC} \).
- The \text{ACCESS ENTRY HO} field of the \( \text{NGHBR REC} \) corresponding to the neighboring base station is equal to ‘1’.
- If the mobile station performs an access entry handoff on the Access Channel, none of \( \text{CONFIG MSG SEQ}_s \), \( \text{SYS PAR MSG SEQ}_s \), \( \text{NGHBR LST MSG SEQ}_s \), \( \text{EXT NGHBR LST MSG SEQ}_s \), \( \text{GEN NGHBR LST MSG SEQ}_s \), \( \text{CHAN LST MSG SEQ}_s \), \( \text{EXT SYS PAR MSG SEQ}_s \), \( \text{EXT_CHAN LST MSG SEQ}_s \), \( \text{USER ZONE ID MSG SEQ}_s \), and \( \text{PRI NGHBR LST MSG SEQ}_s \) are equal to NULL.
- If the mobile station performs an access entry handoff on the Enhanced Access Channel, none of \( \text{CONFIG MSG SEQ}_s \), \( \text{A41 SYS PAR MSG SEQ}_s \), \( \text{MC RR PAR MSG SEQ}_s \), \( \text{UNI NGHBR LST MSG SEQ}_s \), \( \text{EXT_CHAN LST MSG SEQ}_s \), \( \text{USER ZONE ID MSG SEQ}_s \), and \( \text{PRI NGHBR LST MSG SEQ}_s \) are equal to NULL.

Otherwise, the mobile station shall not perform an access entry handoff to the neighboring base station.
The mobile station need not perform an access entry handoff to a base station operating on another frequency.

If the mobile station performs an access entry handoff, it shall follow the procedures specified in 2.6.2.1.4.2 and shall perform the access entry handoff before entering the Update Overhead Information Substate of the System Access State (see 2.6.3.2).

If PACA is enabled, and if the mobile station performs an access entry handoff, the mobile station shall respond to the mobile-station-addressed page first and shall then re-originate the PACA call on the new base station.

2.6.2.4 Mobile Station Order and Message Processing Operation

During the Mobile Station Order and Message Processing Operation, the mobile station processes all messages except overhead messages (see 2.6.2.2) and page messages (see 2.6.2.3).

The mobile station shall set CURR_ACC_MSG_SEQ to NULL.

The mobile station shall perform address matching as described in 2.1.2.2 of [4].

If Layer 3 receives a message that requires acknowledgement, the mobile station shall enter the Update Overhead Information Substate of the System Access State with an order/message response indication within T33m seconds, unless otherwise specified for a particular message.

If Layer 3 receives a message that does not require acknowledgement, the mobile station shall transmit a response only if it is required by the message or order. If a response is required, the mobile station shall enter the Update Overhead Information Substate of the System Access State with an order/message response indication within T33m seconds, unless otherwise specified for a particular message.

If the mobile station is to enter the Update Overhead Information Substate of the System Access State with an order/message response indication and the mobile station determines that it should be monitoring a neighboring base station, the mobile station may perform an access entry handoff to the neighboring base station, if all of the following conditions hold:

- The neighboring base station is listed in NGHBR_REC.
- The ACCESS_ENTRY_HO field of the NGHBR_REC corresponding to the neighboring base station is equal to ‘1’.
- ACC_ENT_HO_ORDERs is equal to ‘1’.
- If the mobile station performs an access entry handoff on the Access Channel, none of CONFIG_MSG_SEQs, SYS_PAR_MSG_SEQs, NGHBR_LST_MSG_SEQs, EXT_NGHBR_LST_MSG_SEQs, GEN_NGHBR_LST_MSG_SEQs, CHAN_LST_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs, USER_ZONE_ID_MSG_SEQs, PRI_NGHBR_LST_MSG_SEQs, and EXT_SYS_PAR_MSG_SEQs are equal to NULL.
If the mobile station performs an access entry handoff on the Enhanced Access Channel, none of CONFIG_MSG_SEQs, A41_SYS_PAR_MSG_SEQs, MC_RR_PAR_MSG_SEQs, UNI_NGHBR_LST_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs, USER_ZONE_ID_MSG_SEQs, and PRI_NGHBR_LST_MSG_SEQs are equal to NULL. Otherwise, the mobile station shall not perform an access entry handoff to the neighboring base station.

The mobile station need not perform an access entry handoff to a base station operating on another frequency.

If the mobile station performs an access entry handoff, it shall follow the procedures specified in 2.6.2.1.4.2 and shall perform the access entry handoff before entering the Update Overhead Information Substate of the System Access State (see 2.6.3.2). If PACA is enabled and the mobile station performs an access entry handoff, the mobile station shall respond to the order/message first and then re-originate the PACA call in the new base station.

The following directed messages and orders can be received. If any field value of the message or order is outside its permissible range, the mobile station shall send a Mobile Station Reject Order with ORDQ equal to ‘000000100’ (message field not in valid range).

1. Abbreviated Alert Order: The mobile station may alert the user.

2. Audit Order

3. Authentication Challenge Message: The mobile station shall process the message and shall respond with an Authentication Challenge Response Message as specified in 2.3.12.1.4, regardless of the value of AUTHs. The mobile station shall enter the Update Overhead Information Substate of the System Access State with an order/message response indication within T32m seconds.

4. Base Station Challenge Confirmation Order: The mobile station shall process the message and shall respond with an SSD Update Confirmation Order or SSD Update Rejection Order as specified in 2.3.12.1.5. The mobile station shall enter the Update Overhead Information Substate of the System Access State with an order/message response indication within T32m seconds.

5. Base Station Reject Order:
   - If ORDQr = ’00000001’, the mobile station shall send a Security Mode Request Message with the ENC_SIG_H field included in it. If the mobile receives two Base Station Reject Orders without successfully decrypting any encrypted messages from the base station between the orders, the mobile station shall set REG ENCRYPT RESYNC to YES and enter the System Determination Substate with an encryption failure indication.

5.6. Channel Assignment Message: The mobile station shall process the message as follows:
   - If ASSIGN_MODEr equals ‘001’, the mobile station shall perform the following actions:
If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.

If a CDMA channel (CDMA_FREQ) is specified in the assignment, the mobile station shall set CDMACHS = CDMA_FREQr, tune to the new Frequency Assignment, and measure the strength of each pilot listed in the assignment using the Neighbor Set search procedures specified in 2.6.6.2.1 and 2.6.6.2.2.

The mobile station shall set CONFIG_MSG_SEQs and ACC_MSG_SEQs to NULL (see 2.6.2.2) and shall set PILOT_PNs to the pilot PN sequence offset of the strongest pilot in the list (PILOT_PNr).

If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQs, NGHBR_LST_MSG_SEQs, EXT_NGHBR_LST_MSG_SEQs, GEN_NGHBR_LST_MSG_SEQs, CCHAN_LST_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs, EXT_SYS_PAR_MSG_SEQs, USER_ZONE_ID_MSG_SEQs, PRI_NGHBR_LST_MSG_SEQs, GLOB_SERV_REDIR_MSG_SEQs, and EXT_GLOB_SERV_REDIR_MSG_SEQs to NULL. The mobile station shall set PAGE_CHANs to ‘1’ and PAGECHs to the Primary Paging Channel. If the mobile station was monitoring Forward Common Control Channel, the mobile station shall set the PRATS to ‘00’. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.

If ASSIGN_MODEr equals ‘101’ and FREQ_INCR equals ‘0’, the mobile station shall perform the following actions:

- If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.

- The mobile station shall measure the strength of each pilot listed in the assignment using the Neighbor Set search procedures specified in 2.6.6.2.1 and 2.6.6.2.2, set PILOT_PNs to the pilot PN sequence offset of the strongest pilot in the list (PILOT_PNr), and set CONFIG_MSG_SEQs and ACC_MSG_SEQs to NULL (see 2.6.2.2).
- If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQs,
NGHBR_LST_MSG_SEQs, EXT_NGHBR_LST_MSG_SEQs,
GEN_NGHBR_LST_MSG_SEQs, CHAN_LST_MSG_SEQs,
EXT_CHAN_LST_MSG_SEQs, EXT_SYS_PAR_MSG_SEQs,
USER_ZONE_ID_MSG_SEQs, PRI_NGHBR_LST_MSG_SEQs,
GLOB_SERV_REDIR_MSG_SEQs, and EXT_GLOB_SERV_REDIR_MSG_SEQs
to NULL. The mobile station shall set PAGE_CHANs to ‘1’ and PAGECHs to the Primary Paging Channel. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.

- If ASSIGN_MODEr equals ‘101’, FREQ_INCLr equals ‘1’, and the band class is not supported by the mobile station, the mobile station shall enter the Update Overhead Information Substate of the System Access State with an order/message response indication within T_{33m} seconds and send a Mobile Station Reject Order with ORDQ field set to ‘00000110’ (capability not supported by the mobile station).

- If ASSIGN_MODEr equals ‘101’, FREQ_INCLr equals ‘1’, and the band class is supported by the mobile station, the mobile station shall perform the following actions:
  - If the message requires acknowledgment, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgment to the message has been sent and acknowledged.
  - The mobile station shall set CDMACH_s = CDMA_FREQ_r and CDMABAND_s = BAND_CLASS_r. Then the mobile station shall tune to the new Frequency Assignment, measure the strength of each pilot listed in the assignment using the Neighbor Set search procedures specified in 2.6.6.2.1 and 2.6.6.2.2, set PILOT_PNs to the pilot PN sequence offset of the strongest pilot in the list \{PILOT_PN_r\}, and set CONFIG_MSG_SEQs and ACC_MSG_SEQs to NULL (see 2.6.2.2).
  - If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQs,
NGHBR_LST_MSG_SEQs, EXT_NGHBR_LST_MSG_SEQs,
GEN_NGHBR_LST_MSG_SEQs, CHAN_LST_MSG_SEQs,
EXT_CHAN_LST_MSG_SEQs, EXT_SYS_PAR_MSG_SEQs,
USER_ZONE_ID_MSG_SEQs, PRI_NGHBR_LST_MSG_SEQs,
GLOB_SERV_REDIR_MSG_SEQs, and EXT_GLOB_SERV_REDIR_MSG_SEQs
to NULL. The mobile station shall set PAGE_CHANs to ‘1’ and PAGECHs to the Primary Paging Channel. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.
If ASSIGN_MODE \( r \) is not equal to ‘001’ or ‘101’, the mobile station shall enter the Update Overhead Information Substate of the System Access State with an order/message response indication within \( T_{33m} \) seconds and send a Mobile Station Reject Order with ORDQ field set to ‘00000010’ (message not accepted in this state).

### 6.7. Data Burst Message

#### 7.8. Extended Channel Assignment Message:

The mobile station shall process the message as follows:

- If ASSIGN_MODE \( r \) equals ‘001’, FREQ_INCL \( r \) equals ‘0’, the mobile station shall perform the following actions:
  - If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.
  - The mobile station shall measure the strength of each pilot listed in the assignment using the Neighbor Set search procedures specified in 2.6.6.2.1 and 2.6.6.2.2 set PILOT_PNs to the pilot PN sequence offset of the strongest pilot in the list (PILOT_PNr), and set CONFIG_MSG_SEQs and ACC_MSG_SEQs to NULL (see 2.6.2.2).
  - If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQs, NGHBR_LST_MSG_SEQs, EXT_NGHBR_LST_MSG_SEQs, GEN_NGHBR_LST_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs, EXT_SYS_PAR_MSG_SEQs, USER_ZONE_ID_MSG_SEQs, PRI_NGHBR_LST_MSG_SEQs, GLOB_SERV_REDIR_MSG_SEQs, and EXT_GLOB_SERV_REDIR_MSG_SEQs to NULL. The mobile station shall set PAGE_CHANs to ‘1’ and PAGECHs to the Primary Paging Channel. If the mobile station was monitoring Forward Common Control Channel, the mobile station shall set the PRATs to ‘00’. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.

- If ASSIGN_MODE \( r \) equals ‘001’, FREQ_INCL \( r \) equals ‘1’, and the band class is not supported by the mobile station, the mobile station shall enter the Update Overhead Information Substate of the System Access State with an order/message response indication within \( T_{33m} \) seconds and send a Mobile Station Reject Order with ORDQ field set to ‘00000110’ (capability not supported by the mobile station).

- If ASSIGN_MODE \( r \) equals ‘001’, FREQ_INCL \( r \) equals ‘1’, and the band class is supported by the mobile station, the mobile station shall perform the following actions:
If the message requires acknowledgement, the mobile station shall wait until
Layer 3 receives an indication from Layer 2 that the acknowledgement to the
message has been sent and acknowledged.

- The mobile station shall set CDMACHs = CDMA_FREQr and CDMABANDs =
BAND_CLASSr. The mobile station shall set CONFIG_MSG_SEQs and
ACC_MSG_SEQs to NULL (see 2.6.2.2). Then the mobile station shall tune to
the new Frequency Assignment, measure the strength of each pilot listed in
the assignment using the Neighbor Set search procedures specified in
2.6.6.2.1 and 2.6.6.2.2, and set PILOT_PNs to the pilot PN sequence offset of
the strongest pilot in the list (PILOT_PNr).

- If the mobile station has not stored configuration parameters for the Primary
Paging Channel of the new base station, or if the stored information is not
current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQs,
NGHBR_LST_MSG_SEQs, EXT_NGHBR_LST_MSG_SEQs,
GEN_NGHBR_LST_MSG_SEQs, CHAN_LST_MSG_SEQs,
EXT_CHAN_LST_MSG_SEQs, EXT_SYS_PAR_MSG_SEQs,
USER_ZONE_ID_MSG_SEQs, PRI_NGHBR_LST_MSG_SEQs,
GLOB_SERV_REDIR_MSG_SEQs, and EXT_GLOB_SERV_REDIR_MSG_SEQs
to NULL. The mobile station shall set PAGE_CHANs to ‘1’ and PAGECHs to
the Primary Paging Channel. The mobile station shall then begin monitoring
the Primary Paging Channel of the selected base station.

- If ASSIGN_MODEr is not equal to ‘001’, the mobile station shall enter the Update
Overhead Information Substate of the System Access State with an
order/message response indication within T33m seconds and send a Mobile
Station Reject Order with ORDQ field set to ‘00000010’ (message not accepted in
this state).

8.9. Feature Notification Message

9.10. Local Control Order

10.11. Lock Until Power-Cycled Order: The mobile station shall record the reason for the
Lock Until Power-Cycled Order in the mobile station’s semi-permanent memory
(LCKRSN_Ps-p equals the least significant four bits of ORDQr). After a mobile station
receives this order, it shall not enter the System Access State (see 2.6.3) until it has
received an Unlock Order or until after power-cycling the mobile station (i.e., after the
next mobile station power-up). This requirement shall take precedence over any other
mobile station requirement specifying entry to the System Access State. The mobile
station should notify the user of the locked condition. The mobile station shall exit the
Mobile Station Idle State and enter the System Determination Substate of the Mobile
Station Initialization State with a lock indication (see 2.6.1.1). This allows the mobile
station to operate in an alternate operating mode while locked.

11.12. Maintenance Required Order: The mobile station shall record the reason for the
Maintenance Required Order in the mobile station’s semi-permanent memory
(MAINTRSNPs-p equals the least significant four bits of ORDQr). If the mobile station
has previously received a Lock Until Power-Cycled Order, it shall remain in the locked
condition; otherwise the mobile station shall remain in the unlocked condition. The mobile station should notify the user of the maintenance required condition.

**12. PACA Message:** If P_REV_IN_USEs is less than or equal to four, and if the mobile station does not support PACA capability, the mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00000110’ (message requires a capability that is not supported by the mobile station); otherwise, the mobile station shall process the message as follows:

- If PACAs is equal to disabled, the mobile station shall enter the Update Overhead Information Substate of the System Access State with an order/message response indication within T33m seconds and shall send a Mobile Station Reject Order with the ORDQ field set to ‘00000010’ (message not accepted in this state).

- If PACAs is equal to enabled, the mobile station shall perform the following:
  - If the purpose of the message is to respond to an Origination Message (PURPOSEr is equal to ‘0000’), the mobile station shall enter the Update Overhead Information Substate of the System Access State with an order/message response indication within T33m seconds and send a Mobile Station Reject Order with the ORDQ field set to ‘00000010’ (message not accepted in this state).
  - If the purpose of the message is to provide the queue position of the PACA call (PURPOSEr is equal to ‘0001’), the mobile station shall set the PACA state timer to the duration shown in Table 3.7.2.3.2.20-2, corresponding to the value of PACA_TIMEOUTs, should indicate to the user that the PACA call is still queued, and should indicate the current queue position (Q_POSr) of the call.
  - If the purpose of the message is to instruct the mobile station to re-originate the PACA call (PURPOSEr is equal to ‘0010’), the mobile station shall set the PACA state timer to the duration shown in Table 3.7.2.3.2.20-2 corresponding to the value of PACA_TIMEOUTs, and the mobile station shall enter the Update Overhead Information Substate of the System Access State (see 2.6.3) with a PACA response indication within T33m seconds to re-originate the PACA call.
  - If the purpose of the message is to cancel the PACA call (PURPOSEr is equal to ‘0011’), the mobile station shall set PACAs to disabled and PACA_CANCELED to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.

**13. Registration Accepted Order:**

- If ORDQr = ‘00000101’, the mobile station shall set ROAM_INDIs = ROAM_INDIr and should display the roaming condition.
- If ORDQr = ‘00000111’, the mobile station shall perform the following
  - The mobile station shall set ROAM_INDIs = to ROAM_INDIr and should display the roaming condition.
- The mobile station shall set C_SIG_ENCRYPT_MODEs to C_SIG_ENCRYPT_MODEr.

- If USE_NEW_KEYr is not included, or is included and is set to ‘1’, the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEYs[KEY_SEQ_NEWs-p]. The mobile station shall store KEY_SIZEr in KEY_SIZEs. The mobile station shall increment the variable KEY_SEQ_NEWs-p by one (modulo 16). If ENC_KEY_SIZEr is included, the mobile station shall set ENC_KEY_SIZEs to ENC_KEY_SIZEr.

  - If USE_NEW_KEYr is included and is set to ‘0’, then the mobile station shall use KEYs[KEY_SEQr] as the session key.

- If C_SIG_ENCRYPT_MODEr is not equal to ‘000’, the mobile station shall set ENC_KEYs to the most recently generated CMEAKEY in the mobile station associated with the AUTHr of the Registration Message, and EXT_ENCRYPT_SEQ[0] and EXT_ENCRYPT_SEQ[1] to 256 \times ENC_SEQ_H (the ENC_SEQ_H field in the Registration Message).

14.15 Registration Rejected Order: This order indicates that normal service is not available on this system. The mobile station shall disable the full-TMSI timer. If the received order specifies to delete the TMSI (ORDQ = ‘00000100’), the mobile station shall set all the bits of the TMSI_CODEs-p to ‘1’. The mobile station shall enter the System Determination Substate of the Mobile Station Initialization State with a registration rejected indication (see 2.6.1.1).

15.16 Registration Request Order: The mobile station shall process the message and perform registration procedures as specified in 2.6.5.2.3.

16.17 Security Mode Command Message: The mobile station shall process the message as follows:

  - The mobile station shall set C_SIG_ENCRYPT_MODEs to C_SIG_ENCRYPT_MODEr.

  - If USE_NEW_KEYr is not included, or is included and is set to ‘1’, the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEYs[KEY_SEQ_NEWs-p]. The mobile station shall store KEY_SIZEr in KEY_SIZEs. The mobile station shall then increment the variable KEY_SEQ_NEWs-p by one (modulo 16). If ENC_KEY_SIZEr is included, the mobile station shall set ENC_KEY_SIZEs to ENC_KEY_SIZEr.

  - If USE_NEW_KEYr is included and is set to ‘0’, then the mobile station shall use KEYs[KEY_SEQr] as the session key.

17.18 Service Redirection Message: The mobile station shall process the message as follows:
• If the mobile station is directed to an unsupported operation mode or band class, the mobile station shall respond with a Mobile Station Reject Order with ORDQ equal to ‘00000110’ (message requires a capability that is not supported by the mobile station).

• If DELETE_TMSI<sub>r</sub> is equal to ‘1’, the mobile station shall set all the bits of TMSI_CODE<sub>s-p</sub> to ‘1’. The mobile station shall disable the full-TMSI timer.

• The mobile station shall set RETURN_IF_FAIL<sub>s</sub> = RETURN_IF_FAIL<sub>r</sub>.

• If RECORD_TYPE<sub>r</sub> is equal to ‘00000000’, the mobile station shall enter the System Determination Substate of the Mobile Station Initialization State with an NDSS off indication (see 2.6.1.1); otherwise, the mobile station shall store the redirection record received in the message as REDIRECT_REC<sub>s</sub> and shall enter the System Determination Substate of the Mobile Station Initialization State with a redirection indication (see 2.6.1.1).

48-19 **Retry Order**: The mobile station shall process the message as follows:

• If RETRY_TYPE<sub>r</sub> is equal to ‘000’, the mobile station shall set RETRY_DELAY<sub>s[RETRY_TYPE]</sub> to 0, where RETRY_TYPE is equal to ‘001’, ‘010’, or ‘011’.

• If RETRY_TYPE<sub>r</sub> is equal to ‘001’, the mobile station shall perform the following:
  − If RETRY_DELAY<sub>r</sub> is equal to ‘00000000’, then the mobile station shall set RETRY_DELAY<sub>s[RETRY_TYPE<sub>r</sub>]</sub> to 0.
  − If RETRY_DELAY<sub>r</sub> is not equal to ‘00000000’, the mobile station shall set RETRY_DELAY<sub>s[RETRY_TYPE<sub>r</sub>]</sub> as follows:
    + If the most significant bit of the RETRY_DELAY<sub>r</sub> is ‘0’, set RETRY_DELAY_UNIT<sub>s</sub> to 1000ms. If the most significant bit of the RETRY_DELAY<sub>r</sub> is ‘1’, set RETRY_DELAY_UNIT<sub>s</sub> to 60000ms.
    + The mobile station shall set RETRY_DELAY_VALUE<sub>s</sub> to the seven least significant bits of RETRY_DELAY<sub>r</sub>.
    + The mobile station shall store the next system time 80 ms boundary + RETRY_DELAY_VALUE<sub>s</sub> × RETRY_DELAY_UNIT<sub>s</sub> ms as RETRY_DELAY<sub>s[RETRY_TYPE<sub>r</sub>]</sub>.

49-20 **Slotted Mode Order**: After receiving this order, the mobile station shall set SLOTTED<sub>s</sub> to YES. The mobile station shall disable the TMS_Slotted timer.

20-21 **SSD Update Message**: The mobile station shall process the message and shall respond with a Base Station Challenge Order as specified in 2.3.12.1.5. The mobile station shall enter the Update Overhead Information Substate of the System Access State with an order/message response indication within T<sub>32m</sub> seconds.

21-22 **Status Request Message**: The mobile station shall process the message. If P_REV_IN_USE<sub>s</sub> is less than or equal to three, the mobile station shall respond with a Status Response Message. If P_REV_IN_USE<sub>s</sub> is greater than three, the mobile station shall respond with an Extended Status Response Message. The mobile station shall
enter the Update Overhead Information Substate of the System Access State with an order/message response indication within T33m seconds. If the message does not specify any qualification information (QUAL_INFO_TYPEr is equal to ‘00000000’), the mobile station shall include the requested information records in the response. If the message specifies a band class (QUAL_INFO_TYPEr is equal to ‘00000001’), the mobile station shall only include the requested information records for the specified band class (BAND_CLASSr) in the response. If the message specifies a band class and an operating mode (QUAL_INFO_TYPEr is equal to ‘00000010’), the mobile station shall only include the requested information records for the specified band class (BAND_CLASSr) and operating mode (OP_MODEr) in the response. If the message specifies a band class or a band class and an operating mode which is not supported by the mobile station, the mobile station shall send a Mobile Station Reject Order with ORDQ set to ‘00000110’ (message requires a capability that is not supported by the mobile station). If the response to this message exceeds the allowable length, the mobile station shall send a Mobile Station Reject Order with ORDQ set to ‘00001000’ (response message would exceed the allowable length). If the message specifies an information record which is not supported by the mobile station for the specified band class and operating mode, the mobile station shall send a Mobile Station Reject Order with ORDQ set to ‘00001001’ (information record is not supported for the specified band class and operating mode).

**22.23 TMSI Assignment Message:** The mobile station shall store the TMSI zone and code as follows:

- The mobile station shall store the length of the TMSI zone field by setting ASSIGNING_TMSI_ZONE_LENs-p to TMSI_ZONE_LENr,
- The mobile station shall store the assigning TMSI zone number by setting the ASSIGNING_TMSI_ZONE_LENs-p least significant octets of ASSIGNING_TMSI_ZONEs-p to TMSI_ZONEr, and
- The mobile station shall store the TMSI code by setting TMSI_CODEs-p to TMSI_CODEr.

The mobile station shall set the TMSI expiration time by setting TMSI_EXP_TIMEs-p to TMSI_EXP_TIMEr. The mobile station shall disable the full-TMSI timer. The mobile station shall then respond with a TMSI Assignment Completion Message within T56m seconds.

**23.24 Unlock Order:** After receiving this order, the mobile station is no longer locked. The mobile station should notify the user that the locked condition has been removed. The mobile station shall enter the System Determination Substate of the Mobile Station Initialization State with an unlock indication (see 2.6.1.1).

**24.25 User Zone Reject Message**

**9. Base Station Reject Order:**
If ORDQ$_r$ = ‘00000001’, the mobile station shall send a Security Mode Request Message with the ENC_SIG_H field included in it. If the mobile receives two Base Station Reject Orders without successfully decrypting any encrypted messages from the base station between the orders, the mobile station shall set REG_ENCRYPT_RESYNC to YES and enter the System Determination Substate with an encryption failure indication.

The mobile station shall ignore all other messages and orders.

2.6.2.5 Mobile Station Origination Operation

The Mobile Station Origination Operation is performed when the mobile station is directed by the user to initiate a call, or if the Mobile Station Idle State is entered with NDSS_ORIG$_s$ enabled.

If the mobile station is directed by the user to initiate a call, the mobile station shall perform the following:

- If PACA$_s$ is equal to enabled, the mobile station shall set PACA$_s$ to disabled and PACA_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
- The mobile station shall set CURR_ACC_MSG_SEQ to NULL.
- The mobile station shall set SYNC_ID$_s$ to NULL if the mobile station is currently in a different SID, NID, or CDMA Channel than where the SYNC_ID$_s$ was stored.

The mobile station shall enter the Update Overhead Information Substate of the System Access State (see 2.6.3) with an origination indication within T$_{33m}$ seconds.

2.6.2.6 Mobile Station Message Transmission Operation

Support of this operation is optional. If the mobile station supports the Mobile Station Message Transmission Operation, the operation is performed when the user directs the mobile station to transmit a Data Burst Message, or when the mobile station detects a change in hook status since the last time when the mobile station sent hook status information and the mobile station supports the Device Information Message on the r-csch.

If the mobile station supports this operation, the mobile station shall set CURR_ACC_MSG_SEQ to NULL.

If the mobile station supports this operation and the operation is performed when the user directs the mobile station to transmit a Data Burst Message, the mobile station shall enter the Update Overhead Information Substate of the System Access State (see 2.6.3.2) with a message transmission indication within T$_{33m}$ seconds.

If the mobile station supports this operation and the operation is performed when the mobile station detects a change in hook status since the last time when the mobile station sent hook status information, the mobile station shall enter the Update Overhead Information Substate of the System Access State (see 2.6.3.2) with a hook status indication within T$_{33m}$ seconds.
2.6.2.7 Mobile Station Power-Down Operation

The Mobile Station Power-Down Operation is performed when the user directs the mobile station to power down.

The mobile station shall update stored parameters and perform other registration procedures as specified in 2.6.5.5.2.4.

If no power-down registration is performed (see 2.6.5.5.2.4), the mobile station may power down.

2.6.2.8 Mobile Station PACA Cancel Operation

The Mobile Station PACA Cancel Operation is performed when the user directs the mobile station to cancel a PACA call.

If PACA enabled is equal to enabled, the mobile station shall perform the following:

- The mobile station shall set PACA enabled to disabled.
- The mobile station shall set PACA_CANCEL to ‘0’, if PACA_CANCEL is equal to ‘1’.
- The mobile station shall disable the PACA state timer.
- The mobile station should indicate to the user that the PACA call has been canceled.
- The mobile station shall set CURR_ACC_MSG_SEQ to NULL.
- The mobile station shall enter the Update Overhead Information Substate of the System Access State (see 2.6.3) with a PACA cancel indication within T33m seconds.

2.6.3 System Access State

In this state, the mobile station sends messages to the base station on the r-csch and receives messages from the base station on the f-csch.

As illustrated in Figure 2.6.3-1, the System Access State consists of the following substates:

- Update Overhead Information Substate - In this substate, if the base station supports the Primary Broadcast Control Channel for Spreading Rate 1 or if both the base station and mobile station supports the Primary Broadcast Control Channel for Spreading Rate 3 and if the protocol revision level in use is greater than six, the mobile station will monitor the Primary Broadcast Control Channel until it has received a current set of overhead messages; otherwise, the mobile station will monitor the Paging Channel until it has a current set of overhead messages.
- Mobile Station Origination Attempt Substate - In this substate, the mobile station sends an Origination Message to the base station.
- Page Response Substate - In this substate, the mobile station sends a Page Response Message to the base station.
- Mobile Station Order/Message Response Substate - In this substate, the mobile station sends a response to a message received from the base station.
• **Registration Access Substate** - In this substate, the mobile station sends a *Registration Message* to the base station.

• **Mobile Station Message Transmission Substate** - In this substate, the mobile station sends a *Data Burst Message* or a *Device Information Message* to the base station.

• **PACA Cancel Substate** - In this substate, the mobile station sends a *PACA Cancel Message* to the base station.

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**Figure 2.6.3-1. System Access State**

2.6.3.1 Access Procedures

2.6.3.1.1 Access Attempts

If the mobile station monitors the Paging Channel, the mobile station transmits on the Access Channel using a random access procedure. Many parameters of the random access procedure are supplied by the base station in the *Access Parameters Message*. The random access procedure is described in [4] and [3].

If the mobile station monitors the Forward Common Control Channel/ Primary Broadcast Control Channel, the mobile station transmits on the Enhanced Access Channel using a random access procedure. Many parameters of the random access procedure are supplied by the base station in the *Enhanced Access Parameters Message*. 
If Layer 3 receives an indication from Layer 2 that the system access is denied, the mobile station shall update its registration variables using SID$_s$, NID$_s$, REG_ZONE$_s$, and ZONE_TIMER$_s$ that were stored from the first base station to which the mobile station sent an Access Probe, as specified in 2.6.5.5.3.2, and enter the System Determination Substate of the Mobile Station Initialization State with an access denied indication (see 2.6.1.1).

If Layer 3 receives an indication from Layer 2 that the system is lost, the mobile station shall update its registration variables using SID$_s$, NID$_s$, REG_ZONE$_s$, and ZONE_TIMER$_s$ that were stored from the first base station to which the mobile station transmitted an Access Probe, as specified in 2.6.5.5.3.2 and enter the System Determination Substate of the Mobile Station Initialization State with a system lost indication (see 2.6.1.1)

2.6.3.1.2 Reserved

2.6.3.1.3 Handoffs

While in the System Access State, the mobile station shall continue its pilot search (see 2.6.3.1.3.1), and may perform access handoffs (see 2.6.3.1.3.2) and/or access probe handoffs (see 2.6.3.1.3.3).

If the mobile station performs access handoffs and/or access probe handoffs, the mobile station shall maintain the following variables:

- CURRENT_ACTIVE_PILOT$_s$
- PREVIOUS_ACTIVE_PILOT$_s$
- FIRST_ACTIVE_PILOT$_s$

Upon entering the System Access State the mobile station shall set CURRENT_ACTIVE_PILOT$_s$, PREVIOUS_ACTIVE_PILOT$_s$ and FIRST_ACTIVE_PILOT$_s$ to NULL. Prior to starting an access attempt, the mobile station shall set CURRENT_ACTIVE_PILOT$_s$ and PREVIOUS_ACTIVE_PILOT$_s$ to NULL. When the mobile station selects a base station for transmission of an access probe, the mobile station shall proceed as follows:

- If CURRENT_ACTIVE_PILOT$_s$ is not the same as the pilot of the selected base station, the mobile station shall set PREVIOUS_ACTIVE_PILOT$_s$ to the value of CURRENT_ACTIVE_PILOT$_s$.
- The mobile station shall set CURRENT_ACTIVE_PILOT$_s$ to the identity of the pilot corresponding to the selected base station.
- If FIRST_ACTIVE_PILOT$_s$ is NULL, the mobile station shall set FIRST_ACTIVE_PILOT$_s$ to the value of CURRENT_ACTIVE_PILOT$_s$.

Before the mobile station transmits an access probe to a new base station on the Access Channel, the mobile station shall update parameters based on the System Parameters Message, the Access Parameters Message and the Extended System Parameters Message on the associated new Paging Channel and process parameters from the messages (see 2.6.2.2.1, 2.6.2.2.2, and 2.6.2.2.5).
Before the mobile station transmits an access probe to a new base station on the Enhanced Access Channel, the mobile station shall update parameters based on the ANSI-41 System Parameters Message, the Enhanced Access Parameters Message, and the MC-RR System Parameters Message on the associated new Primary Broadcast Control Channel and process parameters from the messages (see 2.6.2.2.13, 2.6.2.2.14, and 2.6.2.2.15).

If the mobile station monitors the Paging Channel, the mobile station shall update parameters based on the Neighbor List Message, the Extended Neighbor List Message, or the General Neighbor List Message on the associated new Paging Channel and process parameters from the message (see 2.6.2.2.3, 2.6.2.2.7, and 2.6.2.2.8).

If the mobile station monitors the Forward Common Control Channel/ Primary Broadcast Control Channel, the mobile station shall update parameters based on the Universal Neighbor List Message on the associated new Primary Broadcast Control Channel and process parameters from the message (see 2.6.2.2.17).

If the mobile station receives the User Zone Identification Message or the Private Neighbor List Message, the mobile station shall update parameters based on these messages on the associated new Paging Channel or Primary Broadcast Control Channel and process parameters from the messages (see 2.6.2.2.9 and 2.6.2.2.10). If the mobile station receives a Global Service Redirection Message (see 2.6.2.2.6) which directs the mobile station away from the new base station, the mobile station shall not access the new base station. If the mobile station receives an Extended Global Service Redirection Message (see 2.6.2.2.11) which directs the mobile station away from the new base station, the mobile station shall not access the new base station. The mobile station shall process these messages only once after each access handoff.

2.6.3.1.3.1 Pilot Search

The following sets of pilot offsets are defined for a mobile station in the System Access State. Each pilot offset is a member of only one set.

- **Active Set**: The pilot offset of the Forward CDMA Channel whose Paging Channel or Forward Common Control Channel/ Primary Broadcast Control Channel is being monitored.

- **Neighbor Set**: The pilots that are not currently in the Active Set and are likely candidates for access handoff or access probe handoff. The members of the Neighbor Set are specified in the Neighbor List Message, the Extended Neighbor List Message, and the General Neighbor List Message on the Paging Channel. The members of the Neighbor Set are specified in the Universal Neighbor List Message on the Primary Broadcast Control Channel.

- **Remaining Set**: The set of all possible pilot offsets in the current system (integer multiples of PILOT_INCs) on the current CDMA Frequency Assignment, excluding the pilots in the Neighbor Set and the Active Set.

2.6.3.1.3.2 Access Handoff

The mobile station is permitted to perform an access handoff to use the Paging Channel with the best pilot strength and an associated Access Channel. The mobile station is
permitted to perform an access handoff to use the Forward Common Control Channel with
the best pilot strength and an associated Enhanced Access Channel. The mobile station is
permitted to perform an access handoff when waiting for a response from the base station
or before sending a response to the base station. An access handoff is permitted after an
access attempt while the mobile station is in the Page Response Substate or the Mobile
Station Origination Attempt Substate.

When the mobile station declares a loss of the Paging Channel or the Forward Common
Control Channel while waiting for a response from the base station in the Page Response
Substate or in the Mobile Station Origination Attempt Substate, the mobile station shall
perform an access handoff, if all of the following conditions hold:

- The pilot corresponding to the new base station is in the list ACCESS_HO_LIST,
- ACCESS_HO_S is equal to ‘1’, and
- The mobile station is not already in the process of performing an access attempt.

When the mobile station declares a loss of the Paging Channel or the Forward Common
Control Channel after receiving a message but before responding to that message while in
the Page Response Substate or in the Mobile Station Origination Attempt Substate, the mobile
station shall perform an access handoff if the following conditions hold:

- The pilot corresponding to the new base station is in the list ACCESS_HO_LIST,
- ACCESS_HO_S is equal to ‘1’,
- ACCESS_HO_MSG_RSP_S is equal to ‘1’, and
- The mobile station is not already in the process of performing an access attempt.

When the mobile station declares an insufficiency of the Paging Channel\(^3\) or the Forward
Common Control Channel, while waiting for a response from the base station in the Page
Response Substate or in the Mobile Station Origination Attempt Substate, the mobile station
may perform an access handoff if all of the following conditions hold:

- The pilot corresponding to the new base station is in the list ACCESS_HO_LIST,
- ACCESS_HO_S is equal to ‘1’, and
- The mobile station is not already in the process of performing an access attempt.

When the mobile station declares an insufficiency of the Paging Channel\(^4\) or the Forward
Common Control Channel, after receiving a message but before responding to that message
while in the Page Response Substate or in the Mobile Station Origination Attempt Substate,
the mobile station may perform an access handoff if all of the following conditions hold:

_________

\(^3\) Insufficiency of the Paging Channel and the Forward Common Control Channel is implementor-
defined.

\(^4\) Insufficiency of the Paging Channel and the Forward Common Control Channel is implementor-
defined.
The pilot corresponding to the new base station is in the list ACCESS_HO_LIST,
ACCESS_HO_S is equal to ‘1’,
ACCESS_HO_MSG_RSP_S is equal to ‘1’, and
The mobile station is not already in the process of performing an access attempt.
If ACCESS_PROBE_HO_S is equal to ‘0’ and ACCESS_HO_S is equal to ‘1’, and the mobile
station declares a loss of the Paging Channel or the Forward Common Control Channel
during an access attempt, after sending at least one complete access probe, the mobile
station may monitor other Paging Channels or the Forward Common Control Channels
which are in ACCESS_HO_LIST for $T_{42m}$ seconds after the loss of the Paging Channel or
the Forward Common Control Channel on which the access attempt was made.$^5$

2.6.3.1.3.3 Access Probe Handoff

The mobile station is permitted to perform an access probe handoff when the mobile station
is in the Page Response Substate or the Mobile Station Origination Attempt Substate.
The mobile station may perform an access probe handoff during an access attempt to a
pilot in ACCESS_HO_LIST when the message being sent is the Origination Message or the
Page Response Message, if all of the following conditions hold:
ACCESS_PROBE_HO_S is equal to ‘1’,
The mobile station is in the Page Response Substate or the Mobile Station Origination
Attempt Substate, and
The mobile station has performed fewer than (MAX_NUM_PROBE_HO_S +1) access
probe handoffs during the current access attempt.

The mobile station may also perform an access probe handoff during an access attempt to a
pilot in ACCESS_HO_LIST when the message being sent is a message other than the
Origination Message or the Page Response Message, if all of the preceding conditions hold
and ACC_PROBE_HO_OTHER_MSG_S is equal to ‘1’.
The mobile station may also perform an access probe handoff during an access attempt to a
pilot not in ACCESS_HO_LIST when the message being sent is the Origination Message or
the Page Response Message, if all of the following conditions hold:
ACC_HO_LIST_UPD_S is equal to ‘1’,
ACCESS_PROBE_HO_S is equal to ‘1’,
The new pilot is stronger than any pilot in ACCESS_HO_LIST,
The new pilot has the corresponding ACCESS_HO_ALLOWED field in the
NGHBR_REC equal to ‘1’,

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$^5$ The mobile station would be waiting for a response to the message transmitted in the access probe.
• Inclusion of the new pilot in ACCESS_HO_LIST does not cause the Access Channel or Enhanced Access Channel message to exceed the maximum capsule size,

• Inclusion of the new pilot in ACCESS_HO_LIST does not cause the number of members to exceed $N_{13m}$,

• The mobile station is in the Page Response Substate or the Mobile Station Origination Attempt Substate, and

• The mobile station has performed fewer than $(\text{MAX\_NUM\_PROBE\_HO}_s + 1)$ access probe handoffs during the current access attempt.

The mobile station may also perform an access probe handoff during an access attempt to a pilot not in ACCESS_HO_LIST when the message being sent is a message other than the Origination Message or the Page Response Message, if all of the preceding conditions hold and ACC_PROBE_HO_OTHER_MSGs is equal to ‘1’.

If the above conditions are met, the mobile station may perform an access probe handoff when the mobile station declares a loss of the Paging Channel or Forward Common Control Channel (see 2.6.2.1.4, 2.6.3.1.8); the mobile station may also perform an access probe handoff after getting an indication that the TA timer expired (see 2.1.1.2.2 of [4]) and the mobile station declares an insufficiency of the Paging Channel or the Forward Common Control Channel.

If the mobile station performs an access probe handoff, the mobile station shall suspend the access attempt on the old pilot and shall restart the access attempt on the new pilot (i.e. starting with the first probe of the first probe sequence of the access sub-attempt), as specified in 2.1.1.2.2 of [4]. The mobile station shall record the identity of the pilots to which access probes have been transmitted within the current access attempt.

The mobile station shall not reset its access probe handoff count until the access attempt ends.

Layer 3 shall send an L2-Supervision.Request primitive to Layer 2 to cancel the access attempt if the length of the message to be sent exceeds MAX_CAP_SIZE of the new base station. The mobile station may monitor other Paging Channels or Forward Common Control Channels which are in ACCESS_HO_LIST for $T_{42m}$ seconds after aborting the access attempt.

2.6.3.1.4 System Access State Exit Procedures

Upon exiting the System Access State, the mobile station shall direct Layer 2 to cancel (see 2.1.1.2.2 of [4]) any access attempt in progress and discard the associated message. The mobile station shall then disable the System Access State timer.

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6 Insufficiency of the Paging Channel and the Forward Common Control Channel is implementor-defined.

7 The mobile station would be waiting for a response to the message transmitted in the access probe.
2.6.3.1.5 Reserved

2.6.3.1.6 Full-TMSI Timer

Whenever the mobile station sends its full TMSI, the mobile station enables a timer, called the full-TMSI timer. If the full-TMSI timer expires, the mobile station deletes the TMSI by setting all of the bits in the TMSI_CODEs-p field to ‘1’.

The mobile station shall maintain the full-TMSI timer. The mobile station shall provide a means for enabling or disabling the full-TMSI timer.

If the mobile station sends a message with an address including the ASSIGNING_TMSI_ZONEs-p and the full-TMSI timer is disabled, the mobile station shall enable the full-TMSI timer with a duration equal to $T_{69m} + 2.56 \times 2^i$ seconds where $i$ is equal to SLOT_CYCLE_INDEXs.

2.6.3.1.7 Monitoring Pilots

The mobile station assists the base station in the Traffic Channel assignment process by monitoring and reporting (see 2.1.1.4.1.2 of [4]) the pilot strength of the pilot in the mobile station’s Paging Channel or Forward Common Control Channel Active Set (see 2.6.3.1.3.1). The mobile station can also monitor and report (see 2.1.1.4.1.2 of [4]) other pilots on the same frequency; in such cases, the mobile station shall create ACCESS_HO_LIST and OTHER_REPORTED_LIST and shall monitor the pilots on those lists, if any.

For each monitored pilot, the mobile station shall record the pilot PN phase and the pilot strength $PS$, using the most recent measurements from the searcher element (see 2.2.2.1 of [2]), as they become available. The mobile station shall identify each pilot through its pilot PN phase (the phase of the pilot PN sequence, in units of one chip, relative to the zero offset pilot PN sequence of the pilot (see 2.6.6.2.4)). The mobile station shall determine the pilot strength, $PS$, as specified in 2.6.6.2.2.

2.6.3.1.7.1 Generation of the Initial Access Handoff List

ACCESS_HO_LIST is created immediately before transmitting the first access probe after entering the System Access State. When it is created, ACCESS_HO_LIST is defined as a set of at most $N_{13m}$ pilots, having the greatest pilot strength in comparison with other qualifying pilots and for which all of the following apply:

- The strength of each member exceeds $T_{ADD}$.
- Each member, other than the Active Set pilot, has the corresponding ACCESS_HO_ALLOWED field in the NGHBR_REC equal to ‘1’.
- The Active Set pilot that the mobile station monitors when the mobile station enters the System Access State is a member.
- All members can be contained in the Access Channel or Enhanced Access Channel message without exceeding the maximum capsule size.
2.6.3.1.7.2 Update of the Access Handoff List

When the mobile station performs an access probe handoff to a pilot which was not previously included in ACCESS_HO_LIST (see 2.6.3.1.3.3), it adds the pilot to ACCESS_HO_LIST.

If ACC_HO_LIST_UPD is equal to ‘1’, the mobile station can update ACCESS_HO_LIST, as follows:

- The mobile station can add one or more new pilots other than the Active Set pilot to ACCESS_HO_LIST before transmitting an access probe.
- The mobile station can also drop from ACCESS_HO_LIST pilots to which access probes have not been transmitted since entering the System Access State and whose strength have fallen below T_ADD.

When it is updated before transmitting a subsequent access probe, ACCESS_HO_LIST is defined as a set of at most N₁₃m pilots, having the greatest pilot strength in comparison with other qualifying pilots and for which all of the following apply:

- The strength of each member to which access probes have not been transmitted exceeds T_ADD.
- Each member other than the pilot to which the first access probe in the System Access State was transmitted has the corresponding ACCESS_HO_ALLOWED field in the NGHBR_REC equal to ‘1’.
- The Active Set pilot to which the next access probe is to be transmitted is a member.
- All pilots to which access probes have been transmitted since entering the System Access State are members.
- All members can be contained in the Access Channel or Enhanced Access Channel message without exceeding the maximum capsule size.

2.6.3.1.7.3 Generation of the Other Reported List

OTHER_REPORTED_LIST (specified by NUM_ADD_PILOTS and NUM_AUX_PILOTS, see 2.1.1.4.1.5.1 of [4]) is defined as a set of no more than N₁₃m minus the number of pilots in ACCESS_HO_LIST pilots, having the greatest pilot strength in comparison with other qualifying pilots and for which all of the following apply:

- The strength of each member exceeds T_ADD.
- No member is included in ACCESS_HO_LIST.
- All members can be contained in the Access Channel or Enhanced Access Channel message without exceeding the maximum capsule size.

2.6.3.1.7.4 Update of OTHER_REPORTED_LIST

Before transmitting each access probe, the mobile station shall generate OTHER_REPORTED_LIST according to section 2.6.3.1.7.3, using the most recent pilot strength information available from its searcher element (see 2.2.2.1 of [2]). If the mobile
station updates ACCESS_HO_LIST before transmitting an access probe, it shall update
OTHER_REPORTED_LIST after updating ACCESS_HO_LIST.

2.6.3.1.8 Paging Channel and Forward Common Control Channel/ Primary Broadcast
Control Channel Monitoring

When in the System Access State, the mobile station shall monitor the Paging Channel or
the Forward Common Control Channel/ Primary Broadcast Control Channel at all times.
The mobile station shall set a timer for $T_{72m}$ seconds, when it begins to monitor the Paging
Channel or the Forward Common Control Channel/ Primary Broadcast Control Channel and whenever it gets an indication that a valid message was received on the Paging Channel
or the Forward Common Control Channel/ Primary Broadcast Control Channel, whether
addressed to the mobile station or not (see 2.1.2.3.2 of [4]).

If the $T_{72m}$ timer expires:

- The mobile station shall first finish transmitting the access probe in progress, if any.

- The mobile station shall declare a loss of the Paging Channel or the Forward
  Common Control Channel/ Primary Broadcast Control Channel if:

  — ACCESS_HO_s is equal to ‘1’ and ACCESS_HO_LIST contains more than one
    pilot,

  — ACC_HO_LIST_UPD_s is equal to ‘1’, and Access Probe Handoff is supported by
    the mobile station, or

  — ACC_HO_LIST_UPD_s is equal to ‘0’ and the following conditions are met:

    * ACCESS_HO_LIST contains more than one pilot, and

    * Access Probe Handoff is supported by the mobile station and is enabled by
      the base station.

- If by declaring a loss of the Paging Channel or the Forward Common Control
  Channel, the eligibility requirements for performing access handoff are met (see
  2.6.3.1.3.2), then the mobile station shall declare a loss of the Paging Channel or
  the Forward Common Control Channel, and perform an access handoff if the
  requirements in 2.6.3.1.3.2 are met. If by declaring a loss of the Paging Channel or
  the Forward Common Control Channel, the eligibility requirements for performing
  access probe handoff are met (see 2.6.3.1.3.3), then the mobile station may
  declare a loss of the Paging Channel or the Forward Common Control Channel, and
  perform an access probe handoff if the requirements in 2.6.3.1.3.3 are met. If the
  mobile station performs an access handoff or an access probe handoff, the mobile
  station restarts the Paging Channel or the Forward Common Control Channel/
  Primary Broadcast Control Channel monitoring procedure for the new base station.
• If an access attempt was in progress when the timer expired and that access attempt had already been suspended and resumed previously (see below), the mobile station shall declare a loss of the Paging Channel\(^8\) or the Forward Common Control Channel and shall disable its transmitter.

• If an access attempt was in progress when the timer expired and that access attempt had not been suspended and resumed before and the mobile station does not perform access probe handoff, the mobile station shall declare a temporary loss of the Paging Channel or the Forward Common Control Channel as temporary, shall direct Layer 2 to suspend the access attempt (see 2.1.1.2.2 of [4]), and shall perform the following:
  
  – The mobile station shall set the timer to \((T_{40m}-T_{72m})\) seconds.
  
  – If the mobile station receives an indication that a valid message on the Paging Channel or the Forward Common Control Channel, whether addressed to the mobile station or not, was received (see 2.1.2.3.2 of [4]) prior to the expiration of the \((T_{40m}-T_{72m})\) timer, the mobile station shall re-enable the transmitter, shall direct Layer 2 to resume operation from the beginning of the interrupted access probe sequence of the access sub-attempt (see 2.1.1.2.2 of [4]), and shall transmit the first probe of the new access probe sequence immediately after re-enabling the transmitter.

  – If the \((T_{40m}-T_{72m})\) timer expires, the mobile station shall direct Layer 2 to cancel any access attempt (see 2.1.1.2.2 of [4]) and shall declare a loss of the Paging Channel or the Forward Common Control Channel/Primary Broadcast Control Channel.

• If an access attempt was not in progress when the timer expired and the mobile station does not perform access handoff, the mobile station shall perform the following:
  
  – The mobile station shall set the timer to \((T_{40m}-T_{72m})\) seconds.
  
  – If the \((T_{40m}-T_{72m})\) timer expires, the mobile station shall declare a loss of the Paging Channel or the Forward Common Control Channel/Primary Broadcast Control Channel.

2.6.3.2 Update Overhead Information Substate

In this substate, if the base station supports the Primary Broadcast Control Channel for Spreading Rate 1, or if both the mobile station and base station support Spreading Rate 3 on the common channels, then the mobile station shall monitor the Primary Broadcast Control Channel until it has received the current configuration messages; otherwise, the mobile station shall monitor the Paging Channel until it has received the current

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\(^8\) Requirements for processing the loss of Paging Channel are given separately for each substate of the System Access State, in the sections describing the substates.
configuration messages. The mobile station compares sequence numbers to determine whether all of the configuration messages are up-to-date. To make sure it has the latest access parameters, the mobile station receives at least one message containing the ACC_MSG_SEQ field (except in case of a page response, since the initiating page contains ACC_MSG_SEQ), and waits, if necessary, for an Access Parameters Message or an Enhanced Access Parameters Message. In addition, if the mobile station is monitoring the Primary Broadcast Control Channel and SENDING_RAND_s is equal to ‘1’, then it shall also wait for an ANSI-41 RAND Message.

Upon entering the Update Overhead Information Substate, the mobile station shall set the System Access State timer to a value of T41m seconds. The mobile station shall set PAGED to NO.

If the System Access State timer expires while in this substate, the mobile station shall enter the System Determination Substate of the Mobile Station Initialization State with a system lost indication (see 2.6.1.1).

If the mobile station declares a loss of the Paging Channel or the Primary Broadcast Control Channel (see 2.6.2.1.1-4, 2.6.3.1.8), the mobile station shall perform the following:

- If PACA_s is equal to enabled, the mobile station shall set PACA_s to disabled and PACA_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
- The mobile station shall declare an access attempt failure and update its registration variables as specified in 2.6.5.3.2.
- The mobile station shall enter the Mobile Station Idle State.

If PACA_s is equal to enabled, the mobile station shall set PACACancelar to ‘1’ when the user directs the mobile station to cancel a PACA call.

If the mobile station receives any of the following messages, it shall process the message as follows:

1. **System Parameters Message:** The mobile station shall process the parameters from the message (see 2.6.2.2.1).
2. **Access Parameters Message:** The mobile station shall process the parameters from the message (see 2.6.2.2.2).
3. **Neighbor List Message:** The mobile station shall process the parameters from the message (see 2.6.2.2.3).
4. **CDMA Channel List Message:** The mobile station shall process the parameters from the message (see 2.6.2.2.4).
5. **Extended System Parameters Message:** The mobile station shall process the parameters from the message (see 2.6.2.2.5).
6. **Global Service Redirection Message:** The mobile station shall process the parameters from the message (see 2.6.2.2.6).
7. **Extended Neighbor List Message**: The mobile station shall process the parameters from the message (see 2.6.2.2.7).

8. **General Neighbor List Message**: The mobile station shall process the parameters from the message (see 2.6.2.2.8).

9. **Lock Until Power-Cycled Order**: The mobile station shall record the reason for the Lock Until Power-Cycled Order in the mobile station’s semi-permanent memory (LCKRSN_Ps-p equals the least-significant four bits of ORDQr). The mobile station should notify the user of the locked condition. The mobile station shall then enter the System Determination Substate of the Mobile Station Initialization State with a lock indication (see 2.6.1.1), and shall not enter the System Access State again until after the next mobile station power-up or until it has received an Unlock Order. This requirement shall take precedence over any other mobile station requirement specifying entry to the System Access State.

10. **General Page Message or Universal Page Message**: If CURR_ACC_MSG_SEQ is equal to NULL, the mobile station shall set CURR_ACC_MSG_SEQ to ACC_MSG_SEQr. The mobile station shall compare CONFIG_MSG_SEQs to CONFIG_MSG_SEQr. If the comparison results in a mismatch, the mobile station shall set CONFIG_MSG_SEQs to CONFIG_MSG_SEQr. The mobile station may ignore the rest of the message. If this substate was not entered with an origination or page response indication, the mobile station may also determine whether there is a page match. If the mobile station attempts to determine whether there is a page match, it shall use the procedure as defined in 2.6.2.3. If a match is declared, the mobile station shall set PAGED to YES.

11. **User Zone Identification Message**: The mobile station shall process the parameters from the message (see 2.6.2.2.9).

12. **Private Neighbor List Message**: The mobile station shall process the parameters from the message (see 2.6.2.2.10).

13. **Extended Global Service Redirection Message**: The mobile station shall process the parameters from the message (see 2.6.2.2.11).

14. **Extended CDMA Channel List Message**: The mobile station shall process the parameters from the message (see 2.6.2.2.12).

15. **ANSI-41 System Parameters Message**: The mobile station shall process the parameters from the message (see 2.6.2.2.13).

16. **MC-RR Parameters Message**: The mobile station shall process the parameters from the message (see 2.6.2.2.14).

17. **Enhanced Access Parameters Message**: The mobile station shall process the parameters from the message (see 2.6.2.2.15).

18. **ANSI-41 RAND Message**: The mobile station shall process the parameters from the message (see 2.6.2.2.16).

19. **Universal Neighbor List Message**: The mobile station shall process the parameters from the message (see 2.6.2.2.17).
If the mobile station receives a message which is not included in the above list, the mobile station shall ignore the message.

When all of the following conditions are met:

- the stored configuration parameters are current (see 2.6.2.2)
- CURR_ACC_MSG_SEQs and ACC_MSG_SEQs are equal and are not NULL, and
- if the mobile station is monitoring the Primary Broadcast Control Channel and SENDING_RANDs is equal to ‘1’, the ANSI-41 RAND Message has been received,

then the mobile station shall disable the System Access State timer and shall do one of the following:

- If PAGED is equal to YES, the mobile station shall determine whether the message resulting in the page match was received on the current Paging Channel or Forward Common Control Channel. If the message was received on the current Paging Channel or Forward Common Control Channel, the mobile station shall enter the Page Response Substate; otherwise, the mobile station shall enter the Mobile Station Idle State.

- If this substate was entered with a page response indication and the mobile station has not performed an access entry handoff, the mobile station shall determine whether the message resulting in the page match was received on the current Paging Channel or Forward Common Control Channel. If the message was received on the current Paging Channel or Forward Common Control Channel, the mobile station shall enter the Page Response Substate; otherwise, the mobile station shall enter the Mobile Station Idle State.

- If this substate was entered with a page response retransmission indication, the mobile station shall enter the Page Response Substate.

- If this substate was entered with an origination indication, the mobile station shall enter the Mobile Station Origination Attempt Substate with an origination indication.

- If this substate was entered with a PACA response indication, the mobile station shall enter the Mobile Station Origination Attempt Substate with a PACA response indication.

- If this substate was entered with an order/message response indication and the mobile station has not performed an access entry handoff, the mobile station shall determine whether the message resulting in the response was received on the current Paging Channel or Forward Common Control Channel. If the message was received on the current Paging Channel or Forward Common Control Channel, the mobile station shall enter the Mobile Station Order/Message Response Substate; otherwise, the mobile station shall discard the response and enter the Mobile Station Idle State.
• If this substate was entered with an order/message response indication and the mobile station has performed an access entry handoff, the mobile station shall enter the Mobile Station Order/Message Response Substate.

• If this substate was entered with a registration indication, the mobile station shall enter the Registration Access Substate.

• If this substate was entered with a message transmission indication, the mobile station shall enter the Mobile Station Message Transmission Substate with a message transmission indication.

• If this substate was entered with a hook status indication, the mobile station shall enter the Mobile Station Message Transmission Substate with a hook status indication.

• If this substate was entered with a PACA cancel indication, the mobile station shall enter the PACA Cancel Substate.

2.6.3.3 Page Response Substate

In this substate, the mobile station sends a Page Response Message in response to a mobile-station-addressed page from a base station. If a base station responds to the Page Response Message with an authentication request, the mobile station responds in this substate.

If a message received from the base station requires a Layer 2 acknowledgment and does not require a Layer 3 response, Layer 3 shall indicate to Layer 2 that no response is outstanding (see 2.1.1.2.2.1 of [4]).

If a message received from the base station requires a Layer 2 acknowledgment and also a Layer 3 response, Layer 3 shall indicate to Layer 2 that a response is outstanding (see 2.1.1.2.2.1 of [4]).

When transmitting a response to a message received from the base station, Layer 3 shall indicate to Layer 2 that the type of the message is a response (see 2.1.1.2.2.1 of [4]).

When transmitting an autonomous message (i.e., a message that is not sent as a response to a message received from the base station), Layer 3 shall indicate to Layer 2 that the type of the message is a request other than a registration request or a message transmission request (see 2.1.1.2.2.1 of [4]).

If the mobile station has a stored service configuration (that is, parameters conveyed by both the Service Configuration information record and the Non-negotiable Service Configuration information record), \( \text{SYNC\_ID}_s \) is not equal to NULL, and USE\_SYNC\_ID\_s is equal to '1', the mobile station may include the SYNC\_ID field in the Page Response Message and, if included, shall set it to the 16-bit CRC computed over the entire stored service configuration as specified in 2.6.11 SYNC\_ID\_s corresponding to the stored service configuration.

Upon entering the Page Response Substate, the mobile station shall set RLGAIN\_ADJS to ‘0000’ and send a Page Response Message.
While in this substate, the mobile station shall monitor the Paging Channel or the Forward Common Control Channel. The mobile station may perform an access probe handoff or access handoff as described in 2.6.3.1.3.2 and 2.6.3.1.3.3. If the mobile station declares a loss of the Paging Channel or the Forward Common Control Channel (see 2.6.2.1.1.4 2.6.3.1.8) during an access attempt, the mobile station may perform an access probe handoff; otherwise, it shall declare an access attempt failure and shall perform the following actions:

- The mobile station shall update its registration variables as specified in 2.6.5.5.3.2,
- If the mobile station is monitoring the Paging Channel, the mobile station shall set SYS_PAR_MSG_SEQs and ACC_MSG_SEQs to NULL,
- If the mobile station is monitoring the Forward Common Control Channel, the mobile station shall set MC_RR_PAR_MSG_SEQs and ACC_MSG_SEQs to NULL.
- If PACA_s is equal to enabled, the mobile station shall set PACA_s to disabled and PACA_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
- The mobile station shall disable its transmitter, and
- The mobile station shall enter the Mobile Station Idle State.

If the mobile station receives confirmation of delivery of any message sent by the mobile station in this substate, the mobile station shall perform an access handoff if all of the following conditions hold:

- The mobile station declares a loss of the Paging Channel or the Forward Common Control Channel, and
- The mobile station is permitted to perform an access handoff (see 2.6.3.1.3.2), and there are pilots other than the active pilot in the access handoff list (see 2.6.3.1.3.2).

If the mobile station declares a loss of the Paging Channel or the Forward Common Control Channel and does not perform an access handoff, the mobile station shall perform the following:

- If the mobile station is monitoring the Paging Channel, the mobile station shall set SYS_PAR_MSG_SEQs and ACC_MSG_SEQs to NULL.
- If the mobile station is monitoring the Forward Common Control Channel, the mobile station shall set MC_RR_PAR_MSG_SEQs and ACC_MSG_SEQs to NULL.
- If PACA_s is equal to enabled, the mobile station shall set PACA_s to disabled and PACA_CANCEL to 0, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled,
- The mobile station shall disable its transmitter, and
- The mobile station shall enter the Mobile Station Idle State.

If PACA_s is equal to enabled, the mobile station shall set PACA_CANCEL to ‘1’ when the user directs the mobile station to cancel a PACA call.
If the mobile station receives confirmation of delivery of the *Page Response Message* sent in this substate, the mobile station shall update its registration variables with respect to the base station to which the first access probe was transmitted after entering the *System Access State*, as specified in 2.6.5.5.3.1.

If the *System Access State* timer expires while in this substate, the mobile station shall perform the following:

1. If \( \text{PACA}_s \) is equal to enabled, the mobile station shall set \( \text{PACA}_s \) to disabled and \( \text{PACA\_CANCEL} \) to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
2. If the mobile station is monitoring the Paging Channel, the mobile station shall set \( \text{SYS\_PAR\_MSG\_SEQ}_s \) and \( \text{ACC\_MSG\_SEQ}_s \) to NULL, and shall enter the *Mobile Station Idle State*.
3. If the mobile station is monitoring the Forward Common Control Channel, the mobile station shall set \( \text{MC\_RR\_PAR\_MSG\_SEQ}_s \) and \( \text{ACC\_MSG\_SEQ}_s \) to NULL and enter the *Mobile Station Idle State*.

The mobile station shall set and disable the *System Access State* timer as follows:

1. The mobile station shall disable the timer whenever it begins an access attempt.
2. The mobile station shall set the timer to \( T_{42m} \) seconds whenever it ends an access attempt.
3. The mobile station shall disable the timer whenever it exits the *System Access State*.

If the mobile station receives a *Channel Assignment Message* or the *Extended Channel Assignment Message*, Layer 3 shall send a dedicated channel assignment indication to Layer 2 (see 2.1.2.1.2 of [4]). If the mobile station has not received confirmation of delivery of the *Page Response Message*, before receiving the *Channel Assignment Message* or the *Extended Channel Assignment Message*, the mobile station shall update its registration variables with respect to the base station to which the first access probe was transmitted after entering the *System Access State*, as specified in 2.6.5.5.3.1.

If the mobile station is to exit the *System Access State* as a result of processing Layer 3 fields of a message requiring an acknowledgment, the mobile station shall exit the *System Access State* after Layer 3 receives an indication from Layer 2 that the acknowledgment to the message has been sent and acknowledged.

If Layer 3 receives a message other than a *Channel Assignment Message* or an *Extended Channel Assignment Message* with an indication from Layer 2 that an access attempt for a message being transmitted was not terminated as a result of processing the Layer 2 fields of the received message, the mobile station shall ignore the received message.

The following directed messages and orders can be received. If any field value of the message or order is outside its permissible range, the mobile station may send a *Mobile Station Reject Order* with ORDQ equal to '00000100' (message field not in valid range).

1. *Authentication Challenge Message*: The mobile station shall respond to the message as specified in 2.3.12.1.4, regardless of the value of AUTHs.
2. **Base Station Challenge Confirmation Order:** The mobile station shall respond to the message as specified in 2.3.12.1.5.

3. **Base Station Reject Order:**
   - If ORDQ\(_r\) = ‘00000001’, the mobile station shall send a Security Mode Request Message with the ENC_SIG_H field included in it. If the mobile receives two Base Station Reject Orders without successfully decrypting any encrypted messages from the base station between the orders, the mobile station shall set REG_ENCRYPT_RESYNC to YES and enter the System Determination Substate with an encryption failure indication.

3.4. **Channel Assignment Message:** The mobile station shall process the message as follows:
   - If ASSIGN\(_r\) equals ‘000’, the mobile station shall perform the following actions:
     - The mobile station shall set CH\(_s\) to ‘01’.
     - The mobile station shall store the frame offset (FRAME_OFFSET\(_s\) = FRAME_OFFSET\(_r\)), the message encryption mode indicator (ENCRIPT_MODE\(_s\) = ENCRYPT_MODE\(_r\)), and, if FREQ_INCL\(_r\) equals ‘1’, the Frequency Assignment (CDMA\(_s\) = CDMA\(_r\)).

     - The mobile station shall perform the following procedures in the order listed below:
       - If D\(_r\)_SIG_ENCRYPT_MODE is included, the mobile station shall perform the following:
         - If D\(_r\)_SIG_ENCRYPT_MODE is equal to ‘000’, the mobile station shall set D\(_s\)_SIG_ENCRYPT_MODE to C\(_s\)_SIG_ENCRYPT_MODE; otherwise, the mobile station shall set D\(_s\)_SIG_ENCRYPT_MODE to D\(_r\)_SIG_ENCRYPT_MODE, ENC\(_s\)_KEY to the most recently generated CMEAKEY in the mobile station associated with the AUTHR of the Page Response Message, and EXT\(_s\)_ENCRYPT_SEQ[0] and EXT\(_s\)_ENCRYPT_SEQ[1] to 256 × ENC\(_s\)_SEQ_H (the ENC\(_s\)_SEQ_H field in the Page Response Message).

       - If USE\(_r\)_NEW_KEY is included, or is included and is set to ‘1’, the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEY\(_s\)[KEY_SEQ\(_s\) to KEY_SEQ\(_r\)]. The mobile station shall store KEY\(_s\) to KEY\(_r\). The mobile station shall then increment the variable KEY\(_s\)-SEQ\(_s\) by one (modulo 16). If ENC\(_s\)_KEY\(_s\) is included, the mobile station shall set ENC\(_s\)_KEY\(_s\) to ENC\(_s\)_KEY\(_r\).

       - If USE\(_r\)_NEW_KEY is included and is set to ‘0’ then the mobile station shall use KEY\(_s\)[KEY\(_s\) as the session key.
+ If C_SIG_ENCRYPT_MODE is included, the mobile station shall set C_SIG_ENCRYPT_MODEs to C_SIG_ENCRYPT_MODEr.

- The mobile station shall set SERV_NEGs to disabled.

- If PACAs is equal to enabled, the mobile station shall set PACAs to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.

- The mobile station shall initialize CODE_CHAN_LIST as described in 2.6.8.

- The mobile station shall enter the Traffic Channel Initialization Substate of the Mobile Station Control on the Traffic Channel State.

- If ASSIGN_MODEr equals ‘001’, the mobile station shall perform the following actions:
  
  + If FREQ_INCLr equals ‘1’, the mobile station shall perform the following:
    
    + If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.
    
    + The mobile station shall set CDMACHs to CDMA_FREQr, tune to the new Frequency Assignment, and measure the strength of each pilot listed in the assignment using the Neighbor Set search procedures specified in 2.6.6.2.1 and 2.6.6.2.2.

  - The mobile station shall set CONFIG_MSG_SEQs and ACC_MSG_SEQs to NULL (see 2.6.2.2) and shall set PILOT_PNs to the pilot PN sequence offset of the strongest pilot in the list (PILOT_PNr).

  - If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQs, NGHBR_LST_MSG_SEQs, EXT_NGHBR_LST_MSG_SEQs, GEN_NGHBR_LST_MSG_SEQs, USER_ZONE_ID_MSG_SEQs, PRI_NGHBR_LST_MSG_SEQs, CHAN_LST_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs, EXT_SYS_PAR_MSG_SEQs, GLOB_SERV_REDIR_MSG_SEQs, and EXT_GLOB_SERV_REDIR_MSG_SEQs to NULL.

  - The mobile station shall set PAGE_CHANs to ‘1’ and PAGECHs to the Primary Paging Channel. If the mobile station was monitoring Forward Common Control Channel, the mobile station shall set the PRATs to ‘00’. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.

  - If RESPONDp is equal to ‘1’, the mobile station shall enter the Update Overhead Information Substate with a page response retransmission indication within T34m seconds after receiving the Channel Assignment Message.
− If RESPOND_r is equal to ‘0’, the mobile station shall enter the Mobile Station Idle State within $T_{34m}$ seconds after receiving the Channel Assignment Message.

• If ASSIGN_MODE_r equals ‘010’, the mobile station shall perform the following actions:
  
  − If the mobile station does not support analog operation in the requested band class, the mobile station shall send a Mobile Station Reject Order with ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and shall remain in the Page Response Substate.
  
  − If the mobile station supports analog operation in the requested band class, the mobile station shall perform the following actions:
    
    + If USE_ANALOG_SYS_r equals ‘1’, the mobile station shall set SERVSYS_s to SYS_A if ANALOG_SYS_r is equal to ‘0’, or shall set SERVSYS_s to SYS_B if ANALOG_SYS_r is equal to ‘1’.
    
    + If PACA_s is equal to enabled, the mobile station shall set PACA_s to disabled and PACA_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
    
    + If RESPOND_r equals ‘0’, the mobile station shall enter the analog Initialization Task with a wait-for-page indication (see 2.6.1). If RESPOND_r equals ‘1’, the mobile station shall enter the analog Initialization Task with a page response indication (see 2.6.1).

• If ASSIGN_MODE_r equals ‘011’, the mobile station shall perform the following actions:
  
  − If the mobile station does not support analog operation in the requested band class, the mobile station shall send a Mobile Station Reject Order with ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the Page Response Substate.
  
  − If the mobile station supports analog operation in the requested band class:
    
    + If PACA_s is equal to enabled, the mobile station shall set PACA_s to disabled and PACA_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
    
    + If the analog channel type is ‘00’, the mobile station shall store the system identification ($S_{ID_s} = S_{ID_r}$), voice mobile station attenuation code ($V_{MAC_s} = V_{MAC_r}$), voice channel number ($ANALOG_{CHAN_s} = ANALOG_{CHAN_r}$), SAT color code ($S_{CC_s} = S_{CC_r}$), and message encryption mode indicator ($M_{EM_s} = M_{EM_r}$), shall set DTX_s to ‘00’ and shall enter the Confirm Initial Voice Channel Task (see 2.6.4.2) with a page response indication.
    
    + If the analog channel type is not ‘00’:
If the mobile station supports narrow analog mode, the mobile station shall store the system identification (\(S\text{ID}_s = S\text{ID}_r\)), voice mobile station attenuation code (\(V\text{MAC}_s = VM\text{AC}_r\)), voice channel number (\(A\text{NALOG}_C\text{HA}\_N_s = A\text{NALOG}_C\text{HA}\_N_r\)), message encryption mode indicator (\(M\text{EM}_s = M\text{EM}_r\)), analog channel type (\(A\text{N}_\text{CHAN}_T\text{YPE}_s = A\text{N}_\text{CHAN}_T\text{YPE}_r\)) and the digital SAT code (\(D\text{SCC}_s = D\text{SCC}_\text{MSB}_r \times 4 + \text{SCC}_r\)), shall set DTXs to ‘00’, and shall enter the Confirm Initial Narrow Analog Voice Channel Task (see 2.6.5.2A of [22]) with a page response indication.

If the mobile station does not support narrow analog mode, the mobile station shall send a \textit{Mobile Station Reject Order} with the ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and the mobile station shall remain in the \textit{Page Response Substate} of the System Access State.

- If ASSIGN\_MODE\_r equals ‘100’, the mobile station shall perform the following actions:
  - The mobile station shall set \(CH\_\text{IND}_s\) to ‘01’.
  - If PACA\_s is equal to enabled, the mobile station shall set PACA\_s to disabled and PACA\_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
  - If GRANTED\_MODE\_r equals ‘00’, and the multiplex option and radio configuration combination specified in the DEFAULT\_CONFIG field is not supported by the mobile station, the mobile station shall send a \textit{Mobile Station Reject Order} with ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the \textit{Page Response Substate}.
  - If FREQ\_INCL\_r equals ‘0’, the mobile station shall perform the following actions:
    + The mobile station shall store the frame offset (\(FRAME\_OFFSET_s = FRAME\_OFFSET_r\)), the message encryption mode indicator (\(E\text{NCRYPT}_\text{MODE}_s = E\text{NCRYPT}_\text{MODE}_r\)), the granted mode (\(G\text{RAANTED}_\text{MODE}_s = G\text{RAANTED}_\text{MODE}_r\)), and default configuration (\(D\text{EFAULT}_\text{CONFIG}_s = D\text{EFAULT}_\text{CONFIG}_r\)).
    + The mobile station shall perform the following procedures in the order listed below:
      - If D\_SIG\_ENCRYPT\_MODE\_r is included, the mobile station shall perform the following:
        ◇ If D\_SIG\_ENCRYPT\_MODE\_r is equal to ‘000’, the mobile station shall set D\_SIG\_ENCRYPT\_MODE\_s to C\_SIG\_ENCRYPT\_MODE\_s; otherwise, the mobile station shall set D\_SIG\_ENCRYPT\_MODE\_s to D\_SIG\_ENCRYPT\_MODE\_r\_C\_SIG\_ENCRYPT\_MODE\_s ENC\_KEY\_s to the most recently generated CMEAKEY in the mobile station associated with AUTHR.
of the Page Response Message, and \texttt{EXT\_ENCRYPT\_SEQ[0]} and
\texttt{EXT\_ENCRYPT\_SEQ[1]} to $256 \times \text{ENC\_SEQ\_H}$ (the \texttt{ENC\_SEQ\_H}
field in the Page Response Message).

0. If \texttt{USE\_NEW\_KEY} is not included, or is included and is set to ‘1’, the
mobile station shall use the session key generated at the most recent
registration for encryption of signaling and user information. The
mobile station shall store the session key in \texttt{KEY[0]} to \texttt{KEY[16]}.
The mobile station shall store \texttt{KEY\_SIZE} to \texttt{KEY\_SIZE}. The
mobile station shall then increment the variable \texttt{KEY\_SEQ\_NEW} by one (modulo 16).

1. If \texttt{ENC\_KEY\_SIZE} is included, the mobile station
shall set \texttt{ENC\_KEY\_SIZE} to \texttt{ENC\_KEY\_SIZE}.

2. If \texttt{USE\_NEW\_KEY} is included and is set to ‘0’ then the mobile station
shall use \texttt{KEY[0]} to \texttt{KEY[16]} as the session key.

3. If \texttt{C\_SIG\_ENCRYPT\_MODE} is included, the mobile station shall set
\texttt{C\_SIG\_ENCRYPT\_MODE} to \texttt{C\_SIG\_ENCRYPT\_MODE}.

4. The mobile station shall set \texttt{SERV\_NEG} to enabled.

5. The mobile station shall initialize \texttt{CODE\_CHAN\_LIST} as described in
2.6.8 and shall then enter the Traffic Channel Initialization Substate of
the Mobile Station Control on the Traffic Channel State.

6. If \texttt{FREQ\_INCL} equals ‘1’, the mobile station shall perform the following
actions:

7. If the band class is not supported by the mobile station, the mobile
station shall send a Mobile Station Reject Order with \texttt{ORDQ} field set to
‘00000110’ (capability not supported by the mobile station) and shall
remain in the Page Response Substate.

8. If the band class is supported by the mobile station, the mobile station
shall perform the following actions:

9. The mobile station shall store the frame offset (\texttt{FRAME\_OFFSET} =
\texttt{FRAME\_OFFSET}), the message encryption mode indicator
(\texttt{ENCRYPT\_MODE} = \texttt{ENCRYPT\_MODE}), the bypass indicator
(\texttt{BYPASS\_ALERT\_ANSWER} = \texttt{BYPASS\_ALERT\_ANSWER}), the
granted mode (\texttt{GRANTED\_MODE} = \texttt{GRANTED\_MODE}), the default
configuration (\texttt{DEFAULT\_CONFIG} = \texttt{DEFAULT\_CONFIG}), the band
class (\texttt{CDMABAND} = \texttt{BAND\_CLASS}), and the Frequency Assignment
(\texttt{CDMA\_FREQ} = \texttt{CDMA\_FREQ}).

10. The mobile station shall perform the following procedures in the order
listed below:

   11. If \texttt{D\_SIG\_ENCRYPT\_MODE} is included, the mobile station shall
   perform the following:
− If D_SIG_ENCRYPT_MODE_r is equal to ‘000’, the mobile station shall set D_SIG_ENCRYPT_MODE_s to C_SIG_ENCRYPT_MODE_s; otherwise, the mobile station shall set D_SIG_ENCRYPT_MODE_s to D_SIG_ENCRYPT_MODE_r.

   ENC_KEY_s to the most recently generated CMEAKEY in the mobile station associated with AUTHR of the Page Response Message, and EXT_ENCRYPT_SEQ[0] and EXT_ENCRYPT_SEQ[1] to 256 × ENC_SEQ_H (the ENC_SEQ_H field in the Page Response Message).

◊ If USE_NEW_KEY_r is not included, or is included and is set to ‘1’, the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEY_s[KEY_SEQ_NEW_s-p]. The mobile station shall store KEY_SIZE_r to KEY_SIZE_s. The mobile station shall then increment the variable KEY_SEQ_NEW_s-p by one (modulo 16). If ENC_KEY_SIZE_r is included, the mobile station shall set ENC_KEY_SIZE_s to ENC_KEY_SIZE_r.

◊ If USE_NEW_KEY_r is included and is set to ‘0’ then the mobile station shall use KEY_s[KEY_SEQ_r] as the session key.

◊ If C_SIG_ENCRYPT_MODE is included, the mobile station shall set C_SIG_ENCRYPT_MODE_s to C_SIG_ENCRYPT_MODE_r.

o The mobile station shall initialize CODE_CHAN_LIST as described in 2.6.8, and shall set SERV_NEG_s to enabled.

o The mobile station shall then tune to the new Frequency Assignment and shall enter the Traffic Channel Initialization Substate of the Mobile Station Control on the Traffic Channel State.

• If ASSIGN_MODE_r equals ‘101’, the mobile station shall perform the following actions:

  − If FREQ_INCL_r equals ‘0’, the mobile station shall perform the following actions:

    + If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.

    + The mobile station shall set CONFIG_MSG_SEQ_s and ACC_MSG_SEQ_s to NULL (see 2.6.2.2) and shall set PILOT_PNs to the pilot PN sequence offset of the strongest pilot in the list (PILOT_PNr).
+ If the mobile station has not stored configuration parameters for the
Primary Paging Channel of the new base station, or if the stored
information is not current (see 2.6.2.2), the mobile station shall set
SYS_PAR_MSG_SEQs, NGHBR_LST_MSG_SEQs,
EXT_NGHBR_LST_MSG_SEQs, GEN_NGHBR_LST_MSG_SEQs,
USER_ZONE_ID_MSG_SEQs, PRI_NGHBR_LST_MSG_SEQs,
_CHAN_LST_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs,
EXT_SYS_PAR_MSG_SEQs, GLOB_SERV_REDIR_MSG_SEQs, and
EXT_GLOB_SERV_REDIR_MSG_SEQs to NULL.

+ The mobile station shall set PAGE_CHANs to ‘1’ and PAGECHs to the
Primary Paging Channel. The mobile station shall then begin monitoring
the Primary Paging Channel of the selected base station.

+ If RESPOND_f is equal to ‘1’, the mobile station shall perform the
following:

  0 If the Channel Assignment Message does not require an
  acknowledgment, the mobile station shall enter the Update Overhead
  Information Substate with a page response retransmission indication
  within T34m seconds after receiving the Channel Assignment
  Message.

  0 If the Channel Assignment Message requires an acknowledgment, the
  mobile station shall enter the Update Overhead Information Substate
  with a page response retransmission indication within T34m seconds
  after Layer 3 receives an indication from Layer 2 that the
  acknowledgement to the Channel Assignment Message has been sent
  and acknowledged.

+ If RESPOND_f is equal to ‘0’, the mobile station shall perform the
following:

  0 If the Channel Assignment Message does not require an
  acknowledgment, the mobile station shall enter the Mobile Station Idle
  State within T34m seconds after receiving the Channel Assignment
  Message.

  0 If the Channel Assignment Message requires an acknowledgment, the
  mobile station shall enter the Mobile Station Idle State within T34m
  seconds after Layer 3 receives an indication from Layer 2 that the
  acknowledgement to the Channel Assignment Message has been sent
  and acknowledged.

− If FREQ_INCL_f equals ‘1’, the mobile station shall perform the following
actions:

  + If the band class is not supported by the mobile station, the mobile
  station shall send a Mobile Station Reject Order with ORDQ field set to
  ‘00000110’ (capability not supported by the mobile station) and shall
  remain in the Page Response Substate.
If the band class is supported by the mobile station, the mobile station shall perform the following actions:

- If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.
- The mobile station shall set CDMACH to CDMA_FREQr and CDMABAND to BAND_CLASSr. Then the mobile station shall tune to the new Frequency Assignment, measure the strength of each pilot listed in the assignment using the Neighbor Set search procedures specified in 2.6.6.2.1 and 2.6.6.2.2, set PILOT_PNr to the pilot PN sequence offset of the strongest pilot in the list (PILOT_PN), and set CONFIG_MSG_SEQs and ACC_MSG_SEQs to NULL (see 2.6.2.2).
- If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQs, NGHBR_LST_MSG_SEQs, EXT_NGHBR_LST_MSG_SEQs, USER_ZONE_ID_MSG_SEQs, PRI_NGHBR_LST_MSG_SEQs, CHAN_LST_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs, EXT_SYS_PAR_MSG_SEQs, GLOB_SERV_REDIR_MSG_SEQs, and EXT_GLOB_SERV_REDIR_MSG_SEQs to NULL.
- The mobile station shall set PAGE_CHAN to ‘1’ and PAGECH to the Primary Paging Channel. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.
- If RESPOND is equal to ‘1’, the mobile station shall perform the following:
  - If the Channel Assignment Message does not require an acknowledgment, the mobile station shall enter the Update Overhead Information Substate with a page response retransmission indication within T34m seconds after receiving the Channel Assignment Message.
  - If the Channel Assignment Message requires an acknowledgment, the mobile station shall enter the Update Overhead Information Substate with a page response retransmission indication within T34m seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the Channel Assignment Message has been sent and acknowledged.
- If RESPOND is equal to ‘0’, the mobile station perform the following:
  - If the Channel Assignment Message does not require an acknowledgment, the mobile station shall enter the Mobile Station Idle State within T34m seconds after receiving the Channel Assignment Message.
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◊ If the Channel Assignment Message requires an acknowledgment, the mobile station shall enter the Mobile Station Idle State within \( T_{34m} \) seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the Channel Assignment Message has been sent and acknowledged.

4.5. Data Burst Message

5.6. Extended Channel Assignment Message: The mobile station shall process the message as follows:

- If ASSIGN_MODE \( r \) equals ‘000’, the mobile station shall perform the following actions:
  - The mobile station shall set \( CH\_IND_s \) to ‘01’.
  - If PACA\(_s\) is equal to enabled, the mobile station shall set PACA\(_s\) to disabled and PACA\(_\text{CANCEL}\) to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
  - If GRANTED_MODE \( r \) equals ‘00’, and the multiplex option and radio configuration specified in the DEFAULT_CONFIG field are not supported by the mobile station, the mobile station shall send a Mobile Station Reject Order with ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and shall remain in the Page Response Substate.
  - If GRANTED_MODE \( r \) is equal to ‘00’ and DEFAULT_CONFIG\(_r\) is not equal to ‘100’, the mobile station shall send a Mobile Station Reject Order with ORDQ field set to ‘00001110’ (RC does not match with DEFAULT_CONFIG\(_r\)) and shall remain in the Page Response Substate if any of the following conditions is true:
    + FOR\(_FCH\_RC_r\) is not equal to the RC associated with DEFAULT_CONFIG\(_r\) (see Table 3.7.2.3.2.21-2).
    + REV\(_FCH\_RC_r\) is not equal to the RC associated with DEFAULT_CONFIG\(_r\) (see Table 3.7.2.3.2.21-2).
  - If the mobile station does not support either of the Fundamental Channel Radio Configurations (FOR\(_FCH\_RC\) or REV\(_FCH\_RC\)), the mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the Page Response Substate.
  - If P\(_\text{REV\_IN\_USE}_s\) is equal to or greater than 6, the mobile station shall store the Forward Fundamental Channel Radio Configuration (FOR\(_FCH\_RC_s\) = FOR\(_FCH\_RC_r\)) and the Reverse Fundamental Channel Radio Configuration (REV\(_FCH\_RC_s\) = REV\(_FCH\_RC_r\)).
  - If FREQ\(_\text{INCL}_r\) equals ‘0’, the mobile station shall perform the following actions:

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The mobile station shall store the frame offset \((FRAME_{OFFSET}_s = FRAME_{OFFSET}_r)\); the message encryption mode indicator \((ENCRYPT\_MODE_s = ENCRYPT\_MODE_r)\); the bypass indicator \((BYPASS\_ALERT\_ANSWER_s = BYPASS\_ALERT\_ANSWER_r)\); the granted mode \((GRANTED\_MODE_s = GRANTED\_MODE_r)\); the default configuration \((DEFAULT\_CONFIG_s = DEFAULT\_CONFIG_r)\); and the occurrences of PILOT_PN and PWR_COMB for each included member of the Active Set.

The mobile station shall perform the following procedures in the order listed below:

1. If \(D\_SIG\_ENCRYPT\_MODE_r\) is included, the mobile station shall perform the following:

   a. If \(D\_SIG\_ENCRYPT\_MODE_r\) is equal to ‘000’, the mobile station shall set \(D\_SIG\_ENCRYPT\_MODE_s\) to \(C\_SIG\_ENCRYPT\_MODE_s\); otherwise, the mobile station shall set \(D\_SIG\_ENCRYPT\_MODE_s\) to \(D\_SIG\_ENCRYPT\_MODE_r\), \(ENC\_KEY_s\) to the most recently generated CMEAKEY in the mobile station associated with AUTHR of the Page Response Message, and \(EXT\_ENCRYPT\_SEQ[0]\) and \(EXT\_ENCRYPT\_SEQ[1]\) to \(256 \times ENC\_SEQ\_H\) (the ENC_SEQ_H field in the Page Response Message).

2. If \(USE\_NEW\_KEY_r\) is not included, or is included and is set to ‘1’, the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in \(KEY_s[KEY\_SEQ\_NEW_s-p]\). The mobile station shall store \(KEY\_SIZE_r\) to \(KEY\_SIZE_s\). The mobile station shall then increment the variable \(KEY\_SEQ\_NEW_s-p\) by one (modulo 16). If \(ENC\_KEY\_SIZE_r\) is included, the mobile station shall set \(ENC\_KEY\_SIZE_s\) to \(ENC\_KEY\_SIZE_r\).

3. If \(USE\_NEW\_KEY_r\) is included and is set to ‘0’, then the mobile station shall use \(KEY_s[KEY\_SEQ_r]\) as the session key.

4. If \(C\_SIG\_ENCRYPT\_MODE\) is included, the mobile station shall set \(C\_SIG\_ENCRYPT\_MODE_s\) to \(C\_SIG\_ENCRYPT\_MODE_r\).

5. The mobile station shall initialize CODE_CHAN_LIST as described in 2.6.8, and shall set \(SERV\_NEG_s\) to enabled.

6. The mobile station shall set \(FPC\_FCH\_INIT\_SETPTR_s\) to \(FPC\_FCH\_INIT\_SETPTR_r\), \(FPC\_FCH\_CURR\_SETPTR_s\) to \(FPC\_FCH\_INIT\_SETPTR_s\), \(FPC\_FCH\_MIN\_SETPTR_s\) to \(FPC\_FCH\_MIN\_SETPTR_r\), \(FPC\_FCH\_MAX\_SETPTR_s\) to \(FPC\_FCH\_MAX\_SETPTR_r\), and \(FPC\_PRI\_CHAN_s\) to ‘0’ if the mobile station supports any Radio Configuration greater than 2.

7. The mobile station shall set \(FPC\_SUBCHAN\_GAIN_s\) to \(FPC\_SUBCHAN\_GAIN_r\).
+ The mobile station shall set RLGAIN_ADJ_s to RLGAIN_ADJ_r.
+ The mobile station shall set REV_FCH_GATING_MODE_s to
  REV_FCH_GATING_MODE_r.
+ The mobile station shall set REV_PWR_CNTL_DELAY_s to
  REV_PWR_CNTL_DELAY_r if REV_PWR_CNTL_DELAY_INCL_r is equal to
  ‘1’.
+ The mobile station shall then enter the Traffic Channel Initialization
  Substate of the Mobile Station Control on the Traffic Channel State.

  − If FREQ_INCL_r equals ‘1’, and the band class is not supported by the mobile
    station, the mobile station shall send a Mobile Station Reject Order with
    ORDQ field set to ‘00000110’ (capability not supported by the mobile station)
    and remain in the Page Response Substate.

  − If FREQ_INCL_r equals ‘1’, and the band class is supported by the mobile
    station, the mobile station shall perform the following actions:

    + The mobile station shall store the frame offset (FRAME_OFFSET_s =
      FRAME_OFFSET_r); the message encryption mode indicator
      (ENCRYPT_MODE_s = ENCRYPT_MODE_r); the bypass indicator
      (BYPASS_ALERT_ANSWER_s = BYPASS_ALERT_ANSWER_r); the granted
      mode (GRANTED_MODE_s = GRANTED_MODE_r); the default configuration
      (DEFAULT_CONFIG_s = DEFAULT_CONFIG_r); the band class
      (CDMABAND_s = BAND_CLASS_r); the Frequency Assignment
      (CDMACH_s = CDMA_FREQ_r); and the occurrences of PILOT_PN and
      PWR_COMB_IND for each included member of the Active Set.

    + The mobile station shall perform the following procedures in the order
      listed below:

      o If D_SIG_ENCRYPT_MODE_r is included, the mobile station shall
        perform the following:

        ◊ If D_SIG_ENCRYPT_MODE_r is equal to ‘000’, the mobile station
          shall set D_SIG_ENCRYPT_MODE_s to C_SIG_ENCRYPT_MODE_s;
          otherwise, the mobile station shall set D_SIG_ENCRYPT_MODE_s to
          D_SIG_ENCRYPT_MODE_r, ENC_KEY_s to the most recently
          generated CMEAKEY in the mobile station associated with AUTHR
          of the Page Response Message, and EXT_ENCRYPT_SEQ[0] and
          EXT_ENCRYPT_SEQ[1] to 256 × ENC_SEQ_H (the ENC_SEQ_H
          field in the Page Response Message).
If USE_NEW_KEY is not included, or is included and is set to ‘1’, the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in \( key_s[KEY_SEQ_NEW_p] \). The mobile station shall store \( KEY_SIZE_r \) to \( KEY_SIZE_s \). The mobile station shall then increment the variable \( KEY_SEQ_NEW \) by one (modulo 16). If ENC_KEY_SIZE is included, the mobile station shall set \( ENC_KEY_SIZE_s \) to \( ENC_KEY_SIZE_r \).

If USE_NEW_KEY is included and is set to ‘0’ then the mobile station shall use \( KEY_s[KEY_SEQ_r] \) as the session key.

If C_SIG_ENCRYPT_MODE is included, the mobile station shall set \( C_SIG_ENCRYPT_MODE_s \) to \( C_SIG_ENCRYPT_MODE_r \).

+ The mobile station shall set \( FPC_FCH_INIT_SETPT_s \) to \( FPC_FCH_INIT_SETPT_r \), \( FPC_FCH_CURR_SETPT_s \) to \( FPC_FCH_CURR_SETPT_r \), \( FPC_FCH_MIN_SETPT_s \) to \( FPC_FCH_MIN_SETPT_r \), \( FPC_FCH_MAX_SETPT_s \) to \( FPC_FCH_MAX_SETPT_r \), and \( FPC_PRI_CHAN_s \) to ‘0’ if the mobile station supports any Radio Configuration greater than 2.

+ The mobile station shall set \( FPC_SUBCHAN_GAIN_s \) to \( FPC_SUBCHAN_GAIN_r \).

+ The mobile station shall set \( RLGAIN_ADJ_s \) to \( RLGAIN_ADJ_r \).

+ The mobile station shall set \( REV_FCH_GATING_MODE_s \) to \( REV_FCH_GATING_MODE_r \).

+ The mobile station shall set \( REV_PWR_CNTL_DELAY_s \) to \( REV_PWR_CNTL_DELAY_r \) if \( REV_PWR_CNTL_DELAY_INCL_r \) is equal to ‘1’.

+ The mobile station shall initialize CODE_CHAN_LIST as described in 2.6.8, and shall set \( SERV_NEG_s \) to enabled.

+ The mobile station shall then tune to the new Frequency Assignment and shall enter the Traffic Channel Initialization Substate of the Mobile Station Control on the Traffic Channel State.

If ASSIGN_MODE equals ‘001’, the mobile station shall perform the following actions:

− If FREQ_INCL equals ‘0’, the mobile station shall perform the following actions:

  + If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.
+ The mobile station shall set CONFIG_MSG_SEQs and ACC_MSG_SEQs to NULL (see 2.6.2.2) and shall set PILOT_PNs to the pilot PN sequence offset of the strongest pilot in the list (PILOT_PN). If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQs, NGHBR_LST_MSG_SEQs, EXT_NGHBR_LST_MSG_SEQs, GEN_NGHBR_LIST_MSG_SEQs, USER_ZONE_ID_MSG_SEQs, PRI_NGHBR_LST_MSG_SEQs, CHAN_LST_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs, EXT_SYS_PAR_MSG_SEQs, GLOB_SERV_REDIR_MSG_SEQs, and EXT_GLOB_SERV_REDIR_MSG_SEQs to NULL.

+ The mobile station shall set PAGE_CHANs to ‘1’ and PAGECHs to the Primary Paging Channel. If the mobile station was monitoring the Forward Common Control Channel, the mobile station shall set the PRATs to ‘00’. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.

+ If RESPOND_r is equal to ‘1’, the mobile station shall perform the following:

  0 If the Extended Channel Assignment Message does not require an acknowledgment, the mobile station shall enter the Update Overhead Information Substate with a page response retransmission indication within $T_{34m}$ seconds after receiving the Extended Channel Assignment Message.

  0 If the Extended Channel Assignment Message requires an acknowledgment, the mobile station shall enter the Update Overhead Information Substate with a page response retransmission indication within $T_{34m}$ seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the Extended Channel Assignment Message has been sent and acknowledged.

+ If RESPOND_r is equal to ‘0’, the mobile station shall perform the following:

  0 If the Extended Channel Assignment Message does not require an acknowledgment, the mobile station shall enter the Mobile Station Idle State within $T_{34m}$ seconds after receiving the Extended Channel Assignment Message.

  0 If the Extended Channel Assignment Message requires an acknowledgment, the mobile station shall enter the Mobile Station Idle State within $T_{34m}$ seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the Extended Channel Assignment Message has been sent and acknowledged.
− If FREQ_INCL_r equals ‘1’, and the band class is not supported by the mobile station, the mobile station shall send a Mobile Station Reject Order with ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the Page Response Substate.

− If FREQ_INCL_r equals ‘1’, and the band class is supported by the mobile station, the mobile station shall perform the following actions:

  + If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.

  + The mobile station shall set CDMACH_s to CDMA_FREQ_r and CDMABAND_s to BAND_CLASS_r. Then the mobile station shall tune to the new Frequency Assignment, measure the strength of each pilot listed in the assignment using the Neighbor Set search procedures specified in 2.6.6.2.1 and 2.6.6.2.2, set PILOT_PN_s to the pilot PN sequence offset of the strongest pilot in the list (PILOT_PN_i), and set CONFIG_MSG_SEQ_s and ACC_MSG_SEQ_s to NULL (see 2.6.2.2).

  + If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQ_s, NGHBR_LST_MSG_SEQ_s, EXT_NGHBR_LST_MSG_SEQ_s, GEN_NGHBR_LST_MSG_SEQ_s, USER_ZONE_ID_MSG_SEQ_s, PRI_NGHBR_LST_MSG_SEQ_s, CHAN_LST_MSG_SEQ_s, EXT_CHAN_LST_MSG_SEQ_s, EXT_SYS_PAR_MSG_SEQ_s, GLOB_SERV_REDIR_MSG_SEQ_s, and EXT_GLOB_SERV_REDIR_MSG_SEQ_s to NULL.

  + The mobile station shall set PAGE_CHAN_s to ‘1’ and PAGECH_s to the Primary Paging Channel. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.

  + If RESPOND_r is equal to ‘1’, the mobile station shall perform the following:

    o If the Extended Channel Assignment Message does not require an acknowledgment, the mobile station shall enter the Update Overhead Information Substate with a page response retransmission indication within T34m seconds after receiving the Extended Channel Assignment Message.

    o If the Extended Channel Assignment Message requires an acknowledgment, the mobile station shall enter the Update Overhead Information Substate with a page response retransmission indication within T34m seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the Extended Channel Assignment Message has been sent and acknowledged.
+ If RESPOND\textsubscript{r} is equal to ‘0’, the mobile station shall perform the following:
  0 If the Extended Channel Assignment Message does not require an acknowledgment, the mobile station shall enter the Mobile Station Idle State within T\textsubscript{34m} seconds after receiving the Extended Channel Assignment Message.
  0 If the Extended Channel Assignment Message requires an acknowledgment, the mobile station shall enter the Mobile Station Idle State within T\textsubscript{34m} seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the Extended Channel Assignment Message has been sent and acknowledged.

• If ASSIGN\_MODE\textsubscript{r} equals ‘010’, the mobile station shall perform the following actions:
  − If the mobile station does not support analog operation in the requested band class, the mobile station shall send a Mobile Station Reject Order with ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the Page Response Substate.
  − If the mobile station supports analog operation in the requested band class, the mobile station shall perform the following actions:
    + If PACA\textsubscript{s} is equal to enabled, the mobile station shall set PACA\textsubscript{s} to disabled and PACA\_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
    + If RESPOND\textsubscript{r} equals ‘0’, and USE\_ANALOG\_SYS\textsubscript{r} equals ‘1’, the mobile station shall set SERVSYS\textsubscript{s} to SYS\_A if ANALOG\_SYS\textsubscript{r} is equal to ‘0’, or set SERVSYS\textsubscript{s} to SYS\_B if ANALOG\_SYS\textsubscript{r} is equal to ‘1’. The mobile station shall then enter the analog Initialization Task with a wait-for-page indication (see 2.6.1 of [6]).
    + If RESPOND\textsubscript{r} equals ‘1’, and USE\_ANALOG\_SYS\textsubscript{r} equals ‘1’, the mobile station shall set SERVSYS\textsubscript{s} to SYS\_A if ANALOG\_SYS\textsubscript{r} is equal to ‘0’, or set SERVSYS\textsubscript{s} to SYS\_B if ANALOG\_SYS\textsubscript{r} is equal to ‘1’. The mobile station shall then enter the analog Initialization Task with a page response indication (see 2.6.1 of [6]).
    + If RESPOND\textsubscript{r} equals ‘0’, and USE\_ANALOG\_SYS\textsubscript{r} equals ‘0’ the mobile station shall enter the analog Initialization Task with a wait for page indication (see 2.6.1 of [6]).
    + If RESPOND\textsubscript{r} equals ‘1’, and USE\_ANALOG\_SYS\textsubscript{r} equals ‘0’ the mobile station shall enter the analog Initialization Task with a page response indication (see 2.6.1 of [6]).

• If ASSIGN\_MODE\textsubscript{r} equals ‘011’, the mobile station shall perform the following actions:
If the mobile station does not support analog operation in the requested band class, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the *Page Response Substate*.

If the mobile station supports analog operation in the requested band class, and the analog channel type is ‘00’, the mobile station shall store the system identification (SID$_s$ = SID$_r$), voice mobile station attenuation code (VMAC$_s$ = VMAC$_r$), voice channel number (ANALOG_CHAN$_s$ = ANALOG_CHAN$_r$), SAT color code (SCC$_s$ = SCC$_r$), and message encryption mode indicator (MEM$_s$ = MEM$_r$), shall set DTX$_s$ to ‘00’, and shall enter the Confirm Initial Voice Channel Task (see 2.6.4.2) with a page response indication. If PACA$_s$ is equal to enabled, the mobile station shall set PACA$_s$ to disabled and PACA_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.

If the mobile station supports analog operation in the requested band class, the analog channel type is not ‘00’:

+ If the mobile supports narrow analog mode, the mobile station shall store the system identification (SID$_s$ = SID$_r$), voice mobile station attenuation code (VMAC$_s$ = VMAC$_r$), voice channel number (ANALOG_CHAN$_s$ = ANALOG_CHAN$_r$), analog channel type (AN_CHAN_TYPE$_s$ = AN_CHAN_TYPE$_r$), analog channel type (AN_CHAN_TYPE$_s$ = AN_CHAN_TYPE$_r$), analog channel type (AN_CHAN_TYPE$_s$ = AN_CHAN_TYPE$_r$), analog channel type (AN_CHAN_TYPE$_s$ = AN_CHAN_TYPE$_r$), and the digital SAT code (DSCC$_s$ = DSCC_MSBR × 4 + SCC$_r$), shall set DTX$_s$ to ‘00’, and shall enter the Confirm Initial Narrow Analog Voice Channel Task (see 2.6.5.2A of [22]) with a page response indication. If PACA$_s$ is equal to enabled, the mobile station shall set PACA$_s$ to disabled and PACA_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.

+ If the mobile station does not support narrow analog mode, the mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and the mobile station shall remain in the *Page Response Substate of the System Access State*.

If ASSIGN_MODE$_r$ equals ‘100’, the mobile station shall perform the following actions:

− If PACA$_s$ is equal to enabled, the mobile station shall set PACA$_s$ to disabled and PACA_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.

− If GRANTED_MODE$_r$ equals ‘00’ and the multiplex option and radio configuration specified in the DEFAULT_CONFIG$_r$ field are not supported by the mobile station, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and shall remain in the *Page Response Substate*. 

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− If GRANTED_MODE \( r \) equals ‘00’ and DEFAULT_CONFIG \( r \) is not equal to ‘100’, the mobile station shall send a Mobile Station Reject Order with ORDQ field set to ‘00001110’ (RC does not match with DEFAULT_CONFIG) and shall remain in the Page Response Substate if one of the following conditions is true:

  + FOR_RC \( r \) is not equal to the RC associated with DEFAULT_CONFIG \( r \) as specified in Table 3.7.2.3.2.21-2.

  + REV_RC \( r \) is not equal to the RC associated with DEFAULT_CONFIG \( r \) as specified in Table 3.7.2.3.2.21-2.

− If the mobile station does not support either of the Radio Configurations (FOR_RC or REV_RC), the mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the Page Response Substate.

− If CH_IND \( r \) = ‘01’ and the mobile station does not support Fundamental Channel, the mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the Page Response Substate.

− If CH_IND \( r \) = ‘10’ and the mobile station does not support the Dedicated Control Channel, the mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the Page Response Substate.

− If CH_IND \( r \) = ‘11’ and the mobile station does not support the Dedicated Control Channel and Fundamental Channel concurrently, the mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the Page Response Substate.

− If FREQ_INCL \( r \) equals ‘1’ and if the band class (BAND_CLASS \( r \)) is not supported by the mobile station, the mobile station shall send a Mobile Station Reject Order with ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the Page Response Substate.

− If the mobile station does not send a Mobile Station Reject Order as specified above, it shall continue to perform the actions specified below.

− If FREQ_INCL \( r \) equals ‘1’, the mobile station shall set

  + CDMABAND \( s \) = BAND_CLASS \( r \)

  + CDMACH \( s \) = CDMA_FREQ \( r \)

− The mobile station shall store the bypass indicator (BYPASS_ALERT_ANSWER \( s \) = BYPASS_ALERT_ANSWER \( r \)).

− The mobile station shall store granted mode (GRANTED_MODE \( s \) = GRANTED_MODE \( r \)).

− The mobile station shall store the default configuration (DEFAULT_CONFIG \( s \) = DEFAULT_CONFIG \( r \)).
− The mobile station shall store the Forward Traffic Channel Radio Configuration 
\((\text{FOR}_{\text{RC}}_{\text{s}} = \text{FOR}_{\text{RC}}_{\text{r}})\) and the Reverse Traffic Channel Radio Configuration 
\((\text{REV}_{\text{RC}}_{\text{s}} = \text{REV}_{\text{RC}}_{\text{r}})\).

− The mobile station shall store the frame offset \((\text{FRAME\_OFFSET}_{\text{s}} = \text{FRAME\_OFFSET}_{\text{r}})\).

− The mobile station shall store the message encryption mode indicator 
\((\text{ENCRYPT\_MODE}_{\text{s}} = \text{ENCRYPT\_MODE}_{\text{r}})\).

− The mobile station shall perform the following procedures in the order listed 
below:

  + If \(\text{D\_SIG\_ENCRYPT\_MODE}_{\text{r}}\) is included, the mobile station shall perform the 
  following:
    
    0) If \(\text{D\_SIG\_ENCRYPT\_MODE}_{\text{r}}\) is equal to ‘000’, the mobile station shall set 
    \(\text{D\_SIG\_ENCRYPT\_MODE}_{\text{s}}\) to \(\text{C\_SIG\_ENCRYPT\_MODE}_{\text{s}}\); otherwise, the 
    mobile station shall set \(\text{D\_SIG\_ENCRYPT\_MODE}_{\text{s}}\) to 
    \(\text{D\_SIG\_ENCRYPT\_MODE}_{\text{r}}, \text{ENC\_KEY}_{\text{s}}\) to the most recently generated 
    CMEAKEY in the mobile station associated with \text{AUTHR} of the \text{Page} 
    Response Message, and \(\text{EXT\_ENCRYPT\_SEQ}[0]\) and 
    \(\text{EXT\_ENCRYPT\_SEQ}[1]\) to \(256 \times \text{ENC\_SEQ\_H}\) (the \text{ENC\_SEQ\_H} field in 
    the Page Response Message).

  + If \(\text{USE\_NEW\_KEY}_{\text{r}}\) is not included, or is included and is set to ‘1’, the mobile 
  station shall use the session key generated at the most recent registration for 
  encryption of signaling and user information. The mobile station shall store 
  the session key in \(\text{KEY}_{\text{s}}[\text{KEY\_SEQ\_NEW}_{\text{s}}\]−1}. The mobile station shall store 
  \(\text{KEY\_SIZE}_{\text{s}}\) to \(\text{KEY\_SIZE}_{\text{s}}\). The mobile station shall then increment the 
  variable \(\text{KEY\_SEQ\_NEW}_{\text{s}}\) by one (modulo 16). If \(\text{ENC\_KEY\_SIZE}_{\text{r}}\) is 
  included, the mobile station shall set \(\text{ENC\_KEY\_SIZE}_{\text{s}}\) to \(\text{ENC\_KEY\_SIZE}_{\text{r}}\).

  + If \(\text{USE\_NEW\_KEY}_{\text{r}}\) is included and is set to ‘0’ then the mobile station shall 
  use \(\text{KEY}_{\text{s}}[\text{KEY\_SEQ}_{\text{r}}]\) as the session key.

  + If \(\text{C\_SIG\_ENCRYPT\_MODE}_{\text{r}}\) is included, the mobile station shall set 
  \(\text{C\_SIG\_ENCRYPT\_MODE}_{\text{s}}\) to \(\text{C\_SIG\_ENCRYPT\_MODE}_{\text{r}}\).

− The mobile station shall store the Forward power control subchannel relative 
  gain \(\text{FPC\_SUBCHAN\_GAIN}_{\text{s}} = \text{FPC\_SUBCHAN\_GAIN}_{\text{r}}\).

− The mobile station shall set \(\text{RLGAIN\_ADJ}_{\text{s}}\) to \(\text{RLGAIN\_ADJ}_{\text{r}}\).

− The mobile station shall set \(\text{REV\_FCH\_GATING\_MODE}_{\text{s}}\) to 
  \(\text{REV\_FCH\_GATING\_MODE}_{\text{r}}\).

− The mobile station shall set \(\text{REV\_PWR\_CNTL\_DELAY}_{\text{s}}\) to 
  \(\text{REV\_PWR\_CNTL\_DELAY}_{\text{r}}\) if \(\text{REV\_PWR\_CNTL\_DELAY\_INCL}_{\text{r}}\) is equal to ‘1’.

− If \(\text{3XFL\_1XRL\_INCL}_{\text{r}}\) is equal to ‘1’, the mobile station shall set 
  \(\text{1XRL\_FREQ\_OFFSET}_{\text{s}}\) to \(\text{1XRL\_FREQ\_OFFSET}_{\text{r}}\).
The mobile station shall store the channel indicator (CH_IND_s = CH_IND_r) and the mobile station shall perform the following actions:

+ If CH_IND_r equals ‘01’, the mobile station shall set FPC_FCH_INIT_SETPT_s to FPC_FCH_INIT_SETPT_r, FPC_FCH_CURR_SETPT_s to FPC_FCH_INIT_SETPT_s, FPC_FCH_FER_s to FPC_FCH_FER_r, FPC_FCH_MIN_SETPT_s to FPC_FCH_MIN_SETPT_r, FPC_FCH_MAX_SETPT_s to FPC_FCH_MAX_SETPT_r, and FPC_PRI_CHAN_s to ‘0’ if the mobile station supports any Radio Configuration greater than 2. Then for each included member of the Active Set, the mobile station shall store the following:

  - Set the PILOT_PN field to PILOT_PNr.
  - Set the ADD_PILOT_REC_INCL field to ADD_PILOT_REC_INCL_r. If ADD_PILOT_REC_INCL_r equals ‘1’, the mobile station shall store the following:

    ◊ Set the PILOT_REC_TYPE field of PILOT_REC to PILOT_REC_TYPE_r.

    ◊ If PILOT_REC_TYPE_r equals ‘000’, the mobile station shall set the TD_POWER_LEVEL field of PILOT_REC to TD_POWER_LEVEL_r and set the TD_MODE field of PILOT_REC to TD_MODE_r.

    ◊ If PILOT_REC_TYPE_r is equal to ‘001’, the mobile station shall:

      - Set the AUX_PILOT_QOF field of PILOT_REC to QOF_r.

      - Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_PILOT_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r.

    ◊ If NGHBR_PILOT_REC_TYPE_r is equal to ‘010’, the mobile station shall:

      - Set the AUX_PILOT_TD_QOF field of PILOT_REC to QOF_r.

      - Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r.

      - Set the AUX_TD_POWER_LEVEL field of PILOT_REC to AUX_TD_POWER_LEVEL_r.

      - Set the TD_MODE field of NGHBR_PILOT_REC to TD_MODE_r.

    ◊ If PILOT_REC_TYPE_r is equal to ‘011’, the mobile station shall:

      - Set the SR3_PRIMARY_PILOT field of PILOT_REC to SR3_PRIMARY_PILOTr.

      - Set the SR3_PILOT_POWER1 field of PILOT_REC to SR3_PILOT_POWER1_r.

      - Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOT_POWER2_r.
◊ If PILOT_REC_TYPE<sub>r</sub> is equal to ‘100’, the mobile station shall:

- Set the SR3_PRIMARY_PILOT field of PILOT_REC to SR3_PRIMARY_PILOT<sub>r</sub>.
- Set the SR3_PILOT_POWER1 field of PILOT_REC to SR3_PILOT_POWER1<sub>r</sub>.
- Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOT_POWER2<sub>r</sub>.
- Set the AUX_PILOT_QOF field of PILOT_REC to QOF<sub>r</sub>.
- Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_PILOT_WALSH<sub>r</sub> with the Walsh Code length specified by WALSH_LENGTH<sub>r</sub>.
- If ADD_INFO_INCL1<sub>r</sub> is equal to ‘1’, set the AUX_PILOT_QOF1 field of PILOT_REC to QOF1<sub>r</sub> and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to AUX_PILOT_WALSH1<sub>r</sub> with the Walsh Code length specified by WALSH_LENGTH1<sub>r</sub>.
- Otherwise, set the AUX_PILOT_QOF1 field of PILOT_REC to QOF<sub>r</sub> and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to AUX_PILOT_WALSH<sub>r</sub> with the Walsh Code length specified by WALSH_LENGTH<sub>r</sub>.
- If ADD_INFO_INCL2<sub>r</sub> is equal to ‘1’, set the AUX_PILOT_QOF2 field of PILOT_REC to QOF2<sub>r</sub> and set the AUX_PILOT_WALSH_CODE2 field of PILOT_REC to AUX_PILOT_WALSH2<sub>r</sub> with the Walsh Code length specified by WALSH_LENGTH2<sub>r</sub>.
- Otherwise, set the AUX_PILOT_QOF2 field of PILOT_REC to QOF<sub>r</sub> and set the AUX_PILOT_WALSH_CODE2 field of PILOT_REC to AUX_PILOT_WALSH<sub>r</sub> with the Walsh Code length specified by WALSH_LENGTH<sub>r</sub>.

- Set the PWR_COMB_IND field to PWR_COMB_INDr.
- Set the CODE_CHAN_FCH field to CODE_CHAN_FCH<sub>r</sub>.
- Set the QOF_MASK_ID_FCH field to QOF_MASK_ID_FCH<sub>r</sub>.

+ If CH_IND<sub>r</sub> equals ‘01’ and 3X_FCH_INFO_INCL<sub>r</sub> equals to ‘1’, for each included member of the Active Set, the mobile station store the following:

- If 3X_FCH_LOW_INCL<sub>r</sub> equals ‘1’, set the QOF_MASK_ID_FCH_LOW field to QOF_MASK_ID_FCH_LOW<sub>r</sub> and the CODE_CHAN_FCH_LOW field to CODE_CHAN_FCH_LOW<sub>r</sub>. Otherwise, set the QOF_MASK_ID_FCH_LOW field to QOF_MASK_ID_FCH<sub>r</sub> and the CODE_CHAN_FCH_LOW to CODE_CHAN_FCH<sub>r</sub>.
If 3X_FCH_HIGH_INCLr equals ‘1’, set the QOF_MASK_ID_FCH_HIGH field to QOF_MASK_ID_FCH_HIGHr and the CODE_CHAN_FCH_HIGH field to CODE_CHAN_FCH_HIGHr. Otherwise, set the QOF_MASK_ID_FCH_HIGH field to QOF_MASK_ID_FCHr and the CODE_CHAN_FCH_HIGH to CODE_CHAN_FCHr.

If CH_INDr equals ‘10’, the mobile station shall set FPC_DCCH_INIT_SETPTs to FPC_DCCH_INIT_SETPTsr, FPC_DCCH_CURR_SETPTs to FPC_DCCH_INIT_SETPTsr, FPC_DCCH_MIN_SETPTs to FPC_DCCH_MIN_SETPTsr, FPC_DCCH_MAX_SETPTs to FPC_DCCH_MAX_SETPTsr, and FPC_PRI_CHANs to ‘1’ if the mobile station supports any Radio Configuration greater than 2. Then for each included member of the Active Set, the mobile station shall store the following:

- Set the PILOT_PN to PILOT_PNr.
- Set the ADD_PILOT_REC_INCL field to ADD_PILOT_REC_INCLr. If ADD_PILOT_REC_INCL is equal to ‘1’, the mobile station shall store the following:
  ◊ Set the PILOT_REC_TYPE field of PILOT_REC to PILOT_REC_TYPEr.
  ◊ If PILOT_REC_TYPEr equals ‘000’, the mobile station shall set the TD_POWER_LEVEL field of PILOT_REC to TD_POWER_LEVELr and set the TD_MODE field of PILOT_REC to TD_MODEr.
  ◊ If PILOT_REC_TYPEr is equal to ‘001’, the mobile station shall:
    - Set the AUX_PILOT_QOF field of PILOT_REC to QOFr.
    - Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_PILOT_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.
  ◊ If PILOT_REC_TYPEr is equal to ‘010’, the mobile station shall:
    - Set the AUX_PILOT_TD_QOF field of PILOT_REC to QOFr.
    - Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.
    - Set the AUX_TD_POWER_LEVEL field of PILOT_REC to AUX_TD_POWER_LEVELr.
    - Set the TD_MODE field of PILOT_REC to TD_MODEr.
  ◊ If PILOT_REC_TYPEr is equal to ‘011’, the mobile station shall:
    - Set the SR3_PRIMARY_PILOT field of PILOT_REC to SR3_PRIMARY_PILOTr.
    - Set the SR3_PILOT_POWER1 field of PILOT_REC to SR3_PILOT_POWER1r.
– Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOT_POWER2r.

◊ If PILOT_REC_TYPEr is equal to ‘100’, the mobile station shall:
– Set the SR3_PRIMARY_PILOT field of PILOT_REC to SR3_PRIMARY_PIOLTr.
– Set the SR3_PILOT_POWER1 field of PILOT_REC to SR3_PILOT_POWER1r.
– Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOT_POWER2r.
– Set the AUX_PILOT_QOF field of PILOT_REC to QOFr.
– Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_PILOT_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.
– If ADD_INFO_INCL1r is equal to ‘1’, set the AUX_PILOT_QOF1 field of PILOT_REC to QOF1r and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to AUX_PILOT_WALSH1r with the Walsh Code length specified by WALSH_LENGTH1r.
– Otherwise, set the AUX_PILOT_QOF field of PILOT_REC to QOFr and set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_PILOT_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.
– If ADD_INFO_INCL2r is equal to ‘1’, set the AUX_PILOT_QOF2 field of PILOT_REC to QOF2r and set the AUX_PILOT_WALSH_CODE2 field of PILOT_REC to AUX_PILOT_WALSH2r with the Walsh Code length specified by WALSH_LENGTH2r.
– Otherwise, set the AUX_PILOT_QOF field of PILOT_REC to QOFr and set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_PILOT_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.

◊ Set the PWR_COMB_IND field to PWR_COMB_INDr.
◊ Set the CODE_CHAN_FCH field to CODE_CHAN_FCHr.
◊ Set the QOF_MASK_ID_FCH field to QOF_MASK_ID_FCHr.
◊ Set the DCCH_INCL field to DCCH_INCLR. If DCCH_INCLR equals ‘1’, the mobile station shall store the following:
  ◊ Set the CODE_CHAN_DCCH field to CODE_CHAN_DCCHr.
  ◊ Set the QOF_MASK_ID_DCCH field to QOF_MASK_ID_DCCHr.
+ If CH_IND_r equals ‘10’ and 3X_DCCH_INFO_INCL_r equals to ‘1’, for each
   included member of the Active Set, the mobile station store the following:
   
   o If 3X_DCCH_LOW_INCL_r equals ‘1’, set the QOF_MASK_ID_DCCH_LOW
     field to QOF_MASK_ID_DCCH_LOW_r and the CODE_CHAN_DCCH_LOW
     field to CODE_CHAN_DCCH_LOW_r. Otherwise, set the
     QOF_MASK_ID_DCCH_LOW field to QOF_MASK_ID_FCH_r and the
     CODE_CHAN_DCCH_LOW to CODE_CHAN_FCH_r.
   
   o If 3X_DCCH_HIGH_INCL_r equals ‘1’, set the QOF_MASK_ID_DCCH_HIGH
     field to QOF_MASK_ID_DCCH_HIGH_r and the CODE_CHAN_DCCH_HIGH
     field to CODE_CHAN_DCCH_HIGH_r. Otherwise, set the
     QOF_MASK_ID_DCCH_HIGH field to QOF_MASK_ID_FCH_r and the
     CODE_CHAN_DCCH_HIGH to CODE_CHAN_FCH_r.

+ If CH_IND_r equals ‘11’, the mobile station shall set FPC_FCCH_INIT_SETPTs
  to FPC_FCCH_INIT_SETPT_r, FPC_FCCH_CURR_SETPTs to
  FPC_FCCH_INIT_SETPT_r, FPC_FCCH_FERs to FPC_FCCH_FER_r,
  FPC_FCCH_MIN_SETPTs to FPC_FCCH_MIN_SETPT_r, FPC_FCCH_MAX_SETPTs to
  FPC_FCCH_MAX_SETPT_r, FPC_DCCH_INIT_SETPTs to
  FPC_DCCH_INIT_SETPT_r, FPC_DCCH_CURR_SETPTs to
  FPC_DCCH_INIT_SETPT_r, FPC_DCCH_FERs to FPC_DCCH_FER_r,
  FPC_DCCH_MIN_SETPTs to FPC_DCCH_MIN_SETPT_r, FPC_DCCH_MAX_SETPTs to
  FPC_DCCH_MAX_SETPT_r and FPC_PRI_CHANs
  to FPC_PRI_CHAN_r. Then for each included member of the Active Set, the
  mobile station shall store the following:
   
   o Set the PILOT_Pn to PILOT_Pn_r.

   o Set the ADD_PILOT_REC_INCL field to ADD_PILOT_REC. If
     ADD_PILOT_REC_INCL is equal to ‘1’, the mobile station shall store the
     following:
     ◊ Set the PILOT_REC_TYPE field of PILOT_REC to PILOT_REC_TYPE_r.
     ◊ If PILOT_REC_TYPE_r equals ‘000’, the mobile station shall set the
       TD_POWER_LEVEL field of PILOT_REC to TD_POWER_LEVEL_r and
       set the TD_MODE field of PILOT_REC to TD_MODE_r.
     ◊ If PILOT_REC_TYPE_r is equal to ‘001’, the mobile station shall:
       - Set the AUX_PILOT_QOF field of PILOT_REC to QOF_r.
       - Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to
         AUX_PILOT_WALSH_r with the Walsh Code length specified by
         WALSH_LENGTH_r.
     ◊ If PILOT_REC_TYPE_r is equal to ‘010’, the mobile station shall:
       - Set the AUX_PILOT_TD_QOF field of PILOT_REC to QOF_r.
– Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.

– Set the AUX_TD_POWER_LEVEL field of PILOT_REC to AUX_TD_POWER_LEVELr.

– Set the TD_MODE field of PILOT_REC to TD_MODEr.

◊ If PILOT_REC_TYPEr is equal to ‘011’, the mobile station shall:

– Set the SR3_PRIMARY_PILOT field of PILOT_REC to SR3_PRIMARY_PILOTr.

– Set the SR3_PILOT_POWER1 field of PILOT_REC to SR3_PILOT_POWER1r.

– Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOT_POWER2r.

◊ If PILOT_REC_TYPEr is equal to ‘100’, the mobile station shall:

– Set the SR3_PRIMARY_PILOT field of PILOT_REC to SR3PRIMARY_PILOTr.

– Set the SR3_PILOT_POWER1 field of PILOT_REC to SR3_PILOT_POWER1r.

– Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOT_POWER2r.

– Set the AUX_PILOT_QOF field of PILOT_REC to QOFr.

– Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_PILOT_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.

– If ADD_INFO_INCL1r is equal to ‘1’, set the AUX_PILOT_QOF1 field of PILOT_REC to QOF1r and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to AUX_PILOT_WALSH1r with the Walsh Code length specified by WALSH_LENGTH1r.

– Otherwise, set the AUX_PILOT_QOF field of PILOT_REC to QOFr and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to AUX_PILOT_WALSH1r with the Walsh Code length specified by WALSH_LENGTH1r.

– If ADD_INFO_INCL2r is equal to ‘1’, set the AUX_PILOT_QOF2 field of PILOT_REC to QOF2r and set the AUX_PILOT_WALSH_CODE2 field of PILOT_REC to AUX_PILOT_WALSH2r with the Walsh Code length specified by WALSH_LENGTH2r.
Otherwise, set the AUX_PILOT_QOF field of PILOT_REC to QOFr
and set the AUX_PILOT_WALSH_CODE field of PILOT_REC to
AUX_PILOT_WALSHr with the Walsh Code length specified by
WALSH_LENGTHr.

- Set the PWR_COMB_IND field to PWR_COMB_INDr.
- Set the CODE_CHAN_FCH field to CODE_CHAN_FCHr.
- Set the QOF_MASK_ID_FCH field to QOF_MASK_ID_FCHr.
- Set the CODE_CHAN_DCCH field to CODE_CHAN_DCCHr.
- Set the QOF_MASK_ID_DCCH field to QOF_MASK_ID_DCCHr.

+ If CH_INDr equals ‘11’ and 3X_FCH_INFO_INCLr equals to ‘1’, for each
included member of the Active Set, the mobile station store the following:

  0 If 3X_FCH_LOW_INCLr equals ‘1’, set the QOF_MASK_ID_FCH_LOW field
to QOF_MASK_ID_FCH_LOWr and the CODE_CHAN_FCH_LOW field to
CODE_CHAN_FCH_LOWr. Otherwise, set the QOF_MASK_ID_FCH_LOW field
to QOF_MASK_ID_FCHr and the CODE_CHAN_FCH_LOW to
CODE_CHAN_FCHr.

  0 If 3X_FCH_HIGH_INCLr equals ‘1’, set the QOF_MASK_ID_FCH_HIGH field
to QOF_MASK_ID_FCH_HIGHr and the CODE_CHAN_FCH_HIGH field to
CODE_CHAN_FCH_HIGHr. Otherwise, set the
QOF_MASK_ID_FCH_HIGH field to QOF_MASK_ID_FCHr and the
CODE_CHAN_FCH_HIGH to CODE_CHAN_FCHr.

+ If CH_INDr equals ‘11’ and 3X_DCCH_INFO_INCLr equals to ‘1’, for each
included member of the Active Set, the mobile station store the following:

  0 If 3X_DCCH_LOW_INCLr equals ‘1’, set the QOF_MASK_ID_DCCH_LOW field
to QOF_MASK_ID_DCCH_LOWr and the CODE_CHAN_DCCH_LOW field to
CODE_CHAN_DCCH_LOWr. Otherwise, set the
QOF_MASK_ID_DCCH_LOW field to QOF_MASK_ID_DCCHr and the
CODE_CHAN_DCCH_LOW to CODE_CHAN_DCCHr.

  0 If 3X_DCCH_HIGH_INCLr equals ‘1’, set the QOF_MASK_ID_DCCH_HIGH field
to QOF_MASK_ID_DCCH_HIGHr and the CODE_CHAN_DCCH_HIGH field to
CODE_CHAN_DCCH_HIGHr. Otherwise, set the
QOF_MASK_ID_DCCH_HIGH field to QOF_MASK_ID_DCCHr and the
CODE_CHAN_DCCH_HIGH to CODE_CHAN_DCCHr.

- The mobile station shall initialize CODE_CHAN_LIST as described in 2.6.8, and
shall set SERV_NEGs to enabled.

- If FREQ_INCLr equals ‘1’, the mobile station shall then tune to the new
frequency assignment.

- The mobile station shall then enter the Traffic Channel Initialization Substate of
the Mobile Station Control on the Traffic Channel State.
6-6. Feature Notification Message

7-7. Local Control Order

8-8. Lock Until Power-Cycled Order: The mobile station shall disable its transmitter and record the reason for the Lock Until Power-Cycled Order in the mobile station’s semi-permanent memory (LCKRSN_Ps-p equals the least significant four bits of ORDQr). The mobile station should notify the user of the locked condition. The mobile station shall enter the System Determination Substate of the Mobile Station Initialization State with a lock indication (see 2.6.1.1), and shall not enter the System Access State again until after the next mobile station power-up or until it has received an Unlock Order. This requirement shall take precedence over any other mobile station requirement specifying entry to the System Access State.

9-10. Maintenance Required Order: The mobile station shall record the reason for the Maintenance Required Order in the mobile station’s semi-permanent memory (MAINTRSNs-p equals the least significant four bits of ORDQr). The mobile station shall remain in the unlocked condition. The mobile station should notify the user of the maintenance required condition.

10-11. Registration Accepted Order:

- If ORDQr = '00000101', the mobile station shall set ROAM_INDIr = to ROAM_INDI and should display the roaming condition.
- If ORDQr = '00000111', the mobile station shall perform the following:
  - The mobile station shall set ROAM_INDIr = to ROAM_INDI and should display the roaming condition.
  - The mobile station shall set C_SIG_ENCRYPT_MODEr = to C_SIG_ENCRYPT_MODEr.
  - If USE_NEW_KEYr is not included, or is included and is set to ‘1’, the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEYs[KEY_SEQ_NEWs-p]. The mobile station shall store KEY_SIZEr in KEY_SIZEs. The mobile station shall increment the variable KEY_SEQ_NEWs-p by one (modulo 16). If ENC_KEY_SIZEr is included, the mobile station shall set ENC_KEY_SIZEs to ENC_KEY_SIZEr.
  - If USE_NEW_KEYr is included and is set to ‘0’, then the mobile station shall use KEYr as the session key.
  - If C_SIG_ENCRYPT_MODEr is not equal to ‘000’ the mobile station shall set ENC_KEYs to the most recently generated CMEAKEY in the mobile station, associated with the AUTHR of the Registration Message, and EXT_ENCRYPT_SEQ[0] and EXT_ENCRYPT_SEQ[1] to 256 × ENC_SEQ_H (the ENC_SEQ_H field in the Registration Message).

11-12. Registration Rejected Order: This order indicates that normal service is not available on this system. The mobile station shall disable the full-TMSI timer. If the received order specifies to delete the TMSI (ORDQ = ‘00000100’), the mobile station
shall set all the bits of the TMSI_CODEs-p to ‘1’. The mobile station shall enter the
System Determination Substate of the Mobile Station Initialization State with a
registration rejected indication (see 2.6.1.1).

12.13. Release Order: If NDSS_ORIGs is equal to enabled, the mobile station shall set
NDSS_ORIGs to disabled, and should indicate to the user that the call origination
has been canceled. The mobile station shall enter the Mobile Station Idle State or the
System Determination Substate of the Mobile Station Initialization State with a release
indication (see 2.6.1.1). If the mobile station enters the Mobile Station Idle State,
and if PACAs is equal to enabled, the mobile station shall set PACAs to disabled and
PACA_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the
user that the PACA call has been canceled.

13.14. Retry Order: The mobile station shall process the message as follows:
• If RETRY_TYPEr is equal to ‘000’, the mobile station shall set
  RETRY_DELAYs[RETRY_TYPE] to 0, where RETRY_TYPE is equal to ‘001’, ‘010’,
or ‘011’.
• If RETRY_TYPEr is equal to ‘001’, the mobile station shall perform the following:
  − If RETRY_DELAYr is equal to ‘00000000’, then the mobile station shall set
    RETRY_DELAYs[RETRY_TYPEr] to 0.
  − If RETRY_DELAYr is not equal to ‘00000000’, the mobile station shall set
    RETRY_DELAYs[RETRY_TYPEr] as follows:
      + If the most significant bit of the RETRY_DELAYr is ‘0’, set
        RETRY_DELAY_UNITs to 1000ms. If the most significant bit of the
        RETRY_DELAYr is ‘1’, set RETRY_DELAY_UNITs to 60000ms.
        + The mobile station shall set RETRY_DELAY_VALUEs to the seven least
          significant bits of RETRY_DELAYr.
        + The mobile station shall store the next system time 80 ms boundary +
          RETRY_DELAY_VALUEs × RETRY_DELAY_UNITs ms as
          RETRY_DELAYs[RETRY_TYPEr].

14.15. Security Mode Command Message: The mobile station shall process the message
as follows:
• The mobile station shall set C_SIG_ENCRYPT_MODEs
  =C_SIG_ENCRYPT_MODEr.
• If USE_NEW_KEYr is not included, or is included and is set to ‘1’, the mobile
  station shall use the session key generated at the most recent registration for
  encryption of signaling and user information. The mobile station shall store the
  session key in KEYs[KEY_SEQ_NEWs-p]. The mobile station shall store
  KEY_SIZEr in KEY_SIZEs. The mobile station shall then increment the variable
  KEY_SEQ_NEWs-p by one (modulo 16). If ENC_KEY_SIZEr is included, the
  mobile station shall set ENC_KEY_SIZEs to ENC_KEY_SIZEr.
If USE_NEW_KEY is included and is set to ‘0’, then the mobile station shall use 
KEYs[KEY_SEQr] as the session key.

15.16. Service Redirection Message: The mobile station shall process the message as 
follows:

- If the mobile station is directed to an unsupported operation mode or band class, 
  the mobile station shall respond with a Mobile Station Reject Order with ORDQ 
  equal to ‘00000110’ (message requires a capability that is not supported by the 
  mobile station).

- If DELETE_TMSI is equal to ‘1’, the mobile station shall set all the bits of 
  TMSI_CODEs-p to ‘1’. The mobile station shall disable the full-TMSI timer.

- The mobile station shall set RETURN_IF_FAIL = RETURN_IF_FAILr.

- If RECORD_TYPE is equal to ‘00000000’, the mobile station shall enter the 
  System Determination Substate of the Mobile Station Initialization State with an 
  NDSS off indication (see 2.6.1.1); otherwise, the mobile station shall store the 
  redirection record received in the message as REDIRECT_REC and shall enter 
  the System Determination Substate of the Mobile Station Initialization State with a 
  redirection indication (see 2.6.1.1).

16.17. SSD Update Message: The mobile station shall respond to the message as 
specified in 2.3.12.1.5.

17.18. Status Request Message: The mobile station shall disable the System Access 
State timer and respond to the message. If P_REV_IN_USEs is less than or equal to 
three, the mobile station shall respond with a Status Response Message. If 
P_REV_IN_USEs is greater than three, the mobile station shall respond with an 
Extended Status Response Message. If the message does not specify any 
qualification information (QUAL_INFO_TYPEr is equal to ‘00000000’), the mobile 
station shall include the requested information records in the response. If the 
message specifies a band class (QUAL_INFO_TYPEr is equal to ‘00000001’), the 
mobile station shall only include the requested information records for the specified 
band class (BAND_CLASSr) in the response. If the message specifies a band class 
and an operating mode (QUAL_INFO_TYPEr is equal to ‘00000010’), the mobile 
station shall only include the requested information records for the specified band 
class (BAND_CLASSr) and operating mode (OP_MODEr) in the response. If the 
message specifies a band class or a band class and an operating mode which is not 
supported by the mobile station, the mobile station shall send a Mobile Station Reject 
Order with ORDQ set to ‘00000110’ (message requires a capability that is not 
supported by the mobile station). If the response to this message exceeds the 
allowable length, the mobile station shall send a Mobile Station Reject Order with 
ORDQ set to ‘00001000’ (response message would exceed the allowable length). If 
the message specifies an information record which is not supported by the mobile 
station for the specified band class and operating mode, the mobile station shall 
send a Mobile Station Reject Order with ORDQ set to ‘00001001’ (information record 
is not supported for the specified band class and operating mode).
**18.19. TMSI Assignment Message:** The mobile station shall store the TMSI zone and code as follows:

- The mobile station shall store the length of the TMSI zone field by setting ASSIGNING_TMSI_ZONE_LEN_s-p to TMSI_ZONE_LEN_r;
- The mobile station shall store the assigning TMSI zone number by setting the ASSIGNING_TMSI_ZONE_LEN_s-p least significant octets of ASSIGNING_TMSI_ZONE_s-p to TMSI_ZONE_r, and
- The mobile station shall store the TMSI code by setting TMSI_CODE_s-p to TMSI_CODE_r.

The mobile station shall set the TMSI expiration time by setting TMSI_EXP_TIME_s-p to TMSI_EXP_TIME_r. The mobile station shall disable the full-TMSI timer. The mobile station shall then respond with a TMSI Assignment Completion Message within T56m seconds.

**19.20. User Zone Reject Message**

**20. Base Station Reject Order:**

- If ORDQ_r = ‘00000001’, the mobile station shall send a Security Mode Request Message with the ENC_SIG_H field included in it. If the mobile receives two Base Station Reject Orders without successfully decrypting any encrypted messages from the base station between the orders, the mobile station shall set REG_ENCRYPT_RESYNC to YES and enter the System Determination Substate with an encryption failure indication.

**21. Any other message:** If the mobile station receives any other message specified in Table 3.7.2.3-1, it shall ignore all Layer 3 fields. The mobile station shall ignore all other messages.

If the mobile station performs an access probe handoff or access handoff and receives any of the following messages, it shall process the message as specified in 2.6.3.1.3:

- **If the mobile station is currently monitoring the Paging Channel:**
  1. System Parameters Message
  2. Access Parameters Message
  3. Neighbor List Message
  4. Extended System Parameters Message
  5. Extended Neighbor List Message
  6. General Neighbor List Message
  7. Global Service Redirection Message
  8. Extended Global Service Redirection Message

- **If the mobile station is currently monitoring the Primary Broadcast Control Channel:**
1. ANSI-41 System Parameters Message
2. Enhanced Access Parameters Message
3. Universal Neighbor List Message
4. MC-RR Parameters Message
5. Extended Global Service Redirection Message

2.6.3.4 Mobile Station Order/Message Response Substate

In this substate, the mobile station sends a message that is a response to a message received from the base station. If the base station responds to the mobile station’s message with an authentication request, the mobile station responds in this substate.

If a message received from the base station requires a Layer 2 acknowledgment and does not require a Layer 3 response, Layer 3 shall indicate to Layer 2 that no response is outstanding (see 2.1.1.2.2.1 of [4]).

If a message received from the base station requires a Layer 2 acknowledgment and also a Layer 3 response, Layer 3 shall indicate to Layer 2 that a response is outstanding (see 2.1.1.2.2.1 of [4]).

When transmitting a response to a message received from the base station, Layer 3 shall indicate to Layer 2 that the type of the message is a response (see 2.1.1.2.2.1 of [4]).

When transmitting an autonomous message (i.e., a message that is not sent as a response to a message received from the base station), Layer 3 shall indicate to Layer 2 that the type of the message is a request other than a registration request or a message transmission request (see 2.1.1.2.2.1 of [4]).

Upon entering the Mobile Station Order/Message Response Substate, the mobile station shall send the response message.

If this substate was entered with a service release message response with success indication, the mobile station shall send a Service Release Response Message to the base station. The mobile station shall set the SUCCESS_IND field to ‘1’.

If this substate was entered with a service release message response with failure indication, the mobile station shall send a Service Release Response Message to the base station. The mobile station shall set the SUCCESS_IND field to ‘0’.

While in this substate, the mobile station shall monitor the Paging Channel or the Forward Common Control Channel. If the mobile station declares a loss of the Paging Channel or the Forward Common Control Channel (see 2.6.2.1.1.4 2.6.3.1.8), the mobile station shall perform the following:

- If PACA\_S is equal to enabled, the mobile station shall set PACA\_S to disabled and PACA\_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
- The mobile station shall declare an access attempt failure and update its registration variables as specified in 2.6.5.5.3.2.
The mobile station shall disable its transmitter.

The mobile station shall enter the **Mobile Station Idle State**.

If the mobile station receives confirmation of delivery of any message sent by the mobile station in this substate, it shall send a response in this substate if required, and shall then enter the **Mobile Station Idle State**.

If PACAₚ is equal to enabled, the mobile station shall set PACA_CANCEL to ‘1’ when the user directs the mobile station to cancel a PACA call.

If the mobile station is to exit the **System Access State** as a result of processing Layer 3 fields of a message requiring an acknowledgment, the mobile station shall exit the **System Access State** after Layer 3 receives an indication from Layer 2 that the acknowledgment to the message has been sent and acknowledged.

If Layer 3 receives a message with an indication from Layer 2 that an access attempt for a message being transmitted was not terminated as a result of processing the Layer 2 fields of the received message, the mobile station shall ignore the received message.

The following directed messages and orders can be received. If any field value of the message or order is outside its permissible range, the mobile station may send a **Mobile Station Reject Order** with ORDQ equal to ‘00000100’ (message field not in valid range).

1. **Authentication Challenge Message**: The mobile station shall respond to the message as specified in 2.3.12.1.4, regardless of the value of AUTHₛₚ.

2. **Base Station Challenge Confirmation Order**: The mobile station shall respond to the message as specified in 2.3.12.1.5.

3. **Base Station Reject Order**:

   - If ORDQᵢ = ‘00000001’, the mobile station shall send a **Security Mode Request Message** with the ENC_SIG_H field included in it. If the mobile receives two **Base Station Reject Orders** without successfully decrypting any encrypted messages from the base station between the orders, the mobile station shall set REG_ENCRYPT_RESYNC to YES and the mobile station shall go to the **System Determination Substate** with an encryption failure indication.

4. **Data Burst Message**

5. **Feature Notification Message**

6. **Local Control Order**

7. **Lock Until Power-Cycled Order**: The mobile station shall disable its transmitter and record the reason for the **Lock Until Power-Cycled Order** in the mobile station’s semi-permanent memory (LCKRSNₚₛ₋ₚ equals the least significant four bits of ORDQᵢ). The mobile station should notify the user of the locked condition. The mobile station shall enter the **System Determination Substate** of the **Mobile Station Initialization State** with a lock indication (see 2.6.1.1), and shall not enter the **System Access State** again until after the next mobile station power-up or until it has received an **Unlock Order**. This requirement shall take precedence over any other mobile station requirement specifying entry to the **System Access State**.
7-8. Maintenance Required Order: The mobile station shall record the reason for the Maintenance Required Order in the mobile station’s semi-permanent memory (MAINTRSNs-p equals the least significant four bits of ORDQr). The mobile station shall remain in the unlocked condition. The mobile station should notify the user of the maintenance required condition.

8.9. Registration Accepted Order:

- If ORDQr = ‘00000101’, the mobile station shall set ROAM_INDIs = ROAM_INDIr and should display the roaming condition.
- If ORDQr = ‘00000111’, the mobile station shall perform the following:
  - The mobile station shall set ROAM_INDIs = ROAM_INDIr and should display the roaming condition.
  - The mobile station shall set C_SIG_ENCRYPT_MODEs = C_SIG_ENCRYPT_MODEr.
  - If USE_NEW_KEYr is not included, or is included and is set to ‘1’, the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEYs[KEY_SEQ_NEWs-p]. The mobile station shall store KEY_SIZEr in KEY_SIZEs. The mobile station shall increment the variable KEY_SEQ_NEWs-p by one (modulo 16). If ENC_KEY_SIZEr is included, the mobile station shall set ENC_KEY_SIZEs to ENC_KEY_SIZEr.
  - If USE_NEW_KEYr is included and is set to ‘0’, then the mobile station shall use KEYs[KEY_SEQr] as the session key.
  - If C_SIG_ENCRYPT_MODEr is not equal to ‘000’, the mobile station shall set ENC_KEYs to the most recently generated CMEAKEY in the mobile station, associated with the AUTHR of the Registration Message, and EXT_ENCRYPT_SEQ[0] and EXT_ENCRYPT_SEQ[1] to 256 × ENC_SEQ_H (the ENC_SEQ_H field in the Registration Message).

9-10. Registration Rejected Order: This order indicates that normal service is not available on this system. The mobile station shall disable the full-TMSI timer. If the received order specifies to delete the TMSI (ORDQ = ‘00000100’), the mobile station shall set all the bits of the TMSI_CODEs-p to ‘1’. The mobile station shall enter the System Determination Substate of the Mobile Station Initialization State with a registration rejected indication (see 2.6.1.1).

10-11. Retry Order: The mobile station shall process the message as follows:

- If RETRY_TYPEr is equal to ‘000’, the mobile station shall set RETRY_DELAYs[RETRY_TYPE] to 0, where RETRY_TYPE is equal to ‘001’, ‘010’, or ‘011’.
- If RETRY_TYPEr is equal to ‘001’, the mobile station shall perform the following:
  - If RETRY_DELAYr is equal to ‘00000000’, then the mobile station shall set RETRY_DELAYs[RETRY_TYPEr] to 0.
- If RETRY_DELAY_r is not equal to ‘00000000’, the mobile station shall set RETRY_DELAY_s[RETRY_TYPE_r] as follows:
  + If the most significant bit of the RETRY_DELAY_r is ‘0’, set RETRY_DELAY_UNIT_s to 1000ms. If the most significant bit of the RETRY_DELAY_r is ‘1’, set RETRY_DELAY_UNIT_s to 60000ms.
  + The mobile station shall set RETRY_DELAY_VALUE_s to the seven least significant bits of RETRY_DELAY_r.
  + The mobile station shall store the next system time 80 ms boundary + RETRY_DELAY_VALUE_s × RETRY_DELAY_UNIT_s ms as RETRY_DELAY_s[RETRY_TYPE_r].

4.12. Security Mode Command Message: The mobile station shall process the message as follows:

- The mobile station shall set C_SIG_ENCRYPT_MODE_s to C_SIG_ENCRYPT_MODE_r.
- If USE_NEW_KEY_r is not included, or is included and is set to ‘1’, the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEY_s[KEY_SEQ_NEW_s-p]. The mobile station shall store KEY_SEQ_NEW_s-p by one (modulo 16) if ENC_KEY_SIZE_r is included, the mobile station shall set ENC_KEY_SIZE_s to ENC_KEY_SIZE_r.
- If USE_NEW_KEY_r is included and is set to ‘0’, then the mobile station shall use KEY_s[KEY_SEQ_r] as the session key.

4.13. Service Redirection Message: The mobile station shall process the message as follows:

- If the mobile station is directed to an unsupported operation mode or band class, the mobile station shall respond with a Mobile Station Reject Order with ORDQ equal to ‘00000110’ (message requires a capability that is not supported by the mobile station).
- If DELETE_TMSI_r is equal to ‘1’, the mobile station shall set all the bits of TMSI_CODE_s-p to ‘1’. The mobile station shall disable the full-TMSI timer.
- The mobile station shall set RETURN_IF_FAIL_s = RETURN_IF_FAIL_r.
- If RECORD_TYPE_r is equal to ‘00000000’, the mobile station shall enter the System Determination Substate of the Mobile Station Initialization State with an NDSS off indication (see 2.6.1.1); otherwise, the mobile station shall store the redirection record received in the message as REDIRECT_REC_s and shall enter the System Determination Substate of the Mobile Station Initialization State with a redirection indication (see 2.6.1.1).

4.14. SSD Update Message: The mobile station shall respond to the message as specified in 2.3.12.1.5.
14-15. **Status Request Message:** The mobile station shall disable the System Access State timer and respond to the message. If \( P_{\text{REV\_IN\_USE}} \) is less than or equal to three, the mobile station shall respond with a Status Response Message. If \( P_{\text{REV\_IN\_USE}} \) is greater than three, the mobile station shall respond with an Extended Status Response Message. If the message does not specify any qualification information (QUAL_INFO_TYPE\(_r\) is equal to ‘00000000’), the mobile station shall include the requested information records in the response. If the message specifies a band class (QUAL_INFO_TYPE\(_r\) is equal to ‘00000001’), the mobile station shall only include the requested information records for the specified band class (BAND_CLASS\(_r\)) in the response. If the message specifies a band class and an operating mode (QUAL_INFO_TYPE\(_r\) is equal to ‘00000010’), the mobile station shall only include the requested information records for the specified band class (BAND_CLASS\(_r\)) and operating mode (OP_MODE\(_r\)) in the response. If the message specifies a band class or a band class and an operating mode which is not supported by the mobile station, the mobile station shall send a Mobile Station Reject Order with ORDQ set to ‘00000110’ (message requires a capability that is not supported by the mobile station). If the response to this message exceeds the allowable length, the mobile station shall send a Mobile Station Reject Order with ORDQ set to ‘00001000’ (response message would exceed the allowable length). If the message specifies an information record which is not supported by the mobile station for the specified band class and operating mode, the mobile station shall send a Mobile Station Reject Order with ORDQ set to ‘00001001’ (information record is not supported for the specified band class and operating mode).

15-16. **TMSI Assignment Message:** The mobile station shall store the TMSI zone and code as follows:

- The mobile station shall store the length of the TMSI zone field by setting ASSIGNING_TMSI_ZONE_LEN\(_{s-p}\) to TMSI_ZONE_LEN\(_r\).
- The mobile station shall store the assigning TMSI zone number by setting the ASSIGNING_TMSI_ZONE_LEN\(_{s-p}\) least significant octets of ASSIGNING_TMSI_ZONE\(_{s-p}\) to TMSI_ZONE\(_r\), and
- The mobile station shall store the TMSI code by setting TMSI_CODE\(_{s-p}\) to TMSI_CODE\(_r\).

The mobile station shall set the TMSI expiration time by setting TMSI_EXP_TIME\(_{s-p}\) to TMSI_EXP_TIME\(_r\). The mobile station shall disable the full-TMSI timer. The mobile station shall then respond with a TMSI Assignment Completion Message within \( T_{56m} \) seconds.

16-17. **User Zone Reject Message**

17-18. Any other message: If the mobile station receives any other message specified in Table 3.7.2.3-1, it shall ignore all Layer 3 fields. The mobile station shall ignore all other messages.

18. **Base Station Reject Order:**
If \( \text{ORD}_{1} = '00000001' \), the mobile station shall send a Security Mode Request Message with the ENC_SIG_H field included in it. If the mobile receives two Base Station Reject Orders without successfully decrypting any encrypted messages from the base station between the orders, the mobile station shall set \( \text{REG}_{\text{ENCRYPT} \_\text{RE} \_\text{SYNC}} \) to YES and the mobile station shall go to the System Determination Substate with an encryption failure indication.

2.6.3.5 Mobile Station Origination Attempt Substate

In this substate, the mobile station sends an Origination Message. If the base station responds to the Origination Message with an authentication request, the mobile station responds in this substate.

If a message received from the base station requires a Layer 2 acknowledgment and does not require a Layer 3 response, Layer 3 shall indicate to Layer 2 that no response is outstanding (see 2.1.1.2.2.1 of [4]).

If a message received from the base station requires a Layer 2 acknowledgment and also a Layer 3 response, Layer 3 shall indicate to Layer 2 that a response is outstanding (see 2.1.1.2.2.1 of [4]).

When transmitting a response to a message received from the base station, Layer 3 shall indicate to Layer 2 that the type of the message is a response (see 2.1.1.2.2.1 of [4]).

When transmitting an autonomous message (i.e., a message that is not sent as a response to a message received from the base station), Layer 3 shall indicate to Layer 2 that the type of the message is a request other than a registration request or a message transmission request (see 2.1.1.2.2.1 of [4]).

Upon entering the Mobile Station Origination Attempt Substate, the mobile station shall set \( \text{RLGAIN}_{\text{ADJ}_s} \) to ‘0000’ and perform the following:

• The mobile station shall exit the Mobile Station Origination Attempt Substate, shall enter either the Mobile Station Idle State or the System Determination Substate with an ACCT blocked indication, and should indicate to the user that the call has terminated if all of the following conditions are true:
  - \( \text{P}_{\text{REV} \_\text{IN} \_\text{USE}_s} \) is greater than six.
  - \( \text{ACCT}_{\text{INCL}_\text{EMG}_s} \) is equal to ‘1’ or the mobile station determines that the call is not an emergency call.
  - \( \text{ACCT} \) is enabled for the requested service option number, due to either of the following two conditions:
    + the requested service option number is equal to an ACCT\_SO entry in ACCT\_SO\_LIST, or
    + the service option group number of the requested service option is equal to an ACCT\_SO\_GRP entry in ACCT\_SO\_GRP\_LIST.

• If the substate was entered with an origination indication, the mobile station shall send the Origination Message as an r-csch request.
If the substate was entered with a PACA response indication, the mobile station shall send the *Origination Message* as an r-csch response using the access procedures specified in 2.6.3.1.4.2. The mobile station shall include the dialed digits [if any] from the previous origination attempt in the *Origination Message*.

If the origination is a result of NDSS_ORIGs being equal to enabled, the mobile station shall include in the *Origination Message* the dialed digits [if any] recorded from the previous origination attempt.

If the mobile station has a stored service configuration (that is, parameters conveyed by both the Service Configuration information record and the Non-negotiable Service Configuration information record), SYNC_IDs is not equal to NULL, and USE_SYNC_IDs is equal to ‘1’, the mobile station may include the SYNC_ID field in the *Origination Message* and, if included, shall set it to the 16-bit CRC computed over the entire stored service configuration as specified in 2.6.11_SYNC_IDs corresponding to the stored service configuration.

The mobile station shall include in the *Origination Message* as many of the dialed digits as possible without exceeding the message capsule size. When calculating the number of dialed digits to be included in the *Origination Message*, the mobile station shall assume the following if P_REV_IN_USEs is greater than three:

- The number of additional reported pilots (NUM_ADD_PILOTS) is equal to five (see 2.6.3.1.1.7 and 2.7.1.3.1.3) so that up to five additional pilots may be reported in any access probe, and

- The number of alternative service option numbers (NUM_ALT_SO) is less than or equal to the maximum alternative service option numbers (MAX_NUM_ALT_SOs).

If PACAs is equal to enabled, the mobile station shall set the PACA_REORIG field of the *Origination Message* to ‘1’; otherwise, the mobile station shall set the field to ‘0’.

While in this substate, the mobile station shall monitor the Paging Channel or the Forward Common Control Channel. The mobile station may perform an access probe handoff or an access handoff as described in 2.6.3.1.3.2 and 2.6.3.1.3.3. If the mobile station declares a loss of the Paging Channel or the Forward Common Control Channel (see 2.6.2.1.1.4 2.6.3.1.8) during an access attempt, the mobile station may perform an access probe handoff; otherwise, it shall declare an access attempt failure and shall perform the following:

- If the mobile station is monitoring the Paging Channel, the mobile station shall set SYS_PAR_MSG_SEQs and ACC_MSG_SEQs to NULL.

- If the mobile station is monitoring the Forward Common Control Channel, the mobile station shall set MC_RR_PAR_MSG_SEQs and ACC_MSG_SEQs to NULL.

- If PACAs is equal to enabled, the mobile station shall set PACAs to disabled and PACA_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.

- If NDSS_ORIGs is equal to enabled, the mobile station shall set NDSS_ORIGs to disabled, and should indicate to the user that the call origination is canceled.
The mobile station shall update its registration variables as specified in 2.6.5.5.3.2.

The mobile station shall disable its transmitter and enter the *Mobile Station Idle State*.

If the mobile station receives confirmation of delivery of any message sent by the mobile station in this substate, the mobile station shall perform an access handoff if all of the following conditions hold:

- The mobile station declares a loss of the Paging Channel or the Forward Common Control Channel.
- The mobile station is permitted to perform an access handoff (see 2.6.3.1.3.2) and there are pilots other than the active pilot in the access handoff list (see 2.6.3.1.3.2).

If the mobile station declares a loss of the Paging Channel or the Forward Common Control Channel and does not perform an access handoff, the mobile station shall perform the following:

- If the mobile station is monitoring the Paging Channel, the mobile station shall set SYS_PAR_MSG_SEQs and ACC_MSG_SEQs to NULL.
- If the mobile station is monitoring the Forward Common Control Channel, the mobile station shall set MC_RR_PAR_MSG_SEQs and ACC_MSG_SEQs to NULL.
- If PACAs is equal to enabled, the mobile station shall set PACAs to disabled and PACA.Cancel to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
- If NDSS.ORIGs is equal to enabled, the mobile station shall set NDSS.ORIGs to disabled and should indicate to the user that the call origination is canceled.
- The mobile station shall disable its transmitter and enter the *Mobile Station Idle State*.

If the mobile station receives confirmation of delivery of the *Origination Message*, the mobile station shall update its registration variables with respect to the base station to which the first access probe was transmitted after entering the *System Access State* as specified in 2.6.5.5.3.1.

The mobile station shall set and disable the *System Access State* timer as follows:

- The mobile station shall disable the timer whenever it begins an access attempt.
- The mobile station shall set the timer to $T_{42m}$ seconds whenever it ends an access attempt.
- The mobile station shall disable the timer whenever it exits the *System Access State*.

If the *System Access State* timer expires while in this substate, the mobile station shall perform the following:

- If PACAs is equal to enabled, the mobile station shall set PACAs to disabled and PACA_Cancel to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
• If NDSS_ORIGs is equal to enabled, the mobile station shall set NDSS_ORIGs to
disabled, and should indicate to the user that the call origination is canceled.

• If the mobile station is monitoring the Paging Channel, the mobile station shall set
SYS_PAR_MSG_SEQs and ACC_MSG_SEQs to NULL and enter the Mobile Station Idle
State.

• If the mobile station is monitoring the Forward Common Control Channel, the
mobile station shall set MC_RR_PAR_MSG_SEQs and ACC_MSG_SEQs to NULL and
enter the Mobile Station Idle State.

If the mobile station is directed by the user to disconnect the call, the mobile station shall
perform the following actions:

• Layer 3 shall send an L2-Supervision.Request primitive to Layer 2 to abort any
access attempt in progress.

• The mobile station shall send the Release Order (normal release) in assured mode
requiring confirmation of delivery.

• After receiving confirmation of delivery of the Release Order, the mobile station shall
enter the System Determination Substate of the Mobile Station Initialization State with
a release indication (see 2.6.1.1).

If the mobile station is directed by the user to power off, the mobile station shall perform
the following actions:

• Layer 3 shall send an L2-Supervision.Request primitive to Layer 2 to abort any
access attempt in progress.

• The mobile station shall send the Release Order (with power-down indication) in
assured mode requiring confirmation of delivery.

• After receiving confirmation of delivery of the Release Order, the mobile station shall
perform power-down registration procedures (see 2.6.5.1.2).

• The mobile station may power off.

If the mobile station receives a Channel Assignment Message or the Extended Channel
Assignment Message, Layer 3 shall send a dedicated channel assignment indication to Layer
2 (see 2.1.2.1.2 of [4]). If the mobile station has not received confirmation of delivery of the
Origination Message before receiving the Channel Assignment Message or the Extended
Channel Assignment Message, the mobile station shall update its registration variables with
respect to the base station to which the first access probe was transmitted after entering
the System Access State, as specified in 2.6.5.5.3.1.

If the mobile station is to exit the System Access State as a result of processing Layer 3
fields of a message requiring an acknowledgment, the mobile station shall exit the System
Access State after Layer 3 receives an indication from Layer 2 that the acknowledgment to
the message has been sent and acknowledged.

If Layer 3 receives a message other than a Channel Assignment Message or an Extended
Channel Assignment Message with an indication from Layer 2 that an access attempt for a
message being transmitted was not terminated as a result of processing the Layer 2 fields of
the received message, the mobile station shall ignore the received message.

The following directed messages and orders can be received. If any field value of the message or order is outside its permissible range, the mobile station may send a Mobile Station Reject Order with ORDQ equal to ‘00000100’ (message field not in valid range).

1. **Authentication Challenge Message:** The mobile station shall respond to the message as specified in 2.3.12.1.4, regardless of the value of AUTHS.

2. **Base Station Challenge Confirmation Order:** The mobile station shall respond to the message as specified in 2.3.12.1.5.

3. **Base Station Reject Order:**
   - If ORDQ_r = ‘00000000’, the mobile station shall set ENC_KEY_s to NULL and set C_SIG_ENCRYPT_MODE to ‘000’. The mobile station shall re-originate by sending a new Origination Message.
   - If ORDQ_r = ‘00000001’, the mobile station shall send a Security Mode Request Message with the ENC_SIG_H field included in it. If the mobile receives two Base Station Reject Orders without successfully decrypting any encrypted messages from the base station between the orders, the mobile station shall set REG_ENCRYPT_RESYNC to YES and the mobile station shall go to the System Determination Substate with an encryption failure indication.

4. **Channel Assignment Message:** The mobile station shall process the message as follows:
   - If ASSIGN_MODE_r equals ‘000’, the mobile station shall perform the following actions:
     - The mobile station shall set CH_IND_s to ‘01’.
     - The mobile station shall store the frame offset (FRAME_OFFSET_s = FRAME_OFFSET_r), the message encryption mode indicator (ENCRYPT_MODE_s = ENCRYPT_MODE_r), and, if FREQ_INCL_r equals ‘1’, the Frequency Assignment (CDMA_FREQ_s = CDMA_FREQ_r).
     - The mobile station shall perform the following procedures in the order listed below:
       + If D_SIG_ENCRYPT_MODE_r is included, the mobile station shall perform the following:
         - If D_SIG_ENCRYPT_MODE_r is equal to ‘000’, the mobile station shall set D_SIG_ENCRYPT_MODE_s to C_SIG_ENCRYPT_MODE_s; otherwise, the mobile station shall set D_SIG_ENCRYPT_MODE_s to D_SIG_ENCRYPT_MODE_r, ENC_KEY_s to the most recently generated CMEAKEY in the mobile station associated with the AUTHR of the Origination Message, and EXT_ENCRYPT_SEQ[0] and EXT_ENCRYPT_SEQ[1] to $256 \times ENC_SEQ_H$ (the ENC_SEQ_H field in the Origination Message).
+ If USE_NEW_KEY is not included, or is included and is set to ‘1’, the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEYs[KEY_SEQ_NEWp−p]. The mobile station shall then increment the variable KEY_SEQ_NEWp by one (modulo 16).

If ENC_KEY_SIZE is included, the mobile station shall set ENC_KEY_SIZE to ENC_KEY_SIZE.

− If USE_NEW_KEY is included and is set to ‘0’ then the mobile station shall use KEYs[KEY_SEQp] as the session key.

+ If C_SIG_ENCRYPT_MODE is included, the mobile station shall set C_SIG_ENCRYPT_MODEs to C_SIG_ENCRYPT_MODEr.

− If PACA is equal to enabled, the mobile station shall set PACAs to disabled and PACA_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call is proceeding.

− The mobile station shall initialize the CODE_CHAN_LIST as described in 2.6.8, shall set SERV_NEGs to disabled, and shall enter the Traffic Channel Initialization Substate of the Mobile Station Control on the Traffic Channel State.

• If ASSIGN_MODEr equals ‘001’, the mobile station shall perform the following actions:

− If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.

− If a CDMA channel (CDMA_FREQ) is specified in the assignment, the mobile station shall set CDMACHs = CDMA_FREQr, tune to the new Frequency Assignment, and measure the strength of each pilot listed in the assignment using the Neighbor Set search procedures specified in 2.6.6.2.1 and 2.6.6.2.2.

− The mobile station shall set CONFIG_MSG_SEQ and ACC_MSG_SEQs to NULL (see 2.6.2.2) and shall set PILOT_PNs to the pilot PN sequence offset of the strongest pilot in the list.

− If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQs, NGHBR_LST_MSG_SEQs, EXT_NGHBR_LST_MSG_SEQs, GEN_NGHBR_LST_MSG_SEQs, LST_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs, EXT_SYS_PARAM_MSG_SEQs, USER_ZONE_ID_MSG_SEQs, PRI_NGHBR_LST_MSG_SEQs, GLOB_SERV_REDIR_MSG_SEQs, and EXT_GLOB_SERV_REDIR_MSG_SEQs to NULL.
If the mobile station has not stored configuration parameters for the Primary Forward Common Control Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set EXT_NGHBR_LST_MSG_SEQs, GEN_NGHBR_LST_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs, EXT_SYS_PAR_MSG_SEQs, USER_ZONE_ID_MSG_SEQs, PRI_NGHBR_LIST_MSG_SEQs, GLOB_SERV_REDIR_MSG_SEQs, A41_SYS_PAR_MSG_SEQs, MC_RR_PAR_MSG_SEQs, UNIV_NGHBR_LIST_MSG_SEQs, and EXT_GLOB_SERV_REDIR_MSG_SEQs to NULL.

The mobile station shall set PAGE_CHANs to ‘1’ and PAGECHs to the Primary Paging Channel. If the mobile station was monitoring Forward Common Control Channel, the mobile station shall set the PRATs to ‘00’. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.

The mobile station shall set FCCCH_CHANs to ‘1’ and FCCCH_IDs to the Primary Forward Common Control Channel. The mobile station shall then begin monitoring the Primary Forward Common Control Channel of the selected base station.

If RESPOND_r is equal to ‘1’, the mobile station shall enter the Update Overhead Information Substate with an origination indication.

If ASSIGN_MODE_r equals ‘010’, the mobile station shall perform the following actions:

- If the mobile station does not support analog operation in the requested band class, the mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and the mobile station shall remain in the Mobile Station Origination Attempt Substate.

- If the mobile station supports analog operation in the requested band class and RESPOND_r equals ‘1’, the mobile station shall perform the following actions:
  - If USE_ANALOG_SYS_r equals ‘0’, the mobile station shall perform the following actions:
    - If PACA_s is equal to enabled, the mobile station shall set PACA_s to disabled and PACA_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
    - The mobile station shall enter the analog Initialization Task with an origination indication (see 2.6.1).
  - If USE_ANALOG_SYS_r equals ‘1’, the mobile station shall perform the following actions:
The mobile station shall set SERVSYSₜ to SYS_A if ANALOG_SYSₜ is equal to '0', or shall set SERVSYSₜ to SYS_B if ANALOG_SYSₜ is equal to '1'.

If PACAₛ is equal to enabled, the mobile station shall set PACAₛ to disabled and PACACANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.

The mobile station shall then enter the analog Initialization Task with an origination indication (see 2.6.1).

- If ASSIGN_MODEᵣ equals '011', the mobile station shall perform the following actions:
  - If the mobile station does not support analog operation in the requested band class, the mobile station shall send a Mobile Station Reject Order with the ORDQ field set to '00000110' (capability not supported by the mobile station) and the mobile station shall remain in the Mobile Station Origination Attempt Substate.
  - If the mobile station supports analog operation in the requested band class:
    + If the analog channel type is '00', the mobile station shall perform the following actions:
      o The mobile station shall store the system identification (SIDₛ = SIDᵣ), the voice mobile station attenuation code (VMACₛ = VMACᵣ), the voice channel number (ANALOG_CHANₛ = ANALOG_CHANᵣ), the SAT color code (SCCₛ = SCCᵣ), and the message encryption mode indicator (MEMₛ = MEMᵣ).
      o The mobile station shall set DTXₛ to '00'.
      o If PACAₛ is equal to enabled, the mobile station shall set PACAₛ to disabled and PACACANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call is proceeding.
      o The mobile station shall enter the Confirm Initial Voice Channel Task (see 2.6.4.2) with an origination indication.
    + If the analog channel type is not '00', the mobile station shall perform the following actions:
      ◊ The mobile station shall store the system identification (SIDₛ = SIDᵣ), the voice mobile station attenuation code (VMACₛ = VMACᵣ), the voice channel number (ANALOG_CHANₛ = ANALOG_CHANᵣ), the message encryption mode indicator (MEMₛ = MEMᵣ), the analog channel type (AN_CHAN_TYPEₛ = AN_CHAN_TYPEᵣ) and the digital SAT code (DSCCₛ = DSCC_MSBᵣ × 4 + SCCᵣ).
◊ The mobile station shall set DTXs to ‘00’.

◊ If PACAs is equal to enabled, the mobile station shall set PACAs to disabled, shall disable the PACA state timer, and should indicate to the user that the PACA call is proceeding.

◊ The mobile station shall enter the Confirm Initial Narrow Analog Voice Channel Task (see 2.6.5.2A of [22]) with an origination indication.

○ If the mobile station does not support narrow analog mode, the mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and the mobile station shall remain in the Mobile Station Origination Attempt Substate of the System Access State.

• If ASSIGN_MODEr equals ‘100’, the mobile station shall perform the following actions:
  − The mobile station shall set CH_INDs to ‘01’.
  − If GRANTED_MODEr equals ‘00’, and the multiplex option or radio configuration specified in the DEFAULT_CONFIG field is not supported by the mobile station, the mobile station shall send a Mobile Station Reject Order with ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in Mobile Station Origination Attempt Substate.
  − If FREQ_INCLr equals ‘0’, the mobile station shall perform the following actions:
    † The mobile station shall store the frame offset (FRAME_OFFSETs = FRAME_OFFSETr), the message encryption mode indicator (ENCRYPT_MODEs = ENCRYPT_MODEr), the granted mode (GRANTED_MODEs = GRANTED_MODEr), and the default configuration (DEFAULT_CONFIGs = DEFAULT_CONFIGr).
    † The mobile station shall perform the following procedures in the order listed below:
      ○ If D_SIG_ENCRYPT_MODEr is included, the mobile station shall perform the following:
        ◊ If D_SIG_ENCRYPT_MODEr is equal to ‘000’, the mobile station shall set D_SIG_ENCRYPT_MODEs to C_SIG_ENCRYPT_MODEs; otherwise, the mobile station shall set D_SIG_ENCRYPT_MODEs to D_SIG_ENCRYPT_MODEr, ENC_KEYs to the most recently generated CMEAKEY in the mobile station, associated with the AUTHR of the Origination Message, and EXT_ENCRYPT_SEQ[0] and EXT_ENCRYPT_SEQ[1] to \(256 \times \text{ENC_SEQ_H}\) (the ENC_SEQ_H field in the Origination Message).
If USE_NEW_KEY is not included, or is included and is set to ‘1’, the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEYs[KEY_SEQ_NEW]. The mobile station shall store KEY_SIZEr to KEY_SIZEs. The mobile station shall then increment the variable KEY_SEQ_NEW by one (modulo 16). If ENC_KEY_SIZEr is included, the mobile station shall set ENC_KEY_SIZEs to ENC_KEY_SIZEr.

If USE_NEW_KEY is included and is set to ‘0’ then the mobile station shall use KEYs[KEY_SEQr] as the session key.

If C_SIG_ENCRYPT_MODE is included, the mobile station shall set C_SIG_ENCRYPT_MODEs to C_SIG_ENCRYPT_MODEr.

+ The mobile station shall set SERV_NEGs to enabled.

+ If PACAs is equal to enabled, the mobile station shall set PACAs equal to disabled and PACA_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call is proceeding.

+ The mobile station shall initialize CODE_CHAN_LIST as described in 2.6.8.

+ The mobile station shall then enter the Traffic Channel Initialization Substate of the Mobile Station Control on the Traffic Channel State.

− If FREQ_INCLr equals ‘1’, the mobile station shall perform the following actions:

  + If the band class is not supported by the mobile station, the mobile station shall send a Mobile Station Reject Order with ORDQ field set to ‘00000110' (capability not supported by the mobile station) and remain in the Mobile Station Origination Attempt Substate.

  + If the band class is supported by the mobile station, the mobile station shall perform the following actions:

    o The mobile station shall store the frame offset (FRAME_OFFSETs = FRAME_OFFSETr), the message encryption mode indicator (ENCRYPT_MODEs = ENCRYPT_MODEr), the granted mode (GRANTED_MODEs = GRANTED_MODEr), the default configuration (DEFAULT_CONFIGs = DEFAULT_CONFIGr), the band class (CDMABANDs = BAND_CLASSr), and the Frequency Assignment (CDMACHs = CDMA_FREQr).

    o The mobile station shall perform the following procedures in the order listed below:

      ◊ If D_SIG_ENCRYPT_MODEr is included, the mobile station shall perform the following:

        – If D_SIG_ENCRYPT_MODEr is equal to ‘000’, the mobile
station shall set D_SIG_ENCRYPT_MODEs to C_SIG_ENCRYPT_MODEs; otherwise, the mobile station shall set D_SIG_ENCRYPT_MODEs to D_SIG_ENCRYPT_MODEr, ENC_KEYs to the most recently generated CMEAKEY in the mobile station, associated with the AUTHR of the Origination Message, and EXT_ENCRYPT_SEQ[0] to 256 \times ENC_SEQ_H (the ENC_SEQ_H field in the Origination Message).

◊ If USE_NEW_KEYr is not included, or is included and is set to ‘1’, the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEYr[KEY_SEQ_NEWr]. The mobile station shall store KEY_SIZEr to KEY_SIZEs. The mobile station shall then increment the variable KEY_SEQ_NEWs by one (modulo 16). If ENC_KEY_SIZEr is included, the mobile station shall set ENC_KEY_SIZEs to ENC_KEY_SIZEr.

◊ If USE_NEW_KEYr is included and is set to ‘0’ then the mobile station shall use KEYr[KEY_SEQr] as the session key.

◊ If C_SIG_ENCRYPT_MODE is included, the mobile station shall set C_SIG_ENCRYPT_MODEs to C_SIG_ENCRYPT_MODEr.

0 The mobile station shall set SERV_NEGs to enabled.

0 If PACA is equal to enabled, the mobile station shall set PACAs to disabled and PACA_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call is proceeding.

0 The mobile station shall initialize the CODE_CHAN_LIST as described in 2.6.8.

0 The mobile station shall then tune to the new Frequency Assignment and enter the Traffic Channel Initialization Substate of the Mobile Station Control on the Traffic Channel State.

• If ASSIGN_MODEr equals ‘101’, the mobile station shall perform the following actions:
  – If FREQ_INCLr equals ‘0’, the mobile station shall perform the following actions:
    + If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.
    + The mobile station shall set CONFIG_MSG_SEQs and ACC_MSG_SEQs to NULL (see 2.6.2.2) and shall set PILOT_PNs to the pilot PN sequence offset of the strongest pilot in the list (PILOT_PNr).
If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQs, NGHBR_LST_MSG_SEQs, EXT_NGHBR_LST_MSG_SEQs, GEN_NGHBR_LST_MSG_SEQs, CHAN_LST_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs, EXT_SYS_PAR_MSG_SEQs, USER_ZONE_ID_MSG_SEQs, PRI_NGHBR_LST_MSG_SEQs, GLOB_SERV_REDIR_MSG_SEQs, and EXT_GLOB_SERV_REDIR_MSG_SEQs to NULL.

If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set EXT_CHAN_LST_MSG_SEQs, EXT_SYS_PAR_MSG_SEQs, USER_ZONE_ID_MSG_SEQs, PRI_NGHBR_LST_MSG_SEQs, GLOB_SERV_REDIR_MSG_SEQs, A41_SYS_PAR_MSG_SEQs, MC_RR_PAR_MSG_SEQs, UNIV_NGBHR_LST_MSG_SEQs, and EXT_GLOB_SERV_REDIR_MSG_SEQs to NULL.

The mobile station shall set PAGE_CHAN_s to '1' and PAGECH_s to the Primary Paging Channel. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.

The mobile station shall set FCCCH_CHAN_s to '1' and FCCCH_ID_s to the Primary Forward Common Control Channel. The mobile station shall then begin monitoring the Primary Forward Common Control Channel of the selected base station.

If RESPOND_r is equal to '1', the mobile station shall perform the following:

- If the Channel Assignment Message does not require an acknowledgment, the mobile station shall enter the Update Overhead Information Substate with a page response retransmission indication within T34m seconds after receiving the Channel Assignment Message.

- If the Channel Assignment Message requires an acknowledgment, the mobile station shall enter the Update Overhead Information Substate with a page response retransmission indication within T34m seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the Channel Assignment Message has been sent and acknowledged.

If RESPOND_r is equal to '0', the mobile station shall perform the following:
If the Channel Assignment Message does not require an acknowledgment, the mobile station shall enter the Mobile Station Idle State within $T_{34m}$ seconds after receiving the Channel Assignment Message.

If the Channel Assignment Message requires an acknowledgment, the mobile station shall enter the Mobile Station Idle State within $T_{34m}$ seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the Channel Assignment Message has been sent and acknowledged.

- If $\text{FREQ\_INCL}_r$ equals ‘1’, the mobile station shall perform the following actions:
  + If the band class is not supported by the mobile station, the mobile station shall send a Mobile Station Reject Order with ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the Mobile Station Origination Attempt Substate.
  + If the band class is supported by the mobile station, the mobile station shall perform the following actions:
    - If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.
    - The mobile station shall set $\text{CDMACH}_s$ to $\text{CDMA\_FREQ}_r$ and $\text{CDMABAND}_s$ to $\text{BAND\_CLASS}_r$. Then the mobile station shall tune to the new Frequency Assignment, measure the strength of each pilot listed in the assignment using the Neighbor Set search procedures specified in 2.6.6.2.1 and 2.6.6.2.2, set $\text{PILOT\_PN}_s$ to the pilot PN sequence offset of the strongest pilot in the list ($\text{PILOT\_PN}_l$), and set $\text{CONFIG\_MSG\_SEQ}_s$ and $\text{ACC\_MSG\_SEQ}_s$ to NULL (see 2.6.2.2).
    - If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set $\text{SYS\_PAR\_MSG\_SEQ}_s$, $\text{NGHBR\_LST\_MSG\_SEQ}_s$, $\text{EXT\_NGHBR\_LST\_MSG\_SEQ}_s$, $\text{GEN\_NGHBR\_LST\_MSG\_SEQ}_s$, $\text{CHAN\_LST\_MSG\_SEQ}_s$, $\text{EXT\_CHAN\_LST\_MSG\_SEQ}_s$, $\text{EXT\_SYS\_PAR\_MSG\_SEQ}_s$, $\text{USER\_ZONE\_ID\_MSG\_SEQ}_s$, $\text{PRI\_NGHBR\_LST\_MSG\_SEQ}_s$, $\text{GLOB\_SERV\_REDIR\_MSG\_SEQ}_s$, and $\text{EXT\_GLOB\_SERV\_REDIR\_MSG\_SEQ}_s$ to NULL.
    - The mobile station shall set $\text{PAGE\_CHAN}_s$ to ‘1’ and $\text{PAGECH}_s$ to the Primary Paging Channel. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.
    - If $\text{RESPOND}_r$ is equal to ‘1’, the mobile station shall perform the following:
If the Channel Assignment Message does not require an acknowledgment, the mobile station shall enter the Update Overhead Information Substate with a page response retransmission indication within $T_{34m}$ seconds after receiving the Channel Assignment Message.

If the Channel Assignment Message requires an acknowledgment, the mobile station shall enter the Update Overhead Information Substate with a page response retransmission indication within $T_{34m}$ seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the Channel Assignment Message has been sent and acknowledged.

If RESPOND $r$ is equal to ‘0’, the mobile station shall perform the following:

- If the Channel Assignment Message does not require an acknowledgment, the mobile station shall enter the Mobile Station Idle State within $T_{34m}$ seconds after receiving the Channel Assignment Message.

- If the Channel Assignment Message requires an acknowledgment, the mobile station shall enter the Mobile Station Idle State within $T_{34m}$ seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the Channel Assignment Message has been sent and acknowledged.

### 4-5. Data Burst Message

### 5-6. Extended Channel Assignment Message: The mobile station shall process the message as follows:

- If ASSIGN_MODE $r$ equals ‘000’, the mobile station shall perform the following actions:
  - The mobile station shall set CH_IND $s$ to ‘01’.
  - If P_REV_IN_USE $s$ is equal to or greater than six, the mobile station shall store the Forward Fundamental Channel Radio Configuration (FOR_FCH_RC $s$ = FOR_FCH_RC $r$) and the Reverse Fundamental Channel Radio Configuration (REV_FCH_RC $s$ = REV_FCH_RC $r$)
  - If FREQ_INCL $r$ equals ‘0’, the mobile station shall perform the following actions:
    - The mobile station shall store the frame offset (FRAME_OFFSET $s$ = FRAME_OFFSET $r$), the message encryption mode indicator (ENCRYPT_MODE $s$ = ENCRYPT_MODE $r$), the granted mode (GRANTED_MODE $s$ = GRANTED_MODE $r$), the default configuration (DEFAULT_CONFIG $s$ = DEFAULT_CONFIG $r$), and the occurrences of PILOT_PN and PWR_COMB for each included member of the Active Set.
The mobile station shall perform the following procedures in the order listed below:

1. If D_SIG_ENCRYPT_MODE is included, the mobile station shall perform the following:
   a. If D_SIG_ENCRYPT_MODE is equal to ‘000’, the mobile station shall set D_SIG_ENCRYPT_MODE to C_SIG_ENCRYPT_MODE;
   otherwise, the mobile station shall set D_SIG_ENCRYPT_MODE to D_SIG_ENCRYPT_MODE, ENC_KEY to the most recently generated CMEAKEY in the mobile station, associated with the AUTHR of the Origination Message, and EXT_ENCRYPT_SEQ[0] and EXT_ENCRYPT_SEQ[1] to 256 × ENC_SEQ_H (the ENC_SEQ_H field in the Origination Message).
   b. If USE_NEW_KEY is not included, or is included and is set to ‘1’, the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEY_SEQ_NEW. The mobile station shall then increment the variable KEY_SEQ_NEW by one (modulo 16).
   c. If ENC_KEY_SIZE is included, the mobile station shall set ENC_KEY_SIZE to ENC_KEY_SIZE.

2. If USE_NEW_KEY is included and is set to ‘0’ then the mobile station shall use KEY_SEQ as the session key.

3. If C_SIG_ENCRYPT_MODE is included, the mobile station shall set C_SIG_ENCRYPT_MODE to C_SIG_ENCRYPT_MODE.

4. The mobile station shall set SERV_NEG to enabled.

5. If PACA is equal to enabled, the mobile station shall set PACA equal to disabled and PACA_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call is proceeding.

6. The mobile station shall initialize CODE_CHAN_LIST as described in 2.6.8.

7. The mobile station shall set FPC_FCH_INIT_SETPT to FPC_FCH_INIT_SETPT, FPC_FCH_CURR_SETPT to FPC_FCH_INIT_SETPT, FPC_FCH_INIT_SETPT to FPC_FCH_FER, FPC_FCH_MIN_SETPT to FPC_FCH_MIN_SETPT, FPC_FCH_MAX_SETPT to FPC_FCH_MAX_SETPT, and FPC_PRI_CHAN to ‘0’ if the mobile station supports any Radio Configuration greater than 2.

8. The mobile station shall set FPC_SUBCHAN_GAIN to FPC_SUBCHAN_GAIN.

9. The mobile station shall set REV_FCH_GATING_MODE to REV_FCH_GATING_MODE.
+ The mobile station shall set REV_PWR_CNTL_DELAY_s to
  REV_PWR_CNTL_DELAY_r if REV_PWR_CNTL_DELAY_INCL_r is equal to
  ‘1’.
+ The mobile station shall set RLGAIN_ADJ_s to RLGAIN_ADJ_r.
+ The mobile station shall then enter the Traffic Channel Initialization
  Substate of the Mobile Station Control on the Traffic Channel State.

− If FREQ_INCL_r equals ‘1’, the mobile station shall perform the following
  actions:
+ If the band class is not supported by the mobile station, the mobile
  station shall send a Mobile Station Reject Order with ORDQ field set to
  ‘00000110’ (capability not supported by the mobile station) and remain in
  the Mobile Station Origination Attempt Substate.
+ If the band class is supported by the mobile station, the mobile station
  shall perform the following actions:
  o The mobile station shall store the frame offset (FRAME_OFFSET_s =
    FRAME_OFFSET_r); the message encryption mode indicator
    (ENCRYPT_MODE_s = ENCRYPT_MODE_r); the granted mode
    (GRANTED_MODE_s = GRANTED_MODE_r); the default configuration
    (DEFAULT_CONFIG_s = DEFAULT_CONFIG_r); the band class
    (CDMABAND_s = BAND_CLASS_r); the Frequency Assignment
    (CDMACH_s = CDMA_FREQ_r); and the occurrences of PILOT_PN and
    PWR_COMB_IND for each included member of the Active Set.

  o The mobile station shall perform the following procedures in the order
    listed below:
  ◊ If D_SIG_ENCRYPT_MODE_r is included, the mobile station shall
    perform the following:
    - If D_SIG_ENCRYPT_MODE_r is equal to ‘000’, the mobile
      station shall set D_SIG_ENCRYPT_MODE_s to
      C_SIG_ENCRYPT_MODE_s; otherwise, the mobile station shall
      set D_SIG_ENCRYPT_MODE_s to D_SIG_ENCRYPT_MODE_r,
      ENC_KEY_s to the most recently generated CMEAKEY in the
      mobile station, associated with the AUTHR of the Origination
      Message, and EXT_ENCRYPT_SEQ[0] and
      EXT_ENCRYPT_SEQ[1] to $256 \times \text{ENC_SEQ_H}$ (the
      ENC_SEQ_H field in the Origination Message).
If USE_NEW_KEY is not included, or is included and is set to ‘1’, the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEY_{KEY_SEQ_NEW – p}. The mobile station shall store KEY_SIZE to KEY_SIZE_{s}. The mobile station shall then increment the variable KEY_SEQ_NEW_{s} by one (modulo 16). If ENC_KEY_SIZE is included, the mobile station shall set ENC_KEY_SIZE_{s} to ENC_KEY_SIZE_{r}.

◊ If USE_NEW_KEY is included and is set to ‘0’ then the mobile station shall use KEY_{s}[KEY_SEQ_{r}] as the session key.

◊ If C_SIG_ENCRYPT_MODE is included, the mobile station shall set C_SIG_ENCRYPT_MODE_{s} to C_SIG_ENCRYPT_MODE_{r}.

◊ The mobile station shall set SERV_NEG_{s} to enabled.

◊ The mobile station shall initialize CODE_CHAN_LIST as described in 2.6.8.

◊ The mobile station shall set FPC_FCH_INIT_SETPT_{s} to FPC_FCH_INIT_SETPT_{r}, FPC_FCH_CURR_SETPT_{s} to FPC_FCH_INIT_SETPT_{r}, FPC_FCH_FER_{s} to FPC_FCH_FER_{r}, FPC_FCH_MIN_SETPT_{s} to FPC_FCH_MIN_SETPT_{r}, FPC_FCH_MAX_SETPT_{s} to FPC_FCH_MAX_SETPT_{r}, and FPC_PRI_CHAN_{s} to ‘0’ if the mobile station supports any Radio Configuration greater than 2.

◊ The mobile station shall set FPC_SUBCHAN_GAIN_{s} to FPC_SUBCHAN_GAIN_{r}.

◊ The mobile station shall set RLGAIN_ADJ_{s} to RLGAIN_ADJ_{r}.

◊ The mobile station shall set REV_FCH_GATING_MODE_{s} to REV_FCH_GATING_MODE_{r}.

◊ The mobile station shall set REV_PWR_CNTL_DELAY_{s} to REV_PWR_CNTL_DELAY_{r} if REV_PWR_CNTL_DELAY_INCL_{r} is equal to ‘1’.

◊ The mobile station shall then tune to the new Frequency Assignment and enter the Traffic Channel Initialization Substate of the Mobile Station Control on the Traffic Channel State.

− If GRANTED_MODE_{r} equals ‘00’, and the multiplex option and radio configuration specified in the DEFAULT_CONFIG field is not supported by the mobile station, the mobile station shall send a Mobile Station Reject Order with ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the Mobile Station Origination Attempt Substate.
If GRANTED_MODE_r equals '00' and DEFAULT_CONFIG_r is not equal to '100', the mobile station shall send a Mobile Station Reject Order with the ORDQ field set to '00001110' (RC does not match with DEFAULT_CONFIG_r) and shall remain in the Mobile Station Origination Attempt Substate if any of the following conditions is true:
  + FOR_FCH_RC_r is not equal to the Radio Configuration associated with DEFAULT_CONFIG_r (see Table 3.7.2.3.2.21-2).
  + REV_FCH_RC_r is not equal to the Radio Configuration associated with DEFAULT_CONFIG_r (see Table 3.7.2.3.2.21-2).

If the mobile station does not support either of the Fundamental Channel Radio Configurations (FOR_FCH_RC or REV_FCH_RC), the mobile station shall send a Mobile Station Reject Order with the ORDQ field set to '00000110' (capability not supported by the mobile station) and remain in the Mobile Station Origination Attempt Substate.

If ASSIGN_MODE_r equals '001', the mobile station shall perform the following actions:
  - If FREQ_INCL_r equals '0', the mobile station shall perform the following actions:
    + If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.
    + The mobile station shall set CONFIG_MSG_SEQ_s and ACC_MSG_SEQ_s to NULL (see 2.6.2.2) and shall set PILOT_PN_s to the pilot PN sequence offset of the strongest pilot in the list (PILOT_PN_r).
    + If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQs, NGHBR_LST_MSG_SEQs, EXT_NGHBR_LST_MSG_SEQs, GEN_NGHBR_LST_MSG_SEQs, CHAN_LST_MSG_SEQs, EXT_CHAN_LST_MSG_SEQs, EXT_SYS_PAR_MSG_SEQs, USER_ZONE_ID_MSG_SEQs, PRI_NGHBR_LST_MSG_SEQs, GLOB_SERV_REDIR_MSG_SEQs, and EXT_GLOB_SERV_REDIR_MSG_SEQs to NULL.
    + The mobile station shall set PAGE_CHAN_s to '1' and PAGECH_s to the Primary Paging Channel. If the mobile station was monitoring Forward Common Control Channel, the mobile station shall set the PRAT_s to '00'. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.
    + If RESPOND_r is equal to '1', the mobile station shall perform the following:
If the Extended Channel Assignment Message does not require an acknowledgment, the mobile station shall enter the Update Overhead Information Substate with a page response retransmission indication within T34m seconds after receiving the Extended Channel Assignment Message.

If the Extended Channel Assignment Message requires an acknowledgment, the mobile station shall enter the Update Overhead Information Substate with a page response retransmission indication within T34m seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the Extended Channel Assignment Message has been sent and acknowledged.

- If FREQ_INCL_r equals ‘1’, the mobile station shall perform the following actions:

  + If the band class is not supported by the mobile station, the mobile station shall send a Mobile Station Reject Order with ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the Mobile Station Origination Attempt Substate.

  + If the band class is supported by the mobile station, the mobile station shall perform the following actions:

    o If the message requires acknowledgement, the mobile station shall wait until Layer 3 receives an indication from Layer 2 that the acknowledgement to the message has been sent and acknowledged.

    o The mobile station shall set CDMACH_s to CDMA_FREQ_r and CDMABAND_s to BAND_CLASS_r. Then the mobile station shall tune to the new Frequency Assignment, measure the strength of each pilot listed in the assignment using the Neighbor Set search procedures specified in 2.6.6.2.1 and 2.6.6.2.2, set PILOT_PN_s to the pilot PN sequence offset of the strongest pilot in the list (PILOT_PN_r), and set CONFIG_MSG_SEQ_s and ACC_MSG_SEQ_s to NULL (see 2.6.2.2).

    o If the mobile station has not stored configuration parameters for the Primary Paging Channel of the new base station, or if the stored information is not current (see 2.6.2.2), the mobile station shall set SYS_PAR_MSG_SEQ_s, NGHBR_LST_MSG_SEQ_s, EXT_NGHBR_LST_MSG_SEQ_s, CHAN_LST_MSG_SEQ_s, EXT_CHAN_LST_MSG_SEQ_s, EXT_SYS_PAR_MSG_SEQ_s, USER_ZONE_ID_MSG_SEQ_s, PRI_NGHBR_LST_MSG_SEQ_s, GLOB_SERV_REDIR_MSG_SEQ_s, and EXT_GLOB_SERV_REDIR_MSG_SEQ_s to NULL.

    o The mobile station shall set PAGE_CHAN_s to ‘1’ and PAGECH_s to the Primary Paging Channel. The mobile station shall then begin monitoring the Primary Paging Channel of the selected base station.
If RESPOND_r is equal to ‘1’, the mobile station shall perform the following:

◊ If the Extended Channel Assignment Message does not require an acknowledgment, the mobile station shall enter the Update Overhead Information Substate with a page response retransmission indication within T34m seconds after receiving the Extended Channel Assignment Message.

◊ If the Extended Channel Assignment Message requires an acknowledgment, the mobile station shall enter the Update Overhead Information Substate with a page response retransmission indication within T34m seconds after Layer 3 receives an indication from Layer 2 that the acknowledgement to the Extended Channel Assignment Message has been sent and acknowledged.

• If ASSIGN_MODE_r equals ‘010’, the mobile station shall perform the following actions:
  − If the mobile station does not support analog operation in the requested band class, the mobile station shall send a Mobile Station Reject Order with ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and remain in the Mobile Station Origination Attempt Substate.
  − If the mobile station supports analog operation in the requested band class, the mobile station shall perform the following actions:
    + If RESPOND_r equals ‘1’ and USE_ANALOG_SYS_r equals ‘0’, the mobile station shall enter the analog Initialization Task with an origination indication (see 2.6.1).
    + If RESPOND_r equals ‘1’ and USE_ANALOG_SYS_r equals ‘1’, the mobile station shall perform the following actions:
      o The mobile station shall set SERVSYS_s to SYS_A if ANALOG_SYS_r is equal to ‘0’, or set SERVSYS_s to SYS_B if ANALOG_SYS_r is equal to ‘1’.
      o The mobile station shall then enter the analog Initialization Task with an origination indication (see 2.6.1).

• If ASSIGN_MODE_r equals ‘011’, the mobile station shall perform the following actions:
  − If the mobile station does not support analog operation in the requested band class, the mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00000110’ (capability not supported by the mobile station) and the mobile station shall remain in the Mobile Station Origination Attempt Substate.
  − If the mobile station supports analog operation in the requested band class, the mobile station shall perform the following actions:
+ If the analog channel type is '00', the mobile station shall perform the following actions:
  o The mobile station shall store the system identification (SIDₛ = SIDₚ), voice mobile station attenuation code (VMACₛ = VMACₚ), voice channel number (ANALOG_CHANₛ = ANALOG_CHANₚ), SAT color code (SCCₛ = SCCₚ), and message encryption mode indicator (MEMₛ = MEMₚ).
  o The mobile station shall set DTXₛ to '00'.
  o If PACAₛ is equal to enabled, the mobile station shall set PACAₛ to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call is proceeding.
  o The mobile station shall enter the Confirm Initial Voice Channel Task (see 2.6.4.2) with an origination indication.

+ If the analog channel type is not '00', the mobile station shall perform the following actions:
  o If the mobile supports narrow analog mode, the mobile station shall perform the following actions:
    ◊ The mobile station shall store the system identification (SIDₛ = SIDₚ), voice mobile station attenuation code (VMACₛ = VMACₚ), voice channel number (ANALOG_CHANₛ = ANALOG_CHANₚ), message encryption mode indicator (MEMₛ = MEMₚ), analog channel type (AN_CHAN_TYPEₛ = AN_CHAN_TYPEₚ) and the digital SAT code (DSCCₛ = DSCC_MSBₚ × 4 + SCCₚ).
    ◊ The mobile station shall set DTXₛ to '00'.
    ◊ If PACAₛ is equal to enabled, the mobile station shall set PACAₛ to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call is proceeding.
    ◊ The mobile station shall enter the Confirm Initial Narrow Analog Voice Channel Task (see 2.6.5.2A of [22]) with an origination indication.
  o If the mobile station does not support narrow analog mode, the mobile station shall send a Mobile Station Reject Order with the ORDQ field set to '00000110' (capability not supported by the mobile station) and the mobile station shall remain in the Mobile Station Origination Attempt Substate of the System Access State.

  • If ASSIGN_MODEₚ equals '100', the mobile station shall perform the following actions:
− If PACA_s is equal to enabled, the mobile station shall set PACA_s to disabled
and PACA_CANCEL to '0', shall disable the PACA state timer, and should
indicate to the user that the PACA call has been canceled.

− If GRANTED_MODE_r equals '00' and the multiplex option and radio
configuration specified in the DEFAULT_CONFIG_r field are not supported by
the mobile station, the mobile station shall send a Mobile Station Reject Order
with ORDQ field set to '00000110' (capability not supported by the mobile
station) and shall remain in the Mobile Station Origination Attempt Substate.

− If GRANTED_MODE_r equals '00' and DEFAULT_CONFIG_r is not equal to
'100', the mobile station shall send a Mobile Station Reject Order with ORDQ
field set to '00001110' (RC does not match with DEFAULT_CONFIG) and
shall remain in the Mobile Station Origination Attempt Substate if one of the
following conditions is true:

  + FOR_RC_r is not equal to the Radio Configuration associated with
    DEFAULT_CONFIG_r as specified in Table 3.7.2.3.2.21-2.

  + REV_RC_r is not equal to the Radio Configuration associated with
    DEFAULT_CONFIG_r as specified in Table 3.7.2.3.2.21-2.

− If the mobile station does not support either of the Radio Configurations
  (FOR_RC or REV_RC), the mobile station shall send a Mobile Station Reject
Order with the ORDQ field set to '00000110' (capability not supported by the
mobile station) and remain in the Mobile Station Origination Attempt Substate.

− If CH_IND_r = '01' and the mobile station does not support the Fundamental
Channel, the mobile station shall send a Mobile Station Reject Order with the
ORDQ field set to '00000110' (capability not supported by the mobile
station) and remain in the Mobile Station Origination Attempt Substate.

− If CH_IND_r = '10' and the mobile station does not support the Dedicated
Control Channel, the mobile station shall send a Mobile Station Reject Order
with the ORDQ field set to '00000110' (capability not supported by the
mobile station) and remain in the Mobile Station Origination Attempt Substate.

− If CH_IND_r = '11' and the mobile station does not support the Dedicated
Control Channel and Fundamental Channel concurrently, the mobile station
shall send a Mobile Station Reject Order with the ORDQ field set to
'00000110' (capability not supported by the mobile station) and remain in the
Mobile Station Origination Attempt Substate.

− If FREQ_INCL_r equals '1' and if the band class (BAND_CLASS_r) is not
supported by the mobile station, the mobile station shall send a Mobile
Station Reject Order with ORDQ field set to '00000110' (capability not
supported by the mobile station) and remain in the Mobile Station Origination
Attempt Substate.

− If the mobile station does not send a Mobile Station Reject Order as specified
above, it shall continue to perform the actions specified below.
- If \( \text{FREQ}_\text{INCL} \) equals '1', the mobile station shall set
  \[+ \text{CDMABAND}_s = \text{BAND}_\text{CLASS}_r\]
  \[+ \text{CDMACH}_s = \text{CDMA}_\text{FREQ}_r\]
- The mobile station shall store the bypass indicator
  \(\text{BYPASS}_\text{ALERT}_\text{ANSWER}_s = \text{BYPASS}_\text{ALERT}_\text{ANSWER}_r\).
- The mobile station shall store granted mode \(\text{GRANTED}_\text{MODE}_s = \text{GRANTED}_\text{MODE}_r\).
- The mobile station shall store the default configuration \(\text{DEFAULT}_\text{CONFIG}_s = \text{DEFAULT}_\text{CONFIG}_r\).
- The mobile station shall store the Forward Traffic Channel Radio
  Configuration \(\text{FOR}_\text{RC}_s = \text{FOR}_\text{RC}_r\) and the Reverse Traffic Channel Radio
  Configuration \(\text{REV}_\text{RC}_s = \text{REV}_\text{RC}_r\).
- The mobile station shall store the frame offset \(\text{FRAME}_\text{OFFSET}_s = \text{FRAME}_\text{OFFSET}_r\).
- The mobile station shall store the message encryption mode indicator
  \(\text{ENCRYPT}_\text{MODE}_s = \text{ENCRYPT}_\text{MODE}_r\).

- The mobile station shall perform the following procedures in the order listed
  below:
  + If \(\text{D}_\text{SIG}_\text{ENCRIPT}_\text{MODE}_r\) is included, the mobile station shall perform
    the following:
      o If \(\text{D}_\text{SIG}_\text{ENCRIPT}_\text{MODE}_r\) is equal to '000', the mobile station shall
        set \(\text{D}_\text{SIG}_\text{ENCRIPT}_\text{MODE}_s\) to \(\text{C}_\text{SIG}_\text{ENCRIPT}_\text{MODE}_s\); otherwise,
        the mobile station shall set \(\text{D}_\text{SIG}_\text{ENCRIPT}_\text{MODE}_s\) to
        \(\text{D}_\text{SIG}_\text{ENCRIPT}_\text{MODE}_r\), \(\text{ENC}_\text{KEY}_s\) to the most recently generated
        \(\text{CMEAKEY}\) in the mobile station, associated with the \(\text{AUTHR}\) of the
        \(\text{Origination Message}\), and \(\text{EXT}_\text{ENCRYPT}_\text{SEQ}[0]\) and
        \(\text{EXT}_\text{ENCRYPT}_\text{SEQ}[1]\) to \(256 \times \text{ENC}_\text{SEQ}_\text{H}\) (the \(\text{ENC}_\text{SEQ}_\text{H}\) field
        in the \(\text{Origination Message}\)).
      + If \(\text{USE}_\text{NEW}_\text{KEY}_r\) is not included, or is included and is set to '1', the
        mobile station shall use the session key generated at the most recent
        registration for encryption of signaling and user information. The mobile
        station shall store the session key in \(\text{KEY}_s[\text{KEY}_\text{SEQ}_\text{NEW}_p]\). The
        mobile station shall store \(\text{KEY}_\text{SIZE}_r\) to \(\text{KEY}_\text{SIZE}_s\), the mobile station shall then increment
        the variable \(\text{KEY}_\text{SEQ}_\text{NEW}_p\) by one (modulo 16). If \(\text{ENC}_\text{KEY}_\text{SIZE}_r\) is included, the mobile station shall set
        \(\text{ENC}_\text{KEY}_\text{SIZE}_s\) to \(\text{ENC}_\text{KEY}_\text{SIZE}_r\).
      — If \(\text{USE}_\text{NEW}_\text{KEY}_r\) is included and is set to '0' then the mobile station
        shall use \(\text{KEY}_s[\text{KEY}_\text{SEQ}_p]\) as the session key.
      + If \(\text{C}_\text{SIG}_\text{ENCRIPT}_\text{MODE}\) is included, the mobile station shall set
        \(\text{C}_\text{SIG}_\text{ENCRIPT}_\text{MODE}_s\) to \(\text{C}_\text{SIG}_\text{ENCRIPT}_\text{MODE}_r\).
The mobile station shall store the Forward power control subchannel relative gain \(\text{FPC\_SUBCHAN\_GAIN_s} = \text{FPC\_SUBCHAN\_GAIN_r}\).

The mobile station shall set \(\text{RLGAIN\_ADJ_s} = \text{RLGAIN\_ADJ_r}\).

The mobile station shall set \(\text{REV\_FCH\_GATING\_MODE_s} = \text{REV\_FCH\_GATING\_MODE_r}\).

The mobile station shall set \(\text{REV\_PWR\_CNTL\_DELAY_s} = \text{REV\_PWR\_CNTL\_DELAY_r}\) if \(\text{REV\_PWR\_CNTL\_DELAY\_INCL_r}\) is equal to ‘1’.

The mobile station shall store the channel indicator \((\text{CH\_IND_s} = \text{CH\_IND_r})\) and the mobile station shall perform the following actions:

+ If \(\text{CH\_IND_r}\) equals ‘01’, the mobile station shall set \(\text{FPC\_FCH\_INIT\_SETPTr}\) to \(\text{FPC\_FCH\_INIT\_SETPTr}\), \(\text{FPC\_FCH\_CURR\_SETPTr}\) to \(\text{FPC\_FCH\_INIT\_SETPTr}\), \(\text{FPC\_FCH\_FER_s} = \text{FPC\_FCH\_FER_r}\), \(\text{FPC\_FCH\_MIN\_SETPTr}\) to \(\text{FPC\_FCH\_MIN\_SETPTr}\), \(\text{FPC\_FCH\_MAX\_SETPTr}\) to \(\text{FPC\_FCH\_MAX\_SETPTr}\), and \(\text{FPC\_PRI\_CHAN_s}\) to ‘0’ if the mobile station supports any Radio Configuration greater than 2. Then for each included member of the Active Set, the mobile station shall store the following:

  ◊ Set the \(\text{PILOT\_PN}\) field to \(\text{PILOT\_PN_r}\).

  ◊ Set the \(\text{ADD\_PILOT\_REC\_INCL}\) field to \(\text{ADD\_PILOT\_REC\_INCL_r}\). If \(\text{ADD\_PILOT\_REC\_INCL_r}\) equals ‘1’, the mobile station shall store the following:

    ◊ Set the \(\text{PILOT\_REC\_TYPE}\) field of \(\text{PILOT\_REC}\) to \(\text{PILOT\_REC\_TYPE_r}\).

    ◊ If \(\text{PILOT\_REC\_TYPE_r}\) equals ‘000’, the mobile station shall set the \(\text{TD\_POWER\_LEVEL}\) field of \(\text{PILOT\_REC}\) to \(\text{TD\_POWER\_LEVEL_r}\) and set the \(\text{TD\_MODE}\) field of \(\text{PILOT\_REC}\) to \(\text{TD\_MODE_r}\).

    ◊ If \(\text{PILOT\_REC\_TYPE_r}\) is equal to ‘001’, the mobile station shall:

      – Set the \(\text{AUX\_PILOT\_QOF}\) field of \(\text{PILOT\_REC}\) to \(\text{QOF_r}\).

      – Set the \(\text{AUX\_PILOT\_WALSH\_CODE}\) field of \(\text{PILOT\_REC}\) to \(\text{AUX\_WALSH_r}\) with the Walsh Code length specified by \(\text{WALSH\_LENGTH_r}\).

    ◊ If \(\text{PILOT\_REC\_TYPE_r}\) is equal to ‘010’, the mobile station shall:

      – Set the \(\text{AUX\_PILOT\_TD\_QOF}\) field of \(\text{PILOT\_REC}\) to \(\text{QOF_r}\).

      – Set the \(\text{AUX\_PILOT\_WALSH\_CODE}\) field of \(\text{PILOT\_REC}\) to \(\text{AUX\_WALSH_r}\) with the Walsh Code length specified by \(\text{WALSH\_LENGTH_r}\).
– Set the AUX_TD_POWER_LEVEL field of PILOT_REC to AUX_TD_POWER_LEVEL_r.
– Set the TD_MODE field of PILOT_REC to TD_MODE_r.

◊ If PILOT_REC_TYPE_r is equal to ‘011’, the mobile station shall:
  – Set the SR3_PRIMARY_PILOT field of PILOT_REC to SR3_PRIMARY_PILOT_r.
  – Set the SR3_PILOT_POWER1 field of PILOT_REC to SR3_PILOT_POWER1_r.
  – Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOT_POWER2_r.

◊ If PILOT_REC_TYPE_r is equal to ‘100’, the mobile station shall:
  – Set the SR3_PRIMARY_PILOT field of PILOT_REC to SR3_PRIMARY_PILOT_r.
  – Set the SR3_PILOT_POWER1 field of PILOT_REC to SR3_PILOT_POWER1_r.
  – Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOT_POWER2_r.
  – Set the AUX_PILOT_QOF field of PILOT_REC to QOF_r.
  – Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_PILOT_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r.

  – If ADD_INFO_INCL1_r is equal to ‘1’, set the AUX_PILOT_QOF1 field of PILOT_REC to QOF1_r and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to AUX_PILOT_WALSH1_r with the Walsh Code length specified by WALSH_LENGTH1_r; otherwise, set the AUX_PILOT_QOF1 field of PILOT_REC to QOF_r and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to AUX_PILOT_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r.

  – If ADD_INFO_INCL2_r is equal to ‘1’, set the AUX_PILOT_QOF2 field of PILOT_REC to QOF2_r and set the AUX_PILOT_WALSH_CODE2 field of PILOT_REC to AUX_PILOT_WALSH2_r with the Walsh Code length specified by WALSH_LENGTH2_r; otherwise, set the AUX_PILOT_QOF2 field of PILOT_REC to QOF_r and set the AUX_PILOT_WALSH_CODE2 field of PILOT_REC to AUX_PILOT_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r.

◊ Set the PWR_COMB_IND field to PWR_COMB_IND_r.
Set the CODE_CHAN_FCH field to CODE_CHAN_FCHr.

Set the QOF_MASK_ID_FCH field to QOF_MASK_ID_FCHr.

+ If CH_INDr equals ‘01’ and 3X_FCH_INFO_INCLr equals to ‘1’, for each included member of the Active Set, the mobile station store the following:

  o If 3X_FCH_LOW_INCLr equals ‘1’, set the QOF_MASK_ID_FCH_LOW field to QOF_MASK_ID_FCH_LOWr and the CODE_CHAN_FCH_LOW field to CODE_CHAN_FCH_LOWr. Otherwise, set the QOF_MASK_ID_FCH_LOW field to QOF_MASK_ID_FCHr and the CODE_CHAN_FCH_LOW to CODE_CHAN_FCHR.

  o If 3X_FCH_HIGH_INCLr equals ‘1’, set the QOF_MASK_ID_FCH_HIGH field to QOF_MASK_ID_FCH_HIGHr and the CODE_CHAN_FCH_HIGH field to CODE_CHAN_FCH_HIGHr. Otherwise, set the QOF_MASK_ID_FCH_HIGH field to QOF_MASK_ID_FCHr and the CODE_CHAN_FCH_HIGH to CODE_CHAN_FCHR.

+ If CH_INDr equals ‘10’, the mobile station shall set FPC_DCCH_INIT_SETPTs to FPC_DCCH_INIT_SETPTr, FPC_DCCH_CURR_SETPTs to FPC_DCCH_INIT_SETPTs, FPC_DCCH_FERs to FPC_DCCH_FERr, FPC_DCCH_MIN_SETPTs to FPC_DCCH_MIN_SETPTs, FPC_DCCH_MAX_SETPTs to FPC_DCCH_MAX_SETPTs, and FPC_PRI_CHANr to ‘1’ if the mobile station supports any Radio Configuration greater than 2. Then for each included member of the Active Set, the mobile station shall store the following:

  o Set the PILOT_PN to PILOT_PNr.

  o Set the ADD_PILOT_REC_INCL field to ADD_PILOT_REC_INCL. If ADD_PILOT_REC_INCL is equal to ‘1’, the mobile station shall store the following:

    ◊ Set the PILOT_REC_TYPE field of PILOT_REC to PILOT_REC_TYPER.

    ◊ If PILOT_REC_TYPEr equals ‘000’, the mobile station shall set the TD_POWER_LEVEL field of PILOT_REC to TD_POWER_LEVELr and set the TD_MODE field of PILOT_REC to TD_MODEr.

    ◊ If PILOT_REC_TYPEr is equal to ‘001’, the mobile station shall:

      – Set the AUX_PILOT_QOF field of PILOT_REC to QOFr.

      – Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_PILOT_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.

    ◊ If PILOT_REC_TYPEr is equal to ‘010’, the mobile station shall:

      – Set the AUX_PILOT_TD_QOF field of PILOT_REC to QOFr.
- Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_WALSH$r$ with the Walsh Code length specified by WALSH_LENGTH$r$.

- Set the AUX_TD_POWER_LEVEL field of PILOT_REC to AUX_TD_POWER_LEVEL$r$.

- Set the TD_MODE field of PILOT_REC to TD_MODE$r$.

◊ If PILOT_REC_TYPE$r$ is equal to ‘011’, the mobile station shall:

- Set the SR3_PRIMARY_PILOT field of PILOT_REC to SR3_PRIMARY_PILOT$r$.

- Set the SR3_PILOT_POWER1 field of PILOT_REC to SR3_PILOT_POWER1$r$.

- Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOT_POWER2$r$.

◊ If PILOT_REC_TYPE$r$ is equal to ‘100’, the mobile station shall:

- Set the SR3_PRIMARY_PILOT field of PILOT_REC to SR3_PRIMARY_PILOT$r$.

- Set the SR3_PILOT_POWER1 field of PILOT_REC to SR3_PILOT_POWER1$r$.

- Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOT_POWER2$r$.

- Set the AUX_PILOT_QOF field of PILOT_REC to QOF$r$.

- Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_PILOT_WALSH$r$ with the Walsh Code length specified by WALSH_LENGTH$r$.

- If ADD_INFO_INCL1$r$ is equal to ‘1’, set the AUX_PILOT_QOF1 field of PILOT_REC to QOF1$r$ and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to AUX_PILOT_WALSH1$r$ with the Walsh Code length specified by WALSH_LENGTH1$r$; otherwise, set the AUX_PILOT_QOF1 field of PILOT_REC to QOF$r$ and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to AUX_PILOT_WALSH1$r$ with the Walsh Code length specified by WALSH_LENGTH1$r$.

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- If ADD_INFO_INCL2r is equal to ‘1’, set the AUX_PILOT_QOF2 field of PILOT_REC to QOF2r and set the
  AUX_PILOT_WALSH_CODE2 field of PILOT_REC to
  AUX_PILOT_WALSH2r with the Walsh Code length specified
  by WALSH_LENGTH2r; otherwise, set the AUX_PILOT_QOF2 field of PILOT_REC to QOFr and set the
  AUX_PILOT_WALSH_CODE2 field of PILOT_REC to
  AUX_PILOT_WALSHr with the Walsh Code length specified by
  WALSH_LENGTHr.

  o Set the PWR_COMB_IND field to PWR_COMB_INDr.
  o Set the CODE_CHAN_FCH field to CODE_CHAN_FCHR.
  o Set the QOF_MASK_ID_FCH field to QOF_MASK_ID_FCHR.
  o Set the DCCH_INCL field to DCCH_INCLr. If DCCH_INCLr equals ‘1’, the mobile station shall store the following:
    ◊ Set the CODE_CHAN_DCCH field to CODE_CHAN_DCCHR.
    ◊ Set the QOF_MASK_ID_DCCH field to QOF_MASK_ID_DCCHR.

  + If CH_INDr equals ‘10’ and 3X_DCCH_INFO_INCLr equals to ‘1’, for each included member of the Active Set, the mobile station shall store the following:
    o If 3X_DCCH_LOW_INCLr equals ‘1’, set the
      QOF_MASK_ID_DCCH_LOW field to QOF_MASK_ID_DCCH_LOWr and
      the CODE_CHAN_DCCH_LOW field to CODE_CHAN_DCCH_LOWr. Otherwise, set the QOF_MASK_ID_DCCH_LOW field to
      QOF_MASK_ID_FCHR and the CODE_CHAN_DCCH_LOW to
      CODE_CHAN_FCHR.
    o If 3X_DCCH_HIGH_INCLr equals ‘1’, set the
      QOF_MASK_ID_DCCH_HIGH field to QOF_MASK_ID_DCCH_HIGHr
      and the CODE_CHAN_DCCH_HIGH field to
      CODE_CHAN_DCCH_HIGHr. Otherwise, set the
      QOF_MASK_ID_DCCH_HIGH field to QOF_MASK_ID_FCHR and the
      CODE_CHAN_DCCH_HIGH to CODE_CHAN_FCHR.
If CH_INDr equals ‘11’, the mobile station shall set
FPC_FCCH_INIT_SETPTs to FPC_FCCH_INIT_SETPTr,
FPC_FCH_CURR_SETPTs to FPC_FCH_INIT_SETPTs, FPC_FCH_FERs to
FPC_FCH_FERr, FPC_FCH_MIN_SETPTs to FPC_FCH_MIN_SETPTr,
FPC_FCH_MAX_SETPTs to FPC_FCH_MAX_SETPTr,
FPC_DCCH_INIT_SETPTs to FPC_DCCH_INIT_SETPTr,
FPC_DCCH_CURR_SETPTs to FPC_DCCH_INIT_SETPTs,
FPC_DCCH_FERs to FPC_DCCH_FERr, FPC_DCCH_MIN_SETPTs to
FPC_DCCH_MIN_SETPTr, FPC_DCCH_MAX_SETPTs to
FPC_DCCH_MAX_SETPTr and FPC_PRI_CHANs to FPC_PRI_CHANr.

Then for each included member of the Active Set, the mobile station shall
store the following:

- Set the PILOT_PN to PILOT_PNr.
- Set the ADD_PILOT_REC_INCL field to ADD_PILOT_REC. If
  ADD_PILOT_REC_INCL is equal to ‘1’, the mobile station shall store
  the following:
  - Set the PILOT_REC_TYPE field of PILOT_REC to
    PILOT_REC_TYPEr.
  - If PILOT_REC_TYPEr equals ‘000’, the mobile station shall set the
    TD_POWER_LEVEL field of PILOT_REC to TD_POWER_LEVELr
    and set the TD_MODE field of PILOT_REC to TD_MODEr.
  - If PILOT_REC_TYPEr is equal to ‘001’, the mobile station shall:
    - Set the AUX_PILOT_QOF field of PILOT_REC to QOFr.
    - Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to
      AUX_PILOT_WALSHr with the Walsh Code length specified by
      WALSH_LENGTHr.
  - If PILOT_REC_TYPEr is equal to ‘010’, the mobile station shall:
    - Set the AUX_PILOT_TD_QOF field of PILOT_REC to QOFr.
    - Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to
      AUX_WALSHr with the Walsh Code length specified by
      WALSH_LENGTHr.
    - Set the AUX_TD_POWER_LEVEL field of PILOT_REC to
      AUX_TD_POWER_LEVELr.
    - Set the TD_MODE field of PILOT_REC to TD_MODEr.
  - If PILOT_REC_TYPEr is equal to ‘011’, the mobile station shall:
    - Set the SR3_PRIMARY_PILOT field of PILOT_REC to
      SR3_PRIMARY_PILOTr.
    - Set the SR3_PILOT_POWER1 field of PILOT_REC to
      SR3_PILOT_POWER1r.
– Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOT_POWER2r.

◊ If PILOT_REC_TYPEr is equal to ‘100’, the mobile station shall:
  – Set the SR3_PRIMARY_PILOT field of PILOT_REC to SR3_PRIMARY_PILOTr.
  – Set the SR3_PILOT_POWER1 field of PILOT_REC to SR3_PILOT_POWER1r.
  – Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOT_POWER2r.
  – Set the AUX_PILOT_QOF field of PILOT_REC to QOFr.
  – Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_PILOT_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.
  – If ADD_INFO_INCL1r is equal to ‘1’, set the AUX_PILOT_QOF1 field of PILOT_REC to QOF1r and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to AUX_PILOT_WALSH1r with the Walsh Code length specified by WALSH_LENGTH1r; otherwise, set the AUX_PILOT_QOF field of PILOT_REC to QOFr and set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_PILOT_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.
  – If ADD_INFO_INCL2r is equal to ‘1’, set the AUX_PILOT_QOF2 field of PILOT_REC to QOF2r and set the AUX_PILOT_WALSH_CODE2 field of PILOT_REC to AUX_PILOT_WALSH2r with the Walsh Code length specified by WALSH_LENGTH2r; otherwise, set the AUX_PILOT_QOF field of PILOT_REC to QOFr and set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_PILOT_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.

◊ Set the PWR_COMB_IND field to PWR_COMB_INDr,
◊ Set the CODE_CHAN_FCH field to CODE_CHAN_FCHr,
◊ Set the QOF_MASK_ID_FCH field to QOF_MASK_ID_FCHr,
◊ Set the CODE_CHAN_DCCH field to CODE_CHAN_DCCHr,
◊ Set the QOF_MASK_ID_DCCH field to QOF_MASK_ID_DCCHr.

+ If CH_INDr equals ‘11’ and 3X_FCH_INFO_INCLr equals to ‘1’, for each included member of the Active Set, the mobile station store the following:
If 3X_FCH_LOW_INCLr equals ‘1’, set the QOF_MASK_ID_FCH_LOW field to QOF_MASK_ID_FCH_LOWr and the CODE_CHAN_FCH_LOW field to CODE_CHAN_FCH_LOWr. Otherwise, set the QOF_MASK_ID_FCH_LOW field to QOF_MASK_ID_FCHr and the CODE_CHAN_FCH_LOW to CODE_CHAN_FCHr.

If 3X_FCH_HIGH_INCLr equals ‘1’, set the QOF_MASK_ID_FCH_HIGH field to QOF_MASK_ID_FCH_HIGHr and the CODE_CHAN_FCH_HIGH field to CODE_CHAN_FCH_HIGHr. Otherwise, set the QOF_MASK_ID_FCH_HIGH field to QOF_MASK_ID_FCHr and the CODE_CHAN_FCH_HIGH to CODE_CHAN_FCHr.

If CH_IND r equals ‘1’ and 3X_DCCH_INFO_INCLr equals to ‘1’, for each included member of the Active Set, the mobile station store the following:

If 3X_DCCH_LOW_INCLr equals ‘1’, set the QOF_MASK_ID_DCCH_LOW field to QOF_MASK_ID_DCCH_LOWr and the CODE_CHAN_DCCH_LOW field to CODE_CHAN_DCCH_LOWr. Otherwise, set the QOF_MASK_ID_DCCH_LOW field to QOF_MASK_ID_FCHr and the CODE_CHAN_DCCH_LOW to CODE_CHAN_FCHr.

If 3X_DCCH_HIGH_INCLr equals ‘1’, set the QOF_MASK_ID_DCCH_HIGH field to QOF_MASK_ID_DCCH_HIGHr and the CODE_CHAN_DCCH_HIGH field to CODE_CHAN_DCCH_HIGHr. Otherwise, set the QOF_MASK_ID_DCCH_HIGH field to QOF_MASK_ID_FCHr and the CODE_CHAN_DCCH_HIGH to CODE_CHAN_FCHr.

The mobile station shall initialize CODE_CHAN_LIST as described in 2.6.8, and shall set SERV_NEGs to enabled.

If FREQ_INCLr equals ‘1’, the mobile station shall then tune to the new frequency assignment.

The mobile station shall then enter the Traffic Channel Initialization Substate of the Mobile Station Control on the Traffic Channel State.

6.7. Feature Notification Message: If RELEASEr is equal to ‘1’, the mobile station shall enter the Mobile Station Idle State or the System Determination Substate of the Mobile Station Initialization State with a release indication (see 2.6.1.1).

7.8. Intercept Order: The mobile station shall enter the Mobile Station Idle State.

8.9. Local Control Order

9.10. Lock Until Power-Cycled Order: The mobile station shall disable its transmitter and record the reason for the Lock Until Power-Cycled Order in the mobile station’s semi-permanent memory (LCKRSN_Fs-p equals the least significant four bits of ORDQ). The mobile station should notify the user of the locked condition. The mobile station shall enter the System Determination Substate of the Mobile Station Initialization State with a lock indication (see 2.6.1.1), and shall not enter the System
Access State again until after the next mobile station power-up or until it has received an Unlock Order. This requirement shall take precedence over any other mobile station requirement specifying entry to the System Access State.

11.11. Maintenance Required Order: The mobile station shall record the reason for the Maintenance Required Order in the mobile station’s semi-permanent memory (MAINTRSNs-p equals the least significant four bits of ORDQr). The mobile station shall remain in the unlocked condition. The mobile station should notify the user of the maintenance required condition.

11.12. PACA Message: If P_REV_IN_USEs is less than or equal to four and the mobile station does not support PACA capability, the mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00000110’ (message requires a capability that is not supported by the mobile station); otherwise, the mobile station shall process the message as follows:

- If PACA_s is equal to disabled, the mobile station shall perform the following actions:
  - If the purpose of the message is to respond to an Origination Message (PURPOSEr is equal to ‘0000’), the mobile station shall perform the following actions:
    + The mobile station shall set PACA_s to enabled and shall set PACA_SID_s to SID_s.
    + The mobile station shall set the PACA state timer to the duration shown in Table 3.7.3.2.20-2 corresponding to the value of PACA_TIMEOUT_s.
    + The mobile station should indicate to the user that the call has been queued as a PACA call, and should indicate the current queue position (Q_POSr) of the call.
    + The mobile station shall enter the Mobile Station Idle State.
  - If the purpose of the message is to cancel the PACA call (PURPOSEr is equal to ‘0011’), the mobile station shall perform the following actions:
    + The mobile station shall set PACA_s to disabled and PACA_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
    + The mobile station shall enter the Mobile Station Idle State.
  - If the purpose of the message is anything else (PURPOSEr is not equal to ‘0000’ or ‘0011’), the mobile station shall ignore the message. The mobile station shall remain in the Mobile Station Origination Attempt Substate.

- If PACA_s is equal to enabled, the mobile station shall perform the following actions:
  - If the purpose of the message is to respond to an Origination Message (PURPOSEr is equal to ‘0000’), the mobile station shall perform the following actions:
The mobile station should indicate to the user that the PACA call is still queued, and should indicate to the user the current queue position (Q_POSr) of the call.

The mobile station shall set the PACA state timer to the duration shown in Table 3.7.2.3.2.20-2 corresponding to the value of PACA_TIMEOUTs.

The mobile station shall enter the Mobile Station Idle State.

− If the purpose of the message is to provide the queue position of the PACA call (PURPOSEr is equal to '0001'), the mobile station shall perform the following actions:
  + The mobile station should indicate to the user that the PACA call is still queued, and should indicate the current queue position (Q_POSr) of the call.
  + The mobile station shall set the PACA state timer to the duration shown in Table 3.7.2.3.2.20-2 corresponding to the value of PACA_TIMEOUTs.
  + The mobile station shall enter the Mobile Station Idle State.

− If the purpose of the message is to instruct the mobile station to re-originate the PACA call (PURPOSEr is equal to '0010'), the mobile station shall remain in the Mobile Station Origination Attempt Substate.

− If the purpose of the message is to cancel the PACA call (PURPOSEr is equal to '0011'), the mobile station shall perform the following actions:
  + The mobile station shall set PACA_s to disabled, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.
  + The mobile station shall enter the Mobile Station Idle State.

Registration Accepted Order:

12.13. If ORDQr = ‘00000101’, the mobile station shall set ROAM_INDI_s = ROAM_INDI_r and should display the roaming condition.

12.13. If ORDQr = ‘00000111’, the mobile station shall perform the following:

- The mobile station shall set ROAM_INDI_s = ROAM_INDI_r and should display the roaming condition.
- The mobile station shall set C_SIG_ENCRYPT_MODE_s = C_SIG_ENCRYPT_MODE_r.

- If USE_NEW_KEY_r is not included, or is included and is set to ‘1’, the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEY_s[KEY_SEQ_NEW_s]. The mobile station shall store KEY_SIZE_r in KEY_SIZE_s. The mobile station shall increment the variable KEY_SEQ_NEW_s by one (modulo 16). If ENC_KEY_SIZE_r is included, the mobile station shall set ENC_KEY_SIZE_s to ENC_KEY_SIZE_r.
If USE_NEW_KEY is included and is set to '0', then the mobile station shall use KEY, [KEY_SEQ_r] as the session key.

- If C_SIG_ENCRYPT_MODE_r is not equal to '000', the mobile station shall set ENC_KEY_s to the most recently generated CMEAKEY in the mobile station associated with the AUTHR of the Registration Message, and EXT_ENCRYPT_SEQ[0] and EXT_ENCRYPT_SEQ[1] to $256 \times ENC_SEQ_H$ (the ENC_SEQ_H field in the Registration Message).

13-14. Registration Rejected Order: This order indicates that normal service is not available on this system. The mobile station shall disable the full-TMSI timer. If the received order specifies to delete the TMSI (ORDQ = '00000100'), the mobile station shall set all the bits of the TMSI_CODEs-p to '1'. The mobile station shall enter the System Determination Substate of the Mobile Station Initialization State with a registration rejected indication (see 2.6.1.1).

14-15. Release Order: If NDSS_ORIGs is equal to enabled, the mobile station shall set NDSS_ORIGs to disabled, and should indicate to the user that the call origination has been canceled. The mobile station shall enter the Mobile Station Idle State or the System Determination Substate of the Mobile Station Initialization State with a release indication (see 2.6.1.1). If the mobile station enters the Mobile Station Idle State, and if PACAs is equal to enabled, the mobile station shall set PACAs to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.

15-16. Reorder Order: If NDSS_ORIGs is equal to enabled, the mobile station shall set NDSS_ORIGs to disabled, and should indicate to the user that the call origination has been canceled. If PACAs is equal to enabled, the mobile station shall set PACAs to disabled and PACA_CANCEL to '0', shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled. The mobile station shall enter the Mobile Station Idle State.

16-17. Retry Order: This order indicates that the origination is rejected and specifies the time before which the mobile station shall not send an Origination Message containing the same packet data Service Option. The mobile station shall process the order as follows:

- If RETRY_TYPE_r is equal to '000', the mobile station shall set RETRY_DELAY_s[RETRY_TYPE] to 0, where RETRY_TYPE is equal to '001', '010', or '011'.

- If RETRY_TYPE_r is equal to '001', then the mobile station shall perform the following:
  - If RETRY_DELAY_r is equal to '00000000', then the mobile station shall set RETRY_DELAY_s[RETRY_TYPE_r] to 0.
  - If RETRY_DELAY_r is not equal to '00000000' the mobile station shall set RETRY_DELAY_s as follows:
+ If the most significant bit of the RETRY_DELAY$_r$ is ‘0’, set RETRY_DELAY_UNIT$_s$ to 1000ms. If the most significant bit of the RETRY_DELAY$_r$ is ‘1’, set RETRY_DELAY_UNIT$_s$ to 60000ms.

+ The mobile station shall set RETRY_DELAY_VALUE$_s$ to the seven least significant bits of RETRY_DELAY$_r$.

+ The mobile station shall store the next system time 80 ms boundary + RETRY_DELAY_VALUE$_s$ × RETRY_DELAY_UNIT$_s$ ms as RETRY_DELAY$_s$[RETRY_TYPE$_r$].

+ If NDSS_ORIG$_s$ is equal to enabled, the mobile station shall set NDSS_ORIG$_s$ to disabled, and should indicate to the user that the call origination has been canceled. If PACA$_s$ is equal to enabled, the mobile station shall set PACA$_s$ to disabled and PACA_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.

+ The mobile station shall enter the Mobile Station Idle State.

17.18. Security Mode Command Message: The mobile station shall process the message as follows:

- The mobile station shall set C_SIG_ENCRYPT_MODE$_s$ to C_SIG_ENCRYPT_MODE$_r$.

- If USE_NEW_KEY$_r$ is not included, or is included and is set to ‘1’, the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEY$_s$[KEY_SEQ_NEW$_{s-p}$]. The mobile station shall store KEY_SIZE$_r$ in KEY_SIZE$_s$. The mobile station shall then increment the variable KEY_SEQ_NEW$_{s-p}$ by one (modulo 16). If ENC_KEY_SIZE$_r$ is included, the mobile station shall set ENC_KEY_SIZE$_s$ to ENC_KEY_SIZE$_r$.

- If USE_NEW_KEY$_r$ is included and is set to ‘0’, then the mobile station shall use KEY$_s$[KEY_SEQ$_r$] as the session key.

18.19. Service Redirection Message: The mobile station shall process the message as follows:

- If the mobile station is directed to an unsupported operation mode or band class, the mobile station shall respond with a Mobile Station Reject Order with ORDQ equal to ‘00000110’ (message requires a capability that is not supported by the mobile station).

- If DELETE TMSI$_r$ is equal to ‘1’, the mobile station shall set all the bits of TMSI_CODE$_{s-p}$ to ‘1’.

- The mobile station shall disable the full-TMSI timer.

- The mobile station shall set RETURN_IF_FAIL$_s$ = RETURN_IF_FAIL$_r$. 

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If RECORD_TYPE \( r \) is ‘00000000’, the mobile station shall set RETURN_IF_FAILs = RETURN_IF_FAILr, and enter the System Determination Substate of the Mobile Station Initialization State with an NDSS off indication (see 2.6.1.1); otherwise:

- if REDIRECT_TYPE \( r \) is ‘0’, the mobile station shall store the redirection record received in the message as REDIRECT_RECs and shall enter the System Determination Substate of the Mobile Station Initialization State with a redirection indication (see 2.6.1.1).
- if REDIRECT_TYPE \( r \) is ‘1’, the mobile station shall store the redirection record received in the message as REDIRECT_RECs and shall enable NDSS_ORIGs, and shall record the dialed digits [if any]. The mobile station shall enter the System Determination Substate of the Mobile Station Initialization State with a redirection indication (see 2.6.1.1).

20.20. SSD Update Message: The mobile station shall respond to the message as specified in 2.3.12.1.5.

20.21. Status Request Message: The mobile station shall disable the System Access State timer and respond to the message. If P_REV_IN_USEs is less than or equal to three, the mobile station shall respond with a Status Response Message. If P_REV_IN_USEs is greater than three, the mobile station shall respond with an Extended Status Response Message. If the message does not specify any qualification information (QUAL_INFO_TYPEr is equal to ‘00000000’), the mobile station shall include the requested information records in the response. If the message specifies a band class (QUAL_INFO_TYPEr is equal to ‘00000001’), the mobile station shall only include the requested information records for the specified band class (BAND_CLASSr) in the response. If the message specifies a band class and an operating mode (QUAL_INFO_TYPEr is equal to ‘00000010’), the mobile station shall only include the requested information records for the specified band class (BAND_CLASSr) and operating mode (OP_MODEr) in the response. If the message specifies a band class or a band class and an operating mode which are not supported by the mobile station, the mobile station shall send a Mobile Station Reject Order with ORDQ set to ‘00000110’ (message requires a capability that is not supported by the mobile station). If the response to this message exceeds the allowable length, the mobile station shall send a Mobile Station Reject Order with ORDQ set to ‘00001000’ (response message would exceed the allowable length). If the message specifies an information record which is not supported by the mobile station for the specified band class and operating mode, the mobile station shall send a Mobile Station Reject Order with ORDQ set to ‘00001001’ (information record is not supported for the specified band class and operating mode).

21.22. TMSI Assignment Message: The mobile station shall store the TMSI zone and code as follows:

- The mobile station shall store the length of the TMSI zone field by setting ASSIGNING_TMSI_ZONE_LENs-p to TMSI_ZONE_LENr,
The mobile station shall store the assigning TMSI zone number by setting the
ASSIGNING_TMSI_ZONE_LENs-p least significant octets of
ASSIGNING_TMSI_ZONEs-p to TMSI_ZONEr, and
- The mobile station shall store the TMSI code by setting TMSI_CODEs-p to
  TMSI_CODEr.

The mobile station shall set the TMSI expiration time by setting TMSI_EXP_TIMEs-p
to TMSI_EXP_TIMEr. The mobile station shall disable the full-TMSI timer. The
mobile station shall then respond with a *TMSI Assignment Completion Message*
within T56m seconds.

**22.23. User Zone Reject Message**

**23.24. Any other message:** If the mobile station receives any other message specified in
Table 3.7.2.3-1, it shall ignore all Layer 3 fields. The mobile station shall ignore all
other messages.

**24. Base Station Reject Order:**

- If ORDQr = ‘00000000’, the mobile station shall set KEYs to NULL and set
  C_SIG_ENCRYPT_MODE to ‘000’. The mobile station shall re-originate by
  sending a new *Origination Message*;

- If ORDQr = ‘00000001’, the mobile station shall send a *Security Mode Request*
  Message with the ENC_SIG_H field included in it. If the mobile receives two *Base
  Station Reject Orders* without successfully decrypting any encrypted messages
  from the base station between the orders, the mobile station shall set
  REG_ENCRYPT_RESYNC to YES and the mobile station shall go to the *System
  Determination Substate* with an encryption failure indication.

If the mobile station performs an access probe handoff or access handoff and receives any
of the following messages, it shall process the message as specified in 2.6.3.1.3:

- If the mobile station is currently monitoring the Paging Channel:
  1. *System Parameters Message*
  2. *Access Parameters Message*
  3. *Neighbor List Message*
  4. *Extended System Parameters Message*
  5. *Extended Neighbor List Message*
  6. *General Neighbor List Message*
  7. *Global Service Redirection Message*
  8. *Extended Global Service Redirection Message*

- If the mobile station is currently monitoring the Primary Broadcast Control Channel:
  1. *ANSI-41 System Parameters Message*
  2. *Enhanced Access Parameters Message*
3. Universal Neighbor List Message

4. MC-RR Parameters Message

5. Extended Global Service Redirection Message

2.6.3.6 Registration Access Substate

In this substate, the mobile station sends a Registration Message. If the base station responds with an authentication request, the mobile station responds in this substate.

Upon entering the Registration Access Substate, the mobile station shall send the Registration Message.

If a message received from the base station requires a Layer 2 acknowledgment and does not require a Layer 3 response, Layer 3 shall indicate to Layer 2 that no response is outstanding (see 2.1.1.2.2.1 of [4]).

If a message received from the base station requires a Layer 2 acknowledgment and also a Layer 3 response, Layer 3 shall indicate to Layer 2 that a response is outstanding (see 2.1.1.2.2.1 of [4]).

When transmitting a response to a message received from the base station, Layer 3 shall indicate to Layer 2 that the type of the message is a response (see 2.1.1.2.2.1 of [4]).

When transmitting an autonomous message (i.e., a message that is not sent as a response to a message received from the base station) other than the Registration Message, Layer 3 shall indicate to Layer 2 that the type of the message is a request other than a registration request or a message transmission request (see 2.1.1.2.2.1 of [4]).

When transmitting an autonomous Registration Message (i.e., it is not sent as a response to a Registration Request Order received from the base station), Layer 3 shall indicate to Layer 2 that the type of the message is a request that is a registration (see 2.1.1.2.2.1 of [4]).

While in this substate, the mobile station shall monitor the Paging Channel or the Forward Common Control Channel. If the mobile station declares a loss of the Paging Channel or the Forward Common Control Channel (see 2.6.2.1.1.4 2.6.3.1.8), the mobile station shall perform the following:

- If PACAs is equal to enabled, the mobile station shall set PACAs to disabled and PACA_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.

- The mobile station shall declare an access attempt failure and update its registration variables as specified in 2.6.5.5.3.2.

- The mobile station shall disable its transmitter and enter the Mobile Station Idle State.

If the mobile station receives confirmation of delivery of any message sent by the mobile station in this substate, it shall then enter the Mobile Station Idle State unless:
• If the registration access was initiated due to a user direction to power down, the mobile station shall update registration variables as specified in 2.6.5.5.3.3 and may power down.

• If the mobile station has included the ENC_SEQ_H field in the Registration Message, then the mobile station should set this field to one plus the previous value of this field (if any).

• If the mobile station has included the ENC_SEQ_H field in the Registration Message, then the mobile station shall set EXT_ENC_SEQ<sub>s</sub> to 265 × ENC_SEQ_H.

If the mobile station includes the ENC_SEQ_H field in the Registration Message, then the mobile station shall set EXT_ENC_SEQ<sub>s</sub> to 265 × ENC_SEQ_H.

• If the message received from the base station requires a response, the mobile station shall send a response to the message in this substate.

If the mobile station receives confirmation of delivery of the Registration Message, the mobile station shall update its registration variables as specified in 2.6.5.5.3.1.

If the mobile station is directed by the user to originate a call, the mobile station may process the origination request as follows:

• Layer 3 shall send an L2-Supervision.Request primitive to Layer 2 to abort any access attempt in progress.

• If PACA<sub>s</sub> is equal to enabled, the mobile station shall set PACA<sub>s</sub> to disabled and PACA_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.

• The mobile station shall enter the Mobile Station Origination Attempt Substate with an origination indication.

If PACA<sub>s</sub> is equal to enabled, the mobile station shall set PACA_CANCEL to ‘1’ when the user directs the mobile station to cancel a PACA call.

If the mobile station receives a mobile-station-addressed page, the mobile station may determine if there is a page match (see 2.6.2.3). If a match is declared, the mobile station shall perform the following:

• Layer 3 shall send an L2-Supervision.Request primitive to Layer 2 to abort any access attempt in progress.

• The mobile station shall enter the Page Response Substate.

If the mobile station is to exit the System Access State as a result of processing Layer 3 fields of a message requiring an acknowledgment, the mobile station shall exit the System Access State after Layer 3 receives an indication from Layer 2 that the acknowledgment to the message has been sent and acknowledged.

If Layer 3 receives a message with an indication from Layer 2 that an access attempt for a message being transmitted was not terminated as a result of processing the Layer 2 fields of the received message, the mobile station shall ignore the received message.

The following directed messages and orders can be received. If any field value of the message or order is outside its permissible range, the mobile station may send a Mobile Station Reject Order with ORDQ equal to ‘00000100’ (message field not in valid range).
1. **Authentication Challenge Message:** If the registration access was initiated due to a user direction to power down, the mobile station shall ignore the message; otherwise, the mobile station shall respond to the message as specified in 2.3.12.1.4, regardless of the value of AUTHs.

2. **Base Station Challenge Confirmation Order:** If the registration access was initiated due to a user direction to power down, the mobile station shall ignore the message; otherwise, the mobile station shall respond to the message as specified in 2.3.12.1.5.

3. **Base Station Reject Order:**
   - If ORDQr = ‘00000001’, the mobile station shall send a Security Mode Request Message with the ENC_SIG_H field included in it. If the mobile receives two Base Station Reject Orders without successfully decrypting any encrypted messages from the base station between the orders, the mobile station shall set REG_ENCRYPT_RESYNC to YES and the mobile station shall go to the System Determination Substate with an encryption failure indication.

4. **Data Burst Message**

5. **Feature Notification Message**

6. **Local Control Order**

7. **Lock Until Power-Cycled Order:** The mobile station shall disable its transmitter and record the reason for the Lock Until Power-Cycled Order in the mobile station’s semi-permanent memory (LCKRSN_Ps-p equals the least significant four bits of ORDQr). The mobile station should notify the user of the locked condition. The mobile station shall enter the System Determination Substate of the Mobile Station Initialization State with a lock indication (see 2.6.1.1), and shall not enter the System Access State again until after the next mobile station power-up or until it has received an Unlock Order. This requirement shall take precedence over any other mobile station requirement specifying entry to the System Access State.

8. **Maintenance Required Order:** The mobile station shall record the reason for the Maintenance Required Order in the mobile station’s semi-permanent memory (MAINTRSNs-p equals the least significant four bits of ORDQr). The mobile station shall remain in the unlocked condition. The mobile station should notify the user of the maintenance required condition.

9. **PACA Message:** If P_REV_IN_USEs is less than or equal to four and the mobile station does not support PACA capability, the mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00000110’ (message requires a capability that is not supported by the mobile station); otherwise, the mobile station shall process the message as follows:
   - If PACAs is equal to disabled, the mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00000010’ (message not accepted in this state).
   - If PACAs is equal to enabled, the mobile station shall perform the following:

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• If the purpose of the message is to respond to an Origination Message
(PURPOSEr is equal to '0000'), the mobile station shall send a Mobile Station
Reject Order with the ORDQ field set to '00000010' (message not accepted in this
state).

• If the purpose of the message is to provide the queue position of the PACA call
(PURPOSEr is equal to '0001'), the mobile station shall set the PACA state timer
to the duration shown in Table 3.7.2.3.2.20-2 corresponding to the value of
PACA_TIMEOUTs, should indicate to the user that the PACA call is still queued,
and should indicate to the user the current queue position (Q_POSr) of the call.

• If the purpose of the message is to instruct the mobile station to re-originate the
PACA call (PURPOSEr is equal to '0010'), Layer 3 shall send an L2-
Supervision.Request primitive to Layer 2 to abort any access attempt in
progress, shall set the PACA state timer to the duration shown in Table
3.7.2.3.2.20-2 corresponding to the value of PACA_TIMEOUTs, and shall enter
the Mobile Station Origination Attempt Substate with a PACA response indication.

• If the purpose of the message is to cancel the PACA call (PURPOSEr is equal to
'0011'), the mobile station shall set PACAs to disabled and PACA_CANCEL to '0',
disable the PACA state timer, and should indicate to the user that the
PACA call has been canceled.

910. Registration Accepted Order:
• If ORDQr = ‘00000101’, the mobile station shall set ROAM_INDIs = ROAM_INDIr
and should display the roaming condition.

• If ORDQr = ‘00000111’, the mobile station shall perform the following
  - The mobile station shall set ROAM_INDIs = ROAM_INDIr and should
display the roaming condition.
  - The mobile station shall set C_SIG_ENCRYPT_MODEs = C_SIG_ENCRYPT_MODEr.

  If USE_NEW_KEYr is not included, or is included and is set to ‘1’, the mobile
station shall use the session key generated at the most recent registration for
encryption of signaling and user information. The mobile station shall store
the session key in KEYs[KEY_SEQ_NEWs,p]. The mobile station shall store
KEY_SIZEr in KEY_SIZEs. The mobile station shall increment the variable
KEY_SEQ_NEWs,p by one (modulo 16). If ENC_KEY_SIZEr is included, the
mobile station shall set ENC_KEY_SIZEs to ENC_KEY_SIZEr.

  - If USE_NEW_KEYr is included and is set to '0', then the mobile station shall
use KEYs[KEY_SEQ] as the session key.

  - If C_SIG_ENCRYPT_MODEr is not equal to '000', the mobile station shall set
ENC_KEYs to the most recently generated CMEAKEY in the mobile station,
associated with the AUTHR of the Registration Message, and
EXT_ENCRYPT_SEQ[0] and EXT_ENCRYPT_SEQ[1] to 256 × ENC_SEQ_H
(the ENC_SEQ_H field in the Registration Message).
- The mobile station shall then enter the **Mobile Station Idle State**.

**Registration Rejected Order:** This order indicates that normal service is not available on this system. The mobile station shall disable the full-TMSI timer. If the received order specifies to delete the TMSI (ORDQ = ‘00000100’), the mobile station shall set all the bits of the TMSI_CODEs to ‘1’. The mobile station shall enter the **System Determination Substate** of the **Mobile Station Initialization State** with a registration rejected indication (see 2.6.1.1).

**Release Order:** If NDSS_ORIGS is equal to enabled, the mobile station shall set NDSS_ORIGS to disabled, and should indicate to the user that the call origination has been canceled. The mobile station shall enter the **Mobile Station Idle State** or the **System Determination Substate** of the **Mobile Station Initialization State** with a release indication (see 2.6.1.1). If the mobile station enters the **Mobile Station Idle State**, and if PACAs is equal to enabled, the mobile station shall set PACAs to disabled and PACA_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.

**Retry Order:** The mobile station shall process the message as follows:

- If RETRY_TYPE is equal to ‘000’, the mobile station shall set RETRY_DELAYs[RETRY_TYPE] to 0, where RETRY_TYPE is equal to ‘001’, ‘010’, or ‘011’.
- If RETRY_TYPE is equal to ‘001’, the mobile station shall perform the following:
  - If RETRY_DELAY is equal to ‘00000000’, then the mobile station shall set RETRY_DELAYs[RETRY_TYPE] to 0.
  - If RETRY_DELAY is not equal to ‘00000000’, the mobile station shall set RETRY_DELAYs[RETRY_TYPE] as follows:
    - If the most significant bit of the RETRY_DELAY is ‘0’, set RETRY_DELAY_UNITs to 1000ms. If the most significant bit of the RETRY_DELAY is ‘1’, set RETRY_DELAY_UNITs to 60000ms.
    - The mobile station shall set RETRY_DELAY_VALUEs to the seven least significant bits of RETRY_DELAY.
    - The mobile station shall store the next system time 80 ms boundary + RETRY_DELAY_VALUEs × RETRY_DELAY_UNITs ms as RETRY_DELAYs[RETRY_TYPE].

**Security Mode Command Message:** The mobile station shall process the message as follows:

- The mobile station shall set C_SIG_ENCRYPT_MODEs to C_SIG_ENCRYPT_MODEr.
If USE_NEW_KEYr is not included, or is included and is set to '1', the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEYs[KEY_SEQ_NEWs-p]. The mobile station shall store KEY_SIZEr in KEY_SIZEs. The mobile station shall then increment the variable KEY_SEQ_NEWs-p by one (modulo 16).

If ENC_KEY_SIZEr is included, the mobile station shall set ENC_KEY_SIZEs to ENC_KEY_SIZEr.

If USE_NEW_KEYr is included and is set to '0', then the mobile station shall use KEYs[KEY_SEQr] as the session key.

**Service Redirection Message:** The mobile station shall process the message as follows:

- If the mobile station is directed to an unsupported operation mode or band class, the mobile station shall respond with a *Mobile Station Reject Order* with ORDQ equal to '00000110' (message requires a capability that is not supported by the mobile station).
- If DELETE_TMSIr is equal to '1', the mobile station shall set all the bits of TMSI_CODEs-p to '1'. The mobile station shall disable the full-TMSI timer.
- The mobile station shall set RETURN_IF_FAILs = RETURN_IF_FAILr.
- If RECORD_TYPEr is equal to '00000000', the mobile station shall enter the *System Determination Substate* of the Mobile Station Initialization State with an NDSS off indication (see 2.6.1.1); otherwise, the mobile station shall store the redirection record received in the message as REDIRECT_REC and shall enter the *System Determination Substate* of the Mobile Station Initialization State with a redirection indication (see 2.6.1.1).

**SSD Update Message:** If the registration access was initiated due to a user direction to power down, the mobile station shall ignore the message. Otherwise, the mobile station shall respond to the message as specified in 2.3.12.1.5.

**Status Request Message:** The mobile station shall disable the System Access State timer and respond to the message. If P_REV_IN_USEs is less than or equal to three, the mobile station shall respond with a *Status Response Message*. If P_REV_IN_USEs is greater than three, the mobile station shall respond with an *Extended Status Response Message*. If the message does not specify any qualification information (QUAL_INFO_TYPEr is equal to '00000000'), the mobile station shall include the requested information records in the response. If the message specifies a band class (QUAL_INFO_TYPEr is equal to '00000001'), the mobile station shall only include the requested information records for the specified band class (BAND_CLASSr) in the response. If the message specifies a band class and an operating mode (QUAL_INFO_TYPEr is equal to '00000010'), the mobile station shall only include the requested information records for the specified band class (BAND_CLASSr) and operating mode (OP_MODEr) in the response.
If the message specifies a band class or a band class and an operating mode which
are not supported by the mobile station, the mobile station shall send a Mobile
Station Reject Order with ORDQ set to ‘00000110’ (message requires a capability that
is not supported by the mobile station). If the response to this message exceeds the
allowable length, the mobile station shall send a Mobile Station Reject Order with
ORDQ set to ‘00001000’ (response message would exceed the allowable length). If
the message specifies an information record which is not supported by the mobile
station for the specified band class and operating mode, the mobile station shall
send a Mobile Station Reject Order with ORDQ set to ‘00001001’ (information record
is not supported for the specified band class and operating mode).

### TMSI Assignment Message
The mobile station shall store the TMSI zone and code as follows:

- The mobile station shall store the length of the TMSI zone field by setting
  ASSIGNING_TMSI_ZONE_LEN_s-p to TMSI_ZONE_LEN_r;
- The mobile station shall store the assigning TMSI zone number by setting the
  ASSIGNING_TMSI_ZONE_LEN_s-p least significant octets of
  ASSIGNING_TMSI_ZONE_s-p to TMSI_ZONE_r, and
- The mobile station shall store the TMSI code by setting TMSI_CODE_s-p to
  TMSI_CODE_r.

The mobile station shall set the TMSI expiration time by setting TMSI_EXP_TIME_s-p
to TMSI_EXP_TIME_r. The mobile station shall disable the full-TMSI timer. The
mobile station shall then respond with a TMSI Assignment Completion Message
within T_{56m} seconds.

### User Zone Reject Message

### Any other message: If the mobile station receives any other message specified in
Table 3.7.2.3-1, it shall ignore all Layer 3 fields. The mobile station shall ignore all
other messages.

### Base Station Reject Order:
- If ORDQ_r = ‘00000001’, the mobile station shall send a Security Mode Request
  Message with the ENC_SIG_H field included in it. If the mobile receives two Base
  Station Reject Orders without successfully decrypting any encrypted messages
  from the base station between the orders, the mobile station shall set
  REG_ENCRYPT_RESYNC to YES and the mobile station shall go to the System
  Determination Substate with an encryption failure indication.

2.6.3.7 Mobile Station Message Transmission Substate
In this substate, the mobile station sends a Data Burst Message or a Device Information
Message. If the base station responds with an authentication request, the mobile station
responds in this substate.

Support of this substate is optional.
If a message received from the base station requires a Layer 2 acknowledgment and does not require a Layer 3 response, Layer 3 shall indicate to Layer 2 that no response is outstanding (see 2.1.1.2.2.1 of [4]).

If a message received from the base station requires a Layer 2 acknowledgment and also a Layer 3 response, Layer 3 shall indicate to Layer 2 that a response is outstanding (see 2.1.1.2.2.1 of [4]).

When transmitting a response to a message received from the base station, Layer 3 shall indicate to Layer 2 that the type of the message is a response (see 2.1.1.2.2.1 of [4]).

When transmitting an autonomous message (i.e., a message that is not sent as a response to a message received from the base station) other than the Data Burst Message, Layer 3 shall indicate to Layer 2 that the message is a request other than a registration request or a message transmission request (see 2.1.1.2.2.1 of [4]).

When transmitting an autonomous Data Burst Message, Layer 3 shall indicate to Layer 2 that the type of the message is a request that is a message transmission (see 2.1.1.2.2.1 of [4]).

Upon entering the Mobile Station Message Transmission Substate, the mobile station shall transmit the message as follows:

- The mobile station shall exit the Mobile Station Message Transmission Substate, shall enter either the Mobile Station Idle State or the System Determination Substate with an ACCT blocked indication, and should indicate to the user that the message transmission has terminated if all of the following conditions are true:
  - P_REV_IN_USE is greater than six,
  - ACCT is enabled for the service option number associated with the data burst message, due to either of the following two conditions:
    - The service option number associated with the data burst message is equal to an ACCT_SO entry in ACCT_SO_LIST, or
    - The service option group number of the service option associated with the data burst message is equal to an ACCT_SO_GRP entry in ACCT_SO_GRP_LIST.

- If the mobile station entered this substate with a message transmission indication, the mobile station shall transmit the Data Burst Message to the base station.
- If the mobile station entered this substate with a hook status indication, the mobile station shall set the autonomous message timer equal to AUTO_MSG_INTERVALs and shall start the timer. The mobile station shall transmit the Device Information Message to the base station, with the RECORD_TYPE field of the message set to 00100000 and the Hook Indicator field set to the current hook status.

While in this substate, the mobile station shall monitor the Paging Channel or the Forward Common Control Channel. If the mobile station declares a loss of the Paging Channel or the Forward Common Control Channel (see 2.6.2.1.1.4 2.6.3.1.8), the mobile station shall perform the following:
If PACA is equal to enabled, the mobile station shall set PACA to disabled and PACA_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.

The mobile station shall declare an access attempt failure and update its registration variables as specified in 2.6.5.5.3.2.

The mobile station shall disable its transmitter and enter the Mobile Station Idle State.

If the mobile station receives confirmation of any message sent by the mobile station in this substate, it shall send a response in this substate if required and shall then enter the Mobile Station Idle State.

If PACA is equal to enabled, the mobile station shall set PACA_CANCEL to ‘1’ when the user directs the mobile station to cancel a PACA call.

If the mobile station receives a mobile-station-addressed page, the mobile station may determine whether there is a page match (see 2.6.2.3). If a match is declared, the mobile station shall perform the following:

- Layer 3 shall send an L2-Supervision.Request primitive to Layer 2 to abort any access attempt in progress.
- The mobile station shall enter the Page Response Substate.
- If the mobile station entered this substate with a message transmission indication, the mobile station may store the Data Burst Message for later transmission.

If the mobile station is to exit the System Access State as a result of processing Layer 3 fields of a message requiring an acknowledgment, the mobile station shall exit the System Access State after Layer 3 receives an indication from Layer 2 that the acknowledgment to the message has been sent and acknowledged.

If Layer 3 receives a message with an indication from Layer 2 that an access attempt for a message being transmitted was not terminated as a result of processing the Layer 2 fields of the received message, the mobile station shall ignore the received message.

The following directed messages and orders can be received. If any field value of the message or order is outside its permissible range, the mobile station may send a Mobile Station Reject Order with ORDQ equal to ‘00000100’ (message field not in valid range).

1. **Authentication Challenge Message:** The mobile station shall respond to the message as specified in 2.3.12.1.4, regardless of the value of AUTH.

2. **Base Station Challenge Confirmation Order:** The mobile station shall respond to the message as specified in 2.3.12.1.5.

3. **Base Station Reject Order:**
• If $\text{ORDQ}_r = '00000001'$, the mobile station shall send a Security Mode Request Message with the ENC_SIG_H field included in it. If the mobile receives two Base Station Reject Orders without successfully decrypting any encrypted messages from the base station between the orders, the mobile station shall set REG_ENCRYPT_RESYNC to YES and the mobile station shall go to the System Determination Substate with an encryption failure indication.

34. Data Burst Message

45. Local Control Order

56. Lock Until Power-Cycled Order: The mobile station shall disable its transmitter and record the reason for the Lock Until Power-Cycled Order in the mobile station’s semi-permanent memory ($\text{LCKRSN}_{PS-P}$ equals the least significant four bits of $\text{ORDQ}_r$). The mobile station should notify the user of the locked condition. The mobile station shall enter the System Determination Substate of the Mobile Station Initialization State with a lock indication (see 2.6.1.1), and shall not enter the System Access State again until after the next mobile station power-up or until it has received an Unlock Order. This requirement shall take precedence over any other mobile station requirement specifying entry to the System Access State.

67. Maintenance Required Order: The mobile station shall record the reason for the Maintenance Required Order in the mobile station’s semi-permanent memory ($\text{MAINTRSN}_{S-P}$ equals the least significant four bits of $\text{ORDQ}_r$). The mobile station shall remain in the unlocked condition. The mobile station should notify the user of the maintenance required condition.

78. PACA Message: If $\text{P_REV_IN_USE}_{s}$ is less than or equal to four and the mobile station does not support PACA capability, the mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00000110’ (message requires a capability that is not supported by the mobile station); otherwise, the mobile station shall process the message as follows:

If PACA$_s$ is equal to disabled, the mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00000010’ (message not accepted in this state).

If PACA$_s$ is equal to enabled, the mobile station shall perform the following:

• If the purpose of the message is to respond to an Origination Message ($\text{PURPOSE}_{r}$ is equal to ‘0000’), the mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00000010’ (message not accepted in this state).

• If the purpose of the message is to provide the queue position of the PACA call ($\text{PURPOSE}_{r}$ is equal to ‘0001’), the mobile station shall set the PACA state timer to the duration shown in Table 3.7.2.3.2.20-2 corresponding to the value of PACA_TIMEOUT$_{s}$, should indicate to the user that the PACA call is still queued, and should indicate to the user the current queue position ($\text{Q.POS}_{r}$) of the call.
If the purpose of the message is to instruct the mobile station to re-originate the PACA call (PURPOSEr is equal to ‘0010’), Layer 3 shall send an L2-Supervision.Request primitive to Layer 2 to abort any access attempt in progress, shall set the PACA state timer to the duration shown in Table 3.7.2.3.2.20-2 corresponding to the value of PACA_TIMEOUTs, and shall enter the Mobile Station Origination Attempt Substate with a PACA response indication.

If the purpose of the message is to cancel the PACA call (PURPOSEr is equal to ‘0011’), the mobile station shall set PACAto disabled and PACA_CANCEL to ‘0’, shall disable the PACA state timer, and should indicate to the user that the PACA call has been canceled.

### Registration Accepted Order:
- If ORDQr = ‘00000101’, the mobile station shall set ROAM_INDI_s = ROAM_INDI_r and should display the roaming condition.
- If ORDQr = ‘00000111’, the mobile station shall perform the following
  - The mobile station shall set C.SIG_ENCRYPT_MODE_s = C.SIG_ENCRYPT_MODE_r.
  - If USE_NEW_KEY_r is not included, or is included and is set to ‘1’, the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEY_s[KEY_SEQ_NEW_s-p]. The mobile station shall store KEY_SIZE_r in KEY_SIZE_s. The mobile station shall increment the variable KEY_SEQ_NEW_s-p by one (modulo 16). If ENC_KEY_SIZE_r is included, the mobile station shall set ENC_KEY_SIZE_s to ENC_KEY_SIZE_r.
  - If USE_NEW_KEY_r is included and is set to ‘0’, then the mobile station shall use KEY_s[KEY_SEQ_r] as the session key.
  - If C.SIG_ENCRYPT_MODE_r is not equal to ‘000’, the mobile station shall set ENC_KEY_s to the most recently generated CMEAKEY in the mobile station associated with the AUTHR of the Registration Message, and EXT_ENCRYPT_SEQ[0] and EXT_ENCRYPT_SEQ[1] to 256 × ENC_SEQ_H (the ENC_SEQ_H field in the Registration Message).

### Registration Rejected Order: This order indicates that normal service is not available on this system. The mobile station shall disable the full-TMSI timer. If the received order specifies to delete the TMSI (ORDQ = ‘00000100’), the mobile station shall set all the bits of the TMSI_CODEs-p to ‘1’. The mobile station shall enter the System Determination Substate of the Mobile Station Initialization State with a registration rejected indication (see 2.6.1.1).

### Retry Order: The mobile station shall process the message as follows:
• If \( \text{RETRY\_TYPE}_r \) is equal to ‘000’, the mobile station shall set
\( \text{RETRY\_DELAY}_s[\text{RETRY\_TYPE}] \) to 0, where \( \text{RETRY\_TYPE} \) is equal to ‘001’, ‘010’, or ‘011’.

• If \( \text{RETRY\_TYPE}_r \) is equal to ‘001’, the mobile station shall perform the following:
  – If \( \text{RETRY\_DELAY}_r \) is equal to ‘00000000’, then the mobile station shall set
    \( \text{RETRY\_DELAY}_s[\text{RETRY\_TYPE}_r] \) to 0.
  – If \( \text{RETRY\_DELAY}_r \) is not equal to ‘00000000’, the mobile station shall set
    \( \text{RETRY\_DELAY}_s[\text{RETRY\_TYPE}_r] \) as follows:
      + If the most significant bit of the \( \text{RETRY\_DELAY}_r \) is ‘0’, set
        \( \text{RETRY\_DELAY\_UNIT}_s \) to 1000ms. If the most significant bit of the
        \( \text{RETRY\_DELAY}_r \) is ‘1’, set \( \text{RETRY\_DELAY\_UNIT}_s \) to 60000ms.
      + The mobile station shall set \( \text{RETRY\_DELAY\_VALUE}_s \) to the seven least
        significant bits of \( \text{RETRY\_DELAY}_r \).
      + The mobile station shall store the next system time 80 ms boundary +
        \( \text{RETRY\_DELAY\_VALUE}_s \times \text{RETRY\_DELAY\_UNIT}_s \) ms as
        \( \text{RETRY\_DELAY}_s[\text{RETRY\_TYPE}_r] \).

\[ \textbf{1212. Security Mode Command Message:} \] The mobile station shall process the message as
follows:

- The mobile station shall set \( \text{C\_SIG\_ENCRYPT\_MODE}_s \) to
  \( \text{C\_SIG\_ENCRYPT\_MODE}_r \).

- If \( \text{USE\_NEW\_KEY}_r \) is not included, or is included and is set to ‘1’, the mobile
  station shall use the session key generated at the most recent registration for
  encryption of signaling and user information. The mobile station shall store the
  session key in \( \text{KEY}_s[\text{KEY\_SEQ\_NEW}_s-p] \). The mobile station shall store
  \( \text{KEY\_SIZE}_r \) in \( \text{KEY\_SIZE}_s \). The mobile station shall then increment the variable
  \( \text{KEY\_SEQ\_NEW}_s-p \) by one (modulo 16). If \( \text{ENC\_KEY\_SIZE}_r \) is included, the
  mobile station shall set \( \text{ENC\_KEY\_SIZE}_s \) to \( \text{ENC\_KEY\_SIZE}_r \).

- If \( \text{USE\_NEW\_KEY}_r \) is included and is set to ‘0’, then the mobile station shall use
  \( \text{KEY}_s[\text{KEY\_SEQ}_s] \) as the session key.

\[ \textbf{1213. Service Redirection Message:} \] The mobile station shall process the message as
follows:

- If the mobile station is directed to an unsupported operation mode or band class,
  the mobile station shall respond with a \textit{Mobile Station Reject Order} with \( \text{ORDQ} \)
  equal to ‘00000110’ (message requires a capability that is not supported by the
  mobile station).

- If \( \text{DELETE\_TMSI}_r \) is equal to ‘1’, the mobile station shall set all the bits of
  \( \text{TMSI\_CODE}_s-p \) to ‘1’. The mobile station shall disable the full-TMSI timer.

- The mobile station shall set \( \text{RETURN\_IF\_FAIL}_s = \text{RETURN\_IF\_FAIL}_r \).
• If RECORD_TYPE_r is equal to ‘00000000’, the mobile station shall enter the 
  System Determination Substate of the Mobile Station Initialization State with an 
  NDSS off indication (see 2.6.1.1); otherwise, the mobile station shall store the 
  redirection record received in the message as REDIRECT_REC_s and shall enter 
  the System Determination Substate of the Mobile Station Initialization State with a 
  redirection indication (see 2.6.1.1).

SSD Update Message: The mobile station shall respond to the message as specified 
in 2.3.12.1.5.

Status Request Message: The mobile station shall disable the System Access State 
timer and respond to the message. If P_REV_IN_USE_s is less than or equal to three, 
the mobile station shall respond with a Status Response Message. If 
P_REV_IN_USE_s is greater than three, the mobile station shall respond with an 
Extended Status Response Message. If the message does not specify any 
qualification information (QUAL_INFO_TYPE_r is equal to ‘00000000’), the mobile 
station shall include the requested information records in the response. If the 
message specifies a band class (QUAL_INFO_TYPE_r is equal to ‘00000001’), the 
mobile station shall only include the requested information records for the specified 
band class (BAND_CLASS_s) in the response. If the message specifies a band class 
and an operating mode (QUAL_INFO_TYPE_r is equal to ‘00000010’), the mobile 
station shall only include the requested information records for the specified band 
class (BAND_CLASS_s) and operating mode (OP_MODE_s) in the response.

If the message specifies a band class or a band class and an operating mode which 
is not supported by the mobile station, the mobile station shall send a Mobile Station 
Reject Order with ORDQ set to ‘00000011’ (message requires a capability that is not 
supported by the mobile station). If the response to this message exceeds the 
allowable length, the mobile station shall send a Mobile Station Reject Order with 
ORDQ set to ‘00000100’ (response message would exceed the allowable length). If 
the message specifies an information record which is not supported by the mobile 
station for the specified band class and operating mode, the mobile station shall 
send a Mobile Station Reject Order with ORDQ set to ‘00000101’ (information record 
is not supported for the specified band class and operating mode).

TMSI Assignment Message: The mobile station shall store the TMSI zone and code 
as follows:

• The mobile station shall store the length of the TMSI zone field by setting 
  ASSIGNING_TMSI_ZONE_LEN_s-p to TMSI_ZONE_LEN_r,

• The mobile station shall store the assigning TMSI zone number by setting the 
  ASSIGNING_TMSI_ZONE_LEN_s-p least significant octets of 
  ASSIGNING_TMSI_ZONE_s-p to TMSI_ZONE_r, and

• The mobile station shall store the TMSI code by setting TMSI_CODE_s-p to 
  TMSI_CODE_r.

The mobile station shall set the TMSI expiration time by setting 
TMSI_EXP_TIME_s-p to TMSI_EXP_TIME_r. The mobile station shall disable the
full-TMSI timer. The mobile station shall then respond with a TMSI Assignment Completion Message within T56m seconds.

**16.17. Any other message:** If the mobile station receives any other message specified in Table 3.7.2.3-1, it shall ignore all Layer 3 fields. The mobile station shall ignore all other messages.

**17. Base Station Reject Order:**
- If \( \text{ORDQ}_r = '00000001' \), the mobile station shall send a Security Mode Request Message with the ENC_SIG_H field included in it. If the mobile receives two Base Station Reject Orders without successfully decrypting any encrypted messages from the base station between the orders, the mobile station shall set REG_ENCRYPT_RESYNC to YES and the mobile station shall go to the System Determination Substate with an encryption failure indication.

2.6.3.8 PACA Cancel Substate

In this substate, the mobile station sends a PACA Cancel Message. If the base station responds with an authentication request, the mobile station responds in this substate.

Upon entering the **PACA Cancel Substate**, the mobile station shall transmit the **PACA Cancel Message**.

If a message received from the base station requires a Layer 2 acknowledgment and does not require a Layer 3 response, Layer 3 shall indicate to Layer 2 that no response is outstanding (see 2.1.1.2.2.1 of [4]).

If a message received from the base station requires a Layer 2 acknowledgment and also a Layer 3 response, Layer 3 shall indicate to Layer 2 that a response is outstanding (see 2.1.1.2.2.1 of [4]).

When transmitting a response to a message received from the base station, Layer 3 shall indicate to Layer 2 that the type of the message is a response (see 2.1.1.2.2.1 of [4]).

When transmitting an autonomous message (i.e., a message that is not sent as a response to a message received from the base station), Layer 3 shall indicate to Layer 2 that the type of the message is a request other than a registration request or a message transmission request (see 2.1.1.2.2.1 of [4]).

While in this substate, the mobile station shall monitor the Paging Channel or the Forward Common Control Channel. If the mobile station declares a loss of the Paging Channel or the Forward Common Control Channel (see 2.6.2.1.1.4 2.6.3.1.8), it shall declare an access attempt failure and update its registration variables as specified in 2.6.5.5.3.2, disable its transmitter and enter the **Mobile Station Idle State**. If the mobile station receives confirmation of any message sent by the mobile station in this substate, it shall send a response in this substate if required and shall then enter the **Mobile Station Idle State**.

If the mobile station receives a mobile-station-addressed page, the mobile station may determine if there is a page match (see 2.6.2.3). If a match is declared, Layer 3 shall send an L2-Supervision.Request primitive to Layer 2 to abort any access attempt in progress and shall enter the **Page Response Substate**.
If the mobile station is to exit the *System Access State* as a result of processing Layer 3 fields of a message requiring an acknowledgment, the mobile station shall exit the *System Access State* after Layer 3 receives an indication from Layer 2 that the acknowledgment to the message has been sent and acknowledged.

If Layer 3 receives a message with an indication from Layer 2 that an access attempt for a message being transmitted was not terminated as a result of processing the Layer 2 fields of the received message, the mobile station shall ignore the received message.

The following directed messages and orders can be received. If any field value of the message or order is outside its permissible range, the mobile station may send a *Mobile Station Reject Order* with ORDQ equal to '00000100' (message field not in valid range).

1. **Authentication Challenge Message**: The mobile station shall respond to the message as specified in 2.3.12.1.4, regardless of the value of AUTHS.

2. **Base Station Challenge Confirmation Order**: The mobile station shall respond to the message as specified in 2.3.12.1.5.

3. **Base Station Reject Order**:
   - If ORDQ_r = '00000001', the mobile station shall send a *Security Mode Request Message* with the ENC_SIG_H field included in it. If the mobile receives two *Base Station Reject Orders* without successfully decrypting any encrypted messages from the base station between the orders, the mobile station shall set REG_ENCRYPT_RESYNC to YES and the mobile station shall go to the *System Determination Substate* with an encryption failure indication.

4. **Data Burst Message**

5. **Local Control Order**

6. **Lock Until Power-Cycled Order**: The mobile station shall disable its transmitter and record the reason for the *Lock Until Power-Cycled Order* in the mobile station’s semi-permanent memory (LCKRSN_Ps-p equals the least significant four bits of ORDQ_r). The mobile station should notify the user of the locked condition. The mobile station shall enter the *System Determination Substate* of the Mobile Station Initialization State with a lock indication (see 2.6.1.1), and shall not enter the *System Access State* again until after the next mobile station power-up or until it has received an *Unlock Order*. This requirement shall take precedence over any other mobile station requirement specifying entry to the *System Access State*.

7. **Maintenance Required Order**: The mobile station shall record the reason for the *Maintenance Required Order* in the mobile station’s semi-permanent memory (MAINTRSNs-p equals the least significant four bits of ORDQ_r). The mobile station shall remain in the unlocked condition. The mobile station should notify the user of the maintenance required condition.

8. **PACA Message**: The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to '00000010' (message not accepted in this state).

9. **Registration Accepted Order**: 

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If ORDQₙ = '00000101', the mobile station shall set ROAM_INDIₛ = ROAM_INDIᵣ and should display the roaming condition.

If ORDQₙ = '00000111', the mobile station shall perform the following:

- The mobile station shall set ROAM_INDIₛ = ROAM_INDIᵣ and should display the roaming condition.
- The mobile station shall set C_SIG_ENCRYPT_MODEₛ = C_SIG_ENCRYPT_MODEᵣ.
- If USE_NEW_KEYᵣ is not included, or is included and is set to ‘1’, the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEYₛ[KEY_SEQ_NEWₛ₋ₚ]. The mobile station shall store KEY_SIZEᵣ in KEY_SIZEₛ. The mobile station shall increment the variable KEY_SEQ_NEWₛ₋ₚ by one (modulo 16). If ENC_KEY_SIZEᵣ is included, the mobile station shall set ENC_KEY_SIZEₛ to ENC_KEY_SIZEᵣ.
- If USE_NEW_KEYᵣ is included and is set to ‘0’, then the mobile station shall use KEYₛ[KEY_SEQₛ] as the session key.
- If C_SIG_ENCRYPT_MODEᵣ is not equal to ‘000’, the mobile station shall set ENC_KEYₛ to the most recently generated CMEAKKEY in the mobile station associated with the AUTHR of the Registration Message, and EXT_ENCRYPT_SEQ[0] and EXT_ENCRYPT_SEQ[1] to 256 × ENC_SEQ_H (the ENC_SEQ_H field in the Registration Message).

Registration Rejected Order: This order indicates that normal service is not available on this system. The mobile station shall disable the full-TMSI timer. If the received order specifies to delete the TMSI (ORDQ = '00000100'), the mobile station shall set all the bits of the TMSI_CODEₛ₋ₚ to ‘1’. The mobile station shall enter the System Determination Substate of the Mobile Station Initialization State with a registration rejected indication (see 2.6.1.1).

Retry Order: The mobile station shall process the message as follows:

- If RETRY_TYPEᵣ is equal to ‘000’, the mobile station shall set RETRY_DELAYₛ[RETRY_TYPE] to 0, where RETRY_TYPE is equal to ‘001’, ‘010’, or ‘011’.
- If RETRY_TYPEᵣ is equal to ‘001’, the mobile station shall perform the following:
  - If RETRY_DELAYᵣ is equal to ‘00000000’, then the mobile station shall set RETRY_DELAYₛ[RETRY_TYPEᵣ] to 0.
  - If RETRY_DELAYᵣ is not equal to ‘00000000’, the mobile station shall set RETRY_DELAYₛ[RETRY_TYPEᵣ] as follows:
    + If the most significant bit of the RETRY_DELAYᵣ is ‘0’, set RETRY_DELAY_UNITₛ to 1000ms. If the most significant bit of the RETRY_DELAYᵣ is ‘1’, set RETRY_DELAY_UNITₛ to 60000ms.
+ The mobile station shall set RETRY_DELAY_VALUEs to the seven least significant bits of RETRY_DELAYr.

+ The mobile station shall store the next system time 80 ms boundary + RETRY_DELAY_VALUEs × RETRY_DELAY_UNITs ms as RETRY_DELAYs[RETRY_TYPEr].

1. **Security Mode Command Message**: The mobile station shall process the message as follows:

   - The mobile station shall set C_SIG_ENCRYPT_MODEs to C_SIG_ENCRYPT_MODEr.
   - If USE_NEW_KEYr is not included, or is included and is set to ‘1’, the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEYs[KEY_SEQ_NEWs-p]. The mobile station shall store KEY_SIZEr in KEY_SIZEs. The mobile station shall then increment the variable KEY_SEQ_NEWs-p by one (modulo 16). If ENC_KEY_SIZEr is included, the mobile station shall set ENC_KEY_SIZEs to ENC_KEY_SIZEr.
   - If USE_NEW_KEYr is included and is set to ‘0’, then the mobile station shall use KEYs[KEY_SEQr] as the session key.

2. **Service Redirection Message**: The mobile station shall process the message as follows:

   - If the mobile station is directed to an unsupported operation mode or band class, the mobile station shall respond with a Mobile Station Reject Order with ORDQ equal to ‘00000110’ (message requires a capability that is not supported by the mobile station).
   - If DELETE_TMSIr is equal to ‘1’, the mobile station shall set all the bits of TMSI_CODEs-p to ‘1’. The mobile station shall disable the full-TMSI timer.
   - The mobile station shall set RETURN_IF_FAILs = RETURN_IF_FAILr.
   - If RECORD_TYPEr is equal to ‘00000000’, the mobile station shall enter the System Determination Substate of the Mobile Station Initialization State with an NDSS off indication (see 2.6.1.1); otherwise, the mobile station shall store the redirection record received in the message as REDIRECT_REC and shall enter the System Determination Substate of the Mobile Station Initialization State with a redirection indication (see 2.6.1.1).

3. **SSD Update Message**: The mobile station shall respond to the message as specified in 2.3.12.1.5.

4. **Status Request Message**: The mobile station shall disable the System Access State timer and respond to the message. If P_REV_IN_USEs is less than or equal to three, the mobile station shall respond with a Status Response Message. If P_REV_IN_USEs is greater than three, the mobile station shall respond with an Extended Status Response Message. If the message does not specify any qualification information (QUAL_INFO_TYPEr is equal to ‘00000000’), the mobile
station shall include the requested information records in the response. If the message specifies a band class (QUAL_INFO_TYPEr is equal to '00000001'), the mobile station shall only include the requested information records for the specified band class (BAND_CLASSr) in the response. If the message specifies a band class and an operating mode (QUAL_INFO_TYPEr is equal to '00000010'), the mobile station shall only include the requested information records for the specified band class (BAND_CLASSr) and operating mode (OP_MODEr) in the Status Response Message.

If the message specifies a band class or a band class and an operating mode which is not supported by the mobile station, the mobile station shall send a Mobile Station Reject Order with ORDQ set to '00000110' (message requires a capability that is not supported by the mobile station). If the response to this message exceeds the allowable length, the mobile station shall send a Mobile Station Reject Order with ORDQ set to '00001000' (response message would exceed the allowable length). If the message specifies an information record which is not supported by the mobile station for the specified band class and operating mode, the mobile station shall send a Mobile Station Reject Order with ORDQ set to '00001001' (information record is not supported for the specified band class and operating mode).

### TMSI Assignment Message

The mobile station shall store the TMSI zone and code as follows:

- The mobile station shall store the length of the TMSI zone field by setting ASSIGNING_TMSI_ZONE_LENs-p to TMSI_ZONE_LENr.
- The mobile station shall store the assigning TMSI zone number by setting the ASSIGNING_TMSI_ZONE_LENs-p least significant octets of ASSIGNING_TMSI_ZONEs-p to TMSI_ZONEr, and
- The mobile station shall store the TMSI code by setting TMSI_CODEs-p to TMSI_CODEr.

The mobile station shall set the TMSI expiration time by setting TMSI_EXP_TIMEs-p to TMSI_EXP_TIMEr. The mobile station shall disable the full-TMSI timer. The mobile station shall then respond with a TMSI Assignment Completion Message within T56m seconds.

### Any other message

If the mobile station receives any other message specified in Table 3.7.2.3-1, it shall ignore all Layer 3 fields. The mobile station shall ignore all other messages.

### Base Station Reject Order

- If ORDQr = '00000001', the mobile station shall send a Security Mode Request Message with the ENC_SIG_H field included in it. If the mobile receives two Base Station Reject Orders without successfully decrypting any encrypted messages from the base station between the orders, the mobile station shall set REG_ENCRYPT_RESYNC to YES and the mobile station shall go to the System Determination Substate with an encryption failure indication.
2.6.4 Mobile Station Control on the Traffic Channel State

In this state, the mobile station communicates with the base station using the Forward and Reverse Traffic Channels.

As illustrated in Figure 2.6.4-1, the Mobile Station Control on the Traffic Channel State consists of the following substates:

- **Traffic Channel Initialization Substate** - In this substate, the mobile station verifies that it can receive the Forward Traffic Channel and begins transmitting on the Reverse Traffic Channel.

- **Traffic Channel Substate** - In this substate, the mobile station exchanges Traffic Channel frames with the base station in accordance with the current service configuration. The mobile station may perform the gating operation of Reverse Pilot Channel. While in this substate, one or more Call Control instances can be activated (see 2.6.10).

- **Release Substate** - In this substate, the mobile station disconnects the calls and the physical channels.
(Enter from System Access State)

Traffic Channel Substate Initialization Substate (2.6.4.2)

Layer 3 receives a forward dedicated channel acquired indication from Layer 2

Traffic Channel Substate (2.6.4.3)

Last call is to be released (initiated by Mobile Station user or Release Order/Extended Release Message received from base station)

Release Substate (2.6.4.4)

Receives 'enter traffic channel substate' indication

System Determination Substate of the Mobile Station Initialization State

**Figure 2.6.4-1. Mobile Station Control on the Traffic Channel State**
2.6.4.1 Special Functions and Actions

The mobile station performs special functions and actions in one or more of the substates of the Mobile Station Control on the Traffic Channel State.

2.6.4.1.1 Forward Traffic Channel Power Control

The mobile station uses FPC_MODE_NO_SCHs as FPC_MODEs except during the forward Supplemental Channel assignment interval. During the forward Supplemental Channel assignment interval, the mobile station uses FPC_MODE_SCHs as FPC_MODEs.

To support Forward Traffic Channel power control, the mobile station reports frame error rate statistics to the base station. If the base station enables periodic reporting, the mobile station reports frame error rate statistics at specified intervals. If the base station enables threshold reporting, the mobile station reports frame error rate statistics when the frame error rate reaches a specified threshold.9

The mobile station shall maintain the following frame counters:

- A counter (TOT_FRAMES) for the total number of frames received on the Forward Fundamental Channel.
- A counter (BAD_FRAMES) for the number of bad frames detected on the Forward Fundamental Channel.
- A counter (DCCH_TOT_FRAMES) for the total number of frames received on the Forward Dedicated Control Channel, when the Dedicated Control Channel is assigned.
- A counter (DCCH_BAD_FRAMES) for the total number of bad frames received on the Forward Dedicated Control Channel, when the Dedicated Control Channel is assigned.

The mobile station shall maintain the following counters for each Supplemental Channel assigned, if FOR_SCH_FER_REPs is equal to ‘1’:

- A counter (SCH_TOT_FRAMES) for the number of frames received on the assigned Supplemental Channel.
- A counter (SCH_BAD_FRAMES) for the number of bad frames received on the assigned Supplemental Channel.

The mobile station shall increment the counter by 1 at every 20 ms interval if a 20ms frame or at least one 5ms frame is received from the Forward Fundamental Channel or Dedicated Control Channel:

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9 Periodic reporting and threshold reporting may be independently enabled or disabled by the base station.
• If the received frame is from the Fundamental Channel, the mobile station shall perform the following:
  – Increment $\text{TOT\_FRAMES}_s$ by 1.
  – If the received 20ms frame is bad or one of the 5ms frames is bad, the mobile station shall increment $\text{BAD\_FRAMES}_s$ by 1.

• If the received frame is from the Forward Dedicated Control Channel, the mobile station shall perform the following:
  – Increment $\text{DCCH\_TOT\_FRAMES}_s$ by 1.
  – If the received 20ms frame is bad or one of the 5ms frames is bad, the mobile station shall increment $\text{DCCH\_BAD\_FRAMES}_s$ by 1.

• If either
  – $\text{PWR\_THRESH\_ENABLE}_s$ is equal to ‘1’ and if one of the following conditions is true:
    + The Fundamental Channel carries the Power Control Subchannel [$\text{FPC\_PRI\_CHAN}_s = '0'$], and $\text{BAD\_FRAMES}_s$ is equal to $\text{PWR\_REP\_THRESH}_s$
    or
    + The Dedicated Control Channel carries the Power Control Subchannel [$\text{FPC\_PRI\_CHAN}_s = '1'$], and $\text{DCCH\_BAD\_FRAMES}_s$ is equal to $\text{PWR\_REP\_THRESH}_s$.
  or
  – $\text{PWR\_PERIOD\_ENABLE}_s$ is equal to ‘1’ and if one of the following conditions is true:
    + The Fundamental Channel carries the Power Control Subchannel [$\text{FPC\_PRI\_CHAN}_s = '0'$], and $\text{TOT\_FRAMES}_s$ is equal to $\left\lfloor \frac{1}{2}(\frac{\text{PWR\_REP\_FRAMES}_s}{2} \times 5) \right\rfloor$, or
    + The Dedicated Control Channel carries the Power Control Subchannel [$\text{FPC\_PRI\_CHAN}_s = '1'$], and $\text{DCCH\_TOT\_FRAMES}_s$ is equal to $\left\lfloor \frac{1}{2}(\frac{\text{PWR\_REP\_FRAMES}_s}{2} \times 5) \right\rfloor$,

then the mobile station shall send a Power Measurement Report Message to the base station. The mobile station should send the Power Measurement Report Message in unassured mode. After sending a Power Measurement Report Message, the mobile station shall set $\text{TOT\_FRAMES}_s$, $\text{BAD\_FRAMES}_s$ to zero, and if the Dedicated Control Channel is assigned, shall set $\text{DCCH\_TOT\_FRAMES}_s$ and $\text{DCCH\_BAD\_FRAMES}_s$ to zero. The mobile station shall not increment the counters for a period of $\text{PWR\_REP\_DELAY}_s \times 4$ frames following the first transmission of the message.

• If $\text{FPC\_PRI\_CHAN}_s$ is equal to ‘0’ and $\text{TOT\_FRAMES}_s$ is equal to $\left\lfloor \frac{1}{2}(\frac{\text{PWR\_REP\_FRAMES}_s}{2} \times 5) \right\rfloor$, the mobile station shall perform the following:
  – Set $\text{TOT\_FRAMES}_s$ and $\text{BAD\_FRAMES}_s$ to zero.
Set DCCH_TOT_FRAMESs and DCCH_BAD_FRAMESs to zero, if the Dedicated Control Channel is assigned.

- If FPC_PRI_CHANs is equal to ‘1’ and DCCH_TOT_FRAMESs is equal to \(\lceil(2^{\text{PWR_REP_FRAMESs}/2} \times 5)\rceil\), the mobile station shall set TOT_FRAMESs, BAD_FRAMESs, DCCH_TOT_FRAMESs, and DCCH_BAD_FRAMESs to zero.

For each received frame from an assigned Supplemental Channel, the mobile station shall perform the following, if FOR_SCH_FER_REPs is equal to ‘1’:

- Increment SCH_TOT_FRAMESs by 1.
- If the received frame is bad, increment SCH_BAD_FRAMESs by 1.

At the end of a burst on each assigned Supplemental Channel, if FOR_SCH_FER_REPs is equal to ‘1’, the mobile station shall report the total number of frames received on this Supplemental Channel (SCH_TOT_FRAMESs) and the bad frames detected (SCH_BAD_FRAMESs) with the fields SCH_PWR_MEAS_FRAMES and SCH_ERRORS_DETECTED in the Power Measurement Report Message respectively. After sending the Power Measurement Report Message for the Supplemental Channel, the mobile station shall set SCH_TOTAL_FRAMESs and SCH_BAD_FRAMESs of the reported SCH to zero.

If both Forward Fundamental Channel and the Forward Dedicated Control Channel are assigned to the mobile station, the mobile station shall perform the following:

- The mobile station shall set FPC_DELTA_SETPTs to (FPC_FCH_CURR_SETPTs – FPC_DCCH_CURR_SETPTs).
- For each received frame, if \(|FPC_FCH_CURR_SETPTs – FPC_DCCH_CURR_SETPTs – FPC_DELTA_SETPTs|\) is equal to or greater than its assigned threshold FPC_SETPT_THRESHs, the mobile station shall send the Outer Loop Report Message requiring acknowledgment to the base station, and the mobile station shall then set FPC_DELTA_SETPTs to (FPC_FCH_CURR_SETPTs – FPC_DCCH_CURR_SETPTs).

For each of the supplemental channels assigned to the mobile station and FPC_MODEs is set to ‘000’, the mobile station shall perform the following:

- The mobile station shall set FPC_DELTA_SCH_SETPTs to (FPC_FCH_CURR_SETPTs – FPC_SCH_CURR_SETPTs) if FPC_PRI_CHANs is equal to ‘0’.
- The mobile station shall set FPC_DELTA_SCH_SETPTs to (FPC_DCCH_CURR_SETPTs – FPC_SCH_CURR_SETPTs) if FPC_PRI_CHANs is equal to ‘1’.
• For each received frame, if FPC_PRI_CHAN is equal to '0' and
  |FPC_FCH_CURR_SETPTs - FPC_SCH_CURR_SETPTs -
  FPC_DELTA_SCH_SETPTs| is equal to or greater than its assigned threshold
  FPC_SETPT_THREASH_SCHs, the mobile station shall send the Outer Loop Report
  Message in assured mode, and the mobile station shall then set
  FPC_DELTA_SCH_SETPTs to (FPC_FCH_CURR_SETPTs - FPC_SCH_CURR_SETPTs).

• For each received frame, if FPC_PRI_CHAN is equal to '1' and
  |FPC_DCCH_CURR_SETPTs - FPC_SCH_CURR_SETPTs -
  FPC_DELTA_SCH_SETPTs| is equal to or greater than its assigned threshold
  FPC_SETPT_THREASH_SCHs, the mobile station shall send the Outer Loop Report
  Message in assured mode, and the mobile station shall then set
  FPC_DELTA_SCH_SETPTs to (FPC_DCCH_CURR_SETPTs -
  FPC_SCH_CURR_SETPTs).

If the Supplemental channels are assigned to the mobile station and FPC_MODE is set to
'001', '010', '101', or '110', for each additional Forward Supplemental Channel other than
the Forward Supplemental Channel specified by FPC_SEC_CHAN, the mobile station shall
perform the following:

• The mobile station shall set FPC_DELTA_SCH_SETPTs to
  (FPC_SCH_CURR_SETPTs[FPC_SEC_CHAN] - FPC_SCH_CURR_SETPTs) for the
  Supplemental Channel.

• For each received frame, if |FPC_SCH_CURR_SETPTs[FPC_SEC_CHAN] -
  FPC_SCH_CURR_SETPTs - FPC_DELTA_SCH_SETPTs| is equal to or greater than
  its assigned threshold FPC_SETPT_THREASH_SCHs, the mobile station shall send the
  Outer Loop Report Message in assured mode, and the mobile station shall then set
  FPC_DELTA_SCH_SETPTs to (FPC_SCH_CURR_SETPTs[FPC_SEC_CHAN] -
  FPC_SCH_CURR_SETPTs).

2.6.4.1.1.1 Forward Traffic Channel Power Control Initialization
To initialize Forward Traffic Channel power control, the mobile station shall set
TOT_FRAMESs, BAD_FRAMESs, DCCH_TOT_FRAMESs, and DCCH_BAD_FRAMESs to zero.
The mobile station shall initialize the frame counters SCH_TOT_FRAMESs and
SCH_BAD_FRAMESs for each assigned Supplemental Channel to zero. The mobile station
shall initialize FOR_SCH_FER_REPs to zero.

2.6.4.1.1.2 Processing the Power Control Parameters Message
The mobile station shall store the following parameters from the Power Control Parameters
Message:

• Power control reporting threshold (PWR_REP_THREASHs = PWR_REP_THREASHs)
• Power control reporting frame count (PWR_REP_FRAMESs = PWR_REP_FRAMESs)
• Threshold report mode indicator
  (PWR_THRESH_ENABLEs = PWR_THRESH_ENABLEs)
2.6.4.1.1.3 Processing the Power Control Message

The mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00000110’ (message requires a capability that is not supported by the mobile station) if any of the following conditions are detected:

- If the mobile station does not support any Radio Configuration greater than 2 and FPC_MODEr is not supported by the mobile station.
- If the mobile station does not support Supplemental Channel and FPC_MODEr is set to the ‘001’, ‘010’, ‘101’, or ‘110’.
- If PWR_CNTL_STEPr corresponds to a power control step size (see 2.1.2.3.2 of [2]) is not supported by the mobile station.

The mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00000111’ (message cannot be handled by the current mobile station configuration) if any of the following conditions are detected:

- FPC_PRI_CHANr is set to ‘1’ and only the Fundamental Channel is assigned.
- FPC_PRI_CHANr is set to ‘0’ and only the Dedicated Control Channel is assigned.

If none of the above conditions are true, the mobile station shall process the message as follows at the action time (see 2.6.4.1.5) specified in the message:

- The mobile station shall store the power control step size (PWR_CNTL_STEPs = PWR_CNTL_STEPr).
- If FPC_INCLr is equal to ‘1’, the mobile station shall perform the following:
  - The mobile station shall set FPC_MODE_NO_SCHs = FPC_MODEr.
  - The mobile station shall set FPC_MODEs = FPC_MODE_NO_SCHs if there is no forward Supplemental Channel burst in progress (see 2.6.6.2.5.1.1).
  - The mobile station shall set FPC_PRI_CHAN_s to FPC_PRI_CHANr
  - If FPC_OLPC_FCH_INCL is equal to ‘1’, the mobile station shall:
    + Set FPC_FCH_FERs to FPC_FCH_FERr.
    + If FPC_FCH_MIN_SETPTr is not equal to ‘11111111’, set FPC_FCH_MIN_SETPTs to FPC_FCH_MIN_SETPTr; otherwise, set FPC_FCH_MIN_SETPTs to FPC_FCH_CURR_SETPTs.
+ If FPC_FCH_MAX_SETPT\_r is not equal to ‘11111111’, set FPC_FCH_MAX_SETPT\_s to FPC_FCH_MAX_SETPT\_r; otherwise, set FPC_FCH_MAX_SETPT\_s to FPC_FCH_CURR_SETPT\_s.

- If FPC_OLPC_DCCH_INCL is equal to ‘1’, the mobile station shall:
  + Set FPC_\_DCCH\_FER\_s to FPC_\_DCCH\_FER\_r.
  + If FPC_DCCH_MIN_SETPT\_r is not equal to ‘11111111’, set FPC_DCCH_MIN_SETPT\_s to FPC_DCCH_MIN_SETPT\_r; otherwise, set FPC_DCCH_MIN_SETPT\_s to FPC_DCCH_CURR_SETPT\_s.
  + If FPC_DCCH_MAX_SETPT\_r is not equal to ‘11111111’, set FPC_DCCH_MAX_SETPT\_s to FPC_DCCH_MAX_SETPT\_r; otherwise, set FPC_DCCH_MAX_SETPT\_s to FPC_DCCH_CURR_SETPT\_s.

- If FPC_INCL is equal to ‘1’ and FPC_MODE is equal to ‘001’, ‘010’, ‘101’, or ‘110’, the mobile station shall:
  + Set FPC_SEC_CHAN\_s to FPC_SEC_CHAN\_r.

- If NUM_SUP\_r is not equal to ‘00’, for each Supplemental Channel included in the message, the mobile station shall:
  + Set SCH\_ID\_s to SCH\_ID\_r.
  + Set FPC_SCH_FER\_s[SCH\_ID\_s] to FPC_SCH_FER\_r.
  + If FPC_SCH_MIN_SETPT\_r is not equal to ‘11111111’, set FPC_SCH_MIN_SETPT\_s[SCH\_ID\_s] to FPC_SCH_MIN_SETPT\_r; otherwise, set FPC_SCH_MIN_SETPT\_s[SCH\_ID\_s] to FPC_SCH_CURR_SETPT\_s.
  + If FPC_SCH_MAX_SETPT\_r is not equal to ‘11111111’, set FPC_SCH_MAX_SETPT\_s[SCH\_ID\_s] to FPC_SCH_MAX_SETPT\_r; otherwise, set FPC_SCH_MAX_SETPT\_s[SCH\_ID\_s] to FPC_SCH_CURR_SETPT\_s.

- If FPC_THRESH_INCL is equal to ‘1’, the mobile station shall set FPC_SETPT_THRESH\_s to FPC_SETPT_THRESH\_r.

- If FPC_THRESH_SCH_INCL is equal to ‘1’, the mobile station shall set FPC_SETPT_THRESH_SCH\_s to FPC_SETPT_THRESH_SCH\_r.

- If RPC_INCL\_r is equal to ‘1’ and the mobile station supports any Radio Configuration greater than 2, the mobile station shall perform the following:
  - If RPC_ADJ_REC_TYPE is equal to ‘0000’, the mobile station shall update the Reverse Channel Adjustment Gain Table (see 2.1.2.3.3.2 of [2]) containing an offset relative to the Reverse Pilot Channel power for each reverse link code channel received in this message.
  - If RPC_ADJ_REC_TYPE is equal to ‘0001’ or ‘0010’, the mobile station shall update the Reverse Link Attribute Adjustment Gain Table (see 2.1.2.3.3.2 of [2]) containing an offset relative to the Reverse Pilot Channel power for each transmission rate, frame length, coding type received in this message.
2.6.4.1.2 Service Configuration and Negotiation

During Traffic Channel operation, the mobile station and base station communicate through the exchange of Forward and Reverse Traffic Channel frames. The mobile station and base station use a common set of attributes for building and interpreting Traffic Channel frames. This set of attributes, referred to as a service configuration, consists of both negotiable and non-negotiable parameters.

The set of negotiable service configuration parameters consists of the following:

1. **Forward and Reverse Multiplex Options**: These control the way in which the information bits of the Forward and Reverse Traffic Channel frames, respectively, are divided into various types of traffic, such as signaling traffic, primary traffic and secondary traffic. A multiplex option together with a radio configuration specifies the frame structures and transmission rates (see [3]). The multiplex options which support Supplemental Code Channel transmission and Supplemental Channel transmission on the Forward and Reverse Traffic Channels are included in [3].

Multiplex Options 3 through 16 also indicate the capability for supporting Supplemental Code Channel transmission on the Forward and Reverse Traffic Channels. Invocation of Supplemental Code Channel operation on the Forward or Reverse Traffic Channels occurs by the Supplemental Channel Request Message, the Supplemental Channel Assignment Message, and the General Handoff Direction Message. Invocation of Supplemental Channel operation on the Forward or Reverse Traffic Channels occurs by the Supplemental Channel Request Mini Message, the Extended Supplemental Channel Assignment Message, the Forward Supplemental Channel Assignment Mini Message, Universal Handoff Direction Message, and the Reverse Supplemental Channel Assignment Mini Message. The multiplex option used for the Forward Traffic Channel can be the same as that used for the Reverse Traffic Channel, or it can be different.

2. **Forward and Reverse Traffic Channel Configurations**: These include the Radio Configurations and other necessary attributes for the Forward and Reverse Traffic Channels. The Traffic Channel Configuration used can be different for the Forward and Reverse Traffic Channels or it can be the same.

3. **Forward and Reverse Traffic Channel Transmission Rates**: These are the transmission rates actually used for the Forward and Reverse Traffic Channels respectively. The transmission rates supported by the radio configuration associated with the Forward Traffic Channel multiplex option, or a subset of the supported rates. Similarly, the transmission rates used for the Reverse Traffic Channel can include all rates supported by the radio configuration associated with the Reverse Traffic Channel multiplex option, or a subset of the supported rates. The transmission rates used for the Forward Traffic Channel can be the same as those used for the Reverse Traffic Channel, or they can be different.

4. **Service Option Connections**: These are the services in use on the Traffic Channel. There can be multiple service option connections. It is also possible that there is no service option connection, in which case the mobile station uses the Reverse Traffic...
Channel as follows:

- Sends null traffic on the Reverse Fundamental Channel, if the Fundamental Channel is present.
- Sends signaling traffic on the Reverse Traffic Channel where r-dsch is mapped to.

Associated with each service option connection are a service option, a Forward Traffic Channel traffic type, a Reverse Traffic Channel traffic type, and a service option connection reference. The associated service option formally defines the way in which traffic bits are processed by the mobile station and base station. The associated Forward and Reverse Traffic Channel traffic types specify the types of traffic used to support the service option. A service option can require the use of a particular type of traffic, such as primary or secondary, or it can accept more than one traffic type. A service option can be one-way, in which case it can be supported on the Forward Traffic Channel only or the Reverse Traffic Channel only. Alternatively, a service option can be two-way, in which case it can be supported on the Forward and Reverse Traffic Channels simultaneously. Connected service options can also invoke operation on Supplemental Code Channels in either one or both of the Forward and Reverse Traffic Channels by negotiating a multiplex option that supports operation on Supplemental Code Channels (see [3] for Multiplex options applicable to Supplemental Code Channels), and by using the appropriate Supplemental Code Channel related messages (i.e., the Supplemental Channel Request Message, the Supplemental Channel Assignment Message, and the General Handoff Direction Message). After Supplemental Code Channels have been assigned by the base station, the connected service option can transmit primary and/or secondary traffic on Supplemental Code Channels. Connected service options can also invoke operation on Supplemental Channels in either one or both of the Forward and Reverse Traffic Channels by negotiating a multiplex option that supports operation on Supplemental Channels (see [3] for Multiplex Options applicable to Supplemental Channel) and by using the appropriate Supplemental Channel related messages (i.e., the Supplemental Channel Request Mini Message, the Extended Supplemental Channel Assignment Message, the Forward Supplemental Channel Assignment Mini Message, the Reverse Supplemental Channel Assignment Mini Message, and the Universal Handoff Direction Message). After Supplemental Channels have been assigned by the base station, the connected service option can transmit primary and/or secondary traffic on Supplemental Channels. The associated service option connection reference provides a means for uniquely identifying the service option connection. The reference serves to resolve ambiguity when there are multiple service option connections in use.

The non-negotiable service configuration parameters are sent from the base station to the mobile stations only, and consists of the following:

1. **Reverse Pilot Gating Rate:** This controls the way in which the reverse pilot is gated on the Reverse Pilot Channel. The base station specifies the reverse pilot gating rate to be used in the Service Connect Message, the General Handoff Direction Message, and the Universal Handoff Direction Message.
2. **Forward and Reverse Power Control Parameters**: These consist of forward power control operation mode, outer loop power control parameters (e.g. target frame error rate, minimum Eb/Nt setpoint, and maximum Eb/Nt setpoint) for the Forward Fundamental Channel and Forward Dedicated Control Channel, and Power Control Subchannel indicator which indicates where the mobile station is to perform the primary inner loop estimation and the base station is to multiplex the Power Control Subchannel.

3. **Logical to Physical Mapping**: This is a table of logical to physical mapping entries, consisting of service reference identifier, logical resource, physical resource, forward flag, reverse flag, and priority.

The mobile station can request a default service configuration associated with a service option at call origination, and can request new service configurations during Traffic Channel operation. A requested service configuration can differ greatly from its predecessor or can be very similar. For example, the mobile station can request a service configuration in which all of the service option connections are different from those of the existing configuration; or the mobile station can request a service configuration in which the existing service option connections are maintained with only minor changes, such as a different set of transmission rates or a different mapping of service option connections to Forward and Reverse Traffic Channel traffic types.

If the mobile station requests a service configuration that is acceptable to the base station, they both begin using the new service configuration. If the mobile station requests a service configuration that is not acceptable to the base station, the base station can reject the requested service configuration or propose an alternative service configuration. If the base station proposes an alternative service configuration, the mobile station can accept or reject the base station's proposed service configuration, or propose yet another service configuration. This process, called service negotiation, ends when the mobile station and the base station find a mutually acceptable service configuration, or when either the mobile station or the base station rejects a service configuration proposed by the other.

It is also possible for the base station to request a default service configuration associated with a service option when paging the mobile station and to request new service configurations during Traffic Channel operation. The service negotiation proceeds as described above, but with the roles of the mobile station and base station reversed.

For CDMA mode operation in Band Class 0, the mobile station and base station can also use an alternative method for negotiating a service configuration known as service option negotiation. Service option negotiation is similar to service negotiation, but offers less flexibility for specifying the attributes of the service configuration. During service option negotiation, the base station or the mobile station specifies only which service option is to be used. There is no facility for explicitly specifying the multiplex options, traffic types or transmission rates to be used on the Forward and Reverse Traffic Channels in conjunction with the service option. Instead, implicit service configuration attributes are assumed. In particular, the Forward and Reverse multiplex options and transmission rates are assumed to be the default multiplex options and transmission rates associated with the requested service option, and the traffic type for both the Forward and Reverse Traffic Channels is
assumed to be primary traffic; furthermore, a service configuration established using
service option negotiation is restricted to having only a single service option connection.

At mobile station origination and termination, the type of negotiation to use, either service
negotiation or service option negotiation, is indicated in the Channel Assignment Message.
Service negotiation is always used after the mobile station receives an Extended Channel
Assignment Message. If a CDMA-to-CDMA hard handoff occurs during the call, the type of
negotiation to use following the handoff is indicated in the Extended Handoff Direction
Message, the General Handoff Direction Message, or the Universal Handoff Direction
Message.

For CDMA mode operation in band classes other than Band Class 0, only service
negotiation is to be used.

The following messages are used to support service negotiation:

1. **Service Request Message**: The mobile station can use this message to propose a
   service configuration, or to accept or reject a service configuration proposed in a
   Service Response Message. The base station can use this message to propose a
   service configuration, or to reject a service configuration proposed in a Service
   Response Message.

2. **Service Response Message**: The mobile station can use this message to accept or
   reject a service configuration proposed in a Service Request Message, or to propose
   an alternative service configuration. The base station can use this message to reject
   a service configuration proposed in a Service Request Message, or to propose an
   alternative service configuration.

3. **Service Connect Message**: The base station can use this message to accept a service
   configuration proposed in a Service Request Message or Service Response Message,
   and to instruct the mobile station to begin using the service configuration.

4. **Service Connect Completion Message**: The mobile station can use this message to
   acknowledge the transition to a new service configuration.

5. **Service Option Control Message**: The mobile station and base station can use this
   message to invoke service-option-specific functions.

6. **Extended Channel Assignment Message**: The base station can use this message to
   accept or reject the initial service configuration proposed by the mobile station in an
   Origination Message or a Page Response Message.

The following messages are used to support service option negotiation:

1. **Service Option Request Order**: The mobile station and base station can use this
   message either to request a service option or to suggest an alternative service
   option.

2. **Service Option Response Order**: The mobile station and base station can use this
   message to accept or to reject a service option request.

3. **Service Option Control Order**: The mobile station and base station can use this
   message to invoke service option specific functions.
The following messages are used to support both service negotiation and service option negotiation:

1. **Origination Message**: The mobile station can use this message to propose an initial service configuration.

2. **Channel Assignment Message**: The base station can use this message to accept or to reject the initial service configuration proposed by the mobile station in an Origination Message or a Page Response Message and to indicate which type of negotiation, either service negotiation or service option negotiation, is to be used during the call.

3. **Extended Handoff Direction Message**: The base station can use this message to indicate which type of negotiation, either service negotiation or service option negotiation, is to be used following a CDMA-to-CDMA hard handoff.

4. **General Handoff Direction Message**: The base station can use this message to indicate which type of negotiation, either service negotiation or service option negotiation, is to be used following a CDMA-to-CDMA hard handoff. The base station can use this message to accept a service configuration proposed in a Service Request Message or Service Response Message. The base station can also use this message to instruct the mobile station to begin using the service configuration.

5. **General Page Message** or **Universal Page Message**: The base station can use a mobile-station-addressed page in a General Page Message or in a Universal Page Message to propose an initial service configuration.

6. **Page Response Message**: The mobile station can use this message to accept or to reject the initial service configuration proposed by the base station in a mobile-station-addressed page, or to propose an alternative initial service configuration.

7. **Status Request Message**: The base station can use this message to request service capability information from the mobile station.

8. **Status Response Message**: The mobile station can use this message to return the service capability information requested by the base station in a Status Request Message.

9. **Extended Status Response Message**: The mobile station can use this message to return the service capability information requested by the base station in a Status Request Message.

10. **Universal Handoff Direction Message**: The base station can use this message to indicate which type of negotiation, either service negotiation or service option negotiation, is to be used following a CDMA-to-CDMA hard handoff. The base station can use this message to accept a service configuration proposed in a Service Request Message or Service Response Message. The base station can also use this message to instruct the mobile station to begin using the service configuration.
2.6.4.1.2.1 Use of Variables

2.6.4.1.2.1.1 Maintaining the Service Request Sequence Number

The mobile station shall maintain a service request sequence number variable, SERV_REQ_NUMs for use with service negotiation. Upon entering the Mobile Station Control on the Traffic Channel State, the mobile station shall set SERV_REQ_NUMs to 0. Each time the mobile station sends a new Service Request Message, it shall set the SERV_REQ_SEQ field of the message to the current value of SERV_REQ_NUMs, and shall then set SERV_REQ_NUMs equal to (SERV_REQ_NUMs + 1) modulo 8.

2.6.4.1.2.1.2 Maintaining the Service Negotiation Indicator Variable

The mobile station shall maintain a service negotiation indicator variable, SERV_NEGs, to indicate which type of negotiation to use, either service negotiation or service option negotiation. The mobile station shall set SERV_NEGs to enabled whenever service negotiation is to be used, and shall set SERV_NEGs to disabled whenever service option negotiation is to be used. The precise rules for setting SERV_NEGs are specified in 2.6.4.2 and 2.6.6.2.5.1.

For CDMA operation in band classes other than Band Class 0, the mobile station shall set SERV_NEGs to enabled.

2.6.4.1.2.1.3 Maintaining the Service Option Request Number

The mobile station shall maintain a service option request number variable, SO_REQs, for use with service option negotiation. The mobile station shall set SO_REQs to a special value, NULL, if the mobile station does not have an outstanding service option request. If the mobile station has an outstanding service option request, the mobile station shall set SO_REQs to the number of the service option associated with the outstanding request.

2.6.4.1.2.2 Service Subfunctions

As illustrated in Figure 2.6.4.1.2.2-1, the mobile station supports service configuration and negotiation by performing the following set of service subfunctions:

- **Normal Service Subfunction** - While this subfunction is active, the mobile station processes service configuration requests from the user and from the base station.

- **Waiting for Service Request Message Subfunction** - While this subfunction is active, the mobile station waits to receive a Service Request Message.

- **Waiting for Service Response Message Subfunction** - While this subfunction is active, the mobile station waits to receive a Service Response Message.

- **Waiting for Service Connect Message Subfunction** - While this subfunction is active, the mobile station waits to receive a Service Connect Message, a General Handoff Direction Message, or a Universal Handoff Direction Message containing a service configuration record.
• **Waiting for Service Action Time Subfunction** - While this subfunction is active, the mobile station waits for the action time associated with a new service configuration and then sends a Service Connect Completion Message, a Handoff Completion Message, or an Extended Handoff Completion Message.

• **SO Negotiation Subfunction** - While this subfunction is active, the mobile station supports service option negotiation with the base station. This subfunction is only used while operating in Band Class 0.

The **SO Negotiation Subfunction** supports service option negotiation. All of the other service subfunctions support service negotiation.

At any given time during Traffic Channel operation, only one of the service subfunctions is active. For example, when the mobile station first enters the Traffic Channel Initialization Substate of the Mobile Station Control on the Traffic Channel State, the Normal Service Subfunction, the Waiting for Service Connect Message Subfunction or the SO Negotiation Subfunction is active. Each of the other service subfunctions may become active in response to various events which occur during the Traffic Channel substates. Typically, the mobile station processes events pertaining to service configuration and negotiation in accordance with the requirements for the active service subfunction, however, some Traffic Channel substates do not allow for the processing of certain events pertaining to service configuration and negotiation, or specify requirements for processing such events which supersede the requirements of the active service subfunction.
Figure 2.6.4.1.2.2-1. Mobile Station Service Subfunctions
2.6.4.1.2.2.1 Normal Service Subfunction

While this subfunction is active, the mobile station processes service configuration requests from the user and from the base station.

While the Normal Service Subfunction is active, the mobile station shall perform the following:

- The mobile station shall process Forward and Reverse Traffic Channel frames in accordance with the current service configuration. The mobile station shall discard any Forward Traffic Channel frame which has a format that is not supported by the mobile station. The mobile station may discard any type of Forward Traffic Channel traffic that is not signaling traffic and is not part of the current service configuration.

- To initiate service negotiation for a new service configuration, the mobile station shall send a Service Request Message to propose the new service configuration. The mobile station shall activate the Waiting for Service Response Message Subfunction.

- For any service option connection that is part of the current service configuration, the mobile station may send a Service Option Control Message to invoke a service option specific function in accordance with the requirements for the associated service option.

- If SERV_NEG changes from enabled to disabled (see 2.6.6.2.5.1), the mobile station shall activate the SO Negotiation Subfunction.

- If the mobile station receives one of the following service negotiation messages, the mobile station shall process the message according to the specified requirements:

  1. Service Connect Message: The mobile station shall perform the following:

     - If USE_OLD_SERV_CONFIG equals ‘00’, the mobile station shall perform the following: If the mobile station accepts the service configuration specified in the message, the mobile station shall activate the Waiting for Service Action Time Subfunction; otherwise, the mobile station shall send a Mobile Station Reject Order (ORDQ = ‘00000111’) within T_{56m} seconds.

     - If USE_OLD_SERV_CONFIG equals ‘01’, the mobile station shall perform the following: If the mobile station accepts the service configuration currently stored at the mobile station, the mobile station shall activate the Waiting for Service Action Time Subfunction; otherwise, the mobile station shall send a Mobile Station Reject Order (ORDQ = ‘00000111’) within T_{56m} seconds.

     - If USE_OLD_SERV_CONFIG equals ‘10’, the mobile station shall perform the following: If the mobile station accepts the service configuration resulting from updating the stored service configuration with the service configuration received in this message, the mobile station shall activate the Waiting for Service Action Time Subfunction; otherwise, the mobile station shall send a Mobile Station Reject Order (ORDQ = ‘00000111’) within T_{56m} seconds.
2. **Service Option Control Message**: If the service option connection specified by the message is part of the current service configuration, and the service option specified by the message is the same as the service option associated with the service option connection, the mobile station shall interpret the action time of the message as specified in 2.6.4.1.5, and shall process the message in accordance with the requirements for the service option; otherwise, the mobile station shall send a *Mobile Station Reject Order* (ORDQ = ‘00000111’) within $T_{56m}$ seconds.

3. **Service Request Message**: The mobile station shall process the message as follows:
   - If the purpose of the message is to reject a proposed service configuration, the mobile station shall send a *Mobile Station Reject Order* (ORDQ = ‘00000010’) within $T_{56m}$ seconds.
   - If the purpose of the message is to propose a service configuration, the mobile station shall process the message as follows:
     + If the mobile station accepts the proposed service configuration, the mobile station shall send a *Service Response Message* to accept the proposed service configuration within $T_{59m}$ seconds. The mobile station shall activate the *Waiting for Service Connect Message Subfunction*.
     + If the mobile station does not accept the proposed service configuration and does not have an alternative service configuration to propose, the mobile station shall send a *Service Response Message* to reject the proposed service configuration within $T_{59m}$ seconds.
     + If the mobile station does not accept the proposed service configuration and has an alternative service configuration to propose, the mobile station shall send a *Service Response Message* to propose the alternative service configuration within $T_{59m}$ seconds. The mobile station shall activate the *Waiting for Service Request Message Subfunction*.

4.3. **Service Response Message**: The mobile station shall send a *Mobile Station Reject Order* (ORDQ = ‘00000010’) within $T_{56m}$ seconds.

5.4. **General Handoff Direction Message**: If the SCR_INCLUDED field is included in this message and is set to ‘1’:

If the mobile station has not rejected this message, the mobile station shall activate the *Waiting for Service Action Time Subfunction*.

6. **Universal Handoff Direction Message**: If the SCR_INCLUDED field is included in this message and is set to ‘1’:

If the mobile station has not rejected this message, the mobile station shall activate the *Waiting for Service Action Time Subfunction*.

- If the mobile station receives one of the following service option negotiation messages, the mobile station shall send a *Mobile Station Reject Order* (ORDQ = ‘00000010’) within $T_{56m}$ seconds:
1. **Service Option Request Order**

2. **Service Option Response Order**

3. **Service Option Control Order**

2.6.4.1.2.2.2 Waiting for Service Request Message Subfunction

While this subfunction is active, the mobile station waits to receive a *Service Request Message*.

Upon activation of the *Waiting for Service Request Message Subfunction*, the mobile station shall set the subfunction timer for $T_{68m}$ seconds.

While the *Waiting for Service Request Message Subfunction* is active, the mobile station shall perform the following:

- If the subfunction timer expires, the mobile station shall activate the *Normal Service Subfunction*.

- The mobile station shall process Forward and Reverse Traffic Channel frames in accordance with the current service configuration. The mobile station shall discard any Forward Traffic Channel frame which has a format that is not supported by the mobile station. The mobile station may discard any type of Forward Traffic Channel traffic that is not signaling traffic and is not part of the current service configuration.

- The mobile station shall not initiate service negotiation for a new service configuration.

- For any service option connection that is part of the current service configuration, the mobile station may send a *Service Option Control Message* to invoke a service option specific function in accordance with the requirements for the associated service option.

- If SERV_NEG changes from enabled to disabled (see 2.6.6.2.5.1), the mobile station shall activate the *SO Negotiation Subfunction*.

- If the mobile station receives one of the following service negotiation messages, the mobile station shall process the message according to the specified requirements:

  1. **Service Connect Message:** The mobile station shall perform the following:

     - If USE_OLD_SERV_CONFIG equals '0', the mobile station shall perform the following: If the mobile station accepts the service configuration specified in the message, the mobile station shall activate the *Waiting for Service Action Time Subfunction*; otherwise, the mobile station shall send a *Mobile Station Reject Order* (ORDQ = '00000111') within $T_{56m}$ seconds and shall activate the *Normal Service Subfunction*.

     - If USE_OLD_SERV_CONFIG equals '01', the mobile station shall perform the following: If the mobile station accepts the service configuration currently stored at the mobile station, the mobile station shall activate the *Waiting for Service Action Time Subfunction*; otherwise, the mobile station...
station shall send a Mobile Station Reject Order \((\text{ORDQ} = '00000111')\) within \(T_{56m}\) seconds.

- If \(\text{USE\_OLD\_SERV\_CONFIG}\) equals ‘10’, the mobile station shall perform the following: If the mobile station accepts the service configuration resulting from updating the stored service configuration with the service configuration received in this message, the mobile station shall activate the Waiting for Service Action Time Subfunction; otherwise, the mobile station shall send a Mobile Station Reject Order \((\text{ORDQ} = '00000111')\) within \(T_{56m}\) seconds.

2. **Service Option Control Message**: If the service option connection specified by the message is part of the current service configuration, and the service option specified by the message is the same as the service option associated with the service option connection, the mobile station shall interpret the action time of the message as specified in 2.6.4.1.5, and shall process the message in accordance with the requirements for the service option; otherwise, the mobile station shall send a Mobile Station Reject Order \((\text{ORDQ} = '00000111')\) within \(T_{56m}\) seconds.

3. **Service Request Message**: The mobile station shall process the message as follows:
   - If the purpose of the message is to reject a proposed service configuration, the mobile station shall activate the Normal Service Subfunction.
   - If the purpose of the message is to propose a service configuration, the mobile station shall process the message as follows:
     + If the mobile station accepts the proposed service configuration, the mobile station shall send a Service Response Message to accept the proposed service configuration within \(T_{59m}\) seconds. The mobile station shall activate the Waiting for Service Connect Message Subfunction.
     + If the mobile station does not accept the proposed service configuration and does not have an alternative service configuration to propose, the mobile station shall send a Service Response Message to reject the proposed service configuration within \(T_{59m}\) seconds. The mobile station shall activate the Normal Service Subfunction.
     + If the mobile station does not accept the proposed service configuration and has an alternative service configuration to propose, the mobile station shall send a Service Request Message to propose the alternative service configuration within \(T_{59m}\) seconds. The mobile station shall reset the subfunction timer for \(T_{68m}\) seconds.

4. **Service Response Message**: The mobile station shall send a Mobile Station Reject Order \((\text{ORDQ} = '00000010')\) within \(T_{56m}\) seconds.

5. **General Handoff Direction Message**: If the SCRINCLUDED field is included in this message and is set to ‘1’:
If the mobile station has not rejected this message, the mobile station shall activate the Waiting for Service Action Time Subfunction; otherwise, the mobile station shall activate the Normal Service Subfunction.

6. **Universal Handoff Direction Message**: If the SCRINCLUDED field is included in this message and is set to ‘1’:

   If the mobile station has not rejected this message, the mobile station shall activate the Waiting for Service Action Time Subfunction; otherwise, the mobile station shall activate the Normal Service Subfunction.

   • If the mobile station receives one of the following service option negotiation messages, the mobile station shall send a *Mobile Station Reject Order (ORDQ = ‘00000010’)* within T56m seconds:
     
     1. *Service Option Request Order*
     2. *Service Option Response Order*
     3. *Service Option Control Order*

2.6.4.1.2.2.3 Waiting for Service Response Message Subfunction

While this subfunction is active, the mobile station waits to receive a *Service Response Message*.

Upon activation of the Waiting for Service Response Message Subfunction, the mobile station shall set the subfunction timer for T68m seconds.

While the Waiting for Service Response Message Subfunction is active, the mobile station shall perform the following:

   • If the subfunction timer expires, the mobile station shall activate the Normal Service Subfunction.

   • The mobile station shall process Forward and Reverse Traffic Channel frames in accordance with the current service configuration. The mobile station shall discard any Forward Traffic Channel frame which has a format that is not supported by the mobile station. The mobile station may discard any type of Forward Traffic Channel traffic that is not signaling traffic and is not part of the current service configuration.

   • The mobile station shall not initiate service negotiation for a new service configuration.

   • For any service option connection that is part of the current service configuration, the mobile station may send a *Service Option Control Message* to invoke a service option specific function in accordance with the requirements for the associated service option.

   • If SERV_NEG changes from enabled to disabled (see 2.6.2.5.1), the mobile station shall activate the SO Negotiation Subfunction.
• If the mobile station receives one of the following service negotiation messages, the mobile station shall process the message according to the specified requirements:

1. **Service Connect Message:** The mobile station shall perform the following:
   - If `USE_OLD_SERV_CONFIGr` equals ‘00’, the mobile station shall perform the following: If the mobile station accepts the service configuration specified in the message, the mobile station shall activate the *Waiting for Service Action Time Subfunction*; otherwise, the mobile station shall send a *Mobile Station Reject Order* (ORDQ = ‘00000111’) within \(T_{56m}\) seconds and shall activate the *Normal Service Subfunction*.
   - If `USE_OLD_SERV_CONFIGr` equals ‘01’, the mobile station shall perform the following: If the mobile station accepts the service configuration currently stored at the mobile station, the mobile station shall activate the Waiting for Service Action Time Subfunction; otherwise, the mobile station shall send a Mobile Station Reject Order (ORDQ = ‘00000111’) within \(T_{56m}\) seconds.
   - If `USE_OLD_SERV_CONFIGr` equals ‘10’, the mobile station shall perform the following: If the mobile station accepts the service configuration resulting from updating the stored service configuration with the service configuration received in this message, the mobile station shall activate the *Waiting for Service Action Time Subfunction*; otherwise, the mobile station shall send a Mobile Station Reject Order (ORDQ = ‘00000111’) within \(T_{56m}\) seconds.

2. **Service Option Control Message:** If the service option connection specified by the message is part of the current service configuration, and the service option specified by the message is the same as the service option associated with the service option connection, the mobile station shall interpret the action time of the message as specified in 2.6.4.1.5, and shall process the message in accordance with the requirements for the service option; otherwise, the mobile station shall send a *Mobile Station Reject Order* (ORDQ = ‘00000111’) within \(T_{56m}\) seconds.

3. **Service Request Message:** The mobile station shall process the message as follows:
   - If the purpose of the message is to reject a proposed service configuration, the mobile station shall send a *Mobile Station Reject Order* (ORDQ = ‘00000010’) within \(T_{56m}\) seconds.
   - If the purpose of the message is to propose a service configuration, the mobile station shall discontinue processing the service configuration requested by the user and shall process the message as follows:
     - If the mobile station accepts the proposed service configuration, the mobile station shall send a *Service Response Message* to accept the proposed service configuration within \(T_{59m}\) seconds. The mobile station shall activate the *Waiting for Service Connect Message Subfunction*. 
+ If the mobile station does not accept the proposed service configuration and does not have an alternative service configuration to propose, the mobile station shall send a Service Response Message to reject the proposed service configuration within $T_{59m}$ seconds. The mobile station shall activate the Normal Service Subfunction.

+ If the mobile station does not accept the proposed service configuration and has an alternative service configuration to propose, the mobile station shall send a Service Response Message to propose the alternative service configuration within $T_{59m}$ seconds. The mobile station shall activate the Waiting for Service Request Message Subfunction.

4. Service Response Message: The mobile station shall process the message as follows:

– If the service request sequence number (SERV_REQ_SEQ$_r$) from the message does not match the sequence number of the Service Request Message for which the mobile station is expecting a response, the mobile station shall not process the other Layer 3 fields of the message.

– If the purpose of the message is to reject the service configuration proposed in the corresponding Service Request Message, the mobile station shall activate the Normal Service Subfunction. The mobile station may indicate to the user that the requested service configuration has been rejected.

– If the purpose of the message is to propose a service configuration, the mobile station shall process the message as follows:

  + If the mobile station accepts the proposed service configuration, the mobile station shall send a Service Request Message to accept the proposed service configuration within $T_{59m}$ seconds. The mobile station shall activate the Waiting for Service Connect Message Subfunction.

  + If the mobile station does not accept the proposed service configuration and does not have an alternative service configuration to propose, the mobile station shall send a Service Request Message to reject the proposed service configuration within $T_{59m}$ seconds. The mobile station shall activate the Normal Service Subfunction.

  + If the mobile station does not accept the proposed service configuration and has an alternative service configuration to propose, the mobile station shall send a Service Request Message to propose the alternative service configuration within $T_{59m}$ seconds. The mobile station shall reset the subfunction timer for $T_{68m}$ seconds.

5. General Handoff Direction Message: If the SCR_INCLUDED field is included in this message and is set to ‘1’:

   If the mobile station has not rejected this message, the mobile station shall activate the Waiting for Service Action Time Subfunction; otherwise, the mobile station shall activate the Normal Service Subfunction.
6. **Universal Handoff Direction Message**: If the SCR_INCLUDED field is included in this message and is set to ‘1’:

   If the mobile station has not rejected this message, the mobile station shall activate the *Waiting for Service Action Time Subfunction*; otherwise, the mobile station shall activate the *Normal Service Subfunction*.

   - If the mobile station receives one of the following service option negotiation messages, the mobile station shall send a *Mobile Station Reject Order* (ORDQ = ‘00000010’) within T56m seconds:
     1. *Service Option Request Order*
     2. *Service Option Response Order*
     3. *Service Option Control Order*

2.6.4.1.2.2.4 Waiting for Service Connect Message Subfunction

While this subfunction is active, the mobile station waits to receive a *Service Connect Message*, a *General Handoff Direction Message*, or a *Universal Handoff Direction Message* containing a service configuration record.

Upon activation of the *Waiting for Service Connect Message Subfunction*, the mobile station shall set the subfunction timer for T65m seconds.

While the *Waiting for Service Connect Message Subfunction* is active, the mobile station shall perform the following:

   - If the subfunction timer expires, the mobile station shall activate the *Normal Service Subfunction*.
   - The mobile station shall process Forward and Reverse Traffic Channel frames in accordance with the current service configuration. The mobile station shall discard any Forward Traffic Channel frame which has a format that is not supported by the mobile station. The mobile station may discard any type of Forward Traffic Channel traffic that is not signaling traffic and is not part of the current service configuration.
   - The mobile station shall not initiate service negotiation for a new service configuration.
   - For any service option connection that is part of the current service configuration, the mobile station may send a *Service Option Control Message* to invoke a service option specific function in accordance with the requirements for the associated service option.
   - If SERV_NEGs changes from enabled to disabled (see 2.6.6.2.5.1), the mobile station shall activate the *SO Negotiation Subfunction*.
   - If the mobile station receives one of the following service negotiation messages, the mobile station shall process the message according to the specified requirements:
     1. *Service Connect Message*: The mobile station shall perform the following:
If USE_OLD_SERV_CONFIG \( r \) equals ‘0’, the mobile station shall perform the following: If the mobile station accepts the service configuration specified in the message, the mobile station shall activate the *Waiting for Service Action Time Subfunction*; otherwise, the mobile station shall send a *Mobile Station Reject Order* (ORDQ = ‘00000111’) within \( T_{56m} \) seconds and shall activate the *Normal Service Subfunction*.

If USE_OLD_SERV_CONFIG \( r \) equals ‘01’, the mobile station shall perform the following: If the mobile station accepts the service configuration currently stored at the mobile station, the mobile station shall activate the *Waiting for Service Action Time Subfunction*; otherwise, the mobile station shall send a *Mobile Station Reject Order* (ORDQ = ‘00000111’) within \( T_{56m} \) seconds.

If USE_OLD_SERV_CONFIG \( r \) equals ‘10’, the mobile station shall perform the following: If the mobile station accepts the service configuration resulting from updating the stored service configuration with the service configuration received in this message, the mobile station shall activate the *Waiting for Service Action Time Subfunction*; otherwise, the mobile station shall send a *Mobile Station Reject Order* (ORDQ = ‘00000111’) within \( T_{56m} \) seconds.

2. *Service Option Control Message*: If the service option connection specified by the message is part of the current service configuration, and the service option specified by the message is the same as the service option associated with the service option connection, the mobile station shall interpret the action time of the message as specified in 2.6.4.1.5, and shall process the message in accordance with the requirements for the service option; otherwise, the mobile station shall send a *Mobile Station Reject Order* (ORDQ = ‘00000111’) within \( T_{56m} \) seconds.

3. *Service Request Message*: The mobile station shall process the message as follows:

   - If the purpose of the message is to reject a proposed service configuration, the mobile station shall send a *Mobile Station Reject Order* (ORDQ = ‘00000010’) within \( T_{56m} \) seconds.

   - If the purpose of the message is to propose a service configuration, the mobile station shall process the message as follows:

     + If the mobile station accepts the proposed service configuration, the mobile station shall send a *Service Response Message* to accept the proposed service configuration within \( T_{59m} \) seconds. The mobile station shall reset the subfunction timer for \( T_{65m} \) seconds.

     + If the mobile station does not accept the proposed service configuration and does not have an alternative service configuration to propose, the mobile station shall send a *Service Response Message* to reject the proposed service configuration within \( T_{59m} \) seconds. The mobile station shall activate the *Normal Service Subfunction*. 


+ If the mobile station does not accept the proposed service configuration and has an alternative service configuration to propose, the mobile station shall send a Service Response Message to propose the alternative service configuration within T59m seconds. The mobile station shall activate the Waiting for Service Request Message Subfunction.

4. **Service Response Message**: The mobile station shall send a Mobile Station Reject Order (ORDQ = ‘00000010’) within T56m seconds.

5. **General Handoff Direction Message**: If the SCR_INCLUDED field is included in this message and is set to ‘1’:

   If the mobile station has not rejected this message, the mobile station shall activate the Waiting for Service Action Time Subfunction; otherwise, the mobile station shall activate the Normal Service Subfunction.

6. **Universal Handoff Direction Message**: If the SCR_INCLUDED field is included in this message and is set to ‘1’:

   If the mobile station has not rejected this message, the mobile station shall activate the Waiting for Service Action Time Subfunction; otherwise, the mobile station shall activate the Normal Service Subfunction.

   - If the mobile station receives one of the following service option negotiation messages, the mobile station shall send a Mobile Station Reject Order (ORDQ = ‘00000010’) within T56m seconds:
     1. **Service Option Request Order**
     2. **Service Option Response Order**
     3. **Service Option Control Order**

2.6.4.1.2.2.5 Waiting for Service Action Time Subfunction

While this subfunction is active, the mobile station waits for the action time associated with a new service configuration. If the action time was specified by a Service Connect Message, the mobile station shall send the Service Connect Completion Message at the action time.

While the Wait for Service Action Time Subfunction is active, the mobile station shall perform the following:

   - Prior to the action time associated with the Service Connect Message, General Handoff Direction Message (containing a service configuration record), or Universal Handoff Direction Message (containing a service configuration record), the mobile station shall process Forward and Reverse Traffic Channel frames in accordance with the current service configuration. The mobile station shall discard any Forward Traffic Channel frame which has a format that is not supported by the mobile station. The mobile station may discard any type of Forward Traffic Channel traffic that is not signaling traffic and is not part of the current service configuration.
• At the action time associated with the Service Connect Message, General Handoff Direction Message (containing a service configuration record) or Universal Handoff Direction Message (containing a service configuration record), the mobile station shall perform the following:\textsuperscript{10}:

  - If this is a Service Connect Message with \texttt{USE\_OLD\_SERV\_CONFIG} equals '01', the mobile station shall perform the following:

    + The Call Control instance identified by NULL shall also be identified by the connection reference assigned to the first service option connection in the stored Service Configuration information record.

    + For each service option connection (with corresponding connection reference CON\_REF\textsubscript{i}) in the stored service configuration record, if any, except for the first one, Layer 3 shall instantiate a Call Control instance (as specified in 2.6.10) with a 'restore indication'. The mobile station shall identify each of these Call Control instances by the corresponding CON\_REF\textsubscript{i}.

    + The mobile station shall begin to use the service configuration which was stored by the mobile station when it left the Mobile Station Control on the Traffic Channel State as the current service configuration and shall begin to process Forward and Reverse Traffic Channel frames accordingly. The mobile station shall send a Service Connect Completion Message within T\textsubscript{56m} seconds after the action time. The mobile station shall exit this subfunction and activate the Normal Service Subfunction.

    + The mobile station shall store the synchronization identifier corresponding to the stored service configuration as \texttt{SYNC\_ID\textsubscript{s}}.

  - If this is a Service Connect Message with \texttt{USE\_OLD\_SERV\_CONFIG} equals '10', the mobile station shall perform the following:

    + The mobile station shall update the stored service configuration with the received service configuration as follows:

      o The mobile station shall process the received Service Configuration Record as specified in 2.6.4.1.12.

\textsuperscript{10} Note that these procedures that take place at the action time may not occur for this message if a GHDM/UHDM with \texttt{SCR\_INCLUDED} equal to '1' is received before the action time of this message. In this case, these procedures take place for the new message. One exception is that the call assignments from this message take effect at the action time of this message regardless of the call assignments from the new message.
The mobile station shall process the received Non-negotiable Service Configuration Record as specified in 2.6.4.1.13.

The mobile station shall begin to use the updated service configuration as the current service configuration and shall begin to process Forward and Reverse Traffic Channel frames accordingly. The mobile station shall send a Service Connect Completion Message within $T_{56m}$ seconds after the action time. The mobile station shall exit this subfunction and activate the Normal Service Subfunction.

The mobile station shall store (if included) the synchronization identifier received from the base station corresponding to this updated service configuration ($\text{SYNC}_{s} = \text{SYNC}_{r}$).

Otherwise, the mobile station shall perform the following:

Prior to this message, if a Service Connect Message, General Handoff Direction Message (with service configuration), or Universal Handoff Direction Message (with service configuration) was not successfully received or accepted by the mobile station since entering the Traffic Channel Substate, the mobile station shall perform the following:

- The mobile station shall delete the stored service configuration (if any).
- The mobile station shall set the service configuration parameters (i.e., those signaled via the Service Configuration information record and the Non-Negotiable Service Configuration information record) to their default values as specified in 2.6.4.2.

The mobile station shall process the received Service Configuration Record as specified in 2.6.4.1.12, shall process the received Non-negotiable Service Configuration Record as specified in 2.6.4.1.13 (if included), and shall begin to use the service configuration specified by the Service Connect Message, General Handoff Direction Message or Universal Handoff Direction Message containing a service configuration record as the current service configuration and shall begin to process Forward and Reverse Traffic Channel frames accordingly. If the action time was specified by a Service Connect Message, the mobile station shall send a Service Connect Completion Message within $T_{56m}$ seconds after the action time. The mobile station shall exit this subfunction and activate the Normal Service Subfunction.

The mobile station shall store (if included) the synchronization identifier received from the base station corresponding to this service configuration ($\text{SYNC}_{s} = \text{SYNC}_{r}$).
+ If P_REV_IN_USE is greater than six, the Non-Negotiable Service
Configuration information record is not included in this message, and the
value of SR_ID corresponding to the logical resource of ‘0000’ in the
LOGICAL_TO_PHYSICAL_MAPPING_TABLE is NULL, the mobile station shall
set this SR_ID field to the value specified in the Service Configuration
information record.

+ If CC_INFO_INCL equals ‘1’, then for each of the NUM_CALLS_ASSIGN occurrences of the call control parameters included in the message, the
mobile station shall perform the following:

  0    If RESPONSE_IND equals ‘1’, and TAG matches any of the TAG values
       contained in the list TAG_OUTSTANDING_LIST, the Layer 3 shall
       instantiate a Call Control instance (as specified in 2.6.10). The mobile
       station shall identify this Call Control instance by CON_REF. The mobile
       station shall disable the enhanced origination timer associated with this
call origination and remove the TAG value specified by TAG from the list
       TAG_OUTSTANDING_LIST.

  0    If RESPONSE_IND equals ‘0’, the mobile station shall store the bypass
       indicator (BYPASS_ALERT_ANSWER = BYPASS_ALERT_ANSWER) and
       the Layer 3 shall instantiate a Call Control instance (as specified in
       2.6.10). The mobile station shall identify this Call Control instance by
       CON_REF.

• The mobile station shall not initiate service negotiation for a new service
  configuration.

• For any service option connection that is part of the current or pending service
  configuration, the mobile station may send a Service Option Control Message to
  invoke a service option specific function in accordance with the requirements for the
  associated service option.

• If SERV_NEG changes from enabled to disabled (see 2.6.2.5.1), the mobile station
  shall activate the SO Negotiation Subfunction.

• If the mobile station receives one of the following service negotiation messages, the
  mobile station shall process the message according to the specified requirements:

  1. Service Connect Message: The mobile station shall send a Mobile Station Reject
     Order (ORDQ = ‘00000010’) within T56m seconds.

  2. Service Option Control Message: If the service option connection specified by the
     message is part of the current or pending service configuration, and the service
     option specified by the message is the same as the service option associated with
     the service option connection, the mobile station shall interpret the action time
     of the message as specified in 2.6.4.1.5, and shall process the message in
     accordance with the requirements for the service option; otherwise, the mobile
     station shall send a Mobile Station Reject Order (ORDQ = ‘00000111’) within
     T56m seconds.
3. **Service Request Message**: The mobile station shall send a *Mobile Station Reject Order* (ORDQ = '00000010') within T₅₆m seconds.

4. **Service Response Message**: The mobile station shall send a *Mobile Station Reject Order* (ORDQ = '00000010') within T₅₆m seconds.

5. **General Handoff Direction Message**: If the SCR_INCLUDED field is included in this message and is set to '1':

   If the mobile station has not rejected this message, the mobile station shall remain in this subfunction until the action time specified in the message, and shall perform the following:

   - The mobile station shall not perform the above procedures for the previous message. But the call assignments from the previous message (if any) shall take effect at the action time of the previous message.

   - The mobile station shall perform the above procedures for this message (that is, begin to use the service configuration specified by the *General Handoff Direction Message*) at the action time of this message.

6. **Universal Handoff Direction Message**: If the SCR_INCLUDED field is included in this message and is set to '1':

   If the mobile station has not rejected this message, the mobile station shall remain in this subfunction until the action time specified in the message, and shall perform the following:

   - The mobile station shall not perform the above procedures for the previous message. But the call assignments from the previous message (if any) shall take effect at the action time of the previous message.

   - The mobile station shall perform the above procedures for this message (that begin to use the service configuration and call assignments (if any) specified by the *Universal Handoff Direction Message*) at the action time of this message.

   - If the mobile station receives one of the following service option negotiation messages, the mobile station shall send a *Mobile Station Reject Order* (ORDQ = '00000010') within T₅₆m seconds:

     1. **Service Option Request Order**
     2. **Service Option Response Order**
     3. **Service Option Control Order**

2.6.4.1.2.2.6 SO Negotiation Subfunction

The *SO Negotiation Subfunction* is only supported for mobile stations operating in Band Class 0.

Service option negotiation is not supported for P_REV_IN_USEs greater than six.
Upon activation of the SO Negotiation Subfunction, the mobile station shall delete from the current service configuration any service option connection which does not use primary traffic on both the Forward and Reverse Traffic Channels and the Layer 3 shall terminate the corresponding Call Control instances. The Call Control instance corresponding to the service option connection which uses primary traffic, if any, shall be identified by NULL.

While the SO Negotiation Subfunction is active, the mobile station shall perform the following:

- If the current service configuration includes a service option connection, the mobile station shall process the received primary traffic bits in accordance with the requirements for the service option associated with the service option connection; otherwise, the mobile station shall discard the received primary traffic bits.
- If the current service configuration includes a service option connection, the mobile station shall transmit primary traffic bits in accordance with the requirements for the service option associated with the service option connection; otherwise, the mobile station shall transmit null traffic on the Reverse Fundamental Channel, if the Fundamental Channel is present or transmit power control bits on the Reverse Pilot Channel, if only the Dedicated Control Channel is present.
- If the current service configuration includes a service option connection, the mobile station may send a Service Option Control Order to invoke a service option specific function in accordance with the requirements for the service option associated with the service option connection.
- To initiate service option negotiation, the mobile station shall set SO_REQs to the number of the requested service option and shall send a Service Option Request Order containing the requested service option number.
- If SERV_NEGs changes from disabled to enabled (see 2.6.6.2.5.1), the mobile station shall set SO_REQs to NULL and shall activate the Normal Service Subfunction.
- If the mobile station receives a Service Option Request Order, it shall process the order as follows:
– If the mobile station accepts the requested service option, the mobile station shall set SO_REQs to NULL and shall send a Service Option Response Order accepting the requested service option within T58m seconds. The mobile station shall interpret the message action time of the Service Option Request Order in accordance with the requirements for the requested service option and the mobile station shall begin using the service configuration implied by the requested service option in accordance with those requirements. The implied service configuration shall include the default Forward and Reverse multiplex options and radio configurations associated with the requested service option, and shall include one service option connection for which the service option connection reference is 1, the service option is the requested service option, and the Forward and Reverse Traffic Channel types are both primary traffic. If a Call Control instance currently exists, the Layer 3 shall use this Call Control instance for a new service option connection; otherwise, the Layer 3 shall instantiate a Call Control instance (as specified in 2.6.10) and this Call Control instance shall be identified by both a connection reference with a value of 1 and a default identifier with a value of NULL.

– If the mobile station does not accept the requested service option and has an alternative service option to request, the mobile station shall set SO_REQs to the alternative service option number and shall send a Service Option Request Order requesting the alternative service option within T58m seconds.

– If the mobile station does not accept the requested service option and does not have an alternative service option to request, the mobile station shall set SO_REQs to NULL and shall send a Service Option Response Order to reject the request within T58m seconds. The mobile station shall continue to use the current service configuration.

• If the mobile station receives a Service Option Response Order, it shall process the order as follows:

– If the service option number specified in the order is equal to SO_REQs, the mobile station shall set SO_REQs to NULL. The mobile station shall interpret the message action time of the Service Option Response Order in accordance with the requirements for the specified service option, and the mobile station shall begin using the service configuration implied by the specified service option in accordance with those requirements. The implied service configuration shall include the default Forward and Reverse multiplex options and radio configurations associated with the specified service option, and shall include one service option connection for which the service option connection reference is 1, the service option is the specified service option, and the Forward and Reverse Traffic Channel types are both primary traffic. If a Call Control instance currently exists, the Layer 3 shall use this Call Control instance for a new service option connection; otherwise, the Layer 3 shall instantiate a Call Control instance (as specified in 2.6.10) and this Call Control instance shall be identified by both a connection reference with a value of 1 and a default identifier with a value of NULL.
If the order indicates a service option rejection, the mobile station shall set SO_REQs to NULL. The mobile station shall continue to use the current service configuration.

If the order does not indicate a service option rejection and the service option specified in the order is not equal to SO_REQs, the mobile station shall set SO_REQs to NULL and shall send a Mobile Station Reject Order (ORDQ = '00000000') within T58m seconds. The mobile station shall continue to use the current service configuration.

If the mobile station receives a Service Option Control Order, it shall process the order as follows:

- If the current service configuration includes a service option connection, the mobile station shall interpret the message action time of the Service Option Control Order in accordance with the requirements for the service option associated with the service option connection and the mobile station shall process the Service Option Control Order in accordance with those requirements;
- otherwise, the mobile station shall send a Mobile Station Reject Order (ORDQ = '00000001') within T56m seconds.

If the mobile station receives one of the following service negotiation messages, the mobile station shall send a Mobile Station Reject Order (ORDQ = '00000010') within T56m seconds:

1. Service Connect Message
2. Service Option Control Message
3. Service Request Message
4. Service Response Message

2.6.4.1.3 Ordering of Messages

The Layer 2 protocol does not guarantee delivery of messages in any order. If the mobile station requires that the base station receive a set of messages in a certain order, the mobile station shall send each message in assured mode requiring confirmation of delivery and shall wait for the confirmation of delivery of each message before transmitting the next message in the set.

2.6.4.1.4 Processing the In-Traffic System Parameters Message

The mobile station shall store the following parameters from the In-Traffic System Parameters Message:

- System identification (SID_s = SID_r)
- Network identification (NID_s = NID_r)
- Search window size for the Active Set and the Candidate Set (SRCH_WIN_A_s = SRCH_WIN_A_r)
- Search window size for the Neighbor Set (SRCH_WIN_N_s = SRCH_WIN_N_r)
• Search window size for the Remaining Set (SRCH_WIN_Rs = SRCH_WIN_Rr)
• Pilot detection threshold (T_ADDs = T_ADDr)
• Pilot drop threshold (T_DROPs = T_DROPr)
• Active Set versus Candidate Set comparison threshold (T_COMPs = T_COMPr)
• Drop timer value (T_TDROPs = T_TDROPr)
• Maximum age for retention of Neighbor Set members
  (NGHBR_MAX_AGEs = NGHBR_MAX_AGEr)
• Protocol revision level (P_REVs = P_REVr), and protocol revision level currently in
  use (P_REV_IN_USEs = min (P_REVs, MOB_P_REVp of the current band class))
• Slope of the handoff add/drop criterion (SOFT_SLOPEs = SOFT_SLOPEr)
• Intercept of the handoff add criterion (ADD_INTERCEPTs = ADD_INTERCEPTr)
• Intercept of the handoff drop criterion (DROP_INTERCEPTs = DROP_INTERCEPTr)
• If included, Reverse Supplemental Code Channel or Reverse Supplemental Channel
  neighbor pilot strength measurement transmission threshold offset threshold
  (T_MULCHANs = T_MULCHANr)
• If included, Reverse Supplemental Code Channel beginning of transmission
  preamble length (BEGIN_PREAMBLEs = BEGIN_PREAMBLEr)
• If included, Reverse Supplemental Code Channel discontinuous transmission
  resumption preamble length (RESUME_PREAMBLEs = RESUME_PREAMBLEr)
• If included, Slotted Timer (T_SLOTTEDs = T_SLOTTEDr)
• If the mobile station supports packet data service options, the mobile station shall
  store the packet data services zone identifier (PACKET_ZONE_IDs = PACKET_ZONE_IDr).
• If ENC_SUPPORTEDr is equal to ‘1’, the mobile station shall store:
  – Signaling encryption supported indicator (SIG_ENCRYPT_SUPs =
    SIG_ENCRYPT_SUPr)
  – User information encryption supported indicator (UI_ENCRYPT_SUPs =
    UI_ENCRYPT_SUPr)
• Concurrent services supported indicator (CS_SUPPORTEDs = CS_SUPPORTEDr).

The mobile station shall determine its roaming status (see 2.6.5.3). The mobile station
should indicate to the user whether the mobile station is roaming.

2.6.4.1.5 Message Action Times

A Forward Traffic Channel message without a USE_TIME field or with a USE_TIME field set
to ‘0’ has an implicit action time. A message that has its USE_TIME field set to ‘1’ has an
explicit action time that is specified in the ACTION_TIME field of the message.

A message with an explicit action time is called a pending message.
Unless otherwise specified, a message having an implicit action time shall take effect no later than the first 80 ms boundary (relative to System Time) occurring at least 80 ms after the end of the frame containing the last bit of the message. A message with an explicit action time, except for a Power Up Function Message, shall take effect when System Time (in 80 ms units) modulo 64 becomes equal to the message’s ACTION_TIME field. A Power Up Function Message shall take effect ACTION_TIME_FRAME frames after the time when System Time (in 80 ms units) modulo 64 becomes equal to the message’s ACTION_TIME field. The difference in time between ACTION_TIME and the end of the frame containing the last bit of the message shall be at least 80 ms.

The mobile station shall support two pending messages at any given time, not including pending Service Option Control Orders or Service Option Control Messages. The number of pending Service Option Control Orders or Service Option Control Messages that the mobile station is required to support is specific to the service option (see the relevant service option description). In addition, the mobile station shall support one pending Power Up Function Message.

2.6.4.1.6 Long Code Transition Request Processing

The mobile station performs these procedures upon receiving a Long Code Transition Request Order.

If the Long Code Transition Request Order requests a transition to the private long code, and the mobile station is able to generate the private long code (see 2.3.12.3), and the mobile station accepts the request, the mobile station shall send a Long Code Transition Response Order (ORDQ = '00000011') within T56m seconds. The mobile station shall use the private long code on both the Forward Traffic Channel and the Reverse Traffic Channel. The mobile station shall begin using the private long code at the explicit action time (see 2.6.4.1.5) specified in the message. At the action time of the message, the mobile station should indicate to the user that the voice privacy mode is active. If the Long Code Transition Request Order requests a private long code transition, and the mobile station is not able to generate the private long code or the mobile station does not accept the request, the mobile station shall send a Long Code Transition Response Order (ORDQ = '00000010') within T56m seconds.

If the Long Code Transition Request Order requests a transition to the public long code and the mobile station accepts the request, the mobile station shall send a Long Code Transition Response Order (ORDQ = '00000010') within T56m seconds. The mobile station shall use the public long code on both the Forward Traffic Channel and the Reverse Traffic Channel. The mobile station shall begin using the public long code at the explicit action time (see 2.6.4.1.5) specified in the message. At the action time of the message, the mobile station should indicate to the user that the voice privacy mode is inactive. If the Long Code Transition Request Order requests a public long code transition, and the mobile station does not accept the request, the mobile station shall send a Long Code Transition Response Order (ORDQ = '00000011') within T56m seconds.
2.6.4.1.7 Power Up Function (PUF)

Figure 2.6.4.1.7-1 illustrates the general structure of a PUF attempt. A PUF pulse is the interval during which the mobile station transmits at the specified power level while executing the Power Up Function.

A PUF probe is one or more consecutive Traffic Channel frames. A PUF probe consists of three parts: PUF setup, PUF pulse, and PUF recovery. PUF_SETUP_SIZE is the duration of the PUF setup part, in power control groups. PUF_PULSE_SIZE is the duration of the PUF pulse, in power control groups. The PUF recovery period occupies the remainder of the last frame of the PUF probe.

A PUF attempt is a sequence of PUF probes sent by the mobile station in response to a Power Up Function Message. A PUF attempt begins at an offset frame boundary within 80 ms of the ACTION_TIME specified in the Power Up Function Message. A PUF attempt can be terminated in one of four ways:

- The mobile station receives a Power Up Function Completion Message.
- The mobile station has transmitted the maximum number of PUF probes specified in the Power Up Function Message.
- The mobile station has transmitted the maximum number of probes allowed at its maximum output power.
- The mobile station receives a new Power Up Function Message.
### 2.6.4.1.7.1 Processing the Power Up Function Message

The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to ‘00000110’ (message requires a capability that is not supported by the mobile station) if any of the following conditions are detected:

- PUF_FREQ_INCL\_r is set to ‘1’ and PUF_BAND_CLASS\_r is not supported by the mobile station.
- PUF_FREQ_INCL\_r is set to ‘1’ and the mobile station is unable to re-tune to the PUF Target Frequency during (PUF_SETUP\_SIZE\_r + 1) power control groups.
- MOB_P\_REV\_p is not equal to five and the mobile station does not support the Power Up Function.

The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to ‘00001100’ (invalid Frequency Assignment), if the Frequency Assignment specified in the message is the same as the Serving Frequency (PUF_FREQ_INCL\_r is equal to ‘1’, PUF_BAND_CLASS\_r is equal to CDMABAND\_s and PUF_CDMA_FREQ\_r is equal to CDMACH\_s).
If the mobile station is processing a PUF probe, the mobile station shall wait for the PUF probe to complete. It shall then terminate the current PUF attempt. The mobile station shall store the following parameters:

- Maximum number of PUF probes transmitted at full power level (MAX_PWR_PUFs = MAX_PWR_PUFr + 1)
- Total number of PUF probes (TOTAL_PUF_PROBESs = TOTAL_PUF_PROBESr + 1)
- PUF interval (PUF_INTERVALs = PUF_INTERVALr)
- Number of PUF setup power control groups (PUF_SETUP_SIZEs = PUF_SETUP_SIZEr + 1)
- Number of PUF pulse power control groups (PUF_PULSE_SIZEs = PUF_PULSE_SIZEr + 1)
- Power increase of initial PUF pulse (PUF_INIT_PWRs = PUF_INIT_PWRr)
- Power increase for each successive PUF pulse (PUF_PWR_STEPs = PUF_PWR_STEPr)
- Frequency included indicator (PUF_FREQ_INCLs = PUF_FREQ_INCLr)

If PUF_FREQ_INCLs equals ‘1’, the mobile station shall store the following:

- PUF probe Target Frequency CDMA Channel number (PUF_TF_CDMACHs = PUF_CDMA_FREQr)
- PUF probe Target Frequency CDMA band class (PUF_TF_CDMABANDs = PUF_BAND_CLASSr)

The mobile station shall set CURRENT_PUF_PROBEs equal to 0.

The mobile station shall then begin the PUF attempt at the time specified in 2.6.4.1.7.2.

2.6.4.1.7.2 Power Up Function Procedures

The mobile station shall process the initial PUF probe beginning at the start of the frame which starts ACTION_TIME_FRAMEr × 20 ms + FRAME_OFFSETs × 1.25 ms after the System Time specified by ACTION_TIMEr. The mobile station shall process additional PUF probes beginning at intervals of PUF_INTERVALs frames from the beginning of the initial PUF probe.

The mobile station shall transmit the PUF probes as described in 2.6.4.1.7.2.1 and 2.6.4.1.7.2.2.

2.6.4.1.7.2.1 PUF Probe On Serving Frequency

The mobile station shall process each PUF probe as follows:

- The mobile station shall use closed loop power control procedures as specified in 2.1.2.3.2 of [2].
- The mobile station shall use the gated output procedures specified in 2.1.2.2.2.4 and 2.1.3.1.10.3 of [2].
The mobile station shall control its mean output power as specified in 2.1.2.3.1 of [2].

The mobile station shall monitor its output power during the PUF pulse, and should monitor its output power at least once during each power control group of the PUF pulse. If the mobile station detects that the transmit power level specified in of [2] is equal to or greater than the maximum power output of the mobile station at any time during a PUF pulse, the mobile station shall decrement MAX_PWR_PUFs by one for that PUF pulse.

The mobile station shall transmit the traffic channel preamble for the duration of the PUF probe on the Reverse Fundamental Code Channel.

After the processing of each PUF probe, the mobile station shall increment CURRENT_PUF_PROBEs by 1. If MAX_PWR_PUFs is equal to 0, the mobile station shall terminate the PUF attempt. If CURRENT_PUF_PROBEs equal to TOTAL_PUF_PROBEs, the mobile station shall terminate the PUF attempt.

2.6.4.1.7.2.2 PUF Probe On PUF Target Frequency

The mobile station shall process each PUF probe as follows:

- The mobile station shall use closed loop power control procedures as specified in 2.1.2.3.2 of [2].
- The mobile station shall use the gated output procedures specified in 2.1.3.1.10.3 of [2].
- The mobile station shall control its mean output power as specified in 2.1.2.3.1 of [2].
- The mobile station shall store the following Serving Frequency parameters from its current configuration:
  - CDMA Band Class (PUF_SF_CDMABANDs = CDMABANDs)
  - Frequency assignment (PUF_SF_CDMACHs = CDMACHs)

- The mobile station shall monitor its output power during the PUF pulse, and should monitor its output power at least once during each power control group of PUF pulse. If the mobile station detects that the transmit power level specified in 2.1.2.3.1 of [2] is equal to or greater than the maximum power output of the mobile station at any time during a PUF pulse, the mobile station shall decrement the MAX_PWR_PUFs by one for that PUF pulse.

- At the beginning of the PUF probe, the mobile station shall disable its transmitter, stop processing the Forward Supplemental Code Channel (if any), or the Forward Supplemental Channel (if any), disable all corrections to the mobile station time reference (see 2.1.5 of [2]), tune to the CDMA channel specified by PUF_TF_CDMACHs, and PUF_TF_CDMABANDs and re-enable its transmitter.
- The mobile station shall transmit the traffic channel preamble on the Reverse Fundamental Code Channel during the PUF pulse at PUF_TX_PWRs.
The mobile station should disable its transmitter immediately after the end of the PUF pulse, and shall disable its transmitter before the end of the first power control group after the PUF pulse. It shall then tune to its assigned CDMA channel as given by CDMACHs and CDMABANDs.

If the interval between the time that the mobile station tunes to the PUF Target Frequency and the time that it re-tunes to the Serving Frequency is equal to or greater than \((N_{2m} \times 0.02)\) seconds, the mobile station shall wait to receive a period of \((N_{3m} \times 20)\) ms with sufficient signal quality (e.g. good frames) on the physical channel corresponding to FPC_PRI_CHANs.

The mobile station shall then re-enable its transmitter and re-enable any adjustments to the mobile station time reference.

If the Forward Supplemental Code Channel assignment has not expired while the mobile station has tuned to the PUF Target Frequency, then the mobile station shall resume processing the Forward Supplemental Code Channels after re-tuning to the Serving Frequency.

If the Forward Supplemental Channel assignment has not expired while the mobile station has tuned to the PUF Target Frequency, then the mobile station shall resume processing the Forward Supplemental Channels after re-tuning to the Serving Frequency.

If the Reverse Supplemental Code Channel assignment has not expired while the mobile station has tuned to the PUF Target Frequency, then the mobile station may resume transmitting the Reverse Supplemental Code Channels after re-tuning to the Serving Frequency.

If the Reverse Supplemental Channel assignment has not expired while the mobile station has tuned to the PUF Target Frequency, then the mobile station may resume transmitting the Reverse Supplemental Code Channels after re-tuning to the Serving Frequency.

After the processing of each PUF probe, the mobile station shall increment CURRENT_PUF_PROBEs by one. If MAX_PWR_PUFs is equal to 0, the mobile station shall terminate the PUF attempt. If CURRENT_PUF_PROBEs is equal to TOTAL_PUF_PROBEs, the mobile station shall terminate the PUF attempt.

2.6.4.1.7.3 Processing the Power Up Function Completion Message

The mobile station shall terminate any PUF attempt no later than the completion of the current probe in progress and shall discard any pending Power Up Function Message. If LOC_INDr is equal to ‘1’, the mobile station may store the following parameters:

- Mobile Station Latitude \((MS_{LATs} = MS_{LATr})\)
- Mobile Station Longitude \((MS_{LONGs} = MS_{LONGr})\)
- Time stamp \((MS_{LOC\_TSTAMPs} = MS_{LOC\_TSTAMPr})\)
2.6.4.1.8 Forward Traffic Channel Supervision

When in the *Mobile Station Control on the Traffic Channel State*, the mobile station shall continuously monitor the Forward Channel, except:

- During a PUF probe in which it transmits on a PUF target frequency (see 2.6.4.1.7),
- During a search of pilots on a CDMA Candidate Frequency (see 2.6.6.2.8.3),
- During a search of analog frequencies (see 2.6.6.2.10).

The mobile station shall monitor the physical channel corresponding to FPC_PRI_CHANₘᵢₙᵢₜ. If the mobile station receives a period of \((N_{2m} \times 20)\) ms with insufficient signal quality (e.g. bad frames) on the physical channel corresponding to FPC_PRI_CHANₘᵢₙᵢₜ, it shall disable its transmitter. Thereafter, if the mobile station receives a period of \((N_{3m} \times 20)\) ms with sufficient signal quality (e.g. good frames) on the physical channel corresponding to FPC_PRI_CHANₘᵢₙᵢₜ, then the mobile station should re-enable its transmitter.

The mobile station shall establish a Forward Traffic Channel fade timer. The timer shall be enabled when the mobile station first enables its transmitter when in the *Traffic Channel Initialization Substate* of the *Mobile Station Control on the Traffic Channel State*. The fade timer shall be reset for \(T_{5m}\) seconds whenever the mobile station receives a period of \((N_{3m} \times 20)\) ms with sufficient signal quality (e.g. good frames) on the physical channel corresponding to FPC_PRI_CHANₘᵢₙᵢₜ. The mobile station shall disable the fade timer when it tunes to a PUF target frequency, and shall re-enable the fade timer at the end of the PUF probe. If the timer expires, the mobile station shall disable its transmitter and declare a loss of the Forward Traffic Channel.

The mobile station also enables, disables, and resets the fade timer when it performs a hard handoff or a periodic search, as described in 2.6.6.2.8 and 2.6.6.2.10.

2.6.4.1.9 Processing the Extended Release Message and the Extended Release Mini Message

- Upon receiving the *Extended Release Message* or the *Extended Release Mini Message*, the mobile station shall process the message as follows:
  - If the mobile station determines that the configuration specified by CH_INDₜ is not valid, the mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to ‘00000111’ (message can not be handled by the current mobile station configuration) and the mobile station shall not perform the remaining procedures in this section.
  - If the physical channels indicated by the two least significant bits of CH_INDₜ includes all the physical channels (FCH, DCCH, or both) currently being processed by the mobile station, the Layer 3 shall send a “release indication” to all Call Control instances and shall perform the following:
    - Enter the *Release Substate* with a base station extended release indication if the message is the *Extended Release Message*.
    - Enter the *Release Substate* with a base station extended release mini message indication if the message is the *Extended Release Mini Message*. 

Otherwise, the mobile station shall perform the following:

- If the received message is the *Extended Release Message*, the mobile station shall send an *Extended Release Response Message* to the base station. If the received message is the *Extended Release Mini Message*, the mobile station shall send an *Extended Release Response Mini Message* to the base station.

- The mobile station shall update CH_INDₜ as follows: If the least significant bit of CH_INDₜ equals '1', the mobile station shall set CH_INDₜ = '10'; otherwise (if the second most least significant bit of CH_INDₜ equals '01'), the mobile station shall set CH_INDₜ = '01'.

- If CH_INDₜ is equal to '001' or '101', the mobile station shall set FPC_PRI_CHANₜ to '1' at the action time of the message.

- If CH_INDₜ is equal to '010', the mobile station shall set FPC_PRI_CHANₜ to '0' at the action time of the message.

- If the least significant bit of CH_INDₜ equals '1', then the mobile station shall stop transmitting on R-FCH and stop processing F-FCH at the action time specified by the message.

- If the second most significant bit of CH_INDₜ equals '1', then the mobile station shall stop transmitting on R-DCCH and stop processing F-DCCH at the action time specified by the message.

- If GATING_RATE_INCLₜ equals '1', the mobile station shall set PILOT_GATING_RATEₚ = PILOT_GATING_RATEₜ at the action time of the message.

- If the most significant bit of CH_INDₜ equals '1', the mobile station shall set PILOT_GATING_USE_RATE to '1'. The mobile station shall start the reverse pilot gating at PILOT_GATING_RATEₚ at the action time of the message. Furthermore, if the least significant bit of CH_INDₜ equals '1' (that is, the Fundamental Channel is being released), the mobile station shall store the configuration used for the Fundamental Channel. The mobile station shall cancel the forward and reverse supplemental channel assignment, if any.

2.6.4.10 Processing the Resource Allocation Message and Resource Allocation Mini Message

The mobile station shall process the *Resource Allocation Message* and the *Resource Allocation Mini Message* as follows:

- The mobile station shall set FPC_PRI_CHANₚ = FPC_PRI_CHANₜ at the action time of the message.
If the Fundamental Channel was previously established prior to transitioning to the
Control Hold Mode, the mobile station shall start processing F-FCH and start
transmitting on R-FCH at the action time of the message. The mobile station shall
establish the Fundamental Channel with the same configuration as previously used,
and shall set CH_INDs to ‘11’.

• The mobile station shall set PILOT_GATING_USE_RATE to ‘0’ and shall start the
continuous reverse pilot at the action time of the message.

2.6.4.1.11 Reserved

2.6.4.1.12 Processing the Service Configuration Record

The mobile station shall update the Service Configuration information record currently in
use as follows:

• The mobile station shall store the forward Fundamental Channel and Dedicated
Control Channel multiplex option [FOR_MUX_OPTIONs = FOR_MUX_OPTIONr].

• The mobile station shall store the reverse Fundamental Channel and Dedicated
Control Channel multiplex option [REV_MUX_OPTIONs = REV_MUX_OPTIONr].

• The mobile station shall store the set of number of bits per frame of the forward
Fundamental Channel and Dedicated Control Channel traffic channel
[FOR_NUM_BITSs = FOR_NUM_BITSr].

• The mobile station shall store the set of number of bits per frame of the reverse
Fundamental Channel and Dedicated Control Channel traffic channel
[REV_NUM_BITSs = REV_NUM_BITSr].

• If a service option connection has been omitted from the service option connection
records, the Layer 3 shall terminate the call control instance (currently existing or
pending instantiation) identified by the connection reference corresponding to the
omitted service option connection.

• If this is the first Service Configuration Record received from the base station in a
Service Connect Message, General Handoff Direction Message, or Universal Handoff
Direction Message and accepted by the mobile station since entering the Traffic
Channel substate, the mobile station shall also identify the Call Control instance
currently identified by NULL by the connection reference assigned to the first service
option connection, CON_REFr otherwise, the mobile station shall identify the Call
Control instance corresponding to the first service option connection listed in this
Service Configuration information record by the NULL identifier.

• The mobile station shall delete all instances of current service option connection
records. For each of the NUM_CON_RECr occurrences of the service option
connection record (SO_CON_REC[i]), the mobile station shall perform the following:
  – The mobile station shall store the service option connection reference
    (SO_CON_RECs[i].CON_REF = CON_REFr).
– The mobile station shall store the service option
(SO_CON_RECs[i].SERVICE_OPTION = SERVICE_OPTIONr).

– The mobile station shall store the forward traffic channel traffic type
(SO_CON_RECs[i].FOR_TRAFFIC = FOR_TRAFFICr).

– The mobile station shall store the reverse traffic channel traffic type
(SO_CON_RECs[i].REV_TRAFFIC = REV_TRAFFICr).

– The mobile station shall store the encryption mode indicator for user information privacy
(SO_CON_RECs[i].UI_ENCRYPT_MODE = UI_ENCRYPT_MODEr).

– The mobile station shall store the service reference identifier
(SO_CON_RECs[i].SR_ID = SR_IDr).

– If RLP_INFO_INCLr equals ‘1’, the mobile station shall store the Radio Link Protocol block of bits
(SO_CON_RECs[i].RLP_BLOB = RLP_BLOBr).

– If QOS_PARMS_INCLr equals ‘1’, the mobile station shall store the QoS parameters block
(SO_CON_RECs[i].QOS_PARMS = QOS_PARMSr).

• If FCH_CC_INCLr equals ‘1’, the mobile station shall do the following:
  – The mobile station shall store the indicator for 5ms frames on Fundamental Channel as follows:
    if FCH_FRAME_SIZEr equals ‘1’, the mobile station shall set FCH_5MS_FRAMES = ‘1’; otherwise, it is set to ‘0’.
    - The mobile station shall store the Forward Fundamental Channel Radio Configuration
      (FOR_FCH_RC = FOR_FCH_RCr).
    - The mobile station shall store the Reverse Fundamental Channel Radio Configuration
      (REV_FCH_RC = REV_FCH_RCr).

• If DCCH_CC_INCLr equals ‘1’, the mobile station shall do the following:
  – The mobile station shall store the indicator for 5ms frames on Dedicated Control Channel as follows:
    if DCCH_FRAME_SIZEr equals ‘10’ or ‘11’, the mobile station shall set DCCH_5MS_FRAMES = ‘1’; otherwise, it is set to ‘0’.
    - The mobile station shall store the Forward Dedicated Control Channel Radio Configuration
      (FOR_DCCH_RC = FOR_DCCH_RCr).
    - The mobile station shall store the Reverse Dedicated Control Channel Radio Configuration
      (REV_DCCH_RC = REV_DCCH_RCr).

• If FOR_SCH_CC_INCLr equals ‘1’, the mobile station shall store the NUM_FOR_SCHr occurrences of the Forward Supplemental Channel channel configuration records as follows:
  – The mobile station shall store the Forward Supplemental Channel Identification
    (FOR_SCH_ID[FOR_SCH_IDr] = FOR_SCH_IDr).
- The mobile station shall store the Forward Supplemental Channel Multiplex Option \((\text{FOR\_SCH\_MUX}[\text{FOR\_SCH\_ID}_r]_s = \text{FOR\_SCH\_MUX}_r)\).

- The mobile station shall store the Forward Supplemental Channel Radio Configuration \((\text{FOR\_SCH\_RC}[\text{FOR\_SCH\_ID}_r]_s = \text{SCH\_RC}_r)\).

- The mobile station shall store the Forward Supplemental Channel Coding Type \((\text{FOR\_SCH\_CODING}[\text{FOR\_SCH\_ID}_r]_s = \text{CODING}_r)\).

- If \(\text{FRAME\_40\_USED}_r\) and \(\text{FRAME\_80\_USED}_r\) are both equal to ‘0’, the mobile station shall set \(\text{FOR\_SCH\_FRAME\_LENGTH}[\text{FOR\_SCH\_ID}_r]_s\) to ‘00’ (i.e., 20 ms frame length).

- If \(\text{FRAME\_40\_USED}_r\) is equal to ‘1’, the mobile station shall set \(\text{FOR\_SCH\_FRAME\_LENGTH}[\text{FOR\_SCH\_ID}_r]_s\) to ‘01’ (i.e., 40 ms frame length).

- If \(\text{FRAME\_80\_USED}_r\) is equal to ‘1’, the mobile station shall set \(\text{FOR\_SCH\_FRAME\_LENGTH}[\text{FOR\_SCH\_ID}_r]_s\) to ‘10’ (i.e., 80 ms frame length).

- \(\text{F\_MAX\_RATE\_IDX}[\text{FOR\_SCH\_ID}_r]_s = \text{MAX\_RATE}_r\).

- \(\text{F\_MAX\_RATE\_IDX}[\text{FOR\_SCH\_ID}_r]_s = \text{MAX\_RATE}_r\).

- If \(\text{REV\_SCH\_CC\_INCL}_r\) equals ‘1’, the mobile station shall store the \(\text{NUM\_REV\_SCH}_r\) occurrences of the Reverse Supplemental Channel channel configuration records as follows:

- The mobile station shall store the Reverse Supplemental Channel Identification \((\text{REV\_SCH\_ID}[\text{REV\_SCH\_ID}_r]_s = \text{REV\_SCH\_ID}_r)\).

- The mobile station shall store the Reverse Supplemental Channel Multiplex Option \((\text{REV\_SCH\_MUX}[\text{REV\_SCH\_ID}_r]_s = \text{REV\_SCH\_MUX}_r)\).

- The mobile station shall store the Reverse Supplemental Channel Radio Configuration \((\text{REV\_SCH\_RC}[\text{REV\_SCH\_ID}_r]_s = \text{SCH\_RC}_r)\).

- The mobile station shall store the Reverse Supplemental Channel Coding Type \((\text{REV\_SCH\_CODING}[\text{REV\_SCH\_ID}_r]_s = \text{CODING}_r)\).

- If \(\text{FRAME\_40\_USED}_r\) and \(\text{FRAME\_80\_USED}_r\) are both equal to ‘0’, the mobile station shall set \(\text{REV\_SCH\_FRAME\_LENGTH}[\text{REV\_SCH\_ID}_r]_s\) to ‘00’ (i.e., 20 ms frame length).

- If \(\text{FRAME\_40\_USED}_r\) is equal to ‘1’, the mobile station shall set \(\text{REV\_SCH\_FRAME\_LENGTH}[\text{REV\_SCH\_ID}_r]_s\) to ‘01’ (i.e., 40 ms frame length).

- If \(\text{FRAME\_80\_USED}_r\) is equal to ‘1’, the mobile station shall set \(\text{REV\_SCH\_FRAME\_LENGTH}[\text{REV\_SCH\_ID}_r]_s\) to ‘10’ (i.e., 80 ms frame length).

- \(\text{R\_MAX\_RATE\_IDX}[\text{REV\_SCH\_ID}_r]_s = \text{MAX\_RATE}_r\).

2.6.4.1.13 Processing the Non-Negotiable Service Configuration Record

The mobile station shall update the Non-Negotiable Service Configuration information record currently in use as follows:

- If \(\text{FPC\_INCL}_r\) equals ‘1’, the mobile station shall do the following:
- The mobile station shall store the Power Control Subchannel indicator 
  \(FPC_{PRI\_CHAN_s} = FPC_{PRI\_CHAN_r}\).

- The mobile station shall store the forward power control operation mode 
  \(FPC\_MODE\_NO\_SCH_s = FPC\_MODE_r\).

- The mobile station shall set \(FPC\_MODE_s = FPC\_MODE\_NO\_SCH_s\) if there is no 
  forward Supplemental Channel assignment in progress (see 2.6.6.2.5.1.1).

- If \(FPC\_OLPC\_FCH\_INCL_r\) equals ‘1’, the mobile station shall do the following:
  + The mobile station shall store the Fundamental Channel target Frame Error 
    Rate \(FPC\_FCH\_FER_s = FPC\_FCH\_FER_r\).

  + The mobile station shall store the minimum Fundamental Channel Outer 
    Loop \(E_b/N_t\) setpoint \(FPC\_FCH\_MIN\_SETPT_s = FPC\_FCH\_MIN\_SETPT_r\).

  + The mobile station shall store the maximum Fundamental Channel Outer 
    Loop \(E_b/N_t\) setpoint \(FPC\_FCH\_MAX\_SETPT_s = FPC\_FCH\_MAX\_SETPT_r\).

- If \(FPC\_OLPC\_DCCH\_INCL_r\) equals ‘1’, the mobile station shall do the following:
  + The mobile station shall store the Dedicated Control Channel target Frame 
    Error Rate \(FPC\_DCCH\_FER_s = FPC\_DCCH\_FER_r\).

  + The mobile station shall store the minimum Dedicated Control Channel 
    Outer Loop \(E_b/N_t\) setpoint \(FPC\_DCCH\_MIN\_SETPT_s = FPC\_DCCH\_MIN\_SETPT_r\).

  + The mobile station shall store the maximum Dedicated Control Channel 
    Outer Loop \(E_b/N_t\) setpoint \(FPC\_DCCH\_MAX\_SETPT_s = FPC\_DCCH\_MAX\_SETPT_r\).

- If \(GATING\_RATE\_INCL_r\) equals ‘1’, the mobile station shall store the Reverse Pilot 
  Channel gating rate \(PILOT\_GATING\_RATE_s = PILOT\_GATING\_RATE_r\).

- If \(FOR\_SCH\_INCL_r\) equals ‘1’, the mobile station shall store the \(NUM\_FOR\_SCH_r\) 
  occurrences of the Forward Supplemental Channel information as follows:

  - The mobile station shall store the Forward Supplemental Channel Multiframe 
    Offset \(FOR\_SCH\_FRAME\_OFFSET[FOR\_SCH\_ID_r]_s = \)
    \(FOR\_SCH\_FRAME\_OFFSET_r\).

- If \(REV\_SCH\_CC\_INCL_r\) equals ‘1’, the mobile station shall store the \(NUM\_REV\_SCH_r\) 
  occurrences of the Reverse Supplemental Channel information as follows:

  - The mobile station shall store the Reverse Supplemental Channel Multiframe 
    Offset \(REV\_SCH\_FRAME\_OFFSET[REV\_SCH\_ID_r]_s = \)
    \(REV\_SCH\_FRAME\_OFFSET_r\).

- The mobile station shall determine the Logical-to-Physical Mapping to be used as 
  follows:

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- If LPM_INDₜ equals ‘00’ and P_REV_IN_USEₛ is greater than six, the mobile station shall reset the Logical-to-Physical Mapping to their default values as specified in Table 2.6.4.2-1 but with the following modification for requirement 1 stated in Table 2.6.4.2-1:
  + The mobile station shall set the SR_ID field to the value specified in the Service Configuration information record.

- If LPM_INDₜ equals ‘00’ and P_REV_IN_USEₛ is equal to or less than six, the mobile station shall reset the Logical-to-Physical Mapping to their default values as follows:
  + Default number of Logical-to-Physical Mapping entries (NUM_LPM_ENTRIESₛ = ‘0100’).
  + Default Table(0) Logical-to-Physical Mapping service reference identifier (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[0].SR_IDₛ = ‘000’).
  + Default Table(0) Logical-to-Physical Mapping logical resource identifier (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[0].LOGICAL_RESOURCEₛ = ‘0001’).
  + Default Table(0) Logical-to-Physical Mapping physical resource identifier:
    o If CH_INDₛ is equal to ‘01’ or ‘11’, the mobile station shall set LOGICAL_TO_PHYSICAL_MAPPING_TABLE[0].PHYSICAL_RESOURCEₛ to ‘0000’.
    o If CH_INDₛ is equal to ‘10’, the mobile station shall set LOGICAL_TO_PHYSICAL_MAPPING_TABLE[0].PHYSICAL_RESOURCEₛ to ‘0001’.
  + Default Table(0) Logical-to-Physical Mapping forward mapping indicator (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[0].FORWARD_FLAGₛ = ‘1’).
  + Default Table(0) Logical-to-Physical Mapping reverse mapping indicator (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[0].REVERSE_FLAGₛ = ‘1’).
  + Default Table(0) Logical-to-Physical Mapping priority (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[0].PRIORITYₛ = ‘0000’).
  + Default Table(1) Logical-to-Physical Mapping service reference identifier (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[1].SR_IDₛ = ‘001’).
  + Default Table(1) Logical-to-Physical Mapping logical resource identifier (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[1].LOGICAL_RESOURCEₛ = ‘0000’).
  + Default Table(1) Logical-to-Physical Mapping physical resource identifier:
    o If CH_INDₛ is equal to ‘01’ or ‘11’, the mobile station shall set LOGICAL_TO_PHYSICAL_MAPPING_TABLE[1].PHYSICAL_RESOURCEₛ to ‘0000’.
If $\text{CH}_{\text{IND}}$ is equal to ‘10’, the mobile station shall set
$\text{LOGICAL}_{\text{TO}}_{\text{PHYSICAL}}_{\text{MAPPING}}_{\text{TABLE}}[1].\text{PHYSICAL}_{\text{RESOURCE}}$ to ‘0001’.

+ Default Table(1) Logical-to-Physical Mapping forward mapping indicator
  ($\text{LOGICAL}_{\text{TO}}_{\text{PHYSICAL}}_{\text{MAPPING}}_{\text{TABLE}}[1].\text{FORWARD}_{\text{FLAG}} = '1'$).

+ Default Table(1) Logical-to-Physical Mapping reverse mapping indicator
  ($\text{LOGICAL}_{\text{TO}}_{\text{PHYSICAL}}_{\text{MAPPING}}_{\text{TABLE}}[1].\text{REVERSE}_{\text{FLAG}} = '1'$).

+ Default Table(1) Logical-to-Physical Mapping priority
  ($\text{LOGICAL}_{\text{TO}}_{\text{PHYSICAL}}_{\text{MAPPING}}_{\text{TABLE}}[1].\text{PRIORITY} = '0000'$).

+ Default Table(2) Logical-to-Physical Mapping service reference identifier
  ($\text{LOGICAL}_{\text{TO}}_{\text{PHYSICAL}}_{\text{MAPPING}}_{\text{TABLE}}[2].\text{SR}_{\text{ID}} = '001'$).

+ Default Table(2) Logical-to-Physical Mapping logical resource identifier
  ($\text{LOGICAL}_{\text{TO}}_{\text{PHYSICAL}}_{\text{MAPPING}}_{\text{TABLE}}[2].\text{LOGICAL}_{\text{RESOURCE}} = '0000'$).

+ Default Table(2) Logical-to-Physical Mapping physical resource identifier
  ($\text{LOGICAL}_{\text{TO}}_{\text{PHYSICAL}}_{\text{MAPPING}}_{\text{TABLE}}[2].\text{PHYSICAL}_{\text{RESOURCE}} = '0010'$).

+ Default Table(2) Logical-to-Physical Mapping forward mapping indicator
  ($\text{LOGICAL}_{\text{TO}}_{\text{PHYSICAL}}_{\text{MAPPING}}_{\text{TABLE}}[2].\text{FORWARD}_{\text{FLAG}} = '1'$).

+ Default Table(2) Logical-to-Physical Mapping reverse mapping indicator
  ($\text{LOGICAL}_{\text{TO}}_{\text{PHYSICAL}}_{\text{MAPPING}}_{\text{TABLE}}[2].\text{REVERSE}_{\text{FLAG}} = '1'$).

+ Default Table(2) Logical-to-Physical Mapping priority
  ($\text{LOGICAL}_{\text{TO}}_{\text{PHYSICAL}}_{\text{MAPPING}}_{\text{TABLE}}[2].\text{PRIORITY} = '0000'$).

+ Default Table(3) Logical-to-Physical Mapping service reference identifier
  ($\text{LOGICAL}_{\text{TO}}_{\text{PHYSICAL}}_{\text{MAPPING}}_{\text{TABLE}}[3].\text{SR}_{\text{ID}} = '001'$).

+ Default Table(3) Logical-to-Physical Mapping logical resource identifier
  ($\text{LOGICAL}_{\text{TO}}_{\text{PHYSICAL}}_{\text{MAPPING}}_{\text{TABLE}}[3].\text{LOGICAL}_{\text{RESOURCE}} = '0000'$).

+ Default Table(3) Logical-to-Physical Mapping physical resource identifier
  ($\text{LOGICAL}_{\text{TO}}_{\text{PHYSICAL}}_{\text{MAPPING}}_{\text{TABLE}}[3].\text{PHYSICAL}_{\text{RESOURCE}} = '0011'$).

+ Default Table(3) Logical-to-Physical Mapping forward mapping indicator
  ($\text{LOGICAL}_{\text{TO}}_{\text{PHYSICAL}}_{\text{MAPPING}}_{\text{TABLE}}[3].\text{FORWARD}_{\text{FLAG}} = '1'$).

+ Default Table(3) Logical-to-Physical Mapping reverse mapping indicator
  ($\text{LOGICAL}_{\text{TO}}_{\text{PHYSICAL}}_{\text{MAPPING}}_{\text{TABLE}}[3].\text{REVERSE}_{\text{FLAG}} = '1'$).

+ Default Table(3) Logical-to-Physical Mapping priority
  ($\text{LOGICAL}_{\text{TO}}_{\text{PHYSICAL}}_{\text{MAPPING}}_{\text{TABLE}}[3].\text{PRIORITY} = '0000'$).
- If LPM_IND equals ‘01’, the mobile station shall use the Logical-to-Physical Mapping included in this Non-Negotiable Service Configuration Record. The mobile station shall do the following: The mobile station shall delete the Logical-to-Physical Mapping currently in use. The mobile station shall store the number of Logical-to-Physical Mapping entries (NUM_LPM_ENTRIESₘ = NUM_LPM_ENTRIESᵣ). For each iᵗʰ record of the NUM_LPM_ENTRIESᵣ Logical-to-Physical Mapping records included in the received Non-Negotiable Service Configuration Record:

+ The mobile station shall store the Logical-to-Physical Mapping service reference identifier (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[i].SR_IDₘ = SR_IDᵣ).

+ The mobile station shall store the Logical-to-Physical Mapping logical resource identifier (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[i].LOGICAL_RESOURCEₘ = LOGICALRESOURCEᵣ).

+ The mobile station shall store the Logical-to-Physical Mapping Physical Channel (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[i].PHYSICAL_RESOURCEₘ = PHYSICALRESOURCEᵣ).

+ The mobile station shall store the Logical-to-Physical Mapping forward mapping indicator (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[i].FORWARD_FLAGₘ = FORWARD_FLAGᵣ).

+ The mobile station shall store the Logical-to-Physical Mapping reverse mapping indicator (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[i].REVERSE_FLAGₘ = REVERSE_FLAGᵣ).

+ The mobile station shall store the Logical-to-Physical Mapping priority (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[i].PRIORITYₘ = PRIORITYᵣ).

- If LPM_INDᵣ equals ‘10’, the mobile station shall use the Logical-to-Physical Mapping currently in use.

- For each of the NUM_RECᵣ occurrences of the service-specific records included in the Non-negotiable Service Configuration Record, the mobile station shall perform the following:

  – The mobile station shall store the Short Data Burst service option number omitted indicator (SDB_SO_OMITₛ [SR_IDᵣ] = SDB_SO_OMITᵣ).

- The mobile station shall store the following:

  - USE_FLEX_NUM_BITₛ = USE_FLEX_NUM_BITᵣ

  - USE_VAR_RATEₛ = USE_VAR_RATEᵣ
- If USE_VAR_RATE\(_r\) is equal to '1', then the mobile station shall store the following:
  + \( R_{\text{INC\_RAT\_ALLOWED}}_s = R_{\text{INC\_RAT\_ALLOWED}}_r \)
  + \( F_{\text{INC\_RAT\_ALLOWED}}_s = F_{\text{INC\_RAT\_ALLOWED}}_r \)

- If NUM_BITS_TABLES_INCL\(_r\) is included and is equal to '1', the mobile station shall store NUM_BITS_TABLES_COUNT\(+1\) instances of the Flexible Rate Table (NUM_RECS triplets of (NUM_BITS_IDX, NUM_BITS, CRC_LEN_IDX) corresponding to each NUM_BITS_TABLE_ID\(_r\)) as follows:
  - For each of the NUM_RECS occurrences of the three field record consisting of NUM_BITS_IDX, NUM_BITS, and CRC_LEN_IDX the mobile station shall store the following
    + \( \text{NUM\_BITS}_s[\text{NUM\_BITS\_TABLE\_ID}_r][\text{NUM\_BITS\_IDX}_r] = \text{NUM\_BITS}_r \)
    + \( \text{CRC\_LEN\_IDX}_s[\text{NUM\_BITS\_TABLE\_ID}_r][\text{NUM\_BITS\_IDX}_r] = \text{CRC\_LEN\_IDX}_r \)

*Otherwise, the mobile station shall use the previously stored values for the NUM_BITS\(_s\) and CRC_LEN_IDX\(_s\).*

- If USE_OLD_FLEX_MAPPING\(_r\) is included and equal to '0', the mobile station shall store the following:
  - FFCH_NBIT_TABLE_ID\(_s\) = FFCH_NBIT_TABLE_ID\(_r\).
  - RFCH_NBIT_TABLE_ID\(_s\) = RFCH_NBIT_TABLE_ID\(_r\).
  - FSCH_NBIT_TABLE_ID\(_s\)[1] = FSCH0_NBIT_TABLE_ID\(_r\).
  - FSCH_NBIT_TABLE_ID\(_s\)[2] = FSCH1_NBIT_TABLE_ID\(_r\).
  - RSCH_NBIT_TABLE_ID\(_s\)[1] = RSCH0_NBIT_TABLE_ID\(_r\).
  - RSCH_NBIT_TABLE_ID\(_s\)[2] = RSCH1_NBIT_TABLE_ID\(_r\).
  - FDCCH_NBIT_TABLE_ID\(_s\) = FDCCH_NBIT_TABLE_ID\(_r\).
  - If FDCCH_NBIT_TABLE_ID\(_s\) is not equal to '0000', then the mobile station shall store FDCCH_NBITS_IDX\(_s\) = FDCCH_NBITS_IDX\(_r\).
  - RDCCH_NBIT_TABLE_ID\(_s\) = RDCCH_NBIT_TABLE_ID\(_r\).
  - If RDCCH_NBIT_TABLE_ID\(_s\) is not equal to '0000', then the mobile station shall store RDCCH_NBITS_IDX\(_s\) = RDCCH_NBITS_IDX\(_r\).

*Otherwise, the mobile station shall use the previously stored values for the above six variables.*

- If USE_FLEX_NUM_BITS\(_r\) is equal to '0', the mobile station shall store the following:
  - FFCH_NBIT_TABLE_ID\(_s\) = '0000'.
  - RFCH_NBIT_TABLE_ID\(_s\) = '0000'.
  - FSCH_NBIT_TABLE_ID\(_s\)[1] = '0000'.

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- RSCH_NBIT_TABLE_IDs[1] = ‘0000’.
- FDCCH_NBIT_TABLE_IDs = ‘0000’.
- FDCCH_NBITS_IDXs = ‘0000’.
- RDCCH_NBIT_TABLE_IDs = ‘0000’.
- FDCCH_NBITS_IDXs = ‘0000’.

If VAR_TABLES_INCL_r is included and is equal to ‘1’, the mobile station shall store
VAR_RATE_TABLES_COUNT+1 instances of the Variable Rate Mask Table
(NUM_RECS pairs of (NUM_BITS_IDX, MASK) corresponding to each
VAR_RATE_TABLE_ID) as follows:

- For each of the NUM_RECS + 1 occurrences of the two-field record consisting of
  NUM_BITS_IDX and MASK the mobile station shall store the following:
  ◦ MASKs[var RATE_TABLE_ID_r][NUM_BITS_IDX_r] = MASK_r;
- If FSCH_VAR_TABLE_IDs[1] is not equal to ‘000’, then the mobile station shall
  store the following:
  ◦ For row=1, ..., 15
    ◦ For i=1, ..., row,
      ◦ If the i\textsuperscript{th} bit position in MASKs[FSCH_VAR_TABLE_IDs[1]][row] is equal
to ‘1’, then the mobile station shall set
        VAR_FSCH_RATE_OFFSETs[1][row][i] to i,
      ◦ otherwise, the mobile shall set VAR_FSCH_RATE_OFFSETs[1][row][i]
to ‘0’.
- If FSCH_VAR_TABLE_IDs[2] is not equal to ‘000’, then the mobile station shall
  store the following:
  ◦ For row=1, ..., 15
    ◦ For i=1, ..., row,
      ◦ If the i\textsuperscript{th} bit position in MASKs[FSCH_VAR_TABLE_IDs[2]][row] is equal
to ‘1’, then the mobile station shall set
        VAR_FSCH_RATE_OFFSETs[2][row][i] to i,
      ◦ otherwise, the mobile shall set VAR_FSCH_RATE_OFFSETs[2][row][i]
to ‘0’.
- If RSCH_VAR_TABLE_IDs[1] is not equal to ‘000’, then the mobile station shall
  store the following:
  ◦ For row=1, ..., 15
For \(i = 1, \ldots, \text{row},\)

\(\diamond\) If the \(i^{th}\) bit position in \(\text{MASK}_{s}[\text{RSCH\_VAR\_TABLE\_ID}_{s}[1]][\text{row}]\) is equal to ‘1’, then the mobile station shall set \(\text{VAR\_RSCH\_RATE\_OFFSET}_{s}[1][\text{row}][i]\) to \(i\),

\(\diamond\) otherwise, the mobile station shall set \(\text{VAR\_RSCH\_RATE\_OFFSET}_{s}[1][\text{row}][i]\) to ‘0’.

- If \(\text{RSCH\_VAR\_TABLE\_ID}_{s}[2]\) is not equal to ‘000’, then the mobile station shall store the following:
  
  + For \(\text{row} = 1, \ldots, 15\)
    
    \(\diamond\) For \(i = 1, \ldots, \text{row},\)
    
    \(\diamond\) If the \(i^{th}\) bit position in \(\text{MASK}_{s}[\text{RSCH\_VAR\_TABLE\_ID}_{s}[2]][\text{row}]\) is equal to ‘1’, then the mobile station shall set \(\text{VAR\_RSCH\_RATE\_OFFSET}_{s}[2][\text{row}][i]\) to \(i\),
    
    \(\diamond\) otherwise, the mobile station shall set \(\text{VAR\_RSCH\_RATE\_OFFSET}_{s}[2][\text{row}][i]\) to ‘0’.

- Else (if \(\text{USE\_OLD\_VAR\_TABLE}_{r}\) is included and equal to ‘1’), use the previously stored values for \(\text{VAR\_RSCH\_RATE\_OFFSET}_{s}\) and \(\text{VAR\_FSCH\_RATE\_OFFSET}_{s}\).

- If \(\text{USE\_OLD\_VAR\_MAPPING}_{r}\) is included and equal to ‘0’, the mobile station shall store the following:
  
  - \(\text{FSCH\_VAR\_TABLE\_ID}_{s}[1] = \text{FSCH0\_VAR\_TABLE\_ID}_{r}\).
  
  - \(\text{FSCH\_VAR\_TABLE\_ID}_{s}[2] = \text{FSCH1\_VAR\_TABLE\_ID}_{r}\).
  
  - \(\text{RSCH\_VAR\_TABLE\_ID}_{s}[1] = \text{RSCH0\_VAR\_TABLE\_ID}_{r}\).
  
  - \(\text{RSCH\_VAR\_TABLE\_ID}_{s}[2] = \text{RSCH1\_VAR\_TABLE\_ID}_{r}\).

- Otherwise, use the previously stored values for the above four variables.

- If \(\text{USE\_VAR\_RATE}_{r}\) is equal to ‘0’, the mobile station shall store the following:
  
  - \(\text{FSCH\_VAR\_TABLE\_ID}_{s}[1] = ‘000’\).
  
  - \(\text{FSCH\_VAR\_TABLE\_ID}_{s}[2] = ‘000’\).
  
  - \(\text{RSCH\_VAR\_TABLE\_ID}_{s}[1] = ‘000’\).
  
  - \(\text{RSCH\_VAR\_TABLE\_ID}_{s}[2] = ‘000’\).

- If \(\text{LTU\_TABLES\_INCL}_{r}\) is included and is equal to ‘1’, then the mobile station shall store \(\text{NUM\_LTU\_TABLES} + 1\) instances of the LTU Table which determines the number of LTUs per frame for convolutionally encoded supplemental channels for each number of bits per frame. Each LTU Table is identified by its \(\text{LTU\_TABLE\_ID}\).
  
  - For each of the \(\text{NUM\_ROWS} + 1\) rows of the LTU Size Table, the mobile station shall store the following:
If USE_OLD_LTU_TABLE is included and equal to ‘1’, the mobile station shall use the previously stored values for the LTU_TABs.

- If USE_OLD_LTU_MAPPING is included and is equal to '0', then the mobile station shall store the following:
  - FSCH_LTU_TAB_ID[1] = FSCH0_LTU_TAB_ID
  - FSCH_LTU_TAB_ID[2] = FSCH1_LTU_TAB_ID
  - RSCH_LTU_TAB_ID[1] = RSCH0_LTU_TAB_ID
  - RSCH_LTU_TAB_ID[2] = RSCH1_LTU_TAB_ID

- Else (if USE_OLD_LTU_MAPPING is included and is equal to ‘1’), the mobile station shall use the previously stored values for the above four variables.

- If LTU_INFO_INCL is equal to ‘0’, then the mobile station shall store the following:
  - FSCH_LTU_TAB_ID[1] = '000'
  - FSCH_LTU_TAB_ID[2] = '000'
  - RSCH_LTU_TAB_ID[1] = '000'
  - RSCH_LTU_TAB_ID[2] = '000'

- If PARTITION_TABLES_INCL is included and is equal to ‘1’, then the mobile station shall store NUM_PARTITION_TABLES + 1 instances of the Partition Table which determines the number of bits allocated to each service per FCH or DCCH frame as follows. Each Partition Table is identified by its PARTITION_TABLE_ID.
  - For each of the NUM_ROWS+1 rows of the Partition Table, the mobile station shall store the following:
    + PART_TABs[PARTITION_TABLE_ID][CATEGORY].MUX_HEADER_LEN = MUX_HEADER_LEN
    + PART_TABs[PARTITION_TABLE_ID][CATEGORY].MUX_HEADER = MUX_HEADER
    + PART_TABs[PARTITION_TABLE_ID][CATEGORY].NUM_PARTITIONS = NUM_PARTITIONS
    + For i=1, ..., NUM_PARTITIONS+1; the mobile station shall store the following:
      o PART_TABs[PARTITION_TABLE_ID][CATEGORY].PARTITION_SR_ID[i] = SR_ID
      o PART_TABs[PARTITION_TABLE_ID][CATEGORY].PARTITION_NBITS[i] = SRV_NUM_BITS

- Else (if PARTITION_TABLES_INCL is included and is equal to ‘0’), the mobile station shall use the previously stored values for the PART_TABs.
If USE_OLD_PART_MAPPING \( r \) is included and is equal to ‘0’, then the mobile station shall store the following:
- \( \text{FFCH\_PART\_TAB\_ID}_s = \text{FFCH\_PART\_TAB\_ID}_r \)
- \( \text{RFCH\_PART\_TAB\_ID}_s = \text{RFCH\_PART\_TAB\_ID}_r \)
- \( \text{FDCCH\_PART\_TAB\_ID}_s = \text{FDCCH\_PART\_TAB\_ID}_r \)
- \( \text{RDCCH\_PART\_TAB\_ID}_s = \text{RDCCH\_PART\_TAB\_ID}_r \)
*Else (if USE_OLD_PART_MAPPING \( r \) is included and equal to ‘1’), the mobile station shall use the previously stored values for the above four variables.

If USE_FLEX_NUM_BITS \( s \) is equal to ‘0’, then the mobile station shall store the following:
- \( \text{FFCH\_PART\_TAB\_ID}_s = '000' \)
- \( \text{RFCH\_PART\_TAB\_ID}_s = '000' \)
- \( \text{FDCCH\_PART\_TAB\_ID}_s = '000' \)
- \( \text{RDCCH\_PART\_TAB\_ID}_s = '000' \)

2.6.4.1.14 Processing the Security Mode Command Message
The mobile station shall process the received *Security Mode Command Message* as follows:
- The mobile station shall set \( \text{D\_SIG\_ENCRYPT\_MODE}_s \) to \( \text{D\_SIG\_ENCRYPT\_MODE}_r \).
  *For each of the NUM\_RECS\_r instances of the two-field record consisting of CON\_REF and UI\_ENCRYPT\_MODE, the mobile station shall set UI\_ENCRYPT\_MODE_s[CON\_REF] to UI\_ENCRYPT\_MODE_r."
- If \( \text{D\_SIG\_ENCRYPT\_MODE}_r \) is not equal to ‘000’, the mobile station shall perform the following:
  - Set \( \text{ENC\_MODE}_s \) to ‘11’
  - Set \( \text{ENC\_KEY}_s \) to the most recently generated CMEAKEY in the mobile station associated with the AUTHR of the *Origination Message* or *Page Response Message*
  - Set \( \text{EXT\_ENCRYPT\_SEQ}[0] \) and \( \text{EXT\_ENCRYPT\_SEQ}[1] \) to \( 256 \times \text{ENC\_SEQ\_H} \) if either of the following conditions is true:
    + The \( \text{ENC\_SEQ\_H} \) field is included in the last *Origination Message* or *Page Response Message* and \( \text{EXT\_ENCRYPT\_SEQ}[0] \) and \( \text{EXT\_ENCRYPT\_SEQ}[1] \) have not been initialized by the last *Channel Assignment Message*, *Extended Channel Assignment Message*, or an earlier f-dsch *Security Mode Command Message* (see 2.3.12.4.1.3).
    + This message is a response to a *Security Mode Request Message* (see 2.3.12.4.1.3) that includes an \( \text{ENC\_SEQ\_H} \) field.
For each of the service option connections specified by the CON_REF field included in this message, the mobile station shall set the user information encryption mode in the corresponding service option connection record (SO_CON_REC[i]) to UI_ENCRYPT_MODEr (i.e., set SO_CON_REC[i].UI_ENCRYPT_MODE to UI_ENCRYPT_MODEr where SO_CON_REC[i].CON_REF = CON_REFr).

For each of the service option connections specified by the CON_REF field included in this message, at the action time of the message the mobile station shall start encrypting user information (e.g., voice and data) using the encryption algorithm specified by SO_CON_REC[i].UI_ENCRYPT_MODE where SO_CON_REC[i].CON_REF = CON_REFr .(see Table 3.7.4.5-1).

If USE_NEW_KEYr is not included, or is included and is set to '1', the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEY[i].KEY_SEQ_NEWp. The mobile station shall store KEY_SIZEr in KEY_SIZEp. The mobile station shall then increment the variable KEY_SEQ_NEWp by one (modulo 16). If ENC_KEY_SIZEr is included, the mobile station shall set ENC_KEY_SIZEp to ENC_KEY_SIZEr.

If USE_NEW_KEYr is included and is set to '0', then the mobile station shall use KEY[i].KEY_SEQp as the session key.

If C_SIG_ENCRYPT_MODE is included, the mobile station shall set C_SIG_ENCRYPT_MODEp to C_SIG_ENCRYPT_MODEr.

2.6.4.2 Traffic Channel Initialization Substate

In this substate, the mobile station verifies that it can receive the Forward Traffic Channel and begins transmitting on the Reverse Traffic Channel.

Upon entering the Traffic Channel Initialization Substate, the mobile station shall perform the following:

- The mobile station shall perform registration initialization as specified in 2.6.5.5.4.1.
- Layer 3 shall send an L2-Supervision.Request primitive to Layer 2 to reset the acknowledgment procedures as specified in 2.2.1.1 and 2.2.2.1 of [4].
- The mobile station shall initialize Forward Traffic Channel power control as specified in 2.6.4.1.1.1.
- The mobile station shall initialize the list TAG_OUTSTANDING_LIST to be empty.
- If P_REV_IN_USEp is less than seven, the mobile station shall set CS_SUPPORTEDp to '0'.
- The mobile station shall set the following variables to their initial default values given below:
If the mobile station has included the SYNC_ID field in the Origination Message or Page Response Message, the mobile station shall not reset any of the service configuration parameters (i.e., those signaled via the Service Configuration information record and the Non-Negotiable Service Configuration information record) to their default values.

- Default power control step size
  \( PWR_{-}CNTL_{-}STEPs = \text{'}000\text{'})

- Default Reverse Supplemental Channel power offset adjustment relative to Reverse Pilot Channel power
  \(+ RLGAIN_{-}SCH_{-}PILOTs[0] = \text{'}000000\text{'}\)
  \(+ RLGAIN_{-}SCH_{-}PILOTs[1] = \text{'}000000\text{'})

- Default Reverse Discontinuous Transmission Duration on Reverse Supplemental Code Channel \(REV_{-}DTX\_DURATIONs = \text{'}0000\text{'})

- Default Reverse Discontinuous Transmission Duration on Reverse Supplemental Channel \(REV\_SCH\_DTX\_DURATIONs = \text{'}0000\text{'})

- Default channel on which the mobile station is to perform the primary inner loop estimation and the base station is to multiplex the Power Control Subchannel:
  + If \(CH\_INDs\) is equal to \text{'}01\text{'}, the mobile station shall set \(FPC\_PRI\_CHANs\) to \text{'}0\text{'}.
  + If \(CH\_INDs\) is equal to \text{'}10\text{'}, the mobile station shall set \(FPC\_PRI\_CHANs\) to \text{'}1\text{'}.

- Default forward power control operation mode used except during the forward Supplemental Channel interval
  \(FPC\_MODE\_NO\_SCHs = \text{'}000\text{'})

- Default forward power control operation mode used during the forward Supplemental Channel interval
  \(FPC\_MODE\_SCHs = \text{'}000\text{'})

- Default forward power control operation mode
  \(FPC\_MODEs = \text{'}000\text{'})

- Slotted timer \(T\_SLOTTEDs = T_{74m}\)

- Default Reverse Pilot Channel gating \(PILOT\_GATING\_USE\_RATE=\text{'}0\text{'})

- Default begin preamble for Reverse Supplemental Code Channels
  \(BEGIN\_PREAMBLEs = \text{'}000\text{'})

- Default resume preamble for Reverse Supplemental Code Channels
  \(RESUME\_PREAMBLEs = \text{'}000\text{'})

- Default start time for Reverse Supplemental Code Channel assignment
  \(REV\_START\_TIMEs = \text{NULL}\)

- Default retry delays:
+ RETRY_DELAYs[010] = 0
+ RETRY_DELAYs[011] = 0

- Default neighbor pilot strength measurement threshold reporting offset
  (T_MULCHANs = '000')

- Default start time for forward Supplemental Code Channel Assignment
  (FOR_START_TIMEs = NULL)

- Default number of Reverse Supplemental Code Channels
  (NUM_REV_CODEs = '000')

- Default reverse use T_ADD abort indicator
  (USE_T_ADD_ABORTs = '0')

- Default Supplemental Channel Request Message sequence number
  (SCRM_SEQ_NUMs = NULL)

- Default indicator to ignore reverse Supplemental Code Channel assignment
  Supplemental Channel Assignment Message
  (IGNORE_SCAMs = '0')

- Default indicator to ignore reverse Supplemental Code Channel assignment Extended
  Supplemental Channel Assignment Message
  (IGNORE_ESCAMs = '0')

- Default maximum wait time on the CDMA Candidate Frequency
  (CF_WAIT_TIMES = '1111')

- Default search period for the candidate search
  (SEARCH_PERIODs = '1111')

- Default search window size for the Candidate Frequency Search Set
  (CF_SRCH_WIN_NS = SRCH_WIN_NS)

- Default search window size for the Remaining Set on the CDMA Candidate Frequency
  (CF_SRCH_WIN_RS = SRCH_WIN_RS)

- Default pilot PN sequence offset increment for the CDMA Candidate Frequency
  (CF_PILOT_INCs = PILOT_INCs)

- Default Candidate Frequency search priorities included indicator
  (CF_SEARCH_PRIORITY_INCLs = '0')

- Default Candidate Frequency search window size included indicator
  (CF_SRCH_WIN_NGHBR_INCLs = '0')

- Default Candidate Frequency search window offset included indicator
  (CF_SRCH_OFFSET_INCLs = '0')

- Default periodic search indicator
  (PERIODIC_SEARCHs = '0')

- Default return-if-handoff-fail indicator
  (RETURN_IF_HANDOFF_FAILs = '0')
- Default total pilot E_c/I_0 threshold
  (MIN_TOTAL_PILOT_EC_IOs = '00000')
- Default total pilot E_c threshold
  (SF_TOTAL_EC_THRESHs = '11111')
- Default total pilot E_c/I_0 threshold
  (SF_TOTAL_EC_IO_THRESHs = '11111')
- Default received power difference threshold
  (DIFF_RX_PWR_THRESHs = '00000')
- Default maximum wait time on the CDMA Target Frequency
  (TF_WAIT_TIMEs = '1111')
- Default Candidate Frequency Search Set
  (Candidate Frequency Search Set is empty)
- Default Analog Frequency Search Set
  (Analog Frequency Search Set is empty)
- Default Candidate Frequency CDMA band
  (CF_CDMABANDs = NULL)
- Default Candidate Frequency CDMA channel
  (CF_CDMACHs = NULL)
- Default indicator for 5ms frames on Fundamental Channel
  (FCH_5MS_FRAMESs = '0')
- Default indicator for 5ms frames on Dedicated Control Channel
  (DCCH_5MS_FRAMESs = '0')
- Default start time unit for Supplemental Channel
  (START_TIME_UNITs = '000')
- Default Forward Supplemental Channel FER report indicator
  (FOR_SCH_FER_REPs = '0')
- Default Forward Supplemental Channel Configuration parameters:
  + Set the Forward Supplemental Channel frame length
    FOR_SCH_FRAME_LENGTHs[0] to NULL.
  + Set the Forward Supplemental Channel Multiplex Option
    FOR_SCH_MUXs[0] to NULL.
  + Set the Forward Supplemental Channel Radio Configuration
    FOR_SCH_RCs[0] to NULL.
  + Set the Forward Supplemental Channel Coding Type
    FOR_SCH_CODINGs[0] to NULL.
  + Set QOF_IDs[0][SCCL_INDEXs][i] to NULL, for all integer values of i from 0 to 15.
+ Set \texttt{FOR\_SCH\_CC\_INDEX}_{s[0]}[SCCL\_INDEXs][i] to NULL, for all integer values of i from 0 to 15.
+ Set the Forward Supplemental Channel frame length \texttt{FOR\_SCH\_FRAME\_LENGTHs[1]} to NULL.
+ Set the Forward Supplemental Channel Multiplex Option \texttt{FOR\_SCH\_MUXs[1]} to NULL.
+ Set the Forward Supplemental Channel Radio Configuration \texttt{FOR\_SCH\_RCs[1]} to NULL.
+ Set the Forward Supplemental Channel Coding Type \texttt{FOR\_SCH\_CODINGs[1]} to NULL.
+ Set \texttt{QOF\_ID}_s[1][SCCL\_INDEXs][i] to NULL, for all integer values of i from 0 to 15.
+ Set \texttt{FOR\_SCH\_CC\_INDEXs[1]}[SCCL\_INDEXs][i] to NULL, for all integer values of i from 0 to 15.

- Call Origination Transaction Identifier (TAG_s = '0000').

- Default Reverse Supplemental Channel Configuration parameters:
  + \texttt{REV\_WALSH\_ID}_s[0][0000] = 1
  + \texttt{REV\_WALSH\_ID}_s[0][0001] = 1
  + \texttt{REV\_WALSH\_ID}_s[0][0010] = 1
  + \texttt{REV\_WALSH\_ID}_s[0][0011] = 1
  + \texttt{REV\_WALSH\_ID}_s[0][0100] = 0
  + \texttt{REV\_WALSH\_ID}_s[0][0101] = 0
  + \texttt{REV\_WALSH\_ID}_s[0][0110] = 0
  + \texttt{REV\_WALSH\_ID}_s[0][0111] = 1
  + \texttt{REV\_WALSH\_ID}_s[1][0000] = 1
  + \texttt{REV\_WALSH\_ID}_s[1][0001] = 1
  + \texttt{REV\_WALSH\_ID}_s[1][0010] = 1
  + \texttt{REV\_WALSH\_ID}_s[1][0011] = 0
  + \texttt{REV\_WALSH\_ID}_s[1][0100] = 0
  + \texttt{REV\_WALSH\_ID}_s[1][0101] = 0
  + \texttt{REV\_WALSH\_ID}_s[1][0110] = 0
  + \texttt{REV\_WALSH\_ID}_s[1][0111] = 0
  + Set the Reverse Supplemental Channel frame length \texttt{REV\_SCH\_FRAME\_LENGTHs[0]} to NULL.
  + Set the Reverse Supplemental Channel Multiplex Option \texttt{REV\_SCH\_MUXs[0]} to NULL.
+ Set the Reverse Supplemental Channel Radio Configuration REV_SCH_RCs[0] to NULL.
+ Set the Reverse Supplemental Channel Coding Type REV_SCH_CODINGs[0] to NULL.
+ Set the Reverse Supplemental Channel frame length REV_SCH_FRAME_LENGTHs[1] to NULL.
+ Set the Reverse Supplemental Channel Multiplex Option REV_SCH_MUXs[1] to NULL.
+ Set the Reverse Supplemental Channel Radio Configuration REV_SCH_RCs[1] to NULL.
+ Set the Reverse Supplemental Channel Coding Type REV_SCH_CODINGs[1] to NULL.

If P_REV_IN_USEs is greater than six, the mobile station shall initialize the logical to physical mapping table (LOGICAL_TO_PHYSICAL_MAPPING_TABLE) according to the requirements in Table 2.6.4.2-1:

<table>
<thead>
<tr>
<th>SR_ID</th>
<th>LOGICAL_RESOURCE</th>
<th>PHYSICAL_RESOURCE</th>
<th>FORWARD_FLAG</th>
<th>REVERSE_FLAG</th>
<th>PRIORITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>0001</td>
<td>(shall be set according to requirement 2)</td>
<td>1</td>
<td>1</td>
<td>0000</td>
</tr>
<tr>
<td></td>
<td>(shall be set according to requirement 1)</td>
<td>0000</td>
<td>(shall be set according to requirement 3)</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Where requirement 1 is as follows:

+ The SR_ID field shall be set to NULL.

Requirement 2 is as follows:

+ If CH_INDs is equal to ‘01’, the PHYSICAL_RESOURCE field shall be set to ‘0000’.
+ If CH_INDs is equal to ‘10’, the PHYSICAL_RESOURCE field shall be set to ‘0001’.
+ If CH_INDs is equal to ‘11’, there shall be two entries in the default LPM table
where the PHYSICAL_RESOURCE field shall be set to ‘0000’ and ‘0001’ respectively.

Requirement 3 is as follows:

+ If CH_INDs is equal to ‘01’:
  o If the Radio Configuration in use is less than three, the
    PHYSICAL_RESOURCE field shall be set to ‘0000’; otherwise, there shall
    be three entries in the default LPM table where the
    PHYSICAL_RESOURCE field shall be set to ‘0000’, ‘0010’, and ‘0011’ respectively.

+ If CH_INDs is equal to ‘10’:
  o There shall be three entries in the default LPM table where the
    PHYSICAL_RESOURCE field shall be set to ‘0001’, ‘0010’, and ‘0011’ respectively.

+ If CH_INDs is equal to ‘11’:
  o There shall be four entries in the default LPM table where the
    PHYSICAL_RESOURCE field shall be set to ‘0000’, ‘0001’, ‘0010’, and ‘0011’ respectively.

• If P_REV_IN_USEs is equal to or less than six, the mobile station shall initialize the
logical to physical mapping table (LOGICAL_TO_PHYSICAL_MAPPING_TABLE) as
follows:

  – Default number of Logical-to-Physical Mapping entries
    (NUM_LPM_ENTRIESs = ‘0100’)

  – Default Table(0) Logical-to-Physical Mapping service reference identifier
    (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[0].SR_IDs = ‘000’)

  – Default Table(0) Logical-to-Physical Mapping logical resource identifier
    (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[0].LOGICAL_RESOURCEs = ‘0001’)

  – Default Table(0) Logical-to-Physical Mapping physical resource identifier:
    + If CH_INDs is equal to ‘01’ or ‘11’, the mobile station shall set
      LOGICAL_TO_PHYSICAL_MAPPING_TABLE[0].PHYSICAL_RESOURCEs to
      ‘0000’.
    + If CH_INDs is equal to ‘10’, the mobile station shall set
      LOGICAL_TO_PHYSICAL_MAPPING_TABLE[0].PHYSICAL_RESOURCEs to
      ‘0001’.

  – Default Table(0) Logical-to-Physical Mapping forward mapping indicator
    (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[0].FORWARD_FLAGs = ‘1’)

  – Default Table(0) Logical-to-Physical Mapping reverse mapping indicator
    (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[0].REVERSE_FLAGs = ‘1’)

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Default Table(0) Logical-to-Physical Mapping priority
(LOGICAL_TO_PHYSICAL_MAPPING_TABLE[0].PRIORITYs = ‘0000’)

Default Table(1) Logical-to-Physical Mapping service reference identifier
(LOGICAL_TO_PHYSICAL_MAPPING_TABLE[1].SR_IDs = ‘001’)

Default Table(1) Logical-to-Physical Mapping logical resource identifier
(LOGICAL_TO_PHYSICAL_MAPPING_TABLE[1].LOGICAL_RESOURCEs = ‘0000’)

Default Table(1) Logical-to-Physical Mapping physical resource identifier:
+ If CH_INDs is equal to ‘01’ or ‘11’, the mobile station shall set
  LOGICAL_TO_PHYSICAL_MAPPING_TABLE[1].PHYSICAL_RESOURCEs to
  ‘0000’.
+ If CH_INDs is equal to ‘10’, the mobile station shall set
  LOGICAL_TO_PHYSICAL_MAPPING_TABLE[1].PHYSICAL_RESOURCEs to
  ‘0001’.

Default Table(1) Logical-to-Physical Mapping forward mapping indicator
(LOGICAL_TO_PHYSICAL_MAPPING_TABLE[1].FORWARD_FLAGs = ‘1’)

Default Table(1) Logical-to-Physical Mapping reverse mapping indicator
(LOGICAL_TO_PHYSICAL_MAPPING_TABLE[1].REVERSE_FLAGs = ‘1’)

Default Table(1) Logical-to-Physical Mapping priority
(LOGICAL_TO_PHYSICAL_MAPPING_TABLE[1].PRIORITYs = ‘0000’)

Default Table(2) Logical-to-Physical Mapping service reference identifier
(LOGICAL_TO_PHYSICAL_MAPPING_TABLE[2].SR_IDs = ‘001’)

Default Table(2) Logical-to-Physical Mapping logical resource identifier
(LOGICAL_TO_PHYSICAL_MAPPING_TABLE[2].LOGICAL_RESOURCEs = ‘0000’)

Default Table(2) Logical-to-Physical Mapping physical resource identifier
(LOGICAL_TO_PHYSICAL_MAPPING_TABLE[2].PHYSICAL_RESOURCEs to
  ‘0010’).

Default Table(2) Logical-to-Physical Mapping forward mapping indicator
(LOGICAL_TO_PHYSICAL_MAPPING_TABLE[2].FORWARD_FLAGs = ‘1’)

Default Table(2) Logical-to-Physical Mapping reverse mapping indicator
(LOGICAL_TO_PHYSICAL_MAPPING_TABLE[2].REVERSE_FLAGs = ‘1’)

Default Table(2) Logical-to-Physical Mapping priority
(LOGICAL_TO_PHYSICAL_MAPPING_TABLE[2].PRIORITYs = ‘0000’)

Default Table(3) Logical-to-Physical Mapping service reference identifier
(LOGICAL_TO_PHYSICAL_MAPPING_TABLE[3].SR_IDs = ‘001’)

Default Table(3) Logical-to-Physical Mapping logical resource identifier
(LOGICAL_TO_PHYSICAL_MAPPING_TABLE[3].LOGICAL_RESOURCEs = ‘0000’)

Default Table(3) Logical-to-Physical Mapping physical resource identifier
(LOGICAL_TO_PHYSICAL_MAPPING_TABLE[3].PHYSICAL_RESOURCEs to
  ‘0010’).
– Default Table(3) Logical-to-Physical Mapping physical resource identifier
  (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[2].PHYSICAL_RESOURCEs to ‘0011’).

– Default Table(3) Logical-to-Physical Mapping forward mapping indicator
  (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[3].FORWARD_FLAGs = ‘1’)

– Default Table(3) Logical-to-Physical Mapping reverse mapping indicator
  (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[3].REVERSE_FLAGs = ‘1’)

– Default Table(3) Logical-to-Physical Mapping priority
  (LOGICAL_TO_PHYSICAL_MAPPING_TABLE[3].PRIORITYs = ‘0000’)

• The mobile station shall disable the TMS_Slotted timer, and set SLOTTEDs to YES.
• If the ASSIGN_MODE_r field from the Channel Assignment Message equals ‘000’, the mobile station shall set SERV_NEGs to disabled.
• If the ASSIGN_MODE_r field from the Channel Assignment Message equals ‘100’, the mobile station shall set SERV_NEGs to enabled.
• The mobile station shall determine the service configuration as follows:
  – If SERV_NEGs equals disabled, the initial service configuration shall include
    Multiplex Option 1 and Radio Configuration 1 for both the Forward and Reverse Traffic Channels, and shall include no service option connections.
  – If SERV_NEGs equals enabled, and if GRANTED_MODEs equals ‘00’, the initial service configuration shall include the multiplex option and radio configuration for the Forward and Reverse Traffic Channels as specified by DEFAULT_CONFIGs, and shall include no service option connections.
  – If SERV_NEGs equals enabled and GRANTED_MODEs equals ‘01’ or ‘10’, the initial service configuration shall include the default Forward and Reverse Traffic Channel multiplex options and transmission rates corresponding to the service option requested by the mobile station in the Origination Message, in the case of a mobile station originated call, or the Page Response Message, in the case of a mobile station terminated, and shall include no service option connections.
  + If the mobile station enters the Traffic Channel Initialization Substate because of receiving the Channel Assignment Message, the initial service configuration shall include the default Forward and Reverse Traffic Channel multiplex options and transmission rates corresponding to the service option requested by the mobile station in the Origination Message, in the case of a mobile station originated call, or the Page Response Message, in the case of a mobile station terminated, and shall include no service option connections.
If the mobile station enters the Traffic Channel Initialization Substate because of receiving the Extended Channel Assignment Message, the initial service configuration shall include the default Forward and Reverse Traffic Channel multiplex options that are derived from the radio configurations corresponding to the Table 3.7.2.3.2.21-7, and shall include no service option connections.

- If SERV_NEG equals disabled, the mobile station shall perform the following:
  + If the call is mobile station originated and the Origination Message requests a special service option, the mobile station shall set SO_REQs to the special service option number.
  + If the call is mobile station originated and the Origination Message does not request a special service option, the mobile station shall set SO_REQs to 1 (the default service option number).
  + If the call is mobile station terminated, the mobile station shall set SO_REQs to the service option number requested in the Page Response Message.

While in the Traffic Channel Initialization Substate, the mobile station shall perform the following:

- The mobile station shall monitor Forward Traffic Channels associated with one or more pilots in the Active Set.
- The mobile station shall perform pilot strength measurements as specified in 2.6.6.2.2, but shall not send Pilot Strength Measurement Messages or Extended Pilot Strength Measurement Messages.
- The mobile station shall perform registration timer maintenance as specified in 2.6.5.5.4.2.
- If the bits of TMSI_CODEs-p are not all equal to ‘1’ and if System Time (in 80 ms units) exceeds TMSI_EXP_TIMEs-p \( \times 2^{12} \), the mobile station shall set all the bits of TMSI_CODEs-p to ‘1’ within T66m seconds.
- If the full-TMSI timer expires or has expired, the mobile station shall set all the bits of TMSI_CODEs-p to ‘1’. The mobile station shall update the registration variables as described in 2.6.5.5.2.5.

If the mobile station does not support the assigned CDMA Channel (see 2.1.1 and 3.1.1 of [2]) or all of the assigned Forward Traffic code channels (see 2.1.3.1.9 of [2]), the mobile station shall enter the System Determination Substate of the Mobile Station Initialization State with an error indication (see 2.6.1.1).

If the mobile station supports the assigned CDMA Channel and the assigned Forward Traffic code channels, the mobile station shall perform the following:

- The mobile station shall tune to the assigned CDMA Channel.
- The mobile station shall set its code channel for the assigned Forward Traffic code channel.
The mobile station shall set its Forward and Reverse Traffic Channel frame offsets to the assigned frame offset as determined by FRAME_OFFSETs.

The mobile station shall set its Forward and Reverse Traffic Channel long code masks to the public long code mask (see 2.1.3.1.12 of [2]).

If the mobile station does not receive a period of \((N_{5m} \times 20)\) ms with sufficient signal quality (e.g. good frames) on the physical channel corresponding to FPC_PRI_CHANs within \(T_{50m}\) seconds after entering this substate, the mobile station shall enter the **System Determination Substate** of the **Mobile Station Initialization State** with a system lost indication (see 2.6.1.1).

If the mobile station receives a period of \((N_{5m} \times 20)\) ms with sufficient signal quality (e.g. good frames) on the physical channel corresponding to FPC_PRI_CHANs within \(T_{50m}\) seconds after entering this substate, the mobile station shall perform the following additional functions while it remains in the **Traffic Channel Initialization Substate**:

- The mobile station shall perform Forward Traffic Channel supervision as specified in 2.6.4.1.8. If a loss of the Forward Traffic Channel is declared, the mobile station shall enter the **System Determination Substate** of the **Mobile Station Initialization State** with a system lost indication (see 2.6.1.1).

- The mobile station shall adjust its transmit power as specified in 2.1.2.3 of [2].

- The mobile station shall transmit the Traffic Channel preamble as specified in 2.1.3.6.2.3 and 2.1.3.7.2.3 of [2], and Layer 3 shall send an *acquiring dedicated channel* indication to Layer 2 (see 2.2.2.1.2 of [4]).

- The mobile station shall process Forward Traffic Channel signaling traffic and shall discard other types of Forward Traffic Channel traffic.

- If Layer 3 receives a L2-Condition.Notification primitive from Layer 2 indicating an acknowledgment failure, the mobile station shall disable its transmitter and enter the **System Determination Substate** of the **Mobile Station Initialization State** with a system lost indication (see 2.6.1.1).

The mobile station should provide diversity combining of the Forward Traffic Channels associated with pilots in the Active Set if the mobile station receives multiple pilots in the **Extended Channel Assignment Message**.

If Layer 3 does not receive a *forward dedicated channel acquired* indication from Layer 2 (see 2.2.2.1.2 of [4]) within \(T_{51m}\) seconds after the first occurrence of receiving a period of \((N_{5m} \times 20)\) ms with sufficient signal quality (e.g. good frames) on the physical channel corresponding to FPC_PRI_CHANs, the mobile station shall disable its transmitter and enter the **System Determination Substate** of the **Mobile Station Initialization State** with a system lost indication (see 2.6.1.1).

If Layer 3 receives a *forward dedicated channel acquired* indication from Layer 2 within \(T_{51m}\) seconds after the first occurrence of receiving a period of \((N_{5m} \times 20)\) ms with sufficient signal quality (e.g. good frames) on the physical channel corresponding to FPC_PRI_CHANs, the mobile station shall perform the following:
If CH_IND_s is equal to ‘01’ or ‘11’, the mobile station shall begin transmitting on the Reverse Fundamental Channel.

If CH_IND_s is equal to ‘10’ or ‘11’, the mobile station shall begin transmitting on the Reverse Dedicated Control Channel when the mobile station has user data or signaling traffic to send on the Reverse Dedicated Control Channel.

If SERV_NEG_s equals disabled, the mobile station shall activate the SO Negotiation Subfunction.

If SERV_NEG_s equals enabled and the GRANTED_MODE_s is ‘00’ or ‘01’, the mobile station shall activate the Normal Service Subfunction.

If SERV_NEG_s equals enabled and the GRANTED_MODE_s is ‘10’, the mobile station shall activate the Waiting for Service Connect Message Subfunction.

The Layer 3 shall instantiate a Call Control instance (as specified in 2.6.10). The Layer 3 shall assign a default identifier of NULL to this Call Control instance.

The Layer 3 shall enter the Traffic Channel Substate.

2.6.4.3 Traffic Channel Substate

In this substate, the mobile station may exchange Traffic Channel frames with the base station in accordance with the current service configuration. The mobile station may perform the gating operation of Reverse Pilot Channel.

The mobile station can be in the Active Mode or Control Hold Mode while in this substate.

The following are the attributes when the mobile station is in the Active Mode of Traffic Channel Substate:

- PILOT_GATING_USE_RATE is set to ‘0’ (i.e., the reverse pilot (r-pich) is not gated).
- Flow of data traffic is permitted by the Multiplex Sublayer.

The following are the attributes when the mobile station is in the Control Hold Mode of Traffic Channel Substate:

- PILOT_GATING_USE_RATE is set to ‘1’.
- The reverse pilot (r-pich) may be gated (if PILOT_GATING_RATE_s is not equal to ‘00’).
- Flow of data traffic is blocked by the Multiplex Sublayer.

Figure 2.6.4.3-1 shows the valid transitions between the modes of a Traffic Channel Substate and the over-the-air Upper Layer Signaling Messages that trigger transitions between these modes.
Upon entering the *Traffic Channel Substate*, the mobile station shall perform the following:

- If SERV_NEG_h equals enabled, the call is mobile station originated, and GRANTED_MODE_h is equal to '00' or '01', the mobile station should initiate service negotiation to request a service configuration in accordance with the requirements for the active service subfunction (see 2.6.4.1.2.2).

While in the *Traffic Channel Substate*, the mobile station shall perform the following:

- The mobile station shall perform Forward Traffic Channel supervision as specified in 2.6.4.1.8. If a loss of the Forward Traffic Channel is declared, the Layer 3 shall terminate all Call Control instances, and shall enter the *System Determination Substate* of the *Mobile Station Initialization State* with a system lost indication (see 2.6.1.1).

- The mobile station may send a *Pilot Strength Measurement Mini Message* to report pilot strength order change information, periodic pilot strength information, or threshold based pilot strength information, as specified in the *Mobile Assisted Burst Operation Parameters Message* (see 2.6.6.2.5.2).

- The mobile station shall adjust its transmit power as specified in 2.1.2.3 of [2].

- The mobile station shall perform Forward Traffic Channel power control as specified in 2.6.4.1.1.
• The mobile station shall perform handoff processing as specified in 2.6.6.
• The mobile station shall process Forward and Reverse Traffic Channel frames in accordance with requirements for the active service subfunction (see 2.6.4.1.2.2).
• The mobile station shall perform registration timer maintenance as specified in 2.6.5.5.4.2.
• If the mobile station is directed to send a Data Burst Message, the mobile station shall send a Data Burst Message. If PILOT_GATING_USE_RATE is set to ‘1’, the mobile station may request to transition to the Active Mode (PILOT_GATING_USE_RATE set to ‘0’) prior to sending the Data Burst Message.
• If the mobile station has user data to send and PILOT_GATING_USE_RATE is equal to ‘1’, then the mobile station may send a Resource Request Message, Resource Request Mini Message, Supplemental Channel Request Message, or Supplemental Channel Request Mini Message to request for continuous reverse pilot transmission and user traffic transmission. The mobile station shall not send a Resource Request Message or a Resource Request Mini Message if RETRY_DELAY[010] is not equal to 0; the mobile station shall not send a Supplemental Channel Request Message or a Supplemental Channel Request Mini Message if RETRY_DELAY[011] is not equal to 0.
• If the mobile station is directed by the user to request a new service configuration, the mobile station shall initiate service negotiation or service option negotiation in accordance with the requirements for the active service subfunction (see 2.6.4.1.2.2).
• The mobile station may send a Service Option Control Message or Service Option Control Order to invoke a service option specific function in accordance with the requirements for the active service subfunction (see 2.6.4.1.2.2).
• If the mobile station is directed by the user to request a private long code transition and has the long code mask (see 2.3.12.3), the mobile station shall send a Long Code Transition Request Order (ORDQ = ‘00000001’) in assured mode.
• If the mobile station is directed by the user to request a public long code transition, the mobile station shall send a Long Code Transition Request Order (ORDQ = ‘00000000’) in assured mode.
• If the mobile station is directed by the user to operate in analog mode, allowing operation in either wide or narrow analog mode, the mobile station shall send the Request Analog Service Order in assured mode.
• If the mobile station is directed by the user to operate in wide analog mode, the mobile station shall send the Request Wide Analog Service Order in assured mode.
• If the mobile station is directed by the user to operate in narrow analog mode, the mobile station shall send the Request Narrow Analog Service Order in assured mode.
• If the mobile station is directed by the user to originate a call, the mobile station shall perform the following:
If this is an emergency call origination, the mobile station shall perform the following:

- If it can be indicated to the base station within an existing Call Control instance, the mobile station shall send an indication to this Call Control instance that the user has originated an emergency call.

- Otherwise, the mobile station shall perform the following:
  - The mobile station shall increment the stored value of TAGs to the next unused integer value.
  - The mobile station shall add TAGs to the list TAG_OUTSTANDING_LIST.
  - The mobile station shall send an Enhanced Origination Message to the base station, with the TAG field of the message set to TAGs.
  - Upon sending the Enhanced Origination Message and prior to receiving a Layer 3 response from the base station, if the mobile station is directed by the user to cancel this call, the mobile station shall perform the following:
    - The mobile station shall send a Call Cancel Message to the base station, with the TAG field of the message set to the TAG value in the Enhanced Origination Message sent to originate this call.
    - The mobile station shall remove the TAG field corresponding to this call from the list TAG_OUTSTANDING_LIST.

Otherwise, the mobile station shall perform the following:

- If this is a packet data call origination, the mobile station shall first determine the following conditions:
  - If RETRY_DELAYs[001] is set to infinity, the mobile station shall not send the Enhanced Origination Message to the base station.
  - If RETRY_DELAYs[001] is not 0 or infinity, the mobile station shall not send the Enhanced Origination Message until after the system time stored in RETRY_DELAYs[001].

- If the above conditions do not prohibit the mobile station from sending an Enhanced Origination Message at this time, the mobile station shall perform the following:
  - The mobile station shall increment the stored value of TAGs to the next unused integer value.
  - The mobile station shall add TAGs to the list TAG_OUTSTANDING_LIST.
  - The mobile station shall set an enhanced origination timer to a value of T42m seconds.
The mobile station shall send an Enhanced Origination Message to the base station, with the TAG field of the message set to TAGs.

Upon sending the Enhanced Origination Message and prior to receiving a Layer 3 response from the base station, if the mobile station is directed by the user to cancel this call, the mobile station shall perform the following:

- The mobile station shall send a Call Cancel Message to the base station, with the TAG field of the message set to the TAG value in the Enhanced Origination Message sent to originate this call.
- The mobile station shall disable the enhanced origination timer and shall remove the TAG field corresponding to this call from the list TAG_OUTSTANDING_LIST.

If the enhanced origination timer expires, mobile station shall remove the TAG field corresponding to this call from TAG_OUTSTANDING_LIST.

- If the Layer 3 receives a “call release request” from a Call Control instance, Layer 3 shall perform the following:
  - If there are no other active or pending calls, the Layer 3 shall enter the Release Substate with a mobile station release indication (see 2.6.4.4).
  - Otherwise, the mobile station shall send a Service Request Message, Resource Release Request Message, or a Resource Release Request Mini Message to the base station requesting to release this service option connection. If the mobile station sends a Resource Release Request Message or a Resource Release Request Mini Message, it shall set the PURGE_SERVICE field to ‘0’.

- If the Layer 3 receives a “call inactive indication” from a Call Control instance, Layer 3 shall perform the following:
  - If there are no other active or pending calls, the Layer 3 shall enter the Release Substate with a service inactive indication (see 2.6.4.4).
  - Otherwise, the mobile station shall send a Service Request Message, Resource Release Request Message, or a Resource Release Request Mini Message. If the mobile station sends a Resource Release Request Message or a Resource Release Request Mini Message, it shall set the PURGE_SERVICE field to ‘1’.

- If the mobile station is directed by the user to power down, the Layer 3 shall send a “release indication” to all Call Control instances, and shall enter the Release Substate with a power-down indication (see 2.6.4.4).

- If Layer 3 receives a L2-Condition_Notification primitive from Layer 2 indicating an acknowledgment failure, the layer 3 shall terminate all Call Control instances, and the mobile station shall disable its transmitter and shall enter the System Determination Substate of the Mobile Station Initialization State with a system lost indication (see 2.6.1.1).
• The mobile station shall perform the following:

  − The mobile station may send the Resource Request Message or Resource Request Mini Message in accordance with requirements for the currently connected service option whenever RETRY_DELAYs[RETRY_TYPE] is equal to 0, where, RETRY_TYPE is equal to ‘010’.

  − The mobile station shall not send the Resource Request Message or Resource Request Mini Message whenever RETRY_DELAYs[RETRY_TYPE] is set to infinity, where, RETRY_TYPE is equal to ‘010’.

  − If RETRY_DELAYs[RETRY_TYPE] is not 0 or infinity, the mobile station shall not send the Resource Request Message or Resource Request Mini Message until after the system time stored in RETRY_DELAYs[RETRY_TYPE], where, RETRY_TYPE is equal to ‘010’.

  − The mobile station may send the Supplemental Channel Request Message or Supplemental Channel Request Mini Message whenever RETRY_DELAYs[RETRY_TYPE] is set to ‘0’, where, RETRY_TYPE is equal to ‘011’.

  − The mobile station shall not send the Supplemental Channel Request Message or Supplemental Channel Request Mini Message whenever RETRY_DELAYs[RETRY_TYPE] is set to infinity, where, RETRY_TYPE is equal to ‘011’.

  − If RETRY_DELAYs[RETRY_TYPE] is not 0 or infinity, the mobile station shall not send the Supplemental Channel Request Message or Supplemental Channel Request Mini Message until after the system time stored in RETRY_DELAYs[RETRY_TYPE], where, RETRY_TYPE is equal to ‘011’.

  − At the system time stored in RETRY_DELAYs[RETRY_TYPE], the mobile station shall reset RETRY_DELAYs[RETRY_TYPE] to ‘0’, where RETRY_TYPE is equal to ‘001’, ‘010’ or ‘011’.

• The mobile station may send a Resource Release Request Message or a Resource Release Request Mini Message to request for reverse pilot gating operation to be performed or to request a service option connection to be disconnected.

• The mobile station may enter the Release Substate with a service inactive indication (see 2.6.4.4) if the service corresponding to the packet data service option instance is inactive at the mobile station.

  • If layer-3 receives a “substate timer expired indication” from a Call Control instance, the layer-3 shall perform the following:

  - If there are no other active or pending calls, the layer-3 shall terminate this Call Control instance; and the mobile station shall disable its transmitter and enter the System Determination Substate of the Mobile Station Initialization State with a system lost indication (see 2.6.1.1).

  - Otherwise, the mobile station shall send a Service Request Message, Resource Release Request Message, or a Resource Release Request Mini Message.
• If there are no active or pending calls, the Layer 3 shall enter the Release Substate with a mobile station release indication.

• If Layer 3 receives a ‘message rejected indication’ from a Call Control instance, mobile station shall send a Mobile Station Reject Order (ORDQ set to the applicable reason code as determined from Table 2.7.3-1) within T56m seconds as follows:
  - If P_REV_IN_USEs is equal to or greater than seven, the mobile station shall include the CON_REF_INCL field with this message and shall perform the following: if the corresponding Call Control instance is identified by NULL, the mobile station shall either set the CON_REF_INCL field of the message to ‘0’ or set the CON_REF_INCL field to ‘1’ and set the CON_REF field to the connection reference of the service option connection corresponding to this Call Control instance; otherwise, the mobile station shall set the CON_REF_INCL field of the message to ‘1’ and the CON_REF field of the message to the connection reference of the service option connection corresponding to this Call Control instance.

• If Layer 3 is requested by the upper layers to query base station identification number, SID, and NID related information for one or more pilots, and PILOT_INFO_REQ_SUPPORTEDs equals ‘1’, mobile station shall send a Base Station Status Request Message with a “Pilot Information” record type to the base station.

• If the mobile station receives a message which is included in the following list and every message field value is within its permissible range, the mobile station shall process the message as described below and in accordance with the message’s action time (see 2.6.4.1.5).
  1. Alert With Information Message: If P_REV_IN_USEs is less than seven, the Layer 3 shall deliver this message to the Call Control instance; otherwise, the Layer 3 shall deliver this message to the Call Control instance identified by NULL.
  2. Analog Handoff Direction Message: If the analog mode directed by the base station is supported by the mobile station, the mobile station shall process the message as specified in 2.6.6.2.9, and shall perform the following at the action time of the message:
    - If P_REV_IN_USEs is equal to or greater than seven, the mobile station shall perform the following: if CON_REF_INCLr equals ‘0’, the Layer 3 shall terminate all Call Control instances (if there are any) except the one identified by NULL; otherwise, the Layer 3 shall terminate all Call Control instances (if there are any) except the one identified by CON_REFr.
    - The mobile station shall perform the following (see [6] for handoff to a wide analog channel and [22] for handoff to an 800 MHz narrow analog channel):
      + If this Call Control instance is in the Waiting for Order Substate, the mobile station shall enter the Waiting for Order Task.
+ If this Call Control instance is in the *Waiting for Mobile Station Answer Substate*, the mobile station shall enter the Waiting for Answer Task.

+ If this Call Control instance is in the *Conversation Substate*, the mobile station shall enter the Conversation Task.

- If the mobile station is directed to an unsupported operation mode or band class, the mobile station shall respond with a *Mobile Station Reject Order* with ORDQ equal to ‘00000110’ (message requires a capability that is not supported by the mobile station).

3. **Audit Order**

4. **Authentication Challenge Message**: The layer 3 shall send a “reset waiting for order substate timer indication” to all Call Control instances. The mobile station shall process the message and shall respond as specified in 2.3.12.1.4 within $T_{32m}$ seconds, regardless of the value of AUTH$_{S}$.

5. **Base Station Challenge Confirmation Order**: The layer 3 shall send a “reset waiting for order substate timer indication” to all Call Control instances. The mobile station shall process the message and shall respond with an *SSD Update Confirmation Order* or *SSD Update Rejection Order* as specified in 2.3.12.1.5 within $T_{32m}$ seconds.

6. **Base Station Status Response Message**: The Layer 3 shall deliver the information contained in this message to the Upper Layer entity that requested for this information.

6.7. **Call Assignment Message**: The mobile station shall process this message as follows:

- If RESPONSE$_{IND}_{r}$ equals ‘1’ and TAG$_{r}$ matches any of the TAG values contained in the list TAG_OUTSTANDING_LIST, the mobile station shall perform the following:
  
  + If ACCEPT$_{IND}_{r}$ equals ‘0’, the mobile station shall disable the enhanced origination timer and shall remove the TAG value specified by TAG$_{r}$ from the list TAG_OUTSTANDING_LIST.

  + If ACCEPT$_{IND}_{r}$ equals ‘1’, the mobile station shall perform the following:
    
    o If there already exists or currently pending instantiation a Call Control instance identified by CON_REF$_{r}$, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to ‘00010010’ (a call control instance is already present with the specified identifier), with the CON_REF field of the order set to CON_REF$_{r}$.
Otherwise, layer 3 shall instantiate a Call Control instance (as specified in 2.6.10) at the action time of the message. The mobile station shall identify this Call Control instance by CON_REFr. If a service option connection corresponding to this call has not been established, the mobile station should wait for the base station to initiate service negotiation to establish the service option connection.

The mobile station shall disable the enhanced origination timer and shall remove the TAG value specified by TAGr from the list TAG_OUTSTANDING_LIST.

- If RESPONSE_INDr equals ‘1’ and TAGr does not match any of the TAG values contained in the list TAG_OUTSTANDING_LIST, the mobile station shall send a Mobile Station Reject Order with ORDQ field set to ‘00010011’ (TAG received does not match TAG stored), with the TAG field of the order set to TAGr, and the CON_REF field of the order set to CON_REFr.

- If RESPONSE_INDr equals ‘0’, the mobile station shall perform the following:
  
  + If there already exists or currently pending instantiation a Call Control instance identified by CON_REFr, the mobile station shall send a Mobile Station Reject Order with ORDQ field set to ‘00010010’ (a call control instance is already present with the specified identifier), with the CON_REF field of the order set to CON_REFr.
  
  + Otherwise, if the mobile station does not accept this call assignment, the mobile station shall send a Mobile Station Reject Order with ORDQ field set to ‘00010000’ (call assignment not accepted), with the CON_REF field of the order set to CON_REFr.
  
  + Otherwise, at the action time of the message, the mobile station shall store the bypass indicator (BYPASS_ALERT_ANSWERs = BYPASS_ALERT_ANSWERr) and the layer 3 shall instantiate a Call Control instance (as specified in 2.6.10). The mobile station shall identify this Call Control instance by CON_REFr. If a service option connection corresponding to this call has not been established, the mobile station should wait for the base station to initiate service negotiation to establish the service option connection.

7.8. **Candidate Frequency Search Control Message:** The mobile station shall process the message as specified in 2.6.6.2.5.1.

8.9. **Candidate Frequency Search Request Message:** The mobile station shall process the message as specified in 2.6.6.2.5.1.

9.10. **Continuous DTMF Tone Order:** Support of this order by the mobile station is optional. If P_REV_IN_USEs is less than seven, the layer 3 shall deliver this message to the Call Control instance; otherwise, the layer 3 shall
perform the following: if CON_REF_INCLr equals '0', the layer 3 shall deliver this message to the Call Control instance identified by NULL; otherwise, the layer 3 shall deliver this message to the Call Control instance identified by CON_REFr.

10.11. Data Burst Message

11.12. Extended Alert With Information Message: The mobile station shall perform the following: If CON_REF_INCLr equals '0', the layer 3 shall deliver this message to the Call Control instance identified by NULL; otherwise, the layer 3 shall deliver this message to the Call Control instance identified by CON_REFr.

12.13. Extended Flash With Information Message: The mobile station shall perform the following: If CON_REF_INCLr equals '0', the layer 3 shall deliver this message to the Call Control instance identified by NULL; otherwise, the layer 3 shall deliver this message to the Call Control instance identified by CON_REFr.

13.14. Extended Handoff Direction Message: The layer 3 shall send a “reset waiting for order substate timer indication” to all Call Control instances. The mobile station shall process the message as specified in 2.6.6.2.5.1.

14.15. Extended Neighbor List Update Message: The mobile station shall process the message as specified in 2.6.6.2.5.1.

15.16. Extended Release Message: The mobile station shall process the message as specified in 2.6.4.1.9.

16.17. Extended Release Mini Message: The mobile station shall process the message as specified in 2.6.4.1.9.

17.18. Forward Supplemental Channel Assignment Mini Message: The mobile station shall process the message as specified in 2.6.6.2.5.1.

18.19. Flash With Information Message: If P_REV_IN_USE is less than seven, the layer 3 shall deliver this message to the Call Control instance; otherwise, the layer 3 shall deliver this message to the Call Control instance identified by NULL.

19.20. Extended Supplemental Channel Assignment Message: The mobile station shall process the message as specified in 2.6.6.2.5.1.

20.21. General Handoff Direction Message: The layer 3 shall send a “reset waiting for order substate timer indication” to all Call Control instances. The mobile station shall process the message as specified in 2.6.6.2.5.1.

21.22. In-Traffic System Parameters Message: The mobile station shall process the message as specified in 2.6.4.1.4.

22.23. Local Control Order

23.24. Lock Until Power-Cycled Order: The mobile station shall disable its transmitter and record the reason for the Lock Until Power-Cycled Order in the
mobile station’s semi-permanent memory (LCKRSN$_{P_s-p}$ equals the least-significant four bits of ORDQ$_r$). The mobile station should notify the user of the locked condition. The layer 3 shall terminate all Call Control instances, and shall enter the System Determination Substate of the Mobile Station Initialization State with a lock indication (see 2.6.1.1), and shall not enter the System Access State again until after the next mobile station power-up or until it has received an Unlock Order. This requirement shall take precedence over any other mobile station requirement specifying entry to the System Access State.

#### 24.25. Long Code Transition Request Order: The mobile station shall process the message as specified in 2.6.4.1.6.

#### 25.26. Maintenance Order: If P_REV_IN_USE$_s$ is less than seven, the layer 3 shall deliver this message to the Call Control instance; otherwise, the layer 3 shall perform the following: if CON_REF$_{INCLr}$ equals ‘0’, the layer 3 shall deliver this message to the Call Control instance identified by NULL; otherwise, the layer 3 shall deliver this message to the Call Control instance identified by CON_REF$_r$.

#### 26.27. Maintenance Required Order: The mobile station shall record the reason for the Maintenance Required Order in the mobile station’s semi-permanent memory (MAINTRSN$_{s-p}$ equals the least-significant four bits of ORDQ$_r$). The mobile station shall remain in the unlocked condition. The mobile station should notify the user of the maintenance required condition.

#### 27.28. Message Encryption Mode Order: The mobile station shall process the message as specified in 2.3.12.2.

#### 28.29. Mobile Station Registered Message: The mobile station shall process the message as specified in 2.6.5.5.4.3.

#### 29.30. Mobile Assisted Burst Operation Parameters Message: The mobile station shall process the message as specified in 2.6.6.2.5.1.

#### 30.31. Neighbor List Update Message: The mobile station shall process the message as specified in 2.6.6.2.5.1.

#### 31.32. Outer Loop Report Request Order: The mobile station shall send the Outer Loop Report Message in assured mode to the base station.

#### 32.33. Parameter Update Order: The layer 3 shall send a “reset waiting for order substate timer indication” to all Call Control instances. The mobile station shall increment COUNT$_{s-p}$ (see 2.3.12.1.3). The mobile station shall send a Parameter Update Confirmation Order within $T_{56m}$ seconds. The mobile station shall set the ORDQ field of the Parameter Update Confirmation Order to the same value as the ORDQ field of the Parameter Update Order.

#### 33.34. Periodic Pilot Measurement Request Order: The mobile station shall process the order as specified in 2.6.6.2.5.1.

#### 34.35. Pilot Measurement Request Order: The mobile station shall process the order
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as specified in 2.6.6.2.5.1.

35-36. Power Control Message: The mobile station shall process the message as specified in 2.6.4.1.1.3.

36-37. Power Control Parameters Message: The mobile station shall process the message as specified in 2.6.4.1.1.2.

37-38. Power Up Function Message: The mobile station shall process the message as specified in 2.6.4.1.7.1.

38-39. Power Up Function Completion Message: The mobile station shall process the message as specified in 2.6.4.1.7.3.

39-40. Release Order: The Layer 3 shall send a “release indication” to all Call Control instances, and shall enter the Release Substate with a base station release indication (see 2.6.4.4).

40-41. Resource Allocation Message: The mobile station shall process the message as specified in 2.6.4.1.10.

41-42. Resource Allocation Mini Message: The mobile station shall process the message as specified in 2.6.4.1.10.

42-43. Retrieve Parameters Message: The mobile station shall send, within \( T_{56m} \) seconds, a Parameters Response Message.

43-44. Retry Order: The mobile station shall process the order as follows:

- If RETRY_TYPE\( _r \) is equal to ‘000’, the mobile station shall set \( \text{RETRY\_DELAY}_s[\text{RETRY\_TYPE}] = 0 \), where RETRY_TYPE is equal to ‘001’, ‘010’, or ‘011’.

- If RETRY_TYPE\( _r \) is equal to ‘001’, then the mobile station shall perform the following:
  - If RETRY_DELAY\( _r \) is equal to ‘00000000’, then the mobile station shall set \( \text{RETRY\_DELAY}_s[\text{RETRY\_TYPE}] = 0 \).
  - If RETRY_DELAY\( _r \) is not equal to ‘00000000’ the mobile station shall set \( \text{RETRY\_DELAY}_s[\text{RETRY\_TYPE}] \) as follows:
    + If the most significant bit of the RETRY_DELAY\( _r \) is 0, set \( \text{RETRY\_DELAY\_UNIT}_s \) to 1000ms. If the most significant bit of the RETRY_DELAY\( _r \) is ‘1’, set \( \text{RETRY\_DELAY\_UNIT}_s \) to 60000ms.
    + The mobile station shall set \( \text{RETRY\_DELAY\_VALUE}_s \) to the seven least significant bits of RETRY_DELAY\( _r \).
    + The mobile station shall store the next system time 80 ms boundary \( \times \text{RETRY\_DELAY\_UNIT}_s \) ms as \( \text{RETRY\_DELAY}_s[\text{RETRY\_TYPE}] \).

- If RETRY_TYPE\( _r \) is equal to ‘010’ or ‘011’, the mobile station shall perform the following:
– If RETRY_DELAY_{r}[RETRY_TYPE_{r}] is ‘00000000’, then the mobile station shall set RETRY_DELAY_{s}[RETRY_TYPE_{r}] to ‘0’.

– If RETRY_DELAY_{r}[RETRY_TYPE_{r}] is ‘11111111’, then the mobile station shall set RETRY_DELAY_{s}[RETRY_TYPE_{r}] to infinity.

– If RETRY_DELAY_{r}[RETRY_TYPE_{r}] is not equal to ‘00000000’ or ‘11111111’, the mobile station shall store the next system time 80 ms boundary + RETRY_DELAY_{r}[RETRY_TYPE_{r}] × 320 ms as RETRY_DELAY_{s}[RETRY_TYPE_{r}].

44-45. **Reverse Supplemental Channel Assignment Mini Message:** The mobile station shall process the message as specified in 2.6.6.2.5.1.

45-46. **Security Mode Command Message:** The mobile station shall process the message as specified in 2.6.4.1.14.

46-47. **Send Burst DTMF Message:** Support of this order by the mobile station is optional. If P_REV_IN_USE_{s} is less than seven, the layer 3 shall deliver this message to the Call Control instance; otherwise, the layer 3 shall perform the following: if CON_REF_INCL_{r} equals ‘0’, the layer 3 shall deliver this message to the Call Control instance identified by NULL; otherwise, the layer 3 shall deliver this message to the Call Control instance identified by CON_REF_{r}.

47-48. **Service Connect Message:** The mobile station shall process the message in accordance with the requirements for the active service subfunction (see 2.6.4.1.2.2) if the message is not rejected due to the following conditions:

- If the CC_INFO_INCL field is included in this message and is set to ‘1’, the mobile station shall perform the following for each of the NUM_CALLS_ASSIGN call assignments included in this message:

  + If there already exists or currently pending instantiation a Call Control instance identified by CON_REF_{r}, the mobile station shall send a Mobile Station Reject Order with ORDQ field set to ‘00010010’ (a call control instance is already present with the specified identifier), with the CON_REF field of the order set to CON_REF_{r}.

  + If RESPONSE_IND_{r} equals ‘1’ and TAG_{r} does not match any of the TAG values contained in the list TAG_OUTSTANDING_LIST, the mobile station shall send a Mobile Station Reject Order with ORDQ field set to ‘00010011’ (TAG received does not match TAG stored), with the TAG field of the order set to TAG_{r} and the CON_REF field of the order set to CON_REF_{r}.

  + If the mobile station does not accept this call assignment, the mobile station shall send a Mobile Station Reject Order with ORDQ field set to ‘00010000’ (call assignment not accepted), with the CON_REF field of the order set to CON_REF_{r}. 

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48-49. **Service Option Control Message**: The mobile station shall process the message in accordance with the requirements for the active service subfunction (see 2.6.4.1.2.2).

49-50. **Service Option Control Order**: The mobile station shall process the message in accordance with the requirements for the active service subfunction (see 2.6.4.1.2.2).

50-51. **Service Option Request Order**: The mobile station shall process the message in accordance with the requirements for the active service subfunction (see 2.6.4.1.2.2).

51-52. **Service Option Response Order**: The mobile station shall process the message in accordance with the requirements for the active service subfunction (see 2.6.4.1.2.2).

52-53. **Service Redirection Message**: The mobile station shall process the message as follows:

If RECORD_TYPE_r is equal to ‘00000000’, the mobile station shall do the following:

- The mobile station shall set RETURN_IF_FAIL_s = RETURN_IF_FAIL_r.
- If DELETE_TMSI_r is equal to ‘1’, the mobile station shall set all the bits of TMSI_CODE_s-p to ‘1’.
- The mobile station shall disable the full-TMSI timer.
- The layer 3 **Layer 3** shall send a “release indication” to all Call Control instances, and shall enter the Release Substate with an NDSS off indication (see 2.6.4.4).

If RECORD_TYPE_r is not equal to ‘00000000’, REDIRECT_TYPE_r is ‘1’, and the mobile station supports the band class and operating mode specified in the message, the mobile station shall do the following:

- The mobile station shall store the redirection record received in the message as REDIRECT_REC_s.
- The mobile station shall enable NDSS_ORIG_s and shall record the dialed digits **if any** corresponding to the last MS originated call.
- The mobile station shall set RETURN_IF_FAIL_s = RETURN_IF_FAIL_r.
- If DELETE_TMSI_r is equal to ‘1’, the mobile station shall set all the bits of TMSI_CODE_s-p to ‘1’.
- The mobile station shall disable the full-TMSI timer.
- The layer 3 **Layer 3** shall send a “release indication” to all Call Control instances, and shall enter the **Release Substate** with a redirection indication (see 2.6.4.4). Otherwise, the mobile station shall discard the message and send a Mobile Station Reject Order (ORDQ set to the applicable reason code as determined from Table 2.7.3-1) within T56m seconds.
53.54. **Service Request Message**: The mobile station shall process the message in accordance with the requirements for the active service subfunction (see 2.6.4.1.2.2).

54.55. **Service Response Message**: The mobile station shall process the message in accordance with the requirements for the active service subfunction (see 2.6.4.1.2.2).

55.56. **Set Parameters Message**: If the mobile station can set all of the parameters specified by the PARAMETER_ID fields in the message, the mobile station shall set them; otherwise, the mobile station shall send, within T₅₆m seconds, a *Mobile Station Reject Order*.

56.57. **SSD Update Message**: The layer 3 shall send a “reset waiting for order substate timer indication” to all Call Control instances. The mobile station shall process the message and respond with a *Base Station Challenge Order* as specified in 2.3.12.1.5 within T₃₂m seconds.

57.58. **Status Request Message**: The mobile station shall send, within T₅₆m seconds, a *Status Response Message*. If the message does not specify any qualification information (QUAL_INFO_TYPEᵣ is equal to ‘00000000’), the mobile station shall include the requested information records in the *Status Response Message*. If the message specifies a band class (QUAL_INFO_TYPEᵣ is equal to ‘00000001’), the mobile station shall only include the requested information records for the specified band class (BAND_CLASSᵣ) in the *Status Response Message*. If the message specifies a band class and an operating mode (QUAL_INFO_TYPEᵣ is equal to ‘00000010’), the mobile station shall only include the requested information records for the specified band class (BAND_CLASSᵣ) and operating mode (OP_MODEᵣ) in the *Status Response Message*.

If the message specifies a band class or a band class and an operating mode which is not supported by the mobile station, the mobile station shall send a *Mobile Station Reject Order* with ORDQ set to ‘00000110’ (message requires a capability that is not supported by the mobile station).

If the response to this message exceeds the allowable length, the mobile station shall send a *Mobile Station Reject Order* with ORDQ set to ‘00000100’ (response message would exceed the allowable length).

If the message specifies an information record which is not supported by the mobile station for the specified band class and operating mode, the mobile station shall send a *Mobile Station Reject Order* with ORDQ set to ‘00001001’ (information record is not supported for the specified band class and operating mode).

58.59. **Status Request Order**: If CDMABANDᵦ is equal to ‘00000’, the mobile station shall send a *Status Message* within T₅₆m seconds. The mobile station shall respond with information corresponding to the current band class and operating mode.
**59-60. Supplemental Channel Assignment Message:** The mobile station shall process the message as specified in 2.6.6.2.5.1.

**60. TMSI Assignment Message:** The mobile station shall store the TMSI zone and code as follows:

- The mobile station shall store the length of the TMSI zone field by setting ASSIGNING_TMSI_ZONE_LEN_s-p to TMSI_ZONE_LEN_r,

- The mobile station shall store the assigning TMSI zone number by setting the ASSIGNING_TMSI_ZONE_LEN_s-p least significant octets of ASSIGNING_TMSI_ZONE_s-p to TMSI_ZONE_r, and

- The mobile station shall store the TMSI code by setting TMSI_CODE_s-p to TMSI_CODE_r.

The mobile station shall set the TMSI expiration time by setting TMSI_EXP_TIME_s-p to TMSI_EXP_TIME_r. The mobile station shall disable the full-TMSI timer. The mobile station shall then respond with a TMSI Assignment Completion Message within T56m seconds.

**61-62. Universal Handoff Direction Message:** The Layer 3 shall send a “reset waiting for order substate timer indication” to all Call Control instances. The mobile station shall process the message as specified in 2.6.6.2.5.1.

**62-63. User Zone Reject Message:** The mobile station shall process this message as specified in 2.6.9.2.2.

**63-64. User Zone Update Message:** The mobile station shall process this message as specified in 2.6.9.2.2.

- If the mobile station receives a message that is not included in the above list, cannot be processed, or requires a capability which is not supported, the mobile station shall discard the message and send a Mobile Station Reject Order (ORDQ set to the applicable reason code as determined from Table 2.7.3-1) within T56m seconds. If the mobile station receives a Call Control message (see 2.6.10) which is directed to a Call Control instance that does not exist, the mobile station shall send a Mobile Station Reject Order with ORDQ field set to ‘00010001’ (no call control instance present with the specified identifier) to the base station within T56m seconds.

- If the bits of TMSI_CODE_s-p are not all equal to ‘1’, and if System Time (in 80 ms units) exceeds TMSI_EXP_TIME_s-p × 212, the mobile station shall set all the bits of TMSI_CODE_s-p to ‘1’ within T66m seconds.

- If the full-TMSI timer expires or has expired, the mobile station shall set all the bits of TMSI_CODE_s-p to ‘1’. The mobile station shall update the registration variables as described in 2.6.5.5.2.5.

2.6.4.4 Release Substate

In this substate, the mobile station confirms the disconnect of all calls and physical channels.
Upon entering the Release Substate, the mobile station shall perform the following:

- The mobile station shall set the substate timer for $T_{55m}$ seconds.

- If the mobile station enters the Release Substate with a power-down indication, the mobile station shall send a Release Order (ORDQ = ‘00000001’), and shall perform power-down registration procedures (see 2.6.5.5.4.4). The layer 3 shall terminate all Call Control instances.

- If the mobile station enters the Release Substate with a mobile station release indication, the mobile station shall send a Release Order (ORDQ = ‘00000000’), and set RETURN_CAUSEs to ‘0000’. The mobile station may store the current service configuration (that is, parameters conveyed by both the Service Configuration information record and the Non-negotiable Service Configuration information record); if the mobile station stores the current service configuration, then the mobile station shall store the SYNC_IDs corresponding to the current service configuration.

- If the mobile station enters the Release Substate with a service inactive indication, the mobile station shall send a Release Order (ORDQ = ‘00000010’), and set RETURN_CAUSEs to ‘0000’.

- If the mobile station enters the Release Substate with a base station release indication, the mobile station shall send a Release Order (ORDQ = ‘00000000’). The layer 3 shall terminate all Call Control instances. The mobile station may store the current service configuration (that is, parameters conveyed by both the Service Configuration information record and the Non-negotiable Service Configuration information record); if the mobile station stores the current service configuration, then the mobile station shall store the SYNC_IDs corresponding to the current service configuration. The mobile station shall disable its transmitter, set RETURN_CAUSEs to ‘0000’, and shall enter the System Determination Substate of the Mobile Station Initialization State with a release indication (see 2.6.1.1).

- If the mobile station entered the Release Substate with a base station extended release indication, the mobile station shall perform the following:
  
  - The mobile station may store the current service configuration (that is, parameters conveyed by both the Service Configuration information record and the Non-negotiable Service Configuration information record); if the mobile station stores the current service configuration, then the mobile station shall store the SYNC_IDs corresponding to the current service configuration.
  
  - The mobile station shall send an Extended Release Response Message to the base station.
  
  - The layer 3 shall terminate all Call Control instances.
  
  - The mobile station shall disable its transmitter, set RETURN_CAUSEs to ‘0000’, and shall enter the System Determination Substate of the Mobile Station Initialization State with a release indication (see 2.6.1.1).
If the mobile station entered the **Release Substate** with a base station extended release with mini message indication, then the mobile station shall perform the following:

- The mobile station may store the current service configuration (that is, parameters conveyed by both the Service Configuration information record and the Non-negotiable Service Configuration information record); if the mobile station stores the current service configuration, then the mobile station shall store the SYNC_IDs.

- The mobile station shall send an *Extended Release Response Mini Message* to the base station.

- The **Layer 3** shall terminate all Call Control instances.

- The mobile station shall disable its transmitter, set RETURN_CAUSEs to ‘0000’, and shall enter the **System Determination Substate** of the **Mobile Station Initialization State** with a release indication (see 2.6.1.1).

- If the mobile station enters the **Release Substate** with a redirection indication, the mobile station shall send a *Release Order* (ORDQ = ‘00000000’) and shall enter the **System Determination Substate** of the **Mobile Station Initialization State** with a redirection indication (see 2.6.1.1). The **Layer 3** shall terminate all Call Control instances.

- If the mobile station enters the **Release Substate** with an NDSS off indication, the mobile station shall send a *Release Order* (ORDQ = ‘00000000’), and shall enter the **System Determination Substate** of the **Mobile Station Initialization State** with an NDSS off indication (see 2.6.1.1). The **Layer 3** shall terminate all Call Control instances.

While in the **Release Substate**, the mobile station shall perform the following:

- If the substate timer expires, the **Layer 3** shall terminate all Call Control instances, and the mobile station shall disable its transmitter and shall enter the **System Determination Substate** of the **Mobile Station Initialization State** with a release indication (see 2.6.1.1).

- The mobile station shall perform Forward Traffic Channel supervision as specified in 2.6.4.1.8. If a loss of the Forward Traffic Channel is declared, the **Layer 3** shall terminate all Call Control instances, and shall enter the **System Determination Substate** of the **Mobile Station Initialization State** with a release indication (see 2.6.1.1).

- The mobile station shall adjust its transmit power as specified in 2.1.2.3 of [2].

- The mobile station shall perform Forward Traffic Channel power control as specified in 2.6.4.1.1.

- The mobile station shall perform handoff processing as specified in 2.6.6.
If the Fundamental Channel is present, the mobile station shall transmit null traffic, except when transmitting signaling traffic, on the Reverse Fundamental Channel.

The mobile station shall process Forward Traffic Channel signaling traffic and shall discard other types of Forward Traffic Channel traffic.

The mobile station shall perform registration timer maintenance as specified in 2.6.5.5.4.2.

If Layer 3 receives a L2-Condition.Notification primitive from Layer 2 indicating an acknowledgment failure, the Layer 3 shall terminate all Call Control instances, and the mobile station shall disable its transmitter and enter the System Determination Substate of the Mobile Station Initialization State with a release indication (see 2.6.1.1).

If the Layer 3 receives an “enter traffic channel substate indication” from a Call Control instance, the Layer 3 shall enter the Traffic Channel substate.

If Layer 3 receives a ‘message rejected indication’ from a Call Control instance, mobile station shall send a Mobile Station Reject Order (ORDQ set to the applicable reason code as determined from Table 2.7.3-1) within T_{56m} seconds as follows:

- If \( P_{REV\_IN\_USE} \) is equal to or greater than seven, the mobile station shall include the CON_REF_INET field with this message and shall perform the following: if the corresponding Call Control instance is identified by NULL, the mobile station shall either set the CON_REF_INET field of the message to ‘0’ or set the CON_REF_INET field to ‘1’ and set the CON_REF field to the connection reference of the service option connection corresponding to this Call Control instance; otherwise, the mobile station shall set the CON_REF_INET field of the message to ‘1’ and the CON_REF field of the message to the connection reference of the service option connection corresponding to this Call Control instance.

If the mobile station receives a message which is included in the following list, and if every message field value is within its permissible range, the mobile station shall process the message as described below and in accordance with the message’s action time (see 2.6.4.1.5):

1. Alert With Information Message: If \( P_{REV\_IN\_USE} \) is less than seven, the Layer 3 shall deliver this message to the Call Control instance; otherwise, the Layer 3 shall deliver this message to the Call Control instance identified by NULL.

2. Candidate Frequency Search Control Message: The mobile station shall process the message as specified in 2.6.6.2.5.1.

3. Candidate Frequency Search Request Message: The mobile station shall process the message as specified in 2.6.6.2.5.1.

4. Data Burst Message

5. Extended Alert With Information Message: The mobile station shall perform the
following: If CON_REF_INCL equals ‘0’, the layer-3 shall deliver this message to the Call Control instance identified by NULL; otherwise, the layer-3 shall deliver this message to the Call Control instance identified by CON_REFr.

6. **Extended Handoff Direction Message:** The mobile station shall process the message as specified in 2.6.6.2.5.1.

7. **Extended Neighbor List Update Message:** The mobile station shall process the message as specified in 2.6.6.2.6.3.

8. **Extended Supplemental Channel Assignment Message:** The mobile station shall process the message as specified in 2.6.6.2.5.1.

9. **General Handoff Direction Message:** The mobile station shall process the message as specified in 2.6.6.2.5.1.

10. **In-Traffic System Parameters Message:** The mobile station shall process the message as specified in 2.6.4.1.4.

11. **Local Control Order**

12. **Mobile Assisted Burst Operation Parameters Message:** The mobile station shall process the message as specified in 2.6.6.2.5.1.

13. **Lock Until Power-Cycled Order:** The mobile station shall disable its transmitter and record the reason for the Lock Until Power-Cycled Order in the mobile station’s semi-permanent memory (LCKRSN_Ps = the least-significant four bits of ORDQr). The mobile station should notify the user of the locked condition. The layer-3 shall terminate all Call Control instances. The layer-3 shall enter the **System Determination Substate of the Mobile Station Initialization State** with a lock indication (see 2.6.1.1), and shall not enter the System Access State again until after the next mobile station power-up or until it has received an **Unlock Order**. This requirement shall take precedence over any other mobile station requirement specifying entry to the System Access State.

14. **Maintenance Required Order:** The mobile station shall record the reason for the Maintenance Required Order in the mobile station’s semi-permanent memory (MAINTRSNs = the least-significant four bits of ORDQr). The mobile station shall remain in the unlocked condition. The mobile station should notify the user of the maintenance required condition.

15. **Mobile Station Registered Message:** The mobile station shall process the message as specified in 2.6.5.5.4.3.

16. **Mobile Assisted Burst Operation Parameters Message:** The mobile station shall process the message as specified in 2.6.6.2.5.1.

17. **Neighbor List Update Message:** The mobile station shall process the message as specified in 2.6.6.2.6.3.

18. **Outer Loop Report Request Order:** The mobile station shall send the **Outer
Loop Report Message in assured mode to the base station.

19.18. Power Control Message: The mobile station shall process the message as specified in 2.6.4.1.1.3.

20.19. Power Control Parameters Message: The mobile station shall process the message as specified in 2.6.4.1.1.2.

21.20. Power Up Function Message: The mobile station shall process the message as specified in 2.6.4.1.7.1.

22.21. Power Up Function Completion Message: The mobile station shall process the message as specified in 2.6.4.1.7.3.

23.22. Release Order: The mobile station shall disable its transmitter. The Layer 3 shall terminate all Call Control instances. If the mobile station enters the Release Substate with a power-down indication, the mobile station may power down; otherwise, the mobile station shall enter the System Determination Substate of the Mobile Station Initialization State with a release indication (see 2.6.1.1).

24.23. Retrieve Parameters Message: The mobile station shall send, within T_{56m} seconds, a Parameters Response Message.

25.24. Retry Order: The mobile station shall process the order as follows:

- If RETRY_TYPE_r is equal to ‘000’, the mobile station shall set RETRY_DELAY_s[RETRY_TYPE] to ‘0’, where RETRY_TYPE is equal to ‘001’, ‘010’, or ‘011’.
- If RETRY_TYPE_r is equal to ‘001’, then the mobile station shall perform the following:
  - If RETRY_DELAY_r is equal to ‘00000000’, then the mobile station shall set RETRY_DELAY_s[RETRY_TYPE_r] to 0.
  - If RETRY_DELAY_r is not equal to ‘00000000’ the mobile station shall set RETRY_DELAY_s[RETRY_TYPE_r] as follows:
    + If the most significant bit of the RETRY_DELAY_r is 0, set RETRY_DELAY_UNIT_s to 1000ms. If the most significant bit of the RETRY_DELAY_r is ‘1’, set RETRY_DELAY_UNIT_s to 60000ms.
    + The mobile station shall set RETRY_DELAY_VALUE_s to the seven least significant bits of RETRY_DELAY_r.
    + The mobile station shall store the next system time 80 ms boundary + RETRY_DELAY_VALUE_s × RETRY_DELAY_UNIT_s ms as RETRY_DELAY_s[RETRY_TYPE_r].

26.25. Service Option Control Message: The mobile station shall process the message in accordance with the requirements for the active service subfunction (see 2.6.4.1.2.2).

27.26. Service Option Control Order: The mobile station shall process the message
in accordance with the requirements for the active service subfunction (see 2.6.4.1.2.2).

28. **Service Redirection Message:** The mobile station shall disable its transmitter. If the mobile station enters the *Release Substate* with a power-down indication, the mobile station may power down (if powering down, the layer 3 shall terminate all Call Control instances); otherwise, the mobile station shall process the message as follows:

- If RECORD_TYPE \( r \) is '00000000', the mobile station shall do the following:
  - The mobile station shall set RETURN_IF_FAIL\( s \) = RETURN_IF_FAIL\( r \).
  - If DELETE_TMSI\( r \) is equal to '1', the mobile station shall set all the bits of TMSI_CODE\( s,p \) to '1'.
  - The mobile station shall disable the full-TMSI timer.
  - The layer 3 shall terminate all Call Control instances, and shall enter the *System Determination Substate of the Mobile Station Initialization State* with an NDSS off indication (see 2.6.1.1).

- If RECORD_TYPE is not equal to '00000000', REDIRECT_TYPE\( r \) is '1', and the mobile station supports the band class and operating mode specified in the message, the mobile station shall do the following:
  - The mobile station shall store the redirection record received in the message as REDIRECT_RECs.
  - The mobile station shall set RETURN_IF_FAIL\( s \) = RETURN_IF_FAIL\( r \).
  - If DELETE_TMSI\( r \) is equal to '1', the mobile station shall set all the bits of TMSI_CODE\( s,p \) to '1'.
  - The mobile station shall disable the full-TMSI timer.
  - The layer 3 shall terminate all Call Control instances, and shall enter the *System Determination Substate of the Mobile Station Initialization State* with a redirection indication (see 2.6.1.1).

- Otherwise, the mobile station shall discard the message and send a *Mobile Station Reject Order* (ORDQ set to the applicable reason code as determined from Table 2.7.3-1) within \( T_{56m} \) seconds.

29. **Status Request Message:** The mobile station shall send, within \( T_{56m} \) seconds, a Status Response Message. If the message does not specify any qualification information (QUAL_INFO_TYPE\( r \) is equal to '00000000'), the mobile station shall include the requested information records in the *Status Response Message*. If the message specifies a band class (QUAL_INFO_TYPE\( r \) is equal to '00000001'), the mobile station shall only include the requested information records for the specified band class (BAND_CLASS\( r \)) in the *Status Response Message*. If the message specifies a band class and an operating mode (QUAL_INFO_TYPE\( r \) is equal to '00000010'), the mobile station shall only include the requested information records for the specified band class
(BAND_CLASS_r) and operating mode (OP_MODE_r) in the Status Response Message. If the message specifies a band class or a band class and an operating mode which are not supported by the mobile station, the mobile station shall send a Mobile Station Reject Order with ORDQ set to ‘00000110’ (message requires a capability that is not supported by the mobile station). If the response to this message exceeds the allowable length, the mobile station shall send a Mobile Station Reject Order with ORDQ set to ‘00001000’ (response message would exceed the allowable length). If the message specifies an information record which is not supported by the mobile station for the specified band class and operating mode, the mobile station shall send a Mobile Station Reject Order with ORDQ set to ‘00001001’ (information record is not supported for the specified band class and operating mode).

30-29. **Status Request Order**: If CDMABAND_s is equal to ‘00000’, the mobile station shall send, a Status Message within T_{56m} seconds. The mobile station shall respond with information corresponding to the current band class and operating mode.

31-30. **Supplemental Channel Assignment Message**: The mobile station shall process the message as specified in 2.6.6.2.5.1.

31-32. **TMSI Assignment Message**: The mobile station shall store the TMSI zone and code as follows:

- The mobile station shall store the length of the TMSI zone field by setting ASSIGNING_TMSI_ZONE_LEN_s-p to TMSI_ZONE_LEN_r;
- The mobile station shall store the assigning TMSI zone number by setting the ASSIGNING_TMSI_ZONE_LEN_s-p least significant octets of ASSIGNING_TMSI_ZONE_s-p to TMSI_ZONE_r, and
- The mobile station shall store the TMSI code by setting TMSI_CODE_s-p to TMSI_CODE_r.

The mobile station shall set the TMSI expiration time by setting TMSI_EXP_TIME_s-p to TMSI_EXP_TIME_r. The mobile station shall disable the full-TMSI timer. The mobile station shall then respond with a TMSI Assignment Completion Message within T_{56m} seconds.

32-32. **Universal Handoff Direction Message**: The mobile station shall process the message as specified in 2.6.6.2.5.1.

33-33. **User Zone Reject Message**: The mobile station shall process this message as specified in 2.6.9.2.2.

34-33. **User Zone Update Message**: The mobile station shall process this message as specified in 2.6.9.2.2.
If the mobile station receives a message that is not included in the above list or cannot be processed, the mobile station shall discard the message and send a Mobile Station Reject Order (ORDQ set to the applicable reason code as determined from Table 2.7.3-1) within T56m seconds. If the mobile station receives a Call Control message (see 2.6.10) which is directed to a Call Control instance that does not exist, the mobile station shall send a Mobile Station Reject Order with ORDQ field set to ‘00010001’ (no call control instance present with the specified identifier) to the base station within T56m seconds.

If the bits of TMSI_CODEs-p are not all equal to ‘1’, and if System Time (in 80 ms units) exceeds TMSI_EXP_TIMEs-p × 2^12, the mobile station shall set all the bits of TMSI_CODEs-p to ‘1’ within T66m seconds.

If the full-TMSI timer expires or has expired, the mobile station shall set all the bits of TMSI_CODEs-p to ‘1’. The mobile station shall update the registration variables as described in 2.6.5.5.2.5.

2.6.5 Registration

2.6.5.1 Forms of Registration

Registration is the process by which the mobile station notifies the base station of its location, status, identification, slot cycle, and other characteristics. The mobile station informs the base station of its location and status so that the base station can efficiently page the mobile station when establishing a mobile station terminated call. For operation in the slotted mode, the mobile station supplies the SLOT_CYCLE_INDEX parameter so that the base station can determine which slots the mobile station is monitoring. The mobile station supplies the station class mark and the protocol revision number so that the base station knows the capabilities of the mobile station.

The CDMA system supports ten-eleven different forms of registration:

1. Power-up registration. The mobile station registers when it powers on, switches from using a different frequency block, switches from using a different band class, switches from using an alternative operating mode, or switches from using the analog system.

2. Power-down registration. The mobile station registers when it powers off if previously registered in the current serving system.

3. Timer-based registration. The mobile station registers when a timer expires.

4. Distance-based registration. The mobile station registers when the distance between the current base station and the base station in which it last registered exceeds a threshold.

5. Zone-based registration. The mobile station registers when it enters a new zone.

6. Parameter-change registration. The mobile station registers when certain of its stored parameters change or when it enters a new system.

7. Ordered registration. The mobile station registers when the base station requests it.
8. Implicit registration. When a mobile station successfully sends an *Origination Message* or *Page Response Message*, the base station can infer the mobile station’s location. This is considered an implicit registration.

9. Traffic Channel registration. Whenever the base station has registration information for a mobile station that has been assigned to a Traffic Channel, the base station can notify the mobile station that it is registered.

10. User Zone Registration. The mobile station registers when it selects an active User Zone (see 2.6.9.1.2).

11. Encryption re-sync required registration. The mobile station registers when extended encryption is turned on and the mobile station determines that it can not decrypt any messages from the base station (see 2.3.12.4.1.3).

The first five forms of registration, *User Zone Registration*, and *Encryption re-sync required registration*, as a group, are called autonomous registration and are enabled by roaming status (see 2.6.5.3). Parameter-change registration is independent of roaming status. Ordered registration is initiated by the base station through an *Order Message*. Implicit registration does not involve the exchange of any registration messages between the base station and the mobile station. The base station can obtain registration information by sending the *Status Request Message* to the mobile station on either the f-csch or the f-dsch. The base station can obtain limited registration information by sending the *Status Request Order* to the mobile station on the f-dsch. The mobile station can be notified that it is registered through the *Mobile Station Registered Message*.

Any of the various forms of autonomous registration and parameter-change registration can be enabled or disabled. The forms of registration that are enabled and the corresponding registration parameters are communicated in the *System Parameters Message* on the Paging Channel, or the *ANSI-41 System Parameters Message* on the Primary Broadcast Control Channel.

In addition, the mobile station may enable or disable autonomous registration for each type of roaming described in 2.6.5.3.

2.6.5.1.1 Power-Up Registration

Power-up registration is performed when the mobile station is turned on. To prevent multiple registrations when power is quickly turned on and off, the mobile station delays $T_{57m}$ seconds before registering, after entering the *Mobile Station Idle State*.

The mobile station shall maintain a power-up/initialization timer. While the power-up/initialization timer is active, the mobile station shall not make registration access attempts.

*Power-up registration is also performed when the mobile station changes to a different operating mode, band class, serving system, or frequency block (see 2.6.5.5.1.1)*
2.6.5.1.2 Power-Down Registration

Power-down registration is performed when the user directs the mobile station to power off. If power-down registration is performed, the mobile station does not power off until after completing the registration attempt.

The mobile station does not perform power-down registration if it has not previously registered in the system that corresponds to the current SID and NID (see 2.6.5.2.4).

2.6.5.1.3 Timer-Based Registration

Timer-based registration causes the mobile station to register at regular intervals. Its use also allows the system to automatically deregister mobile stations that did not perform a successful power-down registration. Timer-based registration uses a Paging Channel or a Forward Common Control Channel slot counter (equivalent to a timer with time increments of 80 ms). Timer-based registration is performed when the counter reaches a maximum value (REG_COUNT_MAXs) that is controlled by the base station via the REG_PRD field of the System Parameters Message or ANSI-41 System Parameters Message. The base station disables timer-based registration by setting REG_PRD to zero.

The mobile station shall maintain a timer-based registration counter (REG_COUNTs). The mobile station shall compute and store the timer expiration count (REG_COUNT_MAXs) as

\[ \text{REG\_COUNT\_MAX}_s = \left\lfloor \frac{2^{\text{REG\_PRD/4}}} {4} \right\rfloor. \]

The mobile station shall maintain an indicator of timer-based registration timer enable status (COUNTER_ENABLEDs).

The counter is reset when the mobile station powers on and when the mobile station switches from different band classes, different serving systems, different frequency blocks, and alternate operating modes. The counter is also reset after each successful registration. Whenever the mobile station changes COUNTER_ENABLEDs from NO to YES, it shall set REG_COUNTs to a pseudorandom value between 0 and REG_COUNT_MAXs - 1, using the pseudorandom number generator specified in 2.6.7.2.

If the mobile station is operating in the non-slotted mode, it shall increment the timer-based registration counter once per 80 ms whenever COUNTER_ENABLEDs equals YES. If the mobile station is operating in slotted mode, it may increment the timer-based registration counter when it begins to monitor the Paging Channel (see 2.6.2.1.1.3) or the Forward Common Control Channel. A mobile station operating in the slotted mode shall increment the counter by the same amount that the counter would have been incremented if the mobile station had been operating in the non-slotted mode.\(^\text{11}\)

\(^\text{11}\) For example, if the mobile station uses a 2.56 second slot cycle, then it may increment the counter by 32 every time it becomes active.
2.6.5.1.4 Distance-Based Registration

Distance-based registration causes a mobile station to register when the distance between the current base station and the base station in which it last registered exceeds a threshold. The mobile station determines that it has moved a certain distance by computing a distance measure based on the difference in latitude and longitude between the current base station and the base station where the mobile station last registered. If this distance measure exceeds the threshold value, the mobile station registers.

The mobile station stores the base station latitude (BASE_LAT_REGs-p), the base station longitude (BASE_LONG_REGs-p) and the registration distance (REG_DIST_REGs-p), of the base station to which the first access probe (for a Registration Message, Origination Message, or Page Response Message sent on the r-csch) was transmitted after entering the System Access State. The mobile station shall compute the current base station’s distance from the last registration point (DISTANCE) as:

\[
\text{DISTANCE} = \left\lfloor \frac{\sqrt{(\Delta\text{lat})^2 + (\Delta\text{long})^2}}{16} \right\rfloor,
\]

where

\[
\Delta\text{lat} = \text{BASE_LAT}_s - \text{BASE_LAT}_\text{REG}s-p
\]

and

\[
\Delta\text{long} = (\text{BASE_LONG}_s - \text{BASE_LONG}_\text{REG}s-p) \times \cos \left( \frac{\pi}{180} \times \frac{\text{BASE_LAT}_\text{REG}s-p}{14400} \right).
\]

The mobile station shall compute DISTANCE with an error of no more than ±5% of its true value when |BASE_LAT_REGs-p/14400| is less than 60 and with an error of no more than ±7% of its true value when |BASE_LAT_REGs-p/14400| is between 60 and 70.\(^{12}\)

2.6.5.1.5 Zone-Based Registration

Registration zones are groups of base stations within a given system and network. A base station’s zone assignment is identified by the REG_ZONE field of the System Parameters Message or ANSI-41 System Parameters Message.

Zone-based registration causes a mobile station to register whenever it moves into determines it is in a new zone (see 2.6.5.5.2.1), not on its internally stored list of visited registration zones. A zone is added to the list whenever a registration (including implicit registration) occurs, and is deleted upon expiration of a timer. After a system access, timers are enabled for every zone except one that was successfully registered by the access.

A mobile station can be registered in more than one zone. Zones are uniquely identified by a zone number (REG_ZONE) plus the SID and NID of the zone.

\(^{12}\) BASE_LAT and BASE_LONG are given in units of 1/4 seconds. BASE_LAT/14400 and BASE_LONG/14400 are in units of degrees.
The mobile station shall store a list of the zones in which the mobile station has registered (ZONE_LISTs). Each entry in ZONE_LISTs shall include the zone number (REG_ZONE) and the (SID, NID) pair for the zone. The mobile station shall be capable of storing at least \( N_{9m} \) entries in ZONE_LISTs. A base station shall be considered to be in ZONE_LISTs only if the base station’s REG_ZONE, SID and NID are found in an entry in ZONE_LISTs. The mobile station provides storage for one entry of ZONE_LISTs in semi-permanent memory, ZONE_LISTs-p (see 2.3.4).

The mobile station shall maintain a zone list entry timer for each entry in ZONE_LISTs. When an entry in ZONE_LISTs is removed from the list, the corresponding zone list entry timer shall be disabled. The timer duration shall be as determined from the stored value of ZONE_TIMERs using Table 3.7.2.3.2.1-1. The mobile station shall provide a means to examine each timer’s value while the timer is active, so that the age of list entries can be compared.

If the mobile station supports Band Class 1, Band Class 2, Band Class 4, Band Class 5, or Band Class 7, or Band Class 10, the mobile station shall maintain an identifier of the frequency block for each entry in ZONE_LISTs (see 2.1.1.1 of [2]). When the mobile station adds a zone to ZONE_LISTs, the mobile station shall include the identifier for the frequency block.\(^{13}\)

If the mobile station supports multiple band classes, the mobile station shall maintain an identifier of the band class for each entry in ZONE_LISTs (see 2.1.1.1 of [2]). When the mobile station adds a zone to ZONE_LISTs, the mobile station shall include the identifier for the band class.

The base station controls the maximum number of zones in which a mobile station may be considered registered, by means of the TOTAL_ZONES field of the System Parameters Message or ANSI-41 System Parameters Message. When an entry is added to the zone list, or if TOTAL_ZONES is decreased, the mobile station removes entries from the zone list if there are more entries than allowed by the setting of TOTAL_ZONES.

Whenever ZONE_LISTs contains more than TOTAL_ZONES entries, the mobile station shall delete the excess entries according to the following rules:

- If TOTAL_ZONES is equal to zero, the mobile station shall delete all entries.
- If TOTAL_ZONES is not equal to zero, the mobile station shall delete those entries having active zone list entry timers, starting with the oldest entry, as determined by the timer values, and continuing in order of decreasing age until no more than TOTAL_ZONES entries remain.

The mobile station shall store a list of the systems/networks in which the mobile station has registered (SID_NID_LISTs). Each entry in SID_NID_LISTs shall include the (SID, NID) pair for the system/network. The mobile station shall be capable of storing \( N_{10m} \) entries in

\(^{13}\) The mobile station need not maintain a separate identifier for Band Class 0, as the least significant bit of the SID identifies the serving system.
SID_NID_LISTs. A base station shall be considered to be in the SID_NID_LISTs only if the
base station’s SID and NID are found in an entry in SID_NID_LISTs. The mobile station
shall provide storage for one entry of SID_NID_LISTs in semi-permanent memory
(SID_NID_LISTs-p).

If the mobile station supports Band Class 1, Band Class 2, Band Class 4, Band Class 5, or
Band Class 7, or Band Class 10, the mobile station shall maintain an identifier of the
frequency block for each entry in SID_NID_LISTs (see 2.1.1.1 of [2]). When the mobile
station adds an entry to SID_NID_LISTs, the mobile station shall include the identifier for
the frequency block.

If the mobile station supports multiple band classes, the mobile station shall maintain an
identifier of the band class for each entry in SID_NID_LISTs (see 2.1.1.1 of [2]). When the
mobile station adds an entry to SID_NID_LISTs, the mobile station shall include the
identifier for the band class.

The mobile station shall maintain a SID/NID list entry timer for each entry in
SID_NID_LISTs. When an entry in SID_NID_LISTs is removed from the list, the
corresponding SID/NID list entry timer shall be disabled. The timer duration shall be as
determined from the stored value of ZONE_TIMERs using Table 3.7.2.3.2.1-1. The mobile
station shall provide a means to examine each timer’s value while the timer is active, so
that the age of list entries can be compared.

Whenever SID_NID_LISTs contains more than N_{10^m} entries, the mobile station shall delete
the excess entries according to the following rule:

- The mobile station shall delete those entries having active SID/NID list entry timers,
  starting with the oldest entry, as determined by the timer values, and continuing in
  order of decreasing age.

Whenever MULT_SIDSs is equal to ‘0’ and SID_NID_LIST contains entries with different
SIDs, the mobile station shall delete the excess entries according to the following rules:

- If the SID/NID entry timer for any entry is disabled, the mobile station shall delete
  all entries not having the same SID as the entry whose timer is disabled;
- Otherwise, the mobile station shall delete all entries not having the same SID as the
  newest entry in SID_NID_LIST, as determined by the timer values.

Whenever MULT_NIDSs is equal to ‘0’, and SID_NID_LIST contains more than one entry for
any SID, the mobile station shall delete the excess entries for each SID according to the
following rules:

- If the SID/NID entry timer for any entry is disabled, the mobile station shall delete
  all entries for that SID except the entry whose timer is disabled;
- For all other SIDs, the mobile station shall delete all entries for each SID except the
  newest entry, as determined by the timer values.

2.6.5.1.6 Parameter-Change Registration
Parameter-change registration is performed when a mobile station modifies any of the
following stored parameters:
Parameter-change registration is also performed when any of the following capabilities supported by the mobile station changes:

- The preferred slot cycle index (SLOT_CYCLE_INDEX<sub>p</sub>)
- The station class mark (SCM<sub>p</sub>)
- The call termination enabled indicators (MOB_TERM_HOME<sub>p</sub>, MOB_TERM_FOR_SID<sub>p</sub>, and MOB_TERM_FOR_NID<sub>p</sub>)

Parameter-change registration is performed whenever there is no entry in the mobile station’s SID_NID_LIST<sub>S</sub> that matches the base station’s SID and NID.

Parameter-change registration is independent of the roaming status of the mobile station.<sup>14</sup>

Whenever a parameter changes, the mobile station shall delete all entries from SID_NID_LIST<sub>S</sub>.

2.6.5.1.7 Ordered Registration

The base station can command the mobile station to register by sending a Registration Request Order. Ordered registration is performed in the Mobile Station Order and Message Processing Operation (2.6.2.4). Requirements are specified in 2.6.5.5.2.3.

2.6.5.1.8 Implicit Registration

Whenever an Origination Message or Page Response Message is sent, the base station can infer the location of the mobile station. This is considered an implicit registration. Requirements are specified in 2.6.5.5.3.

2.6.5.1.9 Traffic Channel Registration

While a mobile station is assigned a Traffic Channel, the mobile station is notified that it is registered through the Mobile Station Registered Message. Requirements are specified in 2.6.5.5.4.3.

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<sup>14</sup> The indicator REG_ENABLED does not govern parameter-change registration.
2.6.5.1.10 User Zone Registration

User Zone registration is performed when the mobile station selects an active User Zone (see 2.6.9.2.1).

2.6.5.1.11 Encryption Re-sync Required Registration

Encryption re-sync required registration is performed when the mobile station determines that it can not decrypt any message from the base station (see 2.3.12.4.1.3). This type of registration is needed for the mobile station to recover from any encryption out-of-sync scenario.

2.6.5.2 Systems and Networks

A base station is a member of a cellular or PCS system and a network. A network is a subset of a system.

Systems are labeled with an identification called the system identification or SID; networks within a system are given a network identification or NID. A network is uniquely identified by the pair (SID, NID). The SID number 0 is a reserved value. The NID number 0 is a reserved value indicating all base stations that are not included in a specific network. The NID number 65535 (2^{16}-1) is a reserved value the mobile station may use for roaming status determination (see 2.6.5.3) to indicate that the mobile station considers the entire SID (regardless of NID) as home (non-roaming).

Figure 2.6.5.2-1 shows an example of systems and networks. SID i contains three networks labeled t, u, and v. A base station in system i that is not in one of these three networks is in NID 0.
2.6.5.3 Roaming

The mobile station has a list of one or more home (non-roaming) (SID, NID) pairs. A mobile station is roaming if the stored (SID_s, NID_s) pair (received in the System Parameters Message on the Paging Channel, or the ANSI-41 System Parameters Message on the Primary Broadcast Control Channel) does not match one of the mobile station’s non-roaming (SID, NID) pairs. Two types of roaming are defined: A mobile station is a foreign NID roamer if the mobile station is roaming and there is some (SID, NID) pair in the mobile station’s (SID, NID) list for which SID is equal to SID_s. A mobile station is a foreign SID roamer if there is no (SID, NID) pair in the mobile station’s (SID, NID) list for which SID is equal to SID_s.\(^{15}\)

\(^{15}\) For example, suppose a mobile station has the following SID, NID list: \((2, 3), (2, 0), (3, 1)\). If the base station (SID, NID) pair is \((2, 3)\), then the mobile station is not roaming because the (SID, NID) (footnote continued on next page)
The mobile station may use the special NID value 65535 to indicate that the mobile station considers all NIDs within a SID to be non-roaming (i.e., that the mobile station is not roaming when operating with any base station in that system).

The mobile station shall store three 1-bit parameters in its permanent memory (see 2.3.8). These parameters are MOB_TERM_HOME_p, MOB_TERM_FOR_SID_p, and MOB_TERM_FOR_NID_p. The mobile station shall set MOB_TERM_HOME_p to ‘1’ if the mobile station is configured to receive mobile station terminated calls when using a home (SID, NID) pair; otherwise, the mobile station shall set MOB_TERM_HOME_p to ‘0’. The mobile station shall set MOB_TERM_FOR_SID_p to ‘1’ if the mobile station is configured to receive mobile station terminated calls when it is a foreign SID roamer; otherwise MOB_TERM_FOR_SID_p shall be set to ‘0’. The mobile station shall set MOB_TERM_FOR_NID_p to ‘1’ if the mobile station is configured to receive mobile station terminated calls when it is a foreign NID roamer; otherwise the mobile station shall set MOB_TERM_FOR_NID_p to ‘0’.

The mobile station determines the registration status using these parameters and the HOME_REG, FOR_NID_REG, and FOR_SID_REG fields of the System Parameters Message or ANSI-41 System Parameters Message.

The mobile station shall store a mobile station call termination enabled indicator, MOB_TERMs. The mobile station shall set MOB_TERMs to YES if any of the following conditions is met:

- The mobile station is not roaming, and MOB_TERM_HOME_p is equal to ‘1’; or
- The mobile station is a foreign NID roamer and MOB_TERM_FOR_NID_p is equal to ‘1’; or
- The mobile station is a foreign SID roamer and MOB_TERM_FOR_SID_p is equal to ‘1’; otherwise the mobile station shall set MOB_TERMs to NO.

The mobile station shall store a registration status indicator, REG_ENABLED_s. The mobile station shall set the indicator REG_ENABLED_s to YES if any of the following conditions is met for the mobile station:

- The mobile station is not roaming, and both HOME_REG_s and MOB_TERM_HOME_p are equal to ‘1’; or
- The mobile station is a foreign NID roamer and both FOR_NID_REG_s and MOB_TERM_FOR_NID_p are equal to ‘1’; or
- The mobile station is a foreign SID roamer and both FOR_SID_REG_s and MOB_TERM_FOR_SID_p are equal to ‘1’; otherwise the mobile station shall set REG_ENABLED_s to NO.

pair is in the list. If the base station (SID, NID) pair is (2, 7), then the mobile station is a foreign NID roamer, because the SID 2 is in the list, but the (SID, NID) pair (2, 7) is not in the list. If the base station (SID, NID) pair is (4, 0), then the mobile station is a foreign SID roamer, because SID 4 is not in the list.
The mobile station performs autonomous registrations if REG_ENABLEDS is YES.

2.6.5.4 Registration Timers and Indicators

The mobile station shall provide the following registration timers:

- Power-up/initialization timer (see 2.6.5.1.1).
- Timer-based registration timer (see 2.6.5.1.3).
- Zone list entry timers (see 2.6.5.1.5).
- SID/NID list entry timers (see 2.6.5.1.5).

The mobile station shall provide a means of enabling and disabling each timer. When a timer is disabled, it shall not be considered expired. A timer that has been enabled is referred to as active.

2.6.5.5 Registration Procedures

2.6.5.5.1 Actions in the Mobile Station Initialization State

2.6.5.5.1.1 Power-Up or Change to a Different Operating Mode, Band Class, Serving System, or Frequency Block

Upon power-up, the mobile station shall perform the following actions:

- Delete all entries of ZONE_LISTS.
- If ZONE_LISTS-p contains an entry, copy the entry to ZONE_LISTS and disable the corresponding entry timer.
- Delete all entries of SID_NID_LISTS.
- If SID_NID_LISTS-p contains an entry, copy the entry to SID_NID_LISTS and disable the corresponding entry timer.
- Set the registered flag (REGISTEREDS) to NO.
- Set timer-based registration enable status (COUNTER_ENABLEDS) to NO.
- Set autonomous registration enable status (REG_ENABLEDS) to NO.
- Set RETURN_CAUSES to ‘0000’.
- Set ENC_KEYS to NULL.
- Set D_SIG_ENCRYPT_MODES and C_SIG_ENCRYPT_MODES to ‘000’.

Upon switching from using CDMA in a different band class, from using CDMA in a different serving system in a band class that supports multiple serving systems (e.g., Band Class 0), from using CDMA in a different frequency block in a band class that supports frequency block allocations (e.g. Band Class 1, Band Class 4), or from using the 800 MHz analog system, the mobile station shall perform the following actions:

- Set timer-based registration enable status (COUNTER_ENABLEDS) to NO.
- Set autonomous registration enable status (REG_ENABLEDS) to NO.
• Set RETURN\_CAUSE_s to ‘0000’.
  • Set the registered flag [REGISTERED_s] to NO.
  • Set ENC\_KEY_s to NULL.

2.6.5.5.1.2 Timer Maintenance

While in the Mobile Station Initialization State, the mobile station shall update all active registration timers (see 2.6.5.4). If any timer expires while in this state, the mobile station shall preserve the expiration status so that further action can be taken in the Mobile Station Idle State.

2.6.5.5.1.3 Entering the Mobile Station Idle State

Before entering the Mobile Station Idle State from the Mobile Station Initialization State, the mobile station shall perform the following action:
  • If REGISTERED_s is equal to NO, enable the power-up/initialization timer with an expiration time of T57m seconds (see 2.6.5.1.1) only when the mobile station is entering this state with a power-up indication.

2.6.5.5.2 Actions in the Mobile Station Idle State

Requirements in this section and its subsections apply only when the mobile station is in the Mobile Station Idle State.

2.6.5.5.2.1 Idle Registration Procedures

These procedures are performed whenever the mobile station is in the Mobile Station Idle State (see 2.6.2.1.3).

While in the Mobile Station Idle State, the mobile station shall update all active registration timers (see 2.6.5.4).

If the power-up/initialization timer has expired or is disabled, the mobile station shall perform the following actions in the order given. If any action necessitates a registration, the mobile station shall enter the Update Overhead Information Substate of the System Access State (see 2.6.3) with a registration indication.

1. The timer-based registration timer shall be enabled (COUNTER\_ENABLED_s = YES) and the timer count (REG\_COUNT_s) shall be set to a pseudorandom number as specified in 2.6.5.1.3, if the following conditions are met:
   a. COUNTER\_ENABLED_s is equal to NO; and
   b. The stored configuration parameters are current (see 2.6.2.2); and
   c. REG\_ENABLED_s is equal to YES; and
   d. REG\_PRD_s is not equal to zero.

2. If any zone list entry timer (see 2.6.5.1.5) has expired, the mobile station shall delete the corresponding entry from ZONE\_LIST_s.
3. If any SID/NID list entry timer (see 2.6.5.1.5) has expired, the mobile station shall delete the corresponding entry from SID_NID_LISTs.

4. The mobile station shall perform power-up registration, as specified in 2.6.5.1.1, if all the following conditions are met:
   a. POWER_UP_REGs is equal to ‘1’; and
   b. The stored configuration parameters are current (see 2.6.2.2); and
   c. REGISTEREDs is equal to NO, and
   d. REG_ENABLEDs is equal to YES.

5. The mobile station shall perform parameter-change registration (see 2.6.5.1.6) if all the following conditions are met:
   a. PARAMETER_REGs is equal to ‘1’; and
   b. The stored configuration parameters are current (see 2.6.2.2); and
   c. There is no entry of SID_NID_LISTs whose SID and NID fields match the stored SIDN and NIDN.

6. The mobile station shall perform timer-based registration (see 2.6.5.1.3) if all the following conditions are met:
   a. COUNTER_ENABLEDs is equal to YES; and
   b. The stored configuration parameters are current (see 2.6.2.2); and
   c. REG_ENABLEDs is equal to YES; and
   d. REG_COUNTs is greater than or equal to REG_COUNT_MAXs.

7. The mobile station shall perform distance-based registration (see 2.6.5.1.4) if all the following conditions are met:
   a. REG_DISTs is not equal to zero; and
   b. The stored configuration parameters are current (see 2.6.2.2); and
   c. REG_ENABLEDs is equal to YES; and
   d. The current base station’s distance from the base station in which the mobile station last registered (see 2.6.5.1.4) is greater than or equal to REG_DIST_REGs-p.

8. The mobile station shall perform zone-based registration (see 2.6.5.1.5) if all the following conditions are met:
   a. TOTAL_ZONESs is not equal to zero; and
   b. The stored configuration parameters are current (see 2.6.2.2); and
   c. REG_ENABLEDs is equal to YES; and
   d. There is no entry of ZONE_LISTs whose SID, NID and REG_ZONE fields match the stored SIDN, NIDN and REG_ZONEs.
9. The mobile station shall perform User Zone registration (see 2.6.2.5.1.10) if it selects an active User Zone (see 2.6.9.1.2).

10. The mobile station shall perform encryption re-sync required registration (see 2.6.5.1.11) if all the following conditions are met:
    a. REG_ENCRYPT_RESYNC is equal to YES; and
    b. None of the above registrations have been performed since the last entering of the Mobile Station Idle State.

2.6.5.5.2.2 Processing the Registration Fields of the System Parameters Message and ANSI-41 System Parameters Message

When the mobile station processes the System Parameters Message or ANSI-41 System Parameters Message, it shall perform the following actions:

1. If REG_PRD_s is equal to zero, the mobile station shall set COUNTER_ENABLED_s to NO.
2. If REG_PRD_s is not equal to zero, the mobile station shall set REG_COUNT_MAX_s as specified in 2.6.5.1.3.
3. The mobile station shall update its roaming status and set REG_ENABLED_s as specified in 2.6.5.3.
4. If ZONE_LIST_s contains more than TOTAL_ZONES_s entries, the mobile station shall delete the excess entries according to the rules specified in 2.6.5.1.5.
5. If MULT_SIDS_s is equal to ‘0’ and SID_NID_LIST contains entries with different SIDs, delete the excess entries according to the rules specified in 2.6.5.1.5.
6. If MULT_NIDS_s is equal to ‘0’ and SID_NID_LIST contains more than one entry for any SID, delete the excess entries according to the rules specified in 2.6.5.1.5.

2.6.5.5.2.3 Ordered Registration

Ordered registration is performed after receiving a Registration Request Order while in the Mobile Station Order and Message Processing Operation (see 2.6.2.4).

The mobile station shall enter the Update Overhead Information Substate of the System Access State with a registration indication within T_33m seconds after the Registration Request Order is received.

2.6.5.5.2.4 Power Off

These procedures are performed when the mobile station is directed by the user to power off.

The mobile station shall perform the following actions:

- If an entry of ZONE_LIST_s does not have an active timer, copy that entry to ZONE_LIST_s-p; otherwise, delete any entry in ZONE_LIST_s-p.
If an entry of SID_NID_LIST_s does not have an active timer, copy that entry to SID_NID_LIST_s-p; otherwise, delete any entry in SID_NID_LIST_s-p.

The mobile station shall perform power-down registration (see 2.6.5.1.2) by entering the System Access State with a registration indication within T33m seconds after the user directs the mobile station to power off, if all the following conditions are true:

- REG_ENABLED_s equals YES; and
- POWER_DOWN_REG_s equals ‘1’; and
- There is an entry of SID_NID_LIST_s for which the SID and NID fields are equal to SIDs and NIDs; and
- The power-up/initialization timer (see 2.6.5.1.1) is disabled or has expired.

2.6.5.5.2.5 Full-TMSI Timer Expiration

When the mobile station sets all the bits of TMSI_CODE_s-p to ‘1’ upon expiration of the full-TMSI timer (see 2.6.2), the mobile station shall delete all entries from SID_NID_LIST_s and ZONE_LIST_s.

2.6.5.5.3 Actions in the System Access State

Requirements in this section and its subsections apply only when the mobile station is in the System Access State.

2.6.5.5.3.1 Successful Access, Registration, or Implicit Registration

These procedures shall be performed after the mobile station receives confirmation of delivery of a Registration Message, Origination Message, or Page Response Message sent on the r-csch (see 2.6.3.1.2).

- Disable the power-up/initialization timer (see 2.6.5.1.1).
- If the mobile station supports the 800 MHz analog mode, set the First-Idle ID status to enabled (see [2.6.3.11][6]).
- Set DIGITAL_REG_s-p to ‘00000001’.
- Set REG_COUNT_s to zero.
- Set REGISTERED_s to YES.
- Delete all entries from ZONE_LIST_s belonging to a different band class (see 2.1.1.1 of [2]) than CDMABAND_s.
- If CDMABAND_s = ‘00000’ or CDMABAND_s = ‘00011’, delete all entries from ZONE_LIST_s that have a SID from a different serving system than SERVSYS_s.
- If CDMABAND_s = ‘00001’, CDMABAND_s = ‘00100’, CDMABAND_s = ‘00101’, or CDMABAND_s = ‘01010’, delete all entries from ZONE_LIST_s belonging to a different frequency block (see 2.1.1.1 of [2]) than the frequency block associated with SID_s.
Add REG_ZONEs, SID_s, and NID_s to ZONE_LIST_s if not already in the list. If required, include the band class identifier and block identifier for the current band and frequency block as specified in 2.6.5.1.5.

* Disable the zone list entry timer for the entry of ZONE_LIST_s containing REG_ZONEs, SID_s, and NID_s. For any other entry of ZONE_LIST_s whose entry timer is not active, enable the entry timer with the duration specified by ZONE_TIMER_s (see 2.6.5.1.5).

* If ZONE_LIST_s contains more than TOTAL_ZONES_s entries, delete the excess entries according to the rules specified in 2.6.5.1.5.

* Delete all entries from SID_NID_LIST_s belonging to a different band class (see 2.1.1.1 of [2]) than CDMABAND_s.

* If CDMABAND_s = ‘00000’ or CDMABAND_s = ‘00011’, delete all entries from SID_NID_LIST_s that have a SID from a different serving system than SERVSYS_s.

* If CDMABAND_s = ‘00001’, CDMABAND_s = ‘00010’, CDMABAND_s = ‘00100’, CDMABAND_s = ‘00101’, or CDMABAND_s = ‘00111’, delete all entries from SID_NID_LIST_s belonging to a different frequency block (see 2.1.1.1 of [2]) than the frequency block associated with SID_s.

* Add SID_s and NID_s to SID_NID_LIST_s if not already in the list. If required, include the band class identifier and block identifier for the current band and frequency block as specified in 2.6.5.1.5.

* Disable the SID/NID list entry timer for the entry of SID_NID_LIST_s containing SID_s, and NID_s. For any other entry of SID_NID_LIST_s whose entry timer is not active, enable the entry timer with the duration specified in 2.6.5.1.5.

* If SID_NID_LIST_s contains more than N10m entries, delete the excess entries according to the rules specified in 2.6.5.1.5.

* If MULT_SIDS_s is equal to ‘0’ and SID_NID_LIST contains entries with different SIDs, delete the excess entries according to the rules specified in 2.6.5.1.5.

* If MULT_NIDS_s is equal to ‘0’ and SID_NID_LIST contains more than one entry for any SID, delete the excess entries according to the rules specified in 2.6.5.1.5.

* Set the stored location of last registration (BASE_LAT_REG_s-p and BASE_LONG_REG_s-p) to the current base station’s location (BASE_LAT_s and BASE_LONG_s). Set the stored registration distance (REG_DIST_REG_s-p) to the current base station’s registration distance (REG_DIST_s).

  Set REG_ENCRYPT_RESYNC to NO.

These procedures shall be performed after the mobile station receives confirmation of delivery of any other message:

* If the mobile station supports the 800 MHz analog mode, set the First-Idle ID status to enabled (see 2.6.3.11[6]).

* Set DIGITAL_REG_s-p to ‘00000001’.
Delete all entries from ZONE_LISTs belonging to a different band class (see 2.1.1.1 of [2]) than CDMABANDs.

If CDMABANDs = '00000' or CDMABANDs = '00011', delete from ZONE_LISTs all entries from ZONE_LISTs that have a SID from a different serving system than SERVSYSs.

If CDMABANDs = '00001', CDMABANDs = '00010', CDMABANDs = '00100', CDMABANDs = '00101', or CDMABANDs = '01010', delete all entries from ZONE_LISTs belonging to a different frequency block (see 2.1.1.1 of [2]) than the frequency block associated with SID$_S$.

For any entry of ZONE_LISTs not matching REG_ZONEs, SID$_S$, and NID$_S$ and not having an active entry timer, enable the entry timer with the duration specified by ZONE_TIMERs (see 2.6.5.1.5).

Delete all entries from SID_NID_LISTs belonging to a different band class (see 2.1.1.1 of [2]) than CDMABANDs.

If CDMABANDs = '00000' or CDMABANDs = '00011', delete from SID_NID_LISTs all entries from SID_NID_LISTs that have a SID from a different serving system than SERVSYSs.

If CDMABANDs = '00001', CDMABANDs = '00010', CDMABANDs = '00100', CDMABANDs = '00101', or CDMABANDs = '01010', delete all entries from SID_NID_LISTs belonging to a different frequency block (see 2.1.1.1 of [2]) than the frequency block associated with SID$_S$.

For any entry of SID_NID_LISTs not matching SID$_S$ and NID$_S$ and not having an active entry timer, enable the entry timer with the duration specified by ZONE_TIMERs (see 2.6.5.1.5).

2.6.5.5.3.2 Unsuccessful Access

These procedures are performed when the mobile station declares an access attempt failure when in the System Access State (see 2.6.3).

The mobile station shall perform the following actions:

- If the mobile station supports the 800 MHz analog mode, set the First-Idle ID status to enabled (see 2.6.3.11[6]).
- Set DIGITAL_REG$_{s-p}$ to ‘00000001’.
- Delete all entries from ZONE_LISTs belonging to a different band class (see 2.1.1.1 of [2]) than CDMABANDs.
- If CDMABANDs = '00000' or CDMABANDs = '00011', delete from ZONE_LISTs all entries from ZONE_LISTs that have a SID from a different serving system than SERVSYSs.
If CDMABAND_s = '00001', CDMABAND_s = '00010', CDMABAND_s = '00100',
CDMABAND_s = '00101', or CDMABAND_s = '00111', or CDMABAND_s = '01010',
delete all entries from ZONE_LIST_s belonging to a different frequency block (see 2.1.1.1 of [2]) than the frequency block associated with SID_s.

For any entry of ZONE_LIST_s not matching REG_ZONE_s, SID_s, and NID_s and not having an active entry timer, enable the entry timer with the duration specified by ZONE_TIMER_s (see 2.6.5.1.5).

Delete all entries from SID_NID_LIST_s belonging to a different band class (see 2.1.1.1 of [2]) than CDMABAND_s.

If CDMABAND_s = '00000' or CDMABAND_s = '00011', delete from SID_NID_LIST_s all entries from SID_NID_LIST_s that have a SID from a different serving system than SERVSYS_s.

If CDMABAND_s = '00001', CDMABAND_s = '00010', CDMABAND_s = '00100',
CDMABAND_s = '00101', or CDMABAND_s = '00111', or CDMABAND_s = '01010',
delete all entries from SID_NID_LIST_s belonging to a different frequency block (see 2.1.1.1 of [2]) than the frequency block associated with SID_s.

For any entry of SID_NID_LIST_s not matching SID_s and NID_s and not having an active entry timer, enable the entry timer with the duration specified by ZONE_TIMER_s (see 2.6.5.1.5).

2.6.5.5.3.3 Power Off

These procedures are performed when the mobile station is directed by the user to power off.

The mobile station shall perform the following actions:

• If an entry of ZONE_LIST_s does not have an active timer, copy that entry to ZONE_LIST_s-p; otherwise, delete any entry in ZONE_LIST_s-p.
• If an entry of SID_NID_LIST_s does not have an active timer, copy that entry to SID_NID_LIST_s-p; otherwise, delete any entry in SID_NID_LIST_s-p.

2.6.5.5.4 Actions in the Mobile Station Control on the Traffic Channel State

Requirements in this section and its subsections apply only when the mobile station is in the Mobile Station Control on the Traffic Channel State.

2.6.5.5.4.1 Traffic Channel Initialization

Upon entering the Traffic Channel Initialization Substate of the Mobile Station Control on the Traffic Channel State, the mobile station shall set COUNTER_ENABLED_s to NO.

2.6.5.5.4.2 Timer Maintenance

While in the Mobile Station Control on the Traffic Channel State, the mobile station shall update all active registration timers.
If a zone list entry timer expires, the mobile station shall delete the corresponding entry from ZONE_LIST. If a SID/NID list entry timer expires, the mobile station shall delete the corresponding entry from SID_NID_LIST.

2.6.5.4.3 Processing the Mobile Station Registered Message

The mobile station receives the Mobile Station Registered Message on the Forward Traffic Channel when the mobile station is considered registered for the base station whose location and other parameters are included in the message.

The mobile station shall store the following parameters:

- System identification \((\text{SID} = \text{SID}_r)\)
- Network identification \((\text{NID} = \text{NID}_r)\)
- Registration zone \((\text{REG_ZONE} = \text{REG_ZONE}_r)\)
- Number of registration zones to be retained \((\text{TOTAL_ZONES} = \text{TOTAL_ZONES}_r)\)
- Zone timer length \((\text{ZONE_TIMER} = \text{ZONE_TIMER}_r)\)
- Multiple SID storage indicator \((\text{MULT_SIDS} = \text{MULT_SIDS}_r)\)
- Multiple NID storage indicator \((\text{MULT_NIDS} = \text{MULT_NIDS}_r)\)
- Base station latitude \((\text{BASE_LAT} = \text{BASE_LAT}_r)\)
- Base station longitude \((\text{BASE_LONG} = \text{BASE_LONG}_r)\)
- Registration distance \((\text{REG_DIST} = \text{REG_DIST}_r)\)

The mobile station shall perform the following actions:

- If the mobile station supports the 800 MHz analog mode, set the First-Idle ID status to enabled (see [6]).
- Set DIGITAL_REG_s-p to ‘00000001’.
- Add REG_ZONE_s, SIDs, and NIDs to ZONE_LIST if not already in the list. If required, include the band class identifier and block identifier for the current band and frequency block as specified in 2.6.5.1.5.
- Delete all entries from ZONE_LIST belonging to a different band class (see 2.1.1.1 of [2]) than CDMABAND_s.
- Disable the zone list entry timer for the entry of ZONE_LIST containing REG_ZONE_s, SIDs, and NIDs. For any other entry of ZONE_LIST whose entry timer is not active, enable the entry timer with the duration specified by ZONE_TIMER_s (see 2.6.5.1.5).
- If ZONE_LIST contains more than TOTAL_ZONES entries, delete the excess entries according to the rules specified in 2.6.5.1.5.
- Delete all entries from SID_NID_LIST belonging to a different band class (see [2]) than CDMABAND_s.
• Add SID\_s and NID\_s to SID\_NID\_LIST\_s if not already in the list. If required, include the band class identifier and block identifier for the current band and frequency block as specified in 2.6.5.1.5.

• Disable the SID/NID list entry timer for the entry of SID\_NID\_LIST\_s containing SID\_s, and NID\_s. For any other entry of SID\_NID\_LIST\_s whose entry timer is not active, enable the entry timer with the duration specified in 2.6.5.1.5.

• If SID\_NID\_LIST\_s contains more than N10m entries, delete the excess entries according to the rules specified in 2.6.5.1.5.

• If MULT\_SIDS\_s is equal to '0' and SID\_NID\_LIST contains entries with different SIDs, delete the excess entries according to the rules specified in 2.6.5.1.5.

• If MULT\_NIDS\_s is equal to '0' and SID\_NID\_LIST contains more than one entry for any SID, delete the excess entries according to the rules specified in 2.6.5.1.5.

• Set the stored location of last registration (BASE_LAT\_REG\_s-p and BASE_LONG\_REG\_s-p) to the base station's location (BASE\_LAT\_s and BASE\_LONG\_s). Set the stored registration distance (REG\_DIST\_REG\_s-p) to the base station’s registration distance (REG\_DIST\_s).

• Update its roaming status and set MOB\_TERM\_s as specified in 2.6.5.3. The mobile station should indicate to the user whether the mobile station is roaming.

2.6.5.5.4.4 Power Off

These procedures are performed when the mobile station is directed by the user to power off.

The mobile station shall perform the following actions:

• If an entry of ZONE\_LIST\_s does not have an active timer, copy that entry to ZONE\_LIST\_s-p; otherwise, delete the entry in ZONE\_LIST\_s-p if ZONE\_LIST\_s-p contains an entry.

• If an entry of SID\_NID\_LIST\_s does not have an active timer, copy that entry to SID\_NID\_LIST\_s-p; otherwise, delete the entry in SID\_NID\_LIST\_s-p if SID\_NID\_LIST\_s-p contains an entry.

2.6.6 Handoff Procedures

This section presents an overview and mobile station requirements for handoffs occurring while the mobile station is in the Mobile Station Control on the Traffic Channel State (see 2.6.4). Mobile station requirements for handoffs occurring while the mobile station is in the Mobile Station Idle State are specified in 2.6.2.1.4.

2.6.6.1 Overview

2.6.6.1.1 Types of Handoff

The mobile station supports the following three handoff procedures while in the Mobile Station Control on the Traffic Channel State:
• **Soft Handoff:** A handoff in which the mobile station commences communications with a new base station without interrupting communications with the old base station. Soft handoff can only be used between CDMA Channels having identical Frequency Assignments. Soft handoff provides diversity of Forward Traffic Channels and Reverse Traffic Channel paths on the boundaries between base stations.

• **CDMA-to-CDMA Hard Handoff:** A handoff in which the mobile station is transitioned between disjoint sets of base stations, different band classes, different Frequency Assignments, or different frame offsets.

• **CDMA-to-Analog Handoff:** A handoff in which the mobile station is directed from a CDMA traffic channel to an analog voice channel.

The mobile station shall support soft handoffs on the same Frequency Assignment (see 2.6.6.2.7). The mobile station shall support CDMA-to-CDMA hard handoffs between band classes on which it supports CDMA operation (see 2.6.6.2.8). The mobile station shall support CDMA-to-Analog handoffs from band classes on which it supports CDMA operation to band classes on which it supports analog operation (see 2.6.6.2.9).

2.6.6.1.2 Pilot Sets

Within section 2.6.6 the term pilot refers to a Pilot Channel identified by a pilot sequence offset (see 3.1.3.2.1 of [2]), a Walsh function or a quasi-orthogonal function (see 3.1.3.2.2 of [2]), and a Frequency Assignment (see 2.1.1.1 of [2]). A pilot is associated with the Forward Traffic Channels in the same Forward CDMA Channel. All pilots in a pilot set have the same CDMA Frequency Assignment.

The mobile station searches for pilots on the current CDMA Frequency Assignment to detect the presence of CDMA Channels and to measure their strengths. When the mobile station detects a pilot of sufficient strength that is not associated with any of the Forward Traffic Channels assigned to it, it sends a *Pilot Strength Measurement Message* or an *Extended Pilot Strength Measurement Message* to the base station. The base station can then assign a Forward Traffic Channel associated with that pilot to the mobile station and direct the mobile station to perform a handoff.

The pilot search parameters and the rules for *Pilot Strength Measurement Message* or *Extended Pilot Strength Measurement Message* transmission are expressed in terms of the following sets of pilots:

• **Active Set:** The pilots associated with the Forward Traffic Channels assigned to the mobile station.

• **Candidate Set:** The pilots that are not currently in the Active Set but have been received by the mobile station with sufficient strength to indicate that the associated Forward Traffic Channels could be successfully demodulated.

• **Neighbor Set:** The pilots that are not currently in the Active Set or the Candidate Set and are likely candidates for handoff.
• **Remaining Set:** The set of all possible pilots in the current system on the current CDMA Frequency Assignment, excluding the pilots in the Neighbor Set, the Candidate Set, and the Active Set. This set of possible pilots consists of pilots whose pilot PN sequence offset indices are integer multiples of PILOT_INCs.

The base station may direct the mobile station to search for pilots on a different CDMA frequency to detect the presence of CDMA Channels and to measure their strengths. The mobile station reports the results of the search to the base station using the *Candidate Frequency Search Report Message*. Depending upon the pilot strength measurements reported in the *Candidate Frequency Search Report Message*, the base station can direct the mobile station to perform an inter-frequency hard handoff.

The pilot search parameters are expressed in terms of the following sets of pilots on the CDMA Candidate Frequency:

• **Candidate Frequency Neighbor Set:** A list of pilots on the CDMA Candidate Frequency.

• **Candidate Frequency Search Set:** A subset of the Candidate Frequency Neighbor Set that the base station may direct the mobile station to search.

### 2.6.6.2 Requirements

#### 2.6.6.2.1 Pilot Search

For the pilot sets defined in 2.6.6.1.2, the base station sets the search window (range of PN offsets) in which the mobile station is to search for usable multipath components (i.e., multipath components that the mobile station can use for demodulation of the associated Forward Traffic Channel) of the pilots in the set.

Search performance criteria are defined in [11].

This search shall be governed by the following:

• **Active Set and Candidate Set:** The search procedures for pilots in the Active Set and Candidate Set shall be identical. The search window size\(^\text{16}\) for each pilot in the Active Set and Candidate Set shall be the number of PN chips specified in Table 2.6.6.2.1-1 corresponding to SRCH_WIN_As. The mobile station should center the search window for each pilot of the Active Set and Candidate Set around the earliest arriving usable multipath component of the pilot. If the mobile station receives a value greater than or equal to 13 for SRCH_WIN_Ar, it may store and use the value 13 in SRCH_WIN_As.

\(^{16}\)The table defines the entire search range. For example, SRCH_WIN_As = 6 corresponds to a 28 PN chip search window or ±14 PN chips around the search window center.
### Table 2.6.6.2.1-1. Searcher Window Sizes

<table>
<thead>
<tr>
<th>SRCH_WIN_A</th>
<th>SRCH_WIN_N</th>
<th>SRCH_WIN_NGHBR</th>
<th>CF_SRCH_WIN_N</th>
<th>window_size (PN chips)</th>
<th>SRCH_WIN_A</th>
<th>SRCH_WIN_N</th>
<th>SRCH_WIN_NGHBR</th>
<th>CF_SRCH_WIN_N</th>
<th>window_size (PN chips)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>4</td>
<td>8</td>
<td></td>
<td>60</td>
<td>1</td>
<td>6</td>
<td>9</td>
<td></td>
<td>80</td>
</tr>
<tr>
<td>1</td>
<td>6</td>
<td>9</td>
<td></td>
<td></td>
<td>2</td>
<td>8</td>
<td>10</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>11</td>
<td></td>
<td></td>
<td>3</td>
<td>14</td>
<td>12</td>
<td></td>
<td>130</td>
</tr>
<tr>
<td>3</td>
<td>14</td>
<td>13</td>
<td></td>
<td></td>
<td>4</td>
<td>20</td>
<td>14</td>
<td></td>
<td>160</td>
</tr>
<tr>
<td>4</td>
<td>28</td>
<td>15</td>
<td></td>
<td></td>
<td>5</td>
<td>40</td>
<td>15</td>
<td></td>
<td>226</td>
</tr>
<tr>
<td>5</td>
<td>40</td>
<td>15</td>
<td></td>
<td></td>
<td>6</td>
<td>320</td>
<td>15</td>
<td></td>
<td>320</td>
</tr>
<tr>
<td>6</td>
<td>452</td>
<td></td>
<td></td>
<td></td>
<td>7</td>
<td>452</td>
<td></td>
<td></td>
<td>452</td>
</tr>
</tbody>
</table>

### Table 2.6.6.2.1-2. Search Window Offset

<table>
<thead>
<tr>
<th>SRCH_OFFSET_NGHBR</th>
<th>Offset (PN chips)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>window_size / 2</td>
</tr>
<tr>
<td>2</td>
<td>window_size</td>
</tr>
<tr>
<td>3</td>
<td>3 × window_size / 2</td>
</tr>
<tr>
<td>4</td>
<td>- window_size / 2</td>
</tr>
<tr>
<td>5</td>
<td>- window_size</td>
</tr>
<tr>
<td>6</td>
<td>-3 × window_size / 2</td>
</tr>
<tr>
<td>7</td>
<td>Reserved</td>
</tr>
</tbody>
</table>
- **Neighbor Set**: If SRCH_WIN_NGHBR_INCLs is equal to ‘1’, the search window size for each pilot in the Neighbor Set shall be the number of PN chips specified in Table 2.6.6.2.1-1, corresponding to SRCH_WIN_NGHBRs associated with the pilot being searched. If SRCH_WIN_NGHBR_INCLs is equal to ‘0’, the search window size for each pilot in the Neighbor Set shall be the number of PN chips specified in Table 2.6.6.2.1-1 corresponding to SRCH_WIN_Ns. If SRCH_OFFSET_INCLs is equal to ‘1’, the search window offset for each pilot in the Neighbor Set shall be the number of PN chips specified in Table 2.6.6.2.1-2, corresponding to SRCH_OFFSET_NGHBRs associated with the pilot being searched. If SRCH_OFFSET_INCLs is equal to ‘0’, the search window offset for each pilot in the Neighbor Set shall be zero PN chip. The mobile station should center the search window for each pilot in the Neighbor Set around the pilot’s PN sequence offset plus the corresponding search window offset, using timing defined by the mobile station’s time reference (see [2]). If SEARCH_PRIORITY_INCLs is equal to ‘1’, the mobile station should use SEARCH_PRIORITYs for the corresponding pilot to schedule its neighbor search. If the mobile station supports hopping pilot beacons and the TIMING_INCL field of the NGHBR_REC for the corresponding pilot is equal to ‘1’, then the mobile station shall use the information included in the NGHBR_TX_OFFSET, NGHBR_TX_DURATION, and NGHBR_TX_PERIOD fields of the NGHBR_REC for the corresponding pilot to schedule the time for searching the neighbor. If ADD_PILOT_REC_INCL field of the NGHBR_REC for the corresponding pilot is equal to ‘1’, the mobile station shall use the information included in the NGHBR_PILOT_REC field for searching the neighbor.

- **Remaining Set**: The search window size for each pilot in the Remaining Set shall be the number of PN chips specified in Table 2.6.6.2.1-1 corresponding to SRCH_WIN_Rs. The mobile station should center the search window for each pilot in the Remaining Set around the pilot’s PN sequence offset, using timing defined by the mobile station’s time reference (see [2]). The mobile station should only search for Remaining Set pilots whose pilot PN sequence offset indices are equal to integer multiples of PILOT_INCs.
• **Candidate Frequency Search Set:** If \( \text{CF\_SRCH\_WIN\_NGHBR\_INCLs} \) is equal to ‘1’, the search window size for each pilot in the Candidate Frequency Search Set shall be the number of PN chips specified in Table 2.6.6.2.1-1, corresponding to \( \text{SRCH\_WIN\_NGHBRs} \) associated with the pilot being searched. If \( \text{CF\_SRCH\_WIN\_NGHBR\_INCLs} \) is equal to ‘0’, the search window size for each pilot in the Candidate Frequency Search Set shall be the number of PN chips specified in Table 2.6.6.2.1-1 corresponding to \( \text{CF\_SRCH\_WIN\_Ns} \). If \( \text{CF\_SRCH\_OFFSET\_INCLs} \) is equal to ‘1’, the search window offset for each pilot in the Candidate Frequency Search Set shall be the number of PN chips specified in Table 2.6.6.2.1-2, corresponding to \( \text{SRCH\_OFFSET\_NGHBRs} \) associated with the pilot being searched. If \( \text{CF\_SRCH\_OFFSET\_INCLs} \) is equal to ‘0’, the search window offset for each pilot in the Candidate Frequency Search Set shall be zero PN chips. The mobile station should center the search window for each pilot in the Candidate Frequency Search Set around the pilot’s PN sequence offset plus the corresponding search window offset using timing defined by the mobile station’s time reference (see [2]). If \( \text{CF\_SEARCH\_PRIORITY\_INCLs} \) is equal to ‘1’, the mobile station should use \( \text{SEARCH\_PRIORITYs} \) associated with each pilot to schedule a search of its Candidate Frequency Search Set.

### 2.6.6.2.2 Pilot Strength Measurements

The mobile station assists the base station in the handoff process and in the Reverse Supplemental Code Channel operation and in the Reverse Supplemental Channel operation by measuring and reporting the strengths of received pilots.

For an SR1 pilot, the mobile station should use the searcher element (see [2]) to compute the strength of a pilot \( (PS) \) by adding the ratios of received pilot energy per chip, \( E_c \), to total received spectral density (noise and signals), \( I_o \), of at most \( k \) usable multipath components, where \( k \) is the number of demodulating elements (see [2]) supported by the mobile station.

For an SR3 pilot, the pilot strength is given by

\[
\frac{1}{3} \times \left( \frac{E_c}{I_o} \right)_{\text{Primary}} + \frac{E_c}{I_o} + \frac{E_c}{I_o} \]

where:

- \( \frac{E_c}{I_o} \) is the pilot Ec/Io measured on the Primary carrier (computed as specified above for SR1 pilots),

- \( \frac{E_c}{I_o} \) is the pilot Ec/Io measured on the pilot on the lower frequency of the two remaining SR3 frequencies (computed as specified above for SR1 pilots), and \( \Delta \) is
the pilot power level on the lower frequency of the two remaining SR3 frequencies relative to that of the primary SR3 pilot, i.e. \( \Delta_1 = 10^{(\text{SR3\_PILOT\_POWER1}/10)} \).

\( \left( \frac{E_c}{I_o} \right)_2 \) is the pilot Ec/Io measured on the pilot on the higher frequency of the two remaining SR3 frequencies (computed as specified above for SR1 pilots), and \( \Delta_2 \) is the pilot power level on the higher frequency of the two remaining SR3 frequencies relative to that of the primary SR3 pilot, i.e. \( \Delta_2 = 10^{(\text{SR3\_PILOT\_POWER2}/10)} \).

2.6.6.2.3 Handoff Drop Timer

The mobile station shall maintain a handoff drop timer for each pilot in the Active Set and Candidate Set.

If \( \text{P\_REV\_IN\_USE}_S \) is less than or equal to three or \( \text{SOFT\_SLOPE}_S \) is equal to ‘000000’, the mobile station shall perform the following:

- For the Candidate Set, the mobile station shall start the timer whenever the strength of the corresponding pilot becomes less than \( T_{\text{DROP}}_S \). The mobile station shall reset and disable the timer if the strength of the corresponding pilot exceeds \( T_{\text{DROP}}_S \).

- For the Active Set, the mobile station shall start the timer whenever the strength of the corresponding pilot becomes less than \( T_{\text{DROP}}_S \). The mobile station shall start the timer even if the timer has previously expired. The mobile station shall reset and disable the timer if the strength of the corresponding pilot exceeds \( T_{\text{DROP}}_S \).

If \( \text{P\_REV\_IN\_USE}_S \) is greater than three and \( \text{SOFT\_SLOPE}_S \) is not equal to ‘000000’, the mobile station shall perform the following:

- For the Candidate Set, the mobile station shall start the timer whenever the strength of the corresponding pilot becomes less than \( T_{\text{DROP}}_S \). The mobile station shall reset and disable the timer if the strength of the corresponding pilot exceeds \( T_{\text{DROP}}_S \).

- For the Active Set, the mobile station shall sort the \( N_A \) pilots in the Active Set in order of increasing strengths, i.e., \( P_S_1 < P_S_2 < P_S_3 < \ldots < P_S_{N_A} \) where the strength \( P_S \) is as defined in 2.6.6.2.2. The mobile station shall start the timer whenever the strength \( P_S_i \) satisfies the following inequality:

\[
10 \times \log_{10} P_S_i < \max \left( \frac{\text{SOFT\_SLOPE}_S}{8} \times 10 \times \log_{10} \sum_{j=1}^{N_A} P_S_j + \frac{\text{DROP\_INTERCEPT}}{2}, - \frac{T_{\text{DROP}}_S}{2} \right)
\]

For the Active Set, the mobile station shall start the timer even if the timer has previously expired. The mobile station shall reset and disable the timer whenever the above inequality is not satisfied for the corresponding pilot.
If $T_{TDROP_s}$ equals zero, the mobile station shall consider the timer expired within 100 ms of enabling it. Otherwise, the mobile station shall consider the timer expired within 10% of the timer expiration value shown in Table 2.6.6.2.3-1 corresponding to $T_{TDROP_s}$. If $T_{TDROP_s}$ changes, the mobile station shall begin using the new value for all handoff drop timers within 100 ms.

Table 2.6.6.2.3-1. Handoff Drop Timer Expiration Values

<table>
<thead>
<tr>
<th>$T_{TDROP}$</th>
<th>Timer Expiration (seconds)</th>
<th>$T_{TDROP}$</th>
<th>Timer Expiration (seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0.1</td>
<td>8</td>
<td>27</td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>9</td>
<td>39</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>10</td>
<td>55</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>11</td>
<td>79</td>
</tr>
<tr>
<td>4</td>
<td>6</td>
<td>12</td>
<td>112</td>
</tr>
<tr>
<td>5</td>
<td>9</td>
<td>13</td>
<td>159</td>
</tr>
<tr>
<td>6</td>
<td>13</td>
<td>14</td>
<td>225</td>
</tr>
<tr>
<td>7</td>
<td>19</td>
<td>15</td>
<td>319</td>
</tr>
</tbody>
</table>

The mobile station shall indicate the status of the handoff drop timer for all pilots in the Active Set and Candidate Set when transmitting a *Pilot Strength Measurement Message* or an *Extended Pilot Strength Measurement Message*.

### 2.6.6.2.4 Pilot PN Phase

The mobile station shall measure the arrival time, PILOT_ARRIVAL, for each pilot reported to the base station. The pilot arrival time shall be the time of occurrence, as measured at the mobile station antenna connector, of the earliest arriving usable multipath component of the pilot (for SR3 pilots, it is based on the earliest arriving usable multipath component from all three carriers). The arrival time shall be measured relative to the mobile station’s time reference (see [2]) in units of PN chips. The mobile station shall compute the reported pilot PN phase, PILOT_PN_PHASE, as

$$PILOT\_PN\_PHASE = (PILOT\_ARRIVAL + (64 \times PILOT\_PN)) \mod 2^{15},$$

where PILOT_PN is the PN sequence offset index of the pilot (see [2]).

### 2.6.6.2.5 Handoff Messages

#### 2.6.6.2.5.1 Processing of Forward Traffic Channel Handoff Messages

If the mobile station receives any of the following messages, then the mobile station shall process the message as described.
1. **Pilot Measurement Request Order**: The mobile station shall send, within $T_{56m}$ seconds, a *Pilot Strength Measurement Message* if $P_{REV\_IN\_USE}$ is less than seven or a *Extended Pilot Strength Measurement Message* if $P_{REV\_IN\_USE}$ is equal to or greater than seven.

2. **Analog Handoff Direction Message**: The mobile station shall process the message as specified in 2.6.6.2.9.

3. **Neighbor List Update Message**: The mobile station shall process the message as specified in 2.6.6.2.6.3 and set $SEARCH\_PRIORITY\_INCLs$, $SRCH\_WIN\_NGHBR\_INCLs$, and $SRCH\_OFFSET\_INCLs$ to ‘0’, and set $TIMING\_INCLs$ for each of the neighboring base stations in the *Neighbor List Update Message* to ‘0’.

4. **Extended Handoff Direction Message**: The mobile station shall process the message as follows:

   The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to ‘00000110’ (capability not supported), if the mobile station does not support the band class specified in the *Extended Handoff Direction Message*.

   If the mobile station does not send a *Mobile Station Reject Order* in response to the *Extended Handoff Direction Message*, the mobile station shall perform the following at the action time of the message:

   - The mobile station shall send a *Handoff Completion Message* or an *Extended Handoff Completion Message* as specified in 2.6.6.2.5.2.

   - Update the Active Set, Candidate Set, and Neighbor Set in accordance with the *Extended Handoff Direction Message* processing (see 2.6.6.2.6.1, 2.6.6.2.6.2, and 2.6.6.2.6.3).

   - The mobile station shall delete all pilots that are not listed in the Active Set of the Fundamental Channel from the Active Set of the Supplemental Channel for the Forward Supplemental Channel Assignment (if any). If these deleted pilots include all pilots in the Active Set of the Supplemental Channel, the mobile station shall cancel the Forward Supplemental Channel Assignment.

   - Discontinue use of all Forward Traffic Channels associated with pilots not listed in the *Extended Handoff Direction Message*.

   - The mobile station shall update the Code Channel List, $CODE\_CHAN\_LISTs$, as specified in 2.6.8.

   - If the mobile station is currently processing Forward Supplemental Code Channels, then it shall continue processing the Forward Supplemental Code Channels using the updated Code Channel List, $CODE\_CHAN\_LISTs$.

   - The mobile station shall set $IGNORE\_SCAMs$ and $IGNORE\_ESCAMs$ to ‘0’.

   - If $HARD\_INCLUDED$ is equal to ‘1’, perform the following actions:

     - If $FRAME\_OFFSET_r$ is not equal to $FRAME\_OFFSETs$, change the frame offset on all of the code channels of the Forward Traffic Channel and of the Reverse Traffic Channel.
– If RESET_L2_r is equal to ‘1’, Layer 3 shall send a L2-Supervision.Request primitive to Layer 2 to reset the acknowledgment procedures as specified in 2.2.1.1 and 2.2.2.1 of [4]. The acknowledgment procedures shall be reset immediately after the action time of the Extended Handoff Direction Message.

– If RESET_FPC_r is equal to ‘1’, initialize the Forward Traffic Channel power control counters as specified in 2.6.4.1.1.1.

– If SERV_NEG_TYPE_r is equal to ‘1’, set SERV_NEG_s to enabled; otherwise set SERV_NEG_s to disabled.

– Use the long code mask specified by the PRIVATE_LCM_r (see 2.3.12.3) and indicate to the user the voice privacy mode status.

– Process the ENCRYPT_MODE field as specified in 2.3.12.2.

• Store the following parameters from the current configuration:

  – Serving Frequency Assignment (SF_CDMACH_s = CDMACH_s)
  – Serving Frequency band class (SF_BAND_CLASS_s = BAND_CLASS_s)
  – Serving Frequency frame offset (SF_FRAME_OFFSET_s = FRAME_OFFSET_s)

• If HARD_INCLUDED is not equal to ‘1’, set NUM_PREAMBLE_s = ‘000’.

• Store the following parameters from the Extended Handoff Direction Message:

  – Extended Handoff Direction Message sequence number (HDM_SEQ_s = HDM_SEQ_r)

– If SEARCH_INCLUDED is equal to ‘1’, then store the following:

  + Search window size for the Active Set and Candidate Set (SRCH_WIN_A_s = SRCH_WIN_A_r)
  + Pilot detection threshold (T_ADD_s = T_ADD_r)
  + Pilot drop threshold (T_DROP_s = T_DROP_r)
  + Active Set versus Candidate Set comparison threshold (T_COMP_s = T_COMP_r)
  + Drop timer value (T_TDROP_s = T_TDROP_r)

– If HARD_INCLUDED is equal to ‘1’, then store the following:

  + Frame offset (FRAME_OFFSET_s = FRAME_OFFSET_r)
  + Nominal power setting of the target cell (NOM_PWR_s = NOM_PWR_r)
  + Hard handoff traffic channel preamble count required before transmitting Handoff Completion Message or Extended Handoff Completion Message (NUM_PREAMBLE_s = NUM_PREAMBLE_r)

  + CDMA band class (CDMABAND_s = BAND_CLASS_r)
  + Frequency assignment (CDMACH_s = CDMA_FREQ_r)
+ Nominal power setting of the target cell (If CDMABANDs = '00000' or
  CDMABANDs = '00011', then NOM_PWR_EXTs = '0'; otherwise,
  NOM_PWR_EXTs = NOM_PWR_EXTERN)

- One occurrence of PILOT_PN and PWR_COMB_IND for each included
  member of the Active Set.

- If ADD_LENGTH is not equal to '000', then store the following:
  + Protocol revision level (P_REVs = P_REVR)
  + Protocol revision level currently in use (P_REV_IN_USEs = the minimum
    value of P_REVs and MOB_P_REVP of the current band class)

- Disable return on failure (RETURN_IF_HANDOFF_FAILs = '0')

- Perform a soft or hard handoff depending on the following conditions:

  - If any of the following conditions is true, the mobile station shall perform a
    hard handoff:
    + HARD_INCLUDED is set to '1' and either BAND_CLASSr is not equal to
      SF_CDMABANDs, CDMA_FREQr is not equal to SF_CDMACHs, or
      FRAME_OFFSETr is not equal to SF_FRAME_OFFSETs, or
    + The set of pilots specified by the message is disjoint from the Active Set
      prior to the action time of the message.

  - If the mobile station performs a hard handoff, it shall do the following:
    + If a Periodic Serving Frequency Pilot Report Procedure is in progress, abort
      the procedure (see 2.6.6.2.12).
    + If a Candidate Frequency periodic search is in progress, abort the periodic
      search (see 2.6.6.2.8.3.4 and 2.6.6.2.10.4) and set PERIODIC_SEARCHs to
      '0'.

      - The mobile station shall cancel the Forward Supplemental Channel
        assignment or the Reverse Supplemental Channel assignment (if any).
    + Perform the actions specified in 2.6.6.2.8.1. If the message specifies more
      than one pilot, the mobile station shall also perform the actions specified in
      2.6.6.2.7.1 and 2.6.6.2.7.2.

  - Otherwise, the mobile station shall perform a soft handoff as specified in
    2.6.6.2.7.

5. Candidate Frequency Search Request Message: The mobile station shall process the
message as follows:

The mobile station shall send a Mobile Station Reject Order with the ORDQ field set
to '00000110' (capability not supported), if the following condition is true:

- SEARCH_MODEr is not equal to '0000', and the mobile station does not support
  the capability specified by SEARCH_MODEr.
If none of the above conditions is true, the mobile station shall perform the actions described in the remainder of this section to process the Candidate Frequency Search Request Message.

If SEARCH_MODEᵣ is equal to ‘0000’, the mobile station shall process the Candidate Frequency Search Request Message as follows:

- The mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00001100’ (invalid Frequency Assignment), if the Frequency Assignment specified in the message is the same as the Serving Frequency (BAND_CLASSᵣ is equal to CDMABANDᵣ and CDMA_FREQᵣ is equal to CDMA_FREQᵣ).

- The mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00001010’ (search set not specified), if SEARCH_TYPEᵣ is equal to ‘01’ or ‘11’, and one of the following conditions is true:
  - PILOT_UPDATEᵣ is equal to ‘0’ and the Candidate Frequency Search Set before the action time of the Candidate Frequency Search Request Message is empty, or
  - PILOT_UPDATEᵣ is equal to ‘1’ and the message specifies an empty search set.

- The mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00001101’ (search period too short), if SEARCH_TYPEᵣ is equal to ‘11’ and search_period is less than \( \max (fwd\_time, \text{rev}\_time) + T_{71m} \) seconds, where \( search\_period, fwd\_time \) and \( \text{rev}\_time \) are defined below.

(In the following, if PILOT_UPDATEᵣ is equal to ‘1’, rec_search_set is the set of pilots specified in the Candidate Frequency Search Request Message with the corresponding SEARCH_SET field set to ‘1’; otherwise, rec_search_set is the Candidate Frequency Search Set before the action time of the Candidate Frequency Search Request Message.)

\[
\begin{align*}
\text{search\_period} &= \text{time period corresponding to SEARCH\_PERIODᵣ shown in Table 2.6.6.2.8.3.2-1} \\
\text{fwd\_time} &= \text{the mobile station’s estimate of the total length of time, in seconds, for which the mobile station will need to suspend its current Forward Traffic Channel processing in order to tune to the Candidate Frequency, to search rec_search_set, and to re-tune to the Serving Frequency; if the mobile station searches rec_search_set in multiple visits, fwd\_time is the total time for all visits to the Candidate Frequency in a search period (see 2.6.6.2.8.3.2)}
\end{align*}
\]
\[ \text{rev\_time} = \] the mobile station’s estimate of the total length of time, in seconds, for which the mobile station will need to suspend its current Reverse Traffic Channel processing in order to tune to the Candidate Frequency, to search \( \text{rec\_search\_set} \), and to re-tune to the Serving Frequency; if the mobile station searches \( \text{rec\_search\_set} \) in multiple visits, \( \text{rev\_time} \) is the total time for all visits to the Candidate Frequency in a search period.

- If the mobile station does not send a *Mobile Station Reject Order* in response to the *Candidate Frequency Search Request Message*, it shall perform the following:
  - The mobile station shall send a *Candidate Frequency Search Response Message* in assured mode, within \( T_{56m} \) seconds of receiving the *Candidate Frequency Search Request Message*. The mobile station shall set the fields of the *Candidate Frequency Search Response Message* as follows:
    + The mobile station shall set \( \text{TOTAL\_OFF\_TIME\_FWD} \) and \( \text{TOTAL\_OFF\_TIME\_REV} \) to its estimate of the total number of frames or power control groups for which it will need to suspend its current Forward Traffic Channel processing and Reverse Traffic Channel processing, respectively, in order to tune to the Candidate Frequency, to search \( \text{rec\_search\_set} \), and to re-tune to the Serving Frequency (see 2.6.6.2.8.3.2). If the mobile station searches \( \text{rec\_search\_set} \) in multiple visits to the Candidate Frequency, the mobile station shall report the total number of frames or power control groups in all visits in a search period for which it will need to suspend its current Forward Traffic Channel and the Reverse Traffic Channel processing.
    + The mobile station shall set \( \text{MAX\_OFF\_TIME\_FWD} \) and \( \text{MAX\_OFF\_TIME\_REV} \) to its estimate of the maximum number of frames or power control groups for which it will need to suspend its current Forward Traffic Channel processing and Reverse Traffic Channel processing, respectively, during any single visit to tune to the Candidate Frequency, to search a subset of \( \text{rec\_search\_set} \), and to re-tune to the Serving Frequency.\(^\text{17}\)

\(^{17}\) If the mobile station searches the entire Candidate Frequency Search Set in a single visit to the Candidate Frequency, \( \text{TOTAL\_OFF\_TIME\_FWD} \) will be equal to \( \text{MAX\_OFF\_TIME\_FWD} \), and \( \text{TOTAL\_OFF\_TIME\_REV} \) will be equal to \( \text{MAX\_OFF\_TIME\_REV} \).
The mobile station shall set PCG_OFF_TIMES to ‘1’ if TOTAL_OFF_TIME_FWD, MAX_OFF_TIME_FWD, TOTAL_OFF_TIME_REV_FWD and MAX_OFF_TIME_REV_FWD are expressed in units of power control groups. If these time estimates are expressed in units of frames, the mobile station shall set PCG_OFF_TIMES to ‘0’. The mobile station shall not use power control groups as the unit of delay duration if P_REV_IN_USEs is less than six.

If ALIGN_TIMINGr is equal to ‘1’, the mobile station shall set ALIGN_TIMING_USED to ‘1’ to indicate if it will align its search as requested by the base station; otherwise, the mobile station shall set ALIGN_TIMING_USED to ‘0’. If ALIGN_TIMING_USED is set to ‘1’, the mobile station shall set MAX_NUM_VISITS to the maximum number of visits per search period minus one. If MAX_NUM_VISITS is not equal to 0, the mobile station shall set INTER_VISIT_TIME, in units of frames or power control groups, to its estimate of the time between subsequent-the beginning of consecutive visits to the Candidate Frequency within the same search period.

When the message takes effect, the mobile station shall perform the following actions:

- If any periodic search is in progress, the mobile station shall abort it (see 2.6.6.2.8.3.4 and 2.6.6.2.10.4).
- Store the following parameters from the Candidate Frequency Search Request Message:
  - Candidate Frequency Search Request Message sequence number (CFSRM_SEQs = CFSRM_SEQr)
  - Periodic search flag: If SEARCH_TYPEr is equal to ‘11’, the mobile station shall set PERIODIC_SEARCHs to ‘1’; otherwise, the mobile station shall set PERIODIC_SEARCHs to ‘0’.
  - Search period on the Candidate Frequency (SEARCH_PERIODs = SEARCH_PERIODr)
  - Candidate Frequency search mode (SEARCH_MODEs = SEARCH_MODEr)
  - Band class for the Candidate Frequency (CF_CDMABANDs = BAND_CLASSr)
  - CDMA Channel number for the CDMA Candidate Frequency (CF_CDMACHs = CDMA_FREQr)
  - Serving Frequency total pilot Ec threshold (SF_TOTAL_EC_THRESHs = SF_TOTAL_EC_THRESHr)
  - Serving Frequency total pilot Ec/Io threshold (SF_TOTAL_EC_IO_THRESHs = SF_TOTAL_EC_IO_THRESHr)
Received power difference threshold
(DIFF_RX_PWR_THRESH_S = DIFF_RX_PWR_THRESH_R)

Candidate Frequency Total pilot E_c/I_0 threshold
(MIN_TOTAL_PILOT_EC_IO_S = MIN_TOTAL_PILOT_EC_IO_R)

Pilot detection threshold on the CDMA Candidate Frequency
(CF_T_ADD_S = CF_T_ADD_R)

Maximum time on the CDMA Target Frequency that the mobile
station may wait to receive a period of (N_{11m} × 20) ms with sufficient
signal quality (e.g. good frames) on the physical channel
(corresponding to FPC_PRI_CHAN_S)
(TF_WAIT_TIME_S = TF_WAIT_TIME_R)

Pilot PN sequence offset increment on the CDMA Candidate
Frequency (CF_PILOT_INC_S = CF_PILOT_INC_R)

Search window for pilots in the Neighbor Set on the CDMA Candidate
Frequency (CF_SRCH_WIN_N_S = CF_SRCH_WIN_N_R)

Search window for pilots in the Remaining Set on the CDMA
Candidate Frequency (CF_SRCH_WIN_R_S = CF_SRCH_WIN_R_R)

If PILOT_UPDATE is equal to ‘1’, the mobile station shall perform the
following:

◊ Set CF_SEARCH_PRIORITY_INCL_S and
   CF_SRCH_WIN_NGHBR_INCL_S to the values corresponding to
   CF_NGHBR_SRCH_MODE shown in Table 2.6.6.2.5.1-1,

◊ Set CF_SRCH_OFFSET_INCL_S to CF_SRCH_OFFSET_INCL_R.

If PILOT_UPDATE is equal to ‘1’, the mobile station shall replace the
Candidate Frequency Neighbor Set with all neighbor pilots specified
in the Candidate Frequency Search Request Message. Specifically, the
mobile station shall store the following:

◊ Set the NGHBR_PN field of the Candidate Frequency Neighbor Set
   Pilot Record to NGHBR_PN_R.

◊ Set the ADD_PILOT_REC_INCL field of the Candidate Frequency
   Neighbor Set Pilot Record to ADD_PILOT_REC_INCL_R. If
   ADD_PILOT_REC_INCL_R is equal to ‘1’, the mobile station shall
   store the following:
   – Set the NGHBR_PILOT_REC_TYPE field of the Candidate
     Frequency Neighbor Set Pilot Record to
     NGHBR_PILOT_REC_TYPE_R.
– If \( \text{NGHBR\_PILOT\_REC\_TYPE}_r \) equals ‘000’, the mobile station shall set the \( \text{TD\_POWER\_LEVEL} \) and \( \text{TD\_MODE} \) fields of the Candidate Frequency Neighbor Set Pilot Record to \( \text{TD\_POWER\_LEVEL}_r \) and set the \( \text{TD\_MODE} \) field of \( \text{NGHBR\_PILOT\_REC} \) to \( \text{TD\_MODE}_r \), respectively.

– If \( \text{NGHBR\_PILOT\_REC\_TYPE}_r \) is equal to ‘001’, the mobile station shall:

  + Set the \( \text{AUX\_PILOT\_QOF} \) field of the Candidate Frequency Neighbor Set Pilot Record to \( \text{QOF}_r \).

  + Set the \( \text{AUX\_PILOT\_WALSH\_CODE} \) field of the Candidate Frequency Neighbor Set Pilot Record to \( \text{AUX\_WALSH}_r \) with the Walsh Code length specified by \( \text{WALSH\_LENGTH}_r \).

– If \( \text{NGHBR\_PILOT\_REC\_TYPE}_r \) is equal to ‘010’, the mobile station shall:

  + Set the \( \text{AUX\_PILOT\_TD\_QOF} \) field of the Candidate Frequency Neighbor Set Pilot Record to \( \text{QOF}_r \).

  + Set the \( \text{AUX\_PILOT\_WALSH\_CODE} \) field of the Candidate Frequency Neighbor Set Pilot Record to \( \text{AUX\_WALSH}_r \) with the Walsh Code length specified by \( \text{WALSH\_LENGTH}_r \).

  + Set the \( \text{TD\_POWER\_LEVEL} \) field of the Candidate Frequency Neighbor Set Pilot Record to \( \text{TD\_POWER\_LEVEL}_r \).

  + Set the \( \text{TD\_MODE} \) field of the Candidate Frequency Neighbor Set Pilot Record to \( \text{TD\_MODE}_r \).

– If \( \text{NGHBR\_PILOT\_REC\_TYPE}_r \) is equal to ‘011’, the mobile station shall:

  + Set the \( \text{SR3\_PRIMARY\_PILOT} \) field of Candidate Frequency Neighbor Set Pilot Record to \( \text{SR3\_PRIMARY\_PILOT}_r \).

  + Set the \( \text{SR3\_PILOT\_POWER1} \) field of Candidate Frequency Neighbor Set Pilot Record to \( \text{SR3\_PILOT\_POWER1}_r \).

  + Set the \( \text{SR3\_PILOT\_POWER2} \) field of Candidate Frequency Neighbor Set Pilot Record to \( \text{SR3\_PILOT\_POWER2}_r \).

– If \( \text{NGHBR\_PILOT\_REC\_TYPE}_r \) is equal to ‘100’, the mobile station shall:

  + Set the \( \text{SR3\_PRIMARY\_PILOT} \) field of Candidate Frequency Neighbor Set Pilot Record to \( \text{SR3\_PRIMARY\_PILOT}_r \).

  + Set the \( \text{SR3\_PILOT\_POWER1} \) field of Candidate Frequency Neighbor Set Pilot Record to \( \text{SR3\_PILOT\_POWER1}_r \).
+ Set the SR3_PILOT_POWER2 field of Candidate Frequency Neighbor Set Pilot Record to SR3_PILOT_POWER2_r.

+ Set the AUX_PILOT_QOF field of Candidate Frequency Neighbor Set Pilot Record to QOF_r.

+ Set the AUX_PILOT_WALSH_CODE field of Candidate Frequency Neighbor Set Pilot Record to AUX_PILOT_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r.

+ If ADD_INFO_INCL1_r is equal to '1', set the
  AUX_PILOT_QOF1 field of Candidate Frequency Neighbor Set Pilot Record to QOF1_r and set the
  AUX_PILOT_WALSH_CODE1 field of Candidate Frequency Neighbor Set Pilot Record to AUX_PILOT_WALSH1_r with the Walsh Code length specified by WALSH_LENGTH1_r;
  otherwise, set the AUX_PILOT_QOF1 field of Candidate Frequency Neighbor Set Pilot Record to QOF_r and set the
  AUX_PILOT_WALSH_CODE1 field of Candidate Frequency Neighbor Set Pilot Record to AUX_PILOT_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r.

  o If PILOT_UPDATE is equal to '1' and CF_SEARCH_PRIORITY_INCLs is equal to '1', the mobile station shall store the search priority (SEARCH_PRIORITY_s = SEARCH_PRIORITY_r) associated with each of the neighboring base stations contained in the Candidate Frequency Neighbor Set.

  o If PILOT_UPDATE is equal to '1' and CF_SRCH_WIN_NGHBR_INCLs is equal to '1', the mobile station shall perform the following:

    ◊ Store the neighbor pilot channel search window size (SRCH_WIN_NGHBR_s = SRCH_WIN_NGHBR_r) associated with each of the neighboring base stations contained in the Candidate Frequency Neighbor Set,
If CF_SRCH_OFFSET_INCL equals to ‘1’, store the neighbor pilot channel search window offset (SRCH_OFFSET_NGHBRS = SRCH_OFFSET_NGHBRR) associated with each of the neighboring base stations contained in the Candidate Frequency Neighbor Set.

If PILOT_UPDATE is equal to ‘1’, the mobile station shall replace the Candidate Frequency Search Set with all flagged pilots (those with the corresponding SEARCH_SET field set to ‘1’) specified in the Candidate Frequency Search Request Message.

- Search offset time (If ALIGN_TIMINGR is equal to ‘1’, SEARCH_OFFSETS = SEARCH_OFFSETR; otherwise, SEARCH_OFFSETS = ‘000000’)

- If ALIGN_TIMINGR is equal to ‘1’ and the mobile station will align its search as requested by the base station, the mobile station shall set ALIGN_TIMING_USEDS to ‘1’ and SEARCH_OFFSETS to SEARCH_OFFSETR; otherwise, the mobile station shall set ALIGN_TIMING_USEDS to ‘0’ and SEARCH_OFFSETS to ‘000000’.

- If the mobile station sets the PCG_OFF_TIMES field of the Candidate Frequency Search Response Message to ‘1’, it shall set SEARCH_TIME_RESOLUTIONS to 0.00125; otherwise, it shall set SEARCH_TIME_RESOLUTIONS to 0.02.

- If SEARCH_TYPER is equal to ‘01’, the mobile station shall perform a single search of the Candidate Frequency Search Set, as described in 2.6.6.2.8.3.1. If SEARCH_TYPER is equal to ‘11’, the mobile station shall perform the periodic search procedures, as described in 2.6.6.2.8.3.2.

**Table 2.6.6.2.5.1-1. Search Parameter Settings**

<table>
<thead>
<tr>
<th>NGHBR_SRCH_MODE</th>
<th>SEARCH_PRIORITY_INCL</th>
<th>SRCH_WIN_NGHBRS_INCL</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF_NGHBR_SRCH_MODE</td>
<td>CF_SEARCH_PRIORITY_INCL</td>
<td>CF_SRCH_WIN_NGHBRS_INCL</td>
</tr>
<tr>
<td>00</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>01</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

If SEARCH_MODER is equal to ‘0001’, and if the mobile station supports analog searching, the mobile station shall process the Candidate Frequency Search Request Message as follows:
The mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘0001101’ (search period too short), if SEARCH_TYPEr is equal to ‘11’ and search_period is less than \( \text{max} \left( \text{fwd_time}, \text{rev_time} \right) + T_{71m} \) seconds where search_period, fwd_time and rev_time are defined below.

(In the following, rec_search_set is the set of analog frequencies specified in the Candidate Frequency Search Request Message.)

\[
\text{search_period} = \text{time period corresponding to SEARCH_PERIOD}_r \text{ shown in Table 2.6.6.2.8.3.2-1}
\]

\[
\text{fwd_time} = \text{the mobile station’s estimate of the total length of time, in seconds, for which the mobile station will need to suspend its current Forward Traffic Channel processing in order to tune to each analog frequency in rec_search_set and measure its strength, and to re-tune to the Serving Frequency; if the mobile station searches rec_search_set in multiple visits, fwd_time is the total time for all visits away from the Serving Frequency in a search period (see 2.6.6.2.10.2)}
\]

\[
\text{rev_time} = \text{the mobile station’s estimate of the total length of time, in seconds, for which the mobile station will need to suspend its current Reverse Traffic Channel processing in order to tune to each analog frequency in rec_search_set and measure its strength, and to re-tune to the Serving Frequency; if the mobile station searches rec_search_set in multiple visits, rev_time is the total time for all visits away from the Serving Frequency in a search period}
\]

If the mobile station does not send a Mobile Station Reject Order in response to the Candidate Frequency Search Request Message, it shall perform the following:

- The mobile station shall send a Candidate Frequency Search Response Message in assured mode, within \( T_{56m} \) seconds of receiving the Candidate Frequency Search Request Message. The mobile station shall set the fields of the Candidate Frequency Search Response Message as follows:

  + The mobile station shall set TOTAL_OFF_TIME_FWD and TOTAL_OFF_TIME_REV to its estimate of the total number of frames or power control groups for which it will need to suspend its current Forward Traffic Channel processing and Reverse Traffic Channel processing, respectively, in order to tune to each analog frequency in rec_search_set, to measure its strength, and to re-tune to the Serving Frequency (see 2.6.6.2.8.3.2). If the mobile station searches rec_search_set in multiple visits away from the Serving Frequency, the mobile station shall report the total number of frames or power control groups in all visits in a search period for which it will need to suspend its current Forward Traffic Channel and the Reverse Traffic Channel processing.
+ The mobile station shall set MAX_OFF_TIME_FWD and
  MAX_OFF_TIME_REV to its estimate of the maximum number of frames
  or power control groups for which it will need to suspend its current
  Forward Traffic Channel processing and Reverse Traffic Channel
  processing, respectively, during any single visit away from the Serving
  Frequency, to search a subset of rec_search_set, and to re-tune to the
  Serving Frequency.

+ The mobile station shall set PCG_OFF_TIMES to ‘1’ if
  TOTAL_OFF_TIME_FWD, MAX_OFF_TIME_FWD, TOTAL_OFF_TIME-
  REV_FWD and MAX_OFF_TIME_REV_FWD are expressed in units of power
  control groups. If these time estimates are expressed in units of frames,
  the mobile station shall set PCG_OFF_TIMES to ‘0’. The mobile station
  shall not use power control groups as the unit of delay_duration if
  P_REV_IN_USEs is less than six.

+ If ALIGN_TIMINGr is equal to ‘1’, the mobile station shall set
  ALIGN_TIMING_USED to ‘1’ to indicate if it will align its search as
  requested by the base station; otherwise, the mobile station shall set
  ALIGN_TIMING_USED to ‘0’. If ALIGN_TIMING_USED is set to ‘1’, the
  mobile station shall set MAX_NUM_VISITS to the maximum number of
  visits per search period minus one._and_if MAX_NUM_VISITS is not
  equal to 0, the mobile station shall set INTER_VISIT_TIME, in units of
  frames or power control groups, to its estimate of the time between
  subsequent_the beginning of consecutive visits away from the Serving
  Frequency within the same search period.

- When the message takes effect, the mobile station shall perform the following
  actions:

  + If any periodic search is in progress, the mobile station shall abort it (see
    2.6.6.2.8.3.4 and 2.6.6.2.10.4).

  + Store the following parameters from the Candidate Frequency Search
    Request Message:

    o Candidate Frequency Search Request Message sequence number
      (CFSRM_SEQs = CFSRM_SEQr)

    o Periodic search flag: If SEARCH_TYPEr is equal to ‘11’, the mobile
      station shall set PERIODIC_SEARCHs to ‘1’; otherwise, the mobile
      station shall set PERIODIC_SEARCHs to ‘0’.

    o Search period for the analog frequencies search
      (SEARCH_PERIODs = SEARCH_PERIODr)

    o Candidate Frequency search mode
      (SEARCH_MODEs = SEARCH_MODEr)

    o Band class for the analog frequencies
      (CF_CDMABANDs = BAND_CLASSr)
0 Serving Frequency total pilot E\textsubscript{C} threshold
(SF\_TOTAL\_EC\_THRESHs = SF\_TOTAL\_EC\_THRESHr)

0 Serving Frequency total pilot E\textsubscript{C}/I\textsubscript{0} threshold
(SF\_TOTAL\_EC\_IO\_THRESHs = SF\_TOTAL\_EC\_IO\_THRESHr)

0 Candidate Frequency Analog Search Set: The mobile station shall replace the Candidate Frequency Analog Search Set with the analog frequencies included in the Candidate Frequency Search Request Message.

0 Search offset time (If ALIGN\_TIMINGr is equal to ‘1’, SEARCH\_OFFSETs = SEARCH\_OFFSETr; otherwise, SEARCH\_OFFSETs = ‘000000’)

+ If ALIGN\_TIMINGr is equal to ‘1’ and the mobile station will align its search as requested by the base station, the mobile station shall set ALIGN\_TIMING\_USEDs to ‘1’ and SEARCH\_OFFSETs to SEARCH\_OFFSETr; otherwise, the mobile station shall set ALIGN\_TIMING\_USEDs to ‘0’ and SEARCH\_OFFSETs to ‘000000’.

+ If the mobile station sets the PCG\_OFF\_TIMES field of the Candidate Frequency Search Response Message to ‘1’, it shall set SEARCH\_TIME\_RESOLUTIONs to 0.00125; otherwise, it shall set SEARCH\_TIME\_RESOLUTIONs to 0.02.

+ If SEARCH\_TYPEr is equal to ‘01’, the mobile station shall perform a single search of the Candidate Frequency Analog Search Set as described in 2.6.6.2.10.1. If SEARCH\_TYPEr is equal to ‘11’, the mobile station shall perform the periodic search procedures described in 2.6.6.2.10.2.

6. Candidate Frequency Search Control Message: The mobile station shall process the message as follows:

If SEARCH\_MODEs is equal to ‘0000’:

- The mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00001010’ (search set not specified), if SEARCH\_TYPEr is not equal to ‘00’ and the Candidate Frequency Search Set is empty.

- The mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00001011’ (invalid search request), if SEARCH\_TYPEr is not equal to ‘00’ and the Candidate Frequency is the same as the Serving Frequency (CF\_CDMABANDs is equal to CDMABANDs and CF\_CDMACHs is equal to CDMACHs).

- The mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00001101’ (search period too short), if SEARCH\_TYPEr is equal to ‘11’ and search\_period is less than (max (fwd\_time, rev\_time) + T71m) seconds, where search\_period = time period corresponding to SEARCH\_PERIODr shown in Table 2.6.6.2.8.3.2-1,
\[ \text{fwd\_time} = \text{the mobile station's estimate of the total length of time, in} \]
\[ \text{seconds, for which the mobile station will need to suspend its} \]
\[ \text{current Forward Traffic Channel processing in order to tune to} \]
\[ \text{the Candidate Frequency, to search the Candidate Frequency} \]
\[ \text{Search Set and to re-tune to the Serving Frequency; if the} \]
\[ \text{mobile station searches the Candidate Frequency Search Set in} \]
\[ \text{multiple visits, } \text{fwd\_time} \text{ is the total time for all visits to the} \]
\[ \text{Candidate Frequency in a search period (see 2.6.6.2.8.3.2),} \]
\[ \text{and} \]
\[ \text{rev\_time} = \text{the mobile station's estimate of the total length of time, in} \]
\[ \text{seconds, for which the mobile station will need to suspend its} \]
\[ \text{current Reverse Traffic Channel processing in order to tune to} \]
\[ \text{the Candidate Frequency, to search the Candidate Frequency} \]
\[ \text{Search Set and to re-tune to the Serving Frequency; if the} \]
\[ \text{mobile station searches the Candidate Frequency Search Set in} \]
\[ \text{multiple visits, } \text{rev\_time} \text{ is the total time for all visits to the} \]
\[ \text{Candidate Frequency in a search period.} \]

- If the mobile station does not reject the Candidate Frequency Search Control Message, it shall perform the following actions when the message takes effect:
  - If any periodic search is in progress, the mobile station shall abort it (see 2.6.6.2.8.3.4 and 2.6.6.2.10.4).
  - If ALIGN\_TIMING\(_r\) is equal to ‘1’ and the mobile station will align its search as requested by the base station, the mobile station shall set ALIGN\_TIMING\_USED\(_S\) to ‘1’; otherwise, the mobile station shall set ALIGN\_TIMING\_USED\(_S\) to ‘0’ and SEARCH\_OFFSET\(_S\) to ‘000000’.
  - If SEARCH\_TYPE\(_r\) is equal to ‘00’, the mobile station shall set PERIODIC\_SEARCH\(_S\) to ‘0’.
  - If SEARCH\_TYPE\(_r\) is equal to ‘01’:
    + The mobile station shall set PERIODIC\_SEARCH\(_S\) to ‘0’.
    + The mobile station shall perform a single search of the Candidate Frequency Search Set, as described in 2.6.6.2.8.3.1.
  - If SEARCH\_TYPE\(_r\) is equal to ‘11’:
    + The mobile station shall set PERIODIC\_SEARCH\(_S\) to ‘1’.
    + The mobile station shall perform the periodic search procedures for the Candidate Frequency Search Set, as described in 2.6.6.2.8.3.2.

If SEARCH\_MODE\(_S\) is equal to ‘0001’:

- The mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00001010’ (search set not specified), if SEARCH\_TYPE\(_r\) is not equal to ‘00’ and the Candidate Frequency Analog Search Set is empty.
• The mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘0001101’ (search period too short), if SEARCH_TYPEr is equal to ‘11’ and search_period is less than \( \max(fwd\_time, rev\_time) + T71m \) seconds, where

\[
\text{search\_period} = \text{time period corresponding to SEARCH\_PERIODr shown in Table 2.6.6.2.8.3.2-1},
\]

\[
fwd\_time = \text{the mobile station’s estimate of the total length of time, in seconds, for which the mobile station will need to suspend its current Forward Traffic Channel processing in order to tune to each analog frequency in the Candidate Frequency Analog Search Set and measure its strength, and to re-tune to the Serving Frequency; if the mobile station searches the Candidate Frequency Analog Search Set in multiple visits, } fwd\_time \text{ is the total time for all visits away from the Serving Frequency in a search period (see 2.6.6.2.10.2)},
\]

and

\[
rev\_time = \text{the mobile station’s estimate of the total length of time, in seconds, for which the mobile station will need to suspend its current Reverse Traffic Channel processing in order to tune to each analog frequency in the Candidate Frequency Analog Search Set and measure its strength, and to re-tune to the Serving Frequency; if the mobile station searches the Candidate Frequency Analog Search Set in multiple visits, } rev\_time \text{ is the total time for all visits away from the Serving Frequency in a search period (see 2.6.6.2.10.2)}.
\]

• If the mobile station does not reject the Candidate Frequency Search Control Message, it shall perform the following actions when the message takes effect:

  − If any periodic search is in progress, the mobile station shall abort it (see 2.6.6.2.8.3.4 and 2.6.6.2.10.4).

  − If ALIGN\_TIMINGr is equal to ‘1’ and the mobile station will align its search as requested by the base station, the mobile station shall set ALIGN\_TIMING\_USEDs to ‘1’; otherwise, the mobile station shall set ALIGN\_TIMING\_USEDs to ‘0’ and SEARCH\_OFFSETs to ‘000000’.

  − If SEARCH\_TYPEr is equal to ‘00’, the mobile station shall set PERIODIC\_SEARCHs to ‘0’.

  − If SEARCH\_TYPEr is equal to ‘01’:

    + The mobile station shall set PERIODIC\_SEARCHs to ‘0’.

    + The mobile station shall perform a single search of the Candidate Frequency Analog Search Set, as described in 2.6.6.2.10.1.

  − If SEARCH\_TYPEr is equal to ‘11’:

    + The mobile station shall set PERIODIC\_SEARCHs to ‘1’.
The mobile station shall perform the periodic search procedures for the Candidate Frequency Analog Search Set, as described in 2.6.6.2.10.2.

7. **Extended Neighbor List Update Message:** The mobile station shall update its neighbor set as specified in 2.6.6.2.6.3 and perform the following:

- If NGHBR_SRCH_MODE\(_r\) is equal to ‘01’ or ‘11’, the mobile station shall store the search priority (SEARCH_PRIORITY\(_s\) = SEARCH_PRIORITY\(_r\)) associated with each of the neighboring base stations contained in the *Extended Neighbor List Update Message* which are in the mobile’s neighbor set.

- If NGHBR_SRCH_MODE\(_r\) is equal to ‘01’ or ‘00’, the mobile station shall set the SRCH_OFFSET_INCL\(_s\) field ‘0’.

- If NGHBR_SRCH_MODE\(_r\) is equal to ‘10’ or ‘11’, the mobile station shall perform the following:
  - Store the neighbor pilot channel search window size (SRCH_WIN_NGHBR\(_s\) = SRCH_WIN_NGHBR\(_r\)) associated with each of the neighboring base stations contained in the *Extended Neighbor List Updated Message* which are in the mobile’s neighbor set,
  - If SRCH_OFFSET_INCL\(_r\) equals to ‘1’, set the SRCH_OFFSET_NGHBR field of NGHBR_REC\([i]\) to the \(i\)th occurrence of SRCH_OFFSET_NGHBR\(_r\),
  - Set SRCH_OFFSET_INCL\(_s\) to SRCH_OFFSET_INCL\(_r\).

- The mobile station shall update the default search window size for its Neighbor Set (SRCH_WIN_N\(_s\) = SRCH_WIN_N\(_r\)).

- The mobile station shall set SEARCH_PRIORITY_INCL\(_s\) and SRCH_WIN_NGHBR_INCL\(_s\) to the value specified in Table 2.6.6.2.5.1-1 corresponding to NGHBR_SRCH_MODE\(_r\).

- If USE_TIMING is equal to ‘1’, the mobile station shall store the timing included flag (TIMING_INCL) associated with each of the neighboring base stations contained in the *Extended Neighbor List Update Message* which are in the mobile station neighbor set; otherwise the mobile station shall set the timing included flag (TIMING_INCL) associated with each of the neighboring base stations to ‘0’.

- If USE_TIMING is equal to ‘1’ and TIMING_INCL\(_r\) is equal to ‘1’, the mobile station shall store the neighbor transmit time offset (NGHBR_TX_OFFSET = NGHBR_TX_OFFSET\(_r\)) associated with each of the neighboring base stations contained in the *Extended Neighbor List Update Message* which are in the mobile station neighbor set.

- If USE_TIMING is equal to ‘1’ and the TIMING_INCL is equal to ‘1’, then the mobile station shall perform the following:
- If the GLOBAL_TIMING_INCL field is equal to ‘1’, then the mobile station shall store the neighbor transmit time duration (NGHBR_TX_DURATION = GLOBAL_TX_DURATION_r) and the neighbor transmit time duration (NGHBR_TX_PERIOD = GLOBAL_TX_PERIOD_r) contained in the Extended Neighbor List Update Message.

- If the GLOBAL_TIMING_INCL field is equal to ‘0’, then the mobile station shall store the neighbor transmit time duration (NGHBR_TX_DURATION = NGHBR_TX_DURATION_r) and the neighbor transmit time duration (NGHBR_TX_PERIOD = NGHBR_TX_PERIOD_r) associated with each of the neighboring base stations contained in the Extended Neighbor List Update Message which are in the mobile station neighbor set.

- For each of the neighboring base stations contained in the General Neighbor List Message, the mobile station shall set ADD_PILOT_REC_INCL field of NGHBR_REC[i] to the \( i \)th occurrence of ADD_PILOT_REC_INCL_r. If ADD_PILOT_REC_INCL_r equals ‘1’, for each pilot, the mobile station shall also perform the following:
  - Set the NGHBR_PILOT_REC_TYPE field of NGHBR_PILOT_REC to NGHBR_PILOT_REC_TYPE_r.
  - If NGHBR_PILOT_REC_TYPE_r is equal to ‘000’. The mobile station shall set the TD_POWER_LEVEL field of NGHBR_PILOT_REC to TD_POWER_LEVEL_r and set the TD_MODE field of NGHBR_PILOT_REC to TD_MODE_r.
  - If NGHBR_PILOT_REC_TYPE_r is equal to ‘001’, the mobile station shall:
    + Set the AUX_PILOT_QOF field of NGHBR_PILOT_REC to QOF_r.
    + Set the AUX_PILOT_WALSH_CODE field of NGHBR_PILOT_REC to AUX_PILOT_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r.
  - If NGHBR_PILOT_REC_TYPE_r is equal to ‘010’, the mobile station shall:
    + Set the AUX_PILOT_TD_QOF field of NGHBR_PILOT_REC to QOF_r.
    + Set the AUX_PILOT_WALSH_CODE field of NGHBR_PILOT_REC to AUX_WALSH_r with the Walsh Code length specified by WALSH_LENGTH_r.
    + Set the AUX_TD_POWER_LEVEL field of NGHBR_PILOT_REC to AUX_TD_POWER_LEVEL_r.
    + Set the TD_MODE field of NGHBR_PILOT_REC to TD_MODE_r.
  - If NGHBR_PILOT_REC_TYPE_r is equal to ‘011’, the mobile station shall:
    + Set the SR3_PRIMARY_PILOT field of NGHBR_PILOT_REC to SR3_PRIMARY_PILOT_r.
    + Set the SR3_PILOT_POWER1 field of NGHBR_PILOT_REC to SR3_PILOT_POWER1_r.
+ Set the SR3_PILOT_POWER2 field of NGHBR_PILOT_REC to SR3_PILOT_POWER2r.

- If NGHBR_PILOT_REC_TYPEr is equal to ‘100’, the mobile station shall:
  + Set the SR3_PRIMARY_PILOT field of NGHBR_PILOT_REC to SR3_PRIMARY_PILOTr.
  + Set the SR3_PILOT_POWER1 field of NGHBR_PILOT_REC to SR3_PILOT_POWER1r.
  + Set the SR3_PILOT_POWER2 field of NGHBR_PILOT_REC to SR3_PILOT_POWER2r.
  + Set the AUX_PILOT_QOF field of NGHBR_PILOT_REC to QOFr.
  + Set the AUX_PILOT_WALSH_CODE field of NGHBR_PILOT_REC to AUX_PILOT_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.
  + If ADD_INFO_INCL1r is equal to ‘1’, set the AUX_PILOT_QOF1 field of NGHBR_PILOT_REC to QOF1r and set the AUX_PILOT_WALSH_CODE1 field of NGHBR_PILOT_REC to AUX_PILOT_WALSH1r with the Walsh Code length specified by WALSH_LENGTH1r; otherwise, set the AUX_PILOT_QOF1 field of NGHBR_PILOT_REC to QOFr and set the AUX_PILOT_WALSH_CODE1 field of NGHBR_PILOT_REC to AUX_PILOT_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.
  + If ADD_INFO_INCL2r is equal to ‘1’, set the AUX_PILOT_QOF2 field of NGHBR_PILOT_REC to QOF2r and set the AUX_PILOT_WALSH_CODE2 field of NGHBR_PILOT_REC to AUX_PILOT_WALSH2r with the Walsh Code length specified by WALSH_LENGTH2r; otherwise, set the AUX_PILOT_QOF2 field of NGHBR_PILOT_REC to QOFr and set the AUX_PILOT_WALSH_CODE2 field of NGHBR_PILOT_REC to AUX_PILOT_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.

8. **Supplemental Channel Assignment Message**: The mobile station shall process this message as follows:

The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to the specified value if any of the following conditions is true, and shall not perform any other action described in this section for processing the *Supplemental Channel Assignment Message*:

- The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to ‘00000110’ (capability not supported), if the number of forward or reverse Supplemental Code Channels specified in the *Supplemental Channel Assignment Message* is greater than the maximum number of Supplemental Code Channels supported by the mobile station.
- The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to '00000011' (message structure not acceptable), if both USE_REV_HDM_SEQ and EXPL_REV_START_TIME or both USE_FOR_HDM_SEQ and EXPL_FOR_START_TIME specified in the *Supplemental Channel Assignment Message* are set to ‘1’.

- The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to '00000100' (message field not in valid range), if PILOT_PN specified in the *Supplemental Channel Assignment Message* is not in the Active Set and this message is not linked with a *General Handoff Direction Message*.

If none of the above conditions is true, the mobile station shall perform the following.

- The mobile station shall store the following parameters from the *Supplemental Channel Assignment Message*:
  - Use *General Handoff Direction Message* forward sequence number indicator (USE_FOR_HDM_SEQ = USE_FOR_HDM_SEQr)
  - If USE_FOR_HDM_SEQr is equal to ‘1’, then the mobile station shall store the following:
    + The sequence number of the *General Handoff Direction Message* to which this messaged is linked for the Forward Supplemental Code Channel assignment (FOR_LINKED_HDM_SEQ = FOR_LINKED_HDM_SEQr)
    + The forward Supplemental Code Channel assignment order (SCAM_FOR_ORDER = least significant bit of FOR_SUP_CONFIGr)
    + The forward duration assignment indicator (SCAM_FOR_DURATION_MODE = USE_FOR_DURATIONr).
  - Use *General Handoff Direction Message* reverse sequence number indicator (USE_REV_HDM_SEQ = USE_REV_HDM_SEQr)
  - If USE_REV_HDM_SEQr is equal to ‘1’, then the mobile station shall store the following:
    + The sequence number of the *General Handoff Direction Message* to which this messaged is linked for the Reverse Supplemental Code Channel assignment (REV_LINKED_HDM_SEQ = REV_LINKED_HDM_SEQr)
    + The reverse duration assignment indicator (SCAM_REV_DURATION_MODE = USE_REV_DURATIONr).

- If USE_RETRY_DELAYr is ‘0’, then the mobile station shall store 0 as RETRY_DELAY. The mobile station may send subsequent *Supplemental Channel Request Messages* whenever RETRY_DELAY is set to 0.

- If USE_RETRY_DELAYr is set to ‘1’, the mobile station shall interpret the *Supplemental Channel Assignment Message* as an indication that the base station has specified a *Supplemental Channel Request Message* retry delay in RETRY_DELAYr as follows:
− The mobile station shall store the next system time 80 ms boundary + RETRY_DELAYr × 320 ms as RETRY_DELAYs. The mobile station shall not send any subsequent Supplemental Channel Request Message until after the system time stored in RETRY_DELAYs. At the system time stored in RETRY_DELAYs, the mobile station shall reset RETRY_DELAYs to 0.

− If RETRY_DELAYr is ‘00000000’, then the mobile station shall store 0 as RETRY_DELAYs. The mobile station may send subsequent Supplemental Channel Request Messages whenever RETRY_DELAYs is set to 0.

− If RETRY_DELAYr is ‘11111111’, then the mobile station shall store infinity as RETRY_DELAYs, and the mobile station shall not send any further Supplemental Channel Request Messages until the mobile station receives a new Supplemental Channel Assignment Message with no retry delay or a non-infinite retry delay specified, or until the mobile station receives a General Handoff Direction Message with a CLEAR_RETRY_DELAY indication set.

• If REV_INCLUDEDr is equal to ‘1’, then the mobile station shall process Reverse Supplemental Code Channel assignment information for the Supplemental Channel Assignment Message. This information shall be processed as follows:

− The mobile station shall store USE_T_ADD_ABORTr, the Reverse Supplemental Code Channel assignment T_ADD abort indicator, as USE_T_ADD_ABORTs.

− The mobile station shall store REV_DTX_DURATIONr, Reverse Supplemental Channel Discontinuous Transmission Duration, as REV_DTX_DURATIONs.

− If REV_PARMS_INCLUDEDr is equal to ‘1’, the mobile station shall store the following:

  + T_MULCHANs = T_MULCHANr
  + BEGIN_PREAMBLEs = BEGIN_PREAMBLEr
  + RESUME_PREAMBLEs = RESUME_PREAMBLEr

− If IGNORE_SCAMs is equal to ‘1’ and SCRM_SEQ_NUMr is not present or is present and is not equal to SCRM_SEQ_NUMs, then the mobile station shall not process the remaining Reverse Supplemental Code Channel assignment information in this message.

− If IGNORE_SCAMs is equal to ‘1’ and SCRM_SEQ_NUMr is present and is equal to SCRM_SEQ_NUMs, then the mobile station shall set IGNORE_SCAMs to ‘0’.

− The mobile station shall set REV_START_TIMEs as follows:

  + If EXPL_REV_START_TIMEr is equal to ‘1’, the mobile station shall set the REV_START_TIMEs to REV_START_TIMEr.
  + If USE_REV_HDM_SEQr is equal to ‘1’ and REV_LINKED_HDM_SEQr is not equal to HDM_SEQs, the mobile station shall set the REV_START_TIMEs to NULL.
+ If USE_REV_HDM_SEQ is equal to ‘1’ and REV_LINKED_HDM_SEQ is equal to HDM_SEQs, then the mobile station shall set the
REV_START_TIME to the action time of the General Handoff Direction
Message that is linked to the Supplemental Channel Assignment Message.

+ If EXPL_REV_START_TIME is equal to ‘0’ and USE_REV_HDM_SEQ is equal to ‘0’, the mobile station shall set the REV_START_TIME to the
next 80 ms boundary following the action time of the Supplemental
Channel Assignment Message.

− The mobile station shall set NUM_REV_CODES to NUM_REV_CODESr. If
REV_START_TIME is not equal to NULL, the mobile station shall perform the
following actions:

+ If NUM_REV_CODES is equal to ‘000’, the mobile station shall stop
transmitting the Reverse Supplemental Code Channels at the start time
specified by REV_START_TIME.

+ If NUM_REV_CODES is not equal to ‘000’, the mobile station shall set
PILOT_GATING_USE_RATE to ‘0’ at the action time of the message and
the mobile station may start transmitting on NUM_REV_CODES Reverse
Supplemental Code Channels at the start time specified by
REV_START_TIME for a duration of time specified by the following rules:

  ο If USE_REV_DURATION is equal to ‘1’, the mobile station shall set
REV_DURATION to REV_DURATIONr. The mobile station may
continue transmitting on the Reverse Supplemental Code Channels
for a period of (REV_DURATION × 80) ms, or until it receives the
action time of a subsequent General Handoff Direction Message or a
Supplemental Channel Assignment Message that specifies a different
Reverse Supplemental assignment duration or start time.

  ο If USE_REV_DURATION is equal to ‘0’, the mobile station may
continue to transmit indefinitely on the Reverse Supplemental Code
Channels, or until it receives the action time of a subsequent General
Handoff Direction Message or a Supplemental Channel Assignment
Message that specifies a different Reverse Supplemental assignment
duration or start time.

− If FOR_INCLUDED is equal to ‘1’, then the mobile station shall process Forward
Supplemental Code Channel assignment information as follows:

− The mobile station shall assign a value to FOR_START_TIME according to
the following rules:

+ If EXPL_FOR_START_TIME is equal to ‘1’, the mobile station shall set the
FOR_START_TIME to FOR_START_TIMEr.

+ If USE_FOR_HDM_SEQ is equal to ‘1’ and FOR_LINKED_HDM_SEQ is
not equal to HDM_SEQs, the mobile station shall set the
FOR_START_TIME to NULL.
+ If \( \text{USE\_FOR\_HDM\_SEQ}_r \) is equal to ‘1’ and \( \text{FOR\_LINKED\_HDM\_SEQ}_r \) is equal to \( \text{HDM\_SEQ}_s \), then the mobile station shall set the \( \text{FOR\_START\_TIME}_s \) to the action time of the *General Handoff Direction Message* that is linked to the *Supplemental Channel Assignment Message*.  

+ If \( \text{EXPL\_FOR\_START\_TIME}_r \) is equal to ‘0’ and \( \text{USE\_FOR\_HDM\_SEQ}_r \) equals ‘0’, the mobile station shall set the \( \text{FOR\_START\_TIME}_s \) to the action time of the *Supplemental Channel Assignment Message*.  

− If \( \text{FOR\_SUP\_CONFIG}_r \) is equal to ‘00’ and \( \text{FOR\_START\_TIME}_s \) is not equal to NULL, the mobile station should stop processing the Forward Supplemental Code Channels at the time specified by \( \text{FOR\_START\_TIME}_s \).  

− If \( \text{FOR\_SUP\_CONFIG}_r \) is equal to ‘01’ and \( \text{FOR\_START\_TIME}_s \) is not equal to NULL, the mobile station shall set \( \text{PILOT\_GATING\_USE\_RATE} \) to ‘0’ at the action time of the message and start processing the Forward Supplemental Code Channels in the \( \text{CODE\_CHAN\_LIST}_s \) at \( \text{FOR\_START\_TIME}_s \) for a period of time specified by the following rules:

  + If \( \text{USE\_FOR\_DURATION} \) is equal to ‘1’, the mobile station shall set \( \text{FOR\_DURATION}_s \) to \( \text{FOR\_DURATION}_r \). The mobile station shall continue processing the Forward Supplemental Code Channels for a period of \( (\text{FOR\_DURATION}_s \times 80) \) ms, or until it receives the action time of a subsequent *Supplemental Channel Assignment Message* or a *General Handoff Direction Message* that specifies a different Forward Supplemental assignment duration or start time.  

  + If \( \text{USE\_FOR\_DURATION}_r \) is equal to ‘0’, the mobile station shall continue processing the Forward Supplemental Code Channels until it receives the action time of a subsequent *Supplemental Channel Assignment Message* or a *General Handoff Direction Message* that specifies a different Forward Supplemental assignment duration or start time.  

− If \( \text{FOR\_SUP\_CONFIG}_r \) is equal to ‘10’, the mobile station shall perform the following:

  + The mobile station shall update the \( \text{CODE\_CHAN\_LIST}_s \) as specified in 2.6.8.  

  + If \( \text{FOR\_START\_TIME}_s \) is not equal to NULL the mobile station should stop processing Forward Supplemental Code Channels at the time specified by \( \text{FOR\_START\_TIME}_s \).  

− If \( \text{FOR\_SUP\_CONFIG}_r \) is equal to ‘11’, the mobile station shall perform the following:

  + The mobile station shall update the \( \text{CODE\_CHAN\_LIST}_s \) as specified in 2.6.8.
If \text{FOR\_START\_TIME}s is not equal to NULL, then the mobile station shall set \text{PILOT\_GATING\_USE\_RATE} to ‘0’ at the action time of the message and start processing the Forward Supplemental Code Channels in the CODE\_CHAN\_LISTs at the time specified by \text{FOR\_START\_TIME}s for a period of time specified by the following rules:

- If \text{USE\_FOR\_DURATION}s is equal to ‘1’, the mobile station shall set \text{FOR\_DURATION}s to \text{FOR\_DURATION}s. The mobile station shall continue processing the Forward Supplemental Code Channels for \((\text{FOR\_DURATION}s \times 80)\) ms, until it receives a subsequent \text{Supplemental Channel Assignment Message} or a \text{General Handoff Direction Message} that specifies a different Forward Supplemental assignment duration or start time.

- If \text{USE\_FOR\_DURATION}s is equal to ‘0’, the mobile station shall continue processing the Forward Supplemental Code Channels until it receives a subsequent \text{Supplemental Channel Assignment Message} or a \text{General Handoff Direction Message} that specifies a different Forward Supplemental assignment duration or start time.

9. \textit{General Handoff Direction Message}: The mobile station shall process the message as follows:

In addition to the requirements in this section, if the \text{SCR\_INCLUDED} field is included in this message and is set to ‘1’ the mobile station shall also process this message in accordance with the requirements for the active service subfunction (see 2.6.4.1.2.2).

The mobile station shall send a \textit{Mobile Station Reject Order} with the \text{ORDQ} field set to the specified value if any of the following conditions is true, and shall not perform any other action described in this section for processing the \textit{General Handoff Direction Message}:

- The mobile station shall send a \textit{Mobile Station Reject Order} with the \text{ORDQ} field set to ‘00000110’ (capability not supported), if the mobile station does not support the band class specified in the \textit{General Handoff Direction Message}.

- The mobile station shall send a \textit{Mobile Station Reject Order} with the \text{ORDQ} field set to ‘00000110’ (capability not supported), if the number of forward or reverse Supplemental Code Channels specified in the \textit{General Handoff Direction Message} is greater than the maximum number of Supplemental Code Channels supported by the mobile station.

- If the \text{SCR\_INCLUDED} field is included in this message and is set to ‘1’, the mobile station shall do the following:

  - The mobile station shall send a \textit{Mobile Station Reject Order} with the \text{ORDQ} field set to ‘00000111’ (message cannot be handled by the current mobile station configuration), if the mobile station does not support the service configuration specified in the \textit{General Handoff Direction Message}.
- The mobile station shall send a **Mobile Station Reject Order** (ORDQ = '00000111') within $T_{56m}$ seconds, if the mobile station supports the service configuration specified but does not accept the service configuration specified in the **General Handoff Direction Message**.

- The mobile station shall send a **Mobile Station Reject Order** with the ORDQ field set to '00000111' (message cannot be handled by the current mobile station configuration), if the NNSCR_INCLUDED field is included and set to '1' and the SCR_INCLUDED field is either not included or included but set to '0', and the mobile station does not support the configuration specified in the non-negotiable service configuration information record in the **General Handoff Direction Message**.

- The mobile station shall send a **Mobile Station Reject Order** with the ORDQ field set to '00001010' (search set not specified), if the PERIODIC_SEARCH field is included in the **General Handoff Direction Message** and is set to '1', and the Candidate Frequency Search Set is empty.

- The mobile station shall send a **Mobile Station Reject Order** with the ORDQ field set to '00011101' (search period too short), if the PERIODIC_SEARCH field is included in the **General Handoff Direction Message** and is set to '1', and $search\_period$ is less than $max(fwd\_time, rev\_time) + T_{71m}$ seconds, where

  $$
  search\_period = \text{time period corresponding to SEARCH\_PERIODs shown in Table 2.6.6.2.8.3.2-1,}
  $$

  $$
  fwd\_time = \text{the mobile station's estimate of the total length of time, in seconds, for which the mobile station will need to suspend its current Forward Traffic Channel processing in order to tune to the CDMA Candidate Frequency, to search the Candidate Frequency Search Set, and to re-tune to the Serving Frequency; if the mobile station searches the Candidate Frequency Search Set in multiple visits, } fwd\_time \text{ is the total time for all visits to the CDMA Candidate Frequency in a search period (see 2.6.6.2.8.3.2),}
  $$

  $$
  rev\_time = \text{the mobile station's estimate of the total length of time, in seconds, for which the mobile station will need to suspend its current Reverse Traffic Channel processing in order to tune to the CDMA Candidate Frequency, to search the Candidate Frequency Search Set, and to re-tune to the Serving Frequency; if the mobile station searches the Candidate Frequency Search Set in multiple visits, } rev\_time \text{ is the total time for all visits to the CDMA Candidate Frequency in a search period.}
  $$

If none of the above conditions is true, the mobile station shall perform the actions described in the remainder of this section to process the **General Handoff Direction Message** at the action time of the message.
If EXTRA_PARMS is equal to ‘1’, the mobile station shall store the return on failure indicator from the General Handoff Direction Message (RETURN_IF_HANDOFF_FAILs = RETURN_IF_HANDOFF_FAILr); otherwise the mobile station shall set RETURN_IF_HANDOFF_FAILs to ‘0’.

The mobile station shall set RETURN_IF_HANDOFF_FAILs to ‘0’ (disable return on failure) if any of the following conditions is true:

- If P_REV_IN_USEs is less than or equal to four and the mobile station does not support hard handoff with return on failure, or
- At least one of the pilots specified by the message is also included in the Active Set prior to the action time of the message, and one of the following conditions is true:
  - EXTRA_PARMS is equal to ‘0’, or
  - EXTRA_PARMS is equal to ‘1’, the message specifies the same Frequency Assignment as the Serving Frequency (BAND_CLASSr is equal to CDMABANDs and CDMA_FREQr is equal to CDMACHs), and FRAME_OFFSETr is equal to FRAME_OFFSETs.

The mobile station shall store the following parameters from its current configuration:

- CDMA band class (SF_CDMABANDs = CDMABANDs)
- Frequency assignment (SF_CDMACHs = CDMACHs)
- Frame Offset (SF_FRAME_OFFSETs = FRAME_OFFSETs)

If RETURN_IF_HANDOFF_FAILs is equal to ‘1’, the mobile station shall also store the following parameters from its current configuration:

- Protocol revision level (SF_P_REVs = P_REVs)
- Protocol revision level in use on the Serving Frequency (SF_P_REV_IN_USEs = P_REV_IN_USEs)
- Search window size for the Active Set and Candidate Set (SF_SRCH_WIN_As = SRCH_WIN_As)
- Search window size for the Neighbor Set (SF_SRCH_WIN_Ns = SRCH_WIN_Ns)
- Search window size for the Remainder Set (SF_SRCH_WIN_Rs = SRCH_WIN_Rs)
- Pilot detection threshold (SF_T_ADDs = T_ADDs)
- Pilot drop threshold (SF_T_DROPs = T_DROPs)
• Active Set versus Candidate Set comparison threshold
  \[ SF_{T\_COMP_s} = T\_COMP_p \]
• Drop timer value
  \[ SF_{T\_TDROP_s} = T\_TDROP_p \]
• Soft slope for the dynamic add and drop thresholds
  \[ SF_{SOFT\_SLOPE_s} = SOFT\_SLOPE_p \]
• Intercept for the dynamic add threshold
  \[ SF_{ADD\_INTERCEPT_s} = ADD\_INTERCEPT_p \]
• Intercept for the dynamic drop threshold
  \[ SF_{DROP\_INTERCEPT_s} = DROP\_INTERCEPT_p \]
• Private long code mask indicator: If the mobile station is using the private long code mask on the Serving Frequency, it shall set \( SF\_PRIVATE\_LCM_s \) to ‘1’; otherwise, it shall set \( SF\_PRIVATE\_LCM_s \) to ‘0’.

• Service negotiation type
  \[ SF\_SERV\_NEG_s = SERV\_NEG_s \]
• Service configuration:
  Store the current service configuration (service configuration record and non-negotiable service configuration record) in \( SF\_SERVICE\_CONFIG_s \)

  **Call Information:**
  Store the list of current calls (Call Control instances, etc.) in \( SF\_CALLS_s \)

• Message encryption mode: If message encryption is on, the mobile station shall set \( SF\_ENCRYPT\_MODE_s \) to ‘1’; otherwise, the mobile station shall set \( SF\_ENCRYPT\_MODE_s \) to ‘0’.

• Extended nominal power setting of the current cell
  \[ SF\_NOM\_PWR\_EXT_s = NOM\_PWR\_EXT_s \]
• Nominal power setting of the current cell
  \[ SF\_NOM\_PWR_s = NOM\_PWR_s \]
• Power control step
  \[ SF\_PWR\_CNTL\_STEP_s = PWR\_CNTL\_STEP_s \]
• Serving Frequency Active Set (SF Active Set = For each pilot in the current Active Set: (PILOT_PN, PWR_COMB_IND) )
• Serving Frequency Code Channel List
  \[ SF\_CODE\_CHAN\_LIST_s = CODE\_CHAN\_LIST_s \]

When the message takes effect, the mobile station shall perform the following actions:

• The mobile station shall send a *Handoff Completion Message* or an *Extended Handoff Completion Message* as specified in 2.6.6.2.5.2.
• Update the Active Set, Candidate Set, and Neighbor Set in accordance with the General Handoff Direction Message processing (see 2.6.6.2.6.1, 2.6.6.2.6.2, and 2.6.6.2.6.3).

• The mobile station shall delete all pilots that are not listed in the Active Set of the Fundamental Channel from the Active Set of the Supplemental Channel for the Forward Supplemental Channel Assignment (if any). If these deleted pilots include all pilots in the Active Set of the Supplemental Channel, the mobile station shall cancel the Forward Supplemental Channel Assignment.

• Discontinue use of all Forward Traffic Channels associated with pilots not listed in the General Handoff Direction Message.

• If EXTRA_PARMS is equal to ‘1’, perform the following actions:
  − If FRAME_OFFSETr is not equal to FRAME_OFFSETs, change the frame offset on all of the code channels of the Forward Traffic Channel and of the Reverse Traffic Channel.
  − If RESET_L2r is equal to ‘1’, and RETURN_IF_HANDOFF_FAILs is equal to ‘0’, Layer 3 shall send an L2-Supervision.Request primitive to Layer 2 to reset the acknowledgment procedures, as specified in 2.2.1.1 and 2.2.2.1 of [4]. The mobile station shall reset the acknowledgment procedures immediately after the action time of the General Handoff Direction Message.
  − If RESET_FPCr is equal to ‘1’ and RETURN_IF_HANDOFF_FAILs is equal to ‘0’, initialize the Forward Traffic Channel power control counters, as specified in 2.6.4.1.1.1.
  − If SERV_NEG_TYPEr is equal to ‘1’, set SERV_NEGs to enabled; otherwise set SERV_NEGs to disabled.
  − Use the long code mask specified by the PRIVATE_LCMr (see 2.3.12.3) and indicate to the user the voice privacy mode status.
  − Process the ENCRYPT_MODE field, as specified in 2.3.12.2.
  − If D_SIG_ENCRYPT_MODEr is included and is not set to ‘000’, the mobile station shall set D_SIG_ENCRYPT_MODEs to D_SIG_ENCRYPT_MODEr and set ENC_KEYs to the most recently generated CMEAKEY in the mobile station.
  − If D_SIG_ENCRYPT_MODEr is included, the mobile station shall perform the following:
    − If D_SIG_ENCRYPT_MODEr is equal to ‘000’, the mobile station shall set D_SIG_ENCRYPT_MODEs to C_SIG_ENCRYPT_MODEs, otherwise, the mobile station shall set D_SIG_ENCRYPT_MODEs to C_SIG_ENCRYPT_MODEr and set KEYs to the most recently generated CMEAKEY in the mobile station.
  − If D_SIG_ENCRYPT_MODEr is included, the mobile station shall set D_SIG_ENCRYPT_MODEs to D_SIG_ENCRYPT_MODEr.
If ENC_KEY_SIZE_r is included, the mobile station shall set ENC_KEY_SIZE_s
to ENC_KEY_SIZE_r.

- If EXTRA_PARMS is equal to ‘0’, set the following variables to the values
  indicated:
  - Hard handoff traffic channel preamble count required before transmitting a
    Handoff Completion Message or an Extended Handoff Completion Message
    (NUM_PREAMBLE_s = ‘000’)
  - Complete search flag (COMPLETE_SEARCH_s = ‘1’)
  - CDMA band class for the Target Frequency
    (TF_CDMABAND_s = SF_CDMABAND_s)
  - Frequency assignment for the Target Frequency
    (TF_CDMACH_s = SF_CDMACH_s)

- Store the following parameters from the General Handoff Direction Message:
  - General Handoff Direction Message sequence number
    (HDM_SEQ_s = HDM_SEQ_r)
  - Forward power control subchannel relative gain (FPC_SUBCHAN_GAIN_s =
    FPC_SUBCHAN_GAIN_r).
  - If the mobile station uses FPC_SUBCHAN_GAIN_s, the mobile station shall
    perform the following:
    + If PC_ACTION_TIME_r is received, the mobile station shall apply its usage
      of the FPC_SUBCHAN_GAIN_s at the time specified by PC_ACTION_TIME_r.
    + If PC_ACTION_TIME is not received and the explicit action time is
      received, the mobile station shall apply its usage of the
      FPC_SUBCHAN_GAIN_s at the action time.
    + If neither PC_ACTION_TIME_r nor explicit action time is received, the
      mobile station shall apply its usage of the FPC_SUBCHAN_GAIN_s at the
      first 80ms boundary occurring at least 80ms after the end of the frame
      containing the last bit of the General Handoff Direction Message sent to
      the mobile station.
  - Reverse Eighth Gating Mode (REV_FCH_GATING_MODE_s =
    REV_FCH_GATING_MODE_r).
  - Reverse Power Control Delay if REV_PWR_CNTL_DELAY_INCL_r is equal to ‘1’
    (REV_PWR_CNTL_DELAY_s = REV_PWR_CNTL_DELAY_r).
  - If SEARCH_INCLUDED is equal to ‘1’, store the following:
    + Search window size for the Active Set and Candidate Set
      (SRCH_WIN_A_s = SRCH_WIN_A_r)
    + Pilot detection threshold
      (T_ADD_s = T_ADD_r)
+ Pilot drop threshold  
(T_DROP_S = T_DROP_T)

+ Active Set versus Candidate Set comparison threshold  
(T_COMP_S = T_COMP_T)

+ Drop timer value  
(T_TDROPS = T_TDROP_T)

+ Soft slope for the dynamic add and drop thresholds  
(SOFT_SLOPE_S = SOFT_SLOPE_T)

+ Intercept for the dynamic add threshold  
(ADD_INTERCEPT_S = ADD_INTERCEPT_T)

+ Intercept for the dynamic drop threshold  
(DROP_INTERCEPT_S = DROP_INTERCEPT_T)

− If EXTRA_PARMS is equal to ‘1’, store the following:

+ Protocol revision level (P_REV_S = P_REV_T), and protocol revision level currently in use (P_REV_IN_USE_S = min (P_REV_S, MOB_P_REV_P of the current band class) )

+ If the mobile station supports packet data service options, the packet data services zone identifier (PACKET_ZONE_ID_S = PACKET_ZONE_ID_T)

+ Frame offset (FRAME_OFFSET_S = FRAME_OFFSET_T)

+ Acknowledgment procedures reset indicator  
(If RETURN_IF_HANDOFF_FAIL_S is equal to ‘1’, set TF_RESET_L2_S to RESET_L2_T)

+ Indicator to initialize the Forward Traffic Channel power control counters  
(If RETURN_IF_HANDOFF_FAIL_S is equal to ‘1’, set TF_RESET_FPC_S to RESET_FPC_T)

+ Nominal power setting of the target cell (NOM_PWR_S = NOM_PWR_T)

+ Extended nominal power setting of the target cell (If CDMABAND_S = ‘00000’ or CDMABAND_S = ‘00011’, then NOM_PWR_EXT_S = ‘0’; otherwise, NOM_PWR_EXT_S = NOM_PWR_EXT_T)

+ Hard handoff traffic channel preamble count required before transmitting a Handoff Completion Message or an Extended Handoff Completion Message (NUM_PREAMBLE_S = NUM_PREAMBLE_T)

+ CDMA band class for the Target Frequency  
(TF_CDMABAND_S = BAND_CLASS_T and CDMABAND_S = BAND_CLASS_T)

+ Frequency assignment for the Target Frequency  
(TF_CDMACH_S = CDMA_FREQ_T and CDMACH_S = CDMA_FREQ_T)

+ Complete search flag (COMPLETE_SEARCH_S = COMPLETE_SEARCH_T)

+ Periodic search flag (PERIODIC_SEARCH_S = PERIODIC_SEARCH_T)
Nominal code channel output power offset relative to the Reverse Pilot Channel power ($RLGAIN_{TRAFFIC\_PILOT_s} = RLGAIN_{TRAFFIC\_PILOT_r}$)

- If $EXTRA\_PARMS$ is equal to ‘1’ and $DEFAULT\_RLAG$ is equal to ‘1’, the mobile station shall set each entry of the Reverse Link Attribute Adjustment Gain Table and Reverse Channel Adjustment Gain Table (see 2.1.2.3.3 of [2]) to 0.

- If $REV\_PARMS\_INCLUDED$ is included and is equal to ‘1’, the mobile station shall store the following:
  
  + Reverse Supplemental Code Channel Request Message neighbor Neighbor pilot strength measurement threshold offset channel pilot strength offset ($T\_MULCHAN_s = T\_MULCHAN_r$)
  + Reverse Supplemental Code Channel beginning of transmission preamble length ($BEGIN\_PREAMBLE_s = BEGIN\_PREAMBLE_r$)
  + Reverse Supplemental Code Channel resumption of transmission preamble length ($RESUME\_PREAMBLE_s = RESUME\_PREAMBLE_r$)

- For each pilot included in the message, the mobile station shall store the following:
  
  + $PILOT\_PN$, the pilot PN sequence offset index
  + $PWR\_COMB\_IND$, the power control symbol combining indicator

- If $USE\_PWR\__CNTL\_STEP$ is equal to ‘1’ and $PWR\_CNTL\_STEP_r$ corresponds to a power control step size supported by the mobile station (see 2.1.2.3.2 of [2]), then the mobile station shall set $PWR\_CNTL\_STEP_s$ to $PWR\_CNTL\_STEP_r$.

- Set the pilot detection threshold for the Target Frequency and the Candidate Frequency:
  
  - Set $TF\_T\_ADD_s$ to $T\_ADD_s$.
  
  - If the Target Frequency is the same as the Candidate Frequency ($TF\_CDMABAND_s$ is equal to $CF\_CDMABAND_s$ and $TF\_CDMACH_s$ is equal to $CF\_CDMACH_s$), set $CF\_T\_ADD_s$ to $T\_ADD_s$.

- If $FOR\_INCLUDED$ is included and is equal to ‘0’, the mobile station shall perform the following:
  
  - The mobile station shall update the Code Channel List, $CODE\_CHAN\_LIST_s$, as specified in 2.6.8.
  
  - If $USE\_FOR\_HDM\_SEQ_s$ is equal to ‘1’ and $FOR\_LINKED\_HDM\_SEQ_s$ is equal to $HDM\_SEQ_r$ (this indicates that there is pending Forward Supplemental Code Channel assignment information, received in a Supplemental Channel Assignment Message, linked to this General Handoff Direction Message), then the mobile station shall perform the following actions:
The mobile station shall set \textsc{use}_\textsc{for\_hdm\_seqs} to ‘0’.

If \textsc{scam\_for\_order}_s is equal to ‘0’, the mobile station shall stop processing all Forward Supplemental Code Channels at the action time of the \emph{General Handoff Direction Message}.

If \textsc{scam\_for\_order}_s is equal to ‘1’, the mobile station shall start processing the Forward Supplemental Code Channels specified in \textsc{code\_chan\_list}_s at the action time of the \emph{General Handoff Direction Message}, for a period of time determined by the following rules:

- If \textsc{scam\_for\_duration\_mode}_s is equal to ‘1’, the mobile station shall continue processing the Forward Supplemental Code Channels for a period of \((\textsc{for\_duration}_s \times 80)\) ms, until it receives a subsequent \emph{General Handoff Direction Message} or a \emph{Supplemental Channel Assignment Message} that specifies a different Forward Supplemental Code Channel assignment.

- If \textsc{scam\_for\_duration\_mode}_s is equal to ‘0’, the mobile station shall continue processing the Forward Supplemental Code Channels until it receives a subsequent \emph{Supplemental Channel Assignment Message} or a \emph{General Handoff Direction Message} that specifies a different Forward Supplemental Code Channel assignment.

  - If \textsc{use}_\textsc{for\_hdm\_seqs} is equal to ‘0’ or \textsc{for\_linked\_hdm\_seqs} is not equal to \textsc{hdm\_seq}_r, and if the mobile station is currently processing Forward Supplemental Code Channels, it shall continue processing the Forward Supplemental Code Channels using the updated Code Channel List, \textsc{code\_chan\_list}_s.

- If \textsc{nnscr\_included} field is included and set to ‘1’ and \textsc{scr\_included} field is either not included or included but set to ‘0’, the mobile station shall process the received Non-negotiable Service Configuration Record as specified in 2.6.4.1.13 at the action time of this message and the mobile station shall store (if included) the synchronization identifier received from the base station corresponding to this service configuration (\textsc{sync\_id}_s = \textsc{sync\_id}_r).

- If \textsc{for\_included} is included and is equal to ‘1’, then the mobile station shall process the Forward Supplemental Code Channel assignment information as follows:

  - The mobile station shall set \textsc{use}_\textsc{for\_hdm\_seqs} to ‘0’.

  - If \textsc{for\_start\_time}_s specifies a time which is after the action time of the \emph{General Handoff Direction Message}, the mobile station shall cancel any pending Forward Supplemental Code Channel assignment and shall set \textsc{for\_start\_time}_s to NULL.

  - The mobile station shall update the Code Channel List, \textsc{code\_chan\_list}_s, in accordance with the value of \textsc{for\_sup\_config}, as specified in 2.6.8.
If FOR_SUP_CONFIG is equal to ‘00’ or ‘10’, the mobile station should stop processing Forward Supplemental Code Channels, if any, when the message takes effect.

If FOR_SUP_CONFIG is equal to ‘01’ or ‘11’, the mobile station shall set PILOT_GATING_USE_RATE to ‘0’ at the action time of the message and start processing the Forward Supplemental Code Channels in the updated Code Channel List, CODE_CHAN_LISTs, at the action time of the message, for a period of time determined by the following rules:

- If USE_FOR_DURATION is equal to ‘1’, the mobile station shall set FOR_DURATIONs to FOR_DURATIONr. The mobile station shall continue processing the Forward Supplemental Code Channels for a period of (FOR_DURATIONs × 80) ms, until it receives a subsequent Supplemental Channel Assignment Message or a General Handoff Direction Message that specifies a different Forward Supplemental Code Channel assignment.

- If USE_FOR_DURATION is equal to ‘0’, the mobile station shall continue processing the Forward Supplemental Code Channels until it receives a subsequent Supplemental Channel Assignment Message or a General Handoff Direction Message that specifies a different Forward Supplemental Code Channel assignment.

If REV_INCLUDED is included and is equal to ‘0’, the mobile station shall perform the following:

- If USE_REV_HDM_SEQs is equal to ‘1’ and REV_LINKED_HDM_SEQs is equal to HDM_SEQr (this indicates that there is pending Reverse Supplemental Code Channel assignment information, received in a Supplemental Channel Assignment Message, linked to this General Handoff Direction Message), the mobile station shall perform the following actions:

  - If NUM_REV_CODESs is equal to ‘000’, the mobile station shall stop transmitting on all Reverse Supplemental Code Channels at the action time of the message.

  - If NUM_REV_CODESs is not equal to ‘000’, the mobile station may start transmitting on NUM_REV_CODESs Reverse Supplemental Code Channels at the action time of the message, for a duration of time determined by the following rules:

    - If SCAM_REV_DURATION_MODEs is equal to ‘1’, the mobile station may continue transmitting on the Reverse Supplemental Code Channels for a period of (REV_DURATIONs × 80) ms, until it receives a subsequent General Handoff Direction Message or a Supplemental Channel Assignment Message that specifies a different Reverse Supplemental Code Channel assignment.
If SCAM_REV_DURATION_MODEs is equal to ‘0’, the mobile station may continue transmitting on the Reverse Supplemental Code Channels until it receives a subsequent General Handoff Direction Message or a Supplemental Channel Assignment Message that specifies a different Reverse Supplemental Code Channel assignment.

+ The mobile station shall set USE_REV_HDM_SEQs to ‘0’.

- If USE_REV_HDM_SEQs is equal to ‘0’ or REV_LINKED_HDM_SEQs is not equal to HDM_SEQr, and if the previous Reverse Supplemental Code Channel assignment is still valid, the mobile station may continue to transmit on the Reverse Supplemental Code Channels according to the previously specified Reverse Supplemental Code Channel assignment.

- If REV_INCLUDED is included and is equal to ‘1’, then the mobile station shall process the Reverse Supplemental Code Channel assignment information as follows:
  - The mobile station shall set REV_DTX_DURATIONs to REV_DTX_DURATIONr.
  - The mobile station shall set USE_REV_HDM_SEQs to ‘0’.
  - If REV_START_TIMEs specifies a time which is after the action time of the General Handoff Direction Message, the mobile station shall cancel any pending Reverse Supplemental Code Channel assignment and shall set REV_START_TIMEs to NULL.
  - If CLEAR_RETRY_DELAY is equal to ‘1’, the mobile station shall cancel any previously indicated retry delay and shall set RETRY_DELAYs to 0; otherwise, the mobile station shall continue to honor any previously active retry delay stored in RETRY_DELAYs.
  - The mobile station shall set NUM_REV_CODESs to NUM_REV_CODESr, and shall perform the following actions:
    + If NUM_REV_CODESs is equal to ‘000’, the mobile station shall stop transmitting on all Reverse Supplemental Code Channels at the action time of the message.
    + If NUM_REV_CODESs is not equal to ‘000’, the mobile station shall set PILOT_GATING_USE_RATE to ‘0’ at the action time of the message and may start transmitting on NUM_REV_CODESs Reverse Supplemental Code Channels at the action time of the message, for a duration of time determined by the following rules:
If USE_REV_DURATION is equal to ‘1’, the mobile station shall set REV_DURATIONs to REV_DURATIONr. The mobile station may continue transmitting on the Reverse Supplemental Code Channels for a period of (REV_DURATIONs × 80) ms, until it receives a subsequent General Handoff Direction Message or a Supplemental Channel Assignment Message that specifies a different Reverse Supplemental Code Channel assignment.

If USEREV_DURATION is equal to ‘0’, the mobile station may continue to transmit on the Reverse Supplemental Code Channels until it receives a subsequent General Handoff Direction Message or a Supplemental Channel Assignment Message that specifies a different Reverse Supplemental Code Channel assignment.

- The mobile station shall store USE_T_ADD_ABORT, the Reverse Supplemental Code Channel assignment T_ADD abort indicator, as USE_T_ADD_ABORTs.

The mobile station shall set IGNORE_SCAMs and IGNORE_ESCAMs to ‘0’.

If PERIODIC_SEARCHs is equal to ‘0’ and a periodic search is in progress, the mobile station shall abort the periodic search (see 2.6.6.2.8.3.4 and 2.6.6.2.10.4).

• Perform a soft or hard handoff depending on the following conditions:
  - If any of the following conditions is true, the mobile station shall perform a hard handoff:
    + EXTRA_PARMS is set to ‘1’ and either BAND_CLASSr is not equal to SF_CDMABANDs, CDMA_FREQr is not equal to SF_CDMACHs, or FRAME_OFFSETr is not equal to SF_FRAME_OFFSETs, or
    + The set of pilots specified by the message is disjoint from the Active Set prior to the action time of the message.
  - If the mobile station performs a hard handoff, it shall do the following:
    + If a Periodic Serving Frequency Pilot Report Procedure is in progress, the mobile station shall abort the procedure (see 2.6.6.2.12).
    + If a Candidate Frequency periodic search is in progress, the mobile station shall abort the periodic search (see 2.6.6.2.8.3.4 and 2.6.6.2.10.4).
    + The mobile station shall cancel the Forward Supplemental Channel assignment or the Reverse Supplemental Channel assignment (if any).
    + If RETURN_IF_HANDOFF_FAILs is equal to ‘0’, the mobile station shall perform actions specified in 2.6.6.2.8.1. If the message specifies more than one pilot, the mobile station shall also perform actions specified in 2.6.6.2.7.1 and 2.6.6.2.7.2.
If RETURN_IF_HANDOFF_FAIL is equal to ‘1’, the mobile station shall perform actions specified in 2.6.6.2.8.2. If the message specifies more than one pilot, the mobile station shall also perform actions specified in 2.6.6.2.7.1 and 2.6.6.2.7.2.

- Otherwise, the mobile station shall perform a soft handoff as specified in 2.6.6.2.7.

10. **Periodic Pilot Measurement Request Order:** The mobile station shall perform the following:

- If the PPSMM timer is enabled, disable it.
- If ORDQ is equal to ‘11111111’, the mobile station shall send a *Periodic Pilot Strength Measurement Message* to the base station within $T_{56m}$ seconds.
- If ORDQ is not equal to ‘11111111’, the mobile station shall perform the following:
  - Set the MIN_PILOT_PWR_THRESH$_s$ to MIN_PILOT_PWR_THRESH$_r$ received from the *Periodic Pilot Strength Measurement Request Order*.
  - Set the MIN_PILOT_EC_IO_THRESH$_s$ to MIN_PILOT_EC_IO_THRESH$_r$ received from the *Periodic Pilot Strength Measurement Request Order*.
  - Set PPSMM_PERIOD$_s$ equal to the larger value of ORDQ and the total length of time, in units of 80 ms, required by the mobile station to update the pilot strength measurement of each pilot in the Active Set and the Candidate Set.
  - Perform the Periodic Serving Frequency Pilot Report Procedure as specified in 2.6.6.2.12.
- If the mobile station sends the *Periodic Pilot Strength Measurement Message* and if INCL_SETPT$_r$ is equal to ‘1’, the mobile station shall include outer loop $E_b/N_t$ setpoint information corresponding to the physical channel specified by FPC_PRI_CHAN$_s$, and Supplemental Channel outer loop $E_b/N_t$ setpoint information if one or more Supplemental Channels are assigned, in the *Periodic Pilot Strength Measurement Message*.

11. **Universal Handoff Direction Message:** The mobile station shall process the message as follows:

In addition to the requirements in this section, if the SCR_INCLUDED field is included in this message and is set to ‘1’ the mobile station shall also process this message in accordance with the requirements for the active service subfunction (see 2.6.4.1.2.2).

The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to the specified value if any of the following conditions is true, and shall not perform any other action described in this section for processing the *Universal Handoff Direction Message*:

- The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field
set to '00000110' (capability not supported), if the mobile station does not support the band class specified in the *Universal Handoff Direction Message*.

- If the SCR_INCLUDED field is included in this message and is set to ‘1’, the mobile station shall do the following:

  - The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to ‘00000111’ (message cannot be handled by the current mobile station configuration), if the mobile station does not support the service configuration specified in the *Universal Handoff Direction Message*.

  - The mobile station shall send a *Mobile Station Reject Order* (ORDQ = ‘00000111’) within $T_{56m}$ seconds, if the mobile station supports the service configuration specified but does not accept the service configuration specified in the *Universal Handoff Direction Message*.

- The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to ‘00000111’ (message cannot be handled by the current mobile station configuration), if the NNSCR_INCLUDED field is included and set to ‘1’ and the SCR_INCLUDED field is either not included or included but set to ‘0’, and the mobile station does not support the configuration specified in the non-negotiable service configuration information record in the *Universal Handoff Direction Message*.

- If the CC_INFO_INCL field is included in this message and is set to ‘1’, the mobile station shall perform the following for each of the NUM_CALLS_ASSIGN call assignments included in this message:

  - If there already exists or currently pending instantiation a Call Control instance identified by CON_REF, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to ‘00010010’ (a call control instance is already present with the specified identifier), with the CON_REF field of the order set to CON_REF.

  - If RESPONSE_IND equals ‘1’ and TAG does not match any of the TAG values contained in the list TAG_OUTSTANDING_LIST, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to ‘00010011’ (TAG received does not match TAG stored), with the TAG field of the order set to TAG and the CON_REF field of the order set to CON_REF.

  - If the mobile station does not accept this call assignment, the mobile station shall send a *Mobile Station Reject Order* with ORDQ field set to ‘00010000’ (call assignment not accepted), with the CON_REF field of the order set to CON_REF.

- The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field set to ‘00001010’ (search set not specified), if the PERIODIC_SEARCH field is
included in the *Universal Handoff Direction Message* and is set to ‘1’ and the
Candidate Frequency Search Set is empty.

- The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field
  set to ‘00000011’ (message structure not acceptable), if the message specifies the
  Forward/Reverse Supplemental Channel assignment and the most significant
  bit of CH_INDr is set to ‘0’.

- The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field
  set to ‘00000111’ (message can not be handled by the current mobile station
  configuration), if the message includes a reverse Supplemental Channel
  assignment, and any of the mobile station’s reverse supplemental channel
  configuration parameter for the corresponding Supplemental Channel
  (REV_SCH_MUXs, REV_SCH_RCs, REV_SCH_CODINGs, or
  REV_SCH_FRAME_LENGTHs) is NULL.

- The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field
  set to ‘00000111’ (message can not be handled by the current mobile station
  configuration), if the message includes a forward Supplemental Channel
  assignment and any of the mobile station’s forward supplemental channel
  configuration parameters for the corresponding Supplemental Channel is not
  included in the message and its stored value (FOR_SCH_MUXs, FOR_SCH_RCs,
  FOR_SCH_CODINGs, FOR_SCH_FRAME_LENGTHs, QOF_IDs, QOF_IDS for the
  corresponding SCCL_INDEXs, or FOR_SCH_CC_INDEXs for the corresponding
  SCCL_INDEXs) is NULL.

- The mobile station shall send a *Mobile Station Reject Order* with the ORDQ field
  set to ‘00001101’ (search period too short), if the PERIODIC_SEARCH field is included
  in the *Universal Handoff Direction Message* and is set to ‘1’, and search_period is less
  than (max (fwd_time, rev_time) + T71m seconds), where

  \[
  \text{search\_period} = \text{time period corresponding to SEARCH\_PERIODs shown in}\n  \text{Table 2.6.6.2.8.3.2-1,}\n  \]

  \[
  \text{fwd\_time} = \text{the mobile station’s estimate of the total length of time, in seconds,}\n  \text{for which the mobile station will need to suspend its current Forward Traffic}\n  \text{Channel processing in order to tune to the CDMA Candidate Frequency, to search}\n  \text{the Candidate Frequency Search Set, and to re-tune to the Serving Frequency; if the}\n  \text{mobile station searches the Candidate Frequency Search Set in multiple visits,}\n  \text{fwd\_time is the total time for all visits to the CDMA Candidate Frequency in a search}\n  \text{period (see 2.6.6.2.8.3.2),}\n  \]

  and
rev_time = the mobile station’s estimate of the total length of time, in seconds, for
which the mobile station will need to suspend its current Reverse Traffic Channel
processing in order to tune to the CDMA Candidate Frequency, to search the
Candidate Frequency Search Set, and to re-tune to the Serving Frequency; if the
mobile station searches the Candidate Frequency Search Set in multiple visits,
rev_time is the total time for all visits to the CDMA Candidate Frequency in a search
period.

If none of the above conditions is true, the mobile station shall perform the actions
described in the remainder of this section to process the Universal Handoff Direction
Message at the action time of the message.

If EXTRA_PARMS is equal to ‘1’, the mobile station shall store the return on failure
indicator from the Universal Handoff Direction Message
(RETURN_IF_HANDOFF_FAILs = RETURN_IF_HANDOFF_FAILr); otherwise the
mobile station shall set RETURN_IF_HANDOFF_FAILs to ‘0’.

The mobile station shall set RETURN_IF_HANDOFF_FAILs to ‘0’ (disable return on
failure) if any of the following conditions is true:

- If P_REV_IN_USEs is less than or equal to four and the mobile station does not
  support hard handoff with return on failure, or
- At least one of the pilots specified by the message is also included in the Active
  Set prior to the action time of the message, and one of the following conditions is
  true:
  - EXTRA_PARMS is equal to ‘0’, or
  - EXTRA_PARMS is equal to ‘1’, the message specifies the same Frequency
    Assignment as the Serving Frequency (BAND_CLASSr is equal to
    CDMABANDs and CDMA_FREQr is equal to CDMACHs), and
    FRAME_OFFSETr is equal to FRAME_OFFSETs.

The mobile station shall store the following parameters from its current
configuration:

- CDMA band class (SF_CDMABANDs = CDMABANDs)
- Frequency assignment (SF_CDMACHs = CDMACHs)
- Frame Offset (SF_FRAME_OFFSETs = FRAME_OFFSETs)

If RETURN_IF_HANDOFF_FAILs is equal to ‘1’, the mobile station shall also store the
following parameters from its current configuration:

- Protocol revision level (SF_P_REVs = P_REVs)
- Protocol revision level in use on the Serving Frequency (SF_P_REV_IN_USEs =
  P_REV_IN_USEs)
- Search window size for the Active Set and Candidate Set (SF_SRCH_WIN_As =
  SRCH_WIN_As)
- Search window size for the Neighbor Set
  \(SF_{SRCH\_WIN\_N_s} = SRCH\_WIN\_N_s\),
- Search window size for the Remainder Set
  \(SF_{SRCH\_WIN\_R_s} = SRCH\_WIN\_R_s\)
- Pilot detection threshold \(SF_{T\_ADD_s} = T\_ADD_s\)
- Pilot drop threshold \(SF_{T\_DROP_s} = T\_DROP_s\)
- Active Set versus Candidate Set comparison threshold
  \(SF_{T\_COMP_s} = T\_COMP_s\)
- Drop timer value \(SF_{T\_TDROP_s} = T\_TDROP_s\)
- Soft slope for the dynamic add and drop thresholds
  \(SF_{SOFT\_SLOPE_s} = SOFT\_SLOPE_s\)
- Intercept for the dynamic add threshold
  \(SF\_ADD\_INTERCEPT_s = ADD\_INTERCEPT_s\)
- Intercept for the dynamic drop threshold
  \(SF\_DROP\_INTERCEPT_s = DROP\_INTERCEPT_s\)
- Private long code mask indicator: If the mobile station is using the private long
  code mask on the Serving Frequency, it shall set \(SF\_PRIVATE\_LCM_s\) to ‘1’;
  otherwise, it shall set \(SF\_PRIVATE\_LCM_s\) to ‘0’.
- Service negotiation type \(SF\_SERV\_NEG_s = SERV\_NEG_s\)
- Service configuration: Store the current service configuration (service
  configuration record and non-negotiable service configuration record) in
  \(SF\_SERVICE\_CONFIG_s\)

**Call Information:**
Store the list of current calls (Call Control instances, etc.) in \(SF\_CALLS_s\)
- Message encryption mode: If message encryption is on, the mobile station shall
  set \(SF\_ENCRYPT\_MODE_s\) to ‘1’; otherwise, the mobile station shall set
  \(SF\_ENCRYPT\_MODE_s\) to ‘0’.
- If NNSCR_INCLUDED field is included and set to ‘1’ and SCR_INCLUDED field is
  either not included or included but set to ‘0’, the mobile station shall process the
  received Non-negotiable Service Configuration Record as specified in 2.6.4.1.13
  at the action time of this message and the mobile station shall store (if included)
  the synchronization identifier received from the base station corresponding to
  this service configuration \(SYNC\_ID_s = SYNC\_ID_r\).
  - Extended nominal power setting of the current cell
    \(SF\_NOM\_PWR\_EXT_s = NOM\_PWR\_EXT_s\)
  - Nominal power setting of the current cell \(SF\_NOM\_PWR_s = NOM\_PWR_s\)
  - Power control step \(SF\_PWR\_CNTL\_STEP_s = PWR\_CNTL\_STEP_s\)
– Serving Frequency Active Set (SF Active Set = (For each pilot in the current Active Set: (PILOT_PN, PWR_COMB_IND) )
– Serving Frequency Code Channel List
(SF_CODE_CHAN_LISTs = CODE_CHAN_LISTs)

When the message takes effect, the mobile station shall perform the following actions:

- The mobile station shall send a *Handoff Completion Message* or an *Extended Handoff Completion Message* as specified in 2.6.6.2.5.2.
- Update the Active Set, Candidate Set, and Neighbor Set in accordance with the *Universal Handoff Direction Message* processing (see 2.6.6.2.6.1, 2.6.6.2.6.2, and 2.6.6.2.6.3).
- Discontinue use of all Forward Traffic Channels associated with pilots not in the updated Active Set.
- If PARMS_INCL is equal to ‘1’, perform the following actions:
  - Set protocol revision level (P_REVs = P_REVs), and protocol revision level currently in use (P_REV_IN_USEs = min (P_REVs, MOB_P_REVs of the current band class)).
  - If SERV_NEG_TYPEr is equal to ‘1’, set SERV_NEGs to enabled; otherwise set SERV_NEGs to disabled. If EXTRA_PARMS is equal to ‘1’, perform the following actions:
- If EXTRA_PARMS is equal to ‘1’, perform the following actions:
  - If FRAME_OFFSETr is not equal to FRAME_OFFSETs, change the frame offset on all of the code channels of the Forward Traffic Channel and of the Reverse Traffic Channel.
  - If RESET_L2r is equal to ‘1’, and RETURN_IF_HANDOFF_FAILs is equal to ‘0’, Layer 3 shall send a L2-Supervision.Request primitive to Layer 2 to reset the acknowledgment procedures, as specified in 2.2.1.1 and 2.2.2.1 of [4]. The mobile station shall reset the acknowledgment procedures immediately after the action time of the *Universal Handoff Direction Message*.
  - If RESET_FPCR is equal to ‘1’ and RETURN_IF_HANDOFF_FAILs is equal to ‘0’, initialize the Forward Traffic Channel power control counters, as specified in 2.6.4.1.1.1.
  - Use the long code mask specified by the PRIVATE_LCMr (see 2.3.12.3) and indicate to the user the voice privacy mode status.
  - Process the ENCRYPT_MODE field, as specified in 2.3.12.2.
  - If D_SIG_ENCRYPT_MODEr is included, the mobile station shall set D_SIG_ENCRYPT_MODEs to D_SIG_ENCRYPT_MODEr.
+—If D_SIG_ENCRYPT_MODE_r is equal to ‘000’, the mobile station shall set D_SIG_ENCRYPT_MODE_s to C_SIG_ENCRYPT_MODE_s; otherwise, the mobile station shall set D_SIG_ENCRYPT_MODE_s to D_SIG_ENCRYPT_MODE_r and set KEY_s to the most recently generated CMEAKEY in the mobile station.

- If USE_NEW_KEY_r is not included, or is included and is set to ‘1’, the mobile station shall use the session key generated at the most recent registration for encryption of signaling and user information. The mobile station shall store the session key in KEY_s[KEY_SEQ_NEW_s-p]. The mobile station shall store KEY_SIZE_r in KEY_SIZE_s. The mobile station shall then increment the variable KEY_SEQ_NEW_s-p by one (modulo 16). If ENC_KEY_SIZE_r is included, the mobile station shall set ENC_KEY_SIZE_s to ENC_KEY_SIZE_r.

- If USE_NEW_KEY_r is included and is set to ‘0’, the mobile station shall use KEY_s[KEY_SEQ_r] as the session key with the key-size specified by KEY_SIZE_r.

- If EXTRA_PARMS is equal to ‘0’, set the following variables to the values indicated:
  - Hard handoff traffic channel preamble count required before transmitting a Handoff Completion Message or an Extended Handoff Completion Message (NUM_PREAMBLE_s = ‘000’)
  - Complete search flag (COMPLETE_SEARCH_s = ‘1’)
  - CDMA band class for the Target Frequency (TF_CDMABAND_s = SF_CDMABAND_s)
  - Frequency assignment for the Target Frequency (TF_CDMACH_s = SF_CDMACH_s)

- Store the following parameters from the Universal Handoff Direction Message:
  - Universal Handoff Direction Message sequence number (HDM_SEQ_s = HDM_SEQ_r)
  - Forward power control subchannel relative gain (FPC_SUBCHAN_GAIN_s = FPC_SUBCHAN_GAIN_r).
  - If the mobile station uses FPC_SUBCHAN_GAIN_s, the mobile station shall perform the following:
    + If PC_ACTION_TIME_r is received, the mobile station shall apply its usage of the FPC_SUBCHAN_GAIN_s at the time specified by PC_ACTION_TIME_r.
    + If PC_ACTION_TIME is not received and the explicit action time is received, the mobile station shall apply its usage of the FPC_SUBCHAN_GAIN_s at the action time.
If neither PC_ACTION_TIME\(_r\) nor explicit action time is received, the mobile station shall apply its usage of the FPC_SUBCHAN_GAIN\(_s\) at the first 80ms boundary occurring at least 80ms after the end of the frame containing the last bit of the Universal Handoff Direction Message sent to the mobile station.

- Reverse Eighth Gating Mode (REV_FCH_GATING_MODE\(_s\) = REV_FCH_GATING_MODE\(_r\)).
- Reverse Power Control Delay if REV_PWR_CNTL_DELAY_INCL\(_r\) is equal to ‘1’ (REV_PWR_CNTL_DELAY\(_s\) = REV_PWR_CNTL_DELAY\(_r\)).

- If SEARCH_INCLUDED is equal to ‘1’, store the following:
  + Search window size for the Active Set and Candidate Set (SRCH_WIN_A\(_s\) = SRCH_WIN_A\(_r\))
  + Pilot detection threshold (T_ADD\(_s\) = T_ADD\(_r\))
  + Pilot drop threshold (T_DROP\(_s\) = T_DROP\(_r\))
  + Active Set versus Candidate Set comparison threshold (T_COMP\(_s\) = T_COMP\(_r\))
  + Drop timer value (T_TDROP\(_s\) = T_TDROP\(_r\))
  + Soft slope for the dynamic add and drop thresholds (SOFT_SLOPE\(_s\) = SOFT_SLOPE\(_r\))
  + Intercept for the dynamic add threshold (ADD_INTERCEPT\(_s\) = ADD_INTERCEPT\(_r\))
  + Intercept for the dynamic drop threshold (DROP_INTERCEPT\(_s\) = DROP_INTERCEPT\(_r\))

- If EXTRA_PARMS is equal to ‘1’, store the following:
  + If the mobile station supports packet data service options, the packet data services zone identifier (PACKET_ZONE_ID\(_s\) = PACKET_ZONE_ID\(_r\))
  + Frame offset (FRAME OFFSET\(_s\) = FRAME OFFSET\(_r\))
  + Acknowledgment procedures reset indicator (If RETURN_IF_HANDOFF_FAIL\(_s\) is equal to ‘1’, set TF_RESET_L2\(_s\) to RESET_L2\(_r\))
  + Indicator to initialize the Forward Traffic Channel power control counters (If RETURN_IF_HANDOFF_FAIL\(_s\) is equal to ‘1’, set TF_RESET_FPC\(_s\) to RESET_FPC\(_r\))
  + Nominal power setting of the target cell (NOM_PWR\(_s\) = NOM_PWR\(_r\))
  + Extended nominal power setting of the target cell (If CDMABAND\(_s\) = ‘00000’ or CDMABAND\(_s\) = ‘00011’, then NOM_PWR_EXT\(_s\) = ‘0’; otherwise, NOM_PWR_EXT\(_s\) = NOM_PWR_EXT\(_r\))
Hard handoff traffic channel preamble count required before transmitting a *Handoff Completion Message* or an *Extended Handoff Completion Message* (NUM_PREAMBLEs = NUM_PREAMBLEr)

CDMA band class for the Target Frequency (TF_CDMABANDs = BAND_CLASSr and CDMABANDs = BAND_CLASSr)

Frequency assignment for the Target Frequency (TF_CDMACHs = CDMA_FREQr and CDMACHs = CDMA_FREQr)

Complete search flag (COMPLETE_SEARCHs = COMPLETE_SEARCHr)

Periodic search flag (PERIODIC_SEARCHs = PERIODIC_SEARCHr)

Nominal code channel output power offset relative to the Reverse Pilot Channel power (RLGAIN_TRAFFIC_PILOTs = RLGAIN_TRAFFIC_PILOTr)

- If EXTRA_PARMS is equal to ‘1’ and DEFAULT_RLAG is equal to ‘1’, the mobile station shall set each entry of the Reverse Link Attribute Adjustment Gain Table and Reverse Channel Adjustment Gain Table (see 2.1.2.3.3 of [2]) to 0.

- If USE_PWR_CNTL_STEP is equal to ‘1’ and PWR_CNTL_STEPr corresponds to a power control step size supported by the mobile station (see of [2]), then the mobile station shall set PWR_CNTL_STEPs to PWR_CNTL_STEPr.

- If CLEAR_RETRY_DELAYr is equal to ‘1’, the mobile station shall cancel any previously indicated retry delay and shall set RETRY_DELAYs[RETRY_TYPE] to 0, where RETRY_TYPE is equal to ‘001’, ‘010’ or ‘011’; otherwise, the mobile station shall continue to honor any previously active retry delay stored in RETRY_DELAYs.

- If 3XFL_1XRL_INCLr is equal to ‘1’, the mobile station shall set 1XRL_FREQ_OFFSETs to 1XRL_FREQ_OFFSETr.

- If SCH_INCLr is equal to ‘1’ and NUM_FOR_ASSIGNr is not equal to ‘00’, the mobile station shall store the following information for each occurrence of the record and process the Forward Supplemental Burst as specified in 2.6.6.2.5.1.1:
  
  + FOR_SCH_START_TIME_INCLs[FOR_SCH_IDr] = FOR_SCH_START_TIME_INCLr
  + If FOR_SCH_START_TIME_INCLs[FOR_SCH_IDr] is equal to ’1’, set FOR_SCH_START_TIMESs[FOR_SCH_IDr] = FOR_SCH_START_TIMEr
  + FOR_SCH_DURATIONs[FOR_SCH_IDr] = FOR_SCH_DURATIONr
  + SCCL_INDEXs[FOR_SCH_IDr] = SCCL_INDEXr
– If SCH_INCL_r is equal to ‘1’ and NUM_REV_ASSIGN_r is not equal to ‘00’, the mobile station shall store the following information for each occurrence of the record and process the Reverse Supplemental Burst as specified in 2.6.6.2.5.1.2:

+ REV_SCH_START_TIME_INCL_s[REV_SCH_ID_r] = REV_SCH_START_TIME_INCL_r

+ If REV_SCH_START_TIME_INCL_s[REV_SCH_ID_r] is equal to’1’, set REV_SCH_START_TIME_s[REV_SCH_ID_r] = REV_SCH_START_TIME_r

+ REV_SCH_DURATION_s[REV_SCH_ID_r] = REV_SCH_DURATION_r

+ REV_SCH_NUM_BITSIDX_s[REV_SCH_ID_r] = REV_SCH_NUM_BITSIDX_r

– If CH_IND_r is equal to ‘101’, the mobile station shall perform the following:

+ The mobile station shall set CH_IND_s = ‘01’.

+ If SCH_INCL_r is equal to ‘1’ and NUM_FOR_SCH is not equal to ‘00000’, for all the NUM_FOR_SCH occurrences, the mobile station shall perform the following:

  ○ The mobile station shall determine, N_FSCH_BITS_SET_s[FOR_SCH_ID_r][SCCL_INDEX_r], the number of information bits per Forward Supplemental Channel frame identified by FOR_SCH_ID and corresponding to the index SCCL_INDEX according to the following rules:

    ◊ If FSCH_VAR_TABLE_ID_s[FOR_SCH_ID_r] is equal to ‘000’, then:

    – If USE_FLEX_NUM_BITS_s is equal to ‘0’ or if USE_FLEX_NUM_BITS_s is equal to ‘1’ and FSCH_NBIT_TABLE_ID_s[FOR_SCH_ID_r] is equal to ‘0000’, then the mobile station shall set the number of information bits per frame, N_FSCH_BITS_SET_s[FOR_SCH_ID_r][SCCL_INDEX_r] and number of CRC bits per frame, FSCH_CRC_LEN_SET_s[FOR_SCH_ID_r][SCCL_INDEX_r], according to Table 3.7.3.3.2.37-2 using FOR_SCH_NUM_BITSIDX_r as the index to the table.
If USE_FLEX_NUM_BITS_s is equal to ‘1’ and
FSCH_NBIT_TABLE_ID_s[FOR_SCH_ID_r] is not equal to
‘0000’, then the mobile station shall set the number of
CRC bits per frame,
FSCH_CRC_LEN_SET_s[FOR_SCH_ID_r][SCCL_INDEX_r],
using Table 3.7.5.20-1 and
CRC_LEN_IDX_s[FSCH_NBIT_TABLE_ID_s[FOR_SCH_ID_r]][FOR_SCH_NUM_BITS_IDX_r] as the index to the table.

The mobile station shall also set the number of
information bits per frame corresponding to
SCCL_INDEX_r,
N_FSCH_BITS_SET_s[FOR_SCH_ID_r][SCCL_INDEX_r], to
NUM_BITS_s[FSCH_NBIT_TABLE_ID_s[FOR_SCH_ID_r]][FOR_SCH_NUM_BITS_IDX_r].

◊ If FSCH_VAR_TABLE_ID_s[FOR_SCH_ID_r] is not equal to ‘000’,
then:

- The mobile station shall set
N_FSCH_BITS_IDX_SET_s[FOR_SCH_ID_r], the set of indices
to the number of information bits per frame as follows:
  + If FOR_SCH_NUM_BITS_IDX_r is equal to ‘0000’, then
    N_FSCH_BITS_IDX_SET_s[FOR_SCH_ID_r] = \{ 
    FOR_SCH_NUM_BITS_IDX_r \},
  + otherwise the mobile station shall set (initialize)
    N_FSCH_BITS_IDX_SET_s[FOR_SCH_ID_r] = 
    \{FOR_SCH_NUM_BITS_IDX_r\} and for i=1, ..., 
    FOR_SCH_NUM_BITS_IDX_r, the mobile station shall 
    add \FOR_SCH_NUM_BITS_IDX_r - 
    VAR_FSCH_RATE_OFFSET_s[FOR_SCH_ID_r][FOR_SCH_NUM_BITS_IDX_r][i] to the set specified by 
    N_FSCH_BITS_IDX_SET_s[FOR_SCH_ID_r]

- If USE_FLEX_NUM_BITS_s is equal to ‘0’ or if
USE_FLEX_NUM_BITS_s is equal to ‘1’ and
FSCH_NBIT_TABLE_ID_s[FOR_SCH_ID_r] is equal to ‘0000’,
then the mobile station shall set
N_FSCH_BITS_SET_s[FOR_SCH_ID_r][SCCL_INDEX_r], the
set of number of information bits per frame as follows.
The \(i^{th}\) member of the set
N_FSCH_BITS_SET_s[FOR_SCH_ID_r][SCCL_INDEX_r] is
obtained using Table 3.7.3.3.2.37-2 and the \(i^{th}\) member of
the set N_FSCH_BITS_IDX_SET_s[FOR_SCH_ID_r] as the
index to the table.
If USE_FLEX_NUM_BITS is equal to ‘1’ and FSCH_NBIT_TABLE_ID[FOR_SCH_ID] is not equal to ‘0000’, then:

+ the mobile station shall set 
  N_FSCH_BITS_SET[FOR_SCH_ID][SCCL_INDEX],
  the set of number of information bits per frame as follows.
  The $i$th member of the set
  N_FSCH_BITS_SET[FOR_SCH_ID][SCCL_INDEX] is
  equal to 
  NUM_BITS[FSCH_NBIT_TABLE_ID[FOR_SCH_ID]]
  [N_FSCH_BITS_IDX_SET[FOR_SCH_ID][i]], where
  N_FSCH_BITS_IDX_SET[FOR_SCH_ID][i] denotes the
  $i$th member of the set
  N_FSCH_BITS_IDX_SET[FOR_SCH_ID].

+ SCH_INCLr is equal to ‘1’ and NUM_REV_SCH is not equal to ‘00000’, for all the NUM_REV_SCH occurrences, the mobile station shall perform the following:
  
  o Set REV_SCH_NUM_BITSIDX[REV_SCH_ID] to REV_SCH_NUM_BITSIDXr.
  
  o Set REV_WALSH_ID[REV_SCH_ID][REV_SCH_NUM_BITSIDX] to REV_WALSH_IDr.

+ For each member of the Active Set included in the message, the mobile station shall perform the following:
  
  o Set PILOT_PN to PILOT_PNr.
  
  o If SRCH_OFFSET_INCLr equals to ‘1’, set the SRCH_OFFSET field of PILOT_REC to SRCH_OFFSETr; otherwise, set the SRCH_OFFSET field of PILOT_REC to ‘000’.
  
  o Set ADD_PILOT_REC_INCL to ADD_PILOT_REC_INCLr.
If ADD_PILOT_REC_INCL equals ‘1’, the mobile station shall also perform the following:

◊ Set the PILOT_REC_TYPE field of PILOT_REC to PILOT_REC_TYPEr.

◊ If PILOT_REC_TYPEr is equal to ‘000’, the mobile station shall set the TD_POWER_LEVEL field of PILOT_REC to TD_POWER_LEVELr and set the TD_MODE field of NGHBR_PILOT_REC to TD_MODEr.

◊ If PILOT_REC_TYPEr is equal to ‘001’, the mobile station shall:
  – Set the AUX_PILOT_QOF field of PILOT_REC to QOFr.
  – Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_PILOT_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.

◊ If PILOT_REC_TYPEr is equal to ‘010’, the mobile station shall:
  – Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.
  – Set the AUX_TD_POWER_LEVEL field of PILOT_REC to AUX_TD_POWER_LEVELr.
  – Set the TD_MODE field of PILOT_REC to TD_MODEr.

◊ If PILOT_REC_TYPEr is equal to ‘011’, the mobile station shall:
  – Set the SR3_PRIMARY_PILOT field of PILOT_REC to SR3_PRIMARY_PILOTr.
  – Set the SR3_PILOT_POWER1 field of PILOT_REC to SR3_PILOT_POWER1r.
  – Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOT_POWER2r.

◊ If PILOT_REC_TYPEr is equal to ‘100’, the mobile station shall:
  – Set the SR3_PRIMARY_PILOT field of PILOT_REC to SR3_PRIMARY_PILOTr.
  – Set the SR3_PILOT_POWER1 field of PILOT_REC to SR3_PILOTPOWER1r.
  – Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOTPOWER2r.
  – Set the AUX_PILOT_QOF field of PILOT_REC to QOFr.
Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_PILOT_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.

- If ADD_INFO_INCL1r is equal to ‘1’, set the AUX_PILOT_QOF1 field of PILOT_REC to QOF1r and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to AUX_PILOT_WALSH1r with the Walsh Code length specified by WALSH_LENGTH1r; otherwise, set the AUX_PILOT_QOF1 field of PILOT_REC to QOFr and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to AUX_PILOT_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.

- If ADD_INFO_INCL2r is equal to ‘1’, set the AUX_PILOT_QOF2 field of PILOT_REC to QOF2r and set the AUX_PILOT_WALSH_CODE2 field of PILOT_REC to AUX_PILOT_WALSH2r with the Walsh Code length specified by WALSH_LENGTH2r; otherwise, set the AUX_PILOT_QOF2 field of PILOT_REC to QOFr and set the AUX_PILOT_WALSH_CODE2 field of PILOT_REC to AUX_PILOT_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.

- Store PWR_COMB_IND, CODE_CHAN_FCH and QOF_MASK_ID_FCH.

- If SCH_INCLr is equal to ‘1’ and NUM_SCH is equal to ‘00000’, the mobile station shall delete the corresponding pilot from the all entries of the corresponding Supplemental Channel.

- If SCH_INCLr is equal to ‘1’ and NUM_SCH is not equal to ‘00000’, for each Supplemental Channel included in this record, the mobile station shall:
  ◊ If PILOT_INCL is equal to ‘0’, the mobile station shall delete the corresponding pilot from the Active Set of Supplemental Channel for the corresponding SCCL_INDEXr.
  ◊ If PILOT_INCL is equal to ‘1’, for each Supplemental Channel included in this record, the mobile station shall set PILOT_PNs [FOR_SCH_IDr][SCCL_INDEXr][i] to PILOT_PNr, QOF_IDs[FOR_SCH_IDr][SCCL_INDEXr][i] to QOF_MASK_ID_SCHr, and FOR_SCH_CC_INDEXs[FOR_SCH_IDr][SCCL_INDEXr][i] to CODE_CHAN_SCHr.
The mobile station shall delete all pilots that are not included in the list specified by the NUM_PILOTS field from the Active Set of Supplemental Channel for the corresponding SCCL_INDEXr.

+ If 3X_FCH_INFO_INCLr equals to ‘1’, for each included member of the Active Set, the mobile station store the following:
  o If 3X_FCH_LOW_INCLr equals ‘1’, set the QOF_MASK_ID_FCH_LOW field to QOF_MASK_ID_FCH_LOWr and the CODE_CHAN_FCH_LOW field to CODE_CHAN_FCH_LOWr. Otherwise, set the QOF_MASK_ID_FCH_LOW field to QOF_MASK_ID_FCHr and the CODE_CHAN_FCH_LOW to CODE_CHAN_FCHr.
  o If 3X_FCH_HIGH_INCLr equals ‘1’, set the QOF_MASK_ID_FCH_HIGH field to QOF_MASK_ID_FCH_HIGHr and the CODE_CHAN_FCH_HIGH field to CODE_CHAN_FCH_HIGHr. Otherwise, set the QOF_MASK_ID_FCH_HIGH field to QOF_MASK_ID_FCHr and the CODE_CHAN_FCH_HIGH to CODE_CHAN_FCHr.
  o If 3X_SCH_INFO_INCLr equals to ‘1’, for each Supplemental Channel included, the mobile station store the following:
    ◊ If 3X_SCH_LOW_INCLr equals ‘1’, set the QOF_ID_SCH_LOWs [FOR_SCH_IDr][SCCL_INDEXr][i] to QOF_MASK_ID_SCH_LOWr and the FOR_SCH_CC_INDEX_LOWs [FOR_SCH_IDr][SCCL_INDEXr][i] field to CODE_CHAN_SCH_LOWr. Otherwise, set QOF_ID_SCH_LOWs [FOR_SCH_IDr][SCCL_INDEXr][i] to QOF_MASK_ID_SCHr, and FOR_SCH_CC_INDEX_LOWs [FOR_SCH_IDr][SCCL_INDEXr][i] to CODE_CHAN_SCHr.
    ◊ If 3X_SCH_HIGH_INCLr equals ‘1’, set the QOF_ID_SCH_HIGHs [FOR_SCH_IDr][SCCL_INDEXr][i] to QOF_MASK_ID_SCH_HIGHr and the FOR_SCH_CC_INDEX_HIGHs [FOR_SCH_IDr][SCCL_INDEXr][i] field to CODE_CHAN_SCH_HIGHr. Otherwise, set QOF_ID_SCH_HIGHs [FOR_SCH_IDr][SCCL_INDEXr][i] to QOF_MASK_ID_SCHr, and FOR_SCH_CC_INDEX_HIGHs [FOR_SCH_IDr][SCCL_INDEXr][i] to CODE_CHAN_SCHr.

+ The mobile station shall delete all pilots that are not listed in the NUM_PILOTS field from the Active Set of Fundamental Channel.
The mobile station shall delete all pilots that are not listed in the Active Set of the Fundamental Channel from the Active Set of the Supplemental Channel for the Forward Supplemental Channel Assignment (if any). If these deleted pilots include all pilots in the Active Set of the Supplemental Channel, the mobile station shall cancel the Forward Supplemental Channel Assignment.

If CH_IND_r is equal to ‘010’ or ‘110’, the mobile station shall perform the following:

+ The mobile station shall set CH_IND_s = ‘10’.

If SCH_INCL_r is equal to ‘1’ and NUM_FOR_SCH is not equal to ‘00000’, for all the NUM_FOR_SCH occurrences, the mobile station shall perform the following:

The mobile station shall determine,

\[N_{FSCH\_BITS\_SETs}\{FOR\_SCH\_ID_r\}\{SCCL\_INDEX_r\}\]

the number of information bits per Forward Supplemental Channel frame identified by FOR_SCH_ID and corresponding to the index SCCL_INDEX according to the following rules:

+ If FSCH_VAR_TABLE_IDs\{FOR\_SCH\_ID_r\} is equal to ‘000’, then:

  – If USE_FLEX_NUM_BITS_s is equal to ‘0’ or if USE_FLEX_NUM_BITS_s is equal to ‘1’ and FSCH_NBIT_TABLE_ID_s\{FOR\_SCH\_ID_r\} is equal to ‘0000’, then the mobile station shall set the number of information bits per frame,

\[N_{FSCH\_BITS\_SETs}\{FOR\_SCH\_ID_r\}\{SCCL\_INDEX_r\}\]

and number of CRC bits per frame,

\[FSCH\_CRC\_LEN\_SETs\{FOR\_SCH\_ID_r\}\{SCCL\_INDEX_r\}\]

according to Table 3.7.3.3.2.37-2 using FOR_SCH_NUM_BITS_IDX_r as the index to the table.
If USE_FLEX_NUM_BITS is equal to '1' and
FSCH_NBIT_TABLE_ID[FOR_SCH_IDr] is not equal to
'0000', then the mobile station shall set the number of
CRC bits per frame,
FSCH_CRC_LEN_SET[FOR_SCH_IDr][SCCL_INDEXr],
using Table 3.7.5.20-1 and
CRC_LEN_IDX[FSCH_NBIT_TABLE_ID[FOR_SCH_IDr]][FOR_SCH_NUM_BITS_IDXr] as the index to the table.
The mobile station shall also set the number of
information bits per frame corresponding to
SCCL_INDEXr,
N_FSCH_BITS_SET[FOR_SCH_IDr][SCCL_INDEXr], to
NUM_BITS[FSCH_NBIT_TABLE_ID[FOR_SCH_IDr]][FOR_SCH_NUM_BITS_IDXr].

◊ If FSCH_VAR_TABLE_ID[FOR_SCH_IDr] is not equal to '000',
then:

– The mobile station shall set
N_FSCH_BITS_IDX_SET[FOR_SCH_IDr], the set of indices to the number of information bits per frame as follows:
  + If FOR_SCH_NUM_BITS_IDXr is equal to '0000', then
    N_FSCH_BITS_IDX_SET[FOR_SCH_IDr] = { FOR_SCH_NUM_BITS_IDXr },
  + otherwise the mobile station shall set (initialize)
    N_FSCH_BITS_IDX_SET[FOR_SCH_IDr] = { FOR_SCH_NUM_BITS_IDXr } and for i=1, ..., 
    FOR_SCH_NUM_BITS_IDXr the mobile station shall add
    VAR_FSCH_RATE_OFFSET[FOR_SCH_IDr][FOR_SCH_NUM_BITS_IDXr][i] to the set specified by
    N_FSCH_BITS_IDX_SET[FOR_SCH_IDr]
– If USE_FLEX_NUM_BITS is equal to '0' or if
USE_FLEX_NUM_BITS is equal to '1' and
FSCH_NBIT_TABLE_ID[FOR_SCH_IDr] is equal to '0000',
then the mobile station shall set
N_FSCH_BITS_SET[FOR_SCH_IDr][SCCL_INDEXr], the set of number of information bits per frame as follows.
The i\textsuperscript{th} member of the set
N_FSCH_BITS_SET[FOR_SCH_IDr][SCCL_INDEXr] is
obtained using Table 3.7.3.3.2.37-2 and the i\textsuperscript{th} member of the set N_FSCH_BITS_IDX_SET[FOR_SCH_IDr] as the
index to the table.
- If \( \text{USE\_FLEX\_NUM\_BITS} \) is equal to '1' and 
  \( \text{FSCH\_NBIT\_TABLE\_ID} \)[FOR\_SCH\_ID] is not equal to '0000', then 
  + the mobile station shall set 
    \( \text{N\_FSCH\_BITS\_SET} \)[FOR\_SCH\_ID][SCCL\_INDEX], 
    the set of number of information bits per frame as follows. 
    The \( i \)th member of the set 
    \( \text{N\_FSCH\_BITS\_SET} \)[FOR\_SCH\_ID][SCCL\_INDEX] is equal to 
    \( \text{NUM\_BITS} \)[FSCH\_NBIT\_TABLE\_ID][FOR\_SCH\_ID][i] 
    \( \text{N\_FSCH\_BITS\_IDX\_SET} \)[FOR\_SCH\_ID][SCCL\_INDEX][i], 
    where 
    \( \text{N\_FSCH\_BITS\_IDX\_SET} \)[FOR\_SCH\_ID][i] denotes the 
    \( i \)th member of the set 
    \( \text{N\_FSCH\_BITS\_IDX\_SET} \)[FOR\_SCH\_ID] and, 
  + the mobile station shall set 
    \( \text{FSCH\_CRC\_LEN\_SET} \)[FOR\_SCH\_ID][SCCL\_INDEX], 
    the set of number CRC bits per frame as follows. 
    The \( i \)th member of the set 
    \( \text{FSCH\_CRC\_LEN\_SET} \)[FOR\_SCH\_ID][SCCL\_INDEX] using Table 3.7.5.20-1 and 
    \( \text{CRC\_LEN\_IDX} \)[FSCH\_NBIT\_TABLE\_ID][FOR\_SCH\_ID][i] 
    \( \text{N\_FSCH\_BITS\_IDX\_SET} \)[FOR\_SCH\_ID][SCCL\_INDEX][i] as the 
    index to the table, where 
    \( \text{N\_FSCH\_BITS\_IDX\_SET} \)[FOR\_SCH\_ID][i] denotes the 
    \( i \)th member of the set 
    \( \text{N\_FSCH\_BITS\_IDX\_SET} \)[FOR\_SCH\_ID]. 
  + If \( \text{SCH\_INCL} \) is equal to '1' and \( \text{NUM\_REV\_SCH} \) is not equal to '00000', for all the \( \text{NUM\_REV\_SCH} \) occurrences, the mobile station shall perform the following: 
    o Set \( \text{REV\_SCH\_NUM\_BITS\_IDX} \)[REV\_SCH\_ID] to 
      \( \text{REV\_SCH\_NUM\_BITS\_IDX} \)[FOR\_SCH\_ID] 
    o Set \( \text{REV\_WALSH\_ID} \)[REV\_SCH\_ID][REV\_SCH\_NUM\_BITS\_IDX] 
      to \( \text{REV\_WALSH\_ID} \)[FOR\_SCH\_ID]. 
  + For each member of the Active Set included in the message, the mobile station shall perform the followings: 
    o Set \( \text{PILOT\_PN} \) to \( \text{PILOT\_PN} \)[r]. 
    o If \( \text{SRCH\_OFFSET\_INCL} \) equals to '1', set the \( \text{SRCH\_OFFSET} \) field of \( \text{PILOT\_REC} \) to \( \text{SRCH\_OFFSET} \)[r]; otherwise, set the \( \text{SRCH\_OFFSET} \) field of \( \text{PILOT\_REC} \) to '000'. 
    o Set \( \text{ADD\_PILOT\_REC\_INCL} \) to \( \text{ADD\_PILOT\_REC\_INCL} \)[r].
If ADD_PILOT_REC_INCLr equals ‘1’, the mobile station shall also perform the following:

◊ Set the PILOT_REC_TYPE field of PILOT_REC to PILOT_REC_TYPEr.

◊ If PILOT_REC_TYPEr is equal to ‘000’, the mobile station shall set the TD_POWER_LEVEL field of PILOT_REC to TD_POWER_LEVELr and set the TD_MODE field of PILOT_REC to TD_MODEr.

◊ If PILOT_REC_TYPEr is equal to ‘001’, the mobile station shall:
  – Set the AUX_PILOT_QOF field of PILOT_REC to QOFr.
  – Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_PILOT_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.

◊ If PILOT_REC_TYPEr is equal to ‘010’, the mobile station shall:
  – Set the AUX_PILOT_TD_QOF field of PILOT_REC to QOFr.
  – Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.
  – Set the AUX_TD_POWER_LEVEL field of PILOT_REC to AUX_TD_POWER_LEVELr.
  – Set the TD_MODE field of PILOT_REC to TD_MODEr.

◊ If PILOT_REC_TYPEr is equal to ‘011’, the mobile station shall:
  – Set the SR3_PRIMARY_PILOT field of PILOT_REC to SR3_PRIMARY_PILOTr.
  – Set the SR3_PILOT_POWER1 field of PILOT_REC to SR3_PILOT_POWER1r.
  – Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOT_POWER2r.

◊ If PILOT_REC_TYPEr is equal to ‘100’, the mobile station shall:
  – Set the SR3_PRIMARY_PILOT field of PILOT_REC to SR3_PRIMARY_PILOTr.
  – Set the SR3_PILOT_POWER1 field of PILOT_REC to SR3_PILOT_POWER1r.
  – Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOT_POWER2r.
  – Set the AUX_PILOT_QOF field of PILOT_REC to QOFr.
– Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_PILOT_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.

– If ADD_INFO_INCL1r is equal to ‘1’, set the AUX_PILOT_QOF1 field of PILOT_REC to QOF1r and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to AUX_PILOT_WALSH1r with the Walsh Code length specified by WALSH_LENGTH1r; otherwise, set the AUX_PILOT_QOF1 field of PILOT_REC to QOFr and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to AUX_PILOT_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.

– If ADD_INFO_INCL2r is equal to ‘1’, set the AUX_PILOT_QOF2 field of PILOT_REC to QOF2r and set the AUX_PILOT_WALSH_CODE2 field of PILOT_REC to AUX_PILOT_WALSH2r with the Walsh Code length specified by WALSH_LENGTH2r; otherwise, set the AUX_PILOT_QOF2 field of PILOT_REC to QOFr and set the AUX_PILOT_WALSH_CODE2 field of PILOT_REC to AUX_PILOT_WALSHr with the Walsh Code length specified by WALSH_LENGTHr.

ο Store PWR_COMB_IND, CODE_CHAN_DCCH and QOF_MASK_ID_DCCH.

ο If SCH_INCLr is equal to ‘1’ and NUM_SCH is equal to ‘00000’, the mobile station shall delete the corresponding pilot from all entries of the corresponding Supplemental Channel.

ο If SCH_INCLr is equal to ‘1’ and NUM_SCH is not equal to ‘00000’, the mobile station shall:

◊ If PILOT_INCL is equal to ‘0’, the mobile station shall delete the corresponding pilot from the Active Set of Supplemental Channel for the corresponding SCCL_INDEXr.

◊ If PILOT_INCL is equal to ‘1’, for each Supplemental Channel included in this record, the mobile station shall set PILOT_PNs [FOR_SCH_IDr][SCCL_INDEXs][i] to PILOT_PNr, QOF_IDs[FOR_SCH_IDr][SCCL_INDEXs][i] to QOF_MASK_ID_SCHr, and FOR_SCH_CC_INDEXs [FOR_SCH_IDs][SCCL_INDEXs][i] to CODE_CHAN_SCHr.

◊ The mobile station shall delete all pilots that are not included in the list specified by the NUM_PILOTS field from the Active Set of Supplemental Channel for the corresponding SCCL_INDEXr.
+ If 3X_DCCH_INFO_INCLr equals to ‘1’, for each included member of
  the Active Set, the mobile station store the following:

  o If 3X_DCCH_LOW_INCLr equals ‘1’, set the
    QOF_MASK_ID_DCCH_LOW field to QOF_MASK_ID_DCCH_LOWr
    and the CODE_CHAN_DCCH_LOW field to
    CODE_CHAN_DCCH_LOWr. Otherwise, set the
    QOF_MASK_ID_DCCH_LOW field to QOF_MASK_ID_FCHr and the
    CODE_CHAN_DCCH_LOW to CODE_CHAN_FCHr.

  o If 3X_DCCH_HIGH_INCLr equals ‘1’, set the
    QOF_MASK_ID_DCCH_HIGH field to
    QOF_MASK_ID_DCCH_HIGHr and the CODE_CHAN_DCCH_HIGH
    field to CODE_CHAN_DCCH_HIGHr. Otherwise, set the
    QOF_MASK_ID_DCCH_HIGH field to QOF_MASK_ID_FCHr and
    the CODE_CHAN_DCCH_HIGH to CODE_CHAN_FCHr.

  o If 3X_SCH_INFO_INCLr equals to ‘1’, for each Supplemental
    Channel included, the mobile station store the following:

    ◊ If 3X_SCH_LOW_INCLr equals ‘1’, set
      QOF_ID_SCH_LOW[FOR_SCH_IDr][SCCL_INDEXr][i] to
      QOF_MASK_ID_SCH_LOWr and
      FOR_SCH_CC_INDEX_LOW[FOR_SCH_IDr][SCCL_INDEXr][i]
      field to CODE_CHAN_SCH_LOWr. Otherwise, set
      QOF_ID_SCH_LOW[FOR_SCH_IDr][SCCL_INDEXr][i] to
      QOF_MASK_ID_SCHr, and
      FOR_SCH_CC_INDEX_LOW[FOR_SCH_IDr][SCCL_INDEXr][i]
      to CODE_CHAN_SCHr.

    ◊ If 3X_SCH_HIGH_INCLr equals ‘1’, set
      QOF_ID_SCH_HIGH[FOR_SCH_IDr][SCCL_INDEXr][i] to
      QOF_MASK_ID_SCH_HIGHr and the
      FOR_SCH_CC_INDEX_HIGH[FOR_SCH_IDr][SCCL_INDEXr][i]
      field to CODE_CHAN_SCH_HIGHr. Otherwise, set
      QOF_ID_SCH_HIGH[FOR_SCH_IDr][SCCL_INDEXr][i] to
      QOF_MASK_ID_SCHr, and
      FOR_SCH_CC_INDEX_HIGH[FOR_SCH_IDr][SCCL_INDEXr][i]
      to CODE_CHAN_SCHr.

+ The mobile station shall delete all pilots that are not listed in the
  NUM_PILOTS field from the Active Set of Dedicated Control Channel.

+ The mobile station shall delete all pilots that are not listed in the
  Active Set of the Dedicated Control Channel from the Active Set of the
  Supplemental Channel for the Forward Supplemental Channel
  Assignment (if any). If these deleted pilots include all pilots in the
  Active Set of the Supplemental Channel, the mobile station shall
  cancel the Forward Supplemental Channel Assignment.
- If CH_IND_r is equal to '111', the mobile station shall perform the following:
  + The mobile station shall set CH_IND_s = '11'.

+ If SCH_INCL_r is equal to '1' and NUM_FOR_SCH is not equal to '00000', for all the NUM_FOR_SCH occurrences, the mobile station shall perform the following:
  o The mobile station shall determine,
    N_FSCH_BITS_SET_s[FOR_SCH_ID_r][SCCL_INDEX_r], the number of information bits per Forward Supplemental Channel frame identified by FOR_SCH_ID and corresponding to the index SCCL_INDEX according to the following rules:
    ◊ If FSCH_VAR_TABLE_ID_s[FOR_SCH_ID_r] is equal to '000', then:
      - If USE_FLEX_NUM_BITS_s is equal to '0' or if
        USE_FLEX_NUM_BITS_s is equal to '1' and
        FSCH_NBIT_TABLE_ID_s[FOR_SCH_ID_r] is equal to '0000',
        then the mobile station shall set the number of information bits per frame,
        N_FSCH_BITS_SET_s[FOR_SCH_ID_r][SCCL_INDEX_r] and
        number of CRC bits per frame,
        FSCH_CRC_LEN_SET_s[FOR_SCH_ID_r][SCCL_INDEX_r],
        according to Table 3.7.3.3.2.37-2 using
        FOR_SCH_NUM_BITS_IDX_r as the index to the table.
      - If USE_FLEX_NUM_BITS_s is equal to '1' and
        FSCH_NBIT_TABLE_ID_s[FOR_SCH_ID_r] is not equal to '0000', then the mobile station shall set the number of CRC bits per frame,
        FSCH_CRC_LEN_SET_s[FOR_SCH_ID_r][SCCL_INDEX_r],
        using Table 3.7.5.20-1 and
        CRC_LEN_IDX_s[FSCH_NBIT_TABLE_ID_s[FOR_SCH_ID_r]][FOR_SCH_NUM_BITS_IDX_r] as the index to the table.
    The mobile station shall also set the number of information bits per frame corresponding to
    SCCL_INDEX_r,
    N_FSCH_BITS_SET_s[FOR_SCH_ID_r][SCCL_INDEX_r], to
    NUM_BITS_s[FSCH_NBIT_TABLE_ID_s[FOR_SCH_ID_r]][FOR_SCH_NUM_BITS_IDX_r].
    ◊ If if FSCH_VAR_TABLE_ID_s[FOR_SCH_ID_r] is not equal to '000', then:
      - The mobile station shall set
        N_FSCH_BITS_IDX_SET_s[FOR_SCH_ID_r], the set of indices to the number of information bits per frame as follows:
+ If FOR_SCH_NUM_BITS_IDX_r is equal to ‘0000’, then
\[
\text{N_FSCH_BITS_IDX_SETs}[\text{FOR_SCH_ID}_r] = \{ \text{FOR_SCH_NUM_BITS_IDX}_r \},
\]

+ otherwise the mobile station shall set (initialize)
\[
\text{N_FSCH_BITS_IDX_SETs}[\text{FOR_SCH_ID}_r] = \
\{ \text{FOR_SCH_NUM_BITS_IDX}_r \} \text{ and for } i = 1, \ldots,
\]
\[
\text{FOR_SCH_NUM_BITS_IDX}_r \text{ the mobile station shall add } \text{FOR_SCH_NUM_BITS_IDX}_r - \
\text{VAR_FSCH_RATE_OFFSETs}[\text{FOR_SCH_ID}_r][\text{FOR_SCH_NUM BITS_IDX}_r][i] \text{ to the set specified by}
\]
\[
\text{N_FSCH_BITS_IDX_SETs}[\text{FOR_SCH_ID}_r]
\]

- If USE_FLEX_NUM_BITS_s is equal to ‘0’ or if USE_FLEX_NUM_BITS_s is equal to ‘1’ and
\[
\text{FSCH_NBIT_TABLE_IDs}[\text{FOR_SCH_ID}_r] \text{ is equal to ‘0000’, then the mobile station shall set}
\]
\[
\text{N_FSCH_BITS_SETs}[\text{FOR_SCH_ID}_r][\text{SCCL_INDEX}_r], \text{ the set of number of information bits per frame as follows.}
\]
The \text{ith} member of the set
\[
\text{N_FSCH_BITS_SETs}[\text{FOR_SCH_ID}_r][\text{SCCL_INDEX}_r] \text{ is obtained using Table 3.7.3.3.2.37-2 and the \text{ith} member of}
\]
\[
\text{the set } \text{N_FSCH_BITS_IDX_SETs}[\text{FOR_SCH_ID}_r][\text{FOR_SCH_ID}_r] \text{ as the index to the table.}
\]

- If USE_FLEX_NUM_BITS_s is equal to ‘1’ and
\[
\text{FSCH_NBIT_TABLE_IDs}[\text{FOR_SCH_ID}_r] \text{ is not equal to ‘0000’, then}
\]
\[
+ \text{the mobile station shall set}
\]
\[
\text{N_FSCH_BITS_SETs}[\text{FOR_SCH_ID}_r][\text{SCCL_INDEX}_r], \text{ the set of number of information bits per frame as}
\]
\[
\text{follows.}
\]
The \text{ith} member of the set
\[
\text{N_FSCH_BITS_SETs}[\text{FOR_SCH_ID}_r][\text{SCCL_INDEX}_r] \text{ is equal to}
\]
\[
\text{NUM_BITS}_s[\text{FSCH_NBIT_TABLE_IDs}[\text{FOR_SCH_ID}_r]]
\]
\[
[\text{N_FSCH_BITS_IDX_SETs}[\text{FOR_SCH_ID}_r][\text{FOR_SCH_ID}_r][i]], \text{ where}
\]
\[
\text{N_FSCH_BITS_IDX_SETs}[\text{FOR_SCH_ID}_r][\text{FOR_SCH_ID}_r][i] \text{ denotes the}
\]
\[
\text{ith} \text{ member of the set}
\]
\[
\text{N_FSCH_BITS_IDX_SETs}[\text{FOR_SCH_ID}_r] \text{ and,}
\]
the mobile station shall set
\[
\text{FSCH_CRC_LEN_SET_s[FOR_SCH_ID_r][SCCL_INDEX_r]},
\]
the set of number CRC bits per frame as follows.
The \(i\)th member of the set
\[
\text{FSCH_CRC_LEN_SET_s[FOR_SCH_ID_r][SCCL_INDEX_r]}
\]
using Table 3.7.5.20-1 and
\[
\text{CRC_LEN_IDX_s[FSCH_NBIT_TABLE_ID_s[FOR_SCH_ID_r]}}
\]
\[
||\text{N_FSCH_BITSIDX_SET_s[FOR_SCH_ID_r][i]}\text{\_INDEX_s}||
\]
\[
\text{as the index to the table, where}
\]
\[
\text{N_FSCH_BITSIDX_SET_s[FOR_SCH_ID_r][i]}\text{\_INDEX_s}
\]
denotes the \(i\)th member of the set
\[
\text{N_FSCH_BITSIDX_SET_s[FOR_SCH_ID_r]}.
\]

+ If SCH_INCL\(r\) is equal to ‘1’ and NUM_REV_SCH is not equal to
‘00000’, for all the NUM_REV_SCH occurrences, the mobile station
shall perform the following:
\[
\circ \text{Set REV_SCH_NUM_BITSIDX_s[REV_SCH_ID_r]} \text{ to }
\]
\[
\text{REV_SCH_NUM_BITSIDX_r}.
\]
\[
\circ \text{Set REV_WALSH_ID_s[REV_SCH_ID_r][REV_SCH_NUM_BITSIDX_s]}
\]
\[
\text{to REV_WALSH_ID_r}.
\]

+ For each member in the Active Set included in the message, the
mobile station shall perform the followings:
\[
\circ \text{Set PILOT_PN to PILOT_PNr}.
\]
\[
\circ \text{If SRCH_OFFSET_INCL_r equals to ‘1’, set the SRCH_OFFSET field}
\]
\[
\text{of PILOT_REC to SRCH_OFFSET_r; otherwise, set the}
\]
\[
\text{SRCH_OFFSET field of PILOT_REC to ‘000’}.
\]
\[
\circ \text{Set ADD_PILOT_REC_INCL to ADD_PILOT_REC_INCL_r}.
\]
\[
\circ \text{If ADD_PILOT_REC_INCL_r equals ‘1’, the mobile station shall also}
\]
\[
\text{perform the following:}
\]
\[
\text{◊ \text{Set the PILOT_REC_TYPE field of PILOT_REC to}}
\]
\[
\text{PILOT_REC_TYPE_r}.
\]
\[
\text{◊ \text{If PILOT_REC_TYPE_r is equal to ‘000’, the mobile station shall}}
\]
\[
\text{set the TD_POWER_LEVEL field of PILOT_REC to}
\]
\[
\text{TD_POWER_LEVEL_r and set the TD_MODE field of}
\]
\[
\text{PILOT_REC to TD_MODE_r}.
\]
\[
\text{◊ \text{If PILOT_REC_TYPE_r is equal to ‘001’, the mobile station shall}}
\]
\[
\text{– Set the AUX_PILOT_QOF field of PILOT_REC to QOF_r}.
\]
\[
\text{– Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to}
\]
\[
\text{AUX_PILOT_WALSH_r with the Walsh Code length specified}
\]
\[
\text{by WALSH_LENGTH_r}.
\]
\[
\text{◊ \text{If PILOT_REC_TYPE_r is equal to ‘010’, the mobile station shall:}}
\]

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- Set the AUX_PILOT_TD_QOF field of PILOT_REC to QOF_{r}.
- Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_WALSH_{r} with the Walsh Code length specified by WALSH_LENGTH_{r}.
- Set the AUX_TD_POWER_LEVEL field of PILOT_REC to AUX_TD_POWER_LEVEL_{r}.
- Set the TD_MODE field of PILOT_REC to TD_MODE_{r}.

◊ If PILOT_REC_TYPE_{r} is equal to ‘011’, the mobile station shall:
  - Set the SR3_PRIMARY_PILOT field of PILOT_REC to SR3_PRIMARY_PILOT_{r}.
  - Set the SR3_PILOT_POWER1 field of PILOT_REC to SR3_PILOT_POWER1_{r}.
  - Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOT_POWER2_{r}.

◊ If PILOT_REC_TYPE_{r} is equal to ‘100’, the mobile station shall:
  - Set the SR3_PRIMARY_PILOT field of PILOT_REC to SR3_PRIMARY_PILOT_{r}.
  - Set the SR3_PILOT_POWER1 field of PILOT_REC to SR3_PILOT_POWER1_{r}.
  - Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOT_POWER2_{r}.
  - Set the AUX_PILOT_QOF field of PILOT_REC to QOF_{r}.
  - Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_PILOT_WALSH_{r} with the Walsh Code length specified by WALSH_LENGTH_{r}.
  - If ADD_INFO_INCL1_{r} is equal to ‘1’, set the AUX_PILOT_QOF1 field of PILOT_REC to QOF1_{r} and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to AUX_PILOT_WALSH1_{r} with the Walsh Code length specified by WALSH_LENGTH1_{r}; otherwise, set the AUX_PILOT_QOF1 field of PILOT_REC to QOF_{r} and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to AUX_PILOT_WALSH_{r} with the Walsh Code length specified by WALSH_LENGTH_{r}.
If ADD_INFO_INCL2r is equal to '1', set the
AUX_PILOT_QOF2 field of PILOT_REC to QOF2r and set
the AUX_PILOT_WALSH_CODE2 field of PILOT_REC to
AUX_PILOT_WALSH2r with the Walsh Code length
specified by WALSH_LENGTH2r; otherwise, set the
AUX_PILOT_QOF2 field of PILOT_REC to QOFr and set the
AUX_PILOT_WALSH_CODE2 field of PILOT_REC to
AUX_PILOT_WALSHr with the Walsh Code length specified
by WALSH_LENGTHr.

- Store PWR_COMB_IND, CODE_CHAN_FCH, QOF_MASK_ID_FCH,
  CODE_CHAN_DCCH and QOF_MASK_ID_DCCH.
- If SCH_INCLr is equal to ‘1’ and NUM_SCH is equal to ‘00000’, the
  mobile station shall delete the corresponding pilot from all entries
  of the corresponding Supplemental Channel.
- If SCH_INCLr is equal to ‘1’ and NUM_SCH is not equal to ‘00000’, the
  mobile station shall:
    ◊ If PILOT_INCL is equal to ‘0’, the mobile station shall delete
      the corresponding pilot from the Active Set of Supplemental
      Channel for the corresponding SCCL_INDEXr.
    ◊ If PILOT_INCL is equal to ‘1’, for each Supplemental Channel
      included in this record, the mobile station shall set PILOT_PNs
      [FOR_SCH_IDr][SCCL_INDEXr][i] to PILOT_PNr,
      QOF_IDs[FOR_SCH_IDr][SCCL_INDEXr][i] to QOF_MASK_ID_SCHr,
      and FOR_SCH_CC_INDEXs
      [FOR_SCH_IDr][SCCL_INDEXr][i] to CODE_CHAN_SCHr.
    ◊ The mobile station shall delete all pilots that are not included
      in the list specified by the NUM_PILOTS field from the Active
      Set of Supplemental Channel for the corresponding
      SCCL_INDEXr.

+ If 3X_FCH_INFO_INCLr equals to ‘1’, for each included member of the
  Active Set, the mobile station store the following:
  ◊ If 3X_FCH_LOW_INCLr equals ‘1’, set the
    QOF_MASK_ID_FCH_LOW field to QOF_MASK_ID_FCH_LOWr and
    the CODE_CHAN_FCH_LOW field to CODE_CHAN_FCH_LOWr.
    Otherwise, set the QOF_MASK_ID_FCH_LOW field to
    QOF_MASK_ID_FCHr and the CODE_CHAN_FCH_LOW to
    CODE_CHAN_FCHr.
o If 3X_FCH_HIGH_INCLr equals ‘1’, set the
  QOF_MASK_ID_FCH_HIGH field to QOF_MASK_ID_FCH_HIGHr
  and the CODE_CHAN_FCH_HIGH field to
  CODE_CHAN_FCH_HIGHr. Otherwise, set the
  QOF_MASK_ID_FCH_HIGH field to QOF_MASK_ID_FCHr and the
  CODE_CHAN_FCH_HIGH to CODE_CHAN_FCHr.

+ If 3X_DCCH_INFO_INCLr equals to ‘1’, for each included member of
  the Active Set, the mobile station store the following:

  o If 3X_DCCH_LOW_INCLr equals ‘1’, set the
    QOF_MASK_ID_DCCH_LOW field to QOF_MASK_ID_DCCH_LOWr
    and the CODE_CHAN_DCCH_LOW field to
    CODE_CHAN_DCCH_LOWr. Otherwise, set the
    QOF_MASK_ID_DCCH_LOW field to QOF_MASK_ID_FCHr and the
    CODE_CHAN_DCCH_LOW to CODE_CHAN_FCHr.

  o If 3X_DCCH_HIGH_INCLr equals ‘1’, set the
    QOF_MASK_ID_DCCH_HIGH field to
    QOF_MASK_ID_DCCH_HIGHr and the CODE_CHAN_DCCH_HIGH
    field to CODE_CHAN_DCCH_HIGHr. Otherwise, set the
    QOF_MASK_ID_DCCH_HIGH field to QOF_MASK_ID_FCHr and
    the CODE_CHAN_DCCH_HIGH to CODE_CHAN_FCHr.

+ If 3X_FCH_INFO_INCLr or 3X_DCCH_INFO_INCLr equals to ‘1’, for
  each included member of the Active Set, the mobile station store the
  following:

  o If 3X_SCH_INFO_INCLr equals to ‘1’, for each Supplemental
    Channel included, the mobile station store the following:

    ◊ If 3X_SCH_LOW_INCLr equals ‘1’, set
      QOF_ID_SCH_LOW[FOR_SCH_IDr][SCCL_INDEXr][i] to
      QOF_MASK_ID_SCH_LOWr and the
      FOR_SCH_CC_INDEX_LOW[FOR_SCH_IDr][SCCL_INDEXr][i]
      field to CODE_CHAN_SCH_LOWr. Otherwise, set
      QOF_ID_SCH_LOW[FOR_SCH_IDr][SCCL_INDEXr][i] to
      QOF_MASK_ID_SCHr, and
      FOR_SCH_CC_INDEX_LOW[FOR_SCH_IDr][SCCL_INDEXr][i]
      to CODE_CHAN_SCHr.

    ◊ If 3X_SCH_HIGH_INCLr equals ‘1’, set
      QOF_ID_SCH_HIGH[FOR_SCH_IDr][SCCL_INDEXr][i] to
      QOF_MASK_ID_SCH_HIGHr and the
      FOR_SCH_CC_INDEX_HIGH[FOR_SCH_IDr][SCCL_INDEXr][i]
      field to CODE_CHAN_SCH_HIGHr. Otherwise, set
      QOF_ID_SCH_HIGH[FOR_SCH_IDr][SCCL_INDEXr][i] to
      QOF_MASK_ID_SCHr, and
      FOR_SCH_CC_INDEX_HIGH[FOR_SCH_IDr][SCCL_INDEXr][i]
      to CODE_CHAN_SCHr.
The mobile station shall delete all pilots that are not listed in the NUM_PILOTS field from the Active Set of Fundamental Channel and Dedicated Control Channel.

The mobile station shall delete all pilots that are not listed in the Active Set of the Fundamental Channel and Dedicated Control Channel from the Active Set of the Supplemental Channel for the Forward Supplemental Channel Assignment (if any). If these deleted pilots include all pilots in the Active Set of the Supplemental Channel, the mobile station shall cancel the Forward Supplemental Channel Assignment.

- If the most significant bit of CH_IND is set to ‘1’ and PILOT_GATING_USE_RATE is equal to ‘1’, the mobile station shall set PILOT_GATING_USE_RATE to ‘0’ and shall start the continuous reverse pilot at the specified action time. If the most significant bit of CH_IND is set to ‘0’ and PILOT_GATING_USE_RATE is equal to ‘0’, the mobile station shall perform the following:
  - The mobile station shall set PILOT_GATING_USE_RATE to ‘1’ and shall start the reverse pilot gating at the specified action time.
  - If the Fundamental Channel is also being released, the mobile station shall store the configuration used for the Fundamental Channel.
  - The mobile station shall cancel the forward and reverse supplemental channel assignment, if any.

- The mobile station shall set IGNORE_ESCAMs and IGNORE_SCAMs to ‘0’.

- Set the pilot detection threshold for the Target Frequency and the Candidate Frequency:
  - Set TF_T_ADDs to T_ADDs.
  - If the Target Frequency is the same as the Candidate Frequency (TF_CDMABANDs is equal to CF_CDMABANDs and TF_CDMACHs is equal to CF_CDMACHs), set CF_T_ADDs to T_ADDs.

- If PERIODIC_SEARCHs is equal to ‘0’ and a periodic search is in progress, the mobile station shall abort the periodic search (see 2.6.6.2.8.3.4 and 2.6.6.2.10.4).

- Perform a soft or hard handoff depending on the following conditions:
  - If any of the following conditions is true, the mobile station shall perform a hard handoff:
    + EXTRA_PARMS is set to ‘1’ and either BAND_CLASSr is not equal to SF_CDMABANDs, CDMA_FREQr is not equal to SF_CDMACHs, or FRAME_OFFSETr is not equal to SF_FRAME_OFFSETs, or
    + The set of pilots specified by the message is disjoint from the Active Set prior to the action time of the message.
– If the mobile station performs a hard handoff, it shall do the following:
  + If a Periodic Serving Frequency Pilot Report Procedure is in progress, the mobile station shall abort the procedure (see 2.6.6.2.12).
  + If a Candidate Frequency periodic search is in progress, the mobile station shall abort the periodic search (see 2.6.6.2.8.3.4 and 2.6.6.2.10.4).
  + If a Forward Supplemental Channel assignment or a Reverse Supplemental Channel assignment is in progress, the mobile station shall abort it.
  + The mobile station shall cancel any outstanding Forward Supplemental Channel assignment or Reverse Supplemental Channel assignment that is not specified by this message.
  + The mobile station shall cancel the current Forward Supplemental Channel assignment or the Reverse Supplemental Channel assignment, if it is in progress. If the message does not specify another Forward Supplemental Channel assignment or Reverse Supplemental Channel assignment, the mobile station shall cancel the outstanding Forward Supplemental Channel assignment or Reverse Supplemental Channel assignment, if any.
  + If RETURN_IF_HANDOFF_FAILs is equal to ‘0’, the mobile station shall perform actions specified in 2.6.6.2.8.1. If the message specifies more than one pilot, the mobile station shall also perform actions specified in 2.6.6.2.7.1 and 2.6.6.2.7.2.
  + If RETURN_IF_HANDOFF_FAILs is equal to ‘1’, the mobile station shall perform actions specified in 2.6.6.2.8.2. If the message specifies more than one pilot, the mobile station shall also perform actions specified in 2.6.6.2.7.1 and 2.6.6.2.7.2.

– Otherwise, the mobile station shall perform a soft handoff as specified in 2.6.6.2.7.

12. Mobile Assisted Burst Operation Parameters Message: The mobile station shall process this message as follows:
   • The mobile station shall set ORDER_FLAGs to ORDER_FLAGr.
   • If ORDER_FLAGr is equal to ‘1’, the mobile station shall perform the following:
     – The mobile station shall set PS_MIN_DELTA_s to PS_MIN_DELTA_r + 1.
     – The mobile station shall set ORDER_INTERVAL_s to ORDER_INTERVAL_r.
   • If ORDER_FLAGr is equal to ‘0’, the mobile station shall perform the following:
     – The mobile station shall set PS_MIN_DELTA_s to 0.
1. The mobile station shall set ORDER_INTERVAL_s to 0.
2. The mobile station shall set PERIODIC_FLAG_s to PERIODIC_FLAG_r.
3. If PERIODIC_FLAG_r is equal to ‘1’, the mobile station shall perform the following:
   - The mobile station shall set NUM_PILOTS_s to NUM_PILOTS_r.
   - The mobile station shall set PERIODIC_INTERVAL_s to PERIODIC_INTERVAL_r.
4. If PERIODIC_FLAG_r is equal to ‘0’, the mobile station shall perform the following:
   - The mobile station shall set NUM_PILOTS_s to 0.
   - The mobile station shall set PERIODIC_INTERVAL_s to 0.
5. The mobile station shall set THRESHOLD_FLAG_s to THRESHOLD_FLAG_r.
6. If THRESHOLD_FLAG_r is equal to ‘1’, the mobile station shall perform the following:
   - The mobile station shall set PS_FLOOR_LOW_s to PS_FLOOR_LOW_r.
   - The mobile station shall set PS_FLOOR_HIGH_s to PS_FLOOR_HIGH_r.
   - The mobile station shall set PS_CEILING_LOW_s to PS_CEILING_LOW_r.
   - The mobile station shall set PS_CEILING_HIGH_s to PS_CEILING_HIGH_r.
7. If THRESHOLD_FLAG_r is equal to ‘0’, the mobile station shall perform the following:
   - The mobile station shall set PS_FLOOR_LOW_s to ‘0’.
   - The mobile station shall set PS_FLOOR_HIGH_s to ‘0’.
   - The mobile station shall set PS_CEILING_LOW_s to ‘0’.
   - The mobile station shall set PS_CEILING_HIGH_s to ‘0’.

13. Extended Supplemental Channel Assignment Message: The mobile station shall process this message as follows:

    The mobile station shall send a Mobile Station Reject Order with the ORDQ field set to the specified value if any of the following conditions is true, and shall not perform any other action described in this section for processing the Extended Supplemental Channel Assignment Message:

    - The mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00000110’ (capability not supported), if the number of forward or reverse Supplemental Channels specified in the Extended Supplemental Channel Assignment Message is greater than the maximum number of Supplemental Channels supported by the mobile station.
• The mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00000100’ (message field not in valid range), if PILOT_PN specified in the Extended Supplemental Channel Assignment Message is not in the Active Set.

• The mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00000111’ (message can not be handled by the current mobile station configuration), if the message includes a reverse Supplemental Channel assignment, and any of the mobile station’s reverse supplemental channel configuration parameter for the corresponding Supplemental Channel is not included in the message and its stored value

(REV_SCH_MUXs, REV_SCH_RC_s, REV_SCH_CODING_s,
REV_SCH_FRAME_LENGTH_s, QOF_ID_s for the corresponding SCCL_INDEX_r,
or FOR_SCH_CC_INDEX_s for the corresponding SCCL_INDEX_r) is NULL.

• The mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00000111’ (message can not be handled by the current mobile station configuration), if the message includes a forward Supplemental Channel assignment and any of the mobile station’s forward supplemental channel configuration parameter for the corresponding Supplemental Channel (FOR_SCH_MUX_s, FOR_SCH_RC_s, FOR_SCH_CODING_s, or FOR_SCH_FRAME_LENGTH_s) is NULL.

If none of the above conditions is true, the mobile station shall perform the following:

• The mobile station shall store REV_SCH_DTX_DURATION_r, Reverse Supplemental Channel Discontinuous Transmission Duration, as REV_SCH_DTX_DURATIONs.

• The mobile station shall store the unit for START_TIME_UNIT_s = START_TIME_UNIT_r.

• The mobile station shall store USE_T_ADD_ABORT_r, Reverse Supplemental Channel assignment T_ADD abort indicator, as USE_T_ADD_ABORT_s.

• If IGNORE_ESCAM_s is equal to ‘1’ and SCRM_SEQ_NUM_r is not present or is present and is not equal to SCRM_SEQ_NUM_s, then the mobile station shall not process the remaining Reverse Supplemental Channel assignment information in this message.

• If IGNORE_ESCAM_s is equal to ‘1’ and SCRM_SEQ_NUM_r is present and is equal to SCRM_SEQ_NUM_s, then the mobile station shall set IGNORE_ESCAM_s to ‘0’.

• If ADD_INFO_INCL_r is equal to ‘1’, the message includes a Supplemental Channel assignment (that is, NUM_FOR_SCH_r is not equal to ‘00’ and/or NUM_REV_SCH_r is not equal to ‘00’), and PILOT_GATING_USE_RATE is equal to ‘1’, the mobile station shall process the following information of the Extended Supplemental Channel Assignment Message as follows:
- The mobile station shall set $\text{FPC\_PRI\_CHAN}_s = \text{FPC\_PRI\_CHAN}_r$ at the action time of the message.

- The mobile station shall set $\text{PILOT\_GATING\_USE\_RATE}$ to '0' and shall start the continuous reverse pilot at the specified action time.

- If the Fundamental Channel was previously established prior to transitioning to the Control Hold Mode, the mobile station shall start processing F-FCH and start transmitting on R-FCH at the action time of the message. The mobile station shall establish the Fundamental Channel with the same configuration as previously used.

- If $\text{REV\_CFG\_INCLUDED}$ is equal to '1', for all the $(\text{NUM\_REV\_CFG\_RECS} + 1)$ occurrences of the reverse configuration record, the mobile station shall store the $\text{REV\_WALSH\_ID}$ matrix as follows:
  
  - $\text{REV\_WALSH\_ID}_s[\text{REV\_SCH\_ID}_r][\text{REV\_SCH\_NUM\_BITS\_IDX}_r] = \text{REV\_WALSH\_ID}_r$

- If $\text{NUM\_REV\_SCH}_r$ is not equal to '00', then the mobile station shall set $\text{PILOT\_GATING\_USE\_RATE}$ to '0' and store the following information for each occurrence of the record and process the Reverse Supplemental Burst as specified in 2.6.6.2.5.1.2:
  
  - $\text{REV\_SCH\_START\_TIME\_INCL}_s[\text{REV\_SCH\_ID}_r] = \text{REV\_SCH\_START\_TIME\_INCL}_r$

  - If $\text{REV\_SCH\_START\_TIME\_INCL}_s[\text{REV\_SCH\_ID}_r]$ is set to '1', set $\text{REV\_SCH\_START\_TIME}_s[\text{REV\_SCH\_ID}_r] = \text{REV\_SCH\_START\_TIME}_r$

  - $\text{REV\_SCH\_DURATION}_s[\text{REV\_SCH\_ID}_r] = \text{REV\_SCH\_DURATION}_r$

  - $\text{REV\_SCH\_NUM\_BITS\_IDX}_s[\text{REV\_SCH\_ID}_r] = \text{REV\_SCH\_NUM\_BITS\_IDX}_r$

- If $\text{NUM\_FOR\_SCH}_r$ is not equal to '00', then the mobile station shall set $\text{PILOT\_GATING\_USE\_RATE}$ to '0' and store the following information for each occurrence of the record and process the Forward Supplemental Burst as specified in 2.6.6.2.5.1.1:

  - $\text{FOR\_SCH\_START\_TIME\_INCL}_s[\text{FOR\_SCH\_ID}_r] = \text{FOR\_SCH\_START\_TIME\_INCL}_r$

  - If $\text{FOR\_SCH\_START\_TIME\_INCL}_s[\text{FOR\_SCH\_ID}_r]$ is set to '1', set $\text{FOR\_SCH\_START\_TIME}_s[\text{FOR\_SCH\_ID}_r] = \text{FOR\_SCH\_START\_TIME}_r$

  - $\text{FOR\_SCH\_DURATION}_s[\text{FOR\_SCH\_ID}_r] = \text{FOR\_SCH\_DURATION}_r$

  - $\text{FOR\_SCH\_FER\_REP}_s[\text{FOR\_SCH\_ID}_r] = \text{FOR\_SCH\_FER\_REP}_r$

  - $\text{SCCL\_INDEX}_s[\text{FOR\_SCH\_ID}_r] = \text{SCCL\_INDEX}_r$

- If $\text{FOR\_CFG\_INCLUDED}$ is equal to '1', the mobile station shall perform the following:
  - Set $\text{FOR\_SCH\_FER\_REP}_s$ to $\text{FOR\_SCH\_FER\_REP}_r$. 

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• If FOR_CFG_INCLUDED is equal to ‘1’, the mobile station shall perform the following:
  - Set FOR_SCH_FER_REP_s to FOR_SCH_FER_REP_r.
    - If FOR_SCH_FER_REP_r is equal to ‘0’, set SCH_TOT_FRAMES_s and SCH_BAD_FRAMES_s to 0.
    - Store NUM_FOR_CFG_RECS occurrences of Forward Supplemental Channel Configuration associated with the identification of Forward Supplemental Channel.

• For each record of the Forward Supplemental Channel Code list the mobile station shall store the Forward Supplemental Channel Code list associated with the FOR_SCH_ID_r as follows:
  - NUM_SUP_SHO_s[FOR_SCH_ID_r][SCCL_INDEX_r] = NUM_SUP_SHO_r.
  - The mobile station shall determine, N_FSCH_BITS_SET_s[FOR_SCH_ID_r][SCCL_INDEX_r], the number of information bits per Forward Supplemental Channel frame identified by FOR_SCH_ID_r and corresponding to the index SCCL_INDEX_r according to the following rules:
    + If FSCH_VAR_TABLE_ID_s[FOR_SCH_ID_r] is equal to ‘000’, then:
        o If USE_FLEX_NUM_BITS_s is equal to ‘0’ or if USE_FLEX_NUM_BITS_s is equal to ‘1’ and FSCH_NBIT_TABLE_ID_s[FOR_SCH_ID_r] is equal to ‘0000’, then the mobile station shall set the number of information bits per frame, N_FSCH_BITS_SET_s[FOR_SCH_ID_r][SCCL_INDEX_r] and number of CRC bits per frame, FSCH_CRC_LEN_SET_s[FOR_SCH_ID_r][SCCL_INDEX_r], the mobile station shall determine, according to Table 3.7.3.3.2.37-2 using FOR_SCH_NUM_BITS_IDX_r as the index to the table.
        o If USE_FLEX_NUM_BITS_s is equal to ‘1’ and FSCH_NBIT_TABLE_ID_s[FOR_SCH_ID_r] is not equal to ‘0000’, then the mobile station shall set the number of CRC bits per frame, FSCH_CRC_LEN_SET_s[FOR_SCH_ID_r][SCCL_INDEX_r], using Table 3.7.5.20-1 and CRC_LEN_IDX_s[FSCH_NBIT_TABLE_ID_s[FOR_SCH_ID_r][FOR_SCH_NUM_BITS_IDX_r] as the index to the table.
    The mobile station shall also set the number of information bits per frame corresponding to SCCL_INDEX_r, N_FSCH_BITS_SET_s[FOR_SCH_ID_r][SCCL_INDEX_r], to NUM_BITS_s[FSCH_NBIT_TABLE_ID_s[FOR_SCH_ID_r][FOR_SCH_NUM_BITS_IDX_r].
    + If FSCH_VAR_TABLE_ID_s[FOR_SCH_ID_r] is not equal to ‘000’, then:
The mobile station shall set

\[ N_{\text{FSCH\_BITS\_IDX\_SETs}}[\text{FOR\_SCH\_ID}_r] \],

the set of indices to the number of information bits per frame as follows:

\[ N_{\text{FSCH\_BITS\_IDX\_SETs}}[\text{FOR\_SCH\_ID}_r] = \{
 FOR_{\text{SCH\_NUM\_BITS\_IDX}}_r
\}; \]

\[ \text{otherwise the mobile station shall set (initialize)} \]

\[ N_{\text{FSCH\_BITS\_IDX\_SETs}}[\text{FOR\_SCH\_ID}_r] = \{
 FOR_{\text{SCH\_NUM\_BITS\_IDX}}_r
\} \]

and for \( i = 1, \ldots \), \( FOR_{\text{SCH\_NUM\_BITS\_IDX}}_r \) the mobile station shall add \( FOR_{\text{SCH\_NUM\_BITS\_IDX}}_r - \)

\[ \text{VAR}_{\text{FSCH\_RATE\_OFFSETs}}[\text{FOR\_SCH\_ID}_r][\text{FOR\_SCH\_NUM\_BITS\_IDXs}_r][i] \]

\( \text{ITS\_IDX}_r][i] \) to the set specified by

\[ N_{\text{FSCH\_BITS\_IDX\_SETs}}[\text{FOR\_SCH\_ID}_r] \]

If \( \text{USE\_FLEX\_NUM\_BITSs} \) is equal to ‘0’ or if \( \text{USE\_FLEX\_NUM\_BITSs} \) is equal to ‘1’ and \( \text{FSCH\_NBIT\_TABLE\_ID}s[\text{FOR\_SCH\_ID}_r] \) is equal to ‘0000’, then

the mobile station shall set

\[ N_{\text{FSCH\_BITS\_SETs}}[\text{FOR\_SCH\_ID}_r][\text{SCCL\_INDEX}_r], \]

the set of number of information bits per frame as follows.

\[ \text{The } i^{th} \text{ member of the set } \]

\[ N_{\text{FSCH\_BITS\_SETs}}[\text{FOR\_SCH\_ID}_r][\text{SCCL\_INDEX}_r] \text{ is obtained using Table 3.7.3.3.2.37-2 and the } i^{th} \text{ member of the set } \]

\[ N_{\text{FSCH\_BITS\_IDX\_SETs}}[\text{FOR\_SCH\_ID}_r] \text{ as the index to the table.} \]

If \( \text{USE\_FLEX\_NUM\_BITSs} \) is equal to ‘1’ and \( \text{FSCH\_NBIT\_TABLE\_ID}s[\text{FOR\_SCH\_ID}_r] \) is not equal to ‘0000’, then

\[ \text{the mobile station shall set } \]

\[ N_{\text{FSCH\_BITS\_SETs}}[\text{FOR\_SCH\_ID}_r][\text{SCCL\_INDEX}_r], \]

the set of number of information bits per frame as follows.

\[ \text{The } i^{th} \text{ member of the set } \]

\[ N_{\text{FSCH\_BITS\_SETs}}[\text{FOR\_SCH\_ID}_r][\text{SCCL\_INDEX}_r] \text{ is equal to } \]

\[ \text{NUM\_BITSs}[\text{FSCH\_NBIT\_TABLE\_ID}s[\text{FOR\_SCH\_ID}_r]] \]

\[ [N_{\text{FSCH\_BITS\_IDX\_SETs}}[\text{FOR\_SCH\_ID}_r][i]], \text{ where } \]

\[ N_{\text{FSCH\_BITS\_IDX\_SETs}}[\text{FOR\_SCH\_ID}_r][i] \text{ denotes the } i^{th} \]

member of the set \( N_{\text{FSCH\_BITS\_IDX\_SETs}}[\text{FOR\_SCH\_ID}_r] \)

and,
the mobile station shall set
FSCH_CRC_LEN_SETs[FOR_SCH_IDr][SCCL_INDEXr], the set
of number CRC bits per frame as follows.
The ith member of the set
FSCH_CRC_LEN_SETs[FOR_SCH_IDr][SCCL_INDEXr] using
Table 3.7.5.20-1 and
CRC_LEN_IDXs[FSCH_NBIT_TABLE_IDs[FOR_SCH_IDr]][N_FS
CH_BITS_IDX_SETs[FOR_SCH_IDr][i]] as the index to the
table, where N_FSCH_BITS_IDX_SETs[FOR_SCH_IDr][i]
denotes the ith member of the set
N_FSCH_BITS_IDX_SETs[FOR_SCH_IDr].

- For the ith record of the Forward Supplemental Channel Active Set (for all
values of i between 1 and NUM_SUP_SHO+1) specified in this message,
the mobile station shall store the following three entries corresponding to
the SCCL_INDEXr as follows:

+ PILOT_PNs[FOR_SCH_IDr][SCCL_INDEXr][i] = PILOT_PNr,
+ Set the ADD_PILOT_REC_INCL field to ADD_PILOT_REC_INCLr. If
ADD_PILOT_REC_INCLr equals ‘1’, the mobile station shall store the
following:
  o Set the PILOT_REC_TYPE field of PILOT_REC to
    PILOT_REC_TYPEr.
  o If PILOT_REC_TYPEr equals ‘000’, the mobile station shall set the
    TD_POWER_LEVEL field of PILOT_REC to TD_POWER_LEVELr
    and set the TD_MODE field of PILOT_REC to TD_MODEr.
  o If PILOT_REC_TYPEr is equal to ‘001’, the mobile station shall:
    - Set the AUX_PILOT_QOF field of PILOT_REC to QOFr.
    - Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to
      AUX_PILOT_WALSHr with the Walsh Code length specified by
      WALSH_LENGTHr.
  o If NGHBR_PILOT_REC_TYPEr is equal to ‘010’, the mobile station shall:
    - Set the AUX_PILOT_TD_QOF field of PILOT_REC to QOFr.
    - Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to
      AUX_PILOT_WALSHr with the Walsh Code length specified by
      WALSH_LENGTHr.
    - Set the AUX_TD_POWER_LEVEL field of PILOT_REC to
      AUX_TD_POWER_LEVELr.
    - Set the TD_MODE field of NGHBR_PILOT_REC to TD_MODEr.
  o If PILOT_REC_TYPEr is equal to ‘011’, the mobile station shall:
– Set the SR3_PRIMARY_PILOT field of PILOT_REC to SR3_PRIMARY_PILOT$_r$.

– Set the SR3_PILOT_POWER1 field of PILOT_REC to SR3_PILOT_POWER1$_r$.

– Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOT_POWER2$_r$.

If PILOT_REC_TYPE$_r$ is equal to ‘100’, the mobile station shall:

– Set the SR3_PRIMARY_PILOT field of PILOT_REC to SR3_PRIMARY_PILOT$_r$.

– Set the SR3_PILOT_POWER1 field of PILOT_REC to SR3_PILOT_POWER1$_r$.

– Set the SR3_PILOT_POWER2 field of PILOT_REC to SR3_PILOT_POWER2$_r$.

– Set the AUX_PILOT_QOF field of PILOT_REC to QOF$_r$.

– Set the AUX_PILOT_WALSH_CODE field of PILOT_REC to AUX_PILOT_WALSH$_r$ with the Walsh Code length specified by WALSH_LENGTH$_r$.

– If ADD_INFO_INCL1$_r$ is equal to ‘1’, set the AUX_PILOT_QOF1 field of PILOT_REC to QOF1$_r$ and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to AUX_PILOT_WALSH1$_r$ with the Walsh Code length specified by WALSH_LENGTH1$_r$.

– Otherwise, set the AUX_PILOT_QOF1 field of PILOT_REC to QOF$_r$ and set the AUX_PILOT_WALSH_CODE1 field of PILOT_REC to AUX_PILOT_WALSH$_r$ with the Walsh Code length specified by WALSH_LENGTH$_r$.

– If ADD_INFO_INCL2$_r$ is equal to ‘1’, set the AUX_PILOT_QOF2 field of PILOT_REC to QOF2$_r$ and set the AUX_PILOT_WALSH_CODE2 field of PILOT_REC to AUX_PILOT_WALSH2$_r$ with the Walsh Code length specified by WALSH_LENGTH2$_r$.

– Otherwise, set the AUX_PILOT_QOF2 field of PILOT_REC to QOF$_r$ and set the AUX_PILOT_WALSH_CODE2 field of PILOT_REC to AUX_PILOT_WALSH$_r$ with the Walsh Code length specified by WALSH_LENGTH$_r$.

\[
\text{QOF}\_\text{MASK}\_\text{ID}\_\text{SCH}_{s[\text{FOR}\_\text{SCH}\_\text{ID}_r][\text{SCCL}\_\text{INDEX}_r][i]} = \text{QOF}\_\text{MASK}\_\text{ID}\_\text{SCH}_r,
\]

\[
\text{FOR}\_\text{SCH}\_\text{CC}\_\text{INDEX}\_s[\text{FOR}\_\text{SCH}\_\text{ID}_r][\text{SCCL}\_\text{INDEX}_r][i] = \text{CODE}\_\text{CHAN}\_\text{SCH}_r.
\]
• The mobile station may soft-combine the Forward Supplemental Channel frames received on the Forward Supplemental Channels in the same Forward Supplemental Channel Active Set.

• If the mobile station supports any Radio Configuration greater than 2, the mobile station shall perform the following:
  – If FPC_INCL_r is equal to ‘1’, the mobile station shall:
    + Set FPC_MODE_SCH_s to FPC_MODE_SCH_r.
  – If FPC_INCL is equal to ‘1’ and FPC_MODE is equal to ‘001’, ‘010’, ‘101’, or ‘110’, the mobile station shall:
    + Set FPC_SEC_CHAN_s to FPC_SEC_CHAN_r.
  – If NUM_SUP_r is included and not equal to ‘00’, for each Supplemental Channel included in the message, the mobile station shall:
    + Set SCH_ID_s to SCH_ID_r.
    + Set FPC_SCH_FER_s to FPC_SCH_FER_r.
    + Set FPC_SCH_INIT_SETPT_s as follows:
      o If FPC_SCH_INIT_SETPT_OP_r is set to ‘0’, set FPC_SCH_INIT_SETPT_s to FPC_SCH_INIT_SETPT_r.
      o If FPC_SCH_INIT_SETPT_OP_r is set to ‘1’:
        ◊ If FPC_PRI_CHAN_r is equal to ‘0’, set FPC_SCH_INIT_SETPT_s to (FPC_FCH_CURR_SETPT_s + FPC_SCH_INIT_SETPT_r).
        ◊ Otherwise, set FPC_SCH_INIT_SETPT_s to (FPC_DCCH_CURR_SETPT_s + FPC_SCH_INIT_SETPT_r).
    + Set FPC_SCH_MIN_SETPT_s to FPC_SCH_MIN_SETPT_r.
    + Set FPC_SCH_MAX_SETPT_s to FPC_SCH_MAX_SETPT_r.
  – If FPC_THRESH_SCH_INCL is included and equal to ‘1’, the mobile station shall set FPC_SETPT_THRESH_SCH_s to SETPT_THRESH_SCH_r.

• If RPC_INCL is equal to ‘1’, the mobile station shall set RLGAIN_SCH_PILOT_s to RLGAIN_SCH_PILOT_r.

• If NUM_3X_CFG_r is not equal to ‘00’, the mobile station shall store the Forward 3X Supplemental Channel Configuration associated with the identification of Forward Supplemental Channel (NUM_3X_CFG_s = NUM_3X_CFG_r).

• For each 3X SCH record included in this message, the mobile station shall update the Forward Supplemental Channel Code list associated with the FOR_SCH_ID_r as follows:
For the $i^{th}$ record of the Forward Supplemental Channel Active Set (for all values of $i$ between 1 and NUM_SUP_SHO+1) specified in this message, the mobile station shall store the following three entries corresponding to the SCCL_INDEX$_r$ as follows:

- If 3X_SCH_LOW_INCL$_r$ equals ‘1’, set
  
  \[
  \text{QOF\_MASK\_ID\_SCH\_LOW}[\text{FOR\_SCH\_ID}_r][\text{SCCL\_INDEX}_r][i] \to \text{QOF\_MASK\_ID\_SCH\_LOW}_r
  \]
  \[
  \text{FOR\_SCH\_CC\_INDEX\_LOW}[\text{FOR\_SCH\_ID}_r][\text{SCCL\_INDEX}_r][i] \to \text{CODE\_CHAN\_SCH\_LOW}_r.
  \]
  
  Otherwise, set
  
  \[
  \text{QOF\_MASK\_ID\_SCH}[\text{FOR\_SCH\_ID}_r][\text{SCCL\_INDEX}_r][i] \to \text{QOF\_MASK\_ID\_SCH}_r
  \]
  \[
  \text{FOR\_SCH\_CC\_INDEX\_LOW}[\text{FOR\_SCH\_ID}_r][\text{SCCL\_INDEX}_r][i] \to \text{CODE\_CHAN\_SCH}_r.
  \]

- If 3X_SCH_HIGH_INCL$_r$ equals ‘1’, set
  
  \[
  \text{QOF\_MASK\_ID\_SCH\_HIGH}[\text{FOR\_SCH\_ID}_r][\text{SCCL\_INDEX}_r][i] \to \text{QOF\_MASK\_ID\_SCH\_HIGH}_r
  \]
  \[
  \text{FOR\_SCH\_CC\_INDEX\_HIGH}[\text{FOR\_SCH\_ID}_r][\text{SCCL\_INDEX}_r][i] \to \text{CODE\_CHAN\_SCH\_HIGH}_r.
  \]
  
  Otherwise, set
  
  \[
  \text{QOF\_MASK\_ID\_SCH}[\text{FOR\_SCH\_ID}_r][\text{SCCL\_INDEX}_r][i] \to \text{QOF\_MASK\_ID\_SCH}_r
  \]
  \[
  \text{FOR\_SCH\_CC\_INDEX\_HIGH}[\text{FOR\_SCH\_ID}_r][\text{SCCL\_INDEX}_r][i] \to \text{CODE\_CHAN\_SCH}_r.
  \]

- If PILOT\_GATING\_USE\_RATE is set to ‘1’ and if NUM_REV_SCH$_r$ or NUM_FOR_SCH$_r$ is not equal to ‘00’, the mobile station shall perform the following:
  
  - The mobile station shall set PILOT\_GATING\_USE\_RATE to ‘0’ and shall start the continuous reverse pilot at the specified action time.
  
  - If the Fundamental Channel was previously established prior to transitioning to the Control Hold Mode, the mobile station shall start processing F-FCH and start transmitting on R-FCH at the action time of the message. The mobile station shall establish the Fundamental Channel with the same configuration as previously used.

14. **Forward Supplemental Channel Assignment Mini Message**: The mobile station shall process this message as follows:

The mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00000111’ (message can not be handled by the current mobile station configuration), if any of the mobile station’s forward supplemental channel configuration parameters for the corresponding Supplemental Channel (FOR_SCH_MUX$_r$, FOR_SCH_RC$_r$, FOR_SCH_CODING$_r$, FOR_SCH_FRAME_LENGTH$_r$, QOF_ID$_r$ for the corresponding SCCL_INDEX$_r$, or FOR_SCH_CC_INDEX$_r$ for the corresponding SCCL_INDEX$_r$) is NULL.

Otherwise, the mobile station shall store the following information and process
the Forward Supplemental Burst as specified in 2.6.6.2.5.1.1:

- Set FOR_SCH_START_TIME_INCL_{s[FOR_SCH_ID_r]} to ‘1’
- FOR_SCH_START_TIME_{s[FOR_SCH_ID_r]} = FOR_SCH_START_TIME_r
- FOR_SCH_DURATION_{s[FOR_SCH_ID_r]} = FOR_SCH_DURATION_r
- SCCL_INDEX_{s[FOR_SCH_ID_r]} = SCCL_INDEX_r
- If PILOT_GATING_USE_RATE is set to ‘1’, the mobile station shall perform the following:
  - The mobile station shall set PILOT_GATING_USE_RATE to ‘0’ and shall start the continuous reverse pilot at the specified action time.
  - If the Fundamental Channel was previously established prior to transitioning to the Control Hold Mode, the mobile station shall start processing F-FCH and start transmitting on R-FCH at the action time of the message. The mobile station shall establish the Fundamental Channel with the same configuration as previously used.

15. Reverse Supplemental Channel Assignment Mini Message: The mobile station shall process this message as follows:

The mobile station shall send a Mobile Station Reject Order with the ORDQ field set to ‘00000111’ (message can not be handled by the current mobile station configuration), if any of the mobile station’s reverse supplemental channel configuration parameters for the corresponding Supplemental Channel \((REV_SCH_MUX_s, REV_SCH_RC_s, REV_SCH_CODING_s, \text{or} REV_SCH_FRAME_LENGTH_s)\) is NULL.

If IGNORE_ESCAM_s is equal to ‘1’, the mobile station shall not process the Reverse Supplemental Channel assignment information in this message.

Otherwise, the mobile station shall store the following information and process the Reverse Supplemental Burst as specified in 2.6.6.2.5.1.2:

- Set REV_SCH_START_TIME_INCL_{s[REV_SCH_ID_r]} to ‘1’
- REV_SCH_START_TIME_{s[REV_SCH_ID_r]} = REV_SCH_START_TIME_r
- REV_SCH_DURATION_{s[REV_SCH_ID_r]} = REV_SCH_DURATION_r
- REV_SCH_NUM_BITSIDX_{s[REV_SCH_ID_r]} = REV_SCH_NUM_BITSIDX_r
- If PILOT_GATING_USE_RATE is set to ‘1’, the mobile station shall perform the following:
  - The mobile station shall set PILOT_GATING_USE_RATE to ‘0’ and shall start the continuous reverse pilot at the specified action time.
If the Fundamental Channel was previously established prior to transitioning to the Control Hold Mode, the mobile station shall start processing F-FCH and start transmitting on R-FCH at the action time of the message. The mobile station shall establish the Fundamental Channel with the same configuration as previously used.

2.6.6.2.5.1.1 Processing of the Forward Supplemental Burst Assignment

A Forward Supplemental Assignment specifies the explicit start time identified by FOR_SCH_START_TIME or the implicit start time (if FOR_SCH_START_TIME_INCL is set to ‘0’), FOR_SCH_DURATON, and SCCL_INDEX of a forward burst assignment. The time interval of duration is specified by FOR_SCH_DURATON (see Table 3.7.3.3.2.37-3) and starts at the time specified by the explicit start time FOR_SCH_START_TIME or the implicit start time (if FOR_SCH_START_TIME_INCL is set to ‘0’). This time interval for a Forward Supplemental Assignment is called the Forward Supplemental Assignment Interval. A value of FOR_SCH_DURATON equal to ‘1111’ indicates infinite duration. The variable SCCL_INDEX[FOR_SCH_ID] specifies the rate, QOF index and the Active Set for the Forward Supplemental Channel identified by FOR_SCH_ID for a given Forward Supplemental Assignment. A value of FOR_SCH_DURATON equal to ‘0000’ indicates that the mobile station should stop processing the forward Supplemental Channels at the explicit start time specified by FOR_SCH_START_TIME or the implicit start time (if FOR_SCH_START_TIME_INCL is set to ‘0’). The implicit start time is the time occurring no later than the first 80 ms boundary (relative to System Time) which occurs at least 80 ms after the end of the frame containing the last bit of the Extended Supplemental Channel Assignment Message.

For each Forward Supplemental Assignment the mobile station shall determine the start time for processing forward supplemental channel as the time for which the following equation holds:

\[ \lfloor t/(\text{START\_TIME\_UNIT} + 1) \rfloor - \text{FOR\_SCH\_START\_TIME} = 0, \]

where \( t \) is the System Time in units of 20 ms.

Figure 2.6.6.2.5.1.1-1 illustrates the scenario in which a second Forward Supplemental Assignment is received while the mobile station is processing the forward supplemental channel according to a previously received assignment. Two cases are displayed in Figure 2.6.6.2.5.1.1-1: Case a) where the first assignment extends beyond the start time of the second assignment and Case b) where the first assignment ends before the second one starts.
Figure 2.6.6.2.5.1.1-1. New Supplemental Channel Assignment Received while a Previous Supplemental Channel Assignment is in Progress

Figure 2.6.6.2.5.1.1-2 shows an example scenario in which the mobile station receives a second Forward Supplemental Assignment before it starts processing the supplemental channel according to the first assignment. In this case, the second assignment simply replaces the first assignment.

Figure 2.6.6.2.5.1.1-2. New Supplemental Channel Assignment Received before a Previous Supplemental Channel Assignment starts

The mobile station shall set FPC_MODE_S to FPC_MODE_SCH at the FOR_SCH_START_TIMEs of the forward Supplemental Channel assignment. The mobile station shall set FPC_MODE_S to FPC_MODE_NO_SCH at the end of the forward Supplemental Channel assignment.
For each Forward Supplemental Channel assignment corresponding to each Forward Supplemental Channel (identified by FOR_SCH_ID), the mobile station should perform the following:

- If FOR_SCH_DURATIONs[FOR_SCH_ID] is not equal to ‘0000’, then
  
  - If the mobile station is currently processing the Forward Supplemental Channel identified by FOR_SCH_ID, then the mobile station should continue processing the Forward Supplemental Channel identified by FOR_SCH_ID according to the Forward Supplemental Assignment previously received for the Forward Supplemental Channel identified by FOR_SCH_ID up to the time specified by the FOR_SCH_START_TIMEs[FOR_SCH_ID] (i.e., the mobile station should stop processing the forward supplemental channel identified by FOR_SCH_ID at either the time specified by FOR_SCH_START_TIMEs[FOR_SCH_ID], the start time of the new assignment, or at the time the previously received assignment ends, whichever time is earlier).
  
  At the time specified by FOR_SCH_START_TIMEs[FOR_SCH_ID], the mobile station should start processing the Forward Supplemental Channel identified by FOR_SCH_ID for a duration of time specified by FOR_SCH_DURATIONs[FOR_SCH_ID] with the QOF index, the Supplemental Channel Active Set indexed by SCCL_INDEXs[FOR_SCH_ID], and number of information bits per frame (or set of number of bits per frame if FSCH_VAR_TABLE_IDs[FOR_SCH_ID] is not equal to ‘000’) specified by N_FSCH_BITS_SETs[FOR_SCH_ID][SCCL_INDEX].

  If the set of number of bits per frame, N_FSCH_BITS_SETs[FOR_SCH_ID][SCCL_INDEX], has more than one member and F_INC_RATE_ALLOWEDs is equal to ‘0’, then the following rule applies for the duration of this assignment:

  + Once the mobile station determines the forward Supplemental Channel number of bits per frame, the number of bits per frame in the subsequent Forward Supplemental Channel frames may be any member of the set N_FSCH_BITS_SETs[FOR_SCH_ID][SCCL_INDEX] which is smaller or equal to the number of bits in the current frame.

  - Otherwise, if the mobile station is not currently processing the Forward Supplemental Channel identified by FOR_SCH_ID, then at the time specified by FOR_SCH_START_TIMEs[FOR_SCH_ID], the mobile station should start processing the Forward Supplemental Channel identified by FOR_SCH_ID for a duration of time specified by FOR_SCH_DURATIONs[FOR_SCH_ID] with the QOF index, the Supplemental Channel Active Set indexed by SCCL_INDEXs[FOR_SCH_ID], and number of bits per frame (or set of number of information bits per frame if FSCH_VAR_TABLE_IDs[FOR_SCH_ID] is not equal to ‘000’) specified by N_FSCH_BITS_SETs[FOR_SCH_ID][SCCL_INDEX].
If the set of number of bits per frame, N_FSCH_BITS_SETs[FOR_SCH_IDr][SCCL_INDEXr] and F_INC_RATE_ALLOWEDs is equal to '0', has more than one member, then the following rule applies for the duration of this assignment:

+ Once the mobile station determines the forward Supplemental Channel number of bits per frame, the number of bits per frame in the subsequent Forward Supplemental Channel frames may be any member of the set N_FSCH_BITS_SETs[FOR_SCH_IDr][SCCL_INDEXr] which is smaller or equal to the number of bits in the current frame.

- If FOR_SCH_DURATIONs[FOR_SCH_ID] is equal to '0000', the mobile station should perform the following:
  - If the mobile station is currently processing the Forward Supplemental Channel identified by FOR_SCH_ID, then the mobile station should continue processing the Forward Supplemental Channel identified by FOR_SCH_ID according to the Forward Supplemental Assignment previously received for the Forward Supplemental Channel identified by FOR_SCH_ID up to the time specified by the implicit start time (FOR_SCH_START_TIME INCLs is set to '0') or the explicit start time (FOR_SCH_START_TIME INCLs is set to '1') (i.e., the mobile station should stop processing the forward supplemental channel identified by FOR_SCH_ID at the time specified by the implicit start time or the explicit start time, or at the time the previously received assignment ends, whichever time is earlier). The mobile station should cancel the pending Forward Supplemental Channel assignment if any.
  + If FOR_SCH_START_TIME INCLs is equal to '1', the mobile station should stop processing the Forward Supplemental Channel identified by FOR_SCH_ID at the time specified by FOR_SCH_START_TIMEs[FOR_SCH_ID].
  + If FOR_SCH_START_TIME INCLs is equal to '0', the mobile station should stop processing the Forward Supplemental Channel identified by FOR_SCH_ID no later than the first 80 ms boundary (relative to System Time) occurring at least 80 ms after the end of the frame containing the last bit of the message.
  - Otherwise, if the mobile station is not currently processing the Forward Supplemental Channel identified by FOR_SCH_ID, the mobile station should cancel the pending Forward Supplemental Channel assignment if any.

- If the PILOT_GATING_USE_RATE to equal to '0', the mobile station shall start the continuous reverse pilot at the specified action time.

2.6.6.2.5.1.2 Processing of the Reverse Supplemental Burst Assignment

A Reverse Supplemental Assignment specifies the explicit start time identified by REV_SCH_START_TIME or the implicit start time (if REV_SCH_START_TIME_INCL is set to '0'), REV_SCH_DURATION, and REV_SCH_NUM_BITS_IDX of a reverse burst assignment.
The time interval of duration is specified by `REV_SCH_DURATION` (see Table 3.7.3.3.2.37-3) and starts at the time specified by the explicit start time `REV_SCH_START_TIME` or the implicit start time (if `REV_SCH_START_TIME_INCL` is set to '0'). This time interval for a Reverse Supplemental Assignment is called the reverse supplemental assignment interval. A value of `REV_SCH_DURATION` equal to '1111' indicates infinite duration. A value of `REV_SCH_DURATION` equal to '0000' indicates that the mobile station should stop transmitting the reverse Supplemental Channels at the explicit start time specified by `REV_SCH_START_TIME` or the implicit start time (if `REV_SCH_START_TIME_INCL` is set to '0'). The implicit start time is the time occurring no later than the first 80 ms boundary (relative to System Time) which occurs at least 80 ms after the end of the frame containing the last bit of the *Extended Supplemental Channel Assignment Message*.

For each Reverse Supplemental Assignment the mobile station shall determine the start time for processing reverse supplemental channel as the time for which the following equation holds:

\[
\left\lfloor \frac{t}{(\text{START\_TIME\_UNITs}+1)} \right\rfloor - \text{REV\_SCH\_START\_TIMEr} \mod 32 = 0,
\]

where \( t \) is the System Time in units of 20 ms.

Figure 2.6.6.2.5.1.1-1 illustrates the scenario in which a second Reverse Supplemental Assignment is received while the mobile station is transmitting on the reverse supplemental channel according to a previously received assignment. Two cases are displayed in Figure 2.6.6.2.5.1.1-1: Case a) where the first assignment extends beyond the start time of the second assignment and Case b) where the first assignment ends before the second one starts.

Figure 2.6.6.2.5.1.1-2 shows an example scenario in which the mobile station receives a second Reverse Supplemental Assignment before it starts transmitting on the supplemental channel according to the first assignment. In this case, the second assignment simply replaces the first assignment.

For each Reverse Supplemental Channel assignment corresponding to each Reverse Supplemental Channel (identified by `REV_SCH_ID`), the mobile station shall perform the following:

- The mobile station shall determine, \( N_{RSCH\_BITS}[\text{REV\_SCH\_ID}] \), the number of information bits per Reverse Supplemental Channel frame identified by \( \text{REV\_SCH\_ID} \) according to the following rules:
    - If `RSCH\_VAR\_TABLE\_ID[\text{REV\_SCH\_ID}]` is equal to '000', then:
        - If `USE\_FLEX\_NUM\_BITS[\text{REV\_SCH\_ID}]` is equal to '0' or if `USE\_FLEX\_NUM\_BITS[\text{REV\_SCH\_ID}]` is equal to '1' and `RSCH\_NBIT\_TABLE\_ID[\text{REV\_SCH\_ID}]` is equal to '0000', then the mobile station shall set the number of information bits per frame, \( N_{RSCH\_BITS}[\text{REV\_SCH\_ID}] \) and number of CRC bits per frame, \( RSCH\_CRC\_LEN\_SET[\text{REV\_SCH\_ID}] \), according to Table 3.7.3.3.2.37-24 using `REV\_SCH\_NUM\_BITS\_IDX` as the index to the table.
+ If $\text{USE\_FLEX\_NUM\_BITS}_s$ is equal to '1' and
$\text{RSCH\_NBIT\_TABLE\_ID}_s[\text{REV\_SCH\_ID}_r]$ is not equal to '0000', then the
mobile station shall set the number of CRC bits per frame,
$\text{RSCH\_CRC\_LEN\_SET}_s[\text{REV\_SCH\_ID}_r]$, according to Table 3.7.5.20-1 using
$\text{CRC\_LEN\_IDX}_s[\text{RSCH\_NBIT\_TABLE\_ID}_s[\text{REV\_SCH\_ID}_r]]$ of $\text{REV\_SCH\_NUM\_BIT\_S\_IDX}_r$ as the index to the table. The mobile station shall also set the
number of information bits per frame, $\text{N\_SCH\_BITS\_SET}_s[\text{REV\_SCH\_ID}_r]$, to
$\text{NUM\_BITS}_s[\text{RSCH\_NBIT\_TABLE\_ID}_s[\text{REV\_SCH\_ID}_r]]$
$[\text{REV\_SCH\_NUM\_BITS\_IDX}_r]$.

- If $\text{RSCH\_VAR\_TABLE\_ID}_s[\text{REV\_SCH\_ID}_r]$ is not equal to '000', then:

+ The mobile station shall set $\text{N\_RSCH\_BITS\_IDX\_SET}_s[\text{REV\_SCH\_ID}_r]$, the set
of indices to the number of information bits per frame as follows:
  o If $\text{REV\_SCH\_NUM\_BITS\_IDX}_r$ is equal to '0000', then
    $\text{N\_RSCH\_BITS\_IDX\_SET}_s[\text{REV\_SCH\_ID}_r] = \{\text{REV\_SCH\_NUM\_BITS\_IDX}_r\}$,
  o otherwise, the mobile station shall set (initialize)
    $\text{N\_RSCH\_BITS\_IDX\_SET}_s[\text{REV\_SCH\_ID}_r] = \{ \text{REV\_SCH\_NUM\_BITS\_IDX}_r \}$,
    and for $i=1, \ldots, \text{REV\_SCH\_NUM\_BITS\_IDX}_r$ the mobile station shall add
    $\text{REV\_SCH\_NUM\_BITS\_IDX}_r - \text{VAR\_RSCH\_RATE\_OFFSET}_s[\text{REV\_SCH\_ID}_r][\text{REV\_SCH\_NUM\_BITS\_IDX}_r][i]$
    to the set specified by $\text{N\_RSCH\_BITS\_IDX\_SET}_s[\text{FOR\_SCH\_ID}_r]$

+ If $\text{USE\_FLEX\_NUM\_BITS}_s$ is equal to '0' or if $\text{USE\_FLEX\_NUM\_BITS}_s$ is equal
to '1' and $\text{RSCH\_NBIT\_TABLE\_ID}_s[\text{REV\_SCH\_ID}_r]$ is equal to '0000', then the
mobile station shall determine $\text{N\_RSCH\_BITS\_SET}_s[\text{REV\_SCH\_ID}_r]$, the set
of number of information bits per frame as follows. The $i^{th}$ member of the set
$\text{N\_RSCH\_BITS\_SET}_s[\text{REV\_SCH\_ID}_r]$ is obtained using Table 3.7.3.3.2.37-1
and the $i^{th}$ member of the set $\text{N\_RSCH\_BITS\_IDX\_SET}_s[\text{FOR\_SCH\_ID}_r]$ as the
index to the table.

+ If $\text{USE\_FLEX\_NUM\_BITS}_s$ is equal to '1' and
$\text{RSCH\_NBIT\_TABLE\_ID}_s[\text{FOR\_SCH\_ID}_r]$ is not equal to '0000', then

  o the mobile station shall set $\text{N\_RSCH\_BITS\_SET}_s[\text{REV\_SCH\_ID}_r]$, the set
    of number of information bits per frame as follows.
    The $i^{th}$ member of the set $\text{N\_RSCH\_BITS\_SET}_s[\text{REV\_SCH\_ID}_r]$ is equal to
    $\text{NUM\_BITS}_s[\text{SCH\_NBIT\_TABLE\_ID}_s[\text{REV\_SCH\_ID}_r]]$
    $[\text{N\_RSCH\_BITS\_IDX\_SET}_s[\text{REV\_SCH\_ID}_r][i]]$, where
    $\text{N\_RSCH\_BITS\_IDX\_SET}_s[\text{REV\_SCH\_ID}_r][i]$ denotes the $i^{th}$ member of the
    set $\text{N\_RSCH\_BITS\_IDX\_SET}_s[\text{REV\_SCH\_ID}_r]$. 
the mobile station shall set $\text{RSCH\_CRC\_LEN\_SET}_{s}[\text{REV\_SCH\_ID}_r]$, the set of number of information bits per frame as follows.

The $i^{th}$ member of the set $\text{RSCH\_CRC\_LEN\_IDX\_SET}_{s}[\text{REV\_SCH\_ID}_r]$ is equal to $\text{CRC\_LEN\_IDX}_{s}[\text{RSCH\_N\_BIT\_TABLE\_IDX}_{s}[\text{REV\_SCH\_ID}_r]][\text{N\_RSCH\_BITS\_IDX\_SET}_{s}[\text{REV\_SCH\_ID}_r][i]]$, where $\text{N\_RSCH\_BITS\_IDX\_SET}_{s}[\text{REV\_SCH\_ID}_r][i]$ denotes the $i^{th}$ member of the set $\text{N\_RSCH\_BITS\_IDX\_SET}_{s}[\text{REV\_SCH\_ID}_r]$. 

- If $\text{REV\_SCH\_DURATION}_{s}[\text{REV\_SCH\_ID}]$ is not equal to '0000', then
  
  - If the mobile station is currently transmitting on the Reverse Supplemental Channel identified by $\text{REV\_SCH\_ID}$, then the mobile station may continue transmitting on the Reverse Supplemental Channel identified by $\text{REV\_SCH\_ID}$ with the Walsh cover specified by $\text{REV\_WALSH\_IDX}_{s}[\text{REV\_SCH\_IDX}][\text{REV\_SCH\_NUM\_BITS\_IDX}_{s}[\text{REV\_SCH\_IDX}_r]]$ according to the current Reverse Supplemental Assignment for the Reverse Supplemental Channel identified by $\text{REV\_SCH\_ID}$ up to the time specified by the $\text{REV\_SCH\_START\_TIME}_{s}[\text{REV\_SCH\_IDX}_r]$, i.e., the mobile station shall stop transmitting on the reverse supplemental channel identified by $\text{REV\_SCH\_ID}$ at either the time specified by $\text{REV\_SCH\_START\_TIME}_{s}[\text{REV\_SCH\_IDX}_r]$, the start time of the new assignment, or at the time the previously received assignment ends, whichever time is earlier).

At the time specified by $\text{REV\_SCH\_START\_TIME}_{s}[\text{REV\_SCH\_IDX}_r]$, the mobile station may start transmitting on the Reverse Supplemental Channel identified by $\text{REV\_SCH\_ID}$ with the Walsh cover specified by $\text{REV\_WALSH\_IDX}_{s}[\text{REV\_SCH\_IDX}][\text{REV\_SCH\_NUM\_BITS\_IDX}_{s}[\text{REV\_SCH\_IDX}_r]]$ and number of bits per frame (or set of number of information bits per frame if $\text{RSCH\_VAR\_TABLE\_IDX}_{s}[\text{REV\_SCH\_IDX}_r]$ is not equal to '000') specified by $\text{N\_RSCH\_BITS\_SET}_{s}[\text{REV\_SCH\_IDX}_r]$.

If the set of number of bits per frame, $\text{N\_RSCH\_BITS\_SET}_{s}[\text{REV\_SCH\_IDX}_r]$, has more than one member and $\text{R\_INC\_RATE\_ALLOWED}_{s}$ is equal to '0', then the following rule applies for the duration of this assignment:

+ Once the mobile station transmits $n$ number of bits per Reverse Supplemental Channel specified by $\text{REV\_SCH\_ID}$, where $n$ is a member of the set $\text{N\_RSCH\_BITS\_SET}_{s}[\text{REV\_SCH\_IDX}_r]$, the mobile station shall not transmit at a rate higher than the one specified by $n$ information bits per frame for the duration of the assignment.
- If the mobile station is not currently transmitting on the Reverse Supplemental Channel identified by REV_SCH_IDr, then at the time specified by REV_SCH_START_TIMEs[REV_SCH_IDr], the mobile station may start transmitting on the Reverse Supplemental Channel identified by REV_SCH_ID with the Walsh cover specified by REV_WALSH_IDs[REV_SCH_ID][REV_SCH_NUM_BITS_IDXs[REV_SCH_IDr]] and number of bits per frame (or set of number of information bits per frame if RSCH_VAR_TABLE_IDs[REV_SCH_IDr] is not equal to ‘000’) specified by N_RSCH_BITS_SETs[REV_SCH_IDr]. If the set of number of bits per frame, N_RSCH_BITS_SETs[REV_SCH_IDr], has more than one member and R_INC_RATE_ALLOWEDs is equal to ‘0’, then the following rule applies for the duration of this assignment:

  + Once the mobile station transmits \( n \) number of bits per Reverse Supplemental Channel specified by REV_SCH_ID, where \( n \) is a member of the set N_RSCH_BITS_SETs[REV_SCH_IDr], the mobile station shall not transmit at a rate higher than the one specifies by \( n \) information bits per frame for the duration of the assignment.

- If REV_SCH_DURATIONs[REV_SCH_IDr] is equal to ‘0000’, the mobile station shall perform the followings:

  - If the mobile station is currently transmitting on the Reverse Supplemental Channel identified by REV_SCH_ID, then the mobile station may continue transmitting on the Reverse Supplemental Channel identified by REV_SCH_ID with the Walsh cover specified by REV_WALSH_IDs[REV_SCH_ID][REV_SCH_NUM_BITS_IDX][REV_SCH_IDr] according to the current Reverse Supplemental Assignment for the Reverse Supplemental Channel identified by REV_SCH_ID up to the time specified by the implicit start time (if REV_START_TIME_INCLs is equal to ‘1’) or the explicit start time (if REV_START_TIME_INCLs is equal to ‘1’) (i.e., the mobile station shall stop transmitting on the reverse supplemental channel identified by REV_SCH_ID at the implicit start time or the explicit start time, or at the time the previously received assignment ends, whichever time is earlier). The mobile station shall cancel the pending Reverse Supplemental Channel assignment if any.

  + If REV_START_TIME_INCLs is equal to ‘1’, the mobile station shall stop transmitting on the Reverse Supplemental Channel identified by REV_SCH_IDr at the time specified by REV_SCH_START_TIMEs[REV_SCH_IDr].

  + If REV_START_TIME_INCLs is equal to ‘0’, the mobile station shall stop transmitting on the Reverse Supplemental Channel identified by REV_SCH_IDr no later than the first 80 ms boundary (relative to System Time) occurring at least 80 ms after the end of the frame containing the last bit of the message.
– Otherwise, if the mobile is not currently transmitting on the Reverse
Supplemental Channel identified by REV_SCH_ID, the mobile station shall
cancel the pending Forward Supplemental Channel assignment if any.

• If the PILOT_GATING_USE_RATE to equal to ‘0’, the mobile station shall start the
continuous reverse pilot at the specified action time.

2.6.6.2.5.2 Processing of Reverse Traffic Channel Handoff Messages

The mobile station sends the following messages on the Reverse Traffic Channel in support
of handoff when its transmitter is enabled, following the receipt of a forward dedicated
channel acquired indication from Layer 2 (see 2.2.2.1.2 of [4]):

1. Pilot Strength Measurement Message or Extended Pilot Strength Measurement
   Message: The mobile station shall send an autonomous Pilot Strength Measurement
   Message if P_REV_IN_USE is less than seven or Extended Pilot Strength
   Measurement Message if P_REV_IN_USE is equal to or greater than seven in assured
   mode. The mobile station shall send either Pilot Strength Measurement Message or
   Extended Pilot Strength Measurement Message containing measurements consistent
   with the event whenever any of the following events occur:

   • P_REV_IN_USE is less than or equal to three or SOFT_SLOPE is equal to
     ‘000000’ and the strength of a Neighbor Set or Remaining Set pilot is found to be
     above T_ADD.

   • P_REV_IN_USE is greater than three, SOFT_SLOPE is not equal to ‘000000’,
     and the strength PS, as specified in 2.6.6.2.2, of any Candidate Set pilot is found
     to satisfy the following inequality:

\[
10 \times \log_{10} PS > \frac{\text{SOFT SLOPE}}{8} \times 10 \times \log_{10} \sum_{i \in A} \frac{\text{ADD INTERCEPT} \times \text{PS}_i} {2}
\]

   where the summation is performed over all pilots currently in the Active Set and
   a Pilot Strength Measurement Message or an Extended Pilot Strength Measurement
   Message carrying this information has not been sent since the last Extended
   Handoff Direction Message, General Handoff Direction Message or Universal
   Handoff Direction Message was received.

   • P_REV_IN_USE is greater than three, SOFT_SLOPE is not equal to ‘000000’,
     and the strength PS, as specified in 2.6.6.2.2, of any Neighbor Set or Remaining
     Set pilot is found to satisfy the following inequality:

\[
10 \times \log_{10} PS > \max (\frac{\text{SOFT SLOPE}}{8} \times 10 \times \log_{10} \sum_{i \in A} \frac{\text{ADD INTERCEPT} \times \text{PS}_i} {2}, \frac{T_{\text{ADD}}}{2})
\]

   where the summation is performed over all pilots currently in the Active Set.
- \( P_{REV\_IN\_USE} \) is less than or equal to three or \( SOFT\_SLOPE \) is equal to ‘000000’, the strength of a Candidate Set pilot exceeds the strength of an Active Set pilot by \( T_{COMP} \times 0.5 \) dB, and a Pilot Strength Measurement Message carrying this information has not been sent since the last Extended Handoff Direction Message, General Handoff Direction Message or Universal Handoff Direction Message was received.

- \( P_{REV\_IN\_USE} \) is greater than three, \( SOFT\_SLOPE \) is not equal to ‘000000’, and the strength of a Candidate Set pilot exceeds the strength of an Active Set pilot by \( T_{COMP} \times 0.5 \) dB and satisfies the following inequality:

\[
10 \times \log_{10} PS > \frac{SOFT\_SLOPE}{8} \times 10 \times \log_{10} \sum_{i \in A} PS_i + \frac{ADD\_INTERCEPT}{2}
\]

where the summation is performed over all pilots currently in the Active Set and a Pilot Strength Measurement Message or an Extended Pilot Strength Measurement Message carrying this information has not been sent since the last Extended Handoff Direction Message, General Handoff Direction Message or Universal Handoff Direction Message was received.

- The handoff drop timer of an Active Set pilot has expired and a Pilot Strength Measurement Message or an Extended Pilot Strength Measurement Message carrying this information has not been sent since the last Extended Handoff Direction Message, General Handoff Direction Message, or Universal handoff Direction Message was received.

2. Handoff Completion Message or Extended Handoff Completion Message: The mobile station shall send a Handoff Completion Message if \( P_{REV\_IN\_USE} \) is less than seven or an Extended Handoff Completion Message if \( P_{REV\_IN\_USE} \) is equal to or greater than seven in assured mode as follows:

- If the handoff message (Extended Handoff Direction Message, General Handoff Direction Message or Universal Handoff Direction Message) specifies a soft handoff, the mobile station shall send the Handoff Completion Message if \( P_{REV\_IN\_USE} \) is less than seven or an Extended Handoff Completion Message if \( P_{REV\_IN\_USE} \) is equal to or greater than seven within \( T_{56m} \) seconds after the action time of the received handoff message.

- If the handoff message (Extended Handoff Direction Message, General Handoff Direction Message or Universal Handoff Direction Message) specifies a hard handoff without return on failure (see 2.6.6.2.8.1), the mobile station shall send the Handoff Completion Message if \( P_{REV\_IN\_USE} \) is less than seven or an Extended Handoff Completion Message if \( P_{REV\_IN\_USE} \) is equal to or greater than seven within \( T_{73m} \) seconds after the action time of the received handoff message.
• If the handoff message (General Handoff Direction Message or Universal Handoff Direction Message) specifies a hard handoff with return on failure (see 2.6.6.2.8.2), the mobile station shall send the Handoff Completion Message if P_REV_IN_USE is less than seven or an Extended Handoff Completion Message if P_REV_IN_USE is equal to or greater than seven within T56m seconds after mobile station declares the handoff to be successful (see 2.6.6.2.8.2).

3. Candidate Frequency Search Report Message: The mobile station shall send a Candidate Frequency Search Report Message in assured mode, whenever any of the following events occur:

• RETURN_IF_HANDOFF_FAILS is equal to ‘1’, and a handoff attempt is unsuccessful (see 2.6.6.2.8.2). In this case, the mobile station shall send a Candidate Frequency Search Report Message within T56m seconds after completing a search of all pilots in the Candidate Frequency Search Set and resuming the use of the Serving Frequency Active Set (see 2.6.6.2.8.2.1).

• RETURN_IF_HANDOFF_FAILS is equal to ‘1’, an inter-frequency handoff attempt is unsuccessful (see 2.6.6.2.8.2), and PERIODIC_SEARCHS is equal to ‘1’. In this case, the mobile station shall send a Candidate Frequency Search Report Message in a search period if the conditions specified in 2.6.6.2.8.3.2 are met.

• The mobile station receives a Candidate Frequency Search Request Message or a Candidate Frequency Search Control Message with SEARCH_TYPE set to ‘01’. If none of the conditions requiring the mobile station to send a Mobile Station Reject Order is true (see 2.6.6.2.5.1), the mobile station shall send a Candidate Frequency Search Report Message, as described in 2.6.6.2.8.3.1 and 2.6.6.2.10.1.

• The mobile station receives a Candidate Frequency Search Request Message or Candidate Frequency Search Control Message with SEARCH_TYPE set to ‘11’, SEARCH_MODES is equal to ‘0000’ and the Candidate Frequency Search Set is not empty. If none of the conditions requiring the mobile station to send a Mobile Station Reject Order is true (see 2.6.6.2.5.1), the mobile station shall send a Candidate Frequency Search Report Message in a search period if the conditions specified in 2.6.6.2.8.3.2 are met.

• The mobile station receives a Candidate Frequency Search Request Message or Candidate Frequency Search Control Message with SEARCH_TYPE set to ‘11’, SEARCH_MODES is equal to ‘0001’ and the Candidate Frequency Analog Search Set is not empty. If none of the conditions requiring the mobile station to send a Mobile Station Reject Order is true (see 2.6.6.2.5.1), the mobile station shall send a Candidate Frequency Search Report Message in a search period if the conditions specified in 2.6.6.2.10.2 are met.

4. Periodic Pilot Strength Measurement Message: The mobile station shall send a Periodic Pilot Strength Measurement Message in unassured mode, as specified in 2.6.6.2.5.1 and 2.6.6.2.12.

5. Pilot Strength Measurement Mini Message: If the mobile station supports the Mobile
Assisted Burst operation capability, the mobile station shall send this message while processing any Supplemental Channel, according to the following:

- The mobile station shall transmit a *Pilot Strength Measurement Mini Message* for a pilot $p$ in the Active Set on the r-dsch logical channel whenever all of the following conditions are true:
  - ORDER_FLAG is equal to ‘1’.
  - The pilot $p$ in the Active Set has a received signal strength that is greater than the signal strength of another pilot in the Active Set by $\text{PS\_MIN\_DELTA}$, in units of 0.5 dB, at the current time and has been for ORDER_INTERVAL most recent successive 20 ms frame intervals since this pilot was last reported in a rank order based *Pilot Strength Measurement Mini Message*.
  - The rank order of pilot $p$ has changed.

- If PERIODIC_FLAG is equal to ‘1’, the mobile station shall transmit a *Pilot Strength Measurement Mini Message* within PERIODIC_INTERVAL 20 ms frame intervals on the r-dsch for each of the $n$ pilots in the Active Set with the largest signal strengths, where $n = \min(\text{NUM\_PILOTS}, \text{the number of pilots in the Active Set})$, whenever the following condition is true:
  - The mobile station has not transmitted another *Pilot Strength Measurement Mini Message* for the corresponding pilot during the last PERIODIC_INTERVAL 20 ms frame intervals.

- If THRESHOLD_FLAG is equal to ‘1’, the mobile station shall transmit a *Pilot Strength Measurement Mini Message* for pilot $p$ on the r-dsch logical channel whenever all of the following conditions are true:
  - The mobile station has not transmitted a previous *Pilot Strength Measurement Mini Message* for pilot $p$ within the most recent THRESHOLD_INTERVAL 20 ms frames intervals.
  - Pilot $p$ is in the Active Set.
  - The signal strength of pilot $p$ is greater than $\text{PS\_CEILING\_HIGH}$ and the signal strength of pilot $p$ was less than or equal to $\text{PS\_CEILING\_LOW}$ at any time since the mobile station last sent a *Pilot Strength Measurement Mini Message* for pilot $p$; or the signal strength of pilot $p$ is less than $\text{PS\_FLOOR\_LOW}$ and the signal strength for pilot $p$ was greater than or equal to $\text{PS\_FLOOR\_HIGH}$ at any time since the last time that the mobile station sent a *Pilot Strength Measurement Mini Message* for pilot $p$.

2.6.6.2.6 Set Maintenance

2.6.6.2.6.1 Maintenance of the Active Set

The mobile station shall support a maximum Active Set size of $N_{6m}$ pilots. The mobile station shall track the pilot strengths of all pilots in the Active Set.
When the mobile station is first assigned Forward Traffic Channels, the mobile station shall initialize the Active Set to contain the pilots associated with the assigned Forward Traffic Channels. When the mobile station processes an Extended Handoff Direction Message, a General Handoff Direction Message or Universal Handoff Direction Message, then at the action time of the message the mobile station shall replace the pilots in the Active Set with the pilots listed in the message.

### 2.6.6.2.6.2 Maintenance of the Candidate Set

The mobile station shall support a maximum Candidate Set size of $N_{7m}$ pilots.

When the mobile station is first assigned a Forward Traffic Channel, the mobile station shall initialize the Candidate Set to contain no pilots. The mobile station shall adjust the Candidate Set whenever any of the following events occur:

- If the mobile station detects that the strength of a Neighbor Set pilot or a Remaining Set pilot exceeds $T_{ADD_s}$, the mobile station shall add the pilot to the Candidate Set.
- If the mobile station processes an Extended Handoff Direction Message, a General Handoff Direction Message or a Universal Handoff Direction Message which does not list a pilot in the current Active Set, and the handoff drop timer corresponding to that pilot has not expired at the action time of the message, the mobile station shall add the pilot to the Candidate Set at the action time of the message.
- If $P_{REV\_IN\_USE_s}$ is greater than three, and $SOFT\_SLOPE_s$ is not equal to ‘000000’, the mobile station shall perform the following: If the mobile station processes a General Handoff Direction Message or a Universal Handoff Direction Message which does not list a pilot in the current Active Set, the handoff drop timer corresponding to that pilot has expired at the action time of the message, and that pilot is found to be above $T\_DROP_s$, the mobile station shall add the pilot to the Candidate Set at the action time of the message.
- If the mobile station processes an Extended Handoff Direction Message, a General Handoff Direction Message or Universal Handoff Direction Message, which lists a pilot in the current Candidate Set, the mobile station shall delete the pilot from the Candidate Set at the action time of the message.
- If the handoff drop timer corresponding to a Candidate Set pilot expires, the mobile station shall delete the pilot from the Candidate Set.
- If the mobile station adds a pilot to the Candidate Set, and the resulting Candidate Set size exceeds $N_{7m}$, the mobile station shall delete from the Candidate Set the pilot whose handoff drop timer is closest to expiration. If more than one such pilot exists, the mobile station shall delete one such pilot that has the lowest strength. If no pilot in the Candidate Set has an enabled handoff drop timer, the mobile station shall delete from the Candidate Set the pilot that has the lowest strength.

### 2.6.6.2.6.3 Maintenance of the Neighbor Set

The mobile station shall support a Neighbor Set size of at least $N_{8m}$ pilots.
When the mobile station is first assigned a Forward Traffic Channel, the mobile station shall initialize the Neighbor Set to contain all the pilots specified in the most recently received Neighbor List Message, Extended Neighbor List Message or General Neighbor List Message.

The mobile station shall maintain a counter, $\text{AGE}_s$, for each pilot in the Neighbor Set. The mobile station shall initialize this counter to zero when it moves the pilot from the Active Set or the Candidate Set to the Neighbor Set. The mobile station shall initialize this counter to $\text{NGHBR\_MAX\_AGE}_s$ when it moves the pilot from the Remaining Set to the Neighbor Set. The mobile station shall increment $\text{AGE}_s$ for each pilot in the Neighbor Set upon receipt of a Neighbor List Update Message or an Extended Neighbor List Update Message. When the mobile station is first assigned to a Forward Traffic Channel, the mobile station shall set $\text{AGE}_s$ for each pilot in the Neighbor Set to $\text{NGHBR\_MAX\_AGE}_s$.

The mobile station shall adjust the Neighbor Set whenever any of the following events occur:

- If the mobile station receives a Neighbor List Update Message or an Extended Neighbor List Update Message, it shall perform the following:
  - Increment $\text{AGE}_s$ for each pilot in the Neighbor Set.
  - Delete from the Neighbor Set all pilots whose $\text{AGE}_s$ exceeds $\text{NGHBR\_MAX\_AGE}_s$.
  - Add to the Neighbor Set each pilot named in the message, if it is not already a pilot of the Active Set, Candidate Set, or Neighbor Set. If the mobile station can store in the Neighbor Set only $k$ additional pilots, and more than $k$ new pilots were sent in the Neighbor List Update Message or the Extended Neighbor List Update Message, the mobile station shall store the first $k$ new pilots listed in the message.

- If the handoff drop timer of a pilot in the Candidate Set expires, the mobile station shall add the pilot to the Neighbor Set.

- If $\text{P\_REV\_IN\_USE}_s$ is less than or equal to three or $\text{SOFT\_SLOPE}_s$ is equal to ‘000000’, the mobile station shall perform the following: If the mobile station processes an Extended Handoff Direction Message, a General Handoff Direction Message, or a Universal Handoff Direction Message in which a pilot in the Active Set is not listed, and the handoff drop timer corresponding to the pilot has expired, the mobile station shall add the pilot to the Neighbor Set.

- If $\text{P\_REV\_IN\_USE}_s$ is greater than three, and $\text{SOFT\_SLOPE}_s$ is not equal to ‘000000’, the mobile station shall perform the following: If the mobile station processes an Extended Handoff Direction Message, a General Handoff Direction Message, or a Universal Handoff Direction Message which does not list a pilot in the current Active Set, the handoff drop timer corresponding to that pilot has expired, and that pilot is found to be below $\text{T\_DROP}_s$, the mobile station shall add the pilot to the Neighbor Set.
• If the mobile station adds a pilot to the Candidate Set, and the resulting Candidate Set size exceeds the size supported by the mobile station, the mobile station shall add the deleted Candidate Set pilot to the Neighbor Set (see 2.6.6.2.6.2).

• If the mobile station detects that the strength of a Neighbor Set pilot exceeds $T_{ADD_s}$, the mobile station shall delete the pilot from the Neighbor Set.

• If the mobile station processes an Extended Handoff Direction Message, a General Handoff Direction Message or a Universal Handoff Direction Message which lists a pilot in the current Neighbor Set, the mobile station shall delete the pilot from the Neighbor Set.

• If the mobile station adds a pilot to the Neighbor Set, and the resulting Neighbor Set size exceeds the size supported by the mobile station, the mobile station shall delete from the Neighbor Set the pilot whose $AGE_s$ is the largest. If more than one such pilot exists, the mobile station shall delete one such pilot that has the lowest strength.

2.6.6.2.7 Soft Handoff

2.6.6.2.7.1 Forward Traffic Channel Processing

All Forward Traffic Channels associated with pilots in the Active Set of the mobile station carry identical modulation symbols with the exception of the power control subchannel (see [2]).

When the Active Set contains more than one pilot, the mobile station should provide diversity combining of the associated Forward Traffic Channels. The mobile station shall provide for differential propagation delays from zero to at least 150 $\mu$s.

2.6.6.2.7.2 Reverse Traffic Channel Power Control During Soft Handoff

The Extended Handoff Direction Message, a General Handoff Direction Message or a Universal Handoff Direction Message identifies sets of Forward Fundamental Code Channels or Forward Dedicated Control Channels that carry identical closed loop power control subchannels. A set consists of one or more Forward Fundamental Code Channels or Forward Dedicated Control Channels with identical power control information.

In each power control group containing valid power control bits (see [2]), the mobile station should provide diversity combining of the identical closed loop power control subchannels and shall obtain at most one power control bit from each set of identical closed loop power control subchannels. The mobile station should only combine reliable power control bits (see 9.3.8 of [11]) as follows:

• If the reliable power control bits obtained from all sets are equal to ‘0’, the mobile station shall increase its power as specified in [2].

• If the reliable power control bit obtained from any set is equal to ‘1’, the mobile station shall decrease its power as specified in [2].
2.6.6.2.7.3 Starting Periodic Search following Soft Handoff

If the PERIODIC SEARCH\textsubscript{s} is equal to ‘1’, a periodic search is not already in progress, and
the Frequency Assignment after handoff is different from the Candidate Frequency
(CDMABAND\textsubscript{s} is not equal to CF\_CDMABAND\textsubscript{s} or CDMACH\textsubscript{s} is not equal to CF\_CDMACH\textsubscript{s}),
the mobile station shall do the following:

- The mobile station shall set ALIGN\_TIMING\_USED\textsubscript{s} to ‘0’ and SEARCH\_OFFSET\textsubscript{s} to
  ‘000000’.
- The mobile station shall start a periodic search as described in 2.6.6.2.8.3.2.

2.6.6.2.8 CDMA-to-CDMA Hard Handoff

The base station directs the mobile station to perform a CDMA-to-CDMA hard handoff by
sending an Extended Handoff Direction Message, a General Handoff Direction Message or a
Universal Handoff Direction Message in which the mobile station is transitioned between
disjoint sets of base stations, different Frequency Assignments, or different frame offsets. If
RETURN\_IF\_HANDOFF\_FAIL\textsubscript{s} is equal to ‘0’, the mobile station performs the actions
described in 2.6.6.2.8.1. If RETURN\_IF\_HANDOFF\_FAIL\textsubscript{s} is equal to ‘1’, the mobile station
performs the actions described in 2.6.6.2.8.2.

2.6.6.2.8.1 Hard Handoff without Return on Failure

At the action time specified in the Extended Handoff Direction Message, the General Handoff
Direction Message or Universal Handoff Direction Message the mobile station shall disable
its transmitter, reset the fade timer specified in 2.6.4.1.8, suspend incrementing
TOT\_FRAMES\textsubscript{s}, BAD\_FRAMES\textsubscript{s}, DCCH\_TOT\_FRAMES\textsubscript{s}, and DCCH\_BAD\_FRAMES\textsubscript{s} if
applicable as specified in 2.6.4.1.1, and tune to the assigned Forward Traffic Channel. The
mobile station shall perform acquisition of the pilots in the new Active Set.

If a periodic Serving Frequency pilot report procedure is in progress, the mobile station
shall abort it (see 2.6.6.2.12).

The mobile station shall begin monitoring the assigned Forward Traffic Channel within the
time specified below:

- If the Extended Handoff Direction Message, General Handoff Direction Message or
Universal Handoff Direction Message specifies a CDMA Frequency Assignment
different from the Serving Frequency and an Active Set containing pilots with pilot
PN sequence offsets identical to those of the pilots in the Serving Frequency Active
Set, the mobile station shall begin monitoring the assigned Forward Traffic Channel
within T\textsubscript{60m} seconds after the action time.

- If the Extended Handoff Direction Message, General Handoff Direction Message or
Universal Handoff Direction Message specifies a CDMA Frequency Assignment
different from the Serving Frequency and an Active Set containing a pilot with pilot
PN sequence offset not equal to that of any pilot in the Serving Frequency Active Set,
the mobile station shall begin monitoring the assigned Forward Traffic Channel
within T\textsubscript{61m} seconds after the action time.
• If the *Extended Handoff Direction Message*, *General Handoff Direction Message* or *Universal Handoff Direction Message* specifies a CDMA-to-CDMA hard handoff without changing the CDMA Frequency Assignment, the mobile station shall begin monitoring the assigned Forward Traffic Channel within $T_{62m}$ seconds after the action time.

If the Target Frequency is the same as the Candidate Frequency (*TF_CDMABAND* is equal to *CF_CDMABAND*, and *TF_CDMACH* is equal to *CF_CDMACH*) and is different from the Serving Frequency (*TF_CDMABAND* is not equal to *SF_CDMABAND*, or *TF_CDMACH* is not equal to *SF_CDMACH*), the mobile station shall perform the following:

• If applicable, the mobile station shall replace its Neighbor Set with its Candidate Frequency Neighbor Set, excluding the pilots in its Active Set. When the mobile station adds a pilot from its Candidate Frequency Neighbor Set to its Active Set, it shall maintain *SEARCH_PRIORITY, SRCH_WIN_NGHBR, and SRCH_OFFSET_NGHBR* associated with the pilot.

• The mobile station shall set *PILOT_INC* to *CF_PILOT_INC*, *SRCH_WIN_N* to *CF_SRCH_WIN_N*, and *SRCH_WIN_R* to *CF_SRCH_WIN_R*.

• The mobile station shall set *SEARCH_PRIORITY_INCL, SRCH_OFFSET_INCL, and SRCH_WIN_NGHBR_INCL* to *CF_SRCH_PRIORITY_INCL, CF_SRCH_OFFSET_INCL, and CF_SRCH_WIN_NGHBR_INCL*.

After the action time, upon receiving a period of $(N_{11m} \times 20)$ ms with sufficient signal quality (e.g. good frames) on the physical channel corresponding to *FPC_PRI_CHAN* on the assigned Forward Traffic Channel, the mobile station shall re-enable its transmitter. The mobile station shall transmit the Traffic Channel Preamble, as described in 2.1.3.6.2.3 of [2], followed by a *Handoff Completion Message* or *Extended Handoff Completion Message*.

After the action time, upon receiving a period of $(N_{3m} \times 20)$ ms with sufficient signal quality (e.g. good frames) on the physical channel corresponding to *FPC_PRI_CHAN*, the mobile station shall resume incrementing *TOT_FRAMES, BAD_FRAMES, DCCH_TOT_FRAMES, and DCCH_BAD_FRAMES* if applicable as specified in 2.6.4.1.1.

If the PERIODIC SEARCH is equal to ‘1’, a periodic search is not already in progress, and the Frequency Assignment after handoff is different from the Candidate Frequency (*CDMABAND* is not equal to *CF_CDMABAND* or *CDMACH* is not equal to *CF_CDMACH*), the mobile station shall do the following:

• The mobile station shall set *ALIGN_TIMING_USED* to ‘0’ and *SEARCH_OFFSET* to ‘000000’.

• The mobile station shall start a periodic search as described in 2.6.6.2.8.3.2.

2.6.6.2.8.2 Hard Handoff with Return on Failure

At the action time specified in the *General Handoff Direction Message* or *Universal Handoff Direction Message*, the mobile station shall do the following:
The mobile station shall stop processing the Forward Fundamental Code Channel, the Forward Dedicated Control Channel, the Forward Supplemental Code Channels (if any), and the Forward Supplemental Channels (if any).

The mobile station shall stop transmitting on the Reverse Fundamental Code Channel, on the Reverse Dedicated Control Channel, and on the Reverse Supplemental Code Channels (if any), and on the Reverse Supplemental Channels (if any).

The mobile station shall disable the fade timer (see 2.6.4.1.8) and the handoff drop timers corresponding to the Serving Frequency Active Set and Candidate Set (see 2.6.6.2.3), and shall suspend incrementing TOT_FRAMESs, BAD_FRAMESs, DCCH_TOT_FRAMESs, and DCCH_BAD_FRAMESs if applicable (see 2.6.4.1.1).

The mobile station shall lock the accumulation of valid level changes in the closed loop mean output power and shall ignore received power control bits related to the period that the transmitter is disabled (see 2.1.2.3.2 of [2]).

If the Serving Frequency is different from the Target Frequency (SF_CDMACHs is not equal to TF_CDMACHs or SF_CDMABANDs is not equal to TF_CDMABANDs), the mobile station shall set CDMACHs to TF_CDMACHs and CDMABANDs to TF_CDMABANDs, and shall tune to the Target Frequency.

The mobile station shall not change its time reference (see 2.1.5 of [2]) until the handoff is successfully completed (as described later in this section) or the mobile station resumes using the Serving Frequency Active Set (as described in 2.6.6.2.8.2.1).

The mobile station shall maintain a handoff timer. The mobile station shall set the expiration time for the handoff timer to \( (0.08 \times \text{TF_WAIT_TIMEs}) \) seconds and enable the timer at the action time of the General Handoff Direction Message or Universal Handoff Direction Message.

The mobile station shall perform the following actions:

- If the Target Frequency is different from the Serving Frequency (TF_CDMABANDs is not equal to SF_CDMABANDs, or TF_CDMACHs is not equal to SF_CDMACHs), the mobile station shall measure the mean input power on the Target Frequency \( (\text{target_freq_pwr}, \text{in dBm/1.23 MHz}) \) and may use \( \text{target_freq_pwr} \) along with the measurement of the average input power on the Serving Frequency \( (\text{avg_serving_freq_pwr}, \text{in dBm/1.23 MHz}) \) in the handoff procedure. The mobile station may declare the handoff attempt to be unsuccessful if all of the following conditions are true:
  - \( \text{DIFF_RX_PWR_THRESH}s \) is not equal to ‘00000’,
  - the mobile station has been measuring the received power on the Serving Frequency for at least the last \( N_{12m} \) frames, and
  - \( (\text{target_freq_pwr} - \text{avg_serving_freq_pwr}) \) is less than \( (-30 + 2 \times \text{DIFF_RX_PWR_THRESH}s) \) dB.
If the mobile station declares the handoff attempt to be unsuccessful, it shall restore
the configuration to what it was before the handoff attempt (see 2.6.6.2.5.1) and
send a Candidate Frequency Search Report Message as described in 2.6.6.2.8.2.1.

- The mobile station shall measure $E_c/I_o$ for each pilot in the Active Set using the
  procedures specified in 2.6.6.2.2, if any of the following conditions is true:
  - the Target Frequency is the same as the Serving Frequency ($TF_{CDMABAND}$ is
    equal to $SF_{CDMABAND}$, and $TF_{CDMACH}$ is equal to $SF_{CDMACH}$),
  - the mobile station does not use the power measurements in the handoff
    procedure,
  - $DIFF_{RX_PWR_THR}_s$ is equal to ‘00000’,
  - the mobile station has not been measuring the received power on the Serving
    Frequency for at least the last $N_{12m}$ frames, or
  - $(target\ freq\ pwr - avg\ servng\ freq\ pwr)$ is not less than $(-30 + 2 \times
    DIFF_{RX_PWR_THR}_s)$ dB.

If the mobile station measures $E_c/I_o$ for pilots in the Active Set, it shall compare the
sum of the measured $E_c/I_o$ for all pilots with the minimum total pilot $E_c/I_o$
threshold ($MIN_{TOTAL\ PILOT\ EC\ IO}$).

  - If $MIN_{TOTAL\ PILOT\ EC\ IO}$ is not equal to ‘00000’, and $(-20 \times \log_{10}
    (E_c/I_o)_{total})$ is less greater than $MIN_{TOTAL\ PILOT\ EC\ IO}$, where $(E_c/I_o)_{total}$ is
      the sum of the measured $E_c/I_o$ for the pilots in the Active Set, the mobile station
    shall declare the handoff attempt to be unsuccessful, and shall do the following:

      + If $COMPLETE\ SEARCH_s$ is equal to ‘1’, and the Target Frequency is the same
        as the Candidate Frequency ($TF_{CDMABAND}$ is equal to $CF_{CDMABAND}$,
        and $TF_{CDMACH}$ is equal to $CF_{CDMACH}$) and is different from the
        Serving Frequency ($TF_{CDMABAND}$ is not equal to $SF_{CDMABAND}$, or
        $TF_{CDMACH}$ is not equal to $SF_{CDMACH}$), the mobile station shall
        measure the strength of each pilot in its Candidate Frequency Search Set
        using the procedures specified in 2.6.6.2.2; otherwise, the mobile station
        shall end the search.

      + Otherwise, the mobile station shall end the search.

      + The mobile station shall then restore its configuration to what it was before
        the handoff attempt (see 2.6.6.2.5.1) and send a Candidate Frequency Search
        Report Message as described in 2.6.6.2.8.2.1.
If MIN_TOTAL_PILOT_EC_IOs is equal to ‘00000’, or \((-20 \times \log_{10} (E_c/I_o)_{total})\) is not less than MIN_TOTAL_PILOT_EC_IOs, or \((E_c/I_o)_{total}\) is the sum of the measured \(E_c/I_o\) for the pilots in the Active Set, the mobile station shall attempt to demodulate the Forward Traffic Channel(s). If the Active Set contains more than one pilot, the mobile station shall perform the actions specified in 2.6.6.2.7. If the Target Frequency is the same as the Candidate Frequency (TF_CDMABANDs is equal to CF_CDMABANDs, and TF_CDMACHs is equal to CF_CDMACHs), and is different from the Serving Frequency (TF_CDMABANDs is not equal to SF_CDMABANDs, or TF_CDMACHs is not equal to SF_CDMACHs), the mobile station shall measure the strength of each pilot in its Candidate Frequency Search Set using the procedures specified in 2.6.6.2.2, and wait to receive a period of \((N11m \times 20)\) ms with sufficient signal quality (e.g. good frames) on the physical channel corresponding to FPC_PRI_CHANs. The mobile station shall wait for the first of the following events to occur:

+ The handoff timer expires and the mobile station has not received a period of \((N11m \times 20)\) ms with sufficient signal quality (e.g. good frames) on the physical channel corresponding to FPC_PRI_CHANs. In this case, the mobile station shall declare the handoff attempt to be unsuccessful, and do the following:

  o If COMPLETE_SEARCHs is equal to ‘1’, and if the Target Frequency is the same as the Candidate Frequency (TF_CDMABANDs is equal to CF_CDMABANDs, and TF_CDMACHs is equal to CF_CDMACHs) and is different from the Serving Frequency (TF_CDMABANDs is not equal to SF_CDMABANDs, or TF_CDMACHs is not equal to SF_CDMACHs), and the mobile station has not completed the search of all pilots in its Candidate Frequency Search Set, then it shall complete the search, i.e., it shall obtain at least one measurement of the strength of each pilot in its Candidate Frequency Search Set, using the search procedures specified in 2.6.6.2.8.3.

  o Otherwise, the mobile station shall end the search.

The mobile station shall then restore its configuration to what it was before the handoff attempt (see 2.6.6.2.5.1) and send a Candidate Frequency Search Report Message as described in 2.6.6.2.8.2.1.

+ The mobile station receives a period of \((N11m \times 20)\) ms with sufficient signal quality (e.g. good frames) on the physical channel corresponding to FPC_PRI_CHANs. In this case, the mobile station shall declare the handoff attempt to be successful, and do the following:

  o The mobile station shall disable the handoff timer.

  o If TF_RESET_L2s is equal to ‘1’, Layer 3 shall send a L2-Supervision.Request primitive to Layer 2 to reset the acknowledgment procedures as specified in 2.2.1.1 and 2.2.2.1 of [4].
If TF_RESET_FPCs is equal to ‘1’, the mobile station shall initialize the Forward Traffic Channel power control counters as specified in 2.6.4.1.1.1.

If the Target Frequency is the same as the Candidate Frequency (TF_CDMABANDs is equal to CF_CDMABANDs, and TF_CDMACHs is equal to CF_CDMACHs), then the mobile station shall set PERIODIC_SEARCHs to ‘0’.

If PERIODIC_SEARCHs is equal to ‘1’, the mobile station shall do the following:

The mobile station shall set ALIGN_TIMING_USEDs to ‘0’ and SEARCH_OFFSETs to ‘000000’.

The mobile station shall replace its Neighbor Set with its Candidate Frequency Neighbor Set, excluding the pilots in its Active Set. When the mobile station adds a pilot from its Candidate Frequency Neighbor Set to its Active Set, it shall maintain SEARCH_PRIORITYs, SRCH_WIN_NGHBRS, and SRCH_OFFSET_NGHBRS associated with the pilot.

The mobile station shall set PILOT_INCs to CF_PILOT_INCs, SRCH_WIN_Ns to CF_SRCH_WIN_Ns, and SRCH_WIN_Rs to CF_SRCH_WIN_Rs.

The mobile station shall set SEARCH_PRIORITY_INCLs to CF_SEARCH_PRIORITY_INCLs, SRCH_OFFSET_INCLs to CF_SRCH_OFFSET_INCLs, and SRCH_WIN_NGHBRS_INCLs to CF_SRCH_WIN_NGHBRS_INCLs.

The mobile station shall set SEARCH_PRIORITY_INCLs to CF_SEARCH_PRIORITY_INCLs, SRCH_OFFSET_INCLs to CF_SRCH_OFFSET_INCLs, and SRCH_WIN_NGHBRS_INCLs to CF_SRCH_WIN_NGHBRS_INCLs.

The mobile station shall re-enable its transmitter and shall re-enable the fade timer (see 2.6.4.1.8) and reset it for T5m seconds. Then, the mobile station shall transmit the Traffic Channel Preamble, as described in 2.1.3.6.2.3 of [2], followed by a Handoff Completion Message if P_REV_IN_USE is less than seven or an Extended Handoff Completion Message if P_REV_IN_USE is equal to or greater than seven.

After starting the handoff timer, upon receiving the first period of \((N3m \times 20)\) ms with sufficient signal quality (e.g. good frames) on the physical channel corresponding to FPC_PRI_CHANs, the mobile station shall resume incrementing TOT_FRAMESs, BAD_FRAMESs, DCCH_TOT_FRAMESs, and DCCH_BAD_FRAMESs if applicable as specified in 2.6.4.1.1.

If the Target Frequency is same as the Candidate Frequency (TF_CDMABANDs is equal to CF_CDMABANDs and TF_CDMACHs is equal to CF_CDMACHs), the mobile station shall do the following:

The mobile station shall initialize the Forward Traffic Channel power control counters as specified in 2.6.4.1.1.1.

If applicable, the mobile station shall replace its Neighbor Set with its Candidate Frequency Neighbor Set, excluding the pilots in its Active Set. When the mobile station adds a pilot from its Candidate Frequency Neighbor Set to its Active Set, it shall maintain SEARCH_PRIORITYs, SRCH_WIN_NGHBRS, and SRCH_OFFSET_NGHBRS associated with the pilot.

The mobile station shall set PILOT_INCs to CF_PILOT_INCs, SRCH_WIN_Ns to CF_SRCH_WIN_Ns, and SRCH_WIN_Rs to CF_SRCH_WIN_Rs.

The mobile station shall set SEARCH_PRIORITY_INCLs to CF_SEARCH_PRIORITY_INCLs, SRCH_OFFSET_INCLs to CF_SRCH_OFFSET_INCLs, and SRCH_WIN_NGHBRS_INCLs to CF_SRCH_WIN_NGHBRS_INCLs.

The mobile station shall re-enable its transmitter and shall re-enable the fade timer (see 2.6.4.1.8) and reset it for T5m seconds. Then, the mobile station shall transmit the Traffic Channel Preamble, as described in 2.1.3.6.2.3 of [2], followed by a Handoff Completion Message if P_REV_IN_USE is less than seven or an Extended Handoff Completion Message if P_REV_IN_USE is equal to or greater than seven.

After starting the handoff timer, upon receiving the first period of \((N3m \times 20)\) ms with sufficient signal quality (e.g. good frames) on the physical channel corresponding to FPC_PRI_CHANs, the mobile station shall resume incrementing TOT_FRAMESs, BAD_FRAMESs, DCCH_TOT_FRAMESs, and DCCH_BAD_FRAMESs if applicable as specified in 2.6.4.1.1.

If the Target Frequency is same as the Candidate Frequency (TF_CDMABANDs is equal to CF_CDMABANDs and TF_CDMACHs is equal to CF_CDMACHs), the mobile station shall do the following:

The mobile station shall initialize the Forward Traffic Channel power control counters as specified in 2.6.4.1.1.1.

If applicable, the mobile station shall replace its Neighbor Set with its Candidate Frequency Neighbor Set, excluding the pilots in its Active Set. When the mobile station adds a pilot from its Candidate Frequency Neighbor Set to its Active Set, it shall maintain SEARCH_PRIORITYs, SRCH_WIN_NGHBRS, and SRCH_OFFSET_NGHBRS associated with the pilot.

The mobile station shall set PILOT_INCs to CF_PILOT_INCs, SRCH_WIN_Ns to CF_SRCH_WIN_Ns, and SRCH_WIN_Rs to CF_SRCH_WIN_Rs.

The mobile station shall set SEARCH_PRIORITY_INCLs to CF_SEARCH_PRIORITY_INCLs, SRCH_OFFSET_INCLs to CF_SRCH_OFFSET_INCLs, and SRCH_WIN_NGHBRS_INCLs to CF_SRCH_WIN_NGHBRS_INCLs.

The mobile station shall re-enable its transmitter and shall re-enable the fade timer (see 2.6.4.1.8) and reset it for T5m seconds. Then, the mobile station shall transmit the Traffic Channel Preamble, as described in 2.1.3.6.2.3 of [2], followed by a Handoff Completion Message if P_REV_IN_USE is less than seven or an Extended Handoff Completion Message if P_REV_IN_USE is equal to or greater than seven.

After starting the handoff timer, upon receiving the first period of \((N3m \times 20)\) ms with sufficient signal quality (e.g. good frames) on the physical channel corresponding to FPC_PRI_CHANs, the mobile station shall resume incrementing TOT_FRAMESs, BAD_FRAMESs, DCCH_TOT_FRAMESs, and DCCH_BAD_FRAMESs if applicable as specified in 2.6.4.1.1.

If the Target Frequency is same as the Candidate Frequency (TF_CDMABANDs is equal to CF_CDMABANDs and TF_CDMACHs is equal to CF_CDMACHs), the mobile station shall do the following:

The mobile station shall initialize the Forward Traffic Channel power control counters as specified in 2.6.4.1.1.1.

If applicable, the mobile station shall replace its Neighbor Set with its Candidate Frequency Neighbor Set, excluding the pilots in its Active Set. When the mobile station adds a pilot from its Candidate Frequency Neighbor Set to its Active Set, it shall maintain SEARCH_PRIORITYs, SRCH_WIN_NGHBRS, and SRCH_OFFSET_NGHBRS associated with the pilot.
The mobile station shall start a periodic search as described in 2.6.6.2.8.3.2.

- The mobile station shall maintain its pilot sets using the procedures described in 2.6.6.2.6.

2.6.6.2.8.2.1 Restoring the Configuration

If the mobile station declares a handoff attempt to be unsuccessful (see 2.6.6.2.8.2), it shall perform the following actions:

- If the handoff timer is enabled, the mobile station shall disable it.

- The mobile station shall restore the following parameters:
  - Message encryption mode: If SF.ENCRYPT.MODE\textsubscript{s} is equal to ‘0’, the mobile station shall turn off message encryption; otherwise, it shall turn on message encryption.
  - Service configuration: The mobile station shall use the service configuration stored in SF.SERVICE_CONFIG\textsubscript{s} to process Forward and Reverse Traffic Channel frames.
  - The mobile station shall restore the list of calls stored in SF.CALLS\textsubscript{s}.
  - Protocol revision level (P.REV\textsubscript{s} = SF.P.REV\textsubscript{s})
  - Protocol revision level in use on the serving frequency (P.REV.IN.USE\textsubscript{s} = SF.P.REV.IN.USE\textsubscript{s})
  - Service negotiation type (SERV.NEG\textsubscript{s} = SF.SERV.NEG\textsubscript{s})
  - Long code mask: If SF.PRIVATE.LCM\textsubscript{s} is equal to ‘1’, the mobile station shall use the private long code mask; otherwise, it shall use the public long code mask.
  - Search window size for the Active Set and Candidate Set (SRCH_WIN.A\textsubscript{s} = SF.SRCH_WIN.A\textsubscript{s})
  - Search window size for the Neighbor Set (SRCH_WIN.N\textsubscript{s} = SF.SRCH_WIN.N\textsubscript{s})
  - Search window size for the Remaining Set (SRCH_WIN.R\textsubscript{s} = SF.SRCH_WIN.R\textsubscript{s})
  - Pilot detection threshold (T.ADD\textsubscript{s} = SF.T.ADD\textsubscript{s})
  - Pilot drop threshold (T.DROP\textsubscript{s} = SF.T.DROP\textsubscript{s})
  - Soft slope for the dynamic add and drop threshold (SOFT.SLOPE\textsubscript{s} = SF.SOFT.SLOPE\textsubscript{s})
  - Intercept for the dynamic add threshold (ADD.INTERCEPT\textsubscript{s} = SF.ADD.INTERCEPT\textsubscript{s})
  - Intercept for the dynamic drop threshold (DROP.INTERCEPT\textsubscript{s} = SF.DROP.INTERCEPT\textsubscript{s})
– Active Set versus Candidate Set comparison threshold (T_COMP_s = SF_T_COMP_s)
– Drop timer value (T_TDROP_s = SF_T_TDROP_s)
– Frame offset (FRAME_OFFSET_s = SF_FRAME_OFFSET_s)
– Nominal power setting (NOM_PWR_s = SF_NOM_PWR_s)
– Extended nominal power setting (NOM_PWR_EXT_s = SF_NOM_PWR_EXT_s)
– Power control step (PWR_CNTL_STEP_s = SF_PWR_CNTL_STEP_s)
– CDMA band class (CDMABAND_s = SF_CDMABAND_s)
– Frequency assignment (CDMACH_s = SF_CDMACH_s)
– Active Set (For each pilot in the Serving Frequency Active Set: (PILOT_REC,
  PWR_COMB_IND))
– Code channel list (CODE_CHAN_LIST_s = SF_CODE_CHAN_LIST_s)

• The mobile station shall tune to the Serving Frequency and resume using the
  Serving Frequency Active Set as follows:
  
  – If the mobile station was processing the Forward Fundamental Channel prior to
tuning to the Candidate Frequency, the mobile station shall resume processing
the Forward Fundamental Channel. If the mobile station was transmitting on
the Reverse Fundamental Channel prior to tuning to the Candidate Frequency,
the mobile station shall resume transmitting on the Reverse Fundamental
Channel.

  – If the mobile station was processing the Forward Dedicated Control Channel
prior to tuning to the Candidate Frequency, the mobile station shall resume
processing the Forward Dedicated Control Channel. If the mobile station was
transmitting on the Reverse Dedicated Control Channel prior to tuning to the
Candidate Frequency, the mobile station shall resume transmitting on the
Reverse Dedicated Control Channel.

  – The mobile station shall not resume transmitting on the Reverse Supplemental
Code Channels and Reverse Supplemental Channels (if any). The mobile station
shall not process on the Forward Supplemental Code Channels and Forward
Supplemental Channels (if any).

  – When the mobile station resumes transmission on the Reverse Traffic Channel,
it shall use the following rules to re-enable its transmitter:
    + If the interval between the time that the mobile station disables its
transmitter and the time that it resumes using the Serving Frequency Active
Set is equal to or greater than (N2m × 20) ms, then the mobile station shall
wait to receive a period of (N3m × 20) ms with sufficient signal quality (e.g.
good frames) on the physical channel corresponding to FPC_PRI_CHAN_s
before it re-enables its transmitter.
Otherwise, the mobile station shall re-enable its transmitter no later than
$N_3m \times 20$ ms after the mobile station tunes to the Serving Frequency. The
mobile station should re-enable its transmitter earlier. After the mobile
station re-enables its transmitter, the mean output power shall be as
specified in 2.1.2.4.1 of [2] for a step change in input power. If the mobile
station re-enables its transmitter earlier than $N_3m \times 20$ ms after it tunes to
the Serving Frequency, the initial mean output power shall be as specified in
2.1.2.3.1 of [2], where the initial mean input power estimate is either:

- within 6 dB of the actual mean input power, or
- equal to the mean input power before the mobile station tuned to the
  Target Frequency.

- The mobile station shall enable the fade timer and the handoff drop timers
corresponding to the pilots in its Active Set and Candidate Set. The mobile station
shall resume incrementing $TOT\_FRAMESs$, $BAD\_FRAMESs$, $DCCH\_TOT\_FRAMESs$,
and $DCCH\_BAD\_FRAMESs$ if applicable as specified in 2.6.4.1.1.

- The mobile station shall send a Candidate Frequency Search Report Message within
$T_{56m}$ seconds of declaring the handoff attempt to be unsuccessful. The mobile
station shall report the contents of the Candidate Frequency Search Report Message
as follows:
  - The mobile station shall report the two components of the Target Frequency in
the $CDMA\_FREQ$ and $BAND\_CLASS$ fields.
  - The mobile station shall report the received power on the Target Frequency and
on the Serving Frequency in the $CF\_TOTAL\_RX\_PWR$ and $SF\_TOTAL\_RX\_PWR$
fields, respectively.
  - For each pilot in the Target Frequency Active Set that measures above
$TF\_T\_ADDS$, the mobile station shall report its phase and strength in the fields
$PILOT\_PN\_PHASE$ and $PILOT\_STRENGTH$, respectively.
  - If the Target Frequency is the same as the Candidate Frequency
($TF\_CDMABANDs = CF\_CDMABANDs$, and $TF\_CDMACHs = CF\_CDMACHs$), and is different from the Serving
Frequency ($TF\_CDMABANDs$ is not equal to $SF\_CDMABANDs$ or $TF\_CDMACHs$ is not equal
to $SF\_CDMACHs$), the mobile station shall also report the strength of each pilot
in the Candidate Frequency Search Set that measures above $CF\_T\_ADDS$.

- If the Serving Frequency is the same as the Candidate Frequency ($SF\_CDMABANDs$
is equal to $CF\_CDMABANDs$ and $SF\_CDMACHs$ is equal to $CF\_CDMACHs$), then the
mobile station shall set $PERIODIC\_SEARCHs$ to '0'.

- If $PERIODIC\_SEARCHs$ is equal to ‘1’ and the Candidate Frequency Search Set is
not empty, the mobile station shall do the following:
  - The mobile station shall set $ALIGN\_TIMING\_USEDs$ to '0' and $SEARCH\_OFFSETs$
to ‘000000’.
– The mobile station shall carry out the periodic search procedures described in 2.6.6.2.8.3.2.

2.6.6.2.8.3 Search of Pilots on the CDMA Candidate Frequency

If SEARCH_MODEs is equal to ‘0000’, the mobile station shall do the following: If PERIODIC_SEARCHs is equal to ‘0’, the mobile station shall search the Candidate Frequency Search Set once, as described in 2.6.6.2.8.3.1; otherwise, the mobile station shall search the Candidate Frequency Search Set periodically, as described in 2.6.6.2.8.3.2.

2.6.6.2.8.3.1 CDMA Candidate Frequency Single Search

The mobile station does a single search of the Candidate Frequency Search Set by performing the following actions at the action time of the Candidate Frequency Search Control Message or the Candidate Frequency Search Request Message that started the search:

• If ALIGN_TIMING_USEDs is set to ‘0’, the mobile station shall measure the strength of all pilots in the Candidate Frequency Search Set in one or more visits to the Candidate Frequency, as described in 2.6.6.2.8.3.3.

• If ALIGN_TIMING_USEDs is set to ‘1’, the mobile station shall measure the strength of all pilots in the Candidate Frequency Search Set in one or more scheduled visits (see below) to the Candidate Frequency, as described in 2.6.6.2.8.3.3.

The mobile station shall schedule visits to the Candidate Frequency only at

\((0.00125 \times \text{SEARCH_OFFSET}s) + k \times (\text{SEARCH_TIME_RESOLUTION}s \times \text{inter_visit_time})\) seconds after the action time of the Candidate Frequency Search Request Message or the Candidate Frequency Search Control Message that started the search, where

\(k = \) an integer between 0 and max_num_visits, inclusive, where

max_visits is the value of MAX_NUM_VISITS field of the last Candidate Frequency Search Response Message sent by the mobile station,

and

\(\text{inter_visit_time} = \) the value of the INTER_VISIT_TIME field of the last Candidate Frequency Search Response Message sent by the mobile station.

• The mobile station shall complete the measurements and send a Candidate Frequency Search Report Message within \((0.00125 \times \text{SEARCH_OFFSET}s) + \text{freshness_interval}) seconds after the action time of the Candidate Frequency Search Control Message, or the Candidate Frequency Search Request Message, where

freshness_interval is determined as follows:

– If the value of the TOTAL_OFF_TIME_FWD field or of the TOTAL_OFF_TIME_REV field of the last Candidate Frequency Search Response Message sent by the mobile station to the base station is greater than or equal to \(\left\lceil \frac{(T_{70m} - T_{71m})}{\text{SEARCH_TIME_RESOLUTION}s} \right\rceil\), then
freshness_interval = (max (fwd_time, rev_time) + T71m) seconds,

where

\[\text{fwd_time} = \text{SEARCH\_TIME\_RESOLUTION}_s \times (\text{value of the TOTAL\_OFF\_TIME\_FWD field of the last Candidate Frequency Search Response Message sent by the mobile station}),\]

and

\[\text{rev_time} = \text{SEARCH\_TIME\_RESOLUTION}_s \times (\text{value of the TOTAL\_OFF\_TIME\_REV field of the last Candidate Frequency Search Response Message sent by the mobile station}).\]

– Otherwise,

\[\text{freshness_interval} = T70m \text{ seconds.}\]

The mobile station shall set the fields of the Candidate Frequency Search Report Message as follows:

– The mobile station shall report the two components of the Candidate Frequency in the CDMA_FREQ and BAND_CLASS fields.

– The mobile station shall report the received power on the Candidate Frequency and on the Serving Frequency in the CF\_TOTAL\_RX\_PWR and SF\_TOTAL\_RX\_PWR fields, respectively.

– For each pilot in the Candidate Frequency Search Set that measures above CF\_T\_ADD_s, the mobile station shall report its phase and strength in the fields PILOT\_PN\_PHASE and PILOT\_STRENGTH, respectively.

2.6.6.2.8.3.2 Candidate Frequency Periodic Search

When the mobile station performs a periodic search, it periodically searches the Candidate Frequency Search Set and reports the results to the base station in the Candidate Frequency Search Report Message, as described in this section. The mobile station may measure all pilots in the Candidate Frequency Search Set in one visit to the Candidate Frequency, or it may visit the Candidate Frequency several times in a search period, each time measuring all or some of the pilots in the Candidate Frequency Search Set, as described in 2.6.6.2.8.3.3.

If SF\_TOTAL\_EC\_THRESH_s is not equal to ‘11111’, while tuned to the Serving Frequency (specified by CDMACH_s and CDMABAND_s), the mobile station shall measure the total received power spectral density, in mW/1.23 MHz, on the Serving Frequency at least once every 20 ms frame. The mobile station shall maintain the average of the spectral density (spec\_density) over the last N12m frames.

(In the following, \((E_c/I_o)_{total}\) is the total \(E_c/I_o\) of the pilots in the Active Set, measured as specified in 2.6.6.2.2, and total\_ec is defined as \((10 \times \log_{10} ((E_c/I_o)_{total} \times \text{spec\_density})).\)

The mobile station shall maintain a periodic search timer as follows:
When the mobile station starts a periodic search, it shall set the periodic search timer to the value in Table 2.6.6.2.8.3.2-1 corresponding to SEARCH_PERIODs and shall enable the timer.

- If the periodic search is started by a Candidate Frequency Search Request Message or a Candidate Frequency Search Control Message, then the mobile station shall start the periodic search \((0.00125 \times \text{SEARCH_OFFSETs})\) seconds after the action time of the Candidate Frequency Search Request Message or the Candidate Frequency Search Control Message that started the search.

- If the periodic search is started following successful or unsuccessful handoff attempt, the mobile station shall start the periodic search:
  - Upon sending the Handoff Completion Message or Extended Handoff Completion Message, in the case that the handoff was successful.
  - Upon sending the Candidate Frequency Search Report Message, in the case that the handoff was unsuccessful.

- When the periodic search timer expires, the mobile station shall reset the periodic search timer to the value in Table 2.6.6.2.8.3.2-1 corresponding to SEARCH_PERIODs and shall re-enable the timer.

- If ALIGN_TIMING_USEDs is set to ‘0’, SF_TOTAL_EC_THreshs is not equal to ‘11111’ and SF_TOTAL_EC_IO_THreshs is equal to ‘11111’, the mobile station shall perform the following actions once per frame:
  - Disable the periodic search timer if total_ec is not less than \((-120 + 2 \times \text{SF_TOTAL_EC_THRESH}s)\).
  - Reset the expiration time of the periodic search timer to the value in Table 2.6.6.2.8.3.2-1 corresponding to SEARCH_PERIODs, and re-enable the timer if the following conditions are true:
    + the periodic search timer is disabled, and
    + total_ec is less than \((-120 + 2 \times \text{SF_TOTAL_EC_THRESH}s)\).

- If ALIGN_TIMING_USEDs is set to ‘0’, SF_TOTAL_EC_THreshs is equal to ‘11111’ and SF_TOTAL_EC_IO_THreshs is not equal to ‘11111’, the mobile station shall perform the following actions once per frame:
  - Disable the periodic search timer if \((-20 \times \log_{10} (E_c/I_o)_{\text{total}})\) is not greater than SF_TOTAL_EC_IO_THRESHs.
  - Reset the expiration time of the periodic search timer to the value in Table 2.6.6.2.8.3.2-1 corresponding to SEARCH_PERIODs, and re-enable the timer if the following conditions are true:
    + the periodic search timer is disabled, and
    + \((-20 \times \log_{10} (E_c/I_o)_{\text{total}})\) is greater than SF_TOTAL_EC_IO_THRESHs.
• If ALIGN_TIMING_USED is set to ‘0’, SF_TOTAL_EC_THRESH is not equal to ‘11111’ and SF_TOTAL_EC_IO_THRESH is not equal to ‘11111’, the mobile station shall perform the following actions once per frame:
  – Disable the periodic search timer if the following conditions are true:
    + \( \text{total_ec} \) is not less than \((-120 + 2 \times \text{SF TOTAL_EC_THRESH})\), and
    + \((-20 \times \log_{10} (E_{c}/I_{o})_{\text{total}}\) is not greater than SF_TOTAL_EC_IO_THRESH.
  – Reset the expiration time of the periodic search timer to the value in Table 2.6.6.2.8.3.2-1 corresponding to SEARCH_PERIOD, and re-enable the timer if the following conditions are true:
    + the periodic search timer is disabled, and
    + \( \text{total_ec} \) is less than \((-120 + 2 \times \text{SF TOTAL_EC_THRESH})\), or \((-20 \times \log_{10} (E_{c}/I_{o})_{\text{total}}\) is greater than SF_TOTAL_EC_IO_THRESH.

• The mobile station shall maintain the periodic search timer independent of the total Ec and the total Ec/Io of the pilots in the Serving Frequency Active Set, if any of the following conditions is true:
  – ALIGN_TIMING_USED is set to ‘1, or
  – SF_TOTAL_EC_THRESH is equal to ‘11111’ and SF_TOTAL_EC_IO_THRESH is equal to ‘11111’.

Table 2.6.6.2.8.3.2-1. Search Period Values

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<th>SEARCH_PERIOD</th>
<th>Search Period (seconds)</th>
<th>SEARCH_PERIOD</th>
<th>Search Period (seconds)</th>
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</tr>
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<td>15</td>
<td>200</td>
</tr>
</tbody>
</table>

If the periodic search timer is enabled, the mobile station shall perform the following actions before the timer expires:
• If ALIGN_TIMING_USED is set to ‘0’, the mobile station shall measure the strength of all pilots in the Candidate Frequency Search Set at least once in one or more visits to the Candidate Frequency, as described in 2.6.6.2.8.3.3.

• If ALIGN_TIMING_USED is set to ‘1’, the mobile station shall measure the strength of all pilots in the Candidate Frequency Search Set in one or more scheduled visits (see below) to the Candidate Frequency, as described in 2.6.6.2.8.3.3.

The mobile station shall schedule visits to the Candidate Frequency only at

\( ((0.00125 \times \text{SEARCH_OFFSET}) + k \times (\text{SEARCH_TIME_RESOLUTION} \times \text{inter_visit_time})) \) seconds after the action time of the Candidate Frequency Search Request Message or the Candidate Frequency Search Control Message that started the search, where

\[ k = \text{an integer between 0 and max_num_visits, inclusive, where max_num_visits is the value of MAX_NUM_VISITS field of the last Candidate Frequency Search Response Message sent by the mobile station,} \]

\[ \text{inter_visit_time} = \text{the value of the INTER_VISIT_TIME field of the last Candidate Frequency Search Response Message sent by the mobile station.} \]

– The mobile station shall abort a scheduled visit to the Candidate Frequency if at the scheduled time, one or both of the following conditions hold:

  + \( \text{SF\_TOTAL\_EC\_THRESH} \) is not equal to ‘11111’ and \( \text{total_ec} \) is not less than \((-120 + 2 \times \text{SF\_TOTAL\_EC\_THRESH})\), or

  + \( \text{SF\_TOTAL\_EC\_IO\_THRESH} \) is not equal to ‘11111’ and \((-20 \times \log_{10} (\text{Ec/Io})_{\text{total}}) \) is not greater than \( \text{SF\_TOTAL\_EC\_IO\_THRESH} \).

– If the mobile station aborts a scheduled visit during a search period, it may abort all remaining scheduled visits in that search period.

• The mobile station shall send a Candidate Frequency Search Report Message if \( \text{MIN\_TOTAL\_PILOT\_EC\_IO} \) is equal to ‘00000’ or if \((-20 \times \log_{10} (\text{Ec/Io})_{\text{total}}) \) is not less than \( \text{or equal to} \) \( \text{MIN\_TOTAL\_PILOT\_EC\_IO} \), where \( (\text{Ec/Io})_{\text{total}} \) is the sum of \( \text{Ec/Io} \) for all those pilots that measure above \( \text{CF\_T\_ADD} \) in the current search period.

The mobile station shall report the contents of the Candidate Frequency Search Report Message as follows:

– The mobile station shall report the two components of the Candidate Frequency in the CDMA_FREQ and BAND_CLASS fields.

– The mobile station shall report the received power on the Candidate Frequency and on the Serving Frequency in the \( \text{CF\_TOTAL\_RX\_PWR} \) and \( \text{SF\_TOTAL\_RX\_PWR} \) fields, respectively.
– For each pilot in the Candidate Frequency Search Set that measures above CF_T_ADDs, the mobile station shall report its phase and strength in the fields PILOT_PN_PHASE and PILOT_STRENGTH, respectively.

– The mobile station shall ensure that the strength measurement for all pilots in the Candidate Frequency Search Set were obtained within freshness_interval before the Candidate Frequency Search Report Message is sent, where freshness_interval is determined as follows:

  If the value of the TOTAL_OFF_TIME_FWD field or of the TOTAL_OFF_TIME_REV field of the last Candidate Frequency Search Response Message sent by the mobile station to the base station is greater than or equal to \[ \left( \frac{T70m - T71m}{\text{SEARCH_TIME_RESOLUTIONs}} \right) \], then

\[
\text{freshness_interval} = (\max (\text{fwd_time}, \text{rev_time}) + T71m) \text{ seconds},
\]

where

\[
\text{fwd_time} = \text{SEARCH_TIME_RESOLUTIONs} \times (\text{value of the TOTAL_OFF_TIME_FWD field of the last Candidate Frequency Search Response Message sent by the mobile station}),
\]

and

\[
\text{rev_time} = \text{SEARCH_TIME_RESOLUTIONs} \times (\text{value of the TOTAL_OFF_TIME_REV field of the last Candidate Frequency Search Response Message sent by the mobile station}).
\]

– Otherwise,

\[
\text{freshness_interval} = T70m \text{ seconds}.
\]

2.6.6.2.8.3.3 Candidate Frequency Pilot Measurements

The mobile station measures the strength of all pilots in the Candidate Frequency Search Set in one or more visits to the Candidate Frequency. The mobile station shall perform the following actions each time it visits the Candidate Frequency to measure pilot strengths:

– If the mobile station is processing the Forward Fundamental Channel, the mobile station shall stop processing the Forward Fundamental Code Channel. If the mobile station is transmitting on the Reverse Fundamental Channel, the mobile station shall stop transmitting on the Reverse Fundamental Channel.

– If the mobile station is processing the Forward Dedicated Control Channel, the mobile station shall stop processing the Forward Dedicated Control Channel. If the mobile station is transmitting on the Reverse Dedicated Control Channel, the mobile station shall stop transmitting on the Reverse Dedicated Control Channel.

– The mobile station shall stop processing the Forward Supplemental Code Channels and Forward Supplemental Channels (if any). The mobile station shall stop transmitting on the Reverse Supplemental Code Channels and Reverse Supplemental Channels (if any).
• The mobile station shall disable the fade timer (see 2.6.4.1.8) and the handoff drop
timers corresponding to its current Active Set and Candidate Set (see 2.6.6.2.3), and
shall suspend incrementing TOT_FRAMES_s, BAD_FRAMES_s, DCCH_TOT_FRAMES_s,
DCCH_BAD_FRAMES_s, SCH_TOT_FRAMES_s, and SCH_BAD_FRAMES_s if applicable
(see 2.6.4.1.1).

• The mobile station shall lock the accumulation of valid level changes in the closed
loop mean output power and shall ignore received power control bits related to the
period that the transmitter is disabled (see 2.1.2.3.1 of [2]).

• The mobile station shall store the following parameters from its current
configuration:
  – CDMA band class (SF_CDMABAND_s = CDMABAND_s)
  – Frequency Assignment (SF_CDMACH_s = CDMACH_s)
  – Pilot detection threshold (SF_T_ADD_s = T_ADD_s)

• The mobile station shall set the following parameters:
  – CDMABAND_s = CF_CDMABAND_s
  – CDMACH_s = CF_CDMACH_s
  – T_ADD_s = CF_T_ADD_s

The mobile station shall tune to the Candidate Frequency.

• The mobile station shall not change its time reference (see 2.1.5 of [2]) until it
resumes using the Serving Frequency Active Set, as described below.

• The mobile station shall measure the mean input power on the Candidate Frequency
(cand_freq_pwr, in dBm / 1.23 MHz), and may use cand_freq_pwr along with the
measurement of the mean input power on the Serving Frequency
(avg_serving_freq_pwr, in dBm / 1.23 MHz) in the search procedure as follows:
  – If DIFF_RX_PWR_THRESH_s is not equal to ‘00000’, and (cand_freq_pwr -
    avg_serving_freq_pwr) is less than (-30 + 2 × DIFF_RX_PWR_THRESH_s) dB, the
    mobile station may terminate the search for pilots in the current visit to the
    Candidate Frequency.
  – If DIFF_RX_PWR_THRESH_s is equal to ‘00000’, the mobile station does not use
    the power measurements in the search procedure, or (cand_freq_pwr -
    avg_serving_freq_pwr) is not less than (-30 + 2 × DIFF_RX_PWR_THRESH_s) dB,
    the mobile station shall measure Ec/I0 for all or some of the pilots in its
    Candidate Frequency Search Set, using the search procedures specified in
    2.6.6.2.2.

• The mobile station shall restore the following parameters:
  – Pilot detection threshold (T_ADD_s = SF_T_ADD_s)
  – CDMA band class (CDMABAND_s = SF_CDMABAND_s)
  – Frequency assignment (CDMACH_s = SF_CDMACH_s)
• The mobile station shall tune to the Serving Frequency and shall resume using the Serving Frequency Active Set as follows:

  – If the mobile station was processing the Forward Fundamental Channel prior to tuning to the Candidate Frequency, the mobile station shall resume processing the Forward Fundamental Channel. If the mobile station was transmitting on the Reverse Fundamental Channel prior to tuning to the Candidate Frequency, the mobile station shall resume transmitting on the Reverse Fundamental Channel.

  – If the mobile station was processing the Forward Dedicated Control Channel prior to tuning to the Candidate Frequency, the mobile station shall resume processing the Forward Dedicated Control Channel. If the mobile station was transmitting on the Reverse Dedicated Control Channel prior to tuning to the Candidate Frequency, the mobile station shall resume transmitting on the Reverse Dedicated Control Channel.

  – If the Forward Supplemental Code Channels and Forward Supplemental Channels assignment has not expired, the mobile station shall resume processing the Forward Supplemental Code Channels and Forward Supplemental Channels (if any). If the Reverse Supplemental Code Channel and Reverse Supplemental Channels assignment has not expired, the mobile station may resume transmitting on the Reverse Supplemental Code Channels and Reverse Supplemental Channels (if any).

  – When the mobile station resumes transmission on the Reverse Traffic Channel, it shall use the following rules to re-enable its transmitter:

    + If the interval between the time that the mobile station disables its transmitter and the time that it resumes using the Serving Frequency Active Set is equal to or greater than \((N_{2m} \times 20)\) ms, then the mobile station shall wait to receive a period of \((N_{3m} \times 20)\) ms with sufficient signal quality (e.g. good frames) on the physical channel corresponding to FPC_PRI_CHAN\(_s\) before it re-enables its transmitter.

    + Otherwise, the mobile station shall re-enable its transmitter no later than \(N_{3m} \times 20\) ms after the mobile station tunes to the Serving Frequency. The mobile station should re-enable its transmitter earlier. After the mobile station re-enables its transmitter, the mean output power shall be as specified in 2.1.2.4.1 for a step change in input power. If the mobile station re-enables its transmitter earlier than \(N_{3m} \times 20\) ms after it tunes to the Serving Frequency, the initial mean output power shall be as specified in 2.1.2.3.1 of [2], where the initial mean input power estimate is either:

      o within 6 dB of the actual mean input power, or
      
      o equal to the mean input power before the mobile station tuned to the Target Frequency.
The mobile station shall enable the fade timer and the handoff drop timers corresponding to the pilots in its Active Set and Candidate Set. The mobile station shall resume incrementing TOT_FRAMES_s, BAD_FRAMES_s, DCCH_TOT_FRAMES_s, DCCH_BAD_FRAMES_s, SCH_TOT_FRAMES_s, and SCH_BAD_FRAMES_s if applicable as specified in 2.6.4.1.8.

2.6.6.2.8.3.4 Aborting CDMA Candidate Frequency Periodic Search

When the mobile station aborts a periodic search, it shall do the following:

- The mobile station shall cancel any remaining visits to the Candidate Frequency in the current search period, and shall not send a Candidate Frequency Search Report Message for the current search period.

- The mobile station shall disable the periodic search timer.

2.6.6.2.9 CDMA-to-Analog Handoff

The base station directs the mobile station to perform a CDMA-to-Analog handoff by sending an Analog Handoff Direction Message. If the mobile station has narrow analog capability, the base station may direct the handoff to a narrow analog channel.

If the mobile station supports analog operation in the requested band class, the mobile station shall set DTX_s to ‘00’ and store the following parameters from the Analog Handoff Direction Message:

- System identification (SID_s = SID_r)
- Voice mobile station attenuation code (VMAC_s = VMAC_r)
- Analog voice channel number (ANALOG_CHAN_s = ANALOG_CHAN_r)
- SAT color code (SCC_s = SCC_r)
- Message encryption mode indicator (MEM_s = MEM_r)
- Analog voice channel type (AN_CHAN_TYPE_s = AN_CHAN_TYPE_r)
- Digital supervisory audio color code (DSCC_s = DSCC_MSB_r × 4 + SCC_r)

If the mobile station does not support analog operation in the requested band class, the mobile station shall discard the message and send a Mobile Station Reject Order with the ORDQ field set to ‘00000110’ (capability not supported by the mobile station).

At the action time specified by the Analog Handoff Direction Message (see 2.6.4.1.5), the mobile station shall disable its transmitter. The mobile station shall enable its transmitter on the wide analog voice channel or optional narrow analog voice channel within T_63m seconds after the action time.

2.6.6.2.10 Search of Analog Frequencies

If SEARCH_MODE_s is equal to ‘0001’, and the mobile station supports analog searching, the mobile station shall do the following: If PERIODIC_SEARCH_s is equal to ‘0’, the mobile station shall search the Candidate Analog Frequency Search Set once, as described in
2.6.6.2.10.1; otherwise, the mobile station shall search the Candidate Frequency Analog Search Set periodically, as described in 2.6.6.2.10.2.

2.6.6.2.10.1 Analog Frequencies Single Search

The mobile station does a single search of the Candidate Frequency Analog Search Set by performing the following actions at the action time of the Candidate Frequency Search Control Message or the Candidate Frequency Search Request Message that started the search:

- If ALIGN_TIMING_USED is set to '0', the mobile station shall measure the strength of all analog frequencies in the Candidate Frequency Analog Search Set in one or more visits away from the Serving Frequency, as described in 2.6.6.2.10.3.

- If ALIGN_TIMING_USED is set to '1', the mobile station shall measure the strength of analog frequencies in the Candidate Frequency Analog Search Set in one or more scheduled visits (see below) away from the Serving Frequency, as described in 2.6.6.2.10.3.

The mobile station shall schedule visits away from the Serving Frequency only at 

\(((0.00125 \times \text{SEARCH_OFFSETs}) + k \times (\text{SEARCH_TIME_RESOLUTIONs} \times \text{inter_visit_time}))\) seconds after the action time of the Candidate Frequency Search Request Message or the Candidate Frequency Search Control Message that started the search, where

\[ k = \text{an integer between 0 and } \text{max_num_visits}, \text{inclusive, where} \]
\[ \text{max_num_visits} \text{ is the value of MAX_NUM_VISITS field of the last Candidate Frequency Search Response Message sent by the mobile station,} \]

and

\[ \text{inter_visit_time} = \text{the value of the INTER_VISIT_TIME field of the last Candidate Frequency Search Response Message sent by the mobile station.} \]

- The mobile station shall complete the measurements and send a Candidate Frequency Search Report Message within 

\(((0.00125 \times \text{SEARCH_OFFSETs}) + \text{freshness_interval})\) seconds after the action time of the Candidate Frequency Search Control Message or the Candidate Frequency Search Request Message, where

\[ \text{freshness_interval} \text{ is determined as follows:} \]

  - If the value of the TOTAL_OFF_TIME_FWD field or of the TOTAL_OFF_TIME_REV field of the last Candidate Frequency Search Response Message sent by the mobile station to the base station is greater than or equal to 

\[
\left\lfloor \frac{(T_{70m} - T_{71m})}{\text{SEARCH_TIME_RESOLUTIONs}} \right\rfloor,
\]

then

\[ \text{freshness_interval} = (\text{max} (\text{fwd_time}, \text{rev_time}) + T_{71m}) \text{ seconds,} \]

where

\[ \text{fwd_time} = \text{SEARCH_TIME_RESOLUTIONs} \times (\text{value of the TOTAL_OFF_TIME_FWD field of the last Candidate Frequency Search Response Message sent by the mobile station}), \]
and

\[ rev\_time = SEARCH\_TIME\_RESOLUTION_s \times (value\ of\ the) \]
\[ TOTAL\_OFF\_TIME\_REV\ field\ of\ the\ last\ Candidate\ Frequency\]
\[ Search\ Response\ Message\ sent\ by\ the\ mobile\ station).\]

- Otherwise,

\[ freshness\_interval = T_{70m} \text{ seconds}.\]

2.6.6.2.10.2 Analog Frequencies Periodic Search

When the mobile station performs a periodic search, it periodically searches the Candidate Frequency Analog Search Set, and reports the results to the base station in the Candidate Frequency Search Report Message, as described in this section. The mobile station may measure all analog frequencies in the Candidate Frequency Analog Search Set in one visit away from the Serving Frequency, or it may make multiple visits in a search period, each time measuring all or some of the analog frequencies in the Candidate Frequency Analog Search Set, as described in 2.6.6.2.10.3.

If SF\_TOTAL\_EC\_THRESH_s is not equal to ‘11111’, while tuned to the Serving Frequency (specified by CDMACH_s and CDMABAND_s), the mobile station shall measure the total received power spectral density, in mW/1.23 MHz, on the Serving Frequency at least once every 20 ms frame. The mobile station shall maintain the average of the spectral density \( (spec\_density) \) over the last \( N_{12m} \) frames.

(In the following, \( (E_c/I_o)_{total} \) is the total \( E_c/I_o \) of the pilots in the Active Set, measured as specified in 2.6.6.2.2, and \( total\_ec \) is defined as \( (10 \times \log_{10} ((E_c/I_o)_{total} \times spec\_density)) \).)

The mobile station shall maintain a periodic search timer as follows:

- When the mobile station starts a periodic search, it shall set the periodic search timer to the value in Table 2.6.6.2.8.3.2-1 corresponding to SEARCH\_PERIOD_s and shall enable the timer.

- If the periodic search is started by a Candidate Frequency Search Request Message or a Candidate Frequency Search Control Message, then the mobile station shall begin the periodic search \( (0.00125 \times SEARCH\_OFFSET_s) \) seconds after the action time of the Candidate Frequency Search Request Message or the Candidate Frequency Search Control Message that started the search.

- If the periodic search is started following successful or unsuccessful handoff attempt, the mobile station shall start the periodic search:
  + Upon sending the Handoff Completion Message or Extended Handoff Completion Message, in the case that the handoff was successful.
  + Upon sending the Candidate Frequency Search Report Message, in the case that the handoff was unsuccessful.

- When the periodic search timer expires, the mobile station shall reset the periodic search timer to the value in Table 2.6.6.2.8.3.2-1 corresponding to SEARCH\_PERIOD_s and shall re-enable the timer.
If \( \text{ALIGN\_TIMING\_USED}s \) is set to ‘0’, \( \text{SF\_TOTAL\_EC\_THRESH}s \) is not equal to ‘11111’ and \( \text{SF\_TOTAL\_EC\_IO\_THRESH}s \) is equal to ‘11111’, the mobile station shall perform the following actions once per frame:

- Disable the periodic search timer if \( \text{total\_ec} \) is not less than \((-120 + 2 \times \text{SF\_TOTAL\_EC\_THRESH}s)\).

- Reset the expiration time of the periodic search timer to the value in Table 2.6.6.2.8.3.2-1 corresponding to \( \text{SEARCH\_PERIOD}s \), and re-enable the timer if the following conditions are true:
  - the periodic search timer is disabled, and
  - \( \text{total\_ec} \) is less than \((-120 + 2 \times \text{SF\_TOTAL\_EC\_THRESH}s)\).  

If \( \text{ALIGN\_TIMING\_USED}s \) is set to ‘0’, \( \text{SF\_TOTAL\_EC\_THRESH}s \) is equal to ‘11111’ and \( \text{SF\_TOTAL\_EC\_IO\_THRESH}s \) is not equal to ‘11111’, the mobile station shall perform the following actions once per frame:

- Disable the periodic search timer if \((-20 \times \log_{10} (\text{E_c}/\text{I_o})_{\text{total}})\) is not greater than \(\text{SF\_TOTAL\_EC\_IO\_THRESH}s\).

- Reset the expiration time of the periodic search timer to the value in Table 2.6.6.2.8.3.2-1 corresponding to \( \text{SEARCH\_PERIOD}s \), and re-enable the timer if the following conditions are true:
  - the periodic search timer is disabled, and
  - \((-20 \times \log_{10} (\text{E_c}/\text{I_o})_{\text{total}})\) is greater than \(\text{SF\_TOTAL\_EC\_IO\_THRESH}s\).  

If \( \text{ALIGN\_TIMING\_USED}s \) is set to ‘0’, \( \text{SF\_TOTAL\_EC\_THRESH}s \) is not equal to ‘11111’ and \( \text{SF\_TOTAL\_EC\_IO\_THRESH}s \) is not equal to ‘11111’, the mobile station shall perform the following actions once per frame:

- Disable the periodic search timer if the following conditions are true:
  - \( \text{total\_ec} \) is not less than \((-120 + 2 \times \text{SF\_TOTAL\_EC\_THRESH}s)\), and
  - \((-20 \times \log_{10} (\text{E_c}/\text{I_o})_{\text{total}})\) is not greater than \(\text{SF\_TOTAL\_EC\_IO\_THRESH}s\).

- Reset the expiration time of the periodic search timer to the value in Table 2.6.6.2.8.3.2-1 corresponding to \( \text{SEARCH\_PERIOD}s \), and re-enable the timer if the following conditions are true:
  - the periodic search timer is disabled, and
  - \( \text{total\_ec} \) is less than \((-120 + 2 \times \text{SF\_TOTAL\_EC\_THRESH}s)\), or
  - \((-20 \times \log_{10} (\text{E_c}/\text{I_o})_{\text{total}})\) is greater than \(\text{SF\_TOTAL\_EC\_IO\_THRESH}s\).  

The mobile station shall maintain the periodic search timer independent of the total \( \text{E_c} \) and the total \( \text{E_c}/\text{I_o} \) of the pilots in the Serving Frequency Active Set, if any of the following conditions is true:

- \( \text{ALIGN\_TIMING\_USED}s \) is set to ‘1’, or
If the periodic search timer is enabled, the mobile station shall perform the following actions before the timer expires:

- If ALIGN_TIMING_USED is set to ‘0’, the mobile station shall measure the strength of all analog frequencies in the Candidate Frequency Analog Search Set at least once in one or more visits away from the Serving Frequency, as described in 2.6.6.2.10.3.
- If ALIGN_TIMING_USED is set to ‘1’, the mobile station shall measure the strength of analog frequencies in the Candidate Frequency Analog Search Set in one or more scheduled visits (see below) away from the Serving Frequency, as described in 2.6.6.2.10.3.

The mobile station shall schedule visits away from the Serving Frequency only at 

\[ ((0.00125 \times \text{SEARCH_OFFSET}) + k \times (\text{SEARCH_TIME_RESOLUTION} \times \text{inter_visit_time})) \] 

seconds after the action time of the Candidate Frequency Search Request Message or the Candidate Frequency Search Control Message that started the search, where

\[ k = \text{an integer between 0 and max_num_visits, inclusive, where} \]

\[ \text{max_num_visits is the value of MAX_NUM_VISITS field of the} \]

\[ \text{last Candidate Frequency Search Response Message sent by the} \]

\[ \text{mobile station,} \]

and

\[ \text{inter_visit_time = the value of the INTER_VISIT_TIME field of the last Candidate} \]

\[ \text{Frequency Search Response Message sent by the mobile station.} \]

- The mobile station shall abort a scheduled visit away from the Serving Frequency if at the scheduled time, one or both of the following conditions hold:
  - SF_TOTAL_EC_THRESH is not equal to ‘11111’ and total_ec is not less than 
    \[ (-120 + 2 \times \text{SF_TOTAL_EC_THRESH}) \], or
  - SF_TOTAL_EC_IO_THRESH is not equal to ‘11111’ and \((-20 \times \log_{10} (\text{Ec}/\text{Io})_{\text{total}})\) is not greater than SF_TOTAL_EC_IO_THRESH.
- If the mobile station aborts a scheduled visit during a search period, it may abort all remaining scheduled visits in that search period.

- The mobile station shall set the fields of the Candidate Frequency Search Report Message as follows: The mobile station shall report the received power on the Serving Frequency in the TOTAL_RX_PWR_SF field. For each frequency in the Candidate Frequency Analog Search Set, the mobile station shall report its frequency and strength in the fields ANALOG_FREQ and SIGNAL_STRENGTH, respectively.
The mobile station shall ensure that the strength measurements for all analog frequencies in the Candidate Frequency Analog Search Set were obtained within freshness_interval before the Candidate Frequency Search Report Message is sent, where freshness_interval is determined as follows:

- If the value of the TOTAL_OFF_TIME_FWD field or of the TOTAL_OFF_TIME_REV field of the last Candidate Frequency Search Response Message sent by the mobile station to the base station is greater than or equal to \([T_{70m} - T_{71m}] / \text{SEARCH_TIME_RESOLUTION}_s\), then

\[
\text{freshness_interval} = (\max (fwd_time, rev_time) + T_{71m}) \text{ seconds},
\]

where

\[
fwd_time = \text{SEARCH_TIME_RESOLUTION}_s \times (\text{value of the TOTAL_OFF_TIME_FWD field of the last Candidate Frequency Search Response Message sent by the mobile station}),
\]

and

\[
rev_time = \text{SEARCH_TIME_RESOLUTION}_s \times (\text{value of the TOTAL_OFF_TIME_REV field of the last Candidate Frequency Search Response Message sent by the mobile station}).
\]

- Otherwise,

\[
\text{freshness_interval} = T_{70m} \text{ seconds}.
\]

2.6.6.2.10.3 Analog Frequency Measurements

The mobile station measures the strength of all analog frequencies in the Candidate Frequency Analog Search Set in one or more visits away from the Serving Frequency. The mobile station shall perform the following actions during each visit away from the Serving Frequency to measure analog frequency signal strengths:

- If the mobile station is processing the Forward Fundamental Channel, the mobile station shall stop processing the Forward Fundamental Channel. If the mobile station is transmitting on the Reverse Fundamental Channel, the mobile station shall stop transmitting on Reverse Fundamental Channel.

- If the mobile station is processing the Forward Dedicated Control Channel, the mobile station shall stop processing Forward Dedicated Control Channel. If the mobile station is transmitting on the Reverse Dedicated Control Channel, the mobile station shall stop transmitting on Reverse Dedicated Control Channel.

- The mobile station shall stop processing the Forward Supplemental Code Channels and Forward Supplemental Channels (if any). The mobile station shall stop transmitting on the Reverse Supplemental Code Channels and Reverse Supplemental Channels (if any).
The mobile station shall disable the fade timer (see 2.6.4.1.8) and the handoff drop timers corresponding to its current Active Set and Candidate Set (see 2.6.6.2.3), and shall suspend incrementing TOT_FRAMESs, BAD_FRAMESs, DCCH_TOT_FRAMESs, DCCH_BAD_FRAMESs, SCH_TOT_FRAMESs, and SCH_BAD_FRAMESs if applicable (see 2.6.4.1.1).

The mobile station shall lock the accumulation of valid level changes in the closed loop mean output power and shall ignore received power control bits related to the period that the transmitter is disabled (see [2]).

The mobile station shall tune to one of the analog frequencies in the Candidate Frequency Analog Search Set, and shall measure the mean input power on the analog frequency.

The mobile station may tune to other frequencies in the Candidate Frequency Analog Search Set and make power measurements during this visit away from the Serving Frequency.

The mobile station shall not change its time reference (see 2.1.5 of [2]) until it resumes using the Serving Frequency Active Set, as described below.

The mobile station shall tune to the Serving Frequency and resume using the Serving Frequency Active Set as follows:

- If the mobile station was processing the Forward Fundamental Channel prior to tuning to the Candidate Frequency, the mobile station shall resume processing the Forward Fundamental Channel. If the mobile station was transmitting on the Reverse Fundamental Channel prior to tuning to the Candidate Frequency, the mobile station shall resume transmitting on the Reverse Fundamental Channel.

- If the mobile station was processing the Forward Dedicated Control Channel prior to tuning to the Candidate Frequency, the mobile station shall resume processing the Forward Dedicated Control Channel. If the mobile station was transmitting on the Reverse Dedicated Control Channel prior to tuning to the Candidate Frequency, the mobile station shall resume transmitting on the Reverse Dedicated Control Channel.

- If the Forward Supplemental Code Channels or Forward Supplemental Channels assignment has not expired, the mobile station shall resume processing the Forward Supplemental Code Channels or Forward Supplemental Channels respectively (if any).

- If the Reverse Supplemental Code Channel or Reverse Supplemental Channels assignment has not expired, the mobile station may resume transmitting on the Reverse Supplemental Code Channels or Reverse Supplemental Channels respectively (if any).

- When the mobile station resumes transmission on the Reverse Traffic Channel, it shall use the following rules to re-enable its transmitter:
If the interval between the time that the mobile station disables its transmitter and the time that it resumes using the Serving Frequency Active Set is equal to or greater than \((N_2m \times 20)\) ms, then the mobile station shall wait to receive a period of \((N_3m \times 20)\) ms with sufficient signal quality (e.g. good frames) on the physical channel corresponding to FPC_PRI_CHAN before it re-enables its transmitter.

Otherwise, the mobile station shall re-enable its transmitter no later than \(N_3m \times 20\) ms after the mobile station tunes to the Serving Frequency. The mobile station should re-enable its transmitter earlier. After the mobile station re-enables its transmitter, the mean output power shall be as specified in 2.1.2.4.1 of [2] for a step change in input power. If the mobile station re-enables its transmitter earlier than \(N_3m \times 20\) ms after it tunes to the Serving Frequency, the initial mean output power shall be as specified in 2.1.2.3.1 of [2], where the initial mean input power estimate is either:

- within 6 dB of the actual mean input power, or
- equal to the mean input power before the mobile station tuned to the Target Frequency.

- The mobile station shall enable the fade timer and the handoff drop timers corresponding to the pilots in its Active Set and Candidate Set. The mobile station shall resume incrementing TOT_FRAMES, BAD_FRAMES, DCCH_TOT_FRAMES, DCCH_BAD_FRAMES, SCH_TOT_FRAMES, and SCH_BAD_FRAMES if applicable as specified in 2.6.4.1.1.

### 2.6.6.2.10.4 Aborting Analog Frequencies Periodic Search

When the mobile station aborts a periodic search, it shall do the following:

- The mobile station shall cancel any remaining visits away from the Serving Frequency in the current search period and shall not send a *Candidate Frequency Search Report Message* for the current search period.

- The mobile station shall disable the periodic search timer.

### 2.6.6.2.11 Processing of Reverse Supplemental Code Channels and Reverse Supplemental Channels

If USE_T_ADD_ABORT is set to ‘1’, and the strength of a Neighbor Set or Remaining Set pilot is found to be above T_ADD, then the mobile station shall terminate any active transmission on Reverse Supplemental Code Channels or Reverse Supplemental Channels at the end of the current 20 ms frame. The mobile station shall do the following:

- Any previously active Reverse Supplemental Code Channel or Reverse Supplemental Channel assignment shall be considered implicitly terminated.

- If active transmission on Reverse Supplemental Code Channels is terminated, the mobile station shall set NUM_REV_CODES to ‘000’ and shall set IGNORE_SCAM to ‘1’.

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• If active transmission on Reverse Supplemental Channels is terminated, the mobile station shall set IGNORE ESCAMS to ‘1’.
• The mobile station shall set SCRM_SEQ_NUMs to (SCRM_SEQ_NUMs + 1) mod 16.
• The mobile station shall transmit a Supplemental Channel Request Message with USE_SCRM_SEQ_NUM set to ‘1’, SCRM_SEQ_NUM set to SCRM_SEQ_NUMs, and SIZE_OF_REQ_BLOB set to ‘0000’.

2.6.6.2.12 Periodic Serving Frequency Pilot Report Procedure

While the mobile station is tuned to the Serving Frequency (specified by CDMACHs and CDMABANDs), the mobile station shall measure the total received power spectral density, in mW/1.23 MHz, on the Serving Frequency at least once every 20 ms frame. The mobile station shall maintain the average value of the total received power spectral density, spec_density, over the last N12m frames. The mobile station shall maintain the PPSMM timer as follows:

• When the mobile station starts a Periodic Serving Frequency Pilot Report Procedure, it shall set the PPSMM timer to PPSMM_PERIODs × 0.08 seconds and shall enable the timer.
• When the PPSMM timer expires, the mobile station shall send a Periodic Pilot Strength Measurement Message (2.6.6.2.5.2) to the base station, reset the PPSMM timer to PPSMM_PERIODs × 0.08 seconds and shall re-enable the timer.
• When the mobile station receives an Extended Handoff Direction Message, a General Handoff Direction Message or a Universal Handoff Direction Message directing the mobile station to perform a hard handoff (see 2.6.6.2.5.1), it shall abort the Periodic Serving Frequency Pilot Report Procedure and disable the PPSMM timer if it is enabled.
• If MIN_PILOT_PWR_THRESHs is not equal to ‘11111’ and MIN_PILOT_EC_IO_THRESHs is equal to ‘11111’, the mobile station shall perform the following actions once per frame:
  – Disable the PPSMM timer if the received total energy per PN chip, Ec, of the pilots in the Active Set is not less than (-120 + 2 × MIN_PILOT_PWR_THRESHs), where the value of Ec is computed as \(10 \times \log_{10} (PS \times \text{spec_density})\) and PS is the total Ec/Io of the pilots in the Active Set measured as specified in 2.6.6.2.2.
  – Reset the expiration time of the PPSMM timer to PPSMM_PERIODs × 0.08 seconds and re-enable the timer if the following conditions are true:
    o the PPSMM timer is disabled, and
    o the received total energy per PN chip, Ec, of the pilots in the Active Set is less than (-120 + 2 × MIN_PILOT_PWR_THRESHs).
• If MIN_PILOT_PWR_THRESHs is equal to ‘11111’ and MIN_PILOT_EC_IO_THRESHs is not equal to ‘11111’, the mobile station shall perform the following actions once per frame:
- Disable the PPSMM timer if the total pilot strength of the pilots in the Active Set, PS, satisfies the condition that \((-20 \times \log_{10}(PS))\) is not greater than MIN_PILOT_EC_IO_THRESHs.

- Reset the expiration time of the PPSMM timer to PPSMM_PERIOD_s \(\times 0.08\) seconds and re-enable the timer if the following conditions are true:
  - the PPSMM timer is disabled, and
  - the total pilot strength of the pilots in the Active Set, PS, satisfies the condition that \((-20 \times \log_{10}(PS))\) is greater than MIN_PILOT_EC_IO_THRESHs.

- If MIN_PILOT_PWR_THRESH_s is not equal to ‘11111’ and MIN_PILOT_EC_IO_THRESHs is not equal to ‘11111’, the mobile station shall perform the following actions once per frame:
  - Disable the PPSMM timer if the following conditions are true:
    - the received total energy per PN chip, \(E_c\), of the pilots in the Active Set is not less than \((-120 + 2 \times \text{MIN_PILOT_PWR_THRESH}_s)\), and
    - the total pilot strength of the pilots in the Active Set, PS, satisfies the condition that \((-20 \times \log_{10}(PS))\) is greater than \(\text{MIN_PILOT_EC_IO_THRESH}_s\).

  - Reset the expiration time of the PPSMM timer to PPSMM_PERIOD_s \(\times 0.08\) seconds and re-enable the timer if the following conditions are true:
    - the PPSMM timer is disabled, and
    - the received total energy per PN chip, \(E_c\), of the pilots in the Active Set is less than \((-120 + 2 \times \text{MIN_PILOT_PWR_THRESH}_s)\), or the total pilot strength of the pilots in the Active Set, PS, satisfies the condition that \((-20 \times \log_{10}(PS))\) is greater than \(\text{MIN_PILOT_EC_IO_THRESH}_s\).

- If MIN_PILOT_PWR_THRESH_s is equal to ‘11111’ and \(\text{MIN_PILOT_EC_IO_THRESH}_s\) is equal to ‘11111’, the mobile station shall maintain the PPSMM timer independent of the received power and the total Ec/Io of the pilots.

2.6.6.3 Examples

The following examples illustrate typical message exchanges between the mobile station and the base station during handoff. Refer to Annex B for examples of call processing during handoff.

Figure 2.6.6.3-1 shows an example of the messages exchanged between the mobile station and the base station during a typical handoff process if \(\text{P_REV_IN_USE}_s\) is less than or equal to three or SOFT_SLOPE_s is equal to ‘000000’.

Figure 2.6.6.3-2 shows an example of the messages exchanged between the mobile station and the base station during a typical handoff process if \(\text{P_REV_IN_USE}_s\) is greater than three and SOFT_SLOPE_s is not equal to ‘000000’.
Figure 2.6.6.3-3 illustrates the messaging triggered by a pilot of the Candidate Set as its strength gradually rises above the strength of each pilot of the Active Set if $P_{REV\_IN\_USE}$ is less than or equal to three, or $SOFT\_SLOPE_{S}$ is equal to ‘000000’. Note that the mobile station reports that a Candidate Set pilot is stronger than an Active Set pilot only if the difference between their respective strengths is at least $T_{COMP} \times 0.5$ dB.

Figure 2.6.6.3-4 illustrates the messaging triggered by a pilot of the Candidate Set as its strength gradually rises above the strength of each pilot of the Active Set if $P_{REV\_IN\_USE_{S}}$ is greater than three and $SOFT\_SLOPE_{S}$ is not equal to ‘000000’. Note that the mobile station reports that a Candidate Set pilot is stronger than an Active Set pilot only if the difference between their respective strengths is at least $T_{COMP} \times 0.5$ dB and Pilot $P_{0}$ strength exceeds $[(SOFT\_SLOPE/8) \times 10 \times \log_{10}(PS_{1} + PS_{2}) + ADD\_INTERCEPT/2]$. 
(1) Pilot strength exceeds $T_{ADD}$. Mobile station sends a *Pilot Strength Measurement Message* and transfers pilot to the Candidate Set.

(2) Base station sends an *Extended Handoff Direction Message*, a *General Handoff Direction Message* or a *Universal Handoff Direction Message*.

(3) Mobile station transfers pilot to the Active Set and sends a *Handoff Completion Message*.

(4) Pilot strength drops below $T_{DROP}$. Mobile station starts the handoff drop timer.

(5) Handoff drop timer expires. Mobile station sends a *Pilot Strength Measurement Message*.

(6) Base station sends an *Extended Handoff Direction Message*, a *General Handoff Direction Message* or a *Universal Handoff Direction Message*.

(7) Mobile station moves pilot from the Active Set to the Neighbor Set and sends a *Handoff Completion Message*.

*Figure 2.6.6.3-1. Handoff Threshold Example if P_REV_IN_USE<sub>s</sub> is Less Than or Equal to Three, or SOFT_SLOPE<sub>s</sub> is Equal to ‘000000’*
(1) Pilot P₂ strength exceeds T_ADD. Mobile station transfers the pilot to the Candidate Set.

(2) Pilot P₂ strength exceeds \([(SOFT\_SLOPE/8) \times 10 \times \log_{10}(PS₁) + ADD\_INTERCEPT/2]\). Mobile station sends a *Pilot Strength Measurement Message*.

(3) Mobile station receives an *Extended Handoff Direction Message*, a *General Handoff Direction Message* or a *Universal Handoff Direction Message*, transfers the pilot P₂ to the Active Set, and sends a *Handoff Completion Message*.

(4) Pilot P₁ strength drops below \([(SOFT\_SLOPE/8) \times 10 \times \log_{10}(PS₂) + DROP\_INTERCEPT/2]\). Mobile station starts the handoff drop timer.

(5) Handoff drop timer expires. Mobile station sends a *Pilot Strength Measurement Message*.

(6) Mobile station receives an *Extended Handoff Direction Message*, a *General Handoff Direction Message* or a *Universal Handoff Direction Message*, transfers the pilot P₁ to the Candidate Set and sends a *Handoff Completion Message*.

(7) Pilot P₁ strength drops below T_DROP. Mobile station starts the handoff drop timer.

(8) Handoff drop timer expires. Mobile station moves the pilot P₁ from the Candidate Set to the Neighbor Set.

**Figure 2.6.6.3-2.** Handoff Threshold Example if P_REV_IN_USEₜ is Greater Than Three, and SOFT_SLOPEₜ is Not Equal to ‘000000’
Candidate Set: Pilot P₀
Active Set: Pilots P₁, P₂

t₀ – Pilot Strength Measurement Message sent, P₀ > T_ADD

t₁ – Pilot Strength Measurement Message sent, P₀ > P₁ + T_COMP × 0.5 dB

t₂ – Pilot Strength Measurement Message sent, P₀ > P₂ + T_COMP × 0.5 dB

Figure 2.6.6.3-3. Pilot Strength Measurements Triggered by a Candidate Pilot if
P_REV_IN_USEₜ = 3 or SOFT_SLOPEₜ = ‘000000’
Candidate Set: Pilot P0
Active Set: Pilots P1, P2

t₀ – Pilot Strength Measurement Message not sent because

\[ 10 \times \log_{10}(PS₀) < ((SOFT_SLOPE/8) \times 10 \times \log_{10}(PS₁ + PS₂) + ADD_INTERCEPT/2) \]

t₁ – Pilot Strength Measurement Message not sent because

\[ P₀ > [P₁ + T_COMP \times 0.5 \text{ dB}] \text{ but } \]

\[ [10 \times \log_{10}(PS₀)] < [((SOFT_SLOPE/8) \times 10 \times \log_{10}(PS₁ + PS₂) + ADD_INTERCEPT/2] \]

t₁’ – Pilot Strength Measurement Message sent because

\[ 10 \times \log_{10}(PS₀) > ((SOFT_SLOPE/8) \times 10 \times \log_{10}(PS₁ + PS₂) + ADD_INTERCEPT/2] \]

t₂ – Pilot Strength Measurement Message sent because

\[ P₀ > [P₂ + T_COMP \times 0.5 \text{ dB}] \text{ and } \]

\[ [10 \times \log_{10}(PS₀)] > [((SOFT_SLOPE/8) \times 10 \times \log_{10}(PS₁ + PS₂) + ADD_INTERCEPT/2] \]

Figure 2.6.6.3-4. Pilot Strength Measurements Triggered by a Candidate Pilot if

\[ P_{REV\_IN\_USEs} > 3 \text{ and } SOFT\_SLOPEs \text{ is Not Equal to}’000000’ \]
2.6.7 Hash Functions and Randomization

2.6.7.1 Hash Function

Certain procedures require a uniform distribution of mobile stations among N resources. The following function returns an integer, using as arguments the mobile station’s IMSI, the number of resources N, and a modifier DECORR. The modifier serves to decorrelate the values obtained for the various applications from the same mobile station.

HASH_KEY shall be equal to the 32 least significant bits of (IMSI_O_S1 + 2^{24} \times IMSI_O_S2).

Define:

- Word L to be bits 0-15 of HASH_KEY
- Word H to be bits 16-31 of HASH_KEY

where bit 0 is the least significant bit of HASH_KEY.

For determining CDMA Channel Number, Paging Channel Number, Forward Common Control Channel Number, Quick Paging Channel Number, and Paging Slot Number, the hash value is computed as follows:\(^{18}\)

\[
R = \lfloor N \times ((40503 \times (L \oplus H \oplus DECORR)) \mod 2^{16}) / 2^{16} \rfloor.
\]

For determining a mobile station’s assigned paging indicator bit positions, the hash value is computed as follows:

\[
R_1 = \lfloor N \times ((40503 \times (L \oplus H \oplus DECORR_1)) \mod 2^{16})/2^{16} \rfloor,
\]

and

\[
R_2 = \lfloor (1 - \lfloor (2 \times R_1)/(N+4) \rfloor) \times (N+4)/2 + \lfloor (2 \times R_1)/(N+4) \rfloor \times ((N+4)/2 - 4) \times ((40503 \times (L \oplus H \oplus DECORR_2)) \mod 2^{16})/2^{16} \rfloor + N + 4 + \lfloor (2 \times R_1)/(N+4) \rfloor \times ((N+4)/2)
\]

for Quick Paging Channel indicator rate of 4800 bps, or

\[
R_2 = \lfloor (1 - \lfloor (2 \times R_1)/(N+8) \rfloor) \times (N+8)/2 + \lfloor (2 \times R_1)/(N+8) \rfloor \times ((N+8)/2 - 8) \times ((40503 \times (L \oplus H \oplus DECORR_2)) \mod 2^{16})/2^{16} \rfloor + N + 8 + \lfloor (2 \times R_1)/(N+8) \rfloor \times ((N+8)/2)
\]

for Quick Paging Channel indicator rate of 9600 bps.

The mobile station shall choose the range N and the modifiers DECORR, DECORR_1, and DECORR_2 according to the application as shown in Table 2.6.7.1-1. In the table, HASH_KEY [0...11] denotes the 12 least significant bits of HASH_KEY.

---

\(^{18}\) This formula is adapted from Knuth, Donald N., *The Art of Computer Programming*, 2 volumes, (Reading, MA, Addison-Wesley, 1998).
Table 2.6.7.1-1. Hash Function Modifier

<table>
<thead>
<tr>
<th>Application</th>
<th>N</th>
<th>DECORR</th>
<th>Return Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDMA Channel Number</td>
<td>Number of channels in last CDMA Channel List Message or the number of qualified channels in the last Extended CDMA Channel List Message</td>
<td>0</td>
<td>R + 1</td>
</tr>
<tr>
<td>Paging Channel Number</td>
<td>PAGE_CHANs from System Parameters Message (up to 7)</td>
<td>2 × HASH_KEY [0...11]</td>
<td>R + 1</td>
</tr>
<tr>
<td>Quick Paging Channel Number</td>
<td>NUM_QPCHs from Extended System Parameters Message or MC-RR Parameters Message (up to 3)</td>
<td>2 × HASH_KEY [0...11]</td>
<td>R + 1</td>
</tr>
<tr>
<td>Paging Slot Number</td>
<td>2048</td>
<td>6 × HASH_KEY[0...11]</td>
<td>R</td>
</tr>
<tr>
<td>Paging Indicator Positions</td>
<td>376 (for 9600 bps), 188 (for 4800 bps)</td>
<td>DECORR₁ = \left\lfloor \frac{t}{64} \right\rfloor \mod 2^{16}, DECORR₂ = \left\lfloor \frac{t}{64} + 1 \right\rfloor \mod 2^{16}, where t is the System Time in frames, relative to the beginning of the assigned Quick Paging Channel slot.</td>
<td>R₁ and R₂</td>
</tr>
<tr>
<td>Forward Common Control Channel Number</td>
<td>NUM_FCCCHs from MC-RR Parameters Message (up to 7)</td>
<td>2 × HASH_KEY [0...11]</td>
<td>R + 1</td>
</tr>
</tbody>
</table>

2.6.7.2 Pseudorandom Number Generator

Where pseudorandom numbers are needed, a linear congruential generator shall be used. The mobile station shall implement the linear congruential generator defined by:

\[ z_n = a \times z_{n-1} \mod m \]

where \( a = 7^5 = 16807 \) and \( m = 2^{31} - 1 = 2147483647 \). \( z_n \) is the output of the generator.\(^{19}\)

\(^{19}\) This generator has full period, ranging over all integers from 1 to \( m-1 \); the values 0 and m are never produced. Several suitable implementations can be found in Park, Stephen K. and Miller, Keith (footnote continued on next page)
During the Mobile Station Initialization State, the mobile station shall seed its generator with
\[ z_0 = (ESN \oplus \text{RANDOM\_TIME}) \mod m \]
where RANDOM\_TIME shall be the least-significant 32-bits of SYS\_TIME stored from the Sync Channel Message. If the initial value so produced is found to be zero, it shall be replaced with one. The mobile station shall compute a new \( z_n \) for each subsequent use.

The mobile station shall use the value \( u_n = \frac{z_n}{m} \) for those applications that require a binary fraction \( u_n, 0 < u_n < 1 \).

The mobile station shall use the value \( k_n = \lfloor N \times \frac{z_n}{m} \rfloor \) for those applications that require a small integer \( k_n, 0 \leq k_n \leq N - 1 \).

2.6.8 CODE_CHAN_LISTs Maintenance

The CODE_CHAN_LISTs is a descriptive structure used to manage the Forward Fundamental Code-Channel and Forward Supplemental Code Channels, if any, associated with the mobile station’s Active Set. Associated with each member of the mobile station’s Active Set, there is an ordered array of code channels. The first entry of the ordered array specifies the Forward Fundamental Code-Channel associated with the pilot and the subsequent entries, if any, specify the Forward Supplemental Code Channels associated with the pilot. The CODE_CHAN_LISTs is the collection of ordered arrays of code channels for each member of the mobile station’s Active Set. The \( i \)th entry in every array (of code channels associated with a member of the Active Set) corresponds to the \( i \)th code channel.

The mobile station shall maintain the CODE_CHAN_LISTs as follows:

- When the mobile station is first assigned a Forward Fundamental Code-Channel, it shall initialize the CODE_CHAN_LISTs to contain the Forward Fundamental Code-Channel for each member of the Active Set.
- When the mobile station processes the Extended Handoff Direction Message, the mobile station shall update the CODE_CHAN_LISTs as follows:
  - For each pilot listed in the Extended Handoff Direction Message which does not have a corresponding code channel in the CODE_CHAN_LIST, the mobile station shall add the code channel, CODE_CHAN, of that pilot to the CODE_CHAN_LISTs, as the Forward Fundamental Code-Channel for the pilot.
  - The mobile station shall delete all information in the CODE_CHAN_LISTs associated with a pilot that is not included in the Extended Handoff Direction Message.

- When the mobile station processes the *General Handoff Direction Message*, the mobile station shall update the CODE_CHAN_LISTs to contain the Forward Fundamental Code Channel associated with each pilot included in the *General Handoff Direction Message*. The first code channel occurrence associated with each pilot included in the *General Handoff Direction Message* corresponds to the Forward Fundamental Code Channel. The mobile station shall do the following:
  - If FOR_SUP_CONFIGr is included and FOR_SUP_CONFIGr is equal to ‘10’ or ‘11’, the mobile station shall perform the following actions:
    + For each pilot listed in the *General Handoff Direction Message*, the mobile station shall set the Forward Supplemental Code Channels (associated with the pilot) in the CODE_CHAN_LISTs to the Forward Supplemental Code Channels specified in the *General Handoff Direction Message*.
    + The mobile station shall delete all information in the CODE_CHAN_LISTs associated with a pilot that is not included in the *General Handoff Direction Message*.
  - If FOR_SUP_CONFIGr is equal to ‘00’ or ‘01’ or if FOR_SUP_CONFIGr is not included in the *General Handoff Direction Message*, the mobile station shall not update Supplemental Code Channels associated with the pilots included in the *General Handoff Direction Message*. The mobile station shall perform the following actions:
    + For each pilot listed in the *General Handoff Direction Message* which does not have a corresponding code channel in the CODE_CHAN_LISTs, the mobile station shall add the code channel, CODE_CHAN, of that pilot to the CODE_CHAN_LISTs, as the Forward Fundamental Code Channel for the pilot.
    + The mobile station shall delete all information in the CODE_CHAN_LISTs associated with a pilot that is not included in the *General Handoff Direction Message*.

- When the mobile station processes the *Supplemental Channel Assignment Message* it shall follow the following rules:
  - If FOR_SUP_CONFIGr is equal to ‘10’ or ‘11’, the mobile station shall update the Forward Supplemental Code Channels for each pilot in the Active Set.
  - If the pilot is not listed in the *Supplemental Channel Assignment Message*, the mobile station shall delete all occurrences of Forward Supplemental Code Channels associated with the pilot from the Code Channel List.
  - If a pilot is listed in the *Supplemental Channel Assignment Message*, then the mobile station shall set the Forward Supplemental Code Channels (associated with the pilot) in the CODE_CHAN_LISTs to the Forward Supplemental Code Channels specified in the *Supplemental Channel Assignment Message*. 
If FOR_SUP_CONFIGr is equal to ‘00’ or ‘01’, the mobile station shall not update Supplemental Code Channels associated with the pilots included in the Supplemental Channel Assignment Message.

2.6.9 CDMA Tiered Services

This section presents an overview and mobile station requirements for the support of CDMA Tiered services while the mobile station is in the Mobile Station Idle State and in the Mobile Station Control on the Traffic Channel State.

2.6.9.1 Overview

2.6.9.1.1 Definition

The mobile station may support Tiered Services based upon User Zones. Tiered Services provide the user custom services and special features based upon the mobile station location. Tiered Services also provides private network support. Important to the operation of CDMA Tiered Services is the concept of User Zones. It is via User Zones by which the base station offers custom services based upon the mobile station location.

User Zones are associated with a set of features and services, plus a geographic area in which the User Zone features/services are made available to the customers that have subscribed to that User Zone. The boundary of the User Zone Geographic area may be established based on the coverage area of a public or private base station or it may be established independent of RF topology.

User Zones may be supported by the public system on the same frequency as the serving base station, or they may be supported on a private system operating on a different frequency.

2.6.9.1.2 Types of User Zones

User Zones may be of two basic types:

- **Broadcast User Zones**: Broadcast User Zones are identified to the mobile station using the Paging Channel or the Primary Broadcast Control Channel. In this case, the base station broadcasts on the Paging Channel or the Primary Broadcast Control Channel messages identifying the User Zones that fall within the coverage area of the particular cell/sector. Mobile stations, as part of their monitoring of the Paging Channel or the Primary Broadcast Control Channel, will identify the presence of a particular User Zone.

- **Mobile Specific User Zones**: Mobile Specific User Zones are not broadcast by the base station. The mobile station may use other overhead message parameters and compare them with internally stored User Zone parameters to identify the presence of a particular User Zone. These parameters may include: SID, NID, BASE_ID, BASE_LAT, and BASE_LONG.

Broadcast User Zones allow for permanent as well as temporary subscription. Temporary subscription provides User Zone features and capabilities to users who are not subscribed to the User Zone. In this case, a mobile station, upon entering a new coverage area, may
detect the presence of a User Zone that it presently does not subscribe to, but one that
supports temporary subscription. The mobile station then queries the network to obtain
the User Zone parameters. Once these parameters are received, the mobile station offers to
the user via the mobile station user interface, the option of subscribing to the particular
User Zone.

Some User Zones may require active registration (Active User Zones) upon the mobile
station’s entry to immediately trigger a change in a feature(s). For others, the implicit
registration at call setup is sufficient (Passive User Zones). Active User Zones are used
where inbound features change as a result of being in the User Zone. During the Mobile
Station Idle State, a mobile station needs to register to update the User Zone ID whenever
the User Zone that the mobile station is entering and/or leaving is of the Active type.

A mobile station that supports User Zone services may store a list of User Zones, where
each User Zone is identified by a User Zone ID (UZID). Associated with each stored User
Zone, the mobile station may also store a number of determinant parameters used for
identifying User Zones.

2.6.9.2 Requirements

If the mobile station supports User Zone services, it shall maintain and update UZIDₜ
according the following rule:

If the mobile station selects a User Zone supported by the base station, the mobile station
shall set UZIDₜ to the User Zone Identifier associated with the User Zone; otherwise, the
mobile station shall set UZIDₜ to ‘0000000000000000’. The precise process for determining
how to select a User Zone that is supported by the base station is left to the mobile station
manufacturer.

If the mobile station does not support User Zone services, the mobile station shall set
UZIDₜ to ‘0000000000000000’.

The mobile station may search pilots of private neighbor base stations on other frequencies
and band classes as identified in the Private Neighbor List Message. Search performance
criteria are defined [11].

2.6.9.2.1 User Zone Operation in the Mobile Station Idle State:

When a mobile station performs an idle handoff, it selects User Zones based on internally
stored parameters and information broadcast on the Paging Channel or on the Primary
Broadcast Control Channel as described in 2.6.9.1.

After the mobile station performs idle handoff, if the mobile station determines that a
change from one Broadcast User Zone to another Broadcast User Zone is required, the
mobile station shall not update UZIDₜ, UZ_EXIT_IN_USEₜ and shall not perform User Zone
registration until the pilot strength of the currently serving base station exceeds that of the
base station corresponding to the old User Zone by the value of UZ_EXIT_IN_USEₜ.
If the mobile station determines that it needs to change User Zone, and if the difference between the pilot strengths exceeds UZ\_EXIT\_IN\_USE\_S, then the mobile station shall do the following:

- Perform User Zone registration.
- Update UZID\_S.
- Set UZ\_EXIT\_IN\_USE\_S to UZ\_EXIT\_RCVD\_S.

The mobile station may also implement other means to avoid the premature exiting of a User Zone due to rapid changes in signal strength. The exact implementation of such techniques is left to mobile station implementation.

If the mobile station is in the Mobile Station Idle State and it receives a User Zone Reject Message, the mobile station shall perform the following:

- Set REJECT\_ACTION\_INDI\_S to REJECT\_ACTION\_INDI\_R.
- If UZID\_ASSIGN\_INCL\_R = ‘0’, the mobile station shall set UZID\_S to ‘0000000000000000’, otherwise; the mobile station shall set UZID\_S to ASSIGN\_UZID\_R.

If the mobile station is in the Mobile Station Idle State and it selects an active User Zone, then the mobile station shall perform User Zone registration (see 2.6.5.1.10) by entering the System Access State with a registration indication.

The mobile station should provide the user with a User Zone indication corresponding to the User Zone in service each time UZID\_S is updated.

2.6.9.2.2 User Zone Operation in the Mobile Station Control on the Traffic Channel State

If the mobile station is in the Traffic Channel Substate of the Mobile Station Control on the Traffic Channel State and if it determines that the User Zone has changed, it shall update UZID\_S and send a User Zone Update Request Message to the base station.

If the mobile station is in the Traffic Channel Substate or Release Substate of the Mobile Station Control on the Traffic Channel State and it receives a User Zone Update Message, then the mobile station shall update UZID\_S and set it equal to UZID\_R.

If the mobile station is in the Traffic Channel Substate or Release Substate of the Mobile Station Control on the Traffic Channel State and it receives a User Zone Reject Message, then the mobile station shall do the following:

- Set REJECT\_ACTION\_INDI\_S to REJECT\_ACTION\_INDI\_R.
- If UZID\_ASSIGN\_INCL\_R = 0, the mobile station shall set UZID\_S to ‘0’, otherwise; the mobile station shall set UZID\_S to ASSIGN\_UZID\_R.

The mobile station should provide the user with a User Zone indication corresponding to the User Zone in service each time UZID\_S is updated.

2.6.10 Call Control Processing

As illustrated in Figure 2.6.10-1, the Call Control consists of the following states:
Waiting for Order Substate - In this substate, the Call Control instance waits for an Alert With Information Message or an Extended Alert With Information Message.

Waiting for Mobile Station Answer Substate - In this substate, the Call Control instance waits for the user to answer the call.

Conversation Substate - In this substate, the parties involved in this call communicate.

Call Release Substate - In this substate, the Call Control instance waits for the call to be disconnected.
If SIGNAL_TYPE is equal to '01' or '10' or if the Signal Information Record is not included.

Note: Not all state transitions are shown.

Figure 2.6.10-1. Call Control
The following messages are processed by the Call Control:

- Alert With Information Message
- Extended Alert with Information Message:
- Flash With Information Message
- Extended Flash With Information Message
- Send Burst DTMF Message
- Origination Continuation Message

The following orders are processed by the Call Control:

- Continuous DTMF Tone Order
- Maintenance Order
- Connect Order

Upon instantiation, the Call Control instance shall perform the following:

- If this Call Control instance is instantiated with a ‘restore indication’, the Call Control instance shall enter the Conversation Substate.
- If the call is mobile station terminated, and BYPASS_ALERT_ANSWERs is ‘1’, the Call Control instance shall enter the Conversation Substate. If the call is mobile station terminated and BYPASS_ALERT_ANSWERs is ‘0’, the Call Control instance shall enter the Waiting for Order Substate.
- If the call is mobile station originated, the Call Control instance shall enter the Conversation Substate.

2.6.10.1 Alerting

2.6.10.1.1 Waiting for Order Substate

In this substate, the Call Control instance waits for an Alert With Information Message or an Extended Alert With Information Message.

Upon entering the Waiting for Order Substate, the Call Control instance shall set the substate timer for $T_{52m}$ seconds.

While in the Waiting for Order Substate, the Call Control instance shall perform the following:
• If the substate timer expires, the Call Control instance shall send a “substate timer expired indication” to the layer 3 and shall enter the Call Release Substate.

• If the Call Control instance receives a “reset waiting for order substate timer indication” from the layer 3, the Call Control instance shall reset the substate timer for T_{52m} seconds.

• If the Call Control instance receives a “release indication” from the layer 3, the Call Control instance shall enter the Call Release Substate.

• If the Call Control instance receives an indication that the user has originated an emergency call (see 2.6.4.3), the mobile station shall send a Flash With Information Message or an Extended Flash With Information Message in assured mode with a Global Emergency Call Information Record (see 2.7.4.31), as follows:

  - If this Call Control instance is identified by NULL, the mobile station shall send either a Flash With Information Message or an Extended Flash With Information Message (with either the CON_REF_INCL field of the message set to ‘0’ or the CON_REF_INCL field set to ‘1’ and the CON_REF field set to the connection reference of the service option connection corresponding to this call); otherwise, the mobile station shall send an Extended Flash With Information Message, with the CON_REF_INCL field of the message set to ‘1’ and the CON_REF field of the message set to the connection reference of the service option connection corresponding to this call.

• If the Call Control instance receives a message from the layer 3 which is included in the following list and every message field value is within its permissible range, the Call Control instance shall process the message as described below and in accordance with the message’s action time (see 2.6.4.1.5).

  1. Alert With Information Message: If the message contains a Signal information record, the mobile station should alert the user in accordance with the Signal information record; otherwise, the mobile station should use standard alert as defined in 3.7.5.5. The Call Control instance shall enter the Waiting for Mobile Station Answer Substate (see 2.6.10.1.2).

  2. Extended Alert with Information Message: If the message contains a Signal information record, the mobile station should alert the user in accordance with the Signal information record; otherwise, the mobile station should use standard alert as defined in 3.7.5.5. The Call Control instance shall enter the Waiting for Mobile Station Answer Substate (see 2.6.10.1.2).

  3. Maintenance Order: The Call Control instance shall enter the Waiting for Mobile Station Answer Substate.
If the Call Control instance receives a message that is not included in the above list, cannot be processed, or requires a capability which is not supported, the Call Control instance shall discard the message and send a ‘message rejected indication’ to the layer 3, with the reject reason indicated.

2.6.10.1.2 Waiting for Mobile Station Answer Substate

In this substate, the Call Control instance waits for the user to answer the mobile station terminated call or to invoke special treatment.

Upon entering the Waiting for Mobile Station Answer Substate, the Call Control instance shall set the substate timer for T53m seconds.

While in the Waiting for Mobile Station Answer Substate, the Call Control instance shall perform the following:

- If the substate timer expires, the Call Control instance shall send a “substate timer expired indication” to the layer 3 and shall enter the Call Release Substate.

- If the Call Control instance receives a “release indication” from the layer 3, the Call Control instance shall enter the Call Release Substate.

- If the Call Control instance is directed by the user to answer the call, the mobile station shall send a Connect Order in assured mode:

  - If P_REV_IN_USEs is equal to or greater than seven, the mobile station shall perform the following: If this Call Control instance is identified by NULL, the mobile station shall either set the CON_REF_INCL field of the message to ‘0’ or set the CON_REF_INCL field to ‘1’ and set the CON_REF field to the connection reference of the service option connection corresponding to this call; otherwise, the mobile station shall set the CON_REF_INCL field of the message to ‘1’ and the CON_REF field of the message to the connection reference of the service option connection corresponding to this call.

  The Call Control instance shall enter the Conversation Substate.

- If the Call Control instance is directed by the user to forward the incoming call, the mobile station shall send a Flash With Information Message or an Extended Flash With Information Message in assured mode with a Keypad Facility information record (see 2.7.4.2) with the CHARi field set to a pre-programmed feature code which indicates User Selective Call Forwarding with a pre-registered number, as follows:

  - If P_REV_IN_USEs is less than seven, the mobile station shall send a Flash With Information Message.
- If P_REV_IN_USEs is equal to or greater than seven, the mobile station shall perform the following: if this Call Control instance is identified by NULL, the mobile station shall send either a Flash With Information Message or an Extended Flash With Information Message (with either the CON_REF_INCL field of the message set to ‘0’ or the CON_REF_INCL field set to ‘1’ and the CON_REF field set to the connection reference of the service option connection corresponding to this call); otherwise, the mobile station shall send an Extended Flash With Information Message, with the CON_REF_INCL field of the message set to ‘1’ and the CON_REF field of the message set to the connection reference of the service option connection corresponding to this call.

- If the Call Control instance is directed by user to forward the incoming call to a number stored in the mobile station, the mobile station shall send a Flash With Information Message or an Extended Flash With Information Message in assured mode with a Keypad Facility information record (see 2.7.4.2) with the CHARi field set to the following:
  - a pre-programmed feature code which indicates User Selective Call Forwarding to a number stored in the mobile station as the first digits in the field and
  - the forwarding to number immediately following the pre-programmed feature code.

The mobile station shall send the message as follows:

- If P_REV_IN_USEs is less than seven, the mobile station shall send a Flash With Information Message.

- If P_REV_IN_USEs is equal to or greater than seven, the mobile station shall perform the following: if this Call Control instance is identified by NULL, the mobile station shall send either a Flash With Information Message or an Extended Flash With Information Message (with either the CON_REF_INCL field of the message set to ‘0’ or the CON_REF_INCL field set to ‘1’ and the CON_REF field set to the connection reference of the service option connection corresponding to this call); otherwise, the mobile station shall send an Extended Flash With Information Message, with the CON_REF_INCL field of the message set to ‘1’ and the CON_REF field of the message set to the connection reference of the service option connection corresponding to this call.

- If the Call Control instance is directed by the user to forward the incoming call to network-based voice mail, the mobile station shall send a Flash With Information Message or an Extended Flash With Information Message in assured mode with a Keypad Facility information record (see 2.7.4.2) with the CHARi field set to a pre-programmed feature code which indicates User Selective Call Forwarding to voice mail, as follows:
- If P_REV_IN_USEs is less than seven, the mobile station shall send a *Flash With Information Message*.

- If P_REV_IN_USEs is equal to or greater than seven, the mobile station shall perform the following: if this Call Control instance is identified by NULL, the mobile station shall send either a *Flash With Information Message* or an *Extended Flash With Information Message* (with either the CON_REF_INCL field of the message set to '0' or the CON_REF_INCL field set to '1' and the CON_REF field set to the connection reference of the service option connection corresponding to this call); otherwise, the mobile station shall send an *Extended Flash With Information Message*, with the CON_REF_INCL field of the message set to '1' and the CON_REF field of the message set to the connection reference of the service option connection corresponding to this call.

- If the Call Control instance is directed by the user to activate answer holding, the mobile station shall send a *Flash With Information Message* or an *Extended Flash With Information Message* in assured mode requiring confirmation of delivery with a *Keypad Facility* information record (see 2.7.4.2) with the CHARi field set to a pre-programmed feature code which indicates Answer Holding:

  - If P_REV_IN_USEs is less than seven, the mobile station shall send a *Flash With Information Message*.

  - If P_REV_IN_USEs is equal to or greater than seven, the mobile station shall perform the following: if this Call Control instance is identified by NULL, the mobile station shall send either a *Flash With Information Message* or an *Extended Flash With Information Message* (with either the CON_REF_INCL field of the message set to '0' or the CON_REF_INCL field set to '1' and the CON_REF field set to the connection reference of the service option connection corresponding to this call); otherwise, the mobile station shall send an *Extended Flash With Information Message*, with the CON_REF_INCL field of the message set to '1' and the CON_REF field of the message set to the connection reference of the service option connection corresponding to this call.

After receiving confirmation of delivery of the *Flash With Information Message* or the *Extended Flash With Information Message*, the mobile station shall send a *Connect Order* in assured mode:

- If P_REV_IN_USEs is equal to or greater than seven, the mobile station shall perform the following: if this Call Control instance is identified by NULL, the mobile station shall either set the CON_REF_INCL field of the message to '0' or set the CON_REF_INCL field to '1' and set the CON_REF field to the connection reference of the service option connection corresponding to this call; otherwise, the mobile station shall set the CON_REF_INCL field of the message to '1' and the CON_REF field of the message to the connection reference of the service option connection corresponding to this call.
The Call Control instance shall enter the **Conversation Substate**.

- If the Call Control instance receives an indication that the user has originated an emergency call (see 2.6.4.3), the mobile station shall send a *Flash With Information Message* or an *Extended Flash With Information Message* in assured mode with a Global Emergency Call Information Record (see 2.7.4.31), as follows:
  - If this Call Control instance is identified by NULL, the mobile station shall send either a *Flash With Information Message* or an *Extended Flash With Information Message* (with either the CON_REF_INCL field of the message set to ‘0’ or the CON_REF_INCL field set to ‘1’ and the CON_REF field set to the connection reference of the service option connection corresponding to this call); otherwise, the mobile station shall send an *Extended Flash With Information Message*, with the CON_REF_INCL field of the message set to ‘1’ and the CON_REF field of the message set to the connection reference of the service option connection corresponding to this call.

- If the Call Control instance receives a message from layer 3 which is included in the following list and every message field value is within its permissible range, the Call Control instance shall process the message as described below and in accordance with the message’s action time (see 2.6.4.1.5).
  1. *Alert With Information Message*: The Call Control instance shall reset the substate timer for $T_{53m}$ seconds. If this message does not contain a Signal information record, the mobile station should use standard alert as defined in 3.7.5.5.
  2. *Extended Alert With Information Message*: The Call Control instance shall reset the substate timer for $T_{53m}$ seconds. If this message does not contain a Signal information record, the mobile station should use standard alert as defined in 3.7.5.5.
  3. *Maintenance Order*: The mobile station shall reset the substate timer for $T_{53m}$ seconds.

- If the Call Control instance receives a message that is not included in the above list, cannot be processed, or requires a capability which is not supported, the Call Control instance shall discard the message and send a ‘message rejected indication’ to the layer 3, with the reject reason indicated.

### 2.6.10.2 Conversation Substate

While in the **Conversation Substate**, the Call Control instance shall perform the following:

- If the Call Control instance receives a “release indication” from the layer 3, the Call Control instance shall enter the **Call Release Substate**.
The mobile station shall send an **Origination Continuation Message** in assured mode, within T_{54m} seconds after the Call Control instance entering the **Conversation Substate** if any of the following conditions occur:

- The mobile station originated the call, and did not send all the dialed digits in the **Origination Message**.

- There is more than one calling party number associated with the mobile station.

- A calling party subaddress is used in the call.

- A called party subaddress is used in the call.

If more than one calling party number is associated with the mobile station, the mobile station shall include the calling party number being used in the calling party number information record in the **Origination Continuation Message**. If only one calling party number is associated with the mobile station, the mobile station shall not include the calling party number information record in the **Origination Continuation Message**. If a calling party subaddress is used, the mobile station shall include the calling party subaddress information record in the **Origination Continuation Message**: otherwise, the mobile station shall omit the calling party subaddress information record. If a called party subaddress is used, the mobile station shall include the called party subaddress information record in the **Origination Continuation Message**: otherwise, the mobile station shall omit the called party subaddress information record.

If the Call Control instance is directed by the user to issue a flash, the mobile station shall build a **Flash With Information Message** or an **Extended Flash With Information Message** with the collected digits or characters contained in a **Keypad Facility** information record, if needed, and shall send the message in assured mode, as follows:

- If P_REV_IN_USE_{8} is less than seven, the mobile station shall send a **Flash With Information Message**.

- If P_REV_IN_USE_{8} is equal to or greater than seven, the mobile station shall perform the following: if this Call Control instance is identified by NULL, the mobile station shall send either a **Flash With Information Message** or an **Extended Flash With Information Message** (with either the CON_REF_INCL field of the message set to ‘0’ or the CON_REF_INCL field set to ‘1’ and the CON_REF field set to the connection reference of the service option connection corresponding to this call); otherwise, the mobile station shall send an **Extended Flash With Information Message**, with the CON_REF_INCL field of the message set to ‘1’ and the CON_REF field of the message set to the connection reference of the service option connection corresponding to this call.
• If the Call Control instance is directed by the user to forward the incoming call, the mobile station shall send a *Flash With Information Message* or an *Extended Flash With Information Message* in assured mode with a *Keypad Facility* information record (see 2.7.4.2) with the CHARi field set to a pre-programmed feature code which indicates User Selective Call Forwarding with a pre-registered number, as follows:

- If P_REV_IN_USE is less than seven, the mobile station shall send a *Flash With Information Message*.

- If P_REV_IN_USE is equal to or greater than seven, the mobile station shall perform the following: if this Call Control instance is identified by NULL, the mobile station shall send either a *Flash With Information Message* or an *Extended Flash With Information Message* (with either the CON_REF_INCL field of the message set to ‘0’ or the CON_REF_INCL field set to ‘1’ and the CON_REF field set to the connection reference of the service option connection corresponding to this call); otherwise, the mobile station shall send an *Extended Flash With Information Message*, with the CON_REF_INCL field of the message set to ‘1’ and the CON_REF field of the message set to the connection reference of the service option connection corresponding to this call.

• If the Call Control instance is directed by the user to forward the incoming call to a number stored in the mobile station, the mobile station shall send a *Flash With Information Message* or an *Extended Flash With Information Message* in assured mode with a *Keypad Facility* information record (see 2.7.4.2) with the CHARi field set to the following:

- a pre-programmed feature code which indicates User Selective Call Forwarding to a number stored in the mobile station as the first digits in the field and

- the forwarding to number immediately following the pre-programmed feature code.

The mobile station shall send the message as follows:

- If P_REV_IN_USE is less than seven, the mobile station shall send a *Flash With Information Message*.

- If P_REV_IN_USE is equal to or greater than seven and if this Call Control instance is identified by NULL, the mobile station shall send either a *Flash With Information Message* or an *Extended Flash With Information Message* (with either the CON_REF_INCL field of the message set to ‘0’ or the CON_REF_INCL field set to ‘1’ and the CON_REF field set to the connection reference of the service option connection corresponding to this call). Otherwise, the mobile station shall send an *Extended Flash With Information Message*, with the CON_REF_INCL field of the message set to ‘1’ and the CON_REF field of the message set to the connection reference of the service option connection corresponding to this call.
• If the Call Control instance is directed by the user to forward the incoming call to network-based voice mail, the mobile station shall send a *Flash With Information Message* or an *Extended Flash With Information Message* in assured mode with a *Keypad Facility* information record (see 2.7.4.2) with the CHARi field set to a pre-programmed feature code which indicates User Selective Call Forwarding to voice mail, as follows:

- If P_REV_IN_USEs is less than seven, the mobile station shall send a *Flash With Information Message*.

- If P_REV_IN_USEs is equal to or greater than seven and if this Call Control instance is identified by NULL, the mobile station shall send either a *Flash With Information Message* or an *Extended Flash With Information Message* (with either the CON_REF_INCL field of the message set to ‘0’ or the CON_REF_INCL field set to ‘1’ and the CON_REF field set to the connection reference of the service option connection corresponding to this call). Otherwise, the mobile station shall send an *Extended Flash With Information Message*, with the CON_REF_INCL field of the message set to ‘1’ and the CON_REF field of the message set to the connection reference of the service option connection corresponding to this call.

• If the Call Control instance is directed by the user to activate answer holding, the mobile station shall send a *Flash With Information Message* or an *Extended Flash With Information Message* in assured mode requiring confirmation of delivery with a *Keypad Facility* information record (see 2.7.4.2) with the CHARi field set to a pre-programmed feature code which indicates Answer Holding, as follows:

- If P_REV_IN_USEs is less than seven, the mobile station shall send a *Flash With Information Message*.

- If P_REV_IN_USEs is equal to or greater than seven, the mobile station shall perform the following: if this Call Control instance is identified by NULL, the mobile station shall send either a *Flash With Information Message* or an *Extended Flash With Information Message* (with either the CON_REF_INCL field of the message set to ‘0’ or the CON_REF_INCL field set to ‘1’ and the CON_REF field corresponding to this call); otherwise, the mobile station shall send an *Extended Flash With Information Message*, with the CON_REF_INCL field of the message set to ‘1’ and the CON_REF field of the message set to the connection reference of the service option connection corresponding to this call.
If answer holding is activated and the Call Control instance is directed by the user to deactivate answer holding, the mobile station shall send a *Flash With Information Message* or an *Extended Flash With Information Message* in assured mode with a *Keypad Facility* information record (see 2.7.4.2) with the CHAr field set to a pre-programmed feature code which indicates Answer Holding, as follows:

- If P_REV_IN_USE is less than seven, the mobile station shall send a *Flash With Information Message*.

- If P_REV_IN_USE is equal to or greater than seven, the mobile station shall perform the following: if this Call Control instance is identified by NULL, the mobile station shall send either a *Flash With Information Message* or an *Extended Flash With Information Message* (with either the CON_REF_INCL field of the message set to ‘0’ or the CON_REF_INCL field set to ‘1’ and the CON_REF field set to the connection reference of the service option connection corresponding to this call); otherwise, the mobile station shall send an *Extended Flash With Information Message*, with the CON_REF_INCL field of the message set to ‘1’ and the CON_REF field of the message set to the connection reference of the service option connection corresponding to this call.

If the Call Control instance is directed by the user to send burst DTMF digits, the mobile station shall build the *Send Burst DTMF Message* with the dialed digits and shall send the message in assured mode requiring confirmation of delivery.

- If P_REV_IN_USE is equal to or greater than seven, the mobile station shall perform the following: If this Call Control instance is identified by NULL, the mobile station shall set the CON_REF_INCL field of the message to ‘0’; otherwise, the mobile station shall set the CON_REF_INCL field of the message to ‘1’ and the CON_REF field of the message to the connection reference of the service option connection corresponding to this call.

The mobile station sending multiple *Send Burst DTMF Messages* shall preserve relative ordering of these messages (see 1.6 of [4]). The mobile station should attempt to preserve the user timing as much as possible, using recommended values of DTMF_ON_LENGTH (see Table 2.7.2.3.2.7-1) and DTMF_OFF_LENGTH (see Table 2.7.2.3.2.7-2).

If the Call Control instance is directed by the user to send a continuous DTMF digit, the mobile station shall build the *Continuous DTMF Tone Order* with the dialed digit and shall send the order in assured mode requiring confirmation of delivery, as follows:
- If $P_{\text{REV \_IN \_USE}}$ is equal to or greater than seven, the mobile station shall perform the following: If this Call Control instance is identified by NULL, the mobile station shall either set the CON_REF_INCL field of the message to ‘0’ or set the CON_REF_INCL field to ‘1’ and set the CON_REF field to the connection reference of the service option connection corresponding to this call; otherwise, the mobile station shall set the CON_REF_INCL field of the message to ‘1’ and the CON_REF field of the message to the connection reference of the service option connection corresponding to this call.

When the Call Control instance is directed by the user to cease sending the continuous DTMF digit, the mobile station shall send the *Continuous DTMF Tone Order* (ORDQ = ‘11111111’) in assured mode requiring confirmation of delivery, as follows:

- If $P_{\text{REV \_IN \_USE}}$ is equal to or greater than seven, the mobile station shall perform the following: If this Call Control instance is identified by NULL, the mobile station shall either set the CON_REF_INCL field of the message to ‘0’ or set the CON_REF_INCL field to ‘1’ and set the CON_REF field to the connection reference of the service option connection corresponding to this call; otherwise, the mobile station shall set the CON_REF_INCL field of the message to ‘1’ and the CON_REF field of the message to the connection reference of the service option connection corresponding to this call.

The mobile station sending multiple *Continuous DTMF Tone Orders* shall preserve relative ordering of these messages (see [2]). The mobile station shall send the *Continuous DTMF Tone Order* with the ORDQ set to ‘11111111’ indicating the completion of the current continuous DTMF digit before sending the *Continuous DTMF Tone Order* for another digit or the *Send Burst DTMF Message*.

- If the Call Control instance is directed by the user to disconnect the call, the Call Control instance shall send a ‘call release request’ to the layer 3 and shall enter the *Call Release Substate*.

- If the Call Control instance receives an indication that this packet data service instance has been inactivated, the Call Control instance shall send a “call inactive indication” to the layer 3 and shall enter the *Call Release Substate*.

- If the Call Control instance receives an indication that the user has originated an emergency call (see 2.6.4.3), the mobile station shall send a *Flash With Information Message* or an *Extended Flash With Information Message* in assured mode with a Global Emergency Call Information Record (see 2.7.4.31), as follows:
If this Call Control instance is identified by NULL, the mobile station shall send either a **Flash With Information Message** or an **Extended Flash With Information Message** (with either the CON_REF_INCL field of the message set to '0' or the CON_REF field set to '1' and the CON_REF field set to the connection reference of the service option connection corresponding to this call); otherwise, the mobile station shall send an **Extended Flash With Information Message**, with the CON_REF_INCL field of the message set to '1' and the CON_REF field of the message set to the connection reference of the service option connection corresponding to this call.

- If the Call Control instance receives a message from the **layer-3** which is included in the following list and every message field value is within its permissible range, the Call Control instance shall process the message as described below and in accordance with the message's action time (see 2.6.4.1.5).

  1. **Alert With Information Message:** If the message contains a Signal information record with the SIGNAL_TYPE field set to '01' or '10', or if the message does not contain a Signal information record, the Call Control instance shall enter the **Waiting For Mobile Station Answer Substate**. The mobile station should alert the user in accordance with the Signal information record. If this message does not contain a Signal information record, the mobile station should use standard alert as defined in 3.7.5.5.

  2. **Continuous DTMF Tone Order**

  3. **Extended Alert With Information Message:** If the message contains a Signal information record with the SIGNAL_TYPE field set to '01' or '10', or if the message does not contain a Signal information record, the Call Control instance shall enter the **Waiting For Mobile Station Answer Substate**. The mobile station should alert the user in accordance with the Signal information record. If this message does not contain a Signal information record, the mobile station should use standard alert as defined in 3.7.5.5.

  4. **Flash With Information Message**

  5. **Extended Flash With Information Message**

  6. **Maintenance Order:** The Call Control instance shall enter the **Waiting for Mobile Station Answer Substate**.

  7. **Send Burst DTMF Message:**

- If the Call Control instance receives a message that is not included in the above list, cannot be processed, or requires a capability which is not supported, the Call Control instance shall discard the message and send a 'message rejected indication' to the **layer-3**, with the reject reason indicated.
2.6.10.3 Call Release Substate

In this substate, the Call Control instance waits for the call to be released.

While in the Call Release Substate, the Call Control instance shall perform the following:

- If the Call Control instance receives a message from the layer 3 which is included in the following list and every message field value is within its permissible range, the Call Control instance shall process the message as described below and in accordance with the message’s action time (see 2.6.4.1.5).

1. **Alert With Information Message**: The Call Control instance shall send an “enter traffic channel substate indication” to the layer 3 and shall enter the Waiting for Mobile Station Answer Substate. If this message does not contain a Signal information record, the mobile station should use standard alert as defined in 3.7.5.5.

2. **Extended Alert With Information Message**: The Call Control instance shall send a “enter traffic channel substate indication” to layer 3 and shall enter the Waiting for Mobile Station Answer Substate. If this message does not contain a Signal information record, the mobile station should use standard alert as defined in 3.7.5.5.

- If the Call Control instance receives a message that is not included in the above list, cannot be processed, or requires a capability which is not supported, the Call Control instance shall discard the message and send a ‘message rejected indication’ to the layer 3, with the reject reason indicated.

2.6.11 SYNC_ID Computation

The SYNC_ID shall be calculated on all bits within the service configuration (that is, both the Service Configuration information record and the Non-negotiable Service Configuration information record).

The generator polynomials for computation of the SYNC_ID shall be as follows:

\[ g(x) = x^{16} + x^{15} + x^{14} + x^{11} + x^6 + x^5 + x^2 + x + 1 \]

The SYNC_ID shall be computed according to the following procedure as shown in Figures 2.6.11-1:

- Initially, all shift register elements shall be set to logical one and the switches shall be set in the up position.

- The register shall be clocked a number of times equal to the number of bits in the service configuration (that is, both the Service Configuration information record and the Non-negotiable Service Configuration information record) with those bits as input. The Service Configuration information record bits shall be input first (starting with the first field of the record) followed by the Non-negotiable Service Configuration information record bits (starting at the first field of the record).
- The switches shall be set in the down position so that the output is a modulo-2 addition with a '0' and the successive shift register inputs are '0'.

- The register shall be clocked an additional 16 times.

- These additional bits shall be the SYNC_ID.

- The first bit calculated shall be the most significant bit of SYNC_ID.

---

**Figure 2.6.11-1. SYNC_ID Calculation**
2.7 PDU Formats for Mobile Stations

This section describes the formats of the PDUs corresponding to the messages sent by the mobile station.

In any multi-bit field in the following messages, the most significant bit (MSB) shall be transmitted first.

Some bits in the PDUs are marked as RESERVED. These bits allow extension of the PDUs for future features and capabilities. The mobile station sets all reserved bits to '0'.

2.7.1 r-csch

This section describes the messages and their PDU formats sent by the mobile station on the r-csch.

2.7.1.1 Reserved

2.7.1.2 Reserved

2.7.1.3 PDU Formats on r-csch

The messages sent on the r-csch are summarized in Table 2.7.1.3-1.

<table>
<thead>
<tr>
<th>Message Name</th>
<th>MSG_TAG</th>
<th>Section Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration Message</td>
<td>RGM</td>
<td>2.7.1.3.2.1</td>
</tr>
<tr>
<td>Order Message</td>
<td>ORDM</td>
<td>2.7.1.3.2.2</td>
</tr>
<tr>
<td>Data Burst Message</td>
<td>DBM</td>
<td>2.7.1.3.2.3</td>
</tr>
<tr>
<td>Origination Message</td>
<td>ORM</td>
<td>2.7.1.3.2.4</td>
</tr>
<tr>
<td>Page Response Message</td>
<td>PRM</td>
<td>2.7.1.3.2.5</td>
</tr>
<tr>
<td>Authentication Challenge Response Message</td>
<td>AUCRM</td>
<td>2.7.1.3.2.6</td>
</tr>
<tr>
<td>Status Response Message</td>
<td>STRPM</td>
<td>2.7.1.3.2.7</td>
</tr>
<tr>
<td>TMSI Assignment Completion Message</td>
<td>TACM</td>
<td>2.7.1.3.2.8</td>
</tr>
<tr>
<td>PACA Cancel Message</td>
<td>PACNM</td>
<td>2.7.1.3.2.9</td>
</tr>
<tr>
<td>Extended Status Response Message</td>
<td>ESTRPM</td>
<td>2.7.1.3.2.10</td>
</tr>
<tr>
<td>Device Information Message</td>
<td>DIM</td>
<td>2.7.1.3.2.11</td>
</tr>
<tr>
<td>Security Mode Request Message</td>
<td>SMRM</td>
<td>2.7.1.3.2.12</td>
</tr>
</tbody>
</table>

2.7.1.3.1 Reserved

2.7.1.3.2 PDU Contents

The following sections specify the contents of the PDU for each message that may be sent on the r-csch.
### 2.7.1.3.2.1 Registration Message

**MSG_TAG: RGM**

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REG_TYPE</td>
<td>4</td>
</tr>
<tr>
<td>SLOT_CYCLE_INDEX</td>
<td>3</td>
</tr>
<tr>
<td>MOB_P_REV</td>
<td>8</td>
</tr>
<tr>
<td>SCM</td>
<td>8</td>
</tr>
<tr>
<td>MOB_TERM</td>
<td>1</td>
</tr>
<tr>
<td>RETURN_CAUSE</td>
<td>4</td>
</tr>
<tr>
<td>QPCH_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ENHANCED_RC</td>
<td>0 or 1</td>
</tr>
<tr>
<td>UZID_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>UZID</td>
<td>0 or 16</td>
</tr>
<tr>
<td>GEO_LOC_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>GEO_LOC_TYPE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>OTD_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>STS_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>3X_CCH_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>WLL_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>WLL_DEVICE_TYPE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>HOOK_STATUS</td>
<td>0 or 4</td>
</tr>
<tr>
<td>ENC_INFO_INCL</td>
<td>0 or 1</td>
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<td>SIG_ENCRYPT_SUP</td>
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</tr>
<tr>
<td>C_SIG_ENCRYPT_REQ</td>
<td>0 or 1</td>
</tr>
<tr>
<td>KEY_SEQ_NEW_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>KEY_SEQ_NEW</td>
<td>0 or 4</td>
</tr>
<tr>
<td>ENC_SEQ_H</td>
<td>0 or 24</td>
</tr>
<tr>
<td>ENC_SEQ_H_SIG</td>
<td>0 or 8</td>
</tr>
<tr>
<td>UI_ENCRYPT_SUP</td>
<td>0 or 8</td>
</tr>
</tbody>
</table>

**REG_TYPE** - Registration type.

This field indicates which type of event generated the registration attempt.

The mobile station shall set this field to the REG_TYPE value shown in Table 2.7.1.3.2.1-1 corresponding to the event that caused this registration to occur (see 2.6.5.1).
### Table 2.7.1.3.2.1-1. Registration Type (REG_TYPE) Codes

<table>
<thead>
<tr>
<th>REG_TYPE (binary)</th>
<th>Type of Registration</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000</td>
<td>Timer-based (see 2.6.5.1.3)</td>
</tr>
<tr>
<td>0001</td>
<td>Power-up (see 2.6.5.1.1)</td>
</tr>
<tr>
<td>0010</td>
<td>Zone-based (see 2.6.5.1.5)</td>
</tr>
<tr>
<td>0011</td>
<td>Power-down (see 2.6.5.1.2)</td>
</tr>
<tr>
<td>0100</td>
<td>Parameter-change (see 2.6.5.1.6)</td>
</tr>
<tr>
<td>0101</td>
<td>Ordered (see 2.6.5.1.7)</td>
</tr>
<tr>
<td>0110</td>
<td>Distance-based (see 2.6.5.1.4)</td>
</tr>
<tr>
<td>0111</td>
<td>User Zone-based (see 2.6.5.1.10)</td>
</tr>
<tr>
<td>1000</td>
<td>Encryption Re-sync required (see 2.6.5.1.11)</td>
</tr>
</tbody>
</table>

All other REG_TYPE values are reserved.

---

**SLOT_CYCLE_INDEX** – Slot cycle index.

If the mobile station is configured for slotted mode operation, the mobile station shall set this field to the preferred slot cycle index, SLOT_CYCLE_INDEX_p (see 2.6.2.1.1). Otherwise, the mobile station shall set this field to '000'.

**MOB_P_REV** – Protocol revision of the mobile station.

The mobile station shall set this field to '00000111'.

**SCM** – Station class mark.

The mobile station shall set this field to its station class mark. See 2.3.3.

**MOB_TERM** – Mobile terminated calls accepted indicator.

If the mobile station is configured to accept mobile terminated calls while operating with the current roaming status (see 2.6.5.3), the mobile station shall set this bit to ‘1’. Otherwise, the mobile station shall set this bit to ‘0’.

**RETURN_CAUSE** – Reason of the mobile station registration or access.

The mobile station shall set this field to the RETURN_CAUSE value shown in Table 2.7.1.3.2.1-2 corresponding to the service redirection failure condition (see 2.6.1.1).
Table 2.7.1.3.2.1-2. RETURN_CAUSE Codes

<table>
<thead>
<tr>
<th>RETURN_CAUSE (binary)</th>
<th>Redirect Failure Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000</td>
<td>Normal access.</td>
</tr>
<tr>
<td>0001</td>
<td>Service redirection failed as a result of system not found.</td>
</tr>
<tr>
<td>0010</td>
<td>Service redirection failed as a result of protocol mismatch.</td>
</tr>
<tr>
<td>0011</td>
<td>Service redirection failed as a result of registration rejection.</td>
</tr>
<tr>
<td>0100</td>
<td>Service redirection failed as a result of wrong SID.</td>
</tr>
<tr>
<td>0101</td>
<td>Service redirection failed as a result of wrong NID.</td>
</tr>
</tbody>
</table>

All other RETURN_CAUSE values are reserved.

QPCH_SUPPORTED – Quick Paging Channel supported indicator.
If P_REV_IN_USE \( s \) is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.
If the mobile station supports the Quick Paging Channel, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

ENHANCED_RC – Enhanced radio configuration supported indicator.
If P_REV_IN_USE \( s \) is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.
If the mobile station supports any radio configuration in the Radio Configuration Class 2 (see 1.1.1), the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

UZID_INCL – User Zone Identifier included indicator.
If P_REV_IN_USE \( s \) is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.
If the message is to contain the User Zone Identifier, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

UZID – User Zone Identifier.
If the UZID_INCL is included in the message and is set to ‘1’, the mobile station shall include this field and set it to UZID; otherwise, the mobile station shall omit this field.

GEO_LOC_INCL – Geo-location included indicator.

If P_REV_IN_USE < 7, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

If the message is to contain the GEO_LOC_TYPE field, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

GEO_LOC_TYPE – Geo-Location Type.

If GEO_LOC_INCL is included in the message and is set to ‘1’, the mobile station shall include this field and shall set it to the value shown in Table 2.7.1.3.2.4-7; otherwise, the mobile station shall omit this field.

OTD_SUPPORTED – Orthogonal Transmit Diversity supported.

If P_REV_IN_USE < 7, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

The mobile station shall set this field to ‘1’ if Orthogonal Transmit Diversity is supported; otherwise, the mobile station shall set this field to ‘0’.

STS_SUPPORTED – Space Time Spreading Transmit Diversity supported.

If P_REV_IN_USE < 7, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

The mobile station shall set this field to ‘1’, if Space Time Spreading Transmit Diversity is supported; otherwise, the mobile station shall set this field to ‘0’.

3X_CCH_SUPPORTED – 3X Common Channels supported.

If P_REV_IN_USE < 7, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

The mobile station shall set this field to ‘1’ if the mobile station supports the Spreading Rate 3 common channels (3X BCCH, 3X F-CCCH, and 3X R-EACH); otherwise, the mobile station shall set this field to ‘0’.

WLL_INCL – WLL information included indicator.

If P_REV_IN_USE < 7, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

If the mobile station is a Wireless Local Loop device, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.
WLL_DEVICE_TYPE – WLL device type indicator.

If WLL_INCL is not included, or if WLL_INCL is included and is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall set this field as follows.

The mobile station shall set this field to the WLL_DEVICE_TYPE value shown in Table 2.7.1.3.2.1-3 corresponding to the mobile station device type.

Table 2.7.1.3.2.1-3. WLL Device Types

<table>
<thead>
<tr>
<th>WLL_DEVICE_TYPE (binary)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>Wireless Local Loop terminal with no mobility</td>
</tr>
<tr>
<td>001</td>
<td>Wireless Local Loop terminal with limited mobility</td>
</tr>
<tr>
<td>010</td>
<td>Wireless Local Loop terminal with full mobility</td>
</tr>
<tr>
<td>011 - 111</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

HOOK_STATUS – WLL terminal hook status.

If WLL_INCL is not included, or if WLL_INCL is included and is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall set this field to the value shown in Table 2.7.1.3.2.1-4 corresponding to the hook state.
Table 2.7.1.3.2.1-4. Hook Status Values

<table>
<thead>
<tr>
<th>HOOK_STATUS (binary)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000</td>
<td>Subscriber terminal is on-hook</td>
</tr>
<tr>
<td>0001</td>
<td>Subscriber terminal is off-hook</td>
</tr>
<tr>
<td>0010</td>
<td>Subscriber terminal is stuck off-hook</td>
</tr>
<tr>
<td>0011 – 1111</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

**ENC_INFO_INCL** – Encryption fields included.

If P_REV_IN_USEs is less than seven, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

The mobile station shall set this field to ‘1’ if the encryption related fields are included; otherwise the mobile station shall set this field to ‘0’. The mobile station shall set this field to ‘1’ if it is unable to determine the base station support for encryption. The mobile station shall set this field to ‘0’ if the base station does not support encryption or the mobile station does not support any of the encryption modes supported by the base station.

**SIG_ENCRYPT_SUP** – Signaling encryption supported indicator.

If ENC_INFO_INCL is included and is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to indicate which signaling encryption algorithms are supported by the mobile station.
This field consists of the subfields shown in Table 2.7.1.3.2.1-5.

Table 2.7.1.3.2.1-5. Encoding of the SIG_ENCRYPT_SUP Field

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
<th>Subfield Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMEA</td>
<td>1</td>
<td>Support of Cellular Message Encryption Algorithm</td>
</tr>
<tr>
<td>ECMEA</td>
<td>1</td>
<td>Support of Enhanced Cellular Message Encryption Algorithm</td>
</tr>
<tr>
<td>REA</td>
<td>1</td>
<td>Support of the Rijndael Encryption Algorithm</td>
</tr>
<tr>
<td>RESERVED</td>
<td>56</td>
<td>Reserved bits</td>
</tr>
</tbody>
</table>

If this field is included, the mobile station shall set the subfields as follows:

The mobile station shall set the CMEA subfield to ‘1’.

The mobile station shall set each other subfield to ‘1’ if the corresponding signaling encryption algorithm is supported by the mobile station; otherwise, the mobile station shall set the subfield to ‘0’.

The mobile station shall set the RESERVED subfield to ‘000000’.

**C_SIG_ENCRYPT_REQ** – Common Channel Signaling Message encryption request indicator.

If ENC_INFO_INCL is included and is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to ‘1’ to request signaling encryption to be turned on for signaling messages sent on f-dsch, r-dsch, f-csch, and r-csch, and to ‘0’ to request signaling encryption to be turned off for signaling messages sent on f-dsch, r-dsch, f-csch, and r-csch.

**KEY_SEQ_NEW_INCL** – The new encryption key sequence number included indicator.

If ENC_INFO_INCL is included and is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field as follows:

If STORE_KEY_e is equal to ‘1’ and KEY_SEQ_NEW is included in this message, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

**KEY_SEQ_NEW** – The key sequence number corresponding to the new encryption key generated by the mobile station.
If KEY_SEQ_NEW_INCL is included and is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to KEY_SEQ_NEW$^{\text{new}}$, the sequence number associated with the new encryption key generated by the mobile station.

ENC_SEQ_H – The 24 MSB of the EXT_ENC_SEQ

If ENC_INFO_INCL is included and is set to ‘1’, SIG ENCRYPT SUP is included and the ECMEA or REA subfield in SIG ENCRYPT SUP is set to ‘1’ and Enhanced Cellular Message Encryption Algorithm is supported by the mobile station, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to the 24 most significant bits of the EXT_ENC_SEQ to be used as the initial value of crypto sync for both forward and reverse link encryptions.

ENC_SEQ_H_SIG – The signature of ENC_SEQ_H

If ENC_SEQ_H is included, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to the digital signature of the ENC_SEQ_H computed as described in 2.3.12.4.5.

UI_ENCRYPT_SUP – User information encryption supported indicator.

If ENC_INFO_INCL is included and is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to indicate the supported user information encryption algorithms.

This field consists of the subfields shown in Table 2.7.1.3.2.4-9.

The mobile station shall set each subfield to ‘1’ if the corresponding user information encryption algorithm is supported by the mobile station; otherwise, the mobile station shall set the subfield to ‘0’.

The mobile station shall set the RESERVED subfield to ‘000000’.
2.7.1.3.2.2 Order Message

MSG_TAG: ORDM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORDER</td>
<td>6</td>
</tr>
<tr>
<td>ADD_RECORD_LEN</td>
<td>3</td>
</tr>
<tr>
<td>Order-specific fields (if used)</td>
<td>$8 \times ADD_RECORD_LEN$</td>
</tr>
</tbody>
</table>

ORDER – Order code.

The mobile station shall set this field to the ORDER code (see 2.7.3) for this type of Order Message.

ADD_RECORD_LEN – Additional record length.

The mobile station shall set this field to the number of octets in the order-specific fields included in this message.

order-specific fields – Order-specific fields.

The mobile station shall include order-specific fields as specified in 2.7.3.
2.7.1.3.2.3 Data Burst Message

MSG_TAG: DBM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSG_NUMBER</td>
<td>8</td>
</tr>
<tr>
<td>BURST_TYPE</td>
<td>6</td>
</tr>
<tr>
<td>NUM_MSGS</td>
<td>8</td>
</tr>
<tr>
<td>NUM_FIELDS</td>
<td>8</td>
</tr>
</tbody>
</table>

NUM_FIELDS occurrences of the following field:

<table>
<thead>
<tr>
<th>FIELD</th>
<th>LENGTH (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHARi</td>
<td>8</td>
</tr>
</tbody>
</table>

**MSG_NUMBER** – Message number within the data burst stream.

The mobile station shall set this field to the number of this message within the data burst stream.

**BURST_TYPE** – Data burst type.

The mobile station shall set the value of this field for the type of this data burst as defined in [30]. If the mobile station sets this field equal to ‘111110’, it shall set the first two CHARi fields of this message equal to EXTENDED_BURST_TYPEINTERNATIONAL as described in the definition of CHARi below. If the mobile station sets this field equal to ‘111111’, it shall set the first two CHARi fields of this message equal to the EXTENDED_BURST_TYPE as described in the definition of CHARi below.

**NUM_MSGS** – Number of messages in the data burst stream.

The mobile station shall set this field to the number of messages within this data burst stream.

**NUM_FIELDS** – Number of characters in this message.

The mobile station shall set this field to the number of CHARi fields included in this message.

**CHARi** – Character.

The mobile station shall include NUM_FIELDS occurrences of this field. The mobile station shall set these fields to the corresponding octet of the data burst stream.
If the BURST_TYPE field of this message is equal to ‘111110’, the first two CHARi octets shall represent a 16 bit EXTENDED_BURST_TYPE_INTERNATIONAL field, which is encoded as shown below. The first ten bits of this field contain a binary mapping of the Mobile Country Code (MCC). Encoding of the MCC shall be as specified in 2.3.1.3. The remaining six bits of the EXTENDED_BURST_TYPE_INTERNATIONAL field shall specify the COUNTRY_BURST_TYPE. The mobile station shall set the value of the COUNTRY_BURST_TYPE according to the type of this data burst as defined in standards governed by the country where this data burst type is to be used.

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile Country Code</td>
<td>10</td>
</tr>
<tr>
<td>COUNTRY_BURST_TYPE</td>
<td>6</td>
</tr>
<tr>
<td>Remaining CHARi fields</td>
<td>8 × (NUM_FIELDS - 2)</td>
</tr>
</tbody>
</table>

If the BURST_TYPE field of this message is equal to ‘111111’, the first two CHARi octets shall represent a single, 16 bit, EXTENDED_BURST_TYPE field, as shown below. The mobile station shall set the value of the EXTENDED_BURST_TYPE according to the type of this data burst as defined in [30].

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTENDED_BURST_TYPE</td>
<td>16</td>
</tr>
<tr>
<td>(first two CHARi fields)</td>
<td></td>
</tr>
<tr>
<td>Remaining CHARi fields</td>
<td>8 × (NUM_FIELDS - 2)</td>
</tr>
</tbody>
</table>
### 2.7.1.3.2.4 Origination Message

**MSG_TAG:** ORM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOB_TERM</td>
<td>1</td>
</tr>
<tr>
<td>SLOT_CYCLE_INDEX</td>
<td>3</td>
</tr>
<tr>
<td>MOB_P_REV</td>
<td>8</td>
</tr>
<tr>
<td>SCM</td>
<td>8</td>
</tr>
<tr>
<td>REQUEST_MODE</td>
<td>3</td>
</tr>
<tr>
<td>SPECIAL_SERVICE</td>
<td>1</td>
</tr>
<tr>
<td>SERVICE_OPTION</td>
<td>0 or 16</td>
</tr>
<tr>
<td>PM</td>
<td>1</td>
</tr>
<tr>
<td>DIGIT_MODE</td>
<td>1</td>
</tr>
<tr>
<td>NUMBER_TYPE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>NUMBER_PLAN</td>
<td>0 or 4</td>
</tr>
<tr>
<td>MORE_FIELDS</td>
<td>1</td>
</tr>
<tr>
<td>NUM_FIELDS</td>
<td>8</td>
</tr>
</tbody>
</table>

NUM_FIELDS occurrences of the following field:

| CHARi                   | 4 or 8         |

| NAR_AN_CAP              | 1             |
| PACA_REORIG             | 1             |
| RETURN_CAUSE            | 4             |
| MORE_RECORDS            | 1             |
| ENCRYPTION_SUPPORTED    | 0 or 4        |
| PACA_SUPPORTED          | 1             |
| NUM_ALT_SO              | 3             |

NUM_ALT_SO occurrences of the following field:

<p>| ALT_SO                  | 16            |</p>
<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRS</td>
<td>0 or 1</td>
</tr>
<tr>
<td>UZID_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>UZID</td>
<td>0 or 16</td>
</tr>
<tr>
<td>CH_IND</td>
<td>0 or 2</td>
</tr>
<tr>
<td>SR_ID</td>
<td>0 or 3</td>
</tr>
<tr>
<td>OTD_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>QPCH_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ENHANCED_RC</td>
<td>0 or 1</td>
</tr>
<tr>
<td>FOR_RC_PREF</td>
<td>0 or 5</td>
</tr>
<tr>
<td>REV_RC_PREF</td>
<td>0 or 5</td>
</tr>
<tr>
<td>FCH_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>FCH Capability Type-specific fields</td>
<td>0 or variable</td>
</tr>
<tr>
<td>DCCH_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>DCCH Capability Type-specific fields</td>
<td>0 or variable</td>
</tr>
<tr>
<td>GEO_LOC_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>GEO_LOC_TYPE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>REV_FCH_GATING_REQ</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ORIG_REASON</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ORIG_COUNT</td>
<td>0 or 2</td>
</tr>
<tr>
<td>STS_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>3X_CCH_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>WLL_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>WLL_DEVICE_TYPE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>GLOBAL_EMERGENCY_CALL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>MS_INIT_POS_LOC_IND</td>
<td>0 or 1</td>
</tr>
<tr>
<td>QOS_PARMs_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>QOS_PARMs_LEN</td>
<td>0 or 5</td>
</tr>
</tbody>
</table>

(continues on next page)
<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QOS_PARMS</td>
<td>0 or variable</td>
</tr>
<tr>
<td>QOS_RESERVED</td>
<td>0 - 7</td>
</tr>
<tr>
<td>ENC_INFO_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>SIG_ENCRYPT_SUP</td>
<td>0 or 8</td>
</tr>
<tr>
<td>D_SIG_ENCRYPT_REQ</td>
<td>0 or 1</td>
</tr>
<tr>
<td>KEY_SEQ_NEW_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>KEY_SEQ_NEW</td>
<td>0 or 4</td>
</tr>
<tr>
<td>ENC_SEQ_H</td>
<td>0 or 24</td>
</tr>
<tr>
<td>ENC_SEQ_H_SIG</td>
<td>0 or 8</td>
</tr>
<tr>
<td>UI_ENCRYPT_REQ</td>
<td>0 or 1</td>
</tr>
<tr>
<td>UI_ENCRYPT_SUP</td>
<td>0 or 8</td>
</tr>
<tr>
<td>SYNC_ID_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>SYNC_ID_LEN</td>
<td>0 or 4</td>
</tr>
<tr>
<td>SYNC_ID</td>
<td>0 or (8 \times )</td>
</tr>
<tr>
<td>PREV_SID_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>PREV_SID</td>
<td>0 or 15</td>
</tr>
<tr>
<td>PREV_NID_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>PREV_NID</td>
<td>0 or 16</td>
</tr>
<tr>
<td>PREV_PZID_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>PREV_PZID</td>
<td>0 or 8</td>
</tr>
</tbody>
</table>

If \(P\_REV\_IN\_USE\) is equal to or greater than 7, the mobile station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO_BITMAP_IND</td>
<td>0 or 2</td>
</tr>
<tr>
<td>SO_GROUP_NUM</td>
<td>0 or 5</td>
</tr>
<tr>
<td>SO_BITMAP</td>
<td>0 or (4 \times )</td>
</tr>
</tbody>
</table>

1. **MOB_TERM** – Mobile terminated calls accepted indicator.

If the mobile station is configured to accept mobile terminated calls while operating with the current roaming status (see 2.6.5.3), the mobile station shall set this bit to ‘1’; otherwise, the mobile station shall set this bit to ‘0’.
SLOT_CYCLE_INDEX – Slot cycle index.

If the mobile station is configured for slotted mode operation, the mobile station shall set this field to the preferred slot cycle index, SLOT_CYCLE_INDEX_p (see 2.6.2.1.1); otherwise, the mobile station shall set this field to ‘000’.

MOB_P_REV – Protocol revision of the mobile station.

The mobile station shall set this field to ‘00000111’.

SCM – Station class mark.

The mobile station shall set this field to the station class mark of the mobile station. See 2.3.3.

REQUEST_MODE – Requested mode code.

The mobile station shall set this field to the value shown in Table 2.7.1.3.2.4-1 corresponding to its current configuration.

<table>
<thead>
<tr>
<th>Value (binary)</th>
<th>Requested Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>Reserved</td>
</tr>
<tr>
<td>001</td>
<td>CDMA only</td>
</tr>
<tr>
<td>010</td>
<td>Wide analog only</td>
</tr>
<tr>
<td>011</td>
<td>Either wide analog or CDMA only</td>
</tr>
<tr>
<td>100</td>
<td>Narrow analog only</td>
</tr>
<tr>
<td>101</td>
<td>Either narrow analog or CDMA only</td>
</tr>
<tr>
<td>110</td>
<td>Either narrow analog or wide analog only</td>
</tr>
<tr>
<td>111</td>
<td>Narrow analog or wide analog or CDMA</td>
</tr>
</tbody>
</table>

SPECIAL_SERVICE – Special service option indicator.

To request a special service option, the mobile station shall set this field to ‘1’. To request the default service option (Service Option 1), the mobile station shall set this field to ‘0’.

SERVICE_OPTION – Requested service option for this origination.

If the SPECIAL_SERVICE field is set to ‘1’, the mobile station shall set this field to the value specified in [30], corresponding to the requested service option. If the SPECIAL_SERVICE field is set to ‘0’, the mobile station shall omit this field.

PM – Privacy mode indicator.

To request voice privacy, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

DIGIT_MODE – Digit mode indicator.

Table 2.7.1.3.2.4-1. REQUEST_MODE Codes
This field indicates whether the dialed digits are 4-bit DTMF codes or 8-bit ASCII codes using a specified numbering plan.

To originate the call using the binary representation of DTMF digits, the mobile station shall set this field to ‘0’. To originate the call using ASCII characters, the mobile station shall set this field to ‘1’.

NUMBER_TYPE – Type of number.

If the DIGIT_MODE field is set to ‘1’, the mobile station shall set this field to the NUMBER_TYPE value shown in Table 2.7.1.3.2.4-2 corresponding to the type of the number as defined in [7], Section 4.5.9. If the DIGIT_MODE field is set to ‘0’, the mobile station shall omit this field.

<table>
<thead>
<tr>
<th>Description</th>
<th>NUMBER_TYPE (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unknown</td>
<td>000</td>
</tr>
<tr>
<td>International number</td>
<td>001</td>
</tr>
<tr>
<td>National number</td>
<td>010</td>
</tr>
<tr>
<td>Network-specific number</td>
<td>011</td>
</tr>
<tr>
<td>Subscriber number</td>
<td>100</td>
</tr>
<tr>
<td>Reserved</td>
<td>101</td>
</tr>
<tr>
<td>Abbreviated number</td>
<td>110</td>
</tr>
<tr>
<td>Reserved for extension</td>
<td>111</td>
</tr>
</tbody>
</table>

NUMBER_PLAN – Numbering plan.

If the DIGIT_MODE field is set to ‘1’, the mobile station shall set this field to the NUMBER_PLAN value shown in Table 2.7.1.3.2.4-3 corresponding to the requested numbering plan as defined in [7], Section 4.5.9. If the DIGIT_MODE field is set to ‘0’, the mobile station shall omit this field.
Table 2.7.1.3.2.4-3. Numbering Plan Identification

<table>
<thead>
<tr>
<th>Description</th>
<th>NUMBER_PLAN (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unknown</td>
<td>0000</td>
</tr>
<tr>
<td>ISDN/Telephony numbering plan ([17] and [16])</td>
<td>0001</td>
</tr>
<tr>
<td>Data numbering plan ([20])</td>
<td>0011</td>
</tr>
<tr>
<td>Telex numbering plan ([19])</td>
<td>0100</td>
</tr>
<tr>
<td>Private numbering plan</td>
<td>1001</td>
</tr>
<tr>
<td>Reserved for extension</td>
<td>1111</td>
</tr>
</tbody>
</table>

All other NUMBER_PLAN codes are reserved.

MORE_FIELDS – More dialed digits indicator.

This field indicates whether additional dialed digits will be sent in a later Origination Continuation Message.

If all dialed digits will fit into this message, the mobile station shall set this field to ‘0’. If not, the mobile station shall set this field to ‘1’.

NUM_FIELDS – Number of dialed digits in this message.

The mobile station shall set this field to the number of dialed digits included in this message.

CHARi – A dialed digit or character.

The mobile station shall include NUM_FIELDS occurrences of this field. If the DIGIT_MODE field is set to ‘0’, the mobile station shall set each occurrence of this field to the code value shown in Table 2.7.1.3.2.4-4 corresponding to the dialed digit. If the DIGIT_MODE field is set to ‘1’, the mobile station shall set each occurrence of this field to the ASCII representation corresponding to the dialed digit, as specified in [9], with the most significant bit set to ‘0’.
### Table 2.7.1.3.2.4-4. Representation of DTMF Digits

<table>
<thead>
<tr>
<th>Digit</th>
<th>Code (binary)</th>
<th>Digit</th>
<th>Code (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0001</td>
<td>7</td>
<td>0111</td>
</tr>
<tr>
<td>2</td>
<td>0010</td>
<td>8</td>
<td>1000</td>
</tr>
<tr>
<td>3</td>
<td>0011</td>
<td>9</td>
<td>1001</td>
</tr>
<tr>
<td>4</td>
<td>0100</td>
<td>0</td>
<td>1010</td>
</tr>
<tr>
<td>5</td>
<td>0101</td>
<td>*</td>
<td>1011</td>
</tr>
<tr>
<td>6</td>
<td>0110</td>
<td>#</td>
<td>1100</td>
</tr>
</tbody>
</table>

All other codes are reserved.

---

**NAR_AN_CAP** – Narrow analog capability.

If the mobile station is capable of narrow analog operation, the mobile station shall set this bit to ‘1’; otherwise, the mobile station shall set this bit to ‘0’.

**PACA_REORIG** – PACA re-origination.

If this is a user directed origination, the mobile station shall set this field to ‘0’. If this is a PACA re-origination, the mobile station shall set this field to ‘1’.

**RETURN_CAUSE** – Reason for the mobile station registration or access.

The mobile station shall set this field to the RETURN_CAUSE value shown in Table 2.7.1.3.2.1-2 corresponding to the service redirection failure condition (see 2.6.1.1).

**MORE_RECORDS** – More records indicator.

This field indicates whether information records will be sent in a later Origination Continuation Message. If information records will be sent, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

**ENCRYPTION_SUPPORTED** – Encryption algorithms supported by the mobile station.

If P_REV_IN_USE is greater than or equal to 7 or AUTH_MODE is equal to ‘00’, the mobile station shall omit the ENCRYPTION_SUPPORTED field. If P_REV_IN_USE is less than 7 and AUTH_MODE is not equal to ‘00’, the mobile station shall set this field as specified in Table 2.7.1.3.2.4-5.
Table 2.7.1.3.2.4-5. Encryption Algorithms Supported

<table>
<thead>
<tr>
<th>Description</th>
<th>ENCRYPTION_SUPPORTED (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic encryption supported</td>
<td>0000</td>
</tr>
<tr>
<td>Basic and Enhanced encryption supported</td>
<td>0001</td>
</tr>
<tr>
<td>Reserved</td>
<td>0010 - 1111</td>
</tr>
</tbody>
</table>

PACA_SUPPORTED – CDMA PACA support indication.

This field identifies the mobile station’s support for PACA in CDMA mode. The mobile station shall set this field to ‘1’.

NUM_ALT_SO – Number of alternative service options.

If $P_{REV\_IN\_USE}$ is less than seven, the mobile station shall set this field to the number of alternative service options it supports other than the one specified in the SERVICE_OPTION field. The mobile station shall set this field to a value less than or equal to MAX_NUM_ALT_SOs.

If $P_{REV\_IN\_USE}$ is equal to or greater than seven, the mobile station shall set this field to the number of alternate service options, which either have no service option group number assigned or do not belong to the same service option group whose bitmap is being included. The alternate service option numbers are other than the one specified in the SERVICE_OPTION field. The mobile station shall set this field to a value less than or equal to MAX_NUM_ALT_SOs.

ALT_SO – Alternative service option.

If $P_{REV\_IN\_USE}$ is less than 7, the mobile station shall include NUM_ALT_SO occurrences of this field. The mobile station shall set this field to the value specified in [30], corresponding to the alternative service option supported by the mobile station.

If $P_{REV\_IN\_USE}$ is equal to or greater than seven, the mobile station shall include NUM_ALT_SO occurrences of this field. The mobile station shall set this field to the service option number defined in TSB58-[30] corresponding to the alternate service options which either have no service option group number assigned or do not belong to the same service option group whose bitmap is included in this message.

DRS – Data Ready to Send.

If $P_{REV\_IN\_USE}$ is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.
If there is data to send, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

**UZID_INCL** – User Zone Identifier included indicator.

If \( P_{REV\_IN\_USE} \) is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

If the message is to contain the User Zone Identifier, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

**UZID** – User Zone Identifier.

If the UZID_INCL field is included in the message and is set to ‘1’, the mobile station shall include this field and set it to UZIDs; otherwise, the mobile station shall omit this field.

**CH_IND** – Channel indicator.

If \( P_{REV\_IN\_USE} \) is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it, as shown in Table 2.7.1.3.2.4-6, to request physical resources.

<table>
<thead>
<tr>
<th><strong>Table 2.7.1.3.2.4-6. Channel Indicator</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CH_IND</strong> (binary)</td>
</tr>
<tr>
<td>---------------------</td>
</tr>
<tr>
<td>00</td>
</tr>
<tr>
<td>01</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>11</td>
</tr>
</tbody>
</table>
SR_ID – Service reference identifier.

If P_REV_IN_USE is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:

If the service instance provides a service reference identifier, the mobile station shall set this field to the service reference identifier specified by the service instance. If the service instance does not provide a service reference identifier, the mobile station shall set this field to the smallest unused service reference identifier value between 1 and 6 (inclusive).

OTD_SUPPORTED – Orthogonal Transmit Diversity supported indicator.

If P_REV_IN_USE is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

If the mobile station supports orthogonal transmit diversity, it shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

QPCH_SUPPORTED – Quick Paging Channel supported indicator.

If P_REV_IN_USE is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

If the mobile station supports the Quick Paging Channel, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

ENHANCED_RC – Enhanced radio configuration supported indicator.

If P_REV_IN_USE is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

If the mobile station supports any radio configuration in the Radio Configuration Class 2 (see 1.1.1), the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

FOR_RC_PREF – Forward Radio Configuration preference.

If P_REV_IN_USE is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set this field as follows.

The mobile station shall set this field to its preferred Radio Configuration for the Forward Traffic Channel.


If P_REV_IN_USE is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

The mobile station shall set this field to its preferred Radio Configuration for the Reverse Traffic Channel.
FCH_SUPPORTED — Fundamental Channel supported indicator.

If P_REV_IN_USE is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

The mobile station shall set this field to ‘1’ if the mobile station supports Fundamental Channel; otherwise, the mobile station shall set this field to ‘0’.

FCH Capability
Type-specific fields — Fundamental Channel capability information.

If the FCH_SUPPORTED field is included and is set to ‘1’, the mobile station shall include this field and set it as defined in 2.7.4.27.1; otherwise, the mobile station shall omit this field.

DCCH_SUPPORTED — Dedicated Control Channel supported indicator.

If P_REV_IN_USE is less than six, the mobile station shall omit this field; otherwise the mobile station shall include this field and set it as follows.

The mobile station shall set this field to ‘1’ if the mobile station supports Dedicated Control Channel; otherwise, the mobile station shall set this field to ‘0’.

DCCH Capability
Type specific fields — Dedicated Control Channel capability information.

If the DCCH_SUPPORTED field is included and is set to ‘1’, the mobile station shall include this field and set it as defined in 2.7.4.27.2; otherwise, the mobile station shall omit this field.

GEO_LOC_INCL — Geo-location included indicator.

If P_REV_IN_USE is less than six, the mobile station shall omit this field. If P_REV_IN_USE is equal to six, the mobile station shall set this field to ‘0’. Otherwise, the mobile station shall include this field and set it as follows.

If the message is to contain the GEO_LOC_TYPE field, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

GEO_LOC_TYPE — Geo-Location Type.

If GEO_LOC_INCL is included in the message and is set to ‘1’, the mobile station shall include this field and shall set it to the value shown in Table 2.7.1.3.2.4-7; otherwise, the mobile station shall omit this field.
Table 2.7.1.3.2.4-7. Geo-location Types

<table>
<thead>
<tr>
<th>GEO_LOC_TYPE (binary)</th>
<th>Type of Geo-location</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>No mobile station assisted geo-location capabilities</td>
</tr>
<tr>
<td>001</td>
<td>IS-801 capable (Advanced Forward Link Triangulation only (AFLT))</td>
</tr>
<tr>
<td>010</td>
<td>IS-801 capable (Advanced Forward Link Triangulation and Global Positioning Systems)</td>
</tr>
<tr>
<td>011</td>
<td>Global Positioning Systems only</td>
</tr>
</tbody>
</table>

All other GEO_LOC_TYPE values are reserved.

REV_FCH-_GATING_REQ – Reverse Fundamental gating mode request indicator.

If P_REV_IN_USE is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:

If the mobile station requests to turn on the reverse Fundamental Traffic Channel gating mode in Radio Configurations 3, 4, 5, and 6, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

ORIG_REASON - Re-Origination reason indicator.

If P_REV_IN_USE is less than or equal to six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

The mobile station shall set this field to ‘1’ if the mobile station initiates a silent-retry, i.e. an autonomous access re-attempt to re-originate this call without user interaction, after the mobile station received an access attempt failure from the ARQ Sublayer for a user initiated origination; otherwise, the mobile station shall set this field to ‘0’.

ORIG_COUNT - Re-Origination count.

If P_REV_IN_USE is less than or equal to six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

If the ORIG_REASON is set to ‘1’, the mobile station shall set this field to the number of consecutive silent-retry, i.e. an autonomous access re-attempt that were made to re-originate the call, without user interaction, that were due to the mobile receiving an access attempt failure from the ARQ Sublayer. If the number of consecutive silent-retry is greater than three, the mobile station shall set this field to ‘11’.
If the ORIG_REASON is set to '0', the mobile station shall set this field according to Table 2.7.1.3.2.4–8 depending on the number of autonomous re-connection attempts for the desired service (specified by SERVICE_OPTION) that have failed since the last successful connection of that desired service\(^1\). The count shall only include attempts since the last power-up.

Table 2.7.1.3.2.4-8. ORIG_COUNT field for ORIG_REASON = ‘0’

<table>
<thead>
<tr>
<th>Number of autonomous re-originating attempts for the desired service that have failed since the last successful connection</th>
<th>ORIG_COUNT (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>‘00’</td>
</tr>
<tr>
<td>1, 2, 3 or 4</td>
<td>‘01’</td>
</tr>
<tr>
<td>5, 6, 7 or 8</td>
<td>‘10’</td>
</tr>
<tr>
<td>9 or more</td>
<td>‘11’</td>
</tr>
</tbody>
</table>

\(^1\) For example, if the mobile station requests SO\(_x\) in the Origination Message and SO\(_x\) is granted by the base station, the counter associated with SO\(_x\) is reset.
If the mobile station is a Wireless Local Loop device, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

**WLL_DEVICE_TYPE** – WLL device type indicator.

If WLL_INCL is not included, or if WLL_INCL is included and is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall set this field as follows:

The mobile station shall set this field to the WLL_DEVICE_TYPE value shown in Table 2.7.1.3.2.1-3 corresponding to the mobile station device type.

**GLOBAL-_EMERGENCY_CALL** – Global Emergency Call indicator.

If P_REV_IN_USEs is less than seven, the mobile station shall omit this field; otherwise, the mobile station shall include this field and shall set it as follows:

The mobile station shall set this field to ‘1’ if the mobile station recognizes that this is an emergency call; otherwise, the mobile station shall set this field to ‘0’.

**MS_INIT_POS_LOC_IND** – Mobile Initiated Position Location Session indicator.

If the GLOBAL_EMERGENCY_CALL field is not included in this message or is included but is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include this field and shall set it as follows:

The mobile station shall set this field to ‘1’ if MS_INIT_POS_LOC_SUP_IND is equal to ‘1’ and if the mobile station is to initiate a position location session associated with this emergency call; otherwise, the mobile station shall set this field to ‘0’.

**QOS_PARMS_INCL** – Presence indicator for the QoS parameters.

If P_REV_IN_USEs is less than seven, the mobile station shall omit this field; otherwise the mobile station shall include this field and set it as follows.

The mobile station shall set this field to ‘1’, if QoS parameters are included in the message; otherwise the mobile station shall set this field to ‘0’. The mobile station shall not set this field to ‘1’, if MOB_QOSs is set to ‘0’ or if the inclusion of the QoS parameters would prevent the inclusion of all the dialed digits in the message.

**QOS_PARMS_LEN** – Length of the block of QoS parameters.
If QOS_PARMS_INCL is included and is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to the combined length in octets, of the QOS_PARMS field and the immediately following QOS_RESERVED field; otherwise, the mobile station shall omit this field.

QOS_PARMS - QoS parameters block.

If QOS_PARMS_INCL is included and is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set it to the set of QoS parameter values as defined in accordance with the requirements for the requested service option and/or for the user, per subscription.

QOS_RESERVED - QoS reserved bits.

If QOS_PARMS_INCL is included and is set to ‘1’, the mobile station shall include the minimum number of bits of ‘0’, such that the combined length of the QOS_PARMS field and of this field is an integer number of octets; otherwise, the mobile station shall omit this field.

ENC_INFO_INCL – Encryption fields included.

If P_REV_IN_USE is less than seven, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

The mobile station shall set this field to ‘1’ if the encryption related fields are included; otherwise the mobile station shall set this field to ‘0’. The mobile station shall set this field to ‘1’ if it is unable to determine the base station support for encryption. The mobile station shall set this field to ‘0’ if the base station does not support encryption or the mobile station does not support any of the encryption modes supported by the base station.

SIG_ENCRYPT_SUP – Signaling encryption supported indicator.

If ENC_INFO_INCL is included and is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, this field indicates which signaling encryption algorithms are supported by the mobile station.
This field consists of the subfields shown in Table 2.7.1.3.2.1-5.

If this field is included, the mobile station shall set the subfields as follows:

The mobile station shall set the CMEA subfield to ‘1’.

The mobile station shall set each other subfield to ‘1’ if the corresponding signaling encryption algorithm is supported by the mobile station; otherwise, the mobile station shall set the subfield to ‘0’.

The mobile station shall set the RESERVED subfield to ‘000000’.

---

**D_SIG_ENCRYPT_REQ** – Dedicated channel signaling encryption request indicator.

If ENC_INFO_INCL is included and is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to ‘1’ to request signaling encryption to be turned on for signaling messages sent on f-dsch, r-dsch, f-csch, and r-csch, and to ‘0’ to request signaling encryption to be turned off for signaling messages sent on f-dsch and r-dsch, f-csch, and r-csch.

---

**KEY_SEQ_NEW_INCL** – The new encryption key sequence number included indicator.

If ENC_INFO_INCL is included and is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field as follows:

If STORE_KEY is equal to ‘1’ and KEY_SEQ_NEW is included in this message, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

---

**C_SIG_ENCRYPT_REQ** – Common channel signaling encryption request indicator.

If ENC_INFO_INCL is included and is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to ‘1’ to request signaling encryption to be turned on for signaling messages sent on f-csch and r-csch, and to ‘0’ to request signaling encryption to be turned off for signaling messages sent on f-csch and r-csch.

---

**KEY_SEQ_NEW** – The key sequence number corresponding to the new encryption key generated by the mobile station.

If KEY_SEQ_NEW_INCL is included and is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to KEY_SEQ_NEW’s associated with the new encryption key generated by the mobile station.
ENC_SEQ_H - The 24 MSB of the EXT_ENC_SEQ

If SIG_ENCRYPT_SUP is included and the ECMEA or REA
subfield in SIG_ENCRYPT_SUP is set to ‘1’, if ENC_INFO_INCL
is included and is set to ‘1’, and the Enhanced Cellular
Message Encryption Algorithm is supported by the mobile
station, the mobile station shall include this field; otherwise,
the mobile station shall omit this field. If this field is
included, the mobile station shall set this field to the 24 most
significant bits of the EXT_ENC_SEQ to be used as the initial
value of crypto sync for both forward and reverse link
cryptions.

ENC_SEQ_H_SIG - The signature of ENC_SEQ_H

If ENC_SEQ_H is included, the mobile station shall include
this field; otherwise, the mobile station shall omit this field. If
this field is included, the mobile station shall set this field to
the digital signature of the ENC_SEQ_H as described in
2.3.12.4.5.

UI_ENCRYPT_REQ – Request for user information encryption on the traffic channel
indicator.

If ENC_INFO_INCL is included and is set to ‘1’, the mobile
station shall include this field; otherwise, the mobile station
shall omit this field. If this field is included, the mobile
station shall set this field to ‘1’ to request user information
encryption, and to ‘0’ to request no user information
encryption.

UI_ENCRYPT_SUP – User information encryption supported indicator.

If ENC_INFO_INCL is included and is set to ‘1’, the mobile
station shall include this field; otherwise, the mobile station
shall omit this field. If this field is included, the mobile
station shall set this field to indicate the supported user
information encryption algorithms.
This field consists of the subfields shown in Table 2.7.1.3.2.4-9.

Table 2.7.1.3.2.4-9. Encoding of the UI_ENCRYPT_SUP Field

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
<th>Subfield Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORYX</td>
<td>1</td>
<td>Support for ORYX encryption algorithm</td>
</tr>
<tr>
<td>REA</td>
<td>1</td>
<td>Support for the Rijndael encryption algorithm used in extended encryption</td>
</tr>
<tr>
<td>RESERVED</td>
<td>7</td>
<td>Reserved bits</td>
</tr>
</tbody>
</table>

The mobile station shall set each subfield to ‘1’ if the corresponding user information encryption algorithm is supported by the mobile station; otherwise, the mobile station shall set the subfield to ‘0’.

The mobile station shall set the RESERVED subfield to ‘0000000’.

SYNC_ID_INCL - SCR - Service Configuration synchronization identifier included indicator.

- If P_REV_IN_USE_s is less than seven, the mobile station shall omit this field; otherwise, the mobile station shall include this field and shall set it as follows:

The mobile station shall set this field to ‘1’ if the SYNC_ID field is included in this message; otherwise, the mobile station shall set this field to ‘0’.

SYNC_ID_LEN - Service Configuration synchronization identifier length indicator.

- If the SYNC_ID_INCL field is not included or is included and is set to ‘0’, the mobile station shall omit this field; otherwise the mobile station shall include this field and set it as follows:

The mobile station shall set this field to the length of the SYNC_ID field included in this message.

SYNC_ID - SCR - Service Configuration synchronization identifier.

- If P_REV_IN_USE_s is less than seven, the mobile station shall omit this field; otherwise, the mobile station shall include this field and shall set it as follows:

If the SYNC_ID_INCL field is not included, or is included but is set to ‘0’, the mobile station shall omit this field; otherwise,
The mobile station shall include this field and set it as follows:

The mobile station shall set this field to the Service Configuration synchronization identifier corresponding to the stored service configuration.

to the 16-bit CRC computed over the entire stored service configuration (that is, both the Service Configuration information record and the Non-negotiable Service Configuration information record) as specified in 2.6.11.

PREV_SID_INCL - Previous System Identification (SID) included indicator.

If P_REV_IN_USE is less than seven, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:

The mobile station shall set this field to ‘1’ if the mobile station determines that the SID has been changed after a packet data dormant handoff and the PREV_SID field is included in this message; otherwise, the mobile station shall set this field to ‘0’.

PREV_SID - Previous System Identification.

If PREV_SID_INCL is not included, or is included but is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:

If the mobile station determines SID has been changed after a packet data dormant handoff, the mobile station shall set this field to the previous SID.

PREV_NID_INCL - Previous Network Identification (NID) included indicator.

If P_REV_IN_USE is less than seven, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:

The mobile station shall set this field to ‘1’ if the mobile station determines that NID has been changed after a packet data dormant handoff and the PREV_NID field is included in this message; otherwise, the mobile station shall set this field to ‘0’.

PREV_NID - Previous Network Identification.

If PREV_NID_INCL is not included, or is included but is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:

If the mobile station determines NID has been changed after a packet data dormant handoff, the mobile station shall set this field to the previous NID.

PREV_PZID_INCL - Previous Packet Zone ID (PZID) included indicator.

If PREV_IN_USE is less than seven, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:
The mobile station shall set this field to ‘1’ if the mobile station determines that the Packet Zone ID has been changed after a packet data dormant handoff and the PREV_PZID field is included in this message; otherwise, the mobile station shall omit this field to ‘0’.

PREV_PZID - Previous Packet Zone ID.

If PREV_PZID_INCL is not included, or is included but is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:

If the mobile station determines PZID has been changed after a packet data dormant handoff, the mobile station shall set this field to the previous PZID.

SO_BITMAP_IND - Service option bitmap indicator.

If P_REV_IN_USEs is less than 7, the mobile station shall omit this field; otherwise, the mobile station shall set this field as defined in Table 2.7.1.3.2.4-10.

Table 2.7.1.3.2.4-10. Encoding of the SO_BITMAP_IND Field

<table>
<thead>
<tr>
<th>SO_BITMAP_IND</th>
<th>Size of bitmap (in bits) included</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>0 bit (i.e., No bitmap included)</td>
</tr>
<tr>
<td>01</td>
<td>4 bits</td>
</tr>
<tr>
<td>10</td>
<td>8 bits</td>
</tr>
<tr>
<td>11</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

SO_GROUP_NUM - Service option group number.

If SO_BITMAP_IND is included and not set to ‘00’, the mobile station shall include this field and set this field to service option group number defined in [TSB58][30], of the bitmap to be included in this message; otherwise, the mobile station shall omit this field.

SO_BITMAP - Service option bitmap.

If the field SO_BITMAP_IND is included and is not set to ‘00’, the mobile station shall include the bitmap of the service option group (SO_GROUP_NUM); otherwise, the mobile station shall omit this field.

When the service option bitmap is included, if there are more than \((4 \times SO_BITMAP_IND)\) service options defined in [TSB58][30] for the service option group [SO_GROUP_NUM], the mobile station shall include the bitmap containing the least significant bits \((4 \times SO_BITMAP_IND)\) for the service option group.
The mobile station shall set a bit in this bitmap to ‘1’, if the mobile station is capable of supporting the service option for which the bit represents; otherwise, the mobile station shall set a bit in this bitmap to ‘0’.
2.7.1.3.2.5 Page Response Message

**MSG_TAG:** PRM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOB_TERM</td>
<td>1</td>
</tr>
<tr>
<td>SLOT_CYCLE_INDEX</td>
<td>3</td>
</tr>
<tr>
<td>MOB_P_REV</td>
<td>8</td>
</tr>
<tr>
<td>SCM</td>
<td>8</td>
</tr>
<tr>
<td>REQUEST_MODE</td>
<td>3</td>
</tr>
<tr>
<td>SERVICE_OPTION</td>
<td>16</td>
</tr>
<tr>
<td>PM</td>
<td>1</td>
</tr>
<tr>
<td>NAR_AN_CAP</td>
<td>1</td>
</tr>
<tr>
<td>ENCRYPTION_SUPPORTED</td>
<td>0 or 4</td>
</tr>
<tr>
<td>NUM_ALT_SO</td>
<td>3</td>
</tr>
</tbody>
</table>

**NUM_ALT_SO** occurrences of the following field:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALT_SO</td>
<td>16</td>
</tr>
</tbody>
</table>

(continues on next page)
<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UZID_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>UZID</td>
<td>0 or 16</td>
</tr>
<tr>
<td>CH_IND</td>
<td>0 or 2</td>
</tr>
<tr>
<td>OTD_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>QPCH_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ENHANCED_RC</td>
<td>0 or 1</td>
</tr>
<tr>
<td>FOR_RC_PREF</td>
<td>0 or 5</td>
</tr>
<tr>
<td>REV_RC_PREF</td>
<td>0 or 5</td>
</tr>
<tr>
<td>FCH_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>FCH Capability Type-specific fields</td>
<td>0 or variable</td>
</tr>
<tr>
<td>DCCH_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>DCCH Capability Type-specific fields</td>
<td>0 or variable</td>
</tr>
<tr>
<td>REV_FCH_GATING_REQ</td>
<td>0 or 1</td>
</tr>
<tr>
<td>STS_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>3X_CCH_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>WLL_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>WLL_DEVICE_TYPE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>HOOK_STATUS</td>
<td>0 or 4</td>
</tr>
<tr>
<td>ENC_INFO_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>SIG_ENCRYPT_SUP</td>
<td>0 or 8</td>
</tr>
<tr>
<td>D.SIG_ENCRYPT_REQ</td>
<td>0 or 1</td>
</tr>
<tr>
<td>KEY_SEQ_NEW_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>C_SIG_ENCRYPT_REQ</td>
<td>0 or 1</td>
</tr>
<tr>
<td>KEY_SEQ_NEW</td>
<td>0 or 4</td>
</tr>
<tr>
<td>ENC_SEQ_H</td>
<td>0 or 24</td>
</tr>
<tr>
<td>ENC_SEQ_H_SIG</td>
<td>0 or 8</td>
</tr>
<tr>
<td>UI_ENCRYPT_REQ</td>
<td>0 or 1</td>
</tr>
<tr>
<td>UI_ENCRYPT_SUP</td>
<td>0 or 8</td>
</tr>
</tbody>
</table>

(continues on next page)
<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYNC_ID_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>SYNC_ID_LEN</td>
<td>0 or 4</td>
</tr>
<tr>
<td>SYNC_ID</td>
<td>0 or ((8 \times \text{SYNC_ID_LEN})) 16</td>
</tr>
</tbody>
</table>

If P_REV_IN_USEs is equal to or greater than 7, the mobile station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO_BITMAP_IND</td>
<td>0 or 2</td>
</tr>
<tr>
<td>SO_GROUP_NUM</td>
<td>0 or 5</td>
</tr>
<tr>
<td>SO_BITMAP</td>
<td>0 or (4 \times \text{SO_BITMAP_IND})</td>
</tr>
</tbody>
</table>

MOB_TERM – Mobile terminated calls accepted indicator.

If the mobile station is configured to accept mobile terminated calls while operating with the current roaming status (see 2.6.5.3), the mobile station shall set this bit to ‘1’. Otherwise, the mobile station shall set this bit to ‘0’.

SLOT_CYCLE_INDEX – Slot cycle index.

If the mobile station is configured for slotted mode operation, the mobile station shall set this field to the preferred slot cycle index, SLOT_CYCLE_INDEXP (see 2.6.2.1.1). Otherwise, the mobile station shall set this field to ‘000’.

MOB_P_REV – Protocol revision of the mobile station.

The mobile station shall set this field to ‘00000111’.

SCM – Station class mark.

The mobile station shall set this field to the station class mark of the mobile station. See 2.3.3.

REQUEST_MODE – Requested mode code. The mobile station shall set this field to the value shown in Table 2.7.1.3.2.4-1 corresponding to its current configuration.

SERVICE_OPTION – Service option.

If the mobile station accepts the service option specified by the mobile-station-addressed page, it shall set this field as follows:

- If the page record to which the mobile station is responding contained a SERVICE OPTION field, the mobile station shall set this field to the service option number specified in the SERVICE OPTION field of the page record to which the mobile station is responding.
- If the page record to which the mobile station is responding did not contain a SERVICE OPTION field, the
mobile station shall set this field to the default option number ‘0000000000000001’.

If the mobile station does not accept the service option specified by the mobile-station-addressed page to which the mobile station is responding and the mobile station has an alternative service option to request, the mobile station shall set this field to the service option code specified in [30] corresponding to the alternative service option.

If the mobile station does not accept the service option specified by the mobile-station-addressed page to which the mobile station is responding and the mobile station does not have an alternative service option to request, the mobile station shall set this field to ‘0000000000000000’ to reject the service option specified by the page record of the General Page Message or Universal Page Message to which the mobile station is responding.

PM – Privacy mode indicator.
To request voice privacy, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

NAR_AN_CAP – Narrow analog capability.
If the mobile station is capable of narrow analog operation, the mobile station shall set this bit to ‘1’; otherwise, the mobile station shall set this bit to ‘0’.

ENCRYPTION_SUPPORTED – Encryption algorithms supported by the mobile station.
If P_REV_IN_USE is greater than or equal to 7 or AUTH_MODE is equal to ‘00’, the mobile station shall omit this field. If P_REV_IN_USE is less than 7 and AUTH_MODE is not equal to ‘00’, then the mobile station shall set this field as specified in table 2.7.1.3.2.4-5.

NUM_ALT_SO – Number of alternative service options.
If P_REV_IN_USE is less than seven, the mobile station shall set this field to the number of alternative service options it supports other than the one specified in the SERVICE_OPTION field. The mobile station shall set this field to a value less than or equal to MAX_NUM_ALT_SO.
If P_REV_IN_USE is equal to or greater than seven, the mobile station shall set this field to the number of alternate service options, which either have no service option group number assigned or do not belong to the same service option group whose bitmap is being included. The alternate service option numbers are other than the one specified in the SERVICE_OPTION field. The mobile station shall set this field to a value less than or equal to MAX_NUM_ALT_SO.

ALT_SO – Alternative service option.
The mobile station shall include NUM_ALT_SO occurrences of this field. The mobile station shall set this field to the value specified in [30], corresponding to the alternative service option supported by the mobile station.

If P_REV_IN_USE₈ is equal to or greater than seven, the mobile station shall include NUM_ALT_SO occurrences of in this field. The mobile station shall set this field to the service option number defined in TSB58-[30] corresponding to the alternate service options which either have no service option group number assigned or do not belong to the same service option group whose bitmap is included in this message.

UZID_INCL – User Zone Identifier included indicator.

If P_REV_IN_USE₈ is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

If the message is to contain the User Zone Identifier, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

UZID – User Zone Identifier.

If the UZID_INCL field is included in the message and is set to ‘1’, the mobile station shall include this field and set it to UZID₈; otherwise, the mobile station shall omit this field.

CH_IND – Channel Indicator.

If P_REV_IN_USE₈ is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it, as shown in Table 2.7.1.3.2.5-1, to request physical resources.
### Table 2.7.1.3.2.5-1. Channel indicator

<table>
<thead>
<tr>
<th>CH_IND (binary)</th>
<th>Channel(s) Requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Reserved</td>
</tr>
<tr>
<td>01</td>
<td>Fundamental Channel</td>
</tr>
<tr>
<td>10</td>
<td>Dedicated Control Channel</td>
</tr>
<tr>
<td>11</td>
<td>Fundamental Channel and Dedicated Control Channel</td>
</tr>
</tbody>
</table>

**OTD_SUPPORTED** – Orthogonal transmit diversity supported indicator

If $P_{REV\_IN\_USE}$ is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

If the mobile station supports orthogonal transmit diversity, it shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

**QPCH_SUPPORTED** – Quick Paging Channel supported indicator.

If $P_{REV\_IN\_USE}$ is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

If the mobile station supports the Quick Paging Channel, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

**ENHANCED_RC** – Enhanced radio configuration supported indicator.

If $P_{REV\_IN\_USE}$ is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

If the mobile station supports any radio configuration in the Radio Configuration Class 2 (see 1.1.1), the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

**FOR_RC_PREF** – Forward Radio Configuration preference.

If $P_{REV\_IN\_USE}$ is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

The mobile station shall set this field to its preferred Radio Configuration for the Forward Traffic Channel.

**REV_RC_PREF** – Reverse Radio Configuration preference.

If $P_{REV\_IN\_USE}$ is less than six, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.
The mobile station shall set this field to its preferred Radio
Configuration for the Reverse Traffic Channel.

FCH_SUPPORTED – Fundamental Channel supported indicator.

If \text{P_{REV\_IN\_USE}_S} is less than six, the mobile station shall
omit this field; otherwise, the mobile station shall include this
field and set it as follows.

The mobile station shall set this field to ‘1’ if the mobile
station supports Fundamental Channel; otherwise, the mobile
station shall set this field to ‘0’.

FCH Capability Type-
specific fields – Fundamental Channel capability information.

If the FCH_SUPPORTED field is included and is set to ‘1’, the
mobile station shall include this field and set it as described
in 2.7.4.27.1; otherwise, the mobile station shall omit this
field.

DCCH_SUPPORTED – Dedicated Control Channel supported indicator.

If \text{P_{REV\_IN\_USE}_S} is less than six, the mobile station shall
omit this field; otherwise, the mobile station shall include this
field and set it as follows.

The mobile station shall set this field to ‘1’ if the mobile
station supports Dedicated Control Channel; otherwise, the
mobile station shall set this field to ‘0’.

DCCH Capability Type-
specific fields – Dedicated Control Channel capability information.

If DCCH_SUPPORTED is included and is set to ‘1’, the mobile
station shall include this field and set it as defined in
2.7.4.27.2; otherwise, the mobile station shall omit this
field.

REV_FCH-
_GATING_REQ – Reverse eighth gating mode request indicator.

If \text{P_{REV\_IN\_USE}} is less than six, the mobile station shall
omit this field; otherwise, the mobile station shall include this
field and set it as follows:

If the mobile station requests to turn on the reverse
Fundamental Traffic Channel gating mode in Radio
Configurations 3, 4, 5, and 6, the mobile station shall set this
field to ‘1’; otherwise, the mobile station shall set this field to
‘0’.

STS_SUPPORTED – STS supported indicator.

If \text{P_{REV\_IN\_USE}_S} is less than seven, the mobile station shall
omit this field; otherwise, the mobile station shall include this
field and set it as follows.

The mobile station shall set this field to ‘1’ if the mobile
station supports Space Time Spreading Transmit Diversity;
otherwise, the mobile station shall set this field to ‘0’.
3X_CCH_SUPPORTED – 3X Common Channels supported.

If P_REV_IN_USE is less than seven, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

The mobile station shall set this field to ‘1’ if the mobile station supports the Spreading Rate 3 common channels (3X BCCH, 3X F-CCCH, and 3X R-EACH); otherwise, the mobile station shall set this field to ‘0’.

WLL_INCL - WLL information included indicator.

If P_REV_IN_USE is less than seven, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

If the mobile station is a Wireless Local Loop device, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

WLLDEVICE_TYPE – WLL device type indicator.

If WLL_INCL is not included, or if WLL_INCL is included and is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall set this field as follows.

The mobile station shall set this field to the WLLDEVICE_TYPE value shown in Table 2.7.1.3.2.1-3 corresponding to the mobile station device type.

HOOK_STATUS – WLL terminal hook status.

If WLL_INCL is not included, or if WLL_INCL is included and is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall set this field to the value shown in Table 2.7.1.3.2.1-4 corresponding to the hook state.

ENC_INFO_INCL – Encryption fields included.

If P_REV_IN_USE is less than seven, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:

The mobile station shall set this field to ‘1’ if the encryption related fields are included; otherwise the mobile station shall set this field to ‘0’. The mobile station shall set this field to ‘1’ if it is unable to determine the base station support for encryption. The mobile station shall set this field to ‘0’ if the base station does not support encryption or the mobile station does not support any of the encryption modes supported by the base station.

SIG_ENCRYPT_SUP – Signaling encryption supported indicator.

If ENC_INFO_INCL is included and is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to indicate which signaling encryption algorithms are supported by the mobile station.
This field consists of the subfields shown in Table 2.7.1.3.2.1-5.

If this field is included, the mobile station shall set the subfields as follows:

The mobile station shall set the CMEA subfield to ‘1’.

The mobile station shall set each other subfield to ‘1’ if the corresponding signaling encryption algorithm is supported by the mobile station; otherwise, the mobile station shall set the subfield to ‘0’.

The mobile station shall set the RESERVED subfield to ‘000000’.

**D_SIG_ENCRYPT_REQ** – Dedicated channel signaling encryption request indicator.

If ENC_INFO_INCL is included and is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to ‘1’ to request signaling encryption to be turned on for signaling messages sent on f-dsch and r-dsch, f-csch, and r-csch, and to ‘0’ to request signaling encryption to be turned off for signaling messages sent on f-dsch and r-dsch, f-csch, and r-csch.

**KEY_SEQ_NEW_INCL** – The new encryption key sequence number included indicator.

If ENC_INFO_INCL is included and is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field as follows:

If STORE_KEY is equal to ‘1’ and KEY_SEQ_NEW is included in this message, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

**C_SIG_ENCRYPT_REQ** – Common channel signaling encryption request indicator.

If ENC_INFO_INCL is included and is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to ‘1’ to request signaling encryption to be turned on for signaling messages sent on f-csch and r-csch, and to ‘0’ to request signaling encryption to be turned off for signaling messages sent on f-csch and r-csch.

**KEY_SEQ_NEW** – The key sequence number corresponding to the new encryption key generated by the mobile station.

If KEY_SEQ_NEW_INCL is included and is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to KEY_SEQ_NEW, the sequence number associated with the new encryption key generated by the mobile station.

**ENC_SEQ_H** – The 24 MSB of the EXT_ENC_SEQ
If SIG_ENCRYPT_SUP is included and the ECMEA or REA subfield in SIG_ENCRYPT_SUP is set to ‘1’, if ENC_INFO_INCL is included and is equal to ‘1’, and the Enhanced Cellular Message Encryption Algorithm is supported by the mobile station, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to the 24 most significant bits of the EXT_ENC_SEQ to be used as the initial value of crypto sync for both forward and reverse link encryptions.

ENC_SEQ_H_SIG - The signature of ENC_SEQ_H

If the ENC_SEQ_H field is included in the message, the mobile station shall set this field to the digital signature of the ENC_SEQ_H as described in 2.3.12.4.5; otherwise, the mobile station shall omit this field.

UI_ENCRYPT_REQ – Request for user information encryption on the traffic channel indicator.

If ENC_INFO_INCL is included and is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to ‘1’ to request user information encryption, and to ‘0’ to request no user information encryption. UI_ENCRYPT_SUP – User information Encryption supported indicator.

If ENC_INFO_INCL is included and is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to indicate the supported user information encryption algorithms.
This field consists of the subfields shown in Table 2.7.1.3.2.4-9.

The mobile station shall set each subfield to ‘1’ if the corresponding user information encryption algorithm is supported by the mobile station; otherwise, the mobile station shall set the subfield to ‘0’.

The mobile station shall set the RESERVED subfield to ‘0000000’.

SYNC_ID_INCL - Service Configuration synchronization identifier included indicator.

If P_REV_IN_USEs is less than seven, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows.

The mobile station shall set this field to ‘1’ if the SYNC_ID field is included in this message; otherwise, the mobile station shall set this field to ‘0’.

SYNC_ID_LEN - Service Configuration synchronization identifier length indicator.

If the SYNC_ID_INCL field is not included or is included and is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:

The mobile station shall set this field to the length of the SYNC_ID field included in this message.

SYNC_ID - Service Configuration SCR synchronization identifier.

If the SYNC_ID_INCL field is not included, or is included and is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:

The mobile station shall set this field to the Service Configuration synchronization identifier corresponding to the stored service configuration.

to the 16-bit CRC computed over the entire stored service configuration (that is, both the Service Configuration information record and the Non-negotiable Service Configuration information record) as specified in 2.6.11.

SO_BITMAP_IND - SO bitmap indicator.

If P_REV_IN_USEs is less than 7, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set this field as defined in Table 2.7.1.3.2.4-10.

SO_GROUP_NUM - The service option group number.
If SO_BITMAP_IND is included and not set to ‘00’, the mobile station shall include this field and set this field to service option group number of the bitmap to be included in this message; otherwise, the mobile station shall omit this field.

SO_BITMAP - Service option bitmap.

If the field SO_BITMAP_IND field is included and is not set to ‘00’, the mobile station shall include the bitmap of the service option group (SO_GROUP_NUM); otherwise, the mobile station shall omit this field.

When the service option bitmap is included, if there are more than \((4 \times \text{SO_BITMAP_IND})\) service options defined for the service option group, the mobile station shall include the bitmap containing the least significant bits \((4 \times \text{SO_BITMAP_IND})\) of the service option group.

The mobile station shall set a bit in this bitmap to ‘1’, if the mobile station is capable of supporting the service option for which the bit represents; otherwise, the mobile station shall set a bit in this bitmap to ‘0’. 
2.7.1.3.2.6 Authentication Challenge Response Message

MSG_TAG: AUCRM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTHU</td>
<td>18</td>
</tr>
</tbody>
</table>

AUTHU – Authentication challenge response.

The mobile station shall set this field as specified in 2.3.12.1.4.
2.7.1.3.2.7 Status Response Message

MSG_TAG: STRPM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QUAL_INFO_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>QUAL_INFO_LEN</td>
<td>3</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>$8 \times \text{QUAL_INFO_LEN}$</td>
</tr>
</tbody>
</table>

One or more occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>$8 \times \text{RECORD_LEN}$</td>
</tr>
</tbody>
</table>

QUAL_INFO_TYPE – Qualification information type.

The mobile station shall set this field to the QUAL_INFO_TYPE field in the corresponding Status Request Message.

QUAL_INFO_LEN – Qualification information length.

The mobile station shall set this field to the QUAL_INFO_LEN field in the corresponding Status Request Message.

Type-specific fields – Type-specific fields.

The mobile station shall set these fields to the qualification information in the corresponding Status Request Message.

The mobile station shall include all the records requested in the corresponding Status Request Message. The mobile station shall include one occurrence of the following fields for each information record to be included:

RECORD_TYPE – Information record type.

The mobile station shall set this field to the record type value shown in Table 3.7.2.3.2.15-2 corresponding to the type of this information record.

RECORD_LEN – Information record length.

The mobile station shall set this field to the number of octets included in the type-specific fields of this information record.

Type-specific fields – Type-specific fields.

The mobile station shall set these fields to the information as specified in 2.7.4 for the specific type of records. The mobile station shall only specify the information corresponding to the included qualification information.
2.7.1.3.2.8 TMSI Assignment Completion Message

MSG_TAG: TACM

There are no Layer 3 fields associated with this message.
2.7.1.3.2.9 PACA Cancel Message

MSG_TAG: PACNM

There are no Layer 3 fields associated with this message.
2.7.1.3.2.10 Extended Status Response Message

MSG_TAG: ESTRPM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QUAL_INFO_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>QUAL_INFO_LEN</td>
<td>3</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>$8 \times$ QUAL_INFO_LEN</td>
</tr>
<tr>
<td>NUM_INFO_RECORDS</td>
<td>4</td>
</tr>
</tbody>
</table>

NUM_INFO_RECORDS occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>$8 \times$ RECORD_LEN</td>
</tr>
</tbody>
</table>

QUAL_INFO_TYPE – Qualification information type. The mobile station shall set this field to the QUAL_INFO_TYPE field in the corresponding Status Request Message.

QUAL_INFO_LEN – Qualification information length. The mobile station shall set this field to the QUAL_INFO_LEN field in the corresponding Status Request Message.

Type-specific fields – Type-specific fields. The mobile station shall set these fields to the qualification information in the corresponding Status Request Message.

NUM_INFO_RECORDS – Number of information records included. The mobile station shall set this field to the number of information records which are included. The mobile station shall include all the records requested in the corresponding Status Request Message.

The mobile station shall include one occurrence of the following fields for each information record which is included:

RECORD_TYPE – Information record type. The mobile station shall set this field to the record type value shown in Table 3.7.2.3.2.15-2 corresponding to the type of this information record.

RECORD_LEN – Information record length. The mobile station shall set this field to the number of octets included in the type-specific fields of this information record.
Type-specific fields – Type-specific fields.

The mobile station shall set these fields to the information as specified in 2.7.4 for the specific type of records. The mobile station shall only specify the information corresponding to the included qualification information.
2.7.1.3.2.11 Device Information Message

MSG_TAG: DIM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLL_DEVICE_TYPE</td>
<td>3</td>
</tr>
<tr>
<td>NUM_INFO_RECORDS</td>
<td>5</td>
</tr>
</tbody>
</table>

NUM_INFO_RECORDS occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>8 × RECORD_LEN</td>
</tr>
</tbody>
</table>

WLL_DEVICE_TYPE – WLL device type indicator.

The mobile station shall set this field to the WLL_DEVICE_TYPE value shown in Table 2.7.1.3.2.1-3 corresponding to the mobile station device type.

NUM_INFO_RECORDS – Number of information records included.

The mobile station shall set this field to the number of information records which are included.

The mobile station shall include one occurrence of the following fields for each information record which is included:

RECORD_TYPE – Information record type.

The mobile station shall set this field to the record type code shown in Table 2.7.4-1 corresponding to the type of this information record.

RECORD_LEN – Information record length.

The mobile station shall set this field to the number of octets in the type-specific fields of this record.

Type-specific fields – Type-specific fields.

The mobile station shall set these fields as specified in 2.7.4 for this type of information record.
2.7.1.3.2.12 Security Mode Request Message

MSG_TAG: SMRM

<table>
<thead>
<tr>
<th>Order-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UI_ENC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>UI_ENCRYPT_SUP</td>
<td>0 or 8</td>
</tr>
<tr>
<td>SIG_ENC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>SIG_ENCRYPT_SUP</td>
<td>0 or 8</td>
</tr>
<tr>
<td>C_SIG_ENCRYPT_REQ</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ENC_SEQ_H_INCL</td>
<td>1</td>
</tr>
<tr>
<td>ENC_SEQ_H</td>
<td>0 or 24</td>
</tr>
<tr>
<td>ENC_SEQ_H_SIG</td>
<td>0 or 8</td>
</tr>
</tbody>
</table>

UI_ENC_INCL – User information encryption fields included.

The mobile station shall set this field to ‘1’ if the user information encryption related fields are included in this message; otherwise, the mobile station shall set this field to ‘0’.

UI_ENCRYPT_SUP – User information encryption supported indicator.

If UI_ENC_INCL is equal to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to indicate the supported user information encryption algorithms.

This field consists of the subfields shown in Table 2.7.1.3.2.4-9.

The mobile station shall set each subfield to ‘1’ if the corresponding user information encryption algorithm is supported by the mobile station; otherwise, the mobile station shall set the subfield to ‘0’.

The mobile station shall set the RESERVED subfield to ‘0000000’.

SIG_ENC_INCL – Signaling encryption fields included.

The mobile station shall set this field to ‘1’ if the following two fields related to signaling encryption fields are included in this message; otherwise, the mobile station shall set this field to ‘0’.
SIG_ENCRYPT_SUP – Signaling Encryption supported indicator.

If SIG_ENCRYPT_SUP is equal to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to indicate the supported signaling encryption algorithms supported by the mobile station.

This field consists of the subfields shown in Table 2.7.1.3.2.1-5.

If this field is included, the mobile station shall set the subfields as follows:

The mobile station shall set the CMEA subfield to ‘1’.

The mobile station shall set each other subfield to ‘1’ if the corresponding signaling encryption algorithm is supported by the mobile station; otherwise, the mobile station shall set the subfield to ‘0’.

The mobile station shall set the RESERVED subfield to ‘000000’.

C.SIG_ENCRYPT_REQ – Common channel Signaling Message encryption request indicator.

If SIG_ENCRYPT_REQ is equal to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to ‘1’ to request signaling encryption to be turned on for signaling messages sent on f-dsch, r-dsch, f-csch, and r-csch, and to ‘0’ to request signaling encryption to be turned off for signaling messages sent on f-dsch, r-dsch, f-csch, and r-csch.

ENC_SEQ_H_INCL – The 24 MSB of the EXT_ENC_SEQ included.

The mobile station shall set this field to ‘1’ if ENC_SEQ_H is included in this message; otherwise, the mobile station shall set this field to ‘0’.

ENC_SEQ_H – The 24 MSB of the EXT_ENC_SEQ

If ENC_SEQ_H_INCL is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to the 24 most significant bits of the EXT_ENC_SEQ to be used as the initial value of crypto sync for both forward and reverse link encryptions.

ENC_SEQ_H_SIG – The signature of ENC_SEQ_H

If ENC_SEQ_H is included, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to the digital signature of the ENC_SEQ_H computed as described in 2.3.12.4.5.
2.7.2  r-dsch

During Traffic Channel operation, the mobile station sends signaling messages to the base station using the r-dsch.

2.7.2.1 Reserved

2.7.2.2 Reserved

2.7.2.3 PDU Formats for Messages on r-dsch

The messages sent on the r-dsch are summarized in Table 2.7.2.3-1.
<table>
<thead>
<tr>
<th>Message Name</th>
<th>MSG_TAG</th>
<th>Section Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order Message</td>
<td>ORDM</td>
<td>2.7.2.3.2.1</td>
</tr>
<tr>
<td>Authentication Challenge Response Message</td>
<td>AUCRM</td>
<td>2.7.2.3.2.2</td>
</tr>
<tr>
<td>Flash With Information Message</td>
<td>FWIM</td>
<td>2.7.2.3.2.3</td>
</tr>
<tr>
<td>Data Burst Message</td>
<td>DBM</td>
<td>2.7.2.3.2.4</td>
</tr>
<tr>
<td>Pilot Strength Measurement Message</td>
<td>PSMM</td>
<td>2.7.2.3.2.5</td>
</tr>
<tr>
<td>Power Measurement Report Message</td>
<td>PMRM</td>
<td>2.7.2.3.2.6</td>
</tr>
<tr>
<td>Send Burst DTMF Message</td>
<td>BDTFM</td>
<td>2.7.2.3.2.7</td>
</tr>
<tr>
<td>Status Message</td>
<td>STM</td>
<td>2.7.2.3.2.8</td>
</tr>
<tr>
<td>Origination Continuation Message</td>
<td>ORCM</td>
<td>2.7.2.3.2.9</td>
</tr>
<tr>
<td>Handoff Completion Message</td>
<td>HOCM</td>
<td>2.7.2.3.2.10</td>
</tr>
<tr>
<td>Parameters Response Message</td>
<td>PRSM</td>
<td>2.7.2.3.2.11</td>
</tr>
<tr>
<td>Service Request Message</td>
<td>SRQRM</td>
<td>2.7.2.3.2.12</td>
</tr>
<tr>
<td>Service Response Message</td>
<td>SRPM</td>
<td>2.7.2.3.2.13</td>
</tr>
<tr>
<td>Service Connect Completion Message</td>
<td>SCCM</td>
<td>2.7.2.3.2.14</td>
</tr>
<tr>
<td>Service Option Control Message</td>
<td>SOCM</td>
<td>2.7.2.3.2.15</td>
</tr>
<tr>
<td>Status Response Message</td>
<td>STRPM</td>
<td>2.7.2.3.2.16</td>
</tr>
<tr>
<td>TMSI Assignment Completion Message</td>
<td>TACM</td>
<td>2.7.2.3.2.17</td>
</tr>
<tr>
<td>Supplemental Channel Request Message</td>
<td>SCRM</td>
<td>2.7.2.3.2.18</td>
</tr>
<tr>
<td>Candidate Frequency Search Response Message</td>
<td>CFSRSM</td>
<td>2.7.2.3.2.19</td>
</tr>
<tr>
<td>Candidate Frequency Search Report Message</td>
<td>CFSRPM</td>
<td>2.7.2.3.2.20</td>
</tr>
<tr>
<td>Periodic Pilot Strength Measurement Message</td>
<td>PPSMM</td>
<td>2.7.2.3.2.21</td>
</tr>
<tr>
<td>Outer Loop Report Message</td>
<td>OLRM</td>
<td>2.7.2.3.2.22</td>
</tr>
<tr>
<td>Resource Request Message</td>
<td>RRM</td>
<td>2.7.2.3.2.23</td>
</tr>
<tr>
<td>Resource Request Mini Message</td>
<td>RRMM</td>
<td>2.7.2.3.2.24</td>
</tr>
<tr>
<td>Extended Release Response Message</td>
<td>ERRM</td>
<td>2.7.2.3.2.25</td>
</tr>
<tr>
<td>Extended Release Response Mini Message</td>
<td>ERRRM</td>
<td>2.7.2.3.2.26</td>
</tr>
<tr>
<td>Pilot Strength Measurement Mini Message</td>
<td>PSMMM</td>
<td>2.7.2.3.2.27</td>
</tr>
<tr>
<td>Supplemental Channel Request Mini Message</td>
<td>SCRM</td>
<td>2.7.2.3.2.28</td>
</tr>
<tr>
<td>Resource Release Request Message</td>
<td>RRRM</td>
<td>2.7.2.3.2.29</td>
</tr>
<tr>
<td>Resource Release Request Mini Message</td>
<td>RRRRM</td>
<td>2.7.2.3.2.30</td>
</tr>
<tr>
<td>User Zone Update Request Message</td>
<td>UZURM</td>
<td>2.7.2.3.2.31</td>
</tr>
<tr>
<td>Message Type</td>
<td>Short Code</td>
<td>Reference</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>------------</td>
<td>------------</td>
</tr>
<tr>
<td>Enhanced Origination Message</td>
<td>EOM</td>
<td>2.7.2.3.2.32</td>
</tr>
<tr>
<td>Extended Flash With Information Message</td>
<td>EFWIM</td>
<td>2.7.2.3.2.33</td>
</tr>
<tr>
<td>Extended Pilot Strength Measurement Message</td>
<td>EPSMM</td>
<td>2.7.2.3.2.34</td>
</tr>
<tr>
<td>Extended Handoff Completion Message</td>
<td>EHOCM</td>
<td>2.7.2.3.2.35</td>
</tr>
<tr>
<td>Security Mode Request Message</td>
<td>SMRM</td>
<td>2.7.2.3.2.36</td>
</tr>
<tr>
<td>Call Cancel Message</td>
<td>CLCM</td>
<td>2.7.2.3.2.37</td>
</tr>
<tr>
<td>Device Information Message</td>
<td>DIM</td>
<td>2.7.42.3.2.38</td>
</tr>
<tr>
<td>Base Station Status Request Message</td>
<td>BSSREQM</td>
<td>2.7.2.3.2.39</td>
</tr>
</tbody>
</table>
1  2.7.2.3.1 Reserved
2  2.7.2.3.2 Message Body Contents
2.7.2.3.2.1 Order Message

MSG_TAG: ORDM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORDER</td>
<td>6</td>
</tr>
<tr>
<td>ADD_RECORD_LEN</td>
<td>3</td>
</tr>
<tr>
<td>Order-specific fields (if used)</td>
<td>$8 \times \text{ADD}_\text{RECORD}_\text{LEN}$</td>
</tr>
<tr>
<td>CON_REF_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>CON_REF</td>
<td>0 or 8</td>
</tr>
</tbody>
</table>

ORDER – Order code.

The mobile station shall set this field to the ORDER code. See 2.7.3.

ADD_RECORD_LEN – Additional record length.

The mobile station shall set this field to the number of octets in the order-specific fields included in this message.

Order-specific fields – Order-specific fields.

The mobile station shall include order-specific fields as specified in 2.7.3.

CON_REF_INCL – Connection reference included indicator.

If the order carried by this message is not a Call Control order (2.6.10), the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:

The mobile station shall set this field to ‘1’ if the connection reference field is included in this message; otherwise, it shall set this field to ‘0’.

CON_REF – Connection reference.

If the CON_REF_INCL field is not included, or is included but is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include this field and shall set it to the value of the connection reference assigned to the service option connection of the call, to which this message corresponds.
2.7.2.3.2.2 Authentication Challenge Response Message

MSG_TAG: AUCRM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTHU</td>
<td>18</td>
</tr>
</tbody>
</table>

AUTHU – Authentication challenge response.

The mobile station shall set this field as specified in 2.3.12.1.4.
2.7.2.3.2.3 Flash With Information Message

MSG_TAG: FWIM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zero or more occurrences</td>
<td></td>
</tr>
<tr>
<td>RECORD_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>$8 \times \text{RECORD_LEN}$</td>
</tr>
</tbody>
</table>

The mobile station shall include one occurrence of the following record for each information record to be included:

- RECORD_TYPE – Information record type.
  - The mobile station shall set this field to the record type code shown in Table 2.7.4-1 corresponding to the type of this information record.

- RECORD_LEN – Information record length.
  - The mobile station shall set this field to the number of octets in the type-specific fields of this record.

- Type-specific fields – Type-specific fields.
  - The mobile station shall set these fields as specified in 2.7.4 for this type of information record.
### 2.7.2.3.2.4 Data Burst Message

**MSG_TAG**: DBM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSG_NUMBER</td>
<td>8</td>
</tr>
<tr>
<td>BURST_TYPE</td>
<td>6</td>
</tr>
<tr>
<td>NUM_MSGS</td>
<td>8</td>
</tr>
<tr>
<td>NUM_FIELDS</td>
<td>8</td>
</tr>
</tbody>
</table>

NUM_FIELDS occurrences of the following field:

| CHARi          | 8             |

**MSG_NUMBER** – Message number within the data burst stream.

The mobile station shall set this field to the number of this message within the data burst stream.

**BURST_TYPE** – Data burst type.

The mobile station shall set the value of this field for the type of this data burst as defined in [30]. If the mobile station sets this field equal to ‘111110’, it shall set the first two CHARi fields of this message equal to EXTENDED_BURST_TYPE_INTERNATIONAL as described in the definition of CHARi below. If the mobile station sets this field equal to ‘111111’, it shall set the first two CHARi fields of this message equal to the EXTENDED BURST_TYPE as described in the definition of CHARi below.

**NUM_MSGS** – Number of messages in the data burst stream.

The mobile station shall set this field to the number of messages within this data burst stream.

**NUM_FIELDS** – Number of characters in this message.

The mobile station shall set this field to the number of CHARi fields included in this message.

**CHARi** – Character.

The mobile station shall include NUM_FIELDS occurrences of this field. The mobile station shall set these fields to the corresponding octet of the data burst stream.
If the BURST_TYPE field of this message is equal to ‘111110’, the first two CHARi octets shall represent a 16 bit EXTENDED_BURST_TYPE_INTERNATIONAL field, which is encoded as shown below. The first ten bits of this field contain a binary mapping of the Mobile Country Code (MCC) associated with the national standards organization administering the use of the remaining octets of the message. Encoding of the MCC shall be as specified in 2.3.1.3. The remaining six bits of the EXTENDED_BURST_TYPE_INTERNATIONAL field shall specify the COUNTRY_BURST_TYPE. The mobile station shall set the value of the COUNTRY_BURST_TYPE according to the type of this data burst as defined in standards governed by the country where this data burst type is to be used.

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile Country Code</td>
<td>10</td>
</tr>
<tr>
<td>COUNTRY_BURST_TYPE</td>
<td>6</td>
</tr>
<tr>
<td>Remaining CHARi fields</td>
<td>8 × (NUM_FIELDS - 2)</td>
</tr>
</tbody>
</table>

If the BURST_TYPE field of this message is equal to ‘111111’, the first two CHARi octets shall represent a single, 16 bit, EXTENDED BURST TYPE field, as shown below. The mobile station shall set the value of the EXTENDED BURST_TYPE according to the type of this data burst as defined in [30].

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTENDED_BURST_TYPE (first two CHARi fields)</td>
<td>16</td>
</tr>
<tr>
<td>Remaining CHARi fields</td>
<td>8 × (NUM_FIELDS - 2)</td>
</tr>
</tbody>
</table>
2.7.2.3.2.5 Pilot Strength Measurement Message

MSG_TAG: PSMM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REF_PN</td>
<td>9</td>
</tr>
<tr>
<td>PILOT_STRENGTH</td>
<td>6</td>
</tr>
<tr>
<td>KEEP</td>
<td>1</td>
</tr>
</tbody>
</table>

Zero or more occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN_PHASE</td>
<td>15</td>
</tr>
<tr>
<td>PILOT_STRENGTH</td>
<td>6</td>
</tr>
<tr>
<td>KEEP</td>
<td>1</td>
</tr>
</tbody>
</table>

REF_PN – Time reference PN sequence offset.

The mobile station shall set this field to the PN sequence offset of the pilot used by the mobile station to derive its time reference, relative to the zero offset pilot PN sequence in units of 64 PN chips.

PILOT_STRENGTH – Pilot strength.

The mobile station shall set this field to \[\lceil -2 \times 10 \log_{10} PS \rceil, \] where PS is the strength of the pilot used by the mobile station to derive its time reference (see [2]), measured as specified in 2.6.6.2.2. If this value \(\lceil -2 \times 10 \log_{10} PS \rceil\) is less than 0, the mobile station shall set this field to '000000'. If this value is greater than '111111', the mobile station shall set this field to '111111'.

KEEP – Keep pilot indicator.

If the handoff drop timer (see 2.6.6.2.3) corresponding to the pilot used by the mobile station to derive its time reference (see 2.1.5 of [2]) has expired, the mobile station shall set this field to '0'; otherwise, the mobile station shall set this field to '1'.

If \(P_{REV\_IN\_USE} \leq 3\), the mobile station shall include one occurrence of the three-field record given below for each pilot in the Active Set and for each Candidate Set pilot reported (the number of Candidate Set pilots reported shall not exceed 5), other than the pilot identified by the REF_PN field. If \(P_{REV\_IN\_USE} > 3\) and \(SOFT\_SLOPE \leq 000000\), the mobile station shall include one occurrence of the three-field record given below for each pilot in the Active Set and for each Candidate Set pilot reported (the number of Candidate Set pilots reported shall not exceed 5), other than the pilot identified by the REF_PN field.
pilot in the Candidate Set, other than the pilot identified by the REF_PN field. If
P_REV_IN_USEs is greater than three and SOFT_SLOPEs is not equal to ‘000000’, the
mobile station shall include one occurrence of the three-field record given below for each
pilot in the Active Set, for each pilot in the Candidate Set whose strength exceeds T_ADD,
and shall also include one occurrence of the three-field record given below for each pilot in
the Candidate Set whose strength satisfies the following inequality:

\[ 10 \times \log_{10} \text{PS} > \frac{\text{SOFT SLOPE}_s}{8} \times 10 \times \log_{10} \sum_{i \in A} \text{PS}_i + \frac{\text{ADD_INTERCEPT}_s}{2} \]

where the summation is performed over all pilots currently in the Active Set. The mobile
station shall not include these fields for the pilot identified by the REF_PN field.

The mobile station shall order any occurrences of the three-field record given below which
correspond to pilots in the Active Set such that they occur before any occurrences of the
three-field record given below which correspond to pilots in the Candidate Set.

**PILOT_PN_PHASE** – Pilot measured phase.

The mobile station shall set this field to the phase of the pilot PN sequence relative to the zero offset pilot PN sequence of this pilot, in units of one PN chip, as specified in 2.6.6.2.4.

**PILOT_STRENGTH** – Pilot strength.

The mobile station shall set this field to

\[ \lfloor -2 \times 10 \log_{10} \text{PS} \rfloor, \]

where PS is the strength of this pilot, measured as specified in 2.6.6.2.2. If this value \( \lfloor -2 \times 10 \log_{10} \text{PS} \rfloor \) is less than 0, the mobile station shall set this field to ‘000000’. If this value is greater than ‘111111’, the mobile station shall set this field to ‘111111’.

**KEEP** – Keep pilot indicator.

If the handoff drop timer (see 2.6.6.2.3) corresponding to this pilot has expired, the mobile station shall set this field to ‘0’; otherwise, the mobile station shall set this field to ‘1’.
2.7.2.3.2.6 Power Measurement Report Message

MSG_TAG: PMRM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERRORS_DETECTED</td>
<td>5</td>
</tr>
<tr>
<td>PWR_MEAS_FRAMES</td>
<td>10</td>
</tr>
<tr>
<td>LAST_HDM_SEQ</td>
<td>2</td>
</tr>
<tr>
<td>NUM_PILOTS</td>
<td>4</td>
</tr>
<tr>
<td>NUM_PILOTS occurrences of the following field:</td>
<td></td>
</tr>
<tr>
<td>PILOT_STRENGTH</td>
<td>6</td>
</tr>
<tr>
<td>DCCH_PWR_MEAS_INCL</td>
<td>1</td>
</tr>
<tr>
<td>DCCH_PWR_MEAS_FRAMES</td>
<td>0 or 10</td>
</tr>
<tr>
<td>DCCH_ERRORS_DETECTED</td>
<td>0 or 5</td>
</tr>
<tr>
<td>SCH_PWR_MEAS_INCL</td>
<td>1</td>
</tr>
<tr>
<td>SCH_ID</td>
<td>0 or 1</td>
</tr>
<tr>
<td>SCH_PWR_MEAS_FRAMES</td>
<td>0 or 16</td>
</tr>
<tr>
<td>SCH_ERRORS_DETECTED</td>
<td>0 or 10</td>
</tr>
</tbody>
</table>

ERRORS_DETECTED – Number of detected bad frames.

When the Forward Fundamental Channel is assigned, the mobile station shall set this field to the number of bad frames detected [BAD_FRAMESₜ, see 2.6.4.1.1] on the Forward Fundamental Channel.

If P_REV_IN_USEₜ is greater than or equal to six and only the Forward Dedicated Control Channel is assigned, the mobile station shall set this field to the number of bad frames detected on the Forward Dedicated Control Channel [DCCH_BAD_FRAMESₜ, see 2.6.4.1.1].

If the number of bad frames received on this channel within the measurement period is less than or equal to 31, the mobile station shall set this field to that number. If that number exceeds 31, the mobile station shall set this field to ‘11111’.
PWR_MEAS_FRAMES – Number of power measurement frames.

When the Forward Fundamental Channel is assigned, the mobile station shall set this field to the number of frames received on the Forward Fundamental Channel within the measurement period (TOT_FRAMES, see 2.6.4.1.1).

If P_REV_IN_USE is greater than or equal to six and only the Dedicated Control Channel is assigned, the mobile station shall set this field to the number of frames received on the Dedicated Control Channel (DCCH_TOT_FRAMES, see 2.6.4.1.1).

LAST_HDM_SEQ – Extended Handoff Direction Message or a General Handoff Direction Message, or Universal Handoff Direction Message sequence number.

If an Extended Handoff Direction Message, a General Handoff Direction Message, or Universal Handoff Direction Message has been received during this call, the mobile station shall set this field to the value of the HDM_SEQ field from the Extended Handoff Direction Message, the General Handoff Direction Message or the Universal Handoff Direction Message that determined the current Active Set. If no Extended Handoff Direction Message, General Handoff Direction Message, or Universal Handoff Direction Message has been received during this call, the mobile station shall set this field to ‘11’.

NUM_PILOTS – Number of pilots reported.

The mobile station shall set this field to the number of pilots in the current Active Set.

PILOT_STRENGTH – Pilot strength.

The mobile station shall include one occurrence of this field for each pilot in the Active Set. If the Active Set contains more than one pilot, the mobile station shall include the pilot strengths in the same order as in the Extended Channel Assignment Message, Extended Handoff Direction Message, General Handoff Direction Message or the Universal Handoff Direction Message that determined the current Active Set.

The mobile station shall set each occurrence of this field to

\[-2 \times 10 \log_{10} PS\],

where PS is the strength of the pilot, measured as specified in 2.6.6.2.2. If this value \(-2 \times 10 \log_{10} PS\) is less than 0, the mobile station shall set this field to ‘000000’. If this value is greater than ‘111111’, the mobile station shall set this field to ‘111111’.

DCCH_PWR_MEAS_INCL - Forward Dedicated Control Channel power measurement included.
If both Forward Fundamental Channel and Forward Dedicated Control Channel are assigned, the mobile station shall set this field equal to ‘1’; otherwise, the mobile shall set this field to ‘0’.

DCCH_PWR_MEAS_FRAMES - Number of received Dedicated Control Channel frames.

If DCCH_PWR_MEAS_INCL is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall set this field to the number of frames received on the Dedicated Control Channel within the measurement period (DCCH_TOT_FRAMESs, see 2.6.4.1.1).

DCCH_ERRORS_DETECTED - Number of detected bad Dedicated Control Channel frames.

If DCCH_PWR_MEAS_INCL is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall set this field to the number of bad frames (DCCH_BAD_FRAMESs) detected on the Forward Dedicated Control Channel.

If DCCH_BAD_FRAMESs exceeds 31, the mobile station shall set this field to ‘11111’; otherwise, the mobile station shall set this field to DCCH_BAD_FRAMESs [see 2.6.4.1.1).

SCH_PWR_MEAS_INCL - Supplemental Channel power measurement included indicator.

If FOR_SCH_FER_REP is set to ‘1’ and this message is to report the frame counts at the end of the burst on an assigned Supplemental Channel, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to SCH_PWR_MEAS_INCL.

SCH_ID - Forward Supplemental Channel identifier.

If the SCH_PWR_MEAS_INCL is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile shall set this field to the Identifier of the Forward Supplemental Channel of which the frame counts are being reported in this message.

SCH_PWR_MEAS_FRAMES - Number of received Supplemental Channel frames.

If SCH_PWR_MEAS_INCL is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall set this field to the total number of frames (SCH_TOT_FRAMESs) received during the burst duration on the Supplemental Channel specified by SCH_ID. If this measurement is greater than or equal to $2^{16} - 1$, the mobile station shall set this field to ‘1111111111111111’.

SCH_ERRORS_DETECTED - Number of detected bad Supplemental Channel frames.
If SCH_PWR_MEAS_INCL is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall set this field to the number of bad frame detected on the Forward Supplemental Channel of the SCH_ID for the duration of the forward burst on this channel.

If the number of bad frames (SCH_BAD_FRAMES) detected on the SCH_ID Supplemental Channel during the burst is greater than 1023, the mobile station shall set this field to ‘1111111111’.
2.7.2.3.2.7 Send Burst DTMF Message

MSG_TAG: BDTFM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUM_DIGITS</td>
<td>8</td>
</tr>
<tr>
<td>DTMF_ON_LENGTH</td>
<td>3</td>
</tr>
<tr>
<td>DTMF_OFF_LENGTH</td>
<td>3</td>
</tr>
</tbody>
</table>

NUM_DIGITS occurrences of the following field:

<table>
<thead>
<tr>
<th>DIGITi</th>
<th>4</th>
</tr>
</thead>
</table>

| CON_REF_INCL        | 1             |
| CON_REF             | 0 or 8        |

NUM_DIGITS – Number of DTMF digits.
The mobile station shall set this field to the number of DTMF digits included in this message.

DTMF_ON_LENGTH – DTMF pulse width code.
The mobile station shall set this field to the DTMF_ON_LENGTH value shown in Table 2.7.2.3.2.7-1 corresponding to the requested width of DTMF pulses to be generated by the base station.

**Table 2.7.2.3.2.7-1. Recommended DTMF Pulse Width**

<table>
<thead>
<tr>
<th>DTMF_ON_LENGTH Field (binary)</th>
<th>Recommended Pulse Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>95 ms</td>
</tr>
<tr>
<td>001</td>
<td>150 ms</td>
</tr>
<tr>
<td>010</td>
<td>200 ms</td>
</tr>
<tr>
<td>011</td>
<td>250 ms</td>
</tr>
<tr>
<td>100</td>
<td>300 ms</td>
</tr>
<tr>
<td>101</td>
<td>350 ms</td>
</tr>
</tbody>
</table>

All other DTMF_ON_LENGTH codes are reserved.
DTMF_OFF_LENGTH – DTMF inter-digit interval code.

The mobile station shall set this field to the DTMF_OFF_LENGTH value shown in Table 2.7.2.3.2.7-2 corresponding to the requested minimum interval between DTMF pulses to be generated by the base station.

Table 2.7.2.3.2.7-2. Recommended Minimum Inter-digit Interval

<table>
<thead>
<tr>
<th>DTMF_OFF_LENGTH Field (binary)</th>
<th>Recommended Minimum Inter-digit Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>60 ms</td>
</tr>
<tr>
<td>001</td>
<td>100 ms</td>
</tr>
<tr>
<td>010</td>
<td>150 ms</td>
</tr>
<tr>
<td>011</td>
<td>200 ms</td>
</tr>
</tbody>
</table>

All other DTMF_OFF_LENGTH codes are reserved.

DIGITi – DTMF digit.

The mobile station shall include one occurrence of this field for each DTMF digit to be generated by the base station. The mobile station shall set each occurrence of this field to the code value shown in Table 2.7.1.3.2.4-4 corresponding to the dialed digit.

CON_REF_INCL – Connection reference included indicator.

The mobile station shall set this field to ‘1’ if the connection reference field is included in this message; otherwise, it shall set this field to ‘0’.

CON_REF – Connection reference.

If the CON_REF_INCL field is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include this field and shall set it to the value of the connection reference assigned to the service option connection of the call, to which this message corresponds.
2.7.2.3.2.8 Status Message

MSG_TAG: STM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>$8 \times \text{RECORD_LEN}$</td>
</tr>
</tbody>
</table>

RECORD_TYPE – Information record type.

The mobile station shall set this field to the record type value shown in Table 2.7.4-1 corresponding to the type of this information record.

RECORD_LEN – Information record length.

The mobile station shall set this field to the number of octets included in the type-specific fields of this information record.

Type-specific fields – Type-specific fields.

The mobile station shall set these fields as specified in 2.7.4 for this type of record.
2.7.2.3.2.9 Origination Continuation Message
MSG_TAG: ORCM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIGIT_MODE</td>
<td>1</td>
</tr>
<tr>
<td>NUM_FIELDS</td>
<td>8</td>
</tr>
</tbody>
</table>

NUM_FIELDS occurrences of the following field:

<table>
<thead>
<tr>
<th>Field</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHARi</td>
<td>4 or 8</td>
</tr>
</tbody>
</table>

Zero or more occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD TYPE</td>
<td>8</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>8</td>
</tr>
</tbody>
</table>

Type-specific fields $8 \times$ RECORD_LEN

DIGIT_MODE – Digit mode indicator.

The mobile station shall set this field to the DIGIT_MODE value from the Origination Message for which this message is a continuation.

NUM_FIELDS – Number of dialed digits in this message.

The mobile station shall set this field to the number of dialed digits included in this message.

CHARi – A dialed digit or character.

The mobile station shall include NUM_FIELDS occurrences of this field. The mobile station shall include occurrences of this field for all dialed digits after those sent in the Origination Message of which this message is a continuation. If the DIGIT_MODE field is set to ‘0’, the mobile station shall set each occurrence of this field to the code value shown in Table 2.7.1.3.2.4-4 corresponding to the dialed digit. If the DIGIT_MODE field is set to ‘1’, the mobile station shall set each occurrence of this field to the ASCII representation corresponding to the dialed digit, as specified in [9], with the most significant bit set to ‘0’.

If the MORE_RECORDS field in the last Origination Message, of which this message is a continuation, is set to ‘1’, the mobile station shall include one or more occurrences of the following three-field record; otherwise, the mobile station shall not include the following record.

RECORD_TYPE – Information record type.

The mobile station shall set this field to the record type value shown in Table 2.7.4-1.
The mobile station shall not include the record type for QoS Parameters information record if MOB_QOS is equal to '0'.

RECORD_LEN – Information record length.

The mobile station shall set this field to the number of octets in the type-specific fields included in this record.

Type-specific fields – Type-specific fields.

The mobile station shall include type-specific fields as specified in 2.7.4.
2.7.2.3.2.10 Handoff Completion Message

MSG_TAG: HOCM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAST_HDM_SEQ</td>
<td>2</td>
</tr>
</tbody>
</table>

One or more occurrences of the following field:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
</tbody>
</table>

LAST_HDM_SEQ – Extended Handoff Direction Message, General Handoff Direction Message, or Universal Handoff Direction Message sequence number.

The mobile station shall set this field to the value of the HDM_SEQ field from the Extended Handoff Direction Message, General Handoff Direction Message, or the Universal Handoff Direction Message that determined the current Active Set.

PILOT_PN – Pilot PN sequence offset.

The mobile station shall include one occurrence of this field for each pilot in the current Active Set. The mobile station shall set this field to the pilot PN sequence offset, relative to the zero offset pilot PN sequence in units of 64 PN chips, for this pilot. If the Active Set contains more than one pilot, the mobile station shall include the pilot offsets in the same order as in the Extended Handoff Direction Message, the General Handoff Direction Message, or the Universal Handoff Direction Message that determined the current Active Set.
2.7.2.3.2.11 Parameters Response Message

MSG_TAG: PRSM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>One or more occurrences of the following record:</td>
<td></td>
</tr>
<tr>
<td>PARAMETER_ID</td>
<td>16</td>
</tr>
<tr>
<td>PARAMETER_LEN</td>
<td>10</td>
</tr>
<tr>
<td>PARAMETER</td>
<td>0 or PARAMETER_LEN + 1</td>
</tr>
</tbody>
</table>

The mobile station shall include one occurrence of the following three-field record for each occurrence of the PARAMETER_ID field in the Forward Traffic Channel Retrieve Parameters Message to which this message is a response. See Annex E.

PARAMETER_ID — Parameter identification.

The mobile station shall set this field to the value of the PARAMETER_ID field for this parameter from the Retrieve Parameters Message to which this message is a response.

PARAMETER_LEN — Parameter length.

The mobile station shall set this field to the length shown in Table E-1 corresponding to this PARAMETER_ID.

If the mobile station is unable to return the value of this parameter, or if the parameter identification is unknown, the mobile station shall set this field to ‘1111111111’.

PARAMETER — Parameter value.

The mobile station shall set this field equal to the value of the parameter shown in Table E-1 corresponding to the PARAMETER_ID field of the record.

If the mobile station is unable to return the value of this parameter, or if the parameter identification is unknown, the mobile station shall omit this field.
2.7.2.3.2.12 Service Request Message

MSG_TAG: SRQM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SERV_REQ_SEQ</td>
<td>3</td>
</tr>
<tr>
<td>REQ_PURPOSE</td>
<td>4</td>
</tr>
</tbody>
</table>

Zero or one occurrence of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>8</td>
</tr>
</tbody>
</table>

Type-specific fields \(8 \times \text{RECORD\_LEN}\)

SERV_REQ_SEQ – Service request sequence number.

The mobile station shall set this field to the service request sequence number pertaining to this request message as specified in 2.6.4.1.2.1.1.

REQ_PURPOSE – Request purpose.

The mobile station shall set this field to the appropriate REQ_PURPOSE code from Table 2.7.2.3.2.12-1 to indicate the purpose of the message.

Table 2.7.2.3.2.12-1. REQ_PURPOSE Codes

<table>
<thead>
<tr>
<th>REQ_PURPOSE (binary)</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000</td>
<td>Indicates that the purpose of the message is to accept a proposed service configuration.</td>
</tr>
<tr>
<td>0001</td>
<td>Indicates that the purpose of the message is to reject a proposed service configuration.</td>
</tr>
<tr>
<td>0010</td>
<td>Indicates that the purpose of the message is to propose a service configuration.</td>
</tr>
</tbody>
</table>

All other REQ_PURPOSE codes are reserved.

If the REQ_PURPOSE code is set to ‘0010’, the mobile station shall include one occurrence of the following three-field record to specify the proposed service configuration; otherwise, the mobile station shall not include the following record:

RECORD_TYPE – Information record type.
The mobile station shall set this field to the record type value shown in Table 2.7.4-1 corresponding to the Service Configuration information record.

**RECORD_LEN** – Information record length.

The mobile station shall set this field to the number of octets included in the type-specific fields of the Service Configuration information record.

**Type-specific fields** – Type-specific fields.

The mobile station shall set these fields as specified in 3.7.5.7 for the Service Configuration information record.
2.7.2.3.2.13 Service Response Message

MSG_TAG: SRPM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SERV_REQ_SEQ</td>
<td>3</td>
</tr>
<tr>
<td>RESP_PURPOSE</td>
<td>4</td>
</tr>
</tbody>
</table>

Zero or one occurrence of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>$8 \times \text{RECORD_LEN}$</td>
</tr>
</tbody>
</table>

SERV_REQ_SEQ – Service request sequence number.

The mobile station shall set this field to the value of the SERV_REQ_SEQ field of the Service Request Message to which it is responding.

RESP_PURPOSE – Response purpose.

The mobile station shall set this field to the appropriate RESP_PURPOSE code from Table 2.7.2.3.2.13-1 to indicate the purpose of the message.

Table 2.7.2.3.2.13-1. RESP_PURPOSE Codes

<table>
<thead>
<tr>
<th>RESP_PURPOSE (binary)</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000</td>
<td>Indicates that the purpose of the message is to accept a proposed service configuration.</td>
</tr>
<tr>
<td>0001</td>
<td>Indicates that the purpose of the message is to reject a proposed service configuration.</td>
</tr>
<tr>
<td>0010</td>
<td>Indicates that the purpose of the message is to propose a service configuration.</td>
</tr>
</tbody>
</table>

All other RESP_PURPOSE codes are reserved.

If the RESP_PURPOSE field is set to ‘0010’, the mobile station shall include one occurrence of the following record to specify the proposed service configuration; otherwise, the mobile station shall not include the following record:
RECORD_TYPE – Information record type.

The mobile station shall set this field to the record type value shown in Table 2.7.4-1 corresponding to the Service Configuration information record.

RECORD_LEN – Information record length.

The mobile station shall set this field to the number of octets included in the type-specific fields of the Service Configuration information record.

Type-specific fields – Type-specific fields.

The mobile station shall set these fields as specified in 3.7.5.7 for the Service Configuration information record.
2.7.2.3.2.14 Service Connect Completion Message

MSG_TAG: SCCM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESERVED</td>
<td>1</td>
</tr>
<tr>
<td>SERV_CON_SEQ</td>
<td>3</td>
</tr>
</tbody>
</table>

RESERVED

Reserved bit.

The mobile station shall set this field to ‘0’.

SERV_CON_SEQ

Service connect sequence number.

The mobile station shall set this field to the value of the SERV_CON_SEQ field of the Service Connect Message to which it is responding.
2.7.2.3.2.15 Service Option Control Message

**MSG_TAG: SOCM**

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON_REF</td>
<td>8</td>
</tr>
<tr>
<td>SERVICE_OPTION</td>
<td>16</td>
</tr>
<tr>
<td>RESERVED</td>
<td>7</td>
</tr>
<tr>
<td>CTL_REC_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>$8 \times \text{CTL}<em>{-REC}</em>{-LEN}$</td>
</tr>
</tbody>
</table>

**CON_REF** – Service option connection reference.
The mobile station shall set this field to the reference for the target service option (see 2.6.4.1.2).

**SERVICE_OPTION** – Service option.
The mobile station shall set this field to the service option in use with the service option connection.

**RESERVED** – Reserved bits.
The mobile station shall set this field to ‘0000000’.

**CTL_REC_LEN** – Control record length.
The mobile station shall set this field to the number of octets included in the type-specific fields of this service option control record.

**Type-specific fields** – Type-specific fields.
The mobile station shall set these fields as specified by the requirements for the service option.
2.7.2.3.2.16 Status Response Message

MSG_TAG: STRPM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QUAL_INFO_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>QUAL_INFO_LEN</td>
<td>3</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>$8 \times \text{QUAL}<em>{-}\text{INFO}</em>{-}\text{LEN}$</td>
</tr>
</tbody>
</table>

One or more occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>$8 \times \text{RECORD}_{-}\text{LEN}$</td>
</tr>
</tbody>
</table>

QUAL_INFO_TYPE – Qualification information type.

The mobile station shall set this field to the QUAL_INFO_TYPE field in the corresponding Status Request Message.

QUAL_INFO_LEN – Qualification information length.

The mobile station shall set this field to the QUAL_INFO_LEN field in the corresponding Status Request Message.

Type-specific fields – Type-specific fields.

The mobile station shall set these fields to the qualification information in the corresponding Status Request Message.

The mobile station shall include all the records requested in the corresponding Status Request Message. The mobile station shall include one occurrence of the following fields for each information record that is included:

RECORD_TYPE – Information record type.

The mobile station shall set this field to the record type value shown in Table 3.7.2.3.2.15-2 corresponding to the type of this information record.

RECORD_LEN – Information record length.

The mobile station shall set this field to the number of octets included in the type-specific fields of this information record.

Type-specific fields – Type-specific fields.

The mobile station shall set these fields as specified in 2.7.4 for this type of record, according to the mobile station’s capabilities under the qualification information included in this message.
2.7.2.3.2.17 TMSI Assignment Completion Message

MSG_TAG: TACM

There are no Layer 3 fields associated with this message.
### Supplemental Channel Request Message

**MSG_TAG: SCRM**

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIZE_OF_REQ_BLOB</td>
<td>4</td>
</tr>
<tr>
<td>REQ_BLOB</td>
<td>$8 \times$ SIZE_OF_REQ_BLOB</td>
</tr>
<tr>
<td>USE_SCRM_SEQ_NUM</td>
<td>1</td>
</tr>
<tr>
<td>SCRM_SEQ_NUM</td>
<td>0 or 4</td>
</tr>
<tr>
<td>REF_PN</td>
<td>0 or 9</td>
</tr>
<tr>
<td>PILOT_STRENGTH</td>
<td>0 or 6</td>
</tr>
<tr>
<td>NUM_ACT_PN</td>
<td>0 or 3</td>
</tr>
</tbody>
</table>

If NUM_ACT_PN is included, the mobile station shall include NUM_ACT_PN occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT_PN_PHASE</td>
<td>15</td>
</tr>
<tr>
<td>ACT_PILOT_STRENGTH</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUM_NGHBR_PN</td>
<td>0 or 3</td>
</tr>
</tbody>
</table>

If NUM_NGHBR_PN is included, the mobile station shall include NUM_NGHBR_PN occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGHBR_PN_PHASE</td>
<td>15</td>
</tr>
<tr>
<td>NGHBR_PILOT_STRENGTH</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REF_PILOT_REC_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>REF_PILOT_REC_TYPE</td>
<td>0 or 3</td>
</tr>
</tbody>
</table>

(continues on next page)
If NUM_ACT_PN is included, the mobile station shall include NUM_ACT_PN occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_REC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>PILOT_REC_TYPE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>0 or 3</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>0 or 8 × RECORD_LEN</td>
</tr>
</tbody>
</table>

If NUM_NGHBR_PN is included, the mobile station shall include NUM_NGHBR_PN occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_REC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>PILOT_REC_TYPE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>0 or 3</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>0 or 8 × RECORD_LEN</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIZE_OF_REQ_BLOB</td>
<td>Size of the request information block of bytes (REQ_BLOB). The mobile station shall set this field to the number of bytes in the Reverse Supplemental Code Channel or the Reverse Supplemental Channel request block of bytes (REQ_BLOB).</td>
</tr>
<tr>
<td>REQ_BLOB</td>
<td>Reverse Supplemental Code Channel request block of bytes. The mobile station shall include information in this field containing the parameters that specify the characteristics of the Reverse Supplemental Code Channels or the Reverse Supplemental Channel request. The mobile station shall set this field in accordance with the connected Service Option.</td>
</tr>
<tr>
<td>USE_SCRM_SEQ_NUM</td>
<td>Use Supplemental Channel Request Message sequence number indicator. The mobile station shall set this field to ‘1’ if the Supplemental Channel Request Message sequence number is included in this message; otherwise, the mobile station shall set this field to ‘0’.</td>
</tr>
<tr>
<td>SCRM_SEQ_NUM</td>
<td>Supplemental Channel Request Message sequence number.</td>
</tr>
</tbody>
</table>
If USE_SCRM_SEQ_NUM is set to ‘1’, the mobile station shall set this field to the Supplemental Channel Request Message sequence number that the base station is to include in a Supplemental Channel Assignment Message or Extended Supplemental Channel Assignment Message which is in response to this message; otherwise, the mobile station shall omit this field.

**REF_PN** – Time reference PN sequence offset.

If SIZE_OF_REQ_BLOB is set to ‘0000’ and USE_SCRM_SEQ_NUM is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall set this field to the PN sequence offset of the pilot used by the mobile station to derive its time reference, relative to the zero offset pilot PN sequence in units of 64 PN chips.

**PILOT_STRENGTH** – Reference pilot strength.

If SIZE_OF_REQ_BLOB is set to ‘0000’ and USE_SCRM_SEQ_NUM is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall set this field to
\[ -2 \times 10 \log_{10} PS \]
where PS is the strength of the pilot used by the mobile station to derive its time reference (see 2.1.5 of [2]), measured as specified in 2.6.6.2.2. If this value \((-2 \times 10 \log_{10} PS)\) is less than 0, the mobile station shall set this field to ‘000000’. If this value is greater than ‘111111’, the mobile station shall set this field to ‘111111’.

**NUM_ACT_PN** – Number of reported pilots in the Active Set.

If SIZE_OF_REQ_BLOB is set to ‘0000’ and USE_SCRM_SEQ_NUM is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall set this field to the number of reported pilots in the Active Set other than the pilot identified by the REF_PN field.

If SIZE_OF_REQ_BLOB is set to ‘0000’ and USE_SCRM_SEQ_NUM is set to ‘0’, the mobile station shall not include any occurrence of the following record; otherwise, the mobile station shall include one occurrence of the following two-field record for each pilot in the Active Set other than the pilot identified by the REF_PN field:

**ACT_PN_PHASE** – Active pilot measured phase.

The mobile station shall set this field to the phase of this pilot PN sequence relative to the zero offset pilot PN sequence, in units of one PN chip, as specified in 2.6.6.2.4.

**ACT_PILOT_STRENGTH** – Active pilot strength.

The mobile station shall set this field to
\[ -2 \times 10 \log_{10} PS \]
where \( PS \) is the strength of this pilot, measured as specified in 2.6.6.2.2. If this value \( \{-2 \times 10 \log_{10} PS\} \) is less than 0, the mobile station shall set this field to ‘000000’. If this value is greater than 63, the mobile station shall set this field to ‘111111’.

NUM_NGHBR_PN – Number of reported neighbor pilots in the Candidate Set and the Neighbor Set. If SIZE_OF_REQ_BLOB is set to ‘0000’, the mobile station shall omit this field; otherwise, the mobile station shall set this field as follows:

The mobile station shall set this field to the number of reported pilots which are not in the Active Set and have measurable strength that exceeds \( (T_{ADD_s} - T_{MULCHAN_s}) \). \( (NUM_ACT_PN + NUM_NGHBR_PN) \) shall not exceed 8. If there are more than \( (8 - NUM_ACT_PN) \) pilots not in the Active Set with strength exceeding \( (T_{ADD_s} - T_{MULCHAN_s}) \), the mobile station shall set NUM_NGHBR_PN to \( (8 - NUM_ACT_PN) \) and report the NUM_NGHBR_PN strongest pilots not in the Active Set.

If SIZE_OF_REQ_BLOB is set to ‘0000’ and USE_SCRM_SEQ_NUM is set to ‘0’, the mobile station shall not include any occurrence of the following record; otherwise, the mobile station shall include one occurrence of the following two-field record for each of the NUM_NGHBR_PN reported pilots.

NGHBR_PN_PHASE – Neighbor pilot measured phase.

The mobile station shall set this field to the phase of this pilot PN sequence relative to the zero offset pilot PN sequence, in units of one PN chip, as specified in 2.6.6.2.4.

NGHBR_PILOT-_STRENGTH – Neighbor pilot strength.

The mobile station shall set this field to

\[ \{-2 \times 10 \times \log_{10} PS\}, \]

where \( PS \) is the strength of this pilot, measured as specified in 2.6.6.2.2. If this value \( \{-2 \times 10 \log_{10} PS\} \) is less than 0, the mobile station shall set this field to ‘000000’. If this value is greater than 63, the mobile station shall set this field to ‘111111’.

REF_PILOT_REC_INCL – Additional pilot information included indicator.

If SIZE_OF_REQ_BLOB is set to ‘0000’, the mobile station shall omit this field; otherwise, the mobile station shall set include this field and set it as follows:

The mobile station shall set this field to ‘1’ if additional reference pilot information listed in the REF_PILOT_REC_TYPE and REF_RECORD_LEN fields are included. The mobile station shall set this field to ‘0’ if the corresponding pilot is the common pilot and there is no additional pilot information included.
REF_PILOT_REC_TYPE – Reference pilot record type.

If REF_PILOT_REC_INCL is included and set to ‘0’, the mobile station shall omit this field. If REF_PILOT_REC_INCL is included and set to ‘1’, the mobile station shall set this field to the REF_PILOT_REC_TYPE value shown in Table 2.7.2.3.2.3 3334-1 corresponding to the type of Pilot Record specified by this record.

REF_RECORD_LEN – Pilot record length for the reference pilot.

If REF_PILOT_REC_INCL is included and set to ‘0’, the mobile station shall omit this field. If REF_PILOT_REC_INCL is included and set to ‘1’, the mobile station shall set this field to the number of octets in the type-specific fields of this pilot record.

Type-specific fields – Pilot record type-specific fields for the reference pilot.

If REF_PILOT_REC_INCL is included and set to ‘0’, the mobile station shall omit this field. If REF_PILOT_REC_INCL is included and set to ‘1’, the mobile station shall include type-specific fields based on the REF_PILOT_REC_TYPE of this pilot record.

If REF_PILOT_REC_TYPE is equal to ‘000’, the mobile station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QOF</td>
<td>2</td>
</tr>
<tr>
<td>WALSH_LENGTH</td>
<td>3</td>
</tr>
<tr>
<td>PILOT_WALSH</td>
<td>(WALSH_LENGTH + 6)</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 to 7 (as needed)</td>
</tr>
</tbody>
</table>

QOF – Quasi-orthogonal function index.

The mobile station shall set this field to the index of the Quasi-orthogonal function of the corresponding Auxiliary Pilot.

WALSH_LENGTH – Length of the Walsh code for the reference pilot.

The mobile station shall set this field to the WALSH_LENGTH value shown in Table 2.7.2.3.2.343-2 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary Pilot.

PILOT_WALSH – Walsh code for the Auxiliary Pilot used by the mobile station to derive its time reference.
The mobile station shall set this field to the Walsh code corresponding to the Auxiliary Pilot.

**RESERVED** – Reserved bits.

The base station shall set all the bits of this field to ‘0’ to make the entire record octet-aligned.

If SIZE_OF_REQ_BLOB is set to ‘0000’ and USE_SCRM_SEQ_NUM is set to ‘0’, the mobile station shall not include any occurrence of the following record; otherwise, the mobile station shall include one occurrence of the following record for each pilot in the Active Set other than the pilot identified by the REF_PN field:

**PILOT_REC_INCL** – Additional pilot information included indicator.

The mobile station shall set this field to ‘1’ if additional pilot information listed in the PILOT_REC_TYPE and RECORD_LEN fields are included. The mobile station shall set this field to ‘0’ if the corresponding pilot is the common pilot and there is no additional pilot information included.

**PILOT_REC_TYPE** – Reference pilot record type.

If PILOT_REC_INCL is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall set this field to the PILOT_REC_TYPE value shown in Table 3.7.2.3.2.1 corresponding to the type of Pilot Record specified by this record.

**RECORD_LEN** – Pilot record length.

If PILOT_REC_INCL is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall set this field to the number of octets in the type-specific fields of this pilot record.

**Type-specific fields** – Pilot record type-specific fields.

If PILOT_REC_INCL is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include type-specific fields based on the PILOT_REC_TYPE of this pilot record as described in 3.7.6.1.

If SIZE_OF_REQ_BLOB is set to ‘0000’ and USE_SCRM_SEQ_NUM is set to ‘0’, the mobile station shall not include any occurrence of the following record; otherwise, the mobile station shall include one occurrence of the following record for each of the NUM_NGHBR_PN reported pilots:

**PILOT_REC_INCL** – Additional pilot information included indicator.

The mobile station shall set this field to ‘1’ if additional pilot information listed in the PILOT_REC_TYPE and RECORD_LEN fields are included. The mobile station shall set this field to ‘0’ if the corresponding pilot is the common pilot and there is no additional pilot information included.

**PILOT_REC_TYPE** – Reference pilot record type.
If PILOT_REC_INCL is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall set this field to the PILOT_REC_TYPE value shown in Table 3.7.2.3.2.33-1 corresponding to the type of Pilot Record specified by this record.

**RECORD_LEN** – Pilot record length.

If PILOT_REC_INCL is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall set this field to the number of octets in the type-specific fields of this pilot record.

**Type-specific fields** – Pilot record type-specific fields.

If PILOT_REC_INCL is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include type-specific fields based on the PILOT_REC_TYPE of this pilot record as described in 3.7.6.1.
2.7.2.3.2.19 Candidate Frequency Search Response Message

MSG_TAG: CFSRSM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAST_CFSRM_SEQ</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL_OFF_TIME_FWD</td>
<td>6</td>
</tr>
<tr>
<td>MAX_OFF_TIME_FWD</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL_OFF_TIME_REV</td>
<td>6</td>
</tr>
<tr>
<td>MAX_OFF_TIME_REV</td>
<td>6</td>
</tr>
<tr>
<td>PCG_OFF_TIMES</td>
<td>1</td>
</tr>
<tr>
<td>ALIGN_TIMING_USED</td>
<td>1</td>
</tr>
<tr>
<td>MAX_NUM_VISITS</td>
<td>0 or 5</td>
</tr>
<tr>
<td>INTER_VISIT_TIME</td>
<td>0 or 6</td>
</tr>
</tbody>
</table>

LAST_CFSRM_SEQ – Candidate Frequency Search Request Message sequence number.

The mobile station shall set this field to the value of the CFSRM_SEQ field from the Candidate Frequency Search Request Message to which this message is a response.

TOTAL_OFF_TIME_FWD – Total time that the mobile station is off the Forward Traffic Channel.

The mobile station shall set this field to the mobile station’s estimate of the total number of frames or power control groups for which the mobile station will need to suspend its current Forward Traffic Channel processing in order to tune to the Candidate Frequency, to perform the requested search, and to re-tune to the Serving Frequency. If the mobile station requires multiple visits to the Candidate Frequency to complete the requested search, the mobile station shall set this field to the total number of frames (if PCG_OFF_TIME is set to ‘0’) or power control groups (if PCG_OFF_TIME is set to ‘1’) for all visits to the Candidate Frequency in a search period.

MAX_OFF_TIME_FWD – Maximum time the mobile station is away from the Forward Traffic Channel.
The mobile station shall set this field to the mobile station’s estimate of the maximum number of frames (if PCG_OFF_TIME is set to ‘0’) or power control groups (if PCG_OFF_TIME is set to ‘1’) for which the mobile station will need to suspend its current Forward Traffic Channel processing during a visit to the Candidate Frequency, to perform a part of the requested search, and to re-tune to the Serving Frequency.

**TOTAL_OFF_TIME_REV** – Total time that the mobile station is away from the Reverse Traffic Channel.

The mobile station shall set this field to the mobile station’s estimate of the total number of frames or power control groups for which the mobile station will need to suspend its current Reverse Traffic Channel processing in order to tune to the Candidate Frequency, to perform the requested search, and to re-tune to the Serving Frequency. If the mobile station requires multiple visits to the Candidate Frequency to complete the requested search, the mobile station shall set this field to the total number of frames or power control groups for all visits to the Candidate Frequency in a search period.

**MAX_OFF_TIME_REV** – Maximum time the mobile station is away from the Reverse Traffic Channel.

The mobile station shall set this field to the mobile station’s estimate of the maximum number of frames or power control groups for which the mobile station will need to suspend its current Forward Traffic Channel processing during a visit to the Candidate Frequency, to perform a part of the requested search, and to re-tune to the Serving Frequency.

**PCG_OFF_TIMES** – Indicator if off times are expressed in units of power control groups.

If P_REV_IN_USEs is less than six, the mobile station shall set this field to ‘0’; otherwise, the mobile station shall set this field as follows:

The mobile station shall set this field to ‘1’ if it expresses TOTAL_OFF_TIME_FWD, MAX_OFF_TIME_FWD, TOTAL_OFF_TIME_REV, and MAX_OFF_TIME_REV in units of power control groups; otherwise, the mobile station shall set this field to ‘0’ so that TOTAL_OFF_TIME_FWD, MAX_OFF_TIME_FWD, TOTAL_OFF_TIME_REV, and MAX_OFF_TIME_REV are expressed in units of frames.

**ALIGN_TIMING_USED** – Alignment timing used indicator.

The mobile station shall set this field to ‘1’ if it will align the times of its visits away from the Serving Frequency, as requested by the base station; otherwise, the mobile station shall set this field to ‘0’.

**MAX_NUM_VISITS** – Maximum number of visits per search period.
If the ALIGN_TIMING_USED field is set to '0', the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it to the maximum number of visits per search period minus one.

**INTER_VISIT_TIME** – Inter-visit time.

If the mobile station includes the MAX_NUM_VISITS field and sets it to a value other than 0, the mobile station shall include this field and set it as described below; otherwise, the mobile station shall omit this field.

The mobile station shall set INTER_VISIT_TIME to

\[
\min (63, \left\lceil \frac{\text{inter\_visit\_time}}{\text{search\_time\_resolution}} \right\rceil)
\]

where

- \(\text{search\_time\_resolution}\) is equal to 0.02 if the mobile station sets PCG_OFF_TIMES to ‘0’; otherwise, \(\text{search\_time\_resolution}\) is equal to 0.00125,

and

- \(\text{inter\_visit\_time}\) is the mobile station’s estimate of the time, in seconds, between the beginning of consecutive visits away from the Serving Frequency.
## 2.7.2.3.2.20 Candidate Frequency Search Report Message

**MSG_TAG:** CFSRPM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAST_SRCH_MSG</td>
<td>1</td>
</tr>
<tr>
<td>LAST_SRCH_MSG_SEQ</td>
<td>2</td>
</tr>
<tr>
<td>SEARCH_MODE</td>
<td>4</td>
</tr>
<tr>
<td>MODE_SPECIFIC_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Mode-specific fields</td>
<td>$8 \times$ MODE_SPECIFIC_LEN</td>
</tr>
</tbody>
</table>

- **LAST_SRCH_MSG** – Indicator for the type of message that started the search being reported.
  
  If this message is being sent to report the results of a single search or a periodic search started by a *Candidate Frequency Search Control Message* or by a *Candidate Frequency Search Request Message*, the mobile station shall set this field to ‘0’; otherwise, the mobile station shall set this field to ‘1’.

- **LAST_SRCH_MSG_SEQ** – Sequence number received in the message that started the search being reported.
  
  If this message is being sent in response to a *Candidate Frequency Search Control Message*, the mobile station shall set this field to the value of the CFSCM_SEQ field from the *Candidate Frequency Search Control Message*.

  If this message is being sent in response to a *Candidate Frequency Search Request Message*, the mobile station shall set this field to the value of the CFSRM_SEQ field from the *Candidate Frequency Search Request Message*.

  If this message is being sent in response to a *General Handoff Direction Message* or a *Universal Handoff Direction Message*, the mobile station shall set this field to the value of the HDM_SEQ field from the *General Handoff Direction Message* or the *Universal Handoff Direction Message*.

- **SEARCH_MODE** – Search mode.
  
  The mobile station shall set this field to the SEARCH_MODE value shown in Table 3.7.3.3.2.27-2 corresponding to the type of search specified by the *Candidate Frequency Search Request Message* that specified the search parameters.

- **MODE_SPECIFIC_LEN** – Length of mode-specific fields included in this message.

- Mode-specific fields – Search mode-specific fields.
The mobile station shall include mode-specific fields based on the SEARCH_MODE of this message.

If SEARCH_MODE is equal to ‘0000’, the mobile station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAND_CLASS</td>
<td>5</td>
</tr>
<tr>
<td>CDMA_FREQ</td>
<td>11</td>
</tr>
<tr>
<td>SF_TOTAL_RX_PWR</td>
<td>5</td>
</tr>
<tr>
<td>CF_TOTAL_RX_PWR</td>
<td>5</td>
</tr>
<tr>
<td>NUM_PILOTS</td>
<td>6</td>
</tr>
</tbody>
</table>

NUM_PILOTS occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN_PHASE</td>
<td>15</td>
</tr>
<tr>
<td>PILOT_STRENGTH</td>
<td>6</td>
</tr>
<tr>
<td>RESERVED_1</td>
<td>3</td>
</tr>
</tbody>
</table>

NUM_PILOTS occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_REC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>PILOT_REC_TYPE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>0 or 3</td>
</tr>
</tbody>
</table>

Type-specific fields 0 or $8 \times$ RECORD_LEN

**BAND_CLASS** - Band class.

If this message is being sent to report an unsuccessful hard handoff attempt, the mobile station shall set this field to the CDMA band class corresponding to the CDMA Frequency Assignment for the Target Frequency, as specified in [30]. If this message is being sent to report measurements on a Candidate Frequency, the mobile station shall set this field to the CDMA band class corresponding to the CDMA Frequency Assignment for the Candidate Frequency, as specified in 3.1.1.1 of [2].

**CDMA_FREQ** - Frequency assignment.

If this message is being sent to report an unsuccessful hard handoff attempt, the mobile station shall set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA Frequency Assignment for the Target Frequency, as specified in 3.1.1.1 of [2]. If this message is being sent to report measurements on a Candidate Frequency, the mobile station shall set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA Frequency Assignment for the Candidate Frequency, as specified in 3.1.1.1 of [2].
SF_TOTAL_RX_PWR – Total received power on the Serving Frequency.

The mobile station shall set this field to

$$\min (31, \lceil (10 \times \log_{10}(\text{total\_received\_power}) + 110) / 2 \rceil)$$

where total\_received\_power is the mean input power received by the mobile station on the Serving Frequency, in mW/1.23 MHz.

CF_TOTAL_RX_PWR – Indicates the total received power on the Target Frequency or the Candidate Frequency.

If this message is being sent to report an unsuccessful hard handoff attempt, the mobile station shall include the total received power on the Target Frequency; if this message is being sent to report measurements on a Candidate Frequency, the mobile station shall include the total received power on the Candidate Frequency.

The mobile station shall set this field to

$$\min (31, \lceil (10 \times \log_{10}(\text{total\_received\_power}) + 110) / 2 \rceil)$$

where total\_received\_power is the mean input power received by the mobile station on the Target Frequency or the Candidate Frequency, in mW/1.23 MHz.

NUM_PILOTS – Number of pilots.

The mobile station shall set this field to the number of pilots included in this message. The mobile station shall set this field to a value from 0 to N8m, inclusive.

The mobile station shall include NUM_PILOTS occurrences of the following three-field record:

PILOT_PN_PHASE – Pilot measured phase.

The mobile station shall set this field to the phase of the pilot PN sequence relative to the zero offset pilot PN sequence of this pilot, in units of one PN chip, as specified in 2.6.6.2.4.

PILOT_STRENGTH – Pilot strength.

The mobile station shall set this field to

$$\lfloor -2 \times 10 \times \log_{10}\text{PS} \rfloor,$$

where PS is the strength of this pilot, measured as specified in 2.6.6.2.2. If this value $$\lfloor -2 \times 10 \log_{10}\text{PS} \rfloor$$ is less than 0, the mobile station shall set this field to ‘000000’. If this value is greater than 63, the mobile station shall set this field to ‘111111’.

RESERVED_1 – Reserved bits.

The mobile station shall set this field to ‘000’. 
The mobile station shall include NUM_PILOTS occurrences of the following record in the same order as the pilots listed above.

**PILOT_REC_INCL** – Additional pilot information included indicator.

The mobile station shall set this field to ‘1’ if additional pilot information listed in the PILOT_REC_TYPE and RECORD_LEN fields are included. The mobile station shall set this field to ‘0’ if the corresponding pilot is the common pilot and there is no additional pilot information included.

**PILOT_REC_TYPE** – Reference Pilot record type

If PILOT_REC_INCL is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall set this field to the PILOT_REC_TYPE value shown in Table 2.7.2.3.2.343-1 corresponding to the type of Pilot Record specified by this record.

**RECORD_LEN** – Pilot record length.

If PILOT_REC_INCL is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall set this field to the number of octets in the type-specific fields of this pilot record.

**Type-specific fields** – Pilot record type-specific fields.

If PILOT_REC_INCL is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include type-specific fields based on the PILOT_REC_TYPE of this pilot record as described in 3.7.6.1.

If SEARCH_MODE is equal to ‘0001’, the mobile station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAND_CLASS</td>
<td>5</td>
</tr>
<tr>
<td>SF_TOTAL_RX_PWR</td>
<td>5</td>
</tr>
<tr>
<td>NUM_ANALOG_FREQS</td>
<td>3</td>
</tr>
<tr>
<td>RESERVED_2</td>
<td>5</td>
</tr>
</tbody>
</table>

NUM_ANALOG_FREQS occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANALOG_FREQ</td>
<td>11</td>
</tr>
<tr>
<td>SIGNAL_STRENGTH</td>
<td>6</td>
</tr>
</tbody>
</table>

RESERVED_3 0 - 7 (as needed)

**BAND_CLASS** – Band class.

The mobile station shall set this field to the CDMA band class corresponding to the analog frequencies that are being reported in this message, as specified in [30].
SF_TOTAL_RX_PWR – Indicates the total received power on the Serving Frequency. The mobile station shall set this field to

\[
\min(31, \lceil (10 \times \log_{10}(\text{total\_received\_power}) + 110) / 2 \rceil)
\]

where \(\text{total\_received\_power}\) is the mean input power received by the mobile station on the Serving Frequency, in mW/1.23 MHz.

NUM_ANALOG_FREQS – Number of analog frequencies. The base station shall set this field to the number of analog frequencies included in this message.

RESERVED_2 – Reserved bits. The mobile station shall set this field to ‘00000’.

The message will include NUM_ANALOG_FREQS occurrences of the following field record, one for each neighbor on the candidate frequency.

ANALOG_FREQ – Analog frequency channel number. The base station shall set this field analog frequency channel number to search.

SIGNAL_STRENGTH – Signal strength. The mobile station shall set this field to

\[
\lceil -0.5 \times \text{SS} \rceil,
\]

where SS is the strength of this signal, measured in dBm as specified in 2.6.6.2.10.3. If this value \(\lceil -0.5 \times \text{SS} \rceil\) is less than 0, the mobile station shall set this field to ‘000000’. If this value is greater than 63, the mobile station shall set this field to ‘111111’.

RESERVED_3 – The mobile station shall add reserved bits as needed in order to make the length of the entire message record equal to an integer number of octets. The mobile station shall set each of these bits to ‘0’.
2.7.2.3.2.21 Periodic Pilot Strength Measurement Message

MSG_TAG: PPSMM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REF_PN</td>
<td>9</td>
</tr>
<tr>
<td>PILOT_STRENGTH</td>
<td>6</td>
</tr>
<tr>
<td>KEEP</td>
<td>1</td>
</tr>
<tr>
<td>SF_RX_PWR</td>
<td>5</td>
</tr>
<tr>
<td>NUM_PILOT</td>
<td>4</td>
</tr>
</tbody>
</table>

NUM_PILOT occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN_PHASE</td>
<td>15</td>
</tr>
<tr>
<td>PILOT_STRENGTH</td>
<td>6</td>
</tr>
<tr>
<td>KEEP</td>
<td>1</td>
</tr>
</tbody>
</table>

NUM_PILOTS occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_REC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>PILOT_REC_TYPE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>0 or 3</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>0 or 8 × RECORD_LEN</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SETPT_INCL</td>
<td>1</td>
</tr>
<tr>
<td>FCH_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>FPC_FCH_CURR_SETPT</td>
<td>0 or 8</td>
</tr>
<tr>
<td>DCCH_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>FPC_DCCH_CURR_SETPT</td>
<td>0 or 8</td>
</tr>
<tr>
<td>NUM_SUP</td>
<td>0 or 2</td>
</tr>
</tbody>
</table>

If NUM_SUP is included, include NUM_SUP occurrences of the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCH_ID</td>
<td>1</td>
</tr>
<tr>
<td>FPC_SCH_CURR_SETPT</td>
<td>8</td>
</tr>
</tbody>
</table>

REF_PN - Time reference PN sequence offset.
The mobile station shall set this field to the PN sequence offset of the pilot used by the mobile station to derive its time reference, relative to the zero offset pilot PN sequence in units of 64 PN chips.

PILOT_STRENGTH - Pilot strength.

The mobile station shall set this field to

\[-2 \times 10 \times \log_{10} PS \],

where PS is the strength of the pilot used by the mobile station to derive its time reference (see [2]), measured as specified in 2.6.6.2.2. If this value is less than 0, the mobile station shall set this field to ‘000000’. If this value is greater than ‘111111’, the mobile station shall set this field to ‘111111’.

KEEP - Keep pilot indicator.

If the handoff drop timer (see 2.6.6.2.3) corresponding to the pilot used by the mobile station to derive its time reference (see [2]) has expired, the mobile station shall set this field to ‘0’; otherwise, the mobile station shall set this field to ‘1’.

SF_RX_PWR - The received power spectral density of the Serving Frequency.

The mobile station shall set this field to

\min (31, \left\lfloor \frac{(10 \times \log_{10}(spec\_density) + 120)}{2} \right\rfloor)

where spec\_density is the mobile station received power spectral density of the Serving Frequency, in mW/1.23MHz.

If this value is less than 0, the mobile station shall set this field to ‘00000’.

NUM_PILOT - Number of Pilots.

The mobile station shall set this field to the number of other reported pilots of the Active Set and the Candidate Set.

The mobile station shall include NUM_PILOT occurrences of the following three-field record, one for each pilot in the Active Set and one for each pilot in the Candidate Set, other than the pilot identified by the REF_PN field.

PILOT_PN_PHASE - Pilot measured phase.

The mobile station shall set this field to the phase of the pilot PN sequence relative to the zero offset pilot PN sequence of this pilot, in units of one PN chip, as specified in 2.6.6.2.4.

PILOT_STRENGTH - Pilot strength.

The mobile station shall set this field to

\[-2 \times 10 \times \log_{10} PS \],
where PS is the strength of this pilot, measured as specified in 2.6.6.2. If this value is less than 0, the mobile station shall set this field to ‘000000’. If this value is greater than ‘111111’, the mobile station shall set this field to ‘111111’.

**KEEP** - Keep pilot indicator.

If the handoff drop timer (see 2.6.6.2.3) corresponding to this pilot has expired, the mobile station shall set this field to ‘0’; otherwise, the mobile station shall set this field to ‘1’.

The mobile station shall include NUM_PILOTS occurrences of the following record in the same order as the pilots listed above.

**PILOT_REC_INCL** - Additional pilot information included indicator.

The mobile station shall set this field to ‘1’ if additional pilot information listed in the PILOT_REC_TYPE and RECORD_LEN fields are included. The mobile station shall set this field to ‘0’ if the corresponding pilot is the common pilot and there is no additional pilot information included.

**PILOT_REC_TYPE** - Reference Pilot record type

If PILOT_REC_INCL is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall set this field to the PILOT_REC_TYPE value shown in Table 2.7.2.3.2.34-1 corresponding to the type of Pilot Record specified by this record.

**RECORD_LEN** - Pilot record length.

If PILOT_REC_INCL is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall set this field to the number of octets in the type-specific fields of this pilot record.

**Type-specific fields** - Pilot record type-specific fields.

If PILOT_REC_INCL is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include type-specific fields based on the PILOT_REC_TYPE of this pilot record as described in 2.7.2.3.2.34.

**SETPT_INCL** - Setpoint information included indicator.

The mobile station shall set this field to ‘1’ if setpoint information is included in this message; otherwise, the mobile station shall set this field to ‘0’.

**FCH_INCL** - Fundamental Channel included indicator.

If SETPT_INCL is equal to ‘1’, the mobile station shall include this field and set it as follows; otherwise, the mobile station shall omit this field.

The mobile station shall set this field to ‘1’ if FPC_PRI_CHAN is equal to ‘0’; otherwise, the mobile station shall set this field to ‘0’. 
FPC_FCH-CURR_SETPT - The outer loop $E_b/N_t$ setpoint of the Fundamental Channel.

If SETPT_INCL is equal to ‘1’ and if FCH_INCL is set to ‘1’, the mobile station shall set this field to the value of the $E_b/N_t$ setpoint, in units of 0.125 dB, currently in use in the Fundamental Channel power control outer loop estimation; otherwise, the mobile station shall omit this field.

DCCH_INCL - Dedicated Control Channel included indicator.

If SETPT_INCL is equal to ‘1’, the mobile station shall include this field and set it as follows; otherwise, the mobile station shall omit this field.

The mobile station shall set this field to ‘1’ if FPC_PRI_CHAN is equal to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

FPC_DCCH-CURR_SETPT - The outer loop $E_b/N_t$ setpoint of the Forward Dedicated Channel.

If SETPT_INCL is equal to ‘1’, and if DCCH_INCL is set to ‘1’, the mobile station shall set this field to the value of the $E_b/N_t$ setpoint, in units of 0.125 dB, currently in use in the Dedicated Channel power control outer loop estimation; otherwise, the mobile station shall omit this field.

NUM_SUP - The number of Supplemental Channels.

If SETPT_INCL is equal to ‘1’, the mobile station shall include this field and set it as follows; otherwise, the mobile station shall omit this field.

The mobile station shall set this field to the total number of the Supplemental Channels reported by this message.

The mobile station shall include NUM_SUP occurrences of the following two fields:

SCH_ID - The Supplemental Channel index.

The mobile station shall set this field to the Supplemental Channel index to indicate the Forward Supplemental Channel that is to be reported.

FPC_SCH-CURR_SETPT - The supplemental channel outer loop $E_b/N_t$ setpoint.

The mobile station shall set this field to the value of the power control outer loop $E_b/N_t$ setpoint, in units of 0.125 dB, currently in use in the Channel specified by SCH_ID.
2.7.2.3.2.22 Outer Loop Report Message

MSG_TAG: OLRM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FCH_INCL</td>
<td>1</td>
</tr>
<tr>
<td>FPC_FCH_CURR_SETPT</td>
<td>0 or 8</td>
</tr>
<tr>
<td>DCCH_INCL</td>
<td>1</td>
</tr>
<tr>
<td>FPC_DCCH_CURR_SETPT</td>
<td>0 or 8</td>
</tr>
<tr>
<td>NUM_SUP</td>
<td>2</td>
</tr>
</tbody>
</table>

Include NUM_SUP occurrences of the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCH_ID</td>
<td>1</td>
</tr>
<tr>
<td>FPC_SCH_CURR_SETPT</td>
<td>8</td>
</tr>
</tbody>
</table>

FCH_INCL – Fundamental Channel included indicator.

The mobile station shall set this field to ‘1’ if

\[ \text{CURR_FCH_SETPT} = \text{FPC_FCH_CURR_SETPT} \]

is included; otherwise the mobile station shall set this field to ‘0’.

FPC_FCH_CURR_SETPT – The outer loop \( E_b/N_t \) setpoint of the Fundamental Channel.

If FCH_INCL is set to ‘1’, the mobile station shall set this field
to the value of the \( E_b/N_t \) setpoint, in units of 0.125 dB,
currently in use in the Fundamental Channel power control
outer loop estimation; otherwise, the mobile station shall omit
this field.

DCCH_INCL – Dedicated Control Channel included indicator.

The mobile station shall set this field to ‘1’ if the

\[ \text{CURR_DCCH_SETPT} = \text{FPC_DCCH_CURR_SETPT} \]

field is included; otherwise the mobile station shall set this field to ‘0’.

FPC_DCCH_CURR_SETPT – The outer loop \( E_b/N_t \) setpoint of the Forward Dedicated
Channel.

If DCCH_INCL is set to ‘1’, the mobile station shall set this field
to the value of the \( E_b/N_t \) setpoint, in units of 0.125 dB,
currently in use in the Dedicated Channel power control outer
loop estimation; otherwise, the mobile station shall omit this field.
NUM_SUP – The number of Supplemental Channels. The mobile station shall set this field to the total number of the Supplemental Channels reported by this message. The mobile station shall in NUM_SUP occurrences of the following two fields:

SCH_ID – The Supplemental Channel index. The mobile station shall set this field to the Supplemental Channel index to indicate the Forward Supplemental Channel that to be reported

FPC_SCH_CURR_SETPT – The supplemental outer loop $E_b/N_t$ setpoint. The mobile station shall set this field to the value of the power control outer loop $E_b/N_t$ setpoint, in units of 0.125 dB, currently in use in the Channel specified by SCH_ID.
2.7.2.3.2.23 Resource Request Message

MSG_TAG: RRM

There are no Layer 3 fields associated with this message.
2.7.2.3.2.24 Resource Request Mini Message

MSG_TAG: RRMM

There are no Layer 3 fields associated with this message.
2.7.2.3.2.25 Extended Release Response Message

MSG_TAG: ERRM

There are no Layer 3 fields associated with this message.
2.7.2.3.2.26 Extended Release Response Mini Message

MSG_TAG: ERRMM

There are no Layer 3 fields associated with this message.
2.7.2.3.2.27 Pilot Strength Measurement Mini Message

MSG_TAG: PSMM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSMM_POS</td>
<td>3</td>
</tr>
<tr>
<td>PILOT_STRENGTH</td>
<td>6</td>
</tr>
<tr>
<td>RANK</td>
<td>3</td>
</tr>
</tbody>
</table>

**PSMM_POS** – *Pilot Strength Measurement Message* position.

The mobile station shall set this field to an index corresponding to the position, within the last sent *Pilot Strength Measurement Message* (see 2.7.2.3.2.5) or *Extended Pilot Strength Measurement Message* (see 2.7.2.3.2.34), of the Active-Set pilot whose strength is being reported. The mobile station shall use a value of 0 to report the pilot represented by the REF_PN field in the last sent *Pilot Strength Measurement Message* or *Extended Pilot Strength Measurement Message*. The mobile station shall use a value of n, where n is an integer greater than 0, to report the pilot represented by the \( n^{th} \) occurrence of the PILOT_PN_PHASE field in the last sent *Pilot Strength Measurement Message* or *Extended Pilot Strength Measurement Message*.

**PILOT_STRENGTH** – Pilot strength.

The mobile station shall set this field to

\[
\left\lfloor -2 \times 10 \times \log_{10} PS \right\rfloor,
\]

where PS is the strength of this Active-Set pilot, measured as specified in [2]. If this value is less than 0, the mobile station shall set this field to ‘000000’. If this value is greater than ‘111111’, the mobile station shall set this field to ‘111111’.

**RANK** – Rank order.

The mobile station shall set this field to the rank order of the pilot whose strength is being reported, relative to all other pilots in the current Active Set. The mobile station shall use a value of 0 to report the strongest pilot in the current Active Set.
2.7.2.3.2.28 Supplemental Channel Request Mini Message

MSG_TAG: SCRMM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REQ_BLOB</td>
<td>16</td>
</tr>
</tbody>
</table>

REQ_BLOB – Reverse Supplemental Channel request block of bytes.

The mobile station shall include information in this field containing the parameters that specify the characteristics of the Reverse Supplemental Channels request. The mobile station shall set this field in accordance with the connected Service Options.
2.7.2.3.2.29 Resource Release Request Message

MSG_TAG: RRRM

<table>
<thead>
<tr>
<th>Order-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GATING_DISCONNECT_IND</td>
<td>1</td>
</tr>
<tr>
<td>CON_REF</td>
<td>0 or 8</td>
</tr>
<tr>
<td>PURGE_SERVICE</td>
<td>0 or 1</td>
</tr>
</tbody>
</table>

GATING_DISCONNECT_IND - Reverse pilot gating or service disconnect indicator.

If the mobile station requests that reverse pilot gating operation to be performed, the mobile station shall set this field to ‘1’; otherwise (if the mobile station requests that the service option connection specified by CON_REF to be released), the mobile station shall set this field to ‘0’.

CON_REF - Connection reference.

If the GATING_DISCONNECT_IND field is set to ‘1’, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:

The mobile station shall set this field to the connection reference corresponding to the service option connection that is requested to be released.

PURGE_SERVICE - Purge service instance indicator.

If the GATING_DISCONNECT_IND field is set to ‘1’, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:

If the packet data service instance identified by CON_REF has been inactivated, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

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2.7.2.3.2.30 Resource Release Request Mini Message

MSG_TAG: RRRMM

<table>
<thead>
<tr>
<th>Order-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GATING_DISCONNECT_IND</td>
<td>1</td>
</tr>
<tr>
<td>CON_REF</td>
<td>0 or 8</td>
</tr>
<tr>
<td>PURGE_SERVICE</td>
<td>0 or 1</td>
</tr>
</tbody>
</table>

GATING_DISCONNECT_IND - Reverse pilot gating or service disconnect indicator.

If the mobile station requests that reverse pilot gating operation to be performed, the mobile station shall set this field to ‘1’; otherwise (if the mobile station requests that the service option connection specified by CON_REF to be released), the mobile station shall set this field to ‘0’.

CON_REF - Connection reference.

If the GATING_DISCONNECT_IND field is set to ‘1’, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:

The mobile station shall set this field to the connection reference corresponding to the service option connection that is requested to be released.

PURGE_SERVICE - Purge service instance indicator.

If the GATING_DISCONNECT_IND field is set to ‘1’, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:

If the packet data service instance identified by CON_REF has been inactivated, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.
2.7.2.3.2.31 User Zone Update Request Message

MSG_TAG: UZURM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UZID</td>
<td>16</td>
</tr>
</tbody>
</table>

UZID - User Zone identifiers.
The mobile station shall set this field to the UZIDs.
2.7.2.3.2.32 Enhanced Origination Message

MSG_TAG: EOM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAG</td>
<td>4</td>
</tr>
<tr>
<td>CH_IND</td>
<td>3</td>
</tr>
<tr>
<td>SR_ID</td>
<td>3</td>
</tr>
<tr>
<td>GLOBAL_EMERGENCY_CALL</td>
<td>1</td>
</tr>
<tr>
<td>MS_INIT_POS_LOC_IND</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ENC_INFO_INCL</td>
<td>1</td>
</tr>
<tr>
<td>UI_ENCRYPT_REQ</td>
<td>0 or 1</td>
</tr>
<tr>
<td>UI_ENCRYPT_SUP</td>
<td>0 or 8</td>
</tr>
<tr>
<td>SERVICE_OPTION</td>
<td>16</td>
</tr>
<tr>
<td>MORE_SO_INFO_INCL</td>
<td>1</td>
</tr>
<tr>
<td>NUM_ALT_SO</td>
<td>0 or 3</td>
</tr>
</tbody>
</table>

NUM_ALT_SO occurrences of the following field:

| ALT_SO                             | 16            |
|                                    |               |

| SO_BITMAP_IND                      | 0 or 2        |
| SO_GROUP_NUM                       | 0 or 5        |
| SO_BITMAP                          | 0 or 4 ×      |
|                                    | SO_BITMAP_IND |
| DRS                                | 1             |
| PREV_SID_INCL                      | 1             |
| PREV_SID                           | 0 or 15       |
| PREV_NID_INCL                      | 1             |
| PREV_NID                           | 0 or 16       |

(continues on next page)
PREV_PZID_INCL | 1
PREV_PZID | 0 or 8
DIALED_DIGS_INCL | 1

| DIGIT_MODE | 0 or 1
| NUMBER_TYPE | 0 or 3
| NUMBER_PLAN | 0 or 4
| NUM_FIELDS | 0 or 8

NUM_FIELDS occurrences of the following field:

| CHARi | 4 or 8

| NUM_RECS | 5

NUM_RECS occurrences of the following three-field records:

| RECORD_TYPE | 8
| RECORD_LEN | 8

Type-specific fields | $8 \times \text{RECORD_LEN}$

TAG – Transaction identifier.

The mobile station shall set this field to the identifier for this transaction.

CH_IND – Channel indicator.

The mobile station shall set this field as shown in Table 2.7.2.3.2.32-1, to request physical resources.
<table>
<thead>
<tr>
<th>CH_IND (binary)</th>
<th>Channel(s) Requested</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>No additional channels requested.</td>
</tr>
<tr>
<td>001</td>
<td>Fundamental Channel.</td>
</tr>
<tr>
<td>010</td>
<td>Dedicated Control Channel.</td>
</tr>
<tr>
<td>011</td>
<td>Reserved.</td>
</tr>
<tr>
<td>100</td>
<td>Continuous Reverse Pilot Channel.</td>
</tr>
<tr>
<td>101</td>
<td>Fundamental Channel and Continuous Reverse Pilot Channel.</td>
</tr>
<tr>
<td>110</td>
<td>Reserved.</td>
</tr>
<tr>
<td>111</td>
<td>Reserved.</td>
</tr>
</tbody>
</table>

**SR_ID** — Service reference identifier.

If the service instance provides a service reference identifier, the mobile station shall set this field to the service reference identifier specified by the service instance. If the service instance does not provide a service reference identifier, the mobile station shall set this field to the smallest unused service reference identifier value between 1 and 6 (inclusive).

**GLOBAL-EMERGENCY_CALL** — Global emergency call indicator.

The mobile station shall set this field to ‘1’, if the mobile station recognizes that this is an emergency call; otherwise, the mobile station shall set this field to ‘0’.

**MS_INIT_POS_LOC_IND** — Mobile Initiated Position Location Session indicator.

If the GLOBAL_EMERGENCY_CALL field is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include this field and shall set it as follows:

The mobile station shall set this field to ‘1’ if **MS_INIT_POS_LOC_SUP_IND** is equal to ‘1’ and if the mobile station is to initiate a position location session associated with this emergency call; otherwise, the mobile station shall set this field to ‘0’.
ENC_INFO_INCL – Encryption fields included.

The mobile station shall set this field to ‘1’ if the encryption related fields are included; otherwise the mobile station shall set this field to ‘0’. The mobile station shall set this field to ‘1’ if it is unable to determine the base station support for encryption. The mobile station shall set this field to ‘0’ if the base station does not support encryption or the mobile station does not support any of the encryption modes supported by the base station.

UI_ENCRYPT_REQ – Request for user information encryption on the traffic channel indicator.

If ENC_INFO_INCL is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to ‘1’ to request user information encryption, and to ‘0’ to request no user information encryption.

UI_ENCRYPT_SUP – User information Encryption supported indicator.

If ENC_INFO_INCL is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to indicate the supported user information encryption algorithms.

This field consists of the subfields shown in Table 2.7.1.3.2.4-9.

The mobile station shall set each subfield to ‘1’ if the corresponding user information encryption algorithm is supported by the mobile station; otherwise, the mobile station shall set the subfield to ‘0’.

The mobile station shall set the RESERVED subfield to ‘0000000’.

SERVICE_OPTION – Requested service option for this origination.

The mobile station shall set this field to the value specified in [30], corresponding to the requested service option.

MORE_SO_INFO_INCL – More service option information included.

If MAX_NUM_ALT_SOs is equal to ‘000’, the mobile station shall set this field to ‘0’; otherwise, the mobile station shall set this field as follows:

If any alternate service option number or/and service option bitmap is to be included in this message, the mobile station shall set this field to ‘1’, otherwise, the mobile station shall set this field to ‘0’. In other words, MORE_SO_INFO_INCL is set to ‘1’, if NUM_ALT_SO is included and not set to ‘000’ or/and SO_BITAMP_IND is included and not set to ‘00’.

2-637
NUM_ALT_SO – Number of alternative service options.

If MORE_SO_INFO_INCL is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall set this field to the number of supported alternative service options which either have no service option group number assigned or do not belong to the same service option group whose bitmap is included in the message.

The mobile station shall include NUM_ALT_SO occurrences of the following field:

ALT_SO – Alternative service option.

The mobile station shall set this field to the value specified in [30], corresponding to the alternative service option supported by the mobile station. These alternate service options are either have not service option group number assigned or do not belong to the same service option group whose bitmap is included in this message.

SO_BITMAP_IND – SO bitmap indicator.

If MORE_SO_INFO_INCL is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as defined in Table 2.7.1.3.2.4-10.

SO_GROUP_NUM – Service option group number.

If the field SO_BITMAP_IND is included and not set to ‘00’, the mobile station shall include this field and set this field to the service option group number of which the bitmap is to be included; otherwise, the mobile station shall omit this field.

SO_BITMAP – Service option bitmap.

If the field SO_BITMAP_IND is included and not set to ‘00’, the mobile station shall include the bitmap of size $4 \times SO_BITMAP_IND$ bits of the service option group number (SO_GROUP_NUM); otherwise, the mobile station shall omit this field;

When the service option bitmap is included, if there are more than $(4 \times SO_BITMAP_IND)$ service options defined for the service option group, the mobile station shall include the bitmap containing the least significant bits $(4 \times SO_BITMAP_IND)$ of the service option group.

The mobile station shall set abit in this bitmap to ‘1’, if the mobile station is capable of supporting the SO for which this bit represents; otherwise, the mobile station shall set a bit in this bitmap to ‘0’.

DRS – Data ready to send indicator.
The mobile station shall set this field to ‘1’ if it is requesting a packet data service option and it has data to send; otherwise, the mobile station shall set this field to ‘0’.

PREV_SID_INCL  - Previous System Identification (SID) included indicator.

The mobile station shall set this field to ‘1’ if the mobile station determines that the SID has been changed after a packet data dormant handoff and the PREV_SID field is included in this message; otherwise, the mobile station shall set this field to ‘0’.

PREV_SID  - Previous System Identification.

If PREV_SID_INCL is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:

If the mobile station determines SID has been changed after a packet data dormant handoff, the mobile station shall set this field to the previous SID.

PREV_NID_INCL  - Previous Network Identification (NID) included indicator.

The mobile station shall set this field to ‘1’ if the mobile station determines that NID has been changed after a packet data dormant handoff and the PREV_NID field is included in this message; otherwise, the mobile station shall set this field to ‘0’.

PREV_NID  - Previous Network Identification.

If PREV_NID_INCL is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:

If the mobile station determines NID has been changed after a packet data dormant handoff, the mobile station shall set this field to the previous NID.

PREV_PZID_INCL  - Previous Packet Zone ID (PZID) included indicator.

The mobile station shall set this field to ‘1’ if the mobile station determines that the Packet Zone ID has been changed after a packet data dormant handoff and the PREV_PZID field is included in this message; otherwise, the mobile station shall omit this field.

PREV_PZID  - Previous Packet Zone ID.

If PREV_PZID_INCL is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:

If the mobile station determines PZID has been changed after a packet data dormant handoff, the mobile station shall set this field to the previous PZID.

DIALED_DIGS_INCL  - Dialed digits included indicator.
The mobile station shall set this field to ‘1’ if the dialed digits related fields are included in this message; otherwise, the mobile station shall set this field to ‘0’.

**DIGIT MODE** – Digit mode indicator.

If the DIALED_DIGS_INCL field is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include this field and shall set it as follows:

This field indicates whether the dialed digits are 4-bit DTMF codes or 8-bit ASCII codes using a specified numbering plan.

To originate the call using the binary representation of DTMF digits, the mobile station shall set this field to ‘0’. To originate the call using ASCII characters, the mobile station shall set this field to ‘1’.

**NUMBER_TYPE** – Type of number.

If the DIALED_DIGS_INCL field is set to ‘0’ or if the DIGIT_MODE field is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include this field and shall set it as follows:

The mobile station shall set this field to the NUMBER_TYPE value shown in Table 2.7.1.3.2.4-2 corresponding to the type of the number as defined in [7], Section 4.5.9.

**NUMBER_PLAN** – Numbering plan.

If the DIALED_DIGS_INCL field is set to ‘0’ or if the DIGIT_MODE field is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include this field and shall set it as follows:

The mobile station shall set this field to the NUMBER_PLAN value shown in Table 2.7.1.3.2.4-3 corresponding to the requested numbering plan as defined in [7], Section 4.5.9.

**NUM_FIELDS** – Number of dialed digits in this message.

If the DIALED_DIGS_INCL field is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include this field and shall set it as follows:

The mobile station shall set this field to the number of dialed digits included in this message.
The mobile station shall include NUM_FIELDS occurrences of the following field:

- **CHARi** – A dialed digit or character.

  If the DIGIT_MODE field is set to ‘0’, the mobile station shall set each occurrence of this field to the code value shown in Table 2.7.1.3.2.4-4 corresponding to the dialed digit. If the DIGIT_MODE field is set to ‘1’, the mobile station shall set each occurrence of this field to the ASCII representation corresponding to the dialed digit, as specified in [9], with the most significant bit set to ‘0’.

- **NUM_RECS** – Number of records.

  The mobile station shall set this field to the number of information records included with this message.

The mobile station shall include NUM_RECS occurrences of the following three-field record.

- **RECORD_TYPE** – Information record type.

  The mobile station shall set this field to the record type value shown in Table 2.7.4-1.

  *The mobile station shall not include the record type for QoS Parameters information record if MOB_QOS is equal to ‘0’.*

- **RECORD_LEN** – Information record length.

  The mobile station shall set this field to the number of octets in the type-specific fields included in this record.

- **Type-specific fields** – Type-specific fields.

  The mobile station shall include type-specific fields as specified in 2.7.4.
2.7.2.3.2.33 Extended Flash With Information Message

MSG_TAG: EFWIM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON_REF_INCL</td>
<td>1</td>
</tr>
<tr>
<td>CON_REF</td>
<td>0 or 8</td>
</tr>
<tr>
<td>NUM_REC</td>
<td>4</td>
</tr>
</tbody>
</table>

NUM_REC occurrences of the following three-field record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>8 × RECORD_LEN</td>
</tr>
</tbody>
</table>

CON_REF_INCL – Connection reference included indicator.

The mobile station shall set this field to ‘1’ if the connection reference field is included in this message; otherwise, it shall set this field to ‘0’.

CON_REF – Connection reference.

If the CON_REF_INCL field is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include this field and shall set it to the value of the connection reference assigned to the service option connection of the call, to which this message corresponds.

NUM_REC – Number of records.

The mobile station shall set this field to the number of information records included with this message.

The mobile station shall include NUM_REC occurrence of the following three-field record:
RECORD_TYPE – Information record type.

The mobile station shall set this field to the record type code shown in Table 2.7.4-1 corresponding to the type of this information record.

RECORD_LEN – Information record length.

The mobile station shall set this field to the number of octets in the type-specific fields of this record.

Type-specific fields – Type-specific fields.

The mobile station shall set these fields as specified in 2.7.4 for this type of information record.
2.7.2.3.2.34 Extended Pilot Strength Measurement Message

MSG_TAG: EPSMM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REF_PN</td>
<td>9</td>
</tr>
<tr>
<td>PILOT_STRENGTH</td>
<td>6</td>
</tr>
<tr>
<td>KEEP</td>
<td>1</td>
</tr>
<tr>
<td>REF_PILOT_REC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>REF_PILOT_REC_TYPE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>REF_RECORD_LEN</td>
<td>0 or 3</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>0 or 8 × REF_RECORD_LEN</td>
</tr>
<tr>
<td>SF_RX_PWR</td>
<td>5</td>
</tr>
<tr>
<td>NUM_PILOTS</td>
<td>4</td>
</tr>
</tbody>
</table>

NUM_PILOTS occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN_PHASE</td>
<td>15</td>
</tr>
<tr>
<td>PILOT_STRENGTH</td>
<td>6</td>
</tr>
<tr>
<td>KEEP</td>
<td>1</td>
</tr>
<tr>
<td>PILOT_REC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>PILOT_REC_TYPE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>0 or 3</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>0 or 8 × RECORD_LEN</td>
</tr>
</tbody>
</table>

**REF_PN** – Time reference PN sequence offset.

The mobile station shall set this field to the PN sequence offset of the pilot used by the mobile station to derive its time reference, relative to the zero offset pilot PN sequence in units of 64 PN chips.

**PILOT_STRENGTH** – Pilot strength.

The mobile station shall set this field to 

\[\lfloor -2 \times 10 \log_{10} PS \rfloor,\]
where PS is the strength of the pilot used by the mobile station to derive its time reference (see [2]), measured as specified in 2.6.6.2.2. If this value \((-2 \times 10 \log_{10} PS)\) is less than 0, the mobile station shall set this field to ‘000000’. If this value is greater than ‘111111’, the mobile station shall set this field to ‘111111’.

KEEP  –  Keep pilot indicator.

If the handoff drop timer (see 2.6.6.2.3) corresponding to the pilot used by the mobile station to derive its time reference (see 2.1.5 of [2]) has expired, the mobile station shall set this field to ‘0’; otherwise, the mobile station shall set this field to ‘1’.

REF_PILOT_REC_INCL  –  Reference pilot information included indicator.

The mobile station shall set this field to ‘1’ if additional reference pilot information listed in the REF_PILOT_REC_TYPE and REF_RECORD_LEN fields are included. The mobile station shall set this field to ‘0’ if the corresponding pilot is the common pilot and there is no additional pilot information included.

REF_PILOT_REC_TYPE  –  Reference pilot record type.

If REF_PILOT_REC_INCL is set to ‘1’, the mobile station shall set this field to the REF_PILOT_REC_TYPE value shown in Table 2.7.2.3.2.34-1 corresponding to the type of Pilot Record specified by this record.

REF_RECORD_LEN  –  Reference pilot record length.

If REF_PILOT_REC_INCL is set to ‘1’, the mobile station shall set this field to the number of octets in the type-specific fields of this pilot record.

If REF_PILOT_REC_INCL is set to ‘0’, the mobile station shall omit this field.

Type-specific fields  –  Pilot record type-specific fields.

Table 2.7.2.3.2.34-1. Pilot Record Types

<table>
<thead>
<tr>
<th>Description</th>
<th>REF_PILOT_REC_TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Auxiliary Pilot</td>
<td>000</td>
</tr>
<tr>
<td>All other REF_PILOT_REC_TYPE or PILOT_REC_TYPE values are reserved</td>
<td></td>
</tr>
</tbody>
</table>

If REF_PILOT_REC_INCL is set to ‘0’, the mobile station shall omit this field.
If REF_PILOT_REC_INCL is set to ‘1’, the mobile station shall include type-specific fields based on the REF_PILOT_REC_TYPE of this pilot record.

If REF_PILOT_REC_INCL is set to ‘0’, the mobile station shall omit this field.

If REF_PILOT_REC_TYPE is equal to ‘000’, the mobile station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QOF</td>
<td>2</td>
</tr>
<tr>
<td>WALSH_LENGTH</td>
<td>3</td>
</tr>
<tr>
<td>PILOT_WALSH</td>
<td>(WALSH_LENGTH + 6)</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 to 7 (as needed)</td>
</tr>
</tbody>
</table>

QOF - Quasi-orthogonal function index.

The mobile station shall set this field to the index of the Quasi-orthogonal function of the corresponding Auxiliary Pilot.

WALSH_LENGTH - Length of the Walsh code for the reference pilot.

The mobile station shall set this field to the WALSH_LENGTH value shown in Table 2.7.2.3.2.34-2 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary Pilot.

<table>
<thead>
<tr>
<th>Length of the WALSH_LENGTH</th>
<th>Walsh Code (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>64</td>
<td>‘000’</td>
</tr>
<tr>
<td>128</td>
<td>‘001’</td>
</tr>
<tr>
<td>256</td>
<td>‘010’</td>
</tr>
<tr>
<td>512</td>
<td>‘011’</td>
</tr>
<tr>
<td>Reserved</td>
<td>‘100’ – ‘111’</td>
</tr>
</tbody>
</table>

PILOT_WALSH - Walsh code for the Auxiliary Pilot used by the mobile station to derive its time reference.

The mobile station shall set this field to the Walsh code corresponding to the Auxiliary Pilot.
RESERVED  -  Reserved bits.

The base station shall set all the bits of this field to ‘0’ to make the entire record octet-aligned.

SF_RX_PWR  -  The received power spectral density of the Serving Frequency.

The mobile station shall set this field to
\[
\left\lceil \frac{10 \times \log_{10}(\text{spec\_density}) + 120}{2} \right\rceil
\]

where spec\_density is the mobile station received power spectral density of the Serving Frequency, in mW/1.23MHz, averaged over the last \(N_{12m}\) frames (see 2.6.6.2.5.1).

If this value is less than 0, the mobile station shall set this field to ‘00000’.

NUM_PILOTS  -  Number of pilots reported.

The mobile station shall set this field to the number of pilots being reported other than the reference pilot.

The mobile station shall include NUM_PILOTS occurrences of the following record: one occurrence for each pilot in the Active Set, for each pilot in the Candidate Set whose strength exceeds T_ADD, and for each pilot in the Candidate Set whose strength satisfies the following inequality:

\[
10 \times \log_{10} \text{PS} > \frac{\text{SOFT\_SLOPE}}{8} \times 10 \times \log_{10} \sum_{i \in A} \text{PS}_i + \frac{\text{ADD\_INTERCEPT}}{2}
\]

where the summation is performed over all pilots currently in the Active Set. The mobile station shall not include these fields for the pilot identified by the REF\_PN field.

The mobile station shall order any occurrences of the following record which correspond to pilots in the Active Set such that they occur before any occurrences of the following record which correspond to pilots in the Candidate Set.

PILOT\_PN\_PHASE  -  Pilot measured phase.

The mobile station shall set this field to the phase of the pilot PN sequence relative to the zero offset pilot PN sequence of this pilot, in units of one PN chip, as specified in 2.6.6.2.4.

PILOT\_STRENGTH  -  Pilot strength.

The mobile station shall set this field to
\[
\left\lfloor -2 \times 10 \log_{10} \text{PS} \right\rfloor,
\]

where PS is the strength of this pilot, measured as specified in 2.6.6.2.2. If this value \(\left\lfloor -2 \times 10 \log_{10} \text{PS} \right\rfloor\) is less than 0, the mobile station shall set this field to ‘000000’. If this value is greater than ‘111111’, the mobile station shall set this field to ‘111111’.
KEEP – Keep pilot indicator.

If the handoff drop timer (see 2.6.6.2.3) corresponding to this pilot has expired, the mobile station shall set this field to ‘0’; otherwise, the mobile station shall set this field to ‘1’.

PILOT_REC_INCL - Additional pilot information included indicator.

The mobile station shall set this field to ‘1’ if additional pilot information listed in the PILOT_REC_TYPE and RECORD_LEN fields are included. The mobile station shall set this field to ‘0’ if the corresponding pilot is the common pilot and there is no additional pilot information included.

PILOT_REC_TYPE - Reference pilot record type.

If PILOT_REC_INCL is set to ‘1’, the mobile station shall set this field to the PILOT_REC_TYPE value shown in Table 2.7.2.3.2.34-1 corresponding to the type of Pilot Record specified by this record.

If PILOT_REC_INCL is set to ‘0’, the mobile station shall omit this field.

RECORD_LEN - Pilot record length.

If PILOT_REC_INCL is set to ‘1’, the mobile station shall set this field to the number of octets in the type-specific fields of this pilot record.

If PILOT_REC_INCL is set to ‘0’, the mobile station shall omit this field.

Type-specific fields - Pilot record type-specific fields.

If PILOT_REC_INCL is set to ‘1’, the mobile station shall include type-specific fields based on the PILOT_REC_TYPE of this pilot record as described in 3.7.6.1.

If PILOT_REC_INCL is set to ‘0’, the mobile station shall omit this field.
### 2.7.2.3.2.35 Extended Handoff Completion Message

**MSG_TAG:** EHOCM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAST_HDM_SEQ</td>
<td>2</td>
</tr>
<tr>
<td>NUM_PILOTS</td>
<td>4</td>
</tr>
</tbody>
</table>

NUM_PILOTS occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>PILOT_REC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>PILOT_REC_TYPE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>0 or 3</td>
</tr>
</tbody>
</table>

- **Type-specific fields** $0$ or $8 \times$ RECORD_LEN

### Description:

**LAST_HDM_SEQ** — *Extended Handoff Direction Message, General Handoff Direction Message*, or *Universal Handoff Direction Message*

The mobile station shall set this field to the value of the HDM_SEQ field from the *Extended Handoff Direction Message*, *General Handoff Direction Message*, or the *Universal Handoff Direction Message* that determined the current Active Set.

**NUM_PILOTS** — Number of pilots reported.

The mobile station shall set this field to the number of pilots in the current Active Set.

The mobile station shall include NUM_PILOTS occurrences of the following record: one occurrence for each pilot in the Active Set. If the Active Set contains more than one pilot, the mobile station shall include the pilot information in the same order as in the *Extended Handoff Direction Message*, *General Handoff Direction Message*, or the *Universal Handoff Direction Message* that determined the current Active Set.

**PILOT_PN** — Pilot PN sequence offset.

The mobile station shall set this field to the pilot PN sequence offset, relative to the zero offset pilot PN sequence in units of 64 PN chips, for this pilot.

**PILOT_REC_INCL** — Additional pilot information included indicator.

The mobile station shall set this field to ‘1’ if additional pilot information listed in the PILOT_REC_TYPE and RECORD_LEN fields are included. The mobile station shall set this field to ‘0’ if the corresponding pilot is the common pilot and there is no additional pilot information included.

**PILOT_REC_TYPE** — Reference pilot record type.
If PILOT_REC_INCL is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall set this field to the PILOT_REC_TYPE value shown in Table 2.7.2.3.2.34-1 corresponding to the type of Pilot Record specified by this record.

**RECORD_LEN** - Pilot record length.

If PILOT_REC_INCL is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall set this field to the number of octets in the type-specific fields of this pilot record.

**Type-specific fields** - Pilot record type-specific fields.

If PILOT_REC_INCL is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include type-specific fields based on the PILOT_REC_TYPE of this pilot record as described in 2.7.2.3.2.34.
2.7.2.3.2.36 Security Mode Request Message

MSG_TAG: SMRM

<table>
<thead>
<tr>
<th>Order-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UI_ENC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>UI_ENCRYPT_SUP</td>
<td>0 or 8</td>
</tr>
<tr>
<td>NUM_RECS</td>
<td>0 or 3</td>
</tr>
</tbody>
</table>

NUM_RECS + 1 occurrences of the following two field record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON_REF</td>
<td>0 or 8</td>
</tr>
<tr>
<td>UI_ENCRYPT_REQ</td>
<td>0 or 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIG_ENC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>SIG_ENCRYPT_SUP</td>
<td>0 or 8</td>
</tr>
<tr>
<td>D_SIG_ENCRYPT_REQ</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ENC_SEQ_H_INCL</td>
<td></td>
</tr>
<tr>
<td>ENC_SEQ_H</td>
<td>0 or 24</td>
</tr>
<tr>
<td>ENC_SEQ_H_SIG</td>
<td>0 or 8</td>
</tr>
</tbody>
</table>

UI_ENC_INCL – User information encryption fields included. The mobile station shall set this field to ‘1’ if the user information encryption related fields are included in this message; otherwise, the mobile station shall set this field to ‘0’.

UI_ENCRYPT_SUP – User information encryption supported indicator. If UI_ENC_INCL is equal to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to indicate the supported user information encryption algorithms.
This field consists of the subfields shown in Table 2.7.1.3.2.4-9.

The mobile station shall set each subfield to ‘1’ if the corresponding user information encryption algorithm is supported by the mobile station; otherwise, the mobile station shall set the subfield to ‘0’.

The mobile station shall set the RESERVED subfield to ‘0000000’.

NUM_REC – Number of user information encryption records.

If UI_ENC_INCL is equal to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to number of user information encryption records included in this message minus 1.

The mobile station shall include NUM_REC + 1 occurrences of the following two field record

CON_REF – Connection reference corresponding to the service instance requesting for encryption.

If UI_ENC_INCL is equal to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to the connection reference of the service option connection corresponding to this user information encryption request record.

UI_ENCRYPT_REQ – Request for user information encryption on the traffic channel indicator.

The mobile station shall set this field to ‘1’ to request user information encryption for the user information corresponding to the service option connection identified by CON_REF; otherwise, the mobile station shall set this field to ‘0’.

SIG_ENC_INCL – Signaling encryption fields included.

The mobile station shall set this field to ‘1’ if the following two fields related to signaling encryption fields are included in this message. Otherwise, the mobile station shall set this field to ‘0’.

SIG_ENCRYPT_SUP – Signaling encryption supported indicator.

If SIG_ENC_INCL is equal to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile shall set this field to indicate the supported signaling encryption algorithms supported by the mobile station.
This field consists of the subfields shown in Table 2.7.1.3.2.1-5.

If this field is included, the mobile station shall set the subfields as follows:

The mobile station shall set the CMEA subfield to ‘1’.

The mobile station shall set each other subfield to ‘1’ if the corresponding signaling encryption algorithm is supported by the mobile station; otherwise, the mobile station shall set the subfield to ‘0’.

The mobile station shall set the RESERVED subfield to ‘000000’.

**D_SIG_ENCRYPT_REQ** – Dedicated channel signaling Message encryption request indicator.

If SIG_ENC_INCL is equal to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If included the mobile station shall set this field to ‘1’ to request signaling encryption to be turned on for signaling messages sent on f-dsch, r-dsch, f-csch, and r-csch, and to ‘0’ to request signaling encryption to be turned off for signaling messages sent on f-dsch, r-dsch, f-csch, and r-csch.

**ENC_SEQ_H_INCL** – The 24 MSB of the EXT_ENC_SEQ included.

The mobile station shall set this field to ‘1’ if ENC_SEQ_H is included in this message; otherwise, the mobile station shall set this field to ‘0’.

**ENC_SEQ_H** – The 24 MSB of the EXT_ENC_SEQ

If ENC_SEQ_H_INCL is set to ‘1’, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to the 24 most significant bits of the EXT_ENC_SEQ to be used as the initial value of crypto sync for both forward and reverse link encryptions.

**ENC_SEQ_H_SIG** – The signature of ENC_SEQ_H

If ENC_SEQ_H is included, the mobile station shall include this field; otherwise, the mobile station shall omit this field. If this field is included, the mobile station shall set this field to the digital signature of the ENC_SEQ_H computed as described in 2.3.12.4.5.
2.7.2.3.2.37 Call Cancel Message

MSG_TAG: CLCM

<table>
<thead>
<tr>
<th>Order-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAG</td>
<td>4</td>
</tr>
</tbody>
</table>

TAG – Transaction identifier.

The mobile station shall set this field to the TAG value in the *Enhanced Origination Message* sent to originate this call.
2.7.2.3.2.38 Device Information Message

MSG_TAG: DIM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WLL_DEVICE_TYPE</td>
<td>3</td>
</tr>
<tr>
<td>NUM_INFO_RECORDS</td>
<td>5</td>
</tr>
</tbody>
</table>

NUM_INFO_RECORDS occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>8 \times RECORD_LEN</td>
</tr>
</tbody>
</table>

WLL_DEVICE_TYPE – WLL device type indicator.

The mobile station shall set this field to the WLL_DEVICE_TYPE value shown in Table 2.7.1.3.2.1-3 corresponding to the mobile station device type.

NUM_INFO_RECORDS – Number of information records included.

The mobile station shall set this field to the number of information records which are included.

The mobile station shall include one occurrence of the following fields for each information record which is included:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_TYPE</td>
<td>Information record type. The mobile station shall set this field to the record type code shown in Table 2.7.4-1 corresponding to the type of this information record.</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>Information record length. The mobile station shall set this field to the number of octets in the type-specific fields of this record.</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>Type-specific fields. The mobile station shall set these fields as specified in 2.7.4 for this type of information record.</td>
</tr>
</tbody>
</table>
2.7.2.3.2.39 Base Station Status Request Message

**MSG_TAG: BSSREQM**

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QUAL_INFO_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>QUAL_INFO_LEN</td>
<td>3</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>$8 \times$ QUAL_INFO_LEN</td>
</tr>
<tr>
<td>NUM_RECORD</td>
<td>4</td>
</tr>
</tbody>
</table>

**NUM_RECORD** occurrences of the following variable length record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>RECORD_LENGTH</td>
<td>8</td>
</tr>
<tr>
<td>Record type specific fields</td>
<td>variable</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0-7 (as required)</td>
</tr>
</tbody>
</table>

**QUAL_INFO_TYPE** - Qualification information type.

The mobile station shall set this field to the value shown in Table 3.7.2.3.2.15-1 to show the inclusion of qualification information in the type-specific fields.

**QUAL_INFO_LEN** - Qualification information length.

The mobile station shall set this field to the number of octets included in the type-specific fields of the qualification information.

**Type-specific fields** - Type-specific fields.

The mobile station shall set these fields to the qualification information according to the QUAL_INFO_TYPE field.

If QUAL_INFO_TYPE is equal to ‘00000000’, the type-specific fields are omitted.

If QUAL_INFO_TYPE is equal to ‘00000001’, the mobile station shall use the following fixed-length format for the type-specific fields:

<table>
<thead>
<tr>
<th>Type-specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAND CLASS</td>
<td>5</td>
</tr>
<tr>
<td>RESERVED</td>
<td>3</td>
</tr>
</tbody>
</table>

If QUAL_INFO_TYPE is equal to ‘00000010’, the mobile station shall use the following fixed-length format for the type-specific fields:
<table>
<thead>
<tr>
<th>Type-specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAND_CLASS</td>
<td>5</td>
</tr>
<tr>
<td>OP_MODE</td>
<td>8</td>
</tr>
<tr>
<td>RESERVED</td>
<td>3</td>
</tr>
</tbody>
</table>

**BAND_CLASS** - Band class.

The mobile station shall set this field to the CDMA band class, as specified in [30].

**OP_MODE** - Operating mode.

The mobile station shall set this field as shown in Table 3.7.2.3.2.15-3 to specify the operating mode qualification information.

**RESERVED** - Reserved bits.

The mobile station shall set this field to '000'.

**NUM_RECORD** - Number of requested record fields in this message.

The mobile station shall set this field to the number of occurrences of RECORD_TYPE field in this message.

The mobile station shall include NUM_RECORD occurrences of the following variable-length record, one for each information record that is requested:

**RECORD_TYPE** - Information record type.

The mobile station shall set this field to the record type value shown in Table 2.7.2.3.2.39-1 corresponding to the information record requested.

<table>
<thead>
<tr>
<th>Information Record Requested</th>
<th>Record Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pilot Information</td>
<td>00000000</td>
</tr>
<tr>
<td>Reserved</td>
<td>00000001-1111111</td>
</tr>
</tbody>
</table>

**RECORD_LENGTH** - Information record length.

The mobile station shall set this field to the length, in octets, of the record type specific fields included in this record.

**Record type specific fields** - Record type specific fields

The mobile station shall set this field to the type specific fields corresponding to this record type.

If the RECORD_TYPE field is set to '00000000', the mobile
station shall set the record type specific field as follows:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUM_PILOTS</td>
<td>4</td>
</tr>
<tr>
<td>SID_NID_REQ</td>
<td>1</td>
</tr>
</tbody>
</table>

NUM_PILOTS occurrences of the following one-field record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
</tbody>
</table>

**NUM_PILOTS** - Number of Pilots reported.

The mobile station shall set this field to the number of pilots whose information is requested in this message.

The mobile station shall set this field to a number equal or greater than one.

**SID_NID_REQ** - SID, NID information requested indicator.

The mobile station shall set this field to ‘1’ if it also requests the SID and NID information for these pilots; otherwise, the mobile station shall set this field to ‘0’.

The mobile station shall include NUM_PILOTS occurrences of the following one-field record:

**PILOT_PN** - Pilot PN sequence offset index.

The mobile station shall set this field to the pilot PN sequence offset for the base station, in units of 64 PN chips, whose Base Station identification number information is being requested.

**RESERVED** - Reserved bits.

The mobile station shall add reserved bits as needed in order to make the length of the record equal to an integer number of octets. The mobile station shall set these bits to ‘0’.

2-658
2.7.3 Orders

Order Messages are sent by the mobile station on the r-csch and on the r-dsch. The
general PDU format used on the r-csch is defined in 2.7.1.3.2.2, and the general PDU
format used on the r-dsch is defined in 2.7.2.3.2.1. There are many specific types of Order
Messages, as shown in Table 2.7.3-1.

The mobile station may send on the r-csch any type of order shown in Table 2.7.3-1 with a
'Y' in the first column, but shall not send on the r-csch any type of order with an 'N' in the
first column. The mobile station may send on the r-dsch any type of order shown in
Table 2.7.3-1 with a 'Y' in the second column, but shall not send on the r-dsch any type of
order with an 'N' in the second column. The mobile station shall be capable of sending all
types of orders shown in Table 2.7.3-1 with a 'Y' in the sixth column.

An order consists of a 6-bit order code and zero or more order-specific fields. The mobile
station shall set the ORDER field in the Order Message to the order code shown in Table
2.7.3-1 corresponding to the type of order being sent.

If the order qualification code in the fourth column of Table 2.7.3-1 is '00000000' and there
are no other additional fields as shown by an 'N' in the fifth column, the mobile station
shall include no order qualification code or other order-specific fields in the Order Message.
The order qualification code of such a message is implicitly '00000000'.

If the order qualification code is not '00000000' and there are no other additional fields as
shown in Table 2.7.3-1 by an 'N' in the fifth column, the mobile station shall include the
order qualification code as the only order-specific field in the Order Message.

If there are other additional fields as shown in Table 2.7.3-1 by a 'Y' in the fifth column, the
mobile station shall include order-specific fields as specified in the corresponding
subsection of this section.
### Table 2.7.3-1. Order and Order Qualification Codes Used on the r-dsch and the r-csch (Part 1 of 4)

<table>
<thead>
<tr>
<th>r-csch Order</th>
<th>r-dsch Order</th>
<th>Order Code, ORDER (binary)</th>
<th>Order Qualification Code, ORDQ (binary)</th>
<th>More Fields other than ORDQ</th>
<th>Support Req’d</th>
<th>Name/Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>Y</td>
<td>000010</td>
<td>00000000</td>
<td>Y</td>
<td>Y</td>
<td>Base Station Challenge Order (see 2.7.3.1)</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>000011</td>
<td>00000000</td>
<td>N</td>
<td>Y</td>
<td>SSD Update Confirmation Order</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>000011</td>
<td>00000001</td>
<td>N</td>
<td>Y</td>
<td>SSD Update Rejection Order</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>001011</td>
<td>000nnnn</td>
<td>N</td>
<td>Y</td>
<td>Parameter Update Confirmation Order (where ‘nnnn’ is the Request Number)</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>001011</td>
<td>00000000</td>
<td>N</td>
<td>N</td>
<td>Request Wide Analog Service Order</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>001011</td>
<td>00000001</td>
<td>N</td>
<td>N</td>
<td>Request Narrow Analog Service Order</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>001011</td>
<td>00000010</td>
<td>N</td>
<td>N</td>
<td>Request Analog Service Order</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>010000</td>
<td>00000000</td>
<td>N</td>
<td>Y</td>
<td>Mobile Station Acknowledgment Order (see [4])</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>010011</td>
<td>00000000</td>
<td>Y</td>
<td>N</td>
<td>Service Option Request Order (Band Class 0 only) (see 2.7.3.2)</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>010100</td>
<td>00000000</td>
<td>Y</td>
<td>Y</td>
<td>Service Option Response Order (Band Class 0 only) (see 2.7.3.3)</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>010101</td>
<td>00000000</td>
<td>N</td>
<td>Y</td>
<td>Release Order (normal release)</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>010101</td>
<td>00000001</td>
<td>N</td>
<td>Y</td>
<td>Release Order (with power-down indication)</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>010101</td>
<td>00000010</td>
<td>N</td>
<td>Y</td>
<td>Release Order (with service inactive indication)</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>010111</td>
<td>00000000</td>
<td>N</td>
<td>N</td>
<td>Long Code Transition Request Order (request public)</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>010111</td>
<td>00000001</td>
<td>N</td>
<td>N</td>
<td>Long Code Transition Request Order (request private)</td>
</tr>
</tbody>
</table>
### Table 2.7.3-1. Order and Order Qualification Codes Used on the r-dsch and the r-csch

(Part 2 of 4)

<table>
<thead>
<tr>
<th>r-csch Order</th>
<th>r-dsch Order</th>
<th>Order Code, ORDER (binary)</th>
<th>Order Qualification Code, ORDQ (binary)</th>
<th>More Fields other than ORDQ</th>
<th>Support Req’d</th>
<th>Name/Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Y</td>
<td>010111</td>
<td>00000010</td>
<td>N</td>
<td>Y</td>
<td>Long Code Transition Response Order (use public)</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>010111</td>
<td>00000011</td>
<td>N</td>
<td>N</td>
<td>Long Code Transition Response Order (use private)</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>011000</td>
<td>00000000</td>
<td>N</td>
<td>Y</td>
<td>Connect Order</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>011001</td>
<td>0000nnnn</td>
<td>N</td>
<td>Y</td>
<td>Continuous DTMF Tone Order (where ‘nnnn’ is the tone per Table 2.7.1.3.2.4-4).</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>011001</td>
<td>11111111</td>
<td>N</td>
<td>Y</td>
<td>Continuous DTMF Tone Order (Stop continuous DTMF tone)</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>011101</td>
<td>nnnnnnnn</td>
<td>N</td>
<td>Y</td>
<td>Service Option Control Order (Band Class 0 only) (the specific control is designated by ‘nnnnnnnn’ as determined by each service option)</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>011110</td>
<td>nnnnnnnn</td>
<td>N</td>
<td>N</td>
<td>Local Control Response Order (specific response as designated by ‘nnnnnnnnn’ as determined by each system)</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>011111</td>
<td>00000001</td>
<td>Y</td>
<td>Y</td>
<td>Mobile Station Reject Order (unspecified reason; see 2.7.3.4)</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>011111</td>
<td>00000010</td>
<td>Y</td>
<td>Y</td>
<td>Mobile Station Reject Order (message not accepted in this state; see 2.7.3.4)</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>011111</td>
<td>00000011</td>
<td>Y</td>
<td>Y</td>
<td>Mobile Station Reject Order (message structure not acceptable; see 2.7.3.4)</td>
</tr>
</tbody>
</table>
Table 2.7.3-1. Order and Order Qualification Codes Used on the r-dsch and the r-csch
(Part 3 of 4)

<table>
<thead>
<tr>
<th>r-csch Order</th>
<th>r-dsch Order</th>
<th>Order Code, ORDER (binary)</th>
<th>Order Qualification Code, ORDQ (binary)</th>
<th>More Fields other than ORDQ</th>
<th>Support Req'd</th>
<th>Name/Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>Y</td>
<td>011111</td>
<td>00000100</td>
<td>Y</td>
<td>Y</td>
<td>Mobile Station Reject Order (message field not in valid range; see 2.7.3.4)</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>011111</td>
<td>00000101</td>
<td>Y</td>
<td>Y</td>
<td>Mobile Station Reject Order (message type or order code not understood; see 2.7.3.4)</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>011111</td>
<td>00000110</td>
<td>Y</td>
<td>Y</td>
<td>Mobile Station Reject Order (message requires a capability that is not supported by the mobile station; see 2.7.3.4)</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>011111</td>
<td>00000111</td>
<td>Y</td>
<td>Y</td>
<td>Mobile Station Reject Order (message cannot be handled by the current mobile station configuration; see 2.7.3.4)</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>011111</td>
<td>00001000</td>
<td>Y</td>
<td>Y</td>
<td>Mobile Station Reject Order (response message would exceed allowable length; see 2.7.3.4)</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>011111</td>
<td>00001001</td>
<td>Y</td>
<td>Y</td>
<td>Mobile Station Reject Order (information record is not supported for the specified band class and operating mode; see 2.7.3.4)</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>011111</td>
<td>00001010</td>
<td>Y</td>
<td>Y</td>
<td>Mobile Station Reject Order (search set not specified; see 2.6.6.2.5.1)</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>011111</td>
<td>00001011</td>
<td>Y</td>
<td>Y</td>
<td>Mobile Station Reject Order (invalid search request; see 2.6.6.2.5.1)</td>
</tr>
<tr>
<td>r-csch Order</td>
<td>r-dsch Order</td>
<td>Order Code, ORDER (binary)</td>
<td>Order Qualification Code, ORDQ (binary)</td>
<td>More Fields other than ORDQ</td>
<td>Support Req'd</td>
<td>Name/Function</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------</td>
<td>-----------------------------</td>
<td>----------------------------------------</td>
<td>----------------------------</td>
<td>--------------</td>
<td>---------------</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>011111</td>
<td>00001100</td>
<td>Y</td>
<td>Y</td>
<td>Mobile Station Reject Order (invalid Frequency Assignment; see 2.6.6.2.5.1)</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>011111</td>
<td>00001101</td>
<td>Y</td>
<td>Y</td>
<td>Mobile Station Reject Order (search period too short; see 2.6.6.2.5.1)</td>
</tr>
<tr>
<td>Y</td>
<td>N</td>
<td>011111</td>
<td>00001110</td>
<td>NY</td>
<td>Y</td>
<td>Mobile Station Reject Order (RC does not match with the value in the field DEFAULT_CONFIG; see 2.6.3.3 and 2.6.3.5)</td>
</tr>
<tr>
<td>Y</td>
<td>N</td>
<td>011111</td>
<td>00001111</td>
<td>N</td>
<td>Y</td>
<td>Mobile Station Reject Order (Encryption key with the specified KEY_SEQ not stored)</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>011111</td>
<td>00010000</td>
<td>Y</td>
<td>Y</td>
<td>Mobile Station Reject Order (call assignment not accepted; see 2.7.3.4)</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>011111</td>
<td>00010001</td>
<td>Y</td>
<td>Y</td>
<td>Mobile Station Reject Order (no call control instance present with the specified identifier; see 2.7.3.4)</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>011111</td>
<td>00010010</td>
<td>Y</td>
<td>Y</td>
<td>Mobile Station Reject Order (a call control instance is already present with the specified identifier; see 2.7.3.4)</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>011111</td>
<td>00010011</td>
<td>Y</td>
<td>Y</td>
<td>Mobile Station Reject Order (TAG received does not match any of the TAG stored; see 2.7.3.4)</td>
</tr>
</tbody>
</table>

All other codes are reserved.
2.7.3.1 Base Station Challenge Order

<table>
<thead>
<tr>
<th>Order-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORDQ</td>
<td>8</td>
</tr>
<tr>
<td>RANDBS</td>
<td>32</td>
</tr>
</tbody>
</table>

ORDQ – Order qualification code.

The mobile station shall set this field to ‘00000000’.

RANDBS – Random challenge data.

The mobile station shall set this field as specified in 2.3.12.1.5.
2.7.3.2 Service Option Request Order

<table>
<thead>
<tr>
<th>Order-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORDQ</td>
<td>8</td>
</tr>
<tr>
<td>SERVICE_OPTION</td>
<td>16</td>
</tr>
</tbody>
</table>

ORDQ – Order qualification code. The mobile station shall set this field to ‘00000000’.

SERVICE_OPTION – Service option. The mobile station shall set this field to the service option code specified in [30], corresponding to the requested or alternative service option.
2.7.3.3 Service Option Response Order

<table>
<thead>
<tr>
<th>Order-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORDQ</td>
<td>8</td>
</tr>
<tr>
<td>SERVICE_OPTION</td>
<td>16</td>
</tr>
</tbody>
</table>

ORDQ – Order qualification code.
The mobile station shall set this field to ‘00000000’.

SERVICE_OPTION – Service option.
The mobile station shall set this field to the service option code specified in [30], corresponding to the accepted service option, or to ‘0000000000000000’ to reject the proposed service option. See 2.6.4.1.2.2.1.
2.7.3.4 Mobile Station Reject Order
<table>
<thead>
<tr>
<th>Order-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORDQ</td>
<td>8</td>
</tr>
<tr>
<td>REJECTED_TYPE</td>
<td>8</td>
</tr>
</tbody>
</table>

If the order is sent on the Access Channel or Enhanced Access Channel and

   REJECTED_TYPE is ‘00000111’,

or if the order is sent on the Reverse Traffic Channel and

   REJECTED_TYPE is ‘00000001’,

the order-specific fields also include the following two fields:

<table>
<thead>
<tr>
<th>RESERVED_1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>REJECTED_ORDER</td>
<td>68</td>
</tr>
<tr>
<td>REJECTED_ORDQ</td>
<td>8</td>
</tr>
</tbody>
</table>

If the order is sent on the Reverse Traffic Channel and

   REJECTED_TYPE is ‘00001100’,

the order-specific fields also include the following field:

| REJECTED_PARAM_ID | 16 |

If the order is sent on the Access Channel or Enhanced Access Channel and

   REJECTED_TYPE is ‘00001100’,

or if the order is sent on the Reverse Traffic Channel and

   REJECTED_TYPE is ‘00000011’, ‘00101000’, or
   REJECTED_TYPE is ‘00001110’, or ‘00101010’,

the order-specific fields also include the following field:

| REJECTED_RECORD  | 8  |

If the ORDQ is ‘00010000’, ‘00010001’, or ‘00010010’, the order-specific fields also include the following fields:

| CON_REF         | 8  |

If the ORDQ is ‘00010011’, the order-specific fields also include the following fields:

| CON_REF         | 8  |
| TAG             | 4  |

| REJECTED_PDU_TYPE | 0 or 2 |
| RESERVED_2        | 0 - 7 (as needed) |

1. ORDQ – Order qualification code.
The mobile station shall set this field to the ORDQ value shown in Table 2.7.3-1 corresponding to the reason for rejecting the message.

REJECTED_TYPE – Message type of rejected message.

The mobile station shall set this field to the value of the MSG_TYPE field of the message being rejected.

If the MSG_TYPE field is not 8 bits, the mobile station shall set the least significant bits of this field to the value of the MSG_TYPE field and set all the remaining bits to ‘0’.

RESERVED_1 – Reserved bits.

The mobile station shall set this field to ‘00’.

REJECTED_ORDER – Order type of rejected message.

If the rejected message was an Order Message, the mobile station shall set this field to the value of the ORDER field in the rejected message.

Otherwise, the mobile station shall omit this field.

REJECTED_ORDQ – Order qualification code of rejected message.

If the rejected message was an Order Message including an ORDQ field, the mobile station shall set this field to the value of the ORDQ field in the rejected message. If the rejected message was an Order Message not including an ORDQ field, the mobile station shall set this field to ‘00000000’.

Otherwise, the mobile station shall omit this field.

REJECTED_PARAM_ID – Parameter identification of the rejected parameter.

If the rejected message was a Set Parameters Message, the mobile station shall set this field to the PARAMETER_ID of the first parameter for which the requested operation could not be completed.

Otherwise, the mobile station shall omit this field.

REJECTED_RECORD – Record type of the rejected information record.

If the rejected message was a Feature Notification Message, an Alert With Information Message, Extended Alert With Information Message, Extended Flash With Information Message, or a Flash With Information Message, the mobile station shall set this field to the RECORD_TYPE field of the first information record that could not be accepted.

Otherwise, the mobile station shall omit this field.

CON_REF – Connection reference.

The mobile station shall set this field to the value of the connection reference of the service option connection corresponding to the call.

TAG – Transaction identifier.
The mobile station shall set this field to the transaction identifier (received from the base station) of the call assignment being rejected.

| CON_REF | Connection reference. |
| CON_REF | The mobile station shall set this field to the value of the connection reference of the service option connection corresponding to the call. |

| REJECTED_PDU_TYPE | PDU type of the rejected message. |
| REJECTED_PDU_TYPE | If P_REV_IN_USE is less than six, the mobile station shall omit this field; otherwise, the mobile station shall set this field to the REJECTED_PDU_TYPE code shown in Table 2.7.3.4-1 corresponding to the PDU type of the message being rejected. |

### Table 2.7.3.4-1. REJECTED_PDU_TYPE codes

<table>
<thead>
<tr>
<th>REJECTED_PDU_TYPE (binary)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>20 ms regular message</td>
</tr>
<tr>
<td>01</td>
<td>5 ms mini message</td>
</tr>
<tr>
<td>01</td>
<td>Reserved</td>
</tr>
<tr>
<td>11</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

| RESERVED 2 | Reserved bits. |
| RESERVED 2 | The mobile station shall add reserved bits as needed in order to make the total length of this record containing order-specific fields equal to an integer number of octets. The mobile station shall set these bits to ‘0’. |
2.7.4 Information Records

On the r-csch, information records may be included in the Status Response Message, the Extended Status Response Message, the Origination Message, and the Device Information Message. On the r-dsch, information records may be included in the Origination Continuation Message, the Enhanced Origination Message, the Flash With Information Message, the Extended Flash With Information Message, the Service Request Message, the Service Response Message, the Status Message, and the Status Response Message. Table 2.7.4-1 lists the information record type values that may be used with each message type. The following sections describe the contents of each of the record types in detail.

<table>
<thead>
<tr>
<th>Information Record</th>
<th>Record Type (binary)</th>
<th>Message Type</th>
<th>r-csch</th>
<th>r-dsch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reserved</td>
<td>000000001</td>
<td>None</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Reserved for Obsolete Identification</td>
<td>00000010</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Keypad Facility</td>
<td>00000011</td>
<td>Flash</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Called Party Number</td>
<td>00000100</td>
<td>Flash</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Calling Party Number</td>
<td>00000101</td>
<td>Flash</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Origination</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Reserved for Obsolete Identification</td>
<td>00000110</td>
<td>-</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Call Mode</td>
<td>00000111</td>
<td>Status [1]</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Terminal Information</td>
<td>00001000</td>
<td>Status [1]</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Roaming Information</td>
<td>00001001</td>
<td>Status [1]</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Security Status</td>
<td>00001010</td>
<td>Status [1]</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Connected Number</td>
<td>00001011</td>
<td>Flash</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>IMSI</td>
<td>00001100</td>
<td>Status [1]</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>ESN</td>
<td>00001101</td>
<td>Status [1]</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Band Class Information</td>
<td>00001110</td>
<td>Status [2]</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Power Class Information</td>
<td>00001111</td>
<td>Status [2]</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Operating Mode Information</td>
<td>00010000</td>
<td>Status [2]</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Service Option Information</td>
<td>00010001</td>
<td>Status [2]</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Multiplex Option Information</td>
<td>00010010</td>
<td>Status [2]</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Service Configuration Information</td>
<td>00010011</td>
<td>Status [2]</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Service Request</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Service Response</td>
<td>N</td>
<td>Y</td>
</tr>
</tbody>
</table>

Table 2.7.4-1. Information Record Types (Part 1 of 2)
<table>
<thead>
<tr>
<th>Information Record</th>
<th>Record Type (binary)</th>
<th>Message Type</th>
<th>r-csch</th>
<th>r-dsch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Called Party Subaddress</td>
<td>00010100</td>
<td>Flash</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Origination Continuation</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Calling Party Subaddress</td>
<td>00010101</td>
<td>Flash</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Origination Continuation</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Connected Subaddress</td>
<td>00010110</td>
<td>Flash</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>IMSI_M</td>
<td>00011000</td>
<td>Status [2]</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>IMSI_T</td>
<td>00011001</td>
<td>Status [2]</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Capability Information</td>
<td>00011010</td>
<td>Status [2]</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Extended Multiplex Option Information</td>
<td>00011110</td>
<td>Status [2]</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Reserved for Obsolete Identification</td>
<td>00011101</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Geo-location Information</td>
<td>00011110</td>
<td>Status [2]</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Band Subclass Information</td>
<td>00011111</td>
<td>Status [2]</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Global Emergency Call</td>
<td>00100000</td>
<td>Flash</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Hook Status</td>
<td>00100001</td>
<td>DIM</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Status [2]</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>QoS Parameters</td>
<td>00100010</td>
<td>Origination Continuation</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Enhanced Origination</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Extended Record Type — International</td>
<td>11111110</td>
<td>Country-Specific</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

All other record type values are reserved.

“Flash” refers to either the Flash With Information Message or the Extended Flash With Information Message.

“DIM” refers to the Device Information Message.

[1] This information record may be included in a Status Message, a Status Response Message, or an Extended Status Response Message.

[2] This information record may be included in a Status Response Message or an Extended Status Response Message.
2.7.4.1 Reserved
2.7.4.2 Keypad Facility

This information record can be included in a *Flash With Information Message* and allows the user to send characters entered via a keyboard or other such terminal.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHARi</td>
<td>8</td>
</tr>
</tbody>
</table>

**CHARi** – Character.

The mobile station shall include one occurrence of this field for each character entered. The mobile station shall set each occurrence of this field to the ASCII representation corresponding to the character entered, as specified in [9], with the most significant bit set to ‘0’.
2.7.4.3 Called Party Number

This information record identifies the called party’s number.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER_TYPE</td>
<td>3</td>
</tr>
<tr>
<td>NUMBER_PLAN</td>
<td>4</td>
</tr>
</tbody>
</table>

Zero or more occurrences of the following field:

| CHARi               | 8            |

| RESERVED            | 1            |

- **NUMBER_TYPE** — Type of number.
  
  The mobile station shall set this field to the NUMBER_TYPE value shown in Table 2.7.1.3.2.4-2 corresponding to the type of the called number, as defined in [7], Section 4.5.9.

- **NUMBER_PLAN** — Numbering plan.
  
  The mobile station shall set this field to the NUMBER_PLAN value shown in Table 2.7.1.3.2.4-3 corresponding to the numbering plan used for the called number, as defined in [7], Section 4.5.9.

- **CHARi** — Character.
  
  The mobile stations shall include one occurrence of this field for each character in the called number. The mobile station shall set each occurrence of this field to the ASCII representation corresponding to the character, as specified in [9], with the most significant bit set to ‘0’.

- **RESERVED** — Reserved bit.
  
  The mobile station shall set this field to ‘0’.
2.7.4.4 Calling Party Number

This information record can be included in a Flash With Information Message and identifies the calling party’s number.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER_TYPE</td>
<td>3</td>
</tr>
<tr>
<td>NUMBER_PLAN</td>
<td>4</td>
</tr>
<tr>
<td>PI</td>
<td>2</td>
</tr>
<tr>
<td>SI</td>
<td>2</td>
</tr>
</tbody>
</table>

Zero or more occurrences of the following field:

| CHARi               | 8            |

| RESERVED            | 5            |

**NUMBER_TYPE** – Type of number.

The mobile station shall set this field to the NUMBER_TYPE value shown in Table 2.7.1.3.2.4-2 corresponding to the type of the calling number, as defined in [7], Section 4.5.9.

**NUMBER_PLAN** – Numbering plan.

The mobile station shall set this field to the NUMBER_PLAN value shown in Table 2.7.1.3.2.4-3 corresponding to the numbering plan used for the calling number, as defined in [7], Section 4.5.9.

**PI** – Presentation indicator.

This field indicates whether or not the calling number should be displayed.

The mobile station shall set this field to the PI value shown in Table 2.7.4.4-1 corresponding to the presentation indicator, as defined in [7], Section 4.5.9.

<table>
<thead>
<tr>
<th>Table 2.7.4.4-1. Presentation Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
</tr>
<tr>
<td>Presentation allowed</td>
</tr>
<tr>
<td>Presentation restricted</td>
</tr>
<tr>
<td>Number not available</td>
</tr>
<tr>
<td>Reserved</td>
</tr>
</tbody>
</table>
SI – Screening indicator.

This field indicates how the calling number was screened.

The mobile station shall set this field to the SI value shown in Table 2.7.4.4-2 corresponding to the screening indicator value, as defined in [7], Section 4.5.9.

<table>
<thead>
<tr>
<th>Description</th>
<th>SI (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>User-provided, not screened</td>
<td>00</td>
</tr>
<tr>
<td>User-provided, verified and passed</td>
<td>01</td>
</tr>
<tr>
<td>User-provided, verified and failed</td>
<td>10</td>
</tr>
<tr>
<td>Network-provided</td>
<td>11</td>
</tr>
</tbody>
</table>

CHARi – Character.

The mobile stations shall include one occurrence of this field for each character in the calling number. The mobile station shall set each occurrence of this field to the ASCII representation corresponding to the character, as specified in [9], with the most significant bit set to ‘0’.

RESERVED – Reserved bits.

The mobile station shall set this field to ‘00000’.
2.7.4.5 Reserved
2.7.4.6 Call Mode

This information record can be included in a Status Message or a Status Response Message to return the mobile station’s preferred call mode and call-related information.

If $P\_REV\_IN\_USE_s$ is equal to or greater than seven, this information record will not be requested by the base station (see 3.7.2.3.2.15 & 3.7.4.4).

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORIG_MODE</td>
<td>1</td>
</tr>
<tr>
<td>PRI_SERVICE</td>
<td>16</td>
</tr>
<tr>
<td>SEC_SERVICE</td>
<td>16</td>
</tr>
<tr>
<td>RESERVED</td>
<td>7</td>
</tr>
</tbody>
</table>

**ORIG_MODE** – Origination mode indicator.

If the current call is a mobile-originated call, the mobile station shall set this field to ‘0’. If the current call is a mobile-terminated call, the mobile station shall set this field to ‘1’.

**PRI_SERVICE** – Primary service option.

The mobile station shall set this field to the value specified in [30], corresponding to the current primary service option. If no primary service option is active, the mobile station shall set this field to ‘0000000000000000’.

**SEC_SERVICE** – Secondary service option.

The mobile station shall set this field to the value specified in [30], corresponding to the current secondary service option. If no secondary service option is active, the mobile station shall set this field to ‘0000000000000000’.

**RESERVED** – Reserved bits.

The mobile station shall set this field to ‘0000000’.
2.7.4.7 Terminal Information

This information record can be included in a Status Message, a Status Response Message, or an Extended Status Response Message to return configuration information about the mobile station.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOB_P_REV</td>
<td>8</td>
</tr>
<tr>
<td>MOB_MFG_CODE</td>
<td>8</td>
</tr>
<tr>
<td>MOB_MODEL</td>
<td>8</td>
</tr>
<tr>
<td>MOB_FIRM_REV</td>
<td>16</td>
</tr>
<tr>
<td>SCM</td>
<td>8</td>
</tr>
<tr>
<td>LOCAL_CTRL</td>
<td>1</td>
</tr>
<tr>
<td>SLOT_CYCLE_INDEX</td>
<td>3</td>
</tr>
</tbody>
</table>

One or more occurrences of the following field:

<table>
<thead>
<tr>
<th>Service Option</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SERVICE_OPTION</td>
<td>16</td>
</tr>
</tbody>
</table>

RESERVED 4

MOB_P_REV – Protocol revision of the mobile station.

If the status request does not specify a band class, the mobile station shall set this field to ‘00000111’; otherwise, the mobile station shall set this field to the MOB_P_REV associated with the requested band class and operating mode.

MOB_MFG_CODE – Manufacturer code.

This field identifies the manufacturer of the mobile station.

The mobile station shall set this field to the manufacturer code assigned to its manufacturer.

MOB_MODEL – Model number.

This number is assigned by the manufacturer for a particular model.

The mobile station shall set this field to the model number assigned by the manufacturer for this mobile station.

MOB_FIRM_REV – Firmware revision number.

This number is assigned by the manufacturer for a particular firmware version.

The mobile station shall set this field to the revision number assigned by the manufacturer for the firmware version running in this mobile station.
SCM – Station class mark.

The mobile station shall set this field to its station class mark. See 2.3.3.

LOCAL_CTRL – Local control indicator.

If local control is enabled, the mobile station shall set this field to ‘1’. If local control is disabled, the mobile station shall set this field to ‘0’. See [6].

SLOT_CYCLE_INDEX – Slot cycle index.

If the requested operating mode is CDMA and the mobile station is configured for slotted mode operation, the mobile station shall set this field to the preferred slot cycle index, SLOT_CYCLE_INDEXp (see 2.6.2.1.1); otherwise, the mobile station shall set this field to ‘000’.

SERVICE_OPTION – Supported service option.

If the requested operating mode is CDMA, the mobile station shall include one occurrence of this field for each service option supported by the mobile station (see [30]); otherwise, the mobile station shall include one occurrence of this field with the value set to ‘0000000000000000’.

RESERVED – Reserved bits.

The mobile station shall set this field to ‘0000’.
2.7.4.8 Roaming Information

This information record can be included in a Status Message, a Status Response Message, or an Extended Status Response Message to return roaming information about the mobile station.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCOLC</td>
<td>4</td>
</tr>
<tr>
<td>MOB_TERM_HOME</td>
<td>1</td>
</tr>
<tr>
<td>MOB_TERM_FOR_SID</td>
<td>1</td>
</tr>
<tr>
<td>MOB_TERM_FOR_NID</td>
<td>1</td>
</tr>
</tbody>
</table>

Zero or more occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SID</td>
<td>15</td>
</tr>
<tr>
<td>NID</td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESERVED</td>
<td>0 - 7 (as needed)</td>
</tr>
</tbody>
</table>

ACCOLC – Overload class.
The mobile station shall set this field to the access overload class assigned to the mobile station.

MOB_TERM_HOME – Home (non-roaming) registration enable indicator.
If the mobile station is configured to receive mobile station terminated calls when not roaming, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’. See 2.6.5.3.

MOB_TERM_FOR_SID – Foreign SID roaming registration enable indicator.
If the mobile station is configured to receive mobile station terminated calls when it is a foreign SID roamer, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’. See 2.6.5.3.

MOB_TERM_FOR_NID – Foreign NID roaming registration enable indicator.
If the mobile station is configured to receive mobile station terminated calls when it is a foreign NID roamer, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’. See 2.6.5.3.
The mobile station shall include one occurrence of the following two-field record for each home (non-roaming) (SID, NID) pair (see 2.6.5.2):

- **SID** – System identification.
  - The mobile station shall set this field to the SID value for this (SID, NID) pair.

- **NID** – Network identification.
  - The mobile station shall set this field to the NID value for this (SID, NID) pair.

- **RESERVED** – Reserved bits.
  - The mobile station shall add reserved bits as needed in order to make the length of the entire information record equal to an integer number of octets. The mobile station shall set these bits to '0'.
2.7.4.9 Security Status

This information record can be included in a Status Message or a Status Response Message to return the authentication, encryption, and voice privacy modes of the mobile station.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTH_MODE</td>
<td>2</td>
</tr>
<tr>
<td>ENCRYPT_MODE</td>
<td>2</td>
</tr>
<tr>
<td>PRIVATE_LCM</td>
<td>1</td>
</tr>
<tr>
<td>RESERVED</td>
<td>3</td>
</tr>
</tbody>
</table>

- **AUTH_MODE** – Authentication mode.
  
  If the mobile station provided standard authentication information at the initiation of this call, the mobile station shall set this field to ‘01’; otherwise, the mobile station shall set this field to ‘00’. All other values are reserved.

- **ENCRYPT_MODE** – Message encryption mode.
  
  The mobile station shall set this field to the value shown in Table 3.7.2.3.28-2 corresponding to the message encryption mode currently in use for this call.

- **PRIVATE_LCM** – Private long code mask indicator.
  
  If the mobile station is using the private long code mask for this call, the mobile station shall set this field to ‘1’. If the mobile station is using the public long code mask for this call, the mobile station shall set this field to ‘0’.

- **RESERVED** – Reserved bits.
  
  The mobile station shall set this field to ‘000’.
2.7.4.10 Connected Number

This information record can be included in a Flash With Information Message to identify the responding party to a call.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER_TYPE</td>
<td>3</td>
</tr>
<tr>
<td>NUMBER_PLAN</td>
<td>4</td>
</tr>
<tr>
<td>PI</td>
<td>2</td>
</tr>
<tr>
<td>SI</td>
<td>2</td>
</tr>
</tbody>
</table>

Zero or more occurrences of the following field:

| CHARi               | 8             |

RESERVED – Reserved bits.

The mobile station shall set this field to ‘00000’.

---

NUMBER_TYPE – Type of number.

The mobile station shall set this field to the NUMBER_TYPE value shown in Table 2.7.1.3.2.4-2 corresponding to the type of the connected number as defined [7], Section 4.5.9.

NUMBER_PLAN – Numbering plan.

The mobile station shall set this field to the NUMBER_PLAN value shown in Table 2.7.1.3.2.4-3 corresponding to the numbering plan used for the connected number, as defined, in [7], Section 4.5.9.

PI – Presentation indicator.

This field indicates whether or not the connected number should be displayed. The mobile station shall set this field to the PI value shown in Table 2.7.4.4-1 corresponding to the presentation indicator, as defined in [7], Section 4.5.9.

SI – Screening indicator.

This field indicates how the connected number was screened. The mobile station shall set this field to the SI value shown in Table 2.7.4.4-2 corresponding to the screening indicator value, as defined in [7], Section 4.5.9.

CHARi – Character.

The mobile station shall include one occurrence of this field for each character in the connected number. The mobile station shall set each occurrence of this field to the ASCII representation corresponding to the character, as specified in [9], with the most significant bit set to ‘0’.

---
2.7.4.11 IMSI

This information record can be included in a *Status Message*, a *Status Response Message*, or an *Extended Status Response Message* to return the mobile station’s operational IMSI.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMSI_CLASS</td>
<td>1</td>
</tr>
<tr>
<td>IMSI_ADDR_NUM</td>
<td>3</td>
</tr>
<tr>
<td>MCC_O</td>
<td>10</td>
</tr>
<tr>
<td>IMSI_O_11_12</td>
<td>7</td>
</tr>
<tr>
<td>IMSI_O_S</td>
<td>34</td>
</tr>
<tr>
<td>RESERVED</td>
<td>1</td>
</tr>
</tbody>
</table>

**IMSI_CLASS** – If IMSI_O is a class 0 IMSI, the mobile station shall set this field to ‘0’; otherwise, the mobile station shall set this field to ‘1’.

**IMSI_ADDR_NUM** – Number of IMSI_O address digits.

If IMSI_O is a class 1 IMSI, the mobile station shall set this field to four less than the number of digits in the NMSI; otherwise, the mobile station shall set this field to ‘000’.

**MCC_O** – Mobile Country Code of the operational IMSI.

The mobile station shall set this field to MCC_O’s. (see 2.3.1).

**IMSI_O_11_12** – The 11th and 12th digits of the operational IMSI.

The mobile station shall set this field to IMSI_O_11_12’s. (see 2.3.1).

**IMSI_O_S** – Last ten digits of the operational IMSI.

The mobile station shall set this field to IMSI_O_S. (see 2.3.1.)

**RESERVED** – Reserved bit.

The mobile station shall set this field to ‘0’.
2.7.4.12 ESN

This information record can be included in a *Status Message*, a *Status Response Message*, or an *Extended Status Response Message* to return the mobile station ESN.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESN</td>
<td>32</td>
</tr>
</tbody>
</table>

ESN – Mobile station electronic serial number.

The mobile station shall set this field to its electronic serial number (see 2.3.2).
2.7.4.13 Band Class Information

This information record can be included in a Status Response Message, or an Extended Status Response Message to return band class information about the mobile station.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAND_CLASS_INFO</td>
<td>8 x RECORD_LEN</td>
</tr>
</tbody>
</table>

BAND_CLASS_INFO – Band class information.

This field indicates which band classes are supported by the mobile station.

This field currently consists of the following subfields which are included in the information record in the order shown:

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
<th>Subfield Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAND_CLASS_0</td>
<td>1</td>
<td>800 MHz cellular band</td>
</tr>
<tr>
<td>BAND_CLASS_1</td>
<td>1</td>
<td>1.8 to 2.0 GHz PCS band</td>
</tr>
<tr>
<td>BAND_CLASS_2</td>
<td>1</td>
<td>872 to 960 MHz TACS band</td>
</tr>
<tr>
<td>BAND_CLASS_3</td>
<td>1</td>
<td>832 to 925 MHz JTACS band</td>
</tr>
<tr>
<td>BAND_CLASS_4</td>
<td>1</td>
<td>1.75 to 1.87 GHz Korean PCS band</td>
</tr>
<tr>
<td>BAND_CLASS_5</td>
<td>1</td>
<td>450 MHz NMT band</td>
</tr>
<tr>
<td>BAND_CLASS_6</td>
<td>1</td>
<td>2 GHz IMT-2000 band</td>
</tr>
<tr>
<td>BAND_CLASS_7</td>
<td>1</td>
<td>700 MHz band</td>
</tr>
<tr>
<td>BAND_CLASS_8</td>
<td>1</td>
<td>1800 MHz band</td>
</tr>
<tr>
<td>BAND_CLASS_9</td>
<td>1</td>
<td>900 MHz band</td>
</tr>
<tr>
<td>BAND_CLASS_10</td>
<td>1</td>
<td>Secondary 800 MHz band</td>
</tr>
<tr>
<td>RESERVED</td>
<td>65</td>
<td>Reserved Bits</td>
</tr>
</tbody>
</table>

The mobile station shall set each subfield to ‘1’ if the corresponding band class (see [2] and [30]) is supported by the mobile station; otherwise, the mobile station shall set the subfield to ‘0’.

RESERVED – Reserved bits.

The mobile station shall set this field to ‘000000’.
When more band classes are defined, the reserved bits will be used for the new corresponding subfields. Sufficient octets will be added to this field to accommodate the new subfields. All the undefined bits in an additional octet will be reserved bits.

The mobile station shall set all the reserved bits to ‘0’. If all bits are set to ‘0’ in an octet and all succeeding octets, the mobile station shall omit the octet and the succeeding octets.
2.7.4.14 Power Class Information

This information record can be included in a Status Response Message, or an Extended Status Response Message to return power class information about the mobile station.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAX_EIRP</td>
<td>8</td>
</tr>
</tbody>
</table>

MAX_EIRP – Maximum effective isotropic radiated power (EIRP).

The mobile station shall set this field to the minimum EIRP at maximum output (in dBW) for the mobile station plus 60 (see [11]). When the mobile station output power is expressed in ERP, it may be converted to EIRP by adding 2 dB to the ERP value.²

² For example, if a mobile station has a minimum ERP at maximum output of -4 dBW, then the mobile station sets this field to 58.
2.7.4.15 Operating Mode Information

This information record can be included in a Status Response Message or an Extended Status Response Message to return operating mode information about the mobile station.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OP_MODE_INFO</td>
<td>$8 \times \text{RECORD_LEN}$</td>
</tr>
</tbody>
</table>

OP_MODE_INFO – Operating mode information.

This field indicates which operating modes are supported by the mobile station in the band class for which information is requested.

This field currently consists of the following subfields which are included in the information record in the order shown in Table 2.7.4.15-1 for $\text{P\_REV\_IN\_USE}_S$ less than or equal to three and in Table 2.7.4.15-2 for $\text{P\_REV\_IN\_USE}_S$ greater than three.

**Table 2.7.4.15-1. OP_MODE for $\text{P\_REV\_IN\_USE}_S$ Less Than or Equal to Three**

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
<th>Subfield Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OP_MODE0</td>
<td>1</td>
<td>CDMA mode in Band Class 1 and Band Class 4</td>
</tr>
<tr>
<td>OP_MODE1</td>
<td>1</td>
<td>CDMA mode in Band Class 0 and Band Class 3</td>
</tr>
<tr>
<td>OP_MODE2</td>
<td>1</td>
<td>Analog mode [6]</td>
</tr>
<tr>
<td>OP_MODE3</td>
<td>1</td>
<td>wide analog mode [22]</td>
</tr>
<tr>
<td>OP_MODE4</td>
<td>1</td>
<td>narrow analog mode [22]</td>
</tr>
<tr>
<td>RESERVED</td>
<td>3</td>
<td>Reserved Bits</td>
</tr>
</tbody>
</table>
Table 2.7.4.15-2. OP_MODE for P_REV_IN_USEs Greater Than Three

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
<th>Subfield Description</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>OP_MODE0</td>
<td>1</td>
<td>CDMA mode</td>
<td>[5]</td>
</tr>
<tr>
<td>OP_MODE1</td>
<td>1</td>
<td>CDMA mode³</td>
<td>[5]</td>
</tr>
<tr>
<td>OP_MODE2</td>
<td>1</td>
<td>Analog mode</td>
<td>[65]</td>
</tr>
<tr>
<td>OP_MODE3</td>
<td>1</td>
<td>Wide analog mode</td>
<td>[22]</td>
</tr>
<tr>
<td>OP_MODE4</td>
<td>1</td>
<td>Narrow analog mode</td>
<td>[22]</td>
</tr>
<tr>
<td>OP_MODE5</td>
<td>1</td>
<td>DS-41</td>
<td>[32]</td>
</tr>
<tr>
<td>OP_MODE6</td>
<td>1</td>
<td>MC-MAP</td>
<td>[31]</td>
</tr>
<tr>
<td>RESERVED</td>
<td>1</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

The mobile station shall set each subfield to ‘1’, if the corresponding operating mode is supported by the mobile station; otherwise, the mobile station shall set the subfield to ‘0’.

**RESERVED**  –  Reserved bits.

The mobile station shall set each bit in this field to ‘0’.

When more operating modes are defined, the reserved bits will be used for the new corresponding subfields. Sufficient octets will also be added to this field to accommodate the corresponding new subfields. All the undefined bits in an additional octet will be reserved bits.

If all bits are set to ‘0’ in an octet and all succeeding octets, the mobile station shall omit the octet and the succeeding octets.

---

³ The mobile station shall set OP_MODE1 as the same as OP_MODE0.
2.7.4.16 Service Option Information

This information record can be included in a *Status Response Message*, or an *Extended Status Response Message* to return service option information about the mobile station.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>One or more occurrences of the following field:</td>
<td></td>
</tr>
<tr>
<td>RESERVED</td>
<td>6</td>
</tr>
<tr>
<td>FORWARD_SUPPORT</td>
<td>1</td>
</tr>
<tr>
<td>REVERSE_SUPPORT</td>
<td>1</td>
</tr>
<tr>
<td>SERVICE_OPTION</td>
<td>16</td>
</tr>
</tbody>
</table>

The mobile station shall include one occurrence of the following record for each service option supported:

- **RESERVED** – Reserved bits. The mobile station shall set this field to ‘000000’.
- **FORWARD_SUPPORT** – Support indicator for Forward Traffic Channel. The mobile station shall set this field to ‘1’ if the service option specified in the SERVICE_OPTION field is supported on the Forward Traffic Channel.
- **REVERSE_SUPPORT** – Support indicator for Reverse Traffic Channel. The mobile station shall set this field to ‘1’ if the service option specified in the SERVICE_OPTION field is supported on the Reverse Traffic Channel.
- **SERVICE_OPTION** – Service option. The mobile station shall set this field to the value specified in [30] for the service option supported.
2.7.4.17 Multiplex Option Information

This information record can be included in a *Status Response Message* or an *Extended Status Response Message* to return multiplex option information about the mobile station. The mobile station shall include at least one, and not more than six, instances of the record within the type-specific field according to the following rules:

- Within the type-specific field, the mobile station may include one instance of a record in which MULTIPLEX_OPTION is set to 1. If this instance is included, the mobile station shall support Multiplex Option 1 for forward and reverse operation.
- Within the type-specific field, the mobile station may include one instance of a record in which MULTIPLEX_OPTION is set to 2. If this instance is included, the mobile station shall support Multiplex Option 2 for forward and reverse operation.
- Within the type-specific field, the mobile station may include one instance of a record in which MULTIPLEX_OPTION is set to 3, 5, 7, 9, 11, 13, or 15 and with FOR_NUM_BITS_RATES set to ‘00000000’. If this instance is included, the mobile station shall set MULTIPLEX_OPTION to the highest numbered multiplex option from the set \{3, 5, 7, 9, 11, 13, 15\} which the mobile station supports for reverse operation, and the mobile station shall support all multiplex options less than or equal to MULTIPLEX_OPTION from that set for reverse operation.
- Within the type-specific field, the mobile station may include one instance of a record in which MULTIPLEX_OPTION is set to 4, 6, 8, 10, 12, 14, or 16 and with FOR_NUM_BITS_RATES set to ‘00000000’. If this instance is included, the mobile station shall set MULTIPLEX_OPTION to the highest numbered multiplex option from the set \{4, 6, 8, 10, 12, 14, 16\} which the mobile station supports for reverse operation, and the mobile station shall support all multiplex options less than or equal to MULTIPLEX_OPTION from that set for reverse operation.
- Within the type-specific field, the mobile station may include one instance of a record in which MULTIPLEX_OPTION is set to 3, 5, 7, 9, 11, 13, or 15 and with REV_NUM_BITS_RATES set to ‘00000000’. If this instance is included, the mobile station shall set MULTIPLEX_OPTION to the highest numbered multiplex option from the set \{3, 5, 7, 9, 11, 13, 15\} which the mobile station supports for forward operation, and the mobile station shall support all multiplex options less than or equal to MULTIPLEX_OPTION from that set for forward operation.
- Within the type-specific field, the mobile station may include one instance of a record in which MULTIPLEX_OPTION is set to 4, 6, 8, 10, 12, 14, or 16 and with REV_NUM_BITS_RATES set to ‘00000000’. If this instance is included, the mobile station shall set MULTIPLEX_OPTION to the highest numbered multiplex option from the set \{4, 6, 8, 10, 12, 14, 16\} which the mobile station supports for forward operation, and the mobile station shall support all multiplex options less than or equal to MULTIPLEX_OPTION from that set for forward operation.
- Within the type-specific field, the mobile station shall include at least one instance of a record in which FOR_NUM_BITS_RATES is set to a value other than ‘00000000’.
• Within the type-specific field, the mobile station shall include at least one instance of a record in which REV_RATES is set to a value other than ‘00000000’.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>One or more occurrences of the following record:</td>
<td></td>
</tr>
<tr>
<td>MULTIPLEX_OPTION</td>
<td>16</td>
</tr>
<tr>
<td>FOR_NUM_BITS</td>
<td>8</td>
</tr>
<tr>
<td>REV_NUM_BITS</td>
<td>8</td>
</tr>
</tbody>
</table>

The mobile station shall include one occurrence of the following record for each specified multiplex option according to the previously stated rules:

MULTIPLEX_OPTION – Supported multiplex option.

The mobile station shall set this field to the number of the supported multiplex option from the set {1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16} (e.g., 1 corresponds to Multiplex Option 1).

FOR_NUM_BITS – Forward Traffic Channel number of bits per frame.

If FOR_NUM_BITS = ‘00000000’, then the specified multiplex option in this record shall indicate the supported multiplex option for the Reverse Traffic Channel only. In this case, no further interpretation of the FOR_NUM_BITS field shall be made. The mobile station shall not set both FOR_NUM_BITS and REV_NUM_BITS equal to ‘00000000’ in the same information record.

If MULTIPLEX_OPTION is equal to 1, 3, 5, 7, 9, 11, 13, or 15, this field consists of the subfields specified in Table 2.7.4.17-1 which are included in the information record in the order shown in the table. The subfields in Table 2.7.4.17-1 refer to the number of bits per frame supported on the Fundamental Code Channel of the Forward Traffic Channel.
Table 2.7.4.17-1. Forward Fundamental Traffic Channel
Number of Bits per Frame for Forward Multiplex Option 1

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
<th>Subfield Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS1_9600_FOR</td>
<td>1</td>
<td>172 bits per F-FCH frame</td>
</tr>
<tr>
<td>RS1_4800_FOR</td>
<td>1</td>
<td>80 bits per F-FCH</td>
</tr>
<tr>
<td>RS1_2400_FOR</td>
<td>1</td>
<td>40 bits per F-FCH frame</td>
</tr>
<tr>
<td>RS1_1200_FOR</td>
<td>1</td>
<td>16 bits per F-FCH frame</td>
</tr>
<tr>
<td>RESERVED</td>
<td>4</td>
<td>Reserved Bits</td>
</tr>
</tbody>
</table>

If MULTIPLEX_OPTION is equal to 2, 4, 6, 8, 10, 12, 14, or 16, this field consists of the subfields specified in Table 2.7.4.17-2 which are included in the information record in the order shown in the table. The subfields in Table 2.7.4.17-2 refer to the number of bits per frame supported on the Fundamental Code Channel of the Forward Traffic Channel.

Table 2.7.4.17-2. Forward Fundamental Traffic Channel
Number of Bits per Frame for Forward Multiplex Option

<table>
<thead>
<tr>
<th>MO_FOR_FCH equal to 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subfield</td>
</tr>
<tr>
<td>-----------------------</td>
</tr>
<tr>
<td>RS2_14400_FOR</td>
</tr>
<tr>
<td>RS2_7200_FOR</td>
</tr>
<tr>
<td>RS2_3600_FOR</td>
</tr>
<tr>
<td>RS2_1800_FOR</td>
</tr>
<tr>
<td>RESERVED</td>
</tr>
</tbody>
</table>

The mobile station shall set the subfields specified in Tables 2.7.4.17-1 and 2.7.4.17-2, corresponding to the Forward Traffic Channel number of bits per frame supported by the mobile station for this multiplex option to ‘1’, and shall set the remaining subfields to ‘0’. The mobile station shall set RESERVED to ‘0000’.

REV_NUM_BITS – Reverse Traffic Channel transmission rates.

If REV_NUM_BITS is equal to ‘00000000’, then the specified multiplex option in this record indicate the supported multiplex option for the Forward Traffic Channel only. In this case, no further interpretation of the REV_NUM_BITS field shall be made. The mobile station shall not set both FOR_NUM_BITS and REV_NUM_BITS equal to ‘00000000’ in the same information record.
If MULTIPLEX_OPTION is equal to 1, 3, 5, 7, 9, 11, 13, or 15, this field consists of the subfields specified in Table 2.7.4.17-3 which are included in the information record in the order shown in the table. The subfields in Table 2.7.4.17-3 refer to the number of bits per frame supported on the Fundamental Code Channel of the Reverse Traffic Channel.

### Table 2.7.4.17-3. Reverse Fundamental Traffic Channel Number of Bits per Frame for Reverse Multiplex Option

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
<th>Subfield Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS1_9600_REV</td>
<td>1</td>
<td>172 bits per R-FCH frame</td>
</tr>
<tr>
<td>RS1_4800_REV</td>
<td>1</td>
<td>80 bits per R-FCH frame</td>
</tr>
<tr>
<td>RS1_2400_REV</td>
<td>1</td>
<td>40 bits per R-FCH frame</td>
</tr>
<tr>
<td>RS1_1200_REV</td>
<td>1</td>
<td>16 bits per R-FCH frame</td>
</tr>
<tr>
<td>RESERVED</td>
<td>4</td>
<td>Reserved Bits</td>
</tr>
</tbody>
</table>

If MULTIPLEX_OPTION is equal to 2, 4, 6, 8, 10, 12, 14, or 16, this field consists of the subfields specified in Table 2.7.4.17-4 which are included in the information record in the order shown in the table. The subfields in Table 2.7.4.17-4 refer to the number of bits per frame supported on the Fundamental Code Channel of the Reverse Traffic Channel.

### Table 2.7.4.17-4. Reverse Fundamental Traffic Channel Number of Bits per Frame for Reverse Multiplex Option

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
<th>Subfield Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS2_14400_REV</td>
<td>1</td>
<td>267 bits per R-FCH frame</td>
</tr>
<tr>
<td>RS2_7200_REV</td>
<td>1</td>
<td>125 bits per R-FCH frame</td>
</tr>
<tr>
<td>RS2_3600_REV</td>
<td>1</td>
<td>55 bits per R-FCH frame</td>
</tr>
<tr>
<td>RS2_1800_REV</td>
<td>1</td>
<td>21 bits per R-FCH frame</td>
</tr>
<tr>
<td>RESERVED</td>
<td>4</td>
<td>Reserved Bits</td>
</tr>
</tbody>
</table>
The mobile station shall set the subfields specified in Table 2.7.4.17-3 and Table 2.7.4.17-4 corresponding to the Reverse Traffic Channel transmission number of bits per frame supported by the mobile station for this multiplex option to ‘1’, and shall set the remaining subfields to ‘0’. The mobile station shall set RESERVED to ‘0000’.
2.7.4.18 Service Configuration

The format of the Service Configuration information record is defined in 3.7.5.7.
2.7.4.19 Called Party Subaddress

This information record identifies the called party subaddress.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTENSION_BIT</td>
<td>1</td>
</tr>
<tr>
<td>SUBADDRESS_TYPE</td>
<td>3</td>
</tr>
<tr>
<td>ODD/EVEN_INDICATOR</td>
<td>1</td>
</tr>
<tr>
<td>RESERVED</td>
<td>3</td>
</tr>
</tbody>
</table>

Zero or more occurrences of the following field:

| CHARi                                | 8             |

EXTENSION_BIT – The extension bit.

The mobile station shall set this field to ‘1’.

SUBADDRESS_TYPE – Type of subaddress.

The mobile station shall set this field to the SUBADDRESS_TYPE value shown in Table 2.7.4.19-1 corresponding to the type of the subaddress, as defined in [7], Section 4.5.8.

<table>
<thead>
<tr>
<th>Description</th>
<th>SUBADDRESS TYPE (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSAP (CCITT Recommendation X.213/ISO 8348-AD2 see [34])</td>
<td>000</td>
</tr>
<tr>
<td>User specified</td>
<td>010</td>
</tr>
<tr>
<td>Reserved</td>
<td>others</td>
</tr>
</tbody>
</table>

ODD/EVEN_INDICATOR – The indicator of odd/even bits.

The mobile station shall set this field to the ODD/EVEN_INDICATOR value shown in Table 2.7.4.19-2 corresponding to the indicator of even/odd bits, as defined in [7], Section 4.5.8. This field is only used when the type of subaddress is “User specified” and the coding is BCD.
### Table 2.7.4.19-2. Odd/Even Indicator

<table>
<thead>
<tr>
<th>Description</th>
<th>ODD/EVEN INDICATOR (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Even number of address signals</td>
<td>0</td>
</tr>
<tr>
<td>Odd number of address signals</td>
<td>1</td>
</tr>
</tbody>
</table>

**RESERVED** – Reserved bits.

The mobile station shall set this field to ‘000’.

**CHARi** – Character.

The mobile station shall include one occurrence of this field for each character in the called party subaddress.

When the SUBADDRESS_TYPE field is equal to ‘000’, the NSAP address shall be encoded using the preferred binary encoding specified in CCITT Recommendation X.213 or ISO 8348-AD2[35].

When the SUBADDRESS_TYPE field is set to ‘010’, the user-specified subaddress field is encoded according to the user specification, subject to a maximum length of 20 octets.

When interworking with CCITT Recommendation X.25 networks, BCD coding should be applied.
2.7.4.20 Calling Party Subaddress

This information record identifies the calling party subaddress.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTENSION_BIT</td>
<td>1</td>
</tr>
<tr>
<td>SUBADDRESS_TYPE</td>
<td>3</td>
</tr>
<tr>
<td>ODD/EVEN_INDICATOR</td>
<td>1</td>
</tr>
<tr>
<td>RESERVED</td>
<td>3</td>
</tr>
</tbody>
</table>

Zero or more occurrences of the following field:

<table>
<thead>
<tr>
<th>CHARi</th>
<th>8</th>
</tr>
</thead>
</table>

EXTENSION_BIT – The extension bit.

The mobile station shall set this field to ‘1’.

SUBADDRESS_TYPE – Type of subaddress.

The mobile station shall set this field to the SUBADDRESS_TYPE value shown in Table 2.7.4.19-1 corresponding to the type of the subaddress, as defined in [7], Section 4.5.10.

ODD/EVEN_INDICATOR – The indicator of odd/even bits.

The mobile station shall set this field to the ODD/EVEN_INDICATOR value shown in Table 2.7.4.19-2 corresponding to the indicator of even/odd bits, as defined in [7], Section 4.5.10. It is only used when the type of subaddress is “User specified” and the coding is BCD.

RESERVED – Reserved bits.

The mobile station shall set this field to ‘000’.

CHARi – Character.

The mobile station shall include one occurrence of this field for each character in the calling party subaddress.

When the SUBADDRESS_TYPE field is equal to ‘000’, the NSAP address shall be encoded using the preferred binary encoding specified in _CCITT_ Recommendation X.213 or ISO 8348 AD2[35].

When the SUBADDRESS_TYPE field is set to ‘010’, user-specified subaddress field is encoded according to the user specification, subject to a maximum length of 20 octets.

When interworking with _CCITT_ Recommendation X.25[36] networks, BCD coding should be applied.
2.7.4.21 Connected Subaddress

This information record identifies the subaddress of the responding party.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTENSION_BIT</td>
<td>1</td>
</tr>
<tr>
<td>SUBADDRESS_TYPE</td>
<td>3</td>
</tr>
<tr>
<td>ODD/EVEN_INDICATOR</td>
<td>1</td>
</tr>
<tr>
<td>RESERVED</td>
<td>3</td>
</tr>
</tbody>
</table>

Zero or more occurrences of the following field:

| CHARi                      | 8             |

EXTENSION_BIT – The extension bit.
The mobile station shall set this field to ‘1’.

SUBADDRESS_TYPE – Type of subaddress.
The mobile station shall set this field to the SUBADDRESS_TYPE value shown in Table 2.7.4.19-1 corresponding to the type of the subaddress, as defined in [7], Section 4.5.14.

ODD/EVEN_INDICATOR – The indicator of odd/even bits.
The mobile station shall set this field to the ODD/EVEN_INDICATOR value shown in Table 2.7.4.19-2 corresponding to the indicator of even/odd bits, as defined in [7], Section 4.5.14. It is only used when the type of subaddress is “User specified” and the coding is BCD.

RESERVED – Reserved bits.
The mobile station shall set this field to ‘000’.

CHARi – Character.
The mobile station shall include one occurrence of this field for each character in the connected subaddress.

When the SUBADDRESS_TYPE field is equal to ‘000’, the NSAP address shall be encoded using the preferred binary encoding specified in \texttt{CCITT Recommendation X.213 or ISO 8348 AD2}[35].

When the SUBADDRESS_TYPE field is set to ‘010’, user-specified subaddress field is encoded according to the user specification, subject to a maximum length of 20 octets. When interworking with \texttt{CCITT Recommendation X.25}[36] networks, BCD coding should be applied.
2.7.4.22 Power Control Information

This information record can be included in a *Status Response Message*, or an *Extended Status Response Message* to return the minimum power control step size supported by the mobile station (see 2.1.2.3.2).

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIN_PWR_CNTL_STEP</td>
<td>3</td>
</tr>
<tr>
<td>RESERVED</td>
<td>5</td>
</tr>
</tbody>
</table>

**MIN_PWR_CNTL_STEP** – Minimum power control step size

The mobile station shall set this field to the PWR_CNTL_STEP value associated with the minimum closed loop power control step size shown in Table 3.7.3.3.2.25-1 that the mobile station supports.

**RESERVED** – Reserved bits.

The mobile station shall set this field to ‘00000’.
2.7.4.23 IMSI_M

This information record can be included in a Status Response Message, or an Extended Status Response Message to return the mobile station’s IMSI_Mp.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMSI_M_CLASS</td>
<td>1</td>
</tr>
<tr>
<td>IMSI_M_ADDR_NUM</td>
<td>3</td>
</tr>
<tr>
<td>MCC_M</td>
<td>10</td>
</tr>
<tr>
<td>IMSI_M_11_12</td>
<td>7</td>
</tr>
<tr>
<td>IMSI_M_S</td>
<td>34</td>
</tr>
<tr>
<td>RESERVED</td>
<td>1</td>
</tr>
</tbody>
</table>

IMSI_M_CLASS – IMSI_M Class assignment of the mobile station.

If the mobile station’s IMSI_M is a class 0 IMSI, the mobile station shall set this field to ‘0’; otherwise, the mobile station shall set this field to ‘1’.

IMSI_M_ADDR_NUM – Number of IMSI_Mp address digits.

If the mobile station’s IMSI_M is a class 1 IMSI, the mobile station shall set this field to four less than the number of digits in the NMSI; otherwise, the mobile station shall set this field to ‘000’.

MCC_M – Mobile Country Code of the MIN based IMSI.

The mobile station shall set this field the MCC_Mp. See 2.3.1.

IMSI_M_11_12 – The 11th and 12th digits of IMSI_M.

The mobile station shall set this field to IMSI_M_11_12p. See 2.3.1.

IMSI_M_S – Last ten digits of the IMSI_M.

The mobile station shall set this field to IMSI_M_Sp. See 2.3.1.

RESERVED – Reserved bit.

The mobile station shall set this field to ‘0’.
2.7.4.24 IMSI_T

This information record can be included in a Status Response Message, or an Extended Status Response Message to return the mobile station’s IMSI_T.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMSI_T_CLASS</td>
<td>1</td>
</tr>
<tr>
<td>IMSI_T_ADDR_NUM</td>
<td>3</td>
</tr>
<tr>
<td>MCC_T</td>
<td>10</td>
</tr>
<tr>
<td>IMSI_T_11_12</td>
<td>7</td>
</tr>
<tr>
<td>IMSI_T_S</td>
<td>34</td>
</tr>
<tr>
<td>RESERVED</td>
<td>1</td>
</tr>
</tbody>
</table>

IMSI_T_CLASS – IMSI_T Class assignment of the mobile station.

If the mobile station’s IMSI_T is a class 0 IMSI, the mobile station shall set this field to ‘0’; otherwise, the mobile station shall set this field to ‘1’.

IMSI_T_ADDR_NUM – Number of IMSI_T p address digits.

If the mobile station’s IMSI_T is a class 1 IMSI, the mobile station shall set this field to four less than the number of digits in the NMSI; otherwise, the mobile station shall set this field to ‘000’.

MCC_T – Mobile Country Code of the IMSI_T.

The mobile station shall set this field to the MCC_Tp. See 2.3.1.

IMSI_T_11_12 – The 11th and 12th digits of the IMSI_Tp.

The mobile station shall set this field to IMSI_T_11_12p. See 2.3.1.

IMSI_T_S – Last ten digits of the IMSI_Tp.

The mobile station shall set this field to IMSI_T_Sp. See 2.3.1.

RESERVED – Reserved bit.

The mobile station shall set this field to ‘0’.
2.7.4.25 Capability Information

This information record identifies whether the following optional or MOB_P_REV dependent features are supported by the mobile station.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCESS_ENTRY_HO</td>
<td>1</td>
</tr>
<tr>
<td>ACCESS_PROBE_HO</td>
<td>1</td>
</tr>
<tr>
<td>ANALOG_SEARCH</td>
<td>1</td>
</tr>
<tr>
<td>HOPPING_BEACON</td>
<td>1</td>
</tr>
<tr>
<td>MAHHO</td>
<td>1</td>
</tr>
<tr>
<td>PUF</td>
<td>1</td>
</tr>
<tr>
<td>ANALOG_553A</td>
<td>1</td>
</tr>
<tr>
<td>QPCH</td>
<td>1</td>
</tr>
<tr>
<td>SLOTTED_TIMER</td>
<td>1</td>
</tr>
<tr>
<td>CHS_SUPPORTED</td>
<td>1</td>
</tr>
<tr>
<td>GATING_RATE_SET</td>
<td>0 or 2</td>
</tr>
<tr>
<td>EXT_CAP_INCLUDED</td>
<td>1</td>
</tr>
</tbody>
</table>

If EXT_CAP_INCLUDED is set to ‘1’, include the following two-field record:

<table>
<thead>
<tr>
<th></th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MABO</td>
<td>0 or 1</td>
</tr>
<tr>
<td>SDB</td>
<td>0 or 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLP_INFO_LEN</td>
<td>3</td>
</tr>
<tr>
<td>RLP_BLOB</td>
<td>8 X RLP_INFO_LEN</td>
</tr>
<tr>
<td>FLEX_SUPPORTED</td>
<td>1</td>
</tr>
<tr>
<td>F_FCH_FLEX_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>R_FCH_FLEX_SUPPORTED</td>
<td>0 or 1</td>
</tr>
</tbody>
</table>

(continues on next page)
### ACCESS_ENTRY_HO – Access Entry Handoff Support.

This field identifies the mobile station’s support for access entry handoff (see 2.6.2.3). The mobile station shall set this field to ‘1’ if access entry handoff is supported; otherwise, the mobile station shall set this field to ‘0’.

### ACCESS_PROBE_HO – Access Probe Handoff Support.

This field identifies the mobile station’s support for access probe handoff (see 2.6.3.1.3.3). The mobile station shall set this field to ‘1’ if access probe handoff is supported; otherwise, the mobile station shall set this field to ‘0’.

### ANALOG_SEARCH – Analog Search Support.

This field identifies the mobile station’s support for analog searching (see 2.6.6.2.10). The mobile station shall set this field to ‘1’ if analog searching is supported; otherwise, the mobile station shall set this field to ‘0’.

### HOPPING_BEACON – Hopping Beacon Support.

This field identifies the mobile station’s support for hopping pilot beacons. The mobile station shall set this field to ‘1’ if hopping pilot beacons are supported; otherwise, this field shall be set to ‘0’.

---

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>F_DCCH_FLEX_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>R_DCCH_FLEX_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>F_SCH_FLEX_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>R_SCH_FLEX_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>VAR_SUPPORTED</td>
<td>1</td>
</tr>
<tr>
<td>F_SCH_VAR_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>R_SCH_VAR_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>MAX_SUM_NUM_BITS_C</td>
<td>0 or 16</td>
</tr>
<tr>
<td>MAX_SUM_NUM_BITS_T</td>
<td>0 or 16</td>
</tr>
<tr>
<td>CS_SUPPORTED</td>
<td>1</td>
</tr>
<tr>
<td>F_SCH_LTU_TAB_SUPPORTED</td>
<td>1</td>
</tr>
<tr>
<td>R_SCH_LTU_TAB_SUPPORTED</td>
<td>1</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 - 7 (as needed)</td>
</tr>
</tbody>
</table>
MAHNO – Mobile Assisted Hard Handoff Support.
This field identifies the mobile station’s support for mobile assisted hard handoff. The mobile station shall set this field to ‘1’.

PUF – Location Power Up Function Support.
This field identifies the mobile station’s support for location power up function (see 2.6.4.1.7).
If MOB_P_REVp is equal to ‘00000101’, the mobile station shall set this field to ‘1’; otherwise the mobile station shall set this field as follows:
If the mobile station supports location power up function, the mobile station shall set this field to ‘1’, otherwise, the mobile station shall set this field to ‘0’.

ANALOG_553A – Analog Support.
This field identifies the mobile station’s compatibility with [12]. The mobile station shall set this field to ‘1’.

QPCH – Quick Paging Channel Support.
This field identifies the mobile station’s support for the Quick Paging Channel. The mobile station shall set this field to ‘1’ if the Quick Paging Channel is supported; otherwise, the mobile station shall set this field to ‘0’.

SLOTTED_TIMER – Slotted Timer Support.
This field identifies the mobile station’s support for the Slotted Timer. The mobile station shall set this field to ‘1’ if the Slotted Timer is supported; otherwise, the mobile station shall set this field to ‘0’.

CHS_SUPPORTED – Control Hold Mode supported indicator.
The mobile station shall set this field to ‘1’ to indicate that the mobile station supports the Control Hold Mode; otherwise, the mobile station shall set this field to ‘0’.

GATING_RATE_SET – Set of supported Reverse Pilot gating rates.
If CHS_SUPPORTED is included and is set to ‘1’, the mobile station shall set this field to value shown in Table 2.7.4.25-1 corresponding to the set of supported reverse pilot gating rates; otherwise the mobile station shall omit this field.
Table 2.7.4.25-1. Set of supported Reverse Pilot Gating Rates

<table>
<thead>
<tr>
<th>GATING_RATE_SET field (binary)</th>
<th>Gating Rates Capability</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Gating rates 1</td>
</tr>
<tr>
<td>01</td>
<td>Gating rates 1 and ½</td>
</tr>
<tr>
<td>10</td>
<td>Gating rates 1, ½ and ¼</td>
</tr>
<tr>
<td>11</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

EXT_CAP_INCLUDED – Extended Capabilities Included indicator.

The mobile station shall set this field to ‘1’ to indicate that extended capability indicators are included in this record; otherwise, the mobile station shall set this field to ‘0’.

MABO – Mobile Assisted Burst Operation capability indicator.

If EXT_CAP_INCLUDED is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:

If EXT_CAP_INCLUDED is set to ‘1’, the mobile station shall set this field to ‘1’ to indicate that it supports the Mobile Assisted Burst Operation capability; otherwise, the mobile station shall set this field to ‘0’.

SDB – Short Data Burst supported indicator.

If EXT_CAP_INCLUDED is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:

If EXT_CAP_INCLUDED is set to ‘1’, the mobile station shall set this field to ‘1’ to indicate that it supports Short Data Burst capability; otherwise, the mobile station shall set this field to ‘0’.

RLP_INFO_LEN – RLP capability information length.

The mobile station shall set this field to ‘000’ if the RLP_BLOB field is not included in this record; otherwise, it shall set this field to the size of the RLP_BLOB field in integer number of octets.


If the RLP_INFO_LEN field is set to ‘000’, the mobile station shall omit this field; otherwise, the mobile station shall set this field as follows:

The mobile station shall set this field to the Radio Link Protocol information block of bits.

FLEX_SUPPORTED – Flexible rate feature supported indicator.
The mobile station shall set this field to ‘1’ if it supports the
flexible rate feature (the capability to support a non-listed
frame format) on any of the forward or reverse Fundamental,
Supplemental or Dedicated Control channels; otherwise, the
mobile station shall set this field to ‘0’.

F_FCH_FLEX-
_SUPPORTED – Forward Fundamental channel flexible rate feature supported
indicator.

The mobile station shall include this field only if
FLEX_SUPPORTED is equal to ‘1’. If this field is included, the
mobile station shall set this field to ‘1’ if it supports the
flexible rate feature for the Forward Fundamental Channel;
otherwise, the mobile station shall set this field to ‘0’.

R_FCH_FLEX-
_SUPPORTED – Reverse Fundamental channel flexible rate feature supported
indicator.

The mobile station shall include this field only if
FLEX_SUPPORTED is equal to ‘1’. If this field is included, the
mobile station shall set this field to ‘1’ if it supports the
flexible rate feature for the Reverse Fundamental Channel;
otherwise, the mobile station shall set this field to ‘0’.

F_DCCH_FLEX-
_SUPPORTED – Forward Dedicated Control channel flexible rate feature
supported indicator.

The mobile station shall include this field only if
FLEX_SUPPORTED is equal to ‘1’. If this field is included, the
mobile station shall set this field to ‘1’ if it supports the
flexible rate feature for the Forward Dedicated Control
Channel; otherwise, the mobile station shall set this field to
‘0’.

R_DCCH_FLEX-
_SUPPORTED – Reverse Dedicated Control channel flexible rate feature
supported indicator.

The mobile station shall include this field only if
FLEX_SUPPORTED is equal to ‘1’. If this field is included, the
mobile station shall set this field to ‘1’ if it supports the
flexible rate feature for the Reverse Dedicated Control
Channel; otherwise, the mobile station shall set this field to
‘0’.

F_SCH_FLEX-
_SUPPORTED – Forward Supplemental channel flexible rate feature supported
indicator.
The mobile station shall include this field only if FLEX_SUPPORTED is equal to ‘1’. If this field is included, the mobile station shall set this field to ‘1’ if it supports the flexible rate feature for the Forward Supplemental Channel; otherwise, the mobile station shall set this field to ‘0’.

**R_SCH_FLEX-SUPPORTED** – Reverse Supplemental channel flexible rate feature supported indicator.

The mobile station shall include this field only if FLEX_SUPPORTED is equal to ‘1’. If this field is included, the mobile station shall set this field to ‘1’ if it supports the flexible rate feature for the Reverse Supplemental Channel; otherwise, the mobile station shall set this field to ‘0’.

**VAR_SUPPORTED** – Variable rate feature supported indicator.

The mobile station shall set this field to ‘1’ if it supports the variable rate feature (the capability to support rate determination) on any of the forward or reverse Supplemental or Dedicated Control channels; otherwise, the mobile station shall set this field to ‘0’.

**F_SCH_VAR-SUPPORTED** – Forward Supplemental Channel Variable Rate supported indicator.

The mobile station shall include this field only if FLEXVAR_SUPPORTED is equal to ‘1’. If this field is included, the mobile station shall set this field to ‘1’ if it supports the rate determination feature on the Forward Supplemental Channels.

**R_SCH_VAR-SUPPORTED** – Reverse Supplemental Channel Variable Rate supported indicator.

The mobile station shall include this field only if FLEXVAR_SUPPORTED is equal to ‘1’. If this field is included, the mobile station shall set this field to ‘1’ if it supports the variable rate determination feature on the Reverse Supplemental Channels.

**MAX_SUM_NUM_BITS_C** – Maximum sum of number of bits corresponding to Convolutional rates in the variable rate set.

The mobile station shall include this field only if F_SCH_VAR_SUPPORTED is equal to ‘1’. If this field is included, the mobile station shall set this field to the maximum of the sum of possible information bits per 20 ms corresponding to the Convolutional Code rates in the Variable Rate Set for a Forward Supplemental Channel below which the mobile station is capable of performing rate determination on the forward supplemental channel when Convolutional coding is used.
MAX_SUM-
_NUM_BITS_T – Maximum sum of number of bits corresponding to Turbo Code
rates in the variable rate set.

The mobile station shall include this field only if
F_SCH_VAR_SUPPORTED is equal to ‘1’. If this field is
included, the mobile station shall set this field to the
maximum of the sum of possible information bits per 20 ms
corresponding to the Turbo Code rates in the Variable Rate
Set for a Forward Supplemental Channel below which the
mobile station is capable of performing rate determination on
the forward supplemental channel when Turbo coding is used.

CS_SUPPORTED – Concurrent Services supported indicator.

If the mobile station supports concurrent services, the mobile
station shall set this field to ‘1’; otherwise, the mobile station
shall set this field to ‘0’.

F_SCH_LTU_TAB
_SUPPORTED – Forward Supplemental Channel Downloadable LTU tables
supported indicator.

If the mobile station supports downloadable LTU Tables for
Forward Supplemental Channel, the mobile station shall set
this field to ‘1’; otherwise, the mobile station shall set this field
to ‘0’.

R_SCH_LTU_TAB
_SUPPORTED – Reverse Supplemental Channel Downloadable LTU tables
supported indicator.

If the mobile station supports downloadable LTU Tables for
Reverse Supplemental Channel, the mobile station shall set
this field to ‘1’; otherwise, the mobile station shall set this field
to ‘0’.

RESERVED – Reserved bits.

The mobile station shall add reserved bits as needed in order
to make the length of the entire information record equal to an
integer number of octets. The mobile station shall set these
bits to ‘0’.
2.7.4.26 Extended Record Type - International

The use of this record type is country-specific. The first ten bits of the type-specific fields shall include the Mobile Country Code (MCC) associated with the national standards organization administering the use of the record type. Encoding of the MCC shall be as specified in 2.3.1.3. The remaining six bits of the first two octets of the type-specific fields shall be used to specify the country-specific record type.
2.7.4.27 Channel Configuration Capability Information

This information record can be included in a Status Response Message or an Extended Status Response Message to return channel configuration capability information about the mobile station.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTD_SUPPORTED</td>
<td>1</td>
</tr>
<tr>
<td>FCH_SUPPORTED</td>
<td>1</td>
</tr>
<tr>
<td>FCH Type-specific fields</td>
<td>0 or Variable</td>
</tr>
<tr>
<td>DCCH_SUPPORTED</td>
<td>1</td>
</tr>
<tr>
<td>DCCH Type-specific fields</td>
<td>0 or Variable</td>
</tr>
<tr>
<td>FOR_SCH_SUPPORTED</td>
<td>1</td>
</tr>
<tr>
<td>FOR_SCH Type-specific fields</td>
<td>0 or Variable</td>
</tr>
<tr>
<td>REV_SCH_SUPPORTED</td>
<td>1</td>
</tr>
<tr>
<td>REV_SCH Type-specific fields</td>
<td>0 or Variable</td>
</tr>
<tr>
<td>NONOCTET_ALIGNED_DATA</td>
<td>0 or 2</td>
</tr>
<tr>
<td>OCTET_ALIGNED_DATA</td>
<td>1</td>
</tr>
<tr>
<td>3X_CCH_SUPPORTED</td>
<td>1</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 - 7 (as needed)</td>
</tr>
</tbody>
</table>

OTD_SUPPORTED – OTD supported indicator.

The mobile station shall set this field to ‘1’ if the mobile station supports orthogonal transmission diversity; otherwise, the mobile station shall set this field to ‘0’.

FCH_SUPPORTED – Fundamental Channel supported indicator.

The mobile station shall set this field to ‘1’, if the mobile station supports the Fundamental Channel; otherwise, the mobile station shall set this field to ‘0’.

FCH Type-specific fields – Fundamental Channel configuration capability information.

If the FCH_SUPPORTED field is set to ‘1’, the mobile station shall include this field and set it as described in 2.7.4.27.1; otherwise the mobile station shall omit this field.

DCCH_SUPPORTED – Dedicated Control Channel supported indicator.
The mobile station shall set this field to ‘1’ if the mobile station supports the Dedicated Control Channel; otherwise, the mobile station shall set this field to ‘0’.

DCCH Type-specific fields – Fundamental Channel configuration capability information.

If the DCCH_SUPPORTED field is set to ‘1’, the mobile station shall include this field and set it as described in 2.7.4.27.2; otherwise the mobile station shall omit this field.

FOR_SCH_SUPPORTED – Forward Supplemental Channel supported indicator.

The mobile station shall set this field to ‘1’ if the mobile station supports the Forward Supplemental Channel; otherwise, the mobile station shall set this field to ‘0’.

FOR_SCH Type-specific fields – Forward Supplemental Channel Configuration Capability Information.

If the FOR_SCH_SUPPORTED field is set to ‘1’, the mobile station shall include this field and set it as described in 2.7.4.27.3; otherwise the mobile station shall omit this field.

REV_SCH_SUPPORTED – Reverse Supplemental Channel supported indicator.

The mobile station shall set this field to ‘1’ if the mobile station supports the Reverse Supplemental Channel; otherwise, the mobile station shall set this field to ‘0’.

REV_SCH Type-specific fields – Reverse Supplemental Channel Configuration capability information.

If the REV_SCH_SUPPORTED field is set to ‘1’, the mobile station shall include this field and set it as described in 2.7.4.27.4; otherwise the mobile station shall omit this field.

NONOCTETAligned-DATA RESERVED_1 – Non-octet Aligned Data Block supported indicator, Reserved bits.

If both the FOR_SCH_SUPPORTED and REV_SCH_SUPPORTED fields are set to ‘0’, the mobile station shall omit this field. Otherwise, the mobile station shall include this field and set this field to ‘1’ if it supports use of non-octet aligned data blocks on a SCH ‘00’.

OCTETAligned-DATA – Octet Aligned Data Block supported indicator.

If both the FOR_SCH_SUPPORTED and REV_SCH_SUPPORTED fields are set to ‘0’, the mobile station shall omit this field. Otherwise, the mobile station shall set this field to ‘1’ if it supports use of octet aligned data blocks on a SCH.

STS_SUPPORTED – STS supported indicator.
The mobile station shall set this field to ‘1’ if the mobile station supports Space Time Spreading Transmit Diversity; otherwise, the mobile station shall set this field to ‘0’.

3X_CCH_SUPPORTED – 3X Common Channel supported.

The mobile station shall set this field to ‘1’ if the mobile station supports the Spreading Rate 3 common channels (3X BCCH, 3X F-CCCH, and 3X R-EACH); otherwise, the mobile station shall set this field to ‘0’.

RESERVED – Reserved bits.

The mobile station shall add reserved bits as needed in order to make the length of the entire information record equal to an integer number of octets. The mobile station shall set these bits to ‘0’.
2.7.4.27.1 FCH Type-specific Fields

The Fundamental Channel configuration capability information included in the FCH Type-specific fields contains the following subfields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FCH_FRAME_SIZE</td>
<td>Fundamental Channel Frame Size capability indicator.</td>
</tr>
<tr>
<td></td>
<td>If in addition to the 20 ms frame size the mobile station also supports the 5 ms frame size on the Fundamental Channel, the mobile station shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.</td>
</tr>
<tr>
<td>FOR_FCH_LEN</td>
<td>Forward Fundamental Channel Configuration information length.</td>
</tr>
<tr>
<td></td>
<td>The mobile station shall set this field to the number of 3 bit units required to specify the length, in bits, of the FOR_FCH_RC_MAP field.</td>
</tr>
<tr>
<td>FOR_FCH_RC_MAP</td>
<td>Forward Fundamental Radio Configuration information.</td>
</tr>
<tr>
<td></td>
<td>The mobile station shall set this field as described below to indicate which Radio Configurations (see [2] Table 3.1.3.1-1) are supported by the mobile station on the Forward Fundamental Channel.</td>
</tr>
<tr>
<td></td>
<td>This field consists of the sequence of 1-bit indicators, each indicating the mobile station support for specific Radio Configuration. Bit positions of these indicators in the field and corresponding Radio Configurations are specified in Table 2.7.4.27.1-1.</td>
</tr>
<tr>
<td></td>
<td>The mobile station shall set each indicator to ‘1’ if the corresponding Radio Configuration on the Forward Fundamental Channel is supported by the mobile station; otherwise, the mobile station shall set the indicator to ‘0’. The mobile station shall set any unused bits in the field to ‘0’.</td>
</tr>
</tbody>
</table>
Table 2.7.4.27.1-1. Forward Channel Radio Configurations Supported

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
<th>Subfield Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC1</td>
<td>1</td>
<td>Radio Configuration 1</td>
</tr>
<tr>
<td>RC2</td>
<td>1</td>
<td>Radio Configuration 2</td>
</tr>
<tr>
<td>RC3</td>
<td>1</td>
<td>Radio Configuration 3</td>
</tr>
<tr>
<td>RC4</td>
<td>1</td>
<td>Radio Configuration 4</td>
</tr>
<tr>
<td>RC5</td>
<td>1</td>
<td>Radio Configuration 5</td>
</tr>
<tr>
<td>RC6</td>
<td>1</td>
<td>Radio Configuration 6</td>
</tr>
<tr>
<td>RC7</td>
<td>1</td>
<td>Radio Configuration 7</td>
</tr>
<tr>
<td>RC8</td>
<td>1</td>
<td>Radio Configuration 8</td>
</tr>
<tr>
<td>RC9</td>
<td>1</td>
<td>Radio Configuration 9</td>
</tr>
</tbody>
</table>

REV_FCH_LEN – Reverse Fundamental Channel Configuration information length.

The mobile station shall this field to the number of 3 bit units required to specify the length, in bits, of the REV_FCH_RC_MAP field.

REV_FCH_RC_MAP – Reverse Fundamental Radio Configuration information.

The mobile station shall set this field as described below to indicate which Radio Configurations (see [2] Table 2.1.3.1-1) are supported by the mobile station on the Reverse Fundamental Channel.

This field consists of the sequence of 1-bit indicators, each indicating the mobile station support for specific Radio Configuration. Bit positions of these indicators in the field and corresponding Radio Configurations are specified in Table 2.7.4.27.1-2.

The mobile station shall set each indicator to ‘1’ if the corresponding Radio Configuration on the Reverse Fundamental Channel is supported by the mobile station; otherwise, the mobile station shall set the indicator to ‘0’. The mobile station shall set any unused bits in the field to ‘0’.
Table 2.7.4.27.1-2. Reverse Channel Radio Configurations Supported

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
<th>Subfield Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC1</td>
<td>1</td>
<td>Radio Configuration 1</td>
</tr>
<tr>
<td>RC2</td>
<td>1</td>
<td>Radio Configuration 2</td>
</tr>
<tr>
<td>RC3</td>
<td>1</td>
<td>Radio Configuration 3</td>
</tr>
<tr>
<td>RC4</td>
<td>1</td>
<td>Radio Configuration 4</td>
</tr>
<tr>
<td>RC5</td>
<td>1</td>
<td>Radio Configuration 5</td>
</tr>
<tr>
<td>RC6</td>
<td>1</td>
<td>Radio Configuration 6</td>
</tr>
</tbody>
</table>
2.7.4.27.2 DCCH Type-Specific Fields

The Dedicated Control Channel configuration capability information included in the DCCH Type-specific fields contains the following subfields:

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCCH_FRAME_SIZE</td>
<td>Frame Size supported indicator on the Dedicated Control Channel.</td>
</tr>
<tr>
<td>FOR_DCCH_LEN</td>
<td>Forward Dedicated Control Channel Configuration information length.</td>
</tr>
<tr>
<td>FOR_DCCH_RC_MAP</td>
<td>Forward Dedicated Control Channel Radio Configuration information.</td>
</tr>
</tbody>
</table>

- **DCCH_FRAME_SIZE**
  - Frame Size supported indicator on the Dedicated Control Channel.
  - The mobile station shall set this field to the frame size supported for the forward and reverse DCCH, as shown in Table 2.7.4.27.2-1.

  **Table 2.7.4.27.2-1. DCCH Frame Size Supported**

<table>
<thead>
<tr>
<th>DCCH_FRAME_SIZE (binary)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Either 5 ms or 20 ms frame sizes (not dynamically switchable)</td>
</tr>
<tr>
<td>01</td>
<td>20 ms frame size only</td>
</tr>
<tr>
<td>10</td>
<td>5 ms frame size only</td>
</tr>
<tr>
<td>11</td>
<td>Both 5 ms and 20 ms frame sizes (Dynamically switchable)</td>
</tr>
</tbody>
</table>

- **FOR_DCCH_LEN**
  - The mobile station shall set this field to the number of 3 bit units required to specify the length, in bits, of the FOR_DCCH_RC_MAP field.

- **FOR_DCCH_RC_MAP**
  - Forward Dedicated Channel Radio Configuration information.
  - The mobile station shall set this field as described below to indicate which Radio Configurations (See [2]—Table 3.1.3.1-4) are supported by the mobile station on the Forward Dedicated Control Channel.

  - This field consists of the sequence of 1-bit indicators, each indicating the mobile station support for specific Radio Configuration. Bit positions of these indicators in the field and corresponding Radio Configurations are specified in Table 2.7.4.27.1-1.
The mobile station shall set each indicator to ‘1’ if the corresponding Radio Configuration on the Forward Dedicated Control Channel is supported by the mobile station; otherwise, the mobile station shall set the indicator to ‘0’. The mobile station shall set any unused bits in the field to ‘0’.

**REV_DCCH_LEN** – Reverse Dedicated Control Channel Configuration information length.

The mobile station shall set this field to the number of 3 bit units required to specify the length, in bits, of the **REV_DCCH_RC_MAP** field.

**REV_DCCH_RC_MAP** – Reverse Dedicated Control Channel Radio Configuration information.

The mobile station shall set this field as described below to indicate which Radio Configurations (see [2] Table 2.1.3.1-1) are supported by the mobile station on the Reverse Dedicated Control Channel.

This field consists of the sequence of 1-bit indicators, each indicating the mobile station support for specific Radio Configuration. Bit positions of these indicators in the field and corresponding Radio Configurations are specified in Table 2.7.4.27.1-2.

The mobile station shall set each indicator to ‘1’ if the corresponding Radio Configuration on the Reverse Dedicated Control Channel is supported by the mobile station; otherwise, the mobile station shall set the indicator to ‘0’. The mobile station shall set any unused bits in the field to ‘0’.
2.7.4.27.3 FOR_SCH Type-Specific Fields.

The Forward Supplemental Channel configuration capability information included in the FOR_SCH Type-specific fields contains the following subfields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR_SCH_LEN</td>
<td>Forward Supplemental Channel information length in units of 3 bits.</td>
</tr>
<tr>
<td>FOR_SCH_RC_MAP</td>
<td>Forward Supplemental Channel Radio Configuration capability.</td>
</tr>
<tr>
<td>FOR_SCH_NUM</td>
<td>Number of Forward Supplemental Channels.</td>
</tr>
</tbody>
</table>

FOR_SCH_LEN – Forward Supplemental Channel information length in units of 3 bits.

The mobile station shall set this field to the number of 3 bit units required to specify the length, in bits, of the FOR_SCH_RC_MAP field.

FOR_SCH_RC_MAP – Forward Supplemental Channel Radio Configuration capability.

The mobile station shall set this field as described below to indicate which Radio Configurations (see [2] Table 3.1.3.1-1) are supported by the mobile station on the Forward Supplemental Channel.

This field consists of the sequence of 1-bit indicators, each indicating the mobile station support for specific Radio Configuration. Bit positions of these indicators in the field and corresponding Radio Configurations are specified in Table 2.7.4.27.1-1.

The mobile station shall set each indicator to ‘1’ if the corresponding Radio Configuration on the Forward Supplemental Channel is supported by the mobile station; otherwise, the mobile station shall set the indicator to ‘0’. The mobile station shall set any unused bits in the field to ‘0’.

FOR_SCH_NUM – Number of Forward Supplemental Channels.
The mobile station shall set this field to the number of Forward Supplemental Channels supported by the mobile station.

If the FOR_SCH_NUM field is greater than zero, the mobile station shall include one occurrence of the following 8 fields for each Forward Supplemental Channel supported by the mobile station. The first occurrence is SCH0 related information. The second occurrence (if any) is SCH1 related information.

**FOR_TURBO-SUPPORTED** – Forward Turbo Coding supported indicator.

If the mobile station supports Turbo Coding on this Forward Supplemental Channel, it shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

**FOR_MAX_TURBO-BLOCK_SIZE** – Forward maximum Turbo Coding block size.

If the field FOR_TURBO_SUPPORTED is set to ‘0’, the mobile station shall omit this field; otherwise the mobile station shall include this field and set it to the maximum block size allowed for Turbo coding (see Table 2.7.4.27.3-1).

### Table 2.7.4.27.3-1. Block Size

<table>
<thead>
<tr>
<th>FOR_MAX_TURBO_BLOCK_SIZE</th>
<th>Block Size</th>
<th>REV_MAX_TURBO_BLOCK_SIZE</th>
<th>Block Size</th>
<th>FOR_MAX_CONV_BLOCK_SIZE</th>
<th>Block Size</th>
<th>REV_MAX_CONV_BLOCK_SIZE</th>
<th>Block Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>(binary)</td>
<td></td>
<td>R-SCH RC 3 and 5</td>
<td></td>
<td>F-SCH RC 3, 4, 6, 7 and 8</td>
<td>Rate Set 1</td>
<td>R-SCH RC 4 and 6</td>
<td>Rate Set 2</td>
</tr>
<tr>
<td>0000</td>
<td>172</td>
<td>267</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0001</td>
<td>360</td>
<td>552</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0010</td>
<td>744</td>
<td>1128</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0011</td>
<td>1512</td>
<td>2280</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0100</td>
<td>3048</td>
<td>4584</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0101</td>
<td>6120</td>
<td>9192</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0110</td>
<td>12264</td>
<td>20712</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RESERVED</td>
<td>All other values are reserved</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FOR_CONV_SUPPORTED - Forward Convolutional Coding supported indicator.

If the mobile station supports Convolutional Coding on this Forward Supplemental Channel, it shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

FOR_MAX_CONV_BLOCK_SIZE - Forward maximum Convolutional Coding block size.

If the field FOR_CONV_SUPPORTED is set to ‘0’, the mobile station shall omit this field; otherwise the mobile station shall include this field and set it to the maximum block size allowed for Convolutional coding. (see Table 2.7.4.27.3-1)

FOR_FRAME_40_SUPPORTED - Forward 40ms frame indicator.

If the mobile station supports 40 ms frames on this Forward Supplemental Channel, it shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

FOR_FRAME_80_SUPPORTED - Forward 80ms frame Indicator.

If the mobile station supports 80 ms frames on this Forward Supplemental Channel, it shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

FOR_MAX_RATE - Maximum forward supplemental channels rate

The mobile station shall set this field according to Table 2.7.4.27.3-2 to indicate the maximum forward supplemental channel frame rate supported.
<table>
<thead>
<tr>
<th>REV_MAX_RATE FOR_MAX_RATE (binary)</th>
<th>Max Rate (kbps)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R-SCH RC 3, 5</td>
<td>R-SCH RC 4, 6</td>
<td></td>
</tr>
<tr>
<td>F-SCH RC 3, 4, 6, 7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0000</td>
<td>9.6</td>
<td>14.4</td>
<td></td>
</tr>
<tr>
<td>0001</td>
<td>19.2</td>
<td>28.8</td>
<td></td>
</tr>
<tr>
<td>0010</td>
<td>38.4</td>
<td>57.6</td>
<td></td>
</tr>
<tr>
<td>0011</td>
<td>76.8</td>
<td>115.2</td>
<td></td>
</tr>
<tr>
<td>0100</td>
<td>153.6</td>
<td>230.4</td>
<td></td>
</tr>
<tr>
<td>0101</td>
<td>307.2</td>
<td>259.2</td>
<td></td>
</tr>
<tr>
<td>0110</td>
<td>614.4</td>
<td>460.8</td>
<td></td>
</tr>
<tr>
<td>0111</td>
<td>Reserved</td>
<td>518.4</td>
<td></td>
</tr>
<tr>
<td>1000</td>
<td>Reserved</td>
<td>1036.8</td>
<td></td>
</tr>
<tr>
<td>RESERVED</td>
<td>All other values are reserved</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2.7.4.27.3-2. SCH Data Rate
2.7.4.27.4 REV_SCH Type-Specific Fields

The Reverse Supplemental Channel configuration capability information included in the REV_SCH Type-specific fields contains the following subfields:

| REV_SCH_LEN | 3       |
| REV_SCH_RC_MAP | 3 x REV_SCH_LEN |
| REV_SCH_NUM | 2       |

REV_SCH_NUM occurrences of the following fields:

| REV_TURBO_SUPPORTED | 1       |
| REV_MAX_TURBO_BLOCK_SIZE | 0 or 4       |
| REV_CONV_SUPPORTED | 1       |
| REV_MAX_CONV_BLOCK_SIZE | 0 or 4       |
| REV_FRAME_40_SUPPORTED | 1       |
| REV_FRAME_80_SUPPORTED | 1       |
| REV_MAX_RATE | 4       |

REV_SCH_LEN – Reverse Supplemental Channel information length in units of 3 bits.

The mobile station shall set this field to the number of 3 bit units required to specify the length, in bits, of the REV_SCH_RC_MAP field.

REV_SCH_RC_MAP – Reverse Supplemental Channel Radio Configuration capability.

The mobile station shall set this field as described below to indicate which Radio Configurations (See [2] Table 2.1.3.1-1) are supported by the mobile station on the Reverse Supplemental Channel.

This field consists of the sequence of 1-bit indicators, each indicating the mobile station support for specific Radio Configuration. Bit positions of these indicators in the field and corresponding Radio Configurations are specified in Table 2.7.4.27.1-1.

The mobile station shall set each indicator to ‘1’ if the corresponding Radio Configuration on the Reverse Supplemental Channel is supported by the mobile station; otherwise, the mobile station shall set the indicator to ‘0’. The mobile station shall set any unused bits in the field to ‘0’.

REV_SCH_NUM – Number of Reverse Supplemental Channels

The mobile station shall set this field to the number of Reverse Supplemental Channels supported by the mobile station.
If the REV_SCH_NUM field is greater than zero, the mobile station shall include one occurrence of the following 8 fields for each Reverse Supplemental Channel supported by the mobile station. The first occurrence is SCH0 related information. The second occurrence (if any) is SCH1 related information.

**REV_TURBO_SUPPORTED** – Reverse Turbo Coding supported indicator.

If the mobile station supports Turbo Coding on this Reverse Supplemental Channel, it shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

**REV_MAX_TURBO_BLOCK_SIZE** – Reverse maximum Turbo Coding block size.

If the field REV_TURBO_SUPPORTED is set to ‘0’, the mobile station shall omit this field; otherwise the mobile station shall include this field and set it to the maximum block size allowed for Turbo coding (see Table 2.7.4.27.3-1).

**REV_CONV_SUPPORTED** – Reverse Convolutional Coding supported indicator.

If the mobile station supports Convolutional Coding on this Reverse Supplemental Channel, it shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

**REV_MAX_CONV_BLOCK_SIZE** – Reverse maximum Convolutional Coding block size.

If the field REV_CONV_SUPPORTED is set to ‘0’, the mobile station shall omit this field; otherwise the mobile station shall include this field and set it to the maximum block size allowed for Convolutional coding (see Table 2.7.4.27.3-1).

**REV_FRAME_40_SUPPORTED** – Reverse 40ms frame indicator.

If the mobile station supports 40 ms frames on this Reverse Supplemental Channel, it shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

**REV_FRAME_80_SUPPORTED** – Reverse 80ms frame indicator.

If the mobile station supports 80 ms frames on this Reverse Supplemental Channel, it shall set this field to ‘1’; otherwise, the mobile station shall set this field to ‘0’.

**REV_MAX_RATE** – Maximum reverse supplemental channels rate

The mobile station shall set this field according to Table 2.7.4.27.3-2 to indicate the maximum reverse supplemental channel frame rate supported.
2.7.4.28 Extended Multiplex Option Information

This information record can be included in a Status Response Message or an Extended Status Response Message to return multiplex option information about the mobile station.
<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUM_MO_FOR_FCH</td>
<td>4</td>
</tr>
</tbody>
</table>

NUM_MO_FOR_FCH occurrences of the following two-field record:

<table>
<thead>
<tr>
<th>MO_FOR_FCH</th>
<th>16</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR_NUM_BITS_FCH</td>
<td>8</td>
</tr>
</tbody>
</table>

| NUM_MO_REV_FCH | 4            |

NUM_MO_REV_FCH occurrences of the following two-field record:

<table>
<thead>
<tr>
<th>MO_REV_FCH</th>
<th>16</th>
</tr>
</thead>
<tbody>
<tr>
<td>REV_NUM_BITS_FCH</td>
<td>8</td>
</tr>
</tbody>
</table>

| NUM_MO_FOR_DCCH | 4            |

NUM_MO_FOR_DCCH occurrences of the following one-field record:

<table>
<thead>
<tr>
<th>MO_FOR_DCCH</th>
<th>16</th>
</tr>
</thead>
</table>

| NUM_MO_REV_DCCH | 4            |

NUM_MO_REV_DCCH occurrences of the following one-field record:

<table>
<thead>
<tr>
<th>MO_REV_DCCH</th>
<th>16</th>
</tr>
</thead>
</table>

| NUM_MO_FOR_SCH | 4            |

NUM_MO_FOR_SCH occurrences of the following two-field record:

<table>
<thead>
<tr>
<th>FOR_SCH_ID</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>MO_FOR_SCH</td>
<td>16</td>
</tr>
</tbody>
</table>

| NUM_MO_REV_SCH | 4            |

NUM_MO_REV_SCH occurrences of the following two-field record:

<table>
<thead>
<tr>
<th>REV_SCH_ID</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>MO_REV_SCH</td>
<td>16</td>
</tr>
</tbody>
</table>
NUM_MO_FOR_FCH – Number of Forward Fundamental Channel Multiplex Options. The mobile station shall set this field to the number of the Forward Fundamental Channel Multiplex Options supported by the mobile station.

If NUM_MO_FOR_FCH is not equal to ‘0000’, the mobile station shall include NUM_MO_FOR_FCH occurrences of the following two fields for each supported Forward Fundamental Channel multiplex option:

MO_FOR_FCH – Forward Fundamental Channel multiplex option. The mobile station shall set this field to the Forward Fundamental Channel multiplex option.

FOR_NUM-_BITS_FCH – Forward Fundamental Channel number of bits per frame. The mobile station shall set this field as described below to indicate which number of bits per frame are supported by the mobile station on the Forward Fundamental Channel.

This field consists of the sequence of 1-bit indicators, each indicating the mobile station support for specific number of bits per frame. Bit positions of these indicators in the field and corresponding number of bits per frame are specified in Table 2.7.4.28-1 if MO_FOR_FCH is equal to 1, Table 2.7.4.28-2 if MO_FOR_FCH is equal to 2, and Table 2.7.4.28-3 if MO_FOR_FCH is equal to 0x704.

The mobile station shall set each indicator to ‘1’ if the corresponding number of bits per frame on the Forward Fundamental Channel is supported by the mobile station; otherwise, the mobile station shall set the indicator to ‘0’.

Table 2.7.4.28-1. Forward Fundamental Channel Number of Bits per Frame for MO_FOR_FCH equal to 1

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
<th>Subfield Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS1_9600_FOR</td>
<td>1</td>
<td>172 bits per F-FCH frame</td>
</tr>
<tr>
<td>RS1_4800_FOR</td>
<td>1</td>
<td>80 bits per F-FCH frame</td>
</tr>
<tr>
<td>RS1_2400_FOR</td>
<td>1</td>
<td>40 bits per F-FCH frame</td>
</tr>
<tr>
<td>RS1_1200_FOR</td>
<td>1</td>
<td>16bits per F-FCH frame</td>
</tr>
<tr>
<td>RESERVED</td>
<td>4</td>
<td>Reserved Bits</td>
</tr>
</tbody>
</table>
### Table 2.7.4.28-2. Forward Fundamental Channel Number of Bits per Frame for MO_FOR_FCH equal to 2

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
<th>Subfield Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS2_14400_FOR</td>
<td>1</td>
<td>267 bits per F-FCH frame</td>
</tr>
<tr>
<td>RS2_7200_FOR</td>
<td>1</td>
<td>125 bits per F-FCH frame</td>
</tr>
<tr>
<td>RS2_3600_FOR</td>
<td>1</td>
<td>55 bits per F-FCH frame</td>
</tr>
<tr>
<td>RS2_1800_FOR</td>
<td>1</td>
<td>21 bits per F-FCH frame</td>
</tr>
<tr>
<td>RESERVED</td>
<td>4</td>
<td>Reserved Bits</td>
</tr>
</tbody>
</table>

### Table 2.7.4.28-3. Forward Fundamental Channel Number of Bits per Frame for MO_FOR_FCH equal to 0x704

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
<th>Subfield Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1</td>
<td>1</td>
<td>Highest possible number of bits on F-FCH (specified by NUM_BITSs[FFCH_NBIT_TABLE_ID][0000])</td>
</tr>
<tr>
<td>R2</td>
<td>1</td>
<td>Second highest possible number of bits on F-FCH (specified by NUM_BITSs[FFCH_NBIT_TABLE_ID][0001])</td>
</tr>
<tr>
<td>R3</td>
<td>1</td>
<td>Third highest possible number of bits on F-FCH (specified by NUM_BITSs[FFCH_NBIT_TABLE_ID][0010])</td>
</tr>
<tr>
<td>R4</td>
<td>1</td>
<td>Forth highest possible number of bits on F-FCH (specified by NUM_BITSs[FFCH_NBIT_TABLE_ID][0011])</td>
</tr>
<tr>
<td>R5</td>
<td>1</td>
<td>Fifth Second highest possible number of bits on F-FCH (specified by NUM_BITSs[FFCH_NBIT_TABLE_ID][0100])</td>
</tr>
<tr>
<td>R6</td>
<td>1</td>
<td>Sixth highest possible number of bits on F-FCH (specified by NUM_BITSs[FFCH_NBIT_TABLE_ID][0101])</td>
</tr>
<tr>
<td>R7</td>
<td>1</td>
<td>Seventh highest possible number of bits on F-FCH (specified by NUM_BITSs[FFCH_NBIT_TABLE_ID][0110])</td>
</tr>
<tr>
<td>R8</td>
<td>1</td>
<td>Eighth highest possible number of bits on F-FCH (specified by NUM_BITSs[FFCH_NBIT_TABLE_ID][0111])</td>
</tr>
</tbody>
</table>

NUM_MO_REV_FCH – Number of Reverse Fundamental Channel Multiplex Options.
The mobile station shall set this field to the number of the Reverse Fundamental Channel Multiplex Options supported by the mobile station.

If NUM_MO_REV_FCH is not equal to ‘0000’, the mobile station shall include NUM_MO_REV_FCH occurrences of the following two fields for each supported Reverse Fundamental Channel multiplex option:

**MO_REV_FCH** – Reverse Fundamental Channel multiplex option.

The mobile station shall set this field to the Reverse Fundamental Channel multiplex option.

**REV_NUM BITS_FCH** – Reverse Fundamental Channel number of bits per frame.

The mobile station shall set this field as described below to indicate which number of bits per frame are supported by the mobile station on the Reverse Fundamental Channel.

This field consists of the sequence of 1-bit indicators, each indicating the mobile station support for number of bits per frame. Bit positions of these indicators in the field and corresponding number of bits per frame are specified in Table 2.7.4.28-4 if MO_REV_FCH is equal to 1, Table 2.7.4.28-5 if MO_REV_FCH is equal to 2, and Table 2.7.4.28-6 if MO_REV_FCH is equal to 0x704.

The mobile station shall set each indicator to ‘1’ if the corresponding number of bits per frame on the Reverse Fundamental Channel is supported by the mobile station; otherwise, the mobile station shall set the indicator to ‘0’.

### Table 2.7.4.28-4. Reverse Fundamental Channel Number of Bits per Frame for MO_REV_FCH equal to 1

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
<th>Subfield Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS1_9600_REV</td>
<td>1</td>
<td>172 bits per R-FCH frame</td>
</tr>
<tr>
<td>RS1_4800_REV</td>
<td>1</td>
<td>80 bits per R-FCH frame</td>
</tr>
<tr>
<td>RS1_2400_REV</td>
<td>1</td>
<td>40 bits per R-FCH frame</td>
</tr>
<tr>
<td>RS1_1200_REV</td>
<td>1</td>
<td>16 bits per R-FCH frame</td>
</tr>
<tr>
<td>RESERVED</td>
<td>4</td>
<td>Reserved Bits</td>
</tr>
</tbody>
</table>
Table 2.7.4.28-5. Reverse Fundamental Channel Number of Bits per Frame for MO_REV_FCH equal to 2

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
<th>Subfield Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RS2_14400_REV</td>
<td>1</td>
<td>267 bits per R-FCH frame</td>
</tr>
<tr>
<td>RS2_7200_REV</td>
<td>1</td>
<td>125 bits per R-FCH frame</td>
</tr>
<tr>
<td>RS2_3600_REV</td>
<td>1</td>
<td>55 bits per R-FCH frame</td>
</tr>
<tr>
<td>RS2_1800_REV</td>
<td>1</td>
<td>21 bits per R-FCH frame</td>
</tr>
<tr>
<td>RESERVED</td>
<td>4</td>
<td>Reserved Bits</td>
</tr>
</tbody>
</table>

Table 2.7.4.28-6. Reverse Fundamental Channel Number of Bits per Frame for MO_REV_FCH equal to 0x704

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
<th>Subfield Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1</td>
<td>1</td>
<td>Highest possible number of bits on R-FCH (specified by NUM_BITSs[RFCCH_NBIT_TABLE_ID][0000])</td>
</tr>
<tr>
<td>R2</td>
<td>1</td>
<td>Second highest possible number of bits on R-FCH (specified by NUM_BITSs[RFCCH_NBIT_TABLE_ID][0001])</td>
</tr>
<tr>
<td>R3</td>
<td>1</td>
<td>Third highest possible number of bits on R-FCH (specified by NUM_BITSs[RFCCH_NBIT_TABLE_ID][0010])</td>
</tr>
<tr>
<td>R4</td>
<td>1</td>
<td>Forth highest possible number of bits on R-FCH (specified by NUM_BITSs[RFCCH_NBIT_TABLE_ID][0011])</td>
</tr>
<tr>
<td>R5</td>
<td>1</td>
<td>Fifth Second highest possible number of bits on R-FCH (specified by NUM_BITSs[RFCCH_NBIT_TABLE_ID][0100])</td>
</tr>
<tr>
<td>R6</td>
<td>1</td>
<td>Sixth highest possible number of bits on R-FCH (specified by NUM_BITSs[RFCCH_NBIT_TABLE_ID][0101])</td>
</tr>
<tr>
<td>R7</td>
<td>1</td>
<td>Seventh highest possible number of bits on R-FCH (specified by NUM_BITSs[RFCCH_NBIT_TABLE_ID][0110])</td>
</tr>
<tr>
<td>R8</td>
<td>1</td>
<td>Eighth highest possible number of bits on R-FCH (specified by NUM_BITSs[RFCCH_NBIT_TABLE_ID][0111])</td>
</tr>
</tbody>
</table>
NUM_MO_FOR_DCCH – Number of Forward Dedicated Control Channel Multiplex Options.

The mobile station shall set this field to the number of the Forward Dedicated Control Channel Multiplex Options supported by the mobile station.

If NUM_MO_FOR_DCCH is not equal to ‘0000’, the mobile station shall include NUM_MO_FOR_DCCH occurrence of the following one field for each supported Forward Dedicated Control Channel multiplex option:

MO_FOR_DCCH – Forward Dedicated Control Channel multiplex option.

The mobile station shall set this field to the Forward Dedicated Control Channel multiplex option.

NUM_MO_REV_DCCH – Number of Reverse Dedicated Control Channel Multiplex Options.

The mobile station shall set this field to the number of the Reverse Dedicated Control Channel Multiplex Options supported by the mobile station.

If NUM_MO_REV_DCCH is not equal to ‘0000’, the mobile station shall include NUM_MO_REV_DCCH occurrence of the following one field for each supported Reverse Dedicated Control Channel multiplex option:

MO_REV_DCCH – Reverse Dedicated Control Channel multiplex option.

The mobile station shall set this field to the Reverse Dedicated Control Channel multiplex option.

NUM_MO_FERFOR_SCH – Number of Forward Supplemental Channel Multiplex Options.

The mobile station shall set this field to the number of the Reverse–Forward Supplemental Channel Multiplex Options supported by the mobile station included in this message. The mobile station shall include the multiplex option associated with the highest data rate it supports for each combination of MuxPDU type, rate set, and block size.

If NUM_MO_FERFOR_SCH is not equal to ‘0000’, the mobile station shall include NUM_MO_FERFOR_SCH occurrence of the following two fields:

FOR_SCH_ID – Forward Supplemental Channel identifier.

---

4 If any Rate Set 1 multiplex option is included, then mobile station support of MuxPDU Type 1 is implied and the mobile station is not required to include multiplex option 0x03. If any Rate Set 2 multiplex option is included, then mobile station support of MuxPDU Type 2 is implied and the mobile station is not required to include multiplex option 0x04 (see [3]).
The mobile station shall set this field to specify the Forward Supplemental Channel to which the Forward Supplemental multiplex option supported by the mobile station corresponds.

MO_FOR_SCH – Forward Supplemental Channel multiplex option.

The mobile station shall set this field to the Forward Supplemental Channel multiplex option associated with the maximum data rate (see [3]) that the mobile station supports.

NUM_MO_REV_SCH – Number of Reverse Supplemental Channel Multiplex Options.

The mobile station shall set this field to the number of the Reverse Supplemental Channel Multiplex Options supported by the mobile station included in this message. The mobile station shall include the multiplex option associated with the highest data rate it supports for each combination of MuxPDU type, rate set, and block size.

If NUM_MO_REV_SCH is not equal to ‘0000’, the mobile station shall include NUM_MO_REV_SCH occurrence of the following two fields:

REV_SCH_ID – Reverse Supplemental Channel identifier.

The mobile station shall set this field to specify the Reverse Supplemental Channel to which the Reverse Supplemental multiplex option supported by the mobile station corresponds.

MO_REV_SCH – Reverse Supplemental Channel multiplex option.

The mobile station shall set this field to the Reverse Supplemental Channel multiplex option associated with the maximum data rate (see [3]) that the mobile station supports.

RESERVED – Reserved bits.

The mobile station shall add reserved bits as needed in order to make the length of the entire information record equal to an integer number of octets. The mobile station shall set these bits to ‘0’.

---

5 If the mobile station supports the multiplex option associated with the maximum data rate, the mobile station shall support all lower data rates as specified in Table 2-46 of [3].

6 If any Rate Set 1 multiplex option is included, then mobile station support of MuxPDU Type 1 is implied and the mobile station is not required to include multiplex option 0x03. If any Rate Set 2 multiplex option is included, then mobile station support of MuxPDU Type 2 is implied and the mobile station is not required to include multiplex option 0x04 (see [3]).

7 If the mobile station supports the multiplex option associated with the maximum data rate, the mobile station shall support all lower data rates as specified in Table 2-46 of [3].
2.7.4.29 Geo-Location Capability

This information record identifies the geo-location capabilities of the mobile station. The mobile station shall use the following fixed-length format for the type-specific fields:

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEO_LOC</td>
<td>3</td>
</tr>
<tr>
<td>RESERVED</td>
<td>5</td>
</tr>
</tbody>
</table>

GEO_LOC – Geo-location.

The mobile station shall set this field to the value shown in Table 2.7.4.34-1.

Table 2.7.4.34-1. Geo-location Codes

<table>
<thead>
<tr>
<th>GEO_LOC (binary)</th>
<th>Type of Wireless Assisted GPS Identifiers</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>No mobile station assisted geo-location capabilities</td>
</tr>
<tr>
<td>001</td>
<td>IS-801 capable (Advanced Forward Link Triangulation only)</td>
</tr>
<tr>
<td>010</td>
<td>IS-801 capable (Advanced Forward Link Triangulation and Global Positioning Systems)</td>
</tr>
<tr>
<td>011</td>
<td>Global Positioning Systems only</td>
</tr>
<tr>
<td></td>
<td>All other GEO_LOC_TYPE values are reserved.</td>
</tr>
</tbody>
</table>

RESERVED – Reserved bit.

The mobile station shall set this field to ‘00000’.
2.7.4.30 Band Subclass Information

This information record can be included in a Status Response Message, or an Extended Status Response Message to return band subclass information about the mobile station.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAND_SUBCLASS_INFO</td>
<td>8 × RECORD_LEN</td>
</tr>
</tbody>
</table>

BAND_SUBCLASS_INFO – Band subclass information.

This field indicates which band subclasses are supported by the mobile station.

If BAND_CLASS specified in the Status Request Message is equal to '00000' (Cellular Band), this field consists of the following subfields which are included in the information record in the order shown:

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
<th>Subfield Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAND_SUBCLASS_0</td>
<td>1</td>
<td>Band Subclass 0</td>
</tr>
<tr>
<td>BAND_SUBCLASS_1</td>
<td>1</td>
<td>Band Subclass 1</td>
</tr>
<tr>
<td>RESERVED</td>
<td>6</td>
<td>Reserved Bits</td>
</tr>
</tbody>
</table>

If BAND_CLASS specified in the Status Request Message is equal to '00010' (TACS Band), this field consists of the following subfields which are included in the information record in the order shown:

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
<th>Subfield Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAND_SUBCLASS_0</td>
<td>1</td>
<td>Band Subclass 0</td>
</tr>
<tr>
<td>BAND_SUBCLASS_1</td>
<td>1</td>
<td>Band Subclass 1</td>
</tr>
<tr>
<td>BAND_SUBCLASS_2</td>
<td>1</td>
<td>Band Subclass 2</td>
</tr>
<tr>
<td>RESERVED</td>
<td>5</td>
<td>Reserved Bits</td>
</tr>
</tbody>
</table>

If BAND_CLASS specified in the Status Request Message is equal to '00101' (450 MHz NMT Band), this field consists of the following subfields which are included in the information record in the order shown:

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
<th>Subfield Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAND_SUBCLASS_0</td>
<td>1</td>
<td>Band Subclass 0</td>
</tr>
<tr>
<td>BAND_SUBCLASS_1</td>
<td>1</td>
<td>Band Subclass 1</td>
</tr>
<tr>
<td>BAND_SUBCLASS_2</td>
<td>1</td>
<td>Band Subclass 2</td>
</tr>
<tr>
<td>RESERVED</td>
<td>5</td>
<td>Reserved Bits</td>
</tr>
</tbody>
</table>
If BAND_CLASS specified in the Status Request Message is equal to ‘01010’ (Secondary 800 MHz band), this field consists of the following subfields which are included in the information record in the order shown:

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
<th>Subfield Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAND_SUBCLASS_0</td>
<td>1</td>
<td>Band Subclass 0</td>
</tr>
<tr>
<td>BAND_SUBCLASS_1</td>
<td>1</td>
<td>Band Subclass 1</td>
</tr>
<tr>
<td>BAND_SUBCLASS_2</td>
<td>1</td>
<td>Band Subclass 2</td>
</tr>
<tr>
<td>BAND_SUBCLASS_3</td>
<td>1</td>
<td>Band Subclass 3</td>
</tr>
<tr>
<td>BAND_SUBCLASS_4</td>
<td>1</td>
<td>Band Subclass 4</td>
</tr>
<tr>
<td>BAND_SUBCLASS_5</td>
<td>1</td>
<td>Band Subclass 5</td>
</tr>
<tr>
<td>BAND_SUBCLASS_6</td>
<td>1</td>
<td>Band Subclass 6</td>
</tr>
<tr>
<td>BAND_SUBCLASS_7</td>
<td>1</td>
<td>Band Subclass 7</td>
</tr>
</tbody>
</table>

The mobile station shall set each subfield to ‘1’ if the corresponding sub-band class is supported by the mobile station; otherwise, the mobile station shall set the subfield to ‘0’.

RESERVED – Reserved bits.

The mobile station shall set all reserved bits to ‘0’.

When more band subclasses are defined, the reserved bits will be used for the new corresponding subfields. Sufficient octets will be added to this field to accommodate the new subfields. All the undefined bits in an additional octet will be reserved bits.

The mobile station shall set all the reserved bits to ‘0’. If all bits are set to ‘0’ in an octet and all succeeding octets, the mobile station shall omit the octet and the succeeding octets.
2.7.4.31 Global Emergency Call

This information record identifies that an emergency call is being originated. This record may be included in a Flash With Information Message or an Extended Flash With Information Message and allows the user to originate an emergency call.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUM_INCL</td>
<td>1</td>
</tr>
<tr>
<td>DIGIT_MODE</td>
<td>0 or 1</td>
</tr>
<tr>
<td>NUMBER_TYPE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>NUMBER_PLAN</td>
<td>0 or 4</td>
</tr>
<tr>
<td>NUM_CHAR</td>
<td>0 or 8</td>
</tr>
</tbody>
</table>

If NUM_INCL is set to ‘1’, include NUM_CHAR occurrences of the following field:

<table>
<thead>
<tr>
<th>CHARi</th>
<th>4 or 8</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>MS_ORIG_POS_LOC_IND</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESERVED</td>
<td>0 to 7 (as needed)</td>
</tr>
</tbody>
</table>

NUM_INCL – Dialed number included indicator.

The mobile station shall set this field to ‘1’ to indicate that the dialed digits are included in this information record; otherwise, the mobile station shall set this field to ‘0’.

DIGIT_MODE – Digit mode indicator.

If NUM_INCL is set to ‘1’, the mobile station shall set this field to indicate whether the dialed digits are 4-bit DTMF codes or 8-bit ASCII codes using a specified numbering plan; otherwise, the mobile station shall omit this field.

To originate the call using the binary representation of DTMF digits, the mobile station shall set this field to ‘0’. To originate the call using ASCII characters, the mobile station shall set this field to ‘1’.

NUMBER_TYPE – Type of number.

If NUM_INCL is set to ‘1’ and the DIGIT_MODE field is set to ‘1’, the mobile station shall set this field to the NUMBER_TYPE value shown in Table 2.7.1.3.2.4-2 corresponding to the type of the called number, as defined in [7], Section 4.5.9; otherwise, the mobile station shall omit this field.

NUMBER_PLAN – Numbering plan.
If NUM_INCL is set to ‘1’ and the DIGIT_MODE field is set to ‘1’, the mobile station shall set this field to the NUMBER_PLAN value shown in Table 2.7.1.3.2.4-3 corresponding to the numbering plan used for the called number, as defined in [7], Section 4.5.9; otherwise, the mobile station shall omit this field.

NUM_CHAR – Number of characters.

If NUM_INCL is set to ‘1’, the mobile station shall set this field to the number of characters included in this record; otherwise, the mobile station shall omit this field.

CHARi – Character.

If the NUM_INCL is set to ‘1’, the mobile stations shall include one NUM_CHAR occurrences of this field for each character in the called number.

If the DIGIT_MODE field is set to ‘0’, the mobile station shall set each occurrence of this field to the code value shown in Table 2.7.1.3.2.4-4 corresponding to the dialed digit. If the DIGIT_MODE field is set to ‘1’, the mobile station shall set each occurrence of this field to the ASCII representation corresponding to the character, as specified in [9], with the most significant bit set to ‘0’.

MS_INIT_POS_LOC_IND – Mobile Initiated Position Location Session indicator.

The mobile station shall set this field to ‘1’ if MS_INIT_POS_LOC_SUP_IND is equal to ‘1’ and if the mobile station is to initiate a position location session associated with this emergency call; otherwise, the mobile station shall set this field to ‘0’.

RESERVED – Reserved bits.

The mobile station shall add reserved bits as needed in order to make the length of the entire information record equal to an integer number of octets. The mobile station shall set these bits to ‘0’.
2.7.4.32 Hook Status

This information record shall indicate the status of the hook switch in Wireless Local Loop mobile stations. The mobile station shall use the following fixed-length format for the type-specific fields:

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOOK_STATUS</td>
<td>4</td>
</tr>
<tr>
<td>RESERVED</td>
<td>4</td>
</tr>
</tbody>
</table>

HOOK_STATUS – WLL terminal hook status.

The mobile station shall set this sub-field to the value shown in Table 2.7.1.3.2.1-4 corresponding to the hook state.

reserved – Reserved bits.

The mobile station shall set this field to ‘0000’.
2.7.4.33 QoS Parameters

This information record conveys to the user the QoS parameters associated with the service to be provided:

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QoS Parameters</td>
<td>variable</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 - 7 (as needed)</td>
</tr>
</tbody>
</table>

QoS Parameters - Block containing the QoS Parameters.

The mobile station shall set this field to the QoS parameters associated with the user (per subscription), service type (e.g., assured vs. non-assured services) and the service option. The details of the QoS parameters may be found in documents describing the service options.

RESERVED - Reserved bits for octet alignment.

The mobile station shall add the minimum number of bits necessary to make the record length in bits an integral multiple of 8. The mobile station shall set these bits to ‘0’.
2.7.4.34 Encryption Capability

This information record identifies the encryption capability of the mobile station.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIG_ENCRYPT_SUP</td>
<td>8</td>
</tr>
<tr>
<td>UI_ENCRYPT_SUP</td>
<td>8</td>
</tr>
</tbody>
</table>

SIG_ENCRYPT_SUP – Signaling Encryption supported indicator.

The mobile station shall set this field to indicate which signaling encryption algorithms are supported by the mobile station, as shown in Table 2.7.1.3.2.1-5.

The mobile station shall set the subfields as follows:

The mobile station shall set each subfield to ‘1’ if the corresponding signaling encryption algorithm is supported by the mobile station; otherwise, the mobile station shall set the subfield to ‘0’.

The mobile station shall set the RESERVED subfield to ‘000000’.

UI_ENCRYPT_SUP – User information Encryption supported indicator.

The mobile station shall set this field to indicate the supported user information encryption algorithms, as shown in Table 2.7.1.3.2.4-9.

The mobile station shall set each subfield to ‘1’ if the corresponding user information encryption algorithm is supported by the mobile station; otherwise, the mobile station shall set the subfield to ‘0’.

The mobile station shall set the RESERVED subfield to ‘000000’.
3. REQUIREMENTS FOR BASE STATION CDMA OPERATION

This section defines requirements that are specific to CDMA base station equipment and operation.

3.1 Reserved

3.2 Reserved

3.3 Security and Identification

3.3.1 Authentication

The base station may be equipped with a database that includes unique mobile station authentication keys, shared secret data, or both for each registered mobile station in the system. This database is used for authentication of mobile stations that are equipped for authentication operation.

If the base station supports mobile station authentication, it shall provide the following capabilities: The base station shall send and receive authentication messages and perform the authentication calculations described in 2.3.12.1. If the base station supports 800 MHz analog operation, the base station should set the RAND parameter of the Access Parameters Message to the same value transmitted on the forward analog control channel (see [6]).

3.3.2 Encryption

If the base station supports mobile station authentication (see 3.3.1), it may also support message encryption by providing the capability to send encryption control messages and the ability to perform the operations of encryption and decryption as specified in 2.3.12.2.

3.3.3 Voice Privacy

If the base station supports mobile station authentication (see 3.3.1), it may also support voice privacy using the private long code mask, as specified in 2.3.12.3.

3.3.4 Extended-Encryption

If the base station supports mobile station authentication (see 3.3.1), it may also support Extended-Encryption for Signaling Messages and User Information as specified in 2.3.12.4.

3.4 Supervision

3.4.1 Access Channel or Enhanced Access Channel

The base station shall continually monitor each active Access Channel or Enhanced Access Channel or both. The base station should provide control in cases of overload by using either the Access Parameters Message or the Enhanced Access Parameters Message.

3.4.2 Reverse Traffic Channel

The base station shall continually monitor each active Reverse Traffic Channel to determine
if the call is active. If the base station detects that the call is no longer active, the base
station shall declare loss of Reverse Traffic Channel continuity (see 3.6.4).

3.5 Reserved

3.6 Layer 3 Processing

This section describes base station layer 3 processing. It contains frequent
references to the messages that flow between the base station and the mobile station.
While reading this section, it may be helpful to refer to the message formats (see 2.7 and
3.7), and to the call flow examples (see Annex B). The values for the time and numeric
constants used in this section (e.g., T1b and N4m) are specified in Annex D.

Base station processing consists of the following types of processing:

- **Pilot and Sync Channel Processing** - During Pilot and Sync Channel Processing, the
  base station transmits the Pilot Channel and Sync Channel which the mobile station
  uses to acquire and synchronize to the CDMA system while the mobile station is in
  the Mobile Station Initialization State.

- **Common Channel Processing** - During Common Channel Processing, the base station
  transmits the Paging Channel and/or the Forward Common Control
  Channel/Broadcast Control Channel which the mobile station monitors to receive
  messages while the mobile station is in the Mobile Station Idle State and the System
  Access State.

- **Access Channel and Enhanced Access Channel Processing** - During Access Channel
  and Enhanced Access Channel Processing, the base station monitors the Access
  Channel and/or the Enhanced Access Channel to receive messages which the
  mobile station sends while the mobile station is in the System Access State.

- **Traffic Channel Processing** - During Traffic Channel Processing, the base station uses
  the Forward and Reverse Traffic Channels to communicate with the mobile station
  while the mobile station is in the Mobile Station Control on the Traffic Channel State.

3.6.1 Pilot and Sync Channel Processing

During Pilot and Sync Channel Processing, the base station transmits the Pilot and Sync
Channels which the mobile station uses to acquire and synchronize to the CDMA system
while the mobile station is in the Mobile Station Initialization State.

3.6.1.1 Preferred Set of CDMA Channels

The preferred set of frequency assignments are the CDMA Channels on which the mobile
station attempts to acquire the CDMA system (see [2]).

The base station shall support at least one member of the preferred set of frequency
assignments. The base station may support additional CDMA Channels.
3.6.1.2 Pilot Channel Operation

The Pilot Channel (see [2]) is a reference channel which the mobile station uses for acquisition, timing, and as a phase reference for coherent demodulation.

The base station shall continually transmit a Pilot Channel for every CDMA Channel supported by the base station, unless the base station is classified as a hopping pilot beacon.

3.6.1.3 Sync Channel Operation

The Sync Channel (see [2]) provides the mobile station with system configuration and timing information.

The base station shall transmit at most one Sync Channel for each supported CDMA Channel. The base station shall support a Sync Channel on at least one member of the preferred set of frequency assignments that it supports. The base station should support a Sync Channel on every member of the preferred set of frequency assignments that it supports.

If the base station operates in Band Class 0 or Band Class 3, and supports the Primary CDMA Channel, then the base station shall transmit a Sync Channel on the Primary CDMA Channel.

The base station shall continually send the Sync Channel Message on each Sync Channel that the base station transmits.

3.6.2 Common Channel Processing

3.6.2.1 Paging Channel and Forward Common Control Channel Procedures

During Common Channel Processing, the base station transmits the Paging Channel or the Forward Common Control Channel (see [2]) which the mobile station monitors to receive messages while the mobile station is in the Mobile Station Idle State and the System Access State.

The base station may transmit up to seven Paging Channels on each supported CDMA Channel. The base station may transmit up to seven Forward Common Control Channels and one Primary Broadcast Control Channel on each supported CDMA Channel.

For each Paging Channel that the base station transmits, the base station shall continually send valid Paging Channel messages (see 3.7.2), which may include the Null Message (see [4]).

The base station shall not send any message which is not completely contained within two consecutive Paging Channel or Forward Common Control Channel slots, unless the processing requirements for the message explicitly specify a different size limitation.¹

¹See, for example, [14] which specifies processing requirements for the Data Burst Message.
3.6.2.1.1 CDMA Channel Determination

The base station may send the **CDMA Channel List Message** and the **Extended CDMA Channel List Message** on the Paging Channel. When the base station supports Broadcast Control Channel, the base station shall send the **Extended CDMA Channel List Message** on the Primary Broadcast Control Channel.

To determine the mobile station’s assigned CDMA Channel, the base station first determines a subset of CDMA channels in the **Extended CDMA Channel List Message**. The subset of CDMA channels is based on where the mobile station receives the **Extended CDMA Channel List Message** and the mobile station’s capabilities of supporting RC greater than 2, Quick Paging Channel and transmit diversity, with which the mobile station is registered.

When the base station sends the **CDMA Channel List Message** on the Paging Channel, the base station shall determine the assigned CDMA Channel for **MOB_P_REV_s less than six** using the hash function specified in 2.6.7.1 with the following inputs:

- IMSI_S based on the IMSI with which the mobile station registered (see 2.3.1)
- Number of CDMA Channels in the **CDMA Channel List Message** in accordance with the procedures defined in 2.6.2.12.1 for mobile stations with:
  - MOB_P_REV_s less than six.
  - MOB_P_REV_s equal to six if the base station does not send the **Extended CDMA Channel List Message** on the Paging Channel.
  - MOB_P_REV_s greater than or equal to seven, if the base station does not send the **Extended CDMA Channel List Message** on the paging channel and does not support Primary Broadcast Control Channel.

When the base station sends the **Extended CDMA Channel List Message** on the Paging Channel, the base station shall determine the assigned CDMA Channel using the hash function specified in 2.6.7.1 with the following inputs:

- IMSI_S based on the IMSI with which the mobile station registered (see 2.3.1)
- Number of CDMA Channels of the selected channel subset of CDMA channels in the **Extended CDMA Channel List Message** in accordance with the procedures defined in 2.6.2.12.1 for mobile stations with:
  - MOB_P_REV_s equal to six.
  - MOB_P_REV_s greater than or equal to seven, if the base station does not support Primary Broadcast Control Channel.

When the base station sends the **Extended CDMA Channel List Message** on the Primary Broadcast Control Channel, the base station shall determine the assigned CDMA Channel for **MOB_P_REV_s greater than or equal to seven** using the hash function specified in 2.6.7.1 with the following inputs:

- IMSI_S based on the IMSI with which the mobile station registered (see 2.3.1)
3.6.2.1.2 Common Channel Determination

To determine the mobile station’s assigned Paging Channel or Forward Common Control Channel, the base station shall use the hash function specified in 2.6.7.1 with the following inputs:

- IMSI_S based on the IMSI with which the mobile station registered (see 2.3.1)
- Number of Paging Channels or Forward Common Control Channels which the base station transmits on the mobile station’s assigned CDMA Channel.

3.6.2.1.3 Paging Slot Determination

To determine the assigned Paging Channel or Forward Common Control Channel slots for a mobile station with a given slot cycle index, the base station shall select a number PGSLOT using the hash function specified in 2.6.7.1 with the following inputs:

- IMSI_S based on the IMSI with which the mobile station registered (see 6.3.1)
- Maximum number of Paging Channel or Forward Common Control Channel slots (2048).

The assigned Paging Channel or Forward Common Control Channel slots for the mobile station are those slots for which

\[
\lfloor t/4 \rfloor - \text{PGSLOT}) \mod (16 \times T) = 0,
\]

where \( t \) is the System Time in frames, and \( T \) is the slot cycle length in units of 1.28 seconds given by

\[
T = 2^i,
\]

where \( i \) is the slot cycle index.

When the base station is able to determine that the mobile station is operating in the slotted mode and is able to determine the mobile station’s preferred slot cycle index, the base station uses for the mobile station’s slot cycle index the smaller of the mobile station’s preferred slot cycle index and the maximum slot cycle index.

When the base station is not able to determine whether the mobile station is operating in the slotted mode, or the base station is not able to determine the mobile station’s preferred slot cycle index, the base station uses for the mobile station’s slot cycle index the smaller of the maximum slot cycle index and 1.

3.6.2.1.4 Message Transmission and Acknowledgment Procedures

The Paging Channel or Forward Common Control Channel acknowledgment procedures facilitate the reliable exchange of messages between the base station and the mobile station on the f-csch and r-csch. The acknowledgment procedures and requirements are described in 3.1.1.2 and 3.1.2.1 of [4].
3.6.2.2 Overhead Information

The base station sends overhead messages to provide the mobile station with the information that it needs to operate with the base station. If the base station supports the Primary Broadcast Control Channel for overhead messages and is not a pilot beacon, it shall support the Forward Common Control Channel for all other general page information.

The base station with a P_REV greater than six that supports Broadcast Control Channel shall send overhead messages on the Primary Broadcast Control Channel. The base station with a P_REV greater than six that does not support the Broadcast Control Channel shall send overhead messages on each Paging Channel. The overhead messages sent on the Primary Broadcast Control Channel are:

1. ANSI-41 System Parameters Message
2. User Zone Identification Message
3. Private Neighbor List Message
4. Extended Global Service Redirection Message
5. Extended CDMA Channel List Message
6. MC-RR Parameters Message
7. Universal Neighbor List Message
8. Enhanced Access Parameters Message
9. ANSI-41 RAND Message

The overhead messages on the Paging Channel are:

1. System Parameters Message
2. Neighbor List Message (Band Class 0 only)
3. Access Parameters Message
4. CDMA Channel List Message
5. Extended System Parameters Message
6. Extended Neighbor List Message (band classes other than Band Class 0)
7. General Neighbor List Message
8. Global Service Redirection Message
9. User Zone Identification Message
10. Private Neighbor List Message
11. Extended Global Service Redirection Message
12. Extended CDMA Channel List Message

The base station shall maintain a configuration sequence number (CONFIG_SEQ) for configuration messages transmitted on the Paging Channel, and shall increment CONFIG_SEQ modulo 64 whenever the base station modifies the following messages:
1. **System Parameters Message**
2. **Neighbor List Message** (Band Class 0 only)
3. **CDMA Channel List Message**
4. **Extended System Parameters Message**
5. **Extended Neighbor List Message** (band classes other than Band Class 0)
6. **General Neighbor List Message**
7. **Global Service Redirection Message**
8. **User Zone Identification Message**
9. **Private Neighbor List Message**
10. **Extended Global Service Redirection Message**
11. **Extended CDMA Channel List Message**

The base station shall maintain a configuration sequence number (CONFIG_SEQ) for configuration messages transmitted on the Primary Broadcast Control Channel, and shall increment CONFIG_SEQ modulo 64 whenever the base station modifies the following messages:

1. **ANSI-41 System Parameters Message**
2. **User Zone Identification Message**
3. **Private Neighbor List Message**
4. **Extended Global Service Redirection Message**
5. **Extended CDMA Channel List Message**
6. **MC-RR Parameters Message**
7. **Universal Neighbor List Message**

The base station shall maintain an access configuration sequence number (ACC_CONFIG_SEQ) for the Access Channel, and shall increment ACC_CONFIG_SEQ modulo 64 whenever the base station modifies the **Access Parameters Message**.

The base station shall maintain an access configuration sequence number (ACC_CONFIG_SEQ) for the Enhanced Access Channel, and shall increment ACC_CONFIG_SEQ modulo 64 whenever the base station modifies the **Enhanced Access Parameters Message**.

On each Primary Broadcast Control Channel which the base station transmits, the base station shall send each of the following system overhead messages at least once per $T_{1b}$ seconds:

1. **Extended CDMA Channel List Message**
2. **ANSI-41 System Parameters Message**
3. **MC-RR Parameters Message**
4. Enhanced Access Parameters Message

5. Universal Neighbor List Message

If the base station supports Primary Broadcast Control Channels, and the base station is sending the ANSI-41 RAND Message, it shall send it at least once per $T_{1b}$ seconds.

On each of the Paging Channels the base station transmits, the base station shall send each of the following system overhead messages at least once per $T_{1b}$ seconds:

1. Access Parameters Message

2. CDMA Channel List Message

3. Extended System Parameters Message

4. System Parameters Message

For the messages sent on the Paging Channel, if the base station is operating in Band Class 1, Band Class 3, or Band Class 4 BAND_CLASS is equal to ‘00001’ or BAND_CLASS is equal to ‘00011’ and MIN_P_REV is less than seven six, the base station shall send the Extended Neighbor List Message, and may also send the General Neighbor List Message. If the base station is operating in Band Class 0 and MIN_P_REV is less than seven, BAND_CLASS is equal to ‘00000’, the base station shall send the Neighbor List Message, and may also send the General Neighbor List Message. If the base station is sending the Neighbor List Message, it shall send it at least once per $T_{1b}$ seconds. If the base station is sending the Extended Neighbor List Message, it shall send it at least once per $T_{1b}$ seconds. If the base station is sending the General Neighbor List Message, it shall send it at least once per $T_{1b}$ seconds.

Overhead Messages sent on the Primary Broadcast Control Channel shall be transmitted on a continuous basis, consecutively.

If the base station uses addressing modes requiring use of only the IMSI_M_S, independent of values of the IMSI_M_11_12 and MCC_M, the base station shall set IMSI_T_Supported to ‘0’, MCC to ‘111111111’, and IMSI_11_12 to ‘1111111’ in the Extended System Parameters Message, MC-RR Parameters Message, and ANSI-41 System Parameters Message.

If the base station sets IMSI_T_Supported to ‘1’, the base station shall not set PREF_MSID_TYPE to ‘00’ in the Extended System Parameters Message and ANSI-41 System Parameters Message.

The base station may send a Global Service Redirection Message on any given Paging Channel. If the message is sent, the base station shall send it at least once per $T_{1b}$ seconds.

If P_REV is greater than or equal to six, the base station may send an Extended Global Service Redirection Message. If the message is sent, the base station shall send it at least once per $T_{1b}$ seconds. The base station may send this message to redirect only those mobile stations with MOB_P_REV equal to or greater than six.

When both the Global Service Redirection Message and the Extended Global Service Redirection Message are sent, the base station shall use the Global Service Redirection Message for mobile stations with MOB_P_REV less than six, and shall use the Extended
Global Service Redirection Message for mobile stations with MOB_P_REV equal to or greater than six. When only the Global Service Redirection Message is sent and this message is for mobile station with MOB_P_REV less then six, the base station shall set EXCL_P_REV_MS to ‘1’.

If only the Global Service Redirection Message is sent and this message is for redirecting all mobile stations, the base station shall set EXCL_P_REV_MS to ‘0’.

The base station may send a User Zone Identification Message. If the message is sent, the base station shall send it at least once per T_{1b} seconds.

The base station may send a Private Neighbor List Message. If the message is sent, the base station shall send it at least once per T_{1b} seconds.

The base station may send an Extended CDMA Channel List Message. If the message is sent, the base station shall send it at least once per T_{1b} seconds.

3.6.2.3 Mobile Station Directed Messages

The base station may send the following messages directed to a mobile station on the f-cschan. If the base station sends a message, the base station shall comply with the specified requirements for sending the message, if any:

1. Abbreviated Alert Order
2. Audit Order
3. Authentication Challenge Message
4. Base Station Challenge Confirmation Order
5. Channel Assignment Message
6. Data Burst Message
7. Extended Channel Assignment Message
8. Feature Notification Message
9. General Page Message
10. Intercept Order
11. Local Control Order
12. Lock Until Power-Cycled Order
13. Maintenance Required Order
14. PACA Message
15. Registration Accepted Order
16. Registration Rejected Order
17. Registration Request Order
18. Release Order
19. Reorder Order
20. **Retry Order**

21. **Security Mode Command Message**

22. **Service Redirection Message**

23. **Service Release Message**

24. **Slotted Mode Order**

25. **SSD Update Message**

26. **Status Request Message**

27. **TMSI Assignment Message**

28. **Universal Page Message** (Forward Common Control Channel Only)

29. **Unlock Order**

30. **User Zone Reject Message**

The base station should send at least one **General Page Message** in each Paging Channel slot. The base station shall not omit a **General Page Message** in two adjacent Paging Channel slots.

The base station should send at least one **General Page Message** or **Universal Page Message** in each Forward Common Control Channel slot. The base station shall not omit both a **General Page Message** and a **Universal Page Message** in two adjacent slots.

### 3.6.2.3.1 Processing when the General Page Message is Used

The base station shall use the following rules for selecting the Paging Channel or Forward Common Control Channel slot in which to send a message to a mobile station:

- If the base station is able to determine that the mobile station is operating in the non-slotted mode, the base station may send the message to the mobile station in any Paging Channel or Forward Common Control Channel slot.

- If the base station is able to determine that the mobile station is operating in the slotted mode and is able to determine the mobile station’s slot cycle index (see 2.6.2.1.1.3), the base station shall send the message at least once in an assigned Paging Channel slot for the mobile station (see 3.6.2.1.3), with the position within the slot subject to the following limitations:
  - If the mobile station has registered with a class 0 IMSI, the base station shall not send the message in the assigned Paging Channel slot after sending a **General Page Message** with CLASS_0_DONE set to ‘1’ in that slot.
  - If the mobile station has registered with a class 1 IMSI, the base station shall not send the message in the assigned Paging Channel slot after sending a **General Page Message** with CLASS_1_DONE set to ‘1’ in that slot.
  - If the mobile station has been assigned a TMSI, the base station shall not send the message in the assigned Paging Channel slot after sending a **General Page Message** with TMSI_DONE set to ‘1’ in that slot.
• If the base station is able to determine that the mobile station is operating in the
slotted mode and that the mobile station is not waiting for a priority access channel
assignment and that the slotted timer in the mobile station is not active, and the
base station is able to determine the mobile station’s slot cycle index (see
2.6.2.1.1.3), the base station shall send the message at least once in an assigned
Forward Common Control Channel slot for the mobile station (see 3.6.2.1.3), with
the position within the slot subject to the following limitations:
  – If the mobile station has registered with a class 0 IMSI, the base station shall
    not send the message in the assigned Forward Common Control Channel slot
    after sending a General Page Message with CLASS_0_DONE set to ‘1’ in that slot.
  – If the mobile station has registered with a class 1 IMSI, the base station shall
    not send the message in the assigned Forward Common Control Channel slot
    after sending a General Page Message with CLASS_1_DONE set to ‘1’ in that slot.
  – If the mobile station has been assigned a TMSI, the base station shall not send
    the message in the assigned Forward Common Control Channel slot after
    sending a General Page Message with TMSI_DONE set to ‘1’ in that slot.

• If the base station is able to determine that the mobile station is operating in the
slotted mode and that the mobile station is waiting for a priority access channel
assignment, or that the slotted timer in the mobile station is active, the base station
may send the message to the mobile station in any Forward Common Control
Channel slot with the position within the slot subject to the following limitation:
  – If the mobile station has registered with a class 0 IMSI, the base station shall
    not send the message in any Forward Common Control Channel slot after
    sending a General Page Message with CLASS_0_DONE set to ‘1’ in that slot.
  – If the mobile station has registered with a class 1 IMSI, the base station shall
    not send the message in any Forward Common Control Channel slot after
    sending a General Page Message with CLASS_1_DONE set to ‘1’ in that slot.
  – If the mobile station has been assigned a TMSI, the base station shall not send
    the message in any Forward Common Control Channel slot after sending a
    General Page Message with TMSI_DONE set to ‘1’ in that slot.

• If the base station is not able to determine whether the mobile station is operating in
the non-slotted mode, or the base station is not able to determine the mobile
station’s slot cycle index, the base station shall assume that the mobile station is
operating in the slotted mode with a slot cycle index which is the smaller of
MAX_SLOT_CYCLE_INDEX and 1. The base station shall send the message at least
once in an assigned Paging Channel or Forward Common Control Channel slot for
the mobile station (see 3.6.2.1.3), with the position within the slot subject to the
following limitations:
  – If the mobile station has registered with a class 0 IMSI, the base station shall
    not send the message in the assigned Paging Channel or Forward Common
    Control Channel slot after sending a General Page Message with CLASS_0_DONE
    set to ‘1’ in that slot.
- If the mobile station has registered with a class 1 IMSI, the base station shall not send the message in the assigned Paging Channel or Forward Common Control Channel slot after sending a General Page Message with CLASS_1_DONE set to ‘1’ in that slot.

- If the mobile station has been assigned a TMSI, the base station shall not send the message in the assigned Paging Channel or Forward Common Control Channel slot after sending a General Page Message with TMSI_DONE set to ‘1’ in that slot.

The base station should send messages directed to mobile stations operating in the slotted mode as the first messages in the slot.

If the base station sends a General Page Message with ORDERED_TMSIS set to ‘1’ in a slot, the base station shall order page records with PAGE_CLASS equal to ‘10’ in ascending order such that if a particular TMSI_CODE value for one page record is greater than the TMSI_CODE value for another page record, the page record with the greater TMSI_CODE value is sent later in the slot.

3.6.2.3.2 Processing when the Universal Page Message is Used

The base station shall use the following rules for selecting the Forward Common Control Channel slot in which to send a message to a mobile station:

- If the base station is able to determine that the mobile station is operating in the non-slotted mode, the base station may send the message to the mobile station in any Forward Common Control Channel slot.

- If the base station is able to determine that the mobile station is capable of operating in the slotted mode and that the mobile station is waiting for a priority access channel assignment, or that the slotted timer in the mobile station is active, the base station may send the message to the mobile station in any Forward Common Control Channel slot with the position within the slot subject to the following limitation:

  - The base station shall not send the message later in the slot than a Universal Page Message which lacks a mobile station-directed message announcement and which lacks a mobile station-addressed page (see 3.7.2.3.2.25) for that mobile station.

- If the base station is able to determine that the mobile station is operating in the slotted mode and that the mobile station is not waiting for a priority access channel assignment and that the slotted timer in the mobile station is not active and the base station is able to determine the mobile station’s slot cycle index (see 2.6.2.1.1.3.3), the base station shall send the message at least once in an assigned Forward Common Control Channel slot for the mobile station (see 3.6.2.1.3) or in the following slot, with the position within these two slots subject to the following limitation:
The base station shall not send the message later in the slot than a *Universal Page Message* that lacks a mobile station-directed message announcement and which lacks a mobile station-addressed page (see 3.7.2.3.2.25) for that mobile station.

- If the base station is not able to determine whether the mobile station is operating in the non-slotted mode, or the base station is not able to determine the mobile station’s slot cycle index, the base station shall assume that the mobile station is operating in the slotted mode with a slot cycle index which is the smaller of MAX_SLOT_CYCLE_INDEX and 1. The base station shall send the message at least once in an assigned Forward Common Control Channel slot for the mobile station (see 3.6.2.1.3), or in the following slot, with the position within these two slots subject to the following limitation:

  - The base station shall not send the message later in the slot than a *Universal Page Message* that lacks a mobile station-directed message announcement and which lacks a mobile station-addressed page (see 3.7.2.3.2.25) for that mobile station.

The base station should send messages directed to both mobile stations operating in the slotted mode and mobile stations operating in the non-slotted mode later in the slot than the *Universal Page Message*.

3.6.2.4 Broadcast Messages

3.6.2.4.1 Broadcast Messages Sent on the Paging Channel

The base station may transmit *Data Burst Messages* directed to broadcast addresses. When transmitting broadcast messages that are to be received by mobile stations operating in the slotted mode, the base station may use broadcast page records (see 3.7.2.3.2.17) in accordance with the broadcast procedures specified in 3.6.2.4.1 to announce the presence of broadcast *Data Burst Messages* on the Paging Channel. The base station should use the rules specified in 3.6.2.4.1.1 for selecting the Paging Channel slot in which to send a broadcast *Data Burst Message*.

3.6.2.4.1.1 Broadcast Procedures for Slotted Mode

The base station may announce the presence of broadcast Data Burst Messages on the Paging Channel by paging, using a broadcast address with PAGE_CLASS equal to ‘11’ and PAGE_SUBCLASS equal to ‘00’.

3.6.2.4.1.1.1 General Overview

The base station may transmit Data Burst Messages directed to broadcast addresses. Since mobile stations operating in slotted mode do not constantly monitor a Paging Channel, it is necessary to use special procedures to ensure that mobile stations operating in the slotted mode are able to receive the message. The base station may either send a broadcast message in many slots, or may send a broadcast message in a predetermined paging slot. This single transmission of the pending broadcast message may be announced by a
preceding “broadcast page”. A broadcast page is a *General Page Message* record with the  
PAGE_CLASS field set to ‘11’.

If pending transmission of the broadcast message is announced by the broadcast page,  
mobile stations use the BC_ADDR and the BURST_TYPE fields of the broadcast page record  
to determine whether or not to receive the announced broadcast message. The base station  
sets the value of the BC_ADDR according to the requirements of the standards related to  
the BURST_TYPE. There is a predetermined timing relationship between the sending of the  
broadcast page and the sending of the related broadcast message. This timing relationship  
allows mobile stations to determine which slot to monitor in order to receive the broadcast  
message.

To reduce the overhead for sending broadcast pages or broadcast messages, a base station  
may use periodic broadcast paging (see 3.6.2.4.1.2.1.2). When periodic broadcast paging is  
enabled, broadcast pages or broadcast messages are sent only once during a broadcast  
paging cycle. Mobile stations that are operating in the slotted mode and are configured to  
receive broadcast messages monitor the paging channel during the slot in which the  
broadcast pages or broadcast messages are sent. For the purpose of periodic broadcast  
paging, system time is divided into broadcast paging cycles, each having a duration of \((B + 3)\) Paging Channel slots, where \(B\) is a power of two. In each broadcast paging cycle, the  
first paging slot may contain broadcast pages or broadcast messages.

3.6.2.4.1.1.2 Requirements for Sending Broadcast Messages

3.6.2.4.1.1.2.1 Broadcast Delivery Options

When transmitting broadcast messages that are to be received by mobile stations operating  
in the slotted mode and monitoring the Paging Channel, the base station shall use one of  
the two following procedures to transmit a broadcast message.

3.6.2.4.1.1.2.1.1 Method 1: Multi-Slot Broadcast Message Transmission

The base station may send a broadcast message using this method without regard to  
whether periodic broadcast paging is enabled or disabled (see 3.6.2.4.1.2.3).

When using this method, the base station shall send the broadcast message in a sufficient  
number of paging slots such that it may be received by any mobile station that is operating  
in the slotted mode. For example, the base station may send the broadcast message in \(M\)  
successive paging slots where \(M\) is the number of slots in a maximum paging cycle as  
defined in 2.6.2.1.1.3.3.

3.6.2.4.1.1.2.1.2 Method 2: Periodic Broadcast Paging

If the base station sends a broadcast message using this method, then the base station  
shall enable periodic broadcast paging (see 3.6.2.4.1.2.3).

To deliver a broadcast message using this method, the base station should perform the  
following:
• If the number and size of the broadcast messages waiting to be sent are such that
the messages can be sent in a single slot, the base station should send the
broadcast messages in the first slot of the next broadcast paging cycle (see
2.6.2.1.3.3).

• If there is a single broadcast message waiting to be sent, the base station should
send the broadcast message beginning in the first slot of the next broadcast paging
cycle (see 2.6.2.1.3.3).

• Otherwise, the base station should first include a broadcast page for each broadcast
message to be sent, in a General Page Message that is sent in the first slot of the
next broadcast paging cycle (see 2.6.2.1.3.3). The base station should then send
the related broadcast messages in the paging slots specified in 3.6.2.1.2.4.

3.6.2.4.1.2.2 Duplicate Broadcast Message Transmission

If the base station sends a broadcast message or a broadcast page and an associated
broadcast message more than once when periodic broadcast paging is enabled (see
3.6.2.4.1.2.3), then all repetitions of the broadcast message or the broadcast page and the
associated broadcast message should be sent within \(4 \times (B + 3)\) paging slots of the paging
slot in which the broadcast message or broadcast page was first sent. \((B + 3)\) is the duration
of the broadcast paging cycle as defined in 2.6.2.1.3.3).

When a base station sends a broadcast message or a broadcast page when periodic
broadcast paging is enabled (see 3.6.2.4.1.2.3), and the base station has a second, different
broadcast message to send which contains identical BURST_TYPE and BC_ADDR fields,
then the base station shall wait \(4 \times (B + 3)\) paging slots after the first slot of the broadcast
paging cycle containing the final sending of the first broadcast message or broadcast page
before sending the second, different broadcast message or related broadcast page.

3.6.2.4.1.2.3 Periodic Broadcast Paging

The base station uses the BCAST_INDEX field of the Extended System Parameters Message
to specify the current state of periodic broadcast paging to all mobile stations.

To enable periodic broadcast paging, the base station shall set the BCAST_INDEX field of
the Extended System Parameters Message to an unsigned 3-bit number in the range 1-7,
equal to the broadcast slot cycle index as defined in 2.6.2.1.3.3. The value of the
BCAST_INDEX field may exceed the value of the MAX_SLOT_CYCLE_INDEX field sent in the
System Parameters Message.

To indicate that periodic broadcast paging is either disabled or is not supported by the base
station, the base station shall set the BCAST_INDEX field to ‘000’.

3.6.2.4.1.2.4 Broadcast Message Slot Determination

When a base station uses broadcast paging, it shall determine the slot in which to send the
corresponding broadcast message using the following procedures:

• The base station shall consider a broadcast page to have been sent in the paging
slot in which the General Page Message containing the broadcast page began.
The reference slot is defined as the paging slot in which the broadcast page was sent.

Let n represent the ordinal number of the broadcast page relative to other broadcast pages that are contained in the same General Page Message (n = 1, 2, 3,...). The base station shall send the broadcast message announced by broadcast page n in the paging slot that occurs n × 3 paging slots after the reference slot.

3.6.2.4.2 Broadcast Messages Sent on the Broadcast Control Channel

The base station may transmit Data Burst Messages directed to broadcast addresses. When transmitting broadcast messages that are to be received by mobile stations operating in the slotted mode, the base station may use enhanced broadcast pages (see 3.7.2.3.2.17) in accordance with the broadcast procedures specified in 3.6.2.4.2 to announce the presence of broadcast Data Burst Messages on the Broadcast Control Channel. The base station should use the rules specified in 3.6.2.4.2.1 for selecting the Broadcast Control Channel slot in which to send a broadcast Data Burst Message.

3.6.2.4.2.1 Broadcast Procedures for Slotted Mode

The base station may announce the presence of broadcast Data Burst Messages on the Broadcast Control Channel by sending an enhanced broadcast page.

3.6.2.4.2.1.1 General Overview

The base station may transmit Data Burst Messages directed to broadcast addresses. Since mobile stations operating in slotted mode do not constantly monitor a Broadcast Control Channel, it is necessary to use special procedures to ensure that mobile stations operating in the slotted mode are able to receive the message. The base station may either send an enhanced broadcast page in many Forward Common Control Channel slots, directing the mobile station to the appropriate Broadcast Control Channel slot, or the base station may also send an enhanced broadcast page in a predetermined slot, called a broadcast slot, on the Forward Common Control Channel, directing the mobile station to a specified Broadcast Control Channel slot.

If pending transmission of the broadcast message is announced by the enhanced broadcast page, mobile stations use the BC_ADDR and the BURST_TYPE fields of the enhanced broadcast page record to determine whether or not to receive the announced broadcast message. The base station sets the value of the BC_ADDR according to the requirements of the standards related to the BURST_TYPE. The timing relationship between the sending of the enhanced broadcast page and the sending of the related broadcast message is specified in the enhanced broadcast page. This timing relationship allows mobile stations to determine which Broadcast Control Channel slot to monitor in order to receive the broadcast message.

To reduce the overhead for sending broadcast pages or broadcast messages, a base station may use Periodic Enhanced Broadcast Paging (see 3.6.2.4.2.1.2). When Periodic Enhanced Broadcast Paging is enabled, enhanced broadcast pages are sent only once during a broadcast paging cycle. Mobile stations that are operating in the slotted mode and are configured to receive broadcast messages monitor the Forward Common Control
Channel during the broadcast slot in which the enhanced broadcast pages are sent. For the purpose of Periodic Enhanced Broadcast Paging, system time is divided into broadcast paging cycles, each having a duration of \((B + 7)\) Forward Common Control Channel slots, where \(B\) is a power of two. In each broadcast paging cycle, the first Forward Common Control Channel slot may contain enhanced broadcast pages.

3.6.2.4.2.1.2 Requirements for Sending Broadcast Messages

3.6.2.4.2.1.2.1 Broadcast Delivery Options

When transmitting broadcast messages that are to be received by mobile stations operating in the slotted mode and monitoring the Forward Common Control Channel/Broadcast Control Channel, the base station shall use one of the two following procedures to transmit a broadcast message.

3.6.2.4.2.1.2.1.1 Method 1: Multi-Slot Enhanced Broadcast Paging

The base station may send a broadcast message using this method without regard to whether Periodic Enhanced Broadcast Paging is enabled or disabled (see 3.6.2.4.2.2.3).

When using this method, the base station shall send the enhanced broadcast page in a sufficient number of Forward Common Control Channel slots such that it may be received by any mobile station that is operating in the slotted mode. The enhanced broadcast page then directs mobile stations to a subsequent Broadcast Control Channel slot.

The base station shall not send an enhanced broadcast page that directs a mobile station to receive a broadcast message on the Primary Broadcast Control Channel.

The base station shall not send a broadcast message on the Forward Common Control Channel.

3.6.2.4.2.1.2.1.2 Method 2: Periodic Enhanced Broadcast Paging

If the base station sends a broadcast message using this method, then the base station shall enable Periodic Enhanced Broadcast Paging (see 3.6.2.4.2.2.3).

To deliver a broadcast message using this method, the base station should perform the following:

- The base station should first include an enhanced broadcast page for each broadcast message to be sent, in a page that is sent on the Forward Common Control Channel in the first slot of the next broadcast paging cycle (see 2.6.2.1.1.3.3). The base station should then send the corresponding broadcast messages in the Broadcast Control Channel slots specified in 3.6.2.4.2.2.4.

The base station shall not send an enhanced broadcast page that directs a mobile station to receive a broadcast message on the Primary Broadcast Control Channel.

The base station shall not send a broadcast message on the Forward Common Control Channel.
3.6.2.4.2.1.2.2 Duplicate Broadcast Message Transmission

If the base station sends an enhanced broadcast page and an associated broadcast message more than once when Periodic Enhanced Broadcast Paging is enabled (see 3.6.2.4.2.2.3), then all repetitions of the enhanced broadcast page should be sent within $4 \times (B + 7)$ slots of the slot in which the enhanced broadcast page was first sent. ($B + 7$ is the duration of the broadcast paging cycle as defined in 2.6.2.1.1.3.3).

When a base station sends an enhanced broadcast page when Periodic Enhanced Broadcast Paging is enabled (see 3.6.2.4.2.2.3), and the base station has a second, different broadcast message to send which contains identical BURST_TYPE and BC_ADDR fields, then the base station shall wait $4 \times (B + 7)$ paging slots after the first slot of the broadcast paging cycle containing the final sending of the first broadcast message or enhanced broadcast page before sending the second, different enhanced broadcast page.

3.6.2.4.2.1.2.3 Periodic Enhanced Broadcast Paging

The base station uses the BCAST_INDEX fields of the MC-RR Parameters Message to specify the current state of Periodic Enhanced Broadcast Paging to all mobile stations.

To enable Periodic Enhanced Broadcast Paging, the base station shall set the BCAST_INDEX field to a non-zero unsigned 3-bit number equal to the broadcast slot cycle index as defined in 2.6.2.1.1.3.3.

To indicate that Periodic Enhanced Broadcast Paging is either disabled or is not supported by the base station, the base station shall set the BCAST_INDEX field to '000'.

3.6.2.4.2.1.2.4 Broadcast Message Slot Determination

When a base station uses broadcast message announcement, it shall determine the slot in which to send the corresponding broadcast message using the following procedures:

- The base station shall consider an enhanced broadcast page to have been sent in the Forward Common Control Channel slot in which the page message containing the enhanced broadcast page began.

- The reference slot is defined as the Forward Common Control Channel slot in which the enhanced broadcast page was sent.

- The base station shall send a first transmission of the broadcast message announced by the enhanced broadcast page in the Broadcast Control Channel slot which begins $40 \text{ ms} \times (1 + \text{TIME_OFFSET})$ later than the beginning of the slot in which the page message containing the enhanced broadcast page began. The base station may send a repetition of the broadcast message announced by the enhanced broadcast page in the Broadcast Control Channel slot which begins $40 \text{ ms} \times (1 + \text{REPEAT_TIME_OFFSET})$ later than the Broadcast Control Channel slot in which the first transmission began.

3.6.2.5 Quick Paging Channel Processing

The base station may support a Quick Paging Channel. The base station may transmit up to three Quick Paging Channels on each supported CDMA Channel.
When a Quick Paging Channel is supported, the base station shall transmit paging indicators to the mobile station in the assigned positions in the assigned Quick Paging Channel slot. The base station shall set the paging indicators to “ON” if the mobile station is operating in the slotted mode and is to receive the Paging Channel or Forward Common Control Channel in the assigned Paging Channel or Forward Common Control Channel slot following its assigned Quick Paging Channel slot.

When the base station changes CONFIG_MSG_SEQ, the base station should set the paging indicators for all mobile stations to “ON” for each Quick Paging Channel slot for a time interval T (in units of 1.28 seconds), such that

\[ T = N \times 2^{\text{MAX SLOT CYCLE INDEX}}, \]

where N is an integer greater than or equal to one.

If the base station supports configuration change indicators on the Quick Paging Channel, when the base station changes CONFIG_MSG_SEQ, the base station shall set all configuration change indicators to “ON” for each Quick Paging Channel slot for a time interval of \( T_{31m} \) seconds. At all other times, the base station shall set all configuration change indicators to “OFF”.

If the base station does not support configuration change indicators on the Quick Paging Channel, then the base station shall set all configuration change indicators to “OFF”.

When the base station sends a broadcast message using Multi-Slot Broadcast Message Transmission (see 3.6.2.4.1.2.1.1-3.6.2.4.1.2.1.1), the base station should set all paging indicators to “ON” for the Quick Paging Channel slot which begins 100 ms prior to the beginning of the Paging Channel slot in which the broadcast message begins.

When the base station sends an enhanced broadcast page using Multi-Slot Enhanced Broadcast Paging (see 3.6.2.4.2.1.2.1.1), the base station should set all paging indicators to “ON” for the Quick Paging Channel slot which begins 100 ms prior to the beginning of the Forward Common Control Channel slot in which the message containing the enhanced broadcast page begins.

When the base station sends an enhanced broadcast page using Periodic Enhanced Broadcast Paging (see 3.6.2.4.2.1.2.1.2), the base station should set all broadcast indicators to “ON” for the Quick Paging Channel broadcast slot which begins 100 ms prior to the beginning of the Forward Common Control Channel slot in which the message containing the enhanced broadcast page begins. At all other times, the base station shall set all broadcast indicators for a Quick Paging Channel broadcast slot to “OFF”.

The base station shall set all reserved indicators to “OFF”.

3.6.2.5.1 Quick Paging Channel Determination

To determine the mobile station’s assigned Quick Paging Channel, the base station shall use the hash function specified in 2.6.7.1 with the following inputs:

- IMSI_S based on the IMSI with which the mobile station registered (see 2.3.1)
- Number of Quick Paging Channels which the base station transmits on the mobile station’s assigned CDMA Channel.
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3.6.2.5.2 Quick Paging Channel Slot Determination

The mobile station's assigned Quick Paging Channel slots are those slots for which

\[ \left\lfloor \frac{(t+5)}{4} \right\rfloor - \text{PGSLOT} \mod (16 \times T) = 0, \]

where \( t \) is the System Time in frames, PGSLOT is selected in the range 0 to 2047 by using the hash function specified in 2.6.7.1, and \( T \) is the slot cycle length in units of 1.28 seconds such that

\[ T = 2^i, \]

and \( i \) is the slot cycle index.

3.6.2.5.3 Paging Indicator Position Determination

To determine the mobile station's assigned paging indicators, the base station shall use the same formula as used by the mobile station (see 2.6.2.1.2.2).

3.6.2.5.4 Configuration Change Indicator Position Determination

Configuration change indicators are transmitted on the first Quick Paging Channel.

If the Quick Paging Channel data rate is 2400 bps (indicator rate is 4800 bps), the bit positions of the first pair of configuration change indicators in a Quick Paging Channel slot shall be the last two bits in the first 40 ms half of the Quick Paging Channel slot. The bit positions of the second pair of configuration change indicators in a Quick Paging Channel slot shall be the last two bits in the Quick Paging Channel slot.

If the Quick Paging Channel data rate is 4800 bps (indicator rate is 9600 bps), the bit positions of the first four configuration change indicators in a Quick Paging Channel slot shall be the last four bits in the first 40 ms half of the Quick Paging Channel slot. The bit position of the second four configuration change indicators in a Quick Paging Channel slot shall be the last four bits in the Quick Paging Channel slot.

3.6.2.5.5 Broadcast Indicator Position Determination

Broadcast indicators are transmitted on the first Quick Paging Channel.

On the first Quick Paging Channel, if the Quick Paging Channel data rate is 2400 bps (indicator rate is 4800 bps), the broadcast indicator positions are described as follows:

- The two Quick Paging Channel bit positions prior to the last two bits in the first 40 ms half of a Quick Paging Channel broadcast slot are broadcast indicators. The two Quick Paging Channel bit positions prior to the last two bits in a Quick Paging Channel broadcast slot are also broadcast indicators.

On the first Quick Paging Channel, if the Quick Paging Channel data rate is 4800 bps (indicator rate is 9600 bps), the broadcast indicator positions are described as follows:

- The four Quick Paging Channel bit positions prior to the last four bits in the first 40 ms half of a Quick Paging Channel broadcast slot are broadcast indicators. The four Quick Paging Channel bit positions prior to the last four bits in a Quick Paging Channel broadcast slot are also broadcast indicators.
3.6.2.5.6 Reserved Indicator Positions

On the first Quick Paging Channel, if the Quick Paging Channel data rate is 2400 bps (indicator rate is 4800 bps), the reserved indicator positions are described as follows:

- The two Quick Paging Channel bit positions prior to the last two bits in the first 40 ms half of a Quick Paging Channel slot that is not a Quick Paging Channel Broadcast slot are reserved. The two Quick Paging Channel bit positions prior to the last two bits in a Quick Paging Channel slot that is not a Quick Paging Channel Broadcast slot are also reserved.

On the first Quick Paging Channel, if the Quick Paging Channel data rate is 4800 bps (indicator rate is 9600 bps), the reserved indicator positions are described as follows:

- The four Quick Paging Channel bit positions prior to the last four bits in the first 40 ms half of a Quick Paging Channel slot that is not a Quick Paging Channel Broadcast slot are reserved. The four Quick Paging Channel bit positions prior to the last four bits in a Quick Paging Channel slot that is not a Quick Paging Channel Broadcast slot are also reserved.

On Quick Paging Channels other than the first Quick Paging Channel, if the Quick Paging Channel data rate is 2400 bps (indicator rate is 4800 bps), the reserved indicator positions are described as follows:

- The last four Quick Paging Channel bit positions in the first 40 ms half of a Quick Paging Channel slot are reserved. The last four Quick Paging Channel bit positions in a Quick Paging Channel slot are also reserved.

On Quick Paging Channels other than the first Quick Paging Channel, if the Quick Paging Channel data rate is 4800 bps (indicator rate is 9600 bps), the reserved indicator positions are described as follows:

- The last eight Quick Paging Channel bit positions in the first 40 ms half of a Quick Paging Channel slot are reserved. The last eight Quick Paging Channel bit positions in a Quick Paging Channel slot are also reserved.

3.6.3 Access Channel and Enhanced Access Channel Processing

During *Access Channel Processing*, the base station monitors the Access Channel to receive messages which the mobile station sends while the mobile station is in the *System Access State*.

Each Access Channel is associated with a Paging Channel. Up to 32 Access Channels can be associated with a Paging Channel. The number of Access Channels associated with a particular Paging Channel is specified in the *Access Parameters Message* sent on that Paging Channel.

If the base station supports Access Channels, the base station shall continually monitor all Access Channels associated with each Paging Channel that the base station transmits.

If the base station supports Enhanced Access Channels, then during *Enhanced Access Channel Processing*, the base station monitors the Enhanced Access Channel to receive
messages which the mobile station sends while the mobile station is in the *System Access State*.

Each Enhanced Access Channel is associated with a Forward Common Control Channel. Up to 32 Enhanced Access Channels can be associated with a Forward Common Control Channel. The number of Enhanced Access Channels associated with a particular Forward Common Control Channel is specified in the *Enhanced Access Parameters Message* sent on the Primary Broadcast Control Channel.

If the base station supports Enhanced Access Channel, the base station shall continually monitor all Enhanced Access Channels associated with each Forward Common Control Channel that the base station transmits.

3.6.3.1 Reserved

3.6.3.2 Reserved

3.6.3.3 Response to Page Response Message

If the base station receives a *Page Response Message*, the base station should send a *Channel Assignment Message*, an *Extended Channel Assignment Message*, or a *Release Order*. The base station may also start authentication procedures (see 2.3.12), start TMSI assignment procedures (see 2.3.15), send a *Data Burst Message*, or request status information records with the *Status Request Message*. If the base station is operating with the mobile station in Band Class 0, the base station may also request the status information records with the *Status Request Order*.

If the base station sends the *Extended Channel Assignment Message*, the base station may include more than one pilot to be in the Active Set.

If the base station sends a *Channel Assignment Message* or an *Extended Channel Assignment Message*, the base station shall perform the following:

- If the message directs the mobile station to a CDMA Traffic Channel, the base station shall begin *Traffic Channel Processing* (see 3.6.4) for the mobile station.
- If the message directs the mobile station to an 800 MHz wide analog voice channel, the base station shall follow the procedure described in [6].
- If the message directs the mobile station to an 800 MHz narrow analog voice channel, the base station shall follow the procedure described in 3.6.5A of [22].
- Layer 3 shall send a *mobile station inactive on common channel* indication to Layer 2 (see 3.1.1.2.2 of [4]).

3.6.3.4 Response to Orders

No requirements.

3.6.3.5 Response to Origination Message

If the base station receives an *Origination Message*, the base station should send a *Channel Assignment Message*, an *Extended Channel Assignment Message*, an *Intercept Order*, a
Reorder Order, a Release Order, a Retry Order, a PACA Message, or a Service Redirection Message. The base station may also commence authentication procedures (see 2.3.12) or TMSI assignment procedures (see 2.3.15). The base station may also request status information records with the Status Request Message. If the base station is operating with the mobile station in Band Class 0, the base station may also request status information records with the Status Request Order.

If the base station sends the Extended Channel Assignment Message, the base station may include more than one pilot to be in the Active Set.

If the base station sends a Channel Assignment Message or an Extended Channel Assignment Message, the base station shall perform the following:

- If the message directs the mobile station to a CDMA Traffic Channel, the base station shall begin Traffic Channel Processing (see 3.6.4) for the mobile station.
- If the message directs the mobile station to an 800 MHz wide analog voice channel, the base station shall follow the procedure described in [2].
- If the message directs the mobile station to an 800 MHz narrow analog voice channel, the base station shall follow the procedure described in 3.6.5A of [2].
- The base station shall raise a mobile station inactive on common channel indication for the mobile station.

If the base station sends a Channel Assignment Message, the base station shall not set RESPOND equal to ‘0’ when ASSIGN_MODE = ‘001’, ASSIGN_MODE = ‘010’, or ASSIGN_MODE = ‘101’. If the base station sends an Extended Channel Assignment Message, the base station shall not set RESPOND equal to ‘0’ when ASSIGN_MODE = ‘001’ or ASSIGN_MODE = ‘010’.

If the base station receives an Origination Message and the GLOBAL_EMERGENCY_CALL indicator is set to ‘1’ and the service associated with this origination is a voice service, the base station shall recognize this as an emergency call and should process the message using an implementation-dependent procedure which may include ignoring the dialed digits. If the base station receives an Origination Message and the GLOBAL_EMERGENCY_CALL indicator is set to ‘1’ and the service associated with this origination is not a voice service, the base station may recognize this as an emergency call and should process the message using an implementation-dependent procedure which may include ignoring the dialed digits.

3.6.3.6 Response to Registration Message

If the base station receives a Registration Message, the base station may send a Registration Accepted Order, a Registration Rejected Order, or a Service Redirection Message. The base station may also start authentication procedures (see 2.3.12), may start TMSI assignment procedures (see 2.3.15), or may request status information records with the Status Request Message. If the base station is operating with the mobile station in Band Class 0, the base station may also request the status information records with a Status Request Order.

If the Registration Message specifies a power-down registration, Layer 3 shall send a mobile station inactive on common channel indication to Layer 2 (see 3.1.1.2.2 of [4]).
When responding to a Registration Message that requests extended encryption, if the base station decides to turn on extended encryption and the CMEAKEY is available at the base station, the base station shall send a Registration Accepted Order with encryption information. Before the CMEAKEY is available, the base station may send a Registration Accepted Order without any encryption information. When the CMEAKEY becomes available, if the base station decides to turn on extended encryption, the base station shall send a Registration Accepted Order with encryption information.

3.6.3.7 Response to Data Burst Message

No requirements.

3.6.3.8 Reserved

3.6.3.9 Reserved

3.6.3.10 Service Redirection

If the base station sends a Service Redirection Message to the mobile station, Layer 3 shall send a mobile station inactive on common channel indication to Layer 2 (see 3.1.1.2.2 of [4]).

3.6.4 Traffic Channel Processing

During Traffic Channel Processing, the base station uses the Forward and Reverse Traffic Channels to communicate with the mobile station while the mobile station is in the Mobile Station Control on the Traffic Channel State.

Traffic Channel processing consists of the following substates:

- Traffic Channel Initialization Substate - In this substate, the base station begins transmitting on the Forward Traffic Channel and receiving on the Reverse Traffic Channel.

- Traffic Channel Substate - In this substate, the base station exchanges Traffic Channel frames with the mobile station in accordance with the current service configuration. While in this substate, one or more Call Control instances can be activated (see 3.6.8).

- Release Substate - In this substate, the base station disconnects the calls and the physical channels.

3.6.4.1 Special Functions and Actions

The base station performs the following special functions and actions in one or more of the Traffic Channel processing substates:

3.6.4.1.1 Forward Traffic Channel Power Control

When the base station enables Forward Traffic Channel power control, the mobile station reports frame error rate statistics to the base station using the Power Measurement Report Message.
The base station may enable Forward Traffic Channel power control using the *System Parameters Message* sent on the Paging Channel and the *Power Control Parameters Message* sent on the Forward Traffic Channel. The base station may enable Forward Traffic Channel power control using the *MC-RR Parameters Message* sent on the Primary Broadcast Control Channel and the *Power Control Parameters Message* sent on the Forward Traffic Channel. The base station may enable periodic reporting which causes the mobile station to report frame error rate statistics at specified intervals. The base station may also enable threshold reporting which causes the mobile station to report frame error rate statistics when the frame error rate reaches a specified threshold.\(^2\)

The base station may use the reported frame error rate statistics to adjust the transmit power of the Forward Traffic Channel.

### 3.6.4.1.2 Service Configuration and Negotiation

During Traffic Channel operation, the mobile station and base station communicate through the exchange of Forward and Reverse Traffic Channel Configurations. The mobile station and base station use a common set of attributes for building and interpreting Traffic Channel frames. This set of attributes, referred to as a service configuration, consists of both negotiable and non-negotiable parameters.

The set of negotiable service configuration parameters consists of the following:

1. **Forward and Reverse Multiplex Options**: These control the way in which the information bits of the Forward and Reverse Traffic Channel frames, respectively, are divided into various types of traffic, such as signaling traffic, primary traffic and secondary traffic. A multiplex option together with a radio configuration specifies the frame structures and transmission rates (see [3]). The Multiplex Options which support Supplemental Code Channel transmission and Supplemental Channel transmission on the Forward and Reverse Traffic Channels are included in [3]. Invocation of Supplemental Code Channel operation on the Forward or Reverse Traffic Channels occurs by transmission of the *Supplemental Channel Request Message*, the *Supplemental Channel Assignment Message*, and the *General Handoff Direction Message*. The Multiplex Options which support Supplemental Code Channel transmission and Supplemental Channel transmission on the Forward and Reverse Traffic Channels are included in [3]. The multiplex option used for the Forward Traffic Channel can be the same as that used for the Reverse Traffic Channel, or it can be different.

2. **Forward and Reverse Traffic Channel Configurations**: These include the radio configurations and other necessary attributes for the Forward and Reverse Traffic Channels. The Traffic Channel Configuration used can be different for the Forward and Reverse Traffic Channels or it can be the same.

\(^2\)In this section the term base station may imply multiple cells or sectors.
3. Forward and Reverse Traffic Channel Transmission Rates: These are the transmission rates actually used for the Forward and Reverse Traffic Channels, respectively. The transmission rates for the Forward Traffic Channel can include all of the transmission rates supported by the radio configuration associated with the Forward Traffic Channel multiplex option, or a subset of the supported rates. Similarly, the transmission rates used for the Reverse Traffic Channel can include all rates supported by the radio configuration associated with the Reverse Traffic Channel multiplex option, or a subset of the supported rates. The transmission rates used for the Forward Traffic Channel can be the same as those used for the Reverse Traffic Channel, or they can be different.

4. Service Option Connections: These are the services in use on the Traffic Channel. There can be multiple service option connections. It is also possible that there is no service option connection, in which case the base station uses the Forward Traffic Channel as follows:

- Sends signaling traffic and null traffic on the Forward Fundamental Channel.
- Sends signaling traffic on the Forward Dedicated Control Channel.
- Sends power control bits on the Forward Fundamental Channel if FPC_PRI_CHAN is set to ‘0’; sends power control bits on the Forward Dedicated Control Channel if FPC_PRI_CHAN is set to ‘1’.

Associated with each service option connection are a service option, a Forward Traffic Channel traffic type, a Reverse Traffic Channel traffic type, and a service option connection reference. The associated service option formally defines the way in which traffic bits are processed by the mobile station and base station. The associated Forward and Reverse Traffic Channel traffic types specify the types of traffic used to support the service option. A service option can require the use of a particular type of traffic, such as primary or secondary, or it can accept more than one traffic type. A service option can be one-way, in which case it can be supported on the Forward Traffic Channel only or the Reverse Traffic Channel only. Alternatively, a service option can be two-way, in which case it can be supported on the Forward and Reverse Traffic Channels simultaneously. Connected service options can also invoke operation on Supplemental Code Channels in either one or both of the Forward and Reverse Traffic Channels by negotiating a multiplex option that supports operation on Supplemental Code Channels (see [3] for Multiplex Options applicable to Supplemental Code Channels), and by using the appropriate Supplemental Code Channel related messages (i.e., the Supplemental Channel Request Message, the Supplemental Channel Assignment Message, and the General Handoff Direction Message). After Supplemental Code Channels have been assigned by the base station, the connected service option can transmit primary and/or secondary traffic on Supplemental Code Channels. Connected service options can also invoke operation on Supplemental Channels in either one or both of the Forward and Reverse Traffic Channels by negotiating a multiplex option that supports operation on Supplemental Channels (see [3] for Multiplex Options applicable to...
Supplemental Channels) and by using the appropriate Supplemental Channel related messages (i.e., the Supplemental Channel Request Message, the Universal Handoff Direction Message, the Supplemental Channel Request Mini Message, the Extended Supplemental Channel Assignment Message, the Forward Supplemental Channel Assignment Mini Message, and the Reverse Supplemental Channel Assignment Mini Message). After Supplemental Channels have been assigned by the base station, the connected service option can transmit primary and/or secondary traffic on Supplemental Channels. The associated service option connection reference provides a means for uniquely identifying the service option connection. The reference serves to resolve ambiguity when there are multiple service option connections in use.

The non-negotiable service configuration parameters are sent from the base station to the mobile stations only, and consist of the following:

1. **Reverse Pilot Gating Rate**: This controls the way in which the reverse pilot is gated on the Reverse Pilot Channel. The base station specifies the reverse pilot gating rate to be used in the Service Connect Message, the General Handoff Direction Message, and the Universal Handoff Direction Message.

2. **Forward and Reverse Power Control Parameters**: These consist of forward power control operation mode, outer loop power control parameters (e.g., target frame error rate, minimum Eb/Nt setpoint, and maximum Eb/Nt setpoint) for the Forward Fundamental Channel and Forward Dedicated Control Channel, and Power Control Subchannel indicator which indicates where the mobile station is to perform the primary inner loop estimation and the base station is to multiplex the Power Control Subchannel.

3. **Logical to Physical Mapping**: This is a table of logical to physical mapping entries, consisting of service reference identifier, logical resource, physical resource, forward flag, reverse flag, and priority.

4. **Partition Table**: The base station may include this table to specify the number of bits allocated for each service in the Fundamental Channel or Dedicated Control Channel.

5. **SCH LTU Size Table**: The base station may include this table to specify the number of bits per supplemental channel LTU.

6. Information related to Variable Rate feature (the capability to support rate determination) on Forward and Reverse Supplemental Channels

7. Information related to Flexible Rate feature (the capability to support non-listed rates) on Forward and Reverse Fundamental Channel, Dedicated Control Channel, and Supplemental Channels

The mobile station can request a default service configuration associated with a service option at call origination, and can request new service configurations during Traffic Channel operation. A requested service configuration can differ greatly from its predecessor or it can be very similar. For example, the mobile station can request a service configuration in which all of the service option connections are different from those of the
existing configuration; or the mobile station can request a service configuration in which
the existing service option connections are maintained with only minor changes, such as a
different set of transmission rates or a different mapping of service option connections to
Forward and Reverse Traffic Channel traffic types.

If the mobile station requests a service configuration that is acceptable to the base station,
they both begin using the new service configuration. If the mobile station requests a
service configuration that is not acceptable to the base station, the base station can reject
the requested service configuration or propose an alternative service configuration. If the
base station proposes an alternative service configuration, the mobile station can accept or
reject the base station’s proposed service configuration, or propose yet another service
configuration. This process, called service negotiation, ends when the mobile station and
base station find a mutually acceptable service configuration, or when either the mobile
station or base station rejects a service configuration proposed by the other.

It is also possible for the base station to request a default service configuration, associated
with a service option, when paging the mobile station and to request new service
configurations during Traffic Channel operation. The service negotiation proceeds as
described above, but with the roles of the mobile station and base station reversed.

For CDMA mode operation in Band Class 0, the mobile station and base station can also
use an alternative method for negotiating a service configuration known as service option
negotiation. Service option negotiation is similar to service negotiation, but offers less
flexibility for specifying the attributes of the service configuration. During service option
negotiation, the base station or mobile station specifies only which service option is to be
used. There is no facility for explicitly specifying the multiplex options, traffic types or
transmission rates to be used on the Forward and Reverse Traffic Channels in conjunction
with the service option. Instead, implicit service configuration attributes are assumed. In
particular, the Forward and Reverse Multiplex Options and transmission rates are assumed
to be the default multiplex options and transmission rates associated with the requested
service option, and the traffic type for both the Forward and Reverse Traffic Channels is
assumed to be primary traffic. Furthermore, a service configuration established using
service option negotiation is restricted to having only a single service option connection.

At mobile station origination and termination, the type of negotiation to use, either service
negotiation or service option negotiation, is indicated in the Channel Assignment Message.
Service negotiation is always used with the Extended Channel Assignment Message. If a
CDMA-to-CDMA hard handoff occurs during the call, the type of negotiation to use
following the handoff is indicated in the Extended Handoff Direction Message, General
Handoff Direction Message, or Universal Handoff Direction Message.

For CDMA mode operation in band classes other than Band Class 0, only service
negotiation is to be used.

The following messages are used to support service negotiation:

1. **Service Request Message**: The mobile station can use this message to propose a
   service configuration, or to accept or reject a service configuration proposed in a
   Service Response Message. The base station can use this message to propose a
service configuration, or to reject a service configuration proposed in a Service Response Message.

2. Service Response Message: The mobile station can use this message to accept or reject a service configuration proposed in a Service Request Message, or to propose an alternative service configuration. The base station can use this message to reject a service configuration proposed in a Service Request Message, or to propose an alternative service configuration.

3. Service Connect Message: The base station can use this message to accept a service configuration proposed in a Service Request Message or Service Response Message, and instruct the mobile station to begin using the service configuration. The base station may use this message to instruct the mobile station to use the stored service configuration (that is, both the Service Configuration information record and the Non-negotiable Service Configuration information record) if based on the value of 16-bit CRC computed over the new service configuration (see 2.6.11) matches the SYNC_ID that the mobile station has reported in the Origination Message or Page Response Message.

4. Service Connect Completion Message: The mobile station can use this message to acknowledge the transition to a new service configuration.

5. Service Option Control Message: The mobile station and base station can use this message to invoke service option specific functions.

6. Extended Channel Assignment Message: The base station can use this message to accept or reject the initial service configuration proposed by the mobile station in an Origination Message or a Page Response Message.

The following messages are used to support service option negotiation:

1. Service Option Request Order: The mobile station and base station can use this message either to request a service option or suggest an alternative service option.

2. Service Option Response Order: The mobile station and base station can use this message to accept or reject a service option request.

3. Service Option Control Order: The mobile station and base station can use this message to invoke service option specific functions.

The following messages are used to support both service negotiation and service option negotiation:

1. Origination Message: The mobile station can use this message to propose an initial service configuration.

2. Channel Assignment Message: The base station can use this message to accept or reject the initial service configuration proposed by the mobile station in an Origination Message or a Page Response Message, and to indicate which type of negotiation, either service negotiation or service option negotiation, is to be used during the call.
3. **Extended Handoff Direction Message**: The base station can use this message to indicate which type of negotiation, either service negotiation or service option negotiation, is to be used following a CDMA-to-CDMA hard handoff.

4. **General Handoff Direction Message**: The base station can use this message to indicate which type of negotiation, either service negotiation or service option negotiation, is to be used following a CDMA-to-CDMA hard handoff. The base station can use this message to accept a service configuration proposed in a Service Request Message or Service Response Message. The base station can also use this message to instruct the mobile station to begin using the service configuration.

5. **General Page Message or Universal Page Message**: The base station can use a mobile-station-addressed page in a General Page Message or Universal Page Message to propose an initial service configuration.

6. **Page Response Message**: The mobile station can use this message to accept or reject the initial service configuration proposed by the base station in a mobile-station-addressed page, or to propose an alternative initial service configuration.

7. **Status Request Message**: The base station can use this message to request service capability information from the mobile station.

8. **Status Response Message**: The mobile station can use this message to return the service capability information requested by the base station in a Status Request Message.

9. **Extended Status Response Message**: The mobile station can use this message to return the service capability information requested by the base station in a Status Request Message.

10. **Universal Handoff Direction Message**: The base station can use this message to indicate which type of negotiation, either service negotiation or service option negotiation, is to be used following a CDMA-to-CDMA hard handoff. The base station can use this message to accept a service configuration proposed in a Service Request Message or Service Response Message. The base station can also use this message to instruct the mobile station to begin using the service configuration.

3.6.4.1.2.1 Use of Variables

3.6.4.1.2.1.1 Maintaining the Service Request Sequence Number

The base station shall maintain a service request sequence number variable, SERV_REQ_NUM, for use with service negotiation. Upon beginning Traffic Channel processing, the base station shall set SERV_REQ_NUM to 0. Each time the base station sends a new Service Request Message, it shall set the SERV_REQ_SEQ field of the message to the current value of SERV_REQ_NUM and shall then set SERV_REQ_NUM equal to (SERV_REQ_NUM + 1) modulo 8.
3.6.4.1.2.1.2 Maintaining the Service Connect Sequence Number

The base station shall maintain a service connect sequence number variable, SERV_CON_NUM, for use with service negotiation. Upon beginning Traffic Channel processing, the base station shall set SERV_CON_NUM to 0. Each time the base station sends a new Service Connect Message, a General Handoff Direction Message, or a Universal Handoff Direction Message containing a service configuration record, it shall set the SERV_CON_SEQ field of the message to the current value of SERV_CON_NUM and shall then set SERV_CON_NUM equal to (SERV_CON_NUM + 1) modulo 8.

3.6.4.1.2.1.3 Assigning Service Option Connection References

When the base station assigns a service option connection reference for use in identifying a new service option connection during service negotiation, the base station shall use the following criteria:

1. The base station shall not assign a reference equal to '00000000'; and
2. The base station shall not assign a reference that is associated with a service option connection of the current service configuration; and
3. If there was a previous service configuration, the base station shall not assign a reference that was associated with a service option connection of the previous service configuration.

3.6.4.1.2.1.4 Maintaining the Service Negotiation Indicator Variable

The base station shall maintain a service negotiation indicator variable, SERV_NEG, to indicate which type of negotiation to use, either service negotiation or service option negotiation. The base station shall set SERV_NEG to enabled whenever service negotiation is to be used, and shall set SERV_NEG to disabled whenever service option negotiation is to be used. The precise rules for setting SERV_NEG are specified in 3.6.4.2 and 3.6.6.2.2.2.

For CDMA operation in band classes other than Band Class 0, the base station shall set SERV_NEG to enabled.

3.6.4.1.2.1.5 Maintaining the Service Option Request Number

The base station shall maintain a service option request number variable, SO_REQ, for use with service option negotiation. The base station shall set SO_REQ to a special value, NULL, if the base station does not have an outstanding service option request. If the base station has an outstanding service option request, the base station shall set SO_REQ to the number of the service option associated with the outstanding request.

3.6.4.1.2.2 Service Subfunctions

As illustrated in Figure 3.6.4.1.2.2-1, the base station supports service configuration and negotiation by performing the following set of service subfunctions.

* Normal Service Subfunction - While this subfunction is active, the base station processes service configuration requests from the mobile station and sends service configuration requests to the mobile station.
• *Waiting for Service Request Message Subfunction* - While this subfunction is active, the base station waits to receive a *Service Request Message*.

• *Waiting for Service Response Message Subfunction* - While this subfunction is active, the base station waits to receive a *Service Response Message*.

• *Waiting for Service Action Time Subfunction* - While this subfunction is active, the base station waits for the action time associated with a new service configuration.

• *Waiting for Service Connect Completion Message Subfunction* - While this subfunction is active, the base station waits to receive a *Service Connect Completion Message*, a *Handoff Completion Message*, or an *Extended Handoff Completion Message*.

• *SO Negotiation Subfunction* - While this subfunction is active and the base station is operating in Band Class 0, the base station supports service option negotiation with the mobile station.

The *SO Negotiation Subfunction* supports service option negotiation. All of the other service subfunctions support service negotiation.

At any given time during Traffic Channel processing, only one of the service subfunctions is active. For example, when the base station first begins Traffic Channel processing, either the *Normal Service Subfunction* or the *SO Negotiation Subfunction* is active. Each of the other service subfunctions may become active in response to various events which occur during the Traffic Channel substates. Typically, the base station processes events pertaining to service configuration and negotiation in accordance with the requirements for the active service subfunction. However, some Traffic Channel substates do not allow for the processing of certain events pertaining to service configuration and negotiation, or specify requirements for processing such events which supersede the requirements of the active service subfunction.
Figure 3.6.4.1.2.2-1. Base Station Service Subfunctions
3.6.4.1.2.2.1 Normal Service Subfunction

While this subfunction is active, the base station processes service configuration requests from the mobile station and sends service configuration requests to the mobile station.

While the **Normal Service Subfunction** is active, the base station shall perform the following:

- The base station shall process Forward and Reverse Traffic Channel frames in accordance with the current service configuration. The base station shall discard any Reverse Traffic Channel frame which has a format that is not supported by the base station. The base station may discard any type of Reverse Traffic Channel traffic that is not signaling traffic and is not part of the current service configuration.

- To initiate service negotiation for a new service configuration, the base station shall send a *Service Request Message* to propose the new service configuration and shall activate the *Waiting for Service Response Message Subfunction*.

- For any service option connection that is part of the current service configuration, the base station may send a *Service Option Control Message* to invoke a service option specific function in accordance with the requirements for the associated service option.

- The base station may send a *Service Connect Message*, a *General Handoff Direction Message*, or a *Universal Handoff Direction Message* containing a service configuration record. If the base station sends this message, the base station shall activate the *Waiting for Service Action Time Subfunction*.

- If SERV_NEG changes from enabled to disabled (see 3.6.6.2.2.2, 3.6.6.2.2.10, and 3.6.6.2.2.11), the base station shall activate the *SO Negotiation Subfunction*.

- If the base station receives one of the following service negotiation messages, the base station shall process the message according to the specified requirements, if any:

  1. *Service Connect Completion Message*

  2. *Service Option Control Message*: If the service option connection specified by the message is part of the current service configuration, and the service option specified by the message is the same as the service option associated with the service option connection, the base station shall process the message in accordance with the requirements for the service option.

  3. *Service Request Message*: The base station shall process the message as follows:

     - If the purpose of the message is to propose a service configuration, the base station shall process the message as follows:
If the base station accepts the proposed service configuration, the base station shall send a Service Connect Message, a General Handoff Direction Message, or a Universal Handoff Direction Message containing a service configuration record and shall activate the Waiting for Service Action Time Subfunction.

If the base station does not accept the proposed service configuration and does not have an alternative service configuration to propose, the base station shall send a Service Response Message to reject the proposed service configuration.

If the base station does not accept the proposed service configuration and has an alternative service configuration to propose, the base station shall perform one of the following actions:

1. Send a Service Response Message to propose the alternative service configuration. The base station shall activate the Waiting for Service Request Message Subfunction.
2. Send a Service Connect Message, a General Handoff Direction Message, or a Universal Handoff Direction Message containing a service configuration record and shall activate the Waiting for Service Action Time Subfunction.

4. Service Response Message

- If the base station receives one of the following service option negotiation messages, the base station shall process the message according to the specified requirements, if any:
  1. Service Option Request Order
  2. Service Option Response Order
  3. Service Option Control Order

3.6.4.1.2.2.2 Waiting for Service Request Message Subfunction

While this subfunction is active, the base station waits to receive a Service Request Message.

While the Waiting for Service Request Message Subfunction is active, the base station shall perform the following:

- If the base station does not receive a Service Request Message, the base station shall activate the Normal Service Subfunction.
- The base station shall process Forward and Reverse Traffic Channel frames in accordance with the current service configuration. The base station shall discard any Reverse Traffic Channel frame which has a format that is not supported by the base station. The base station may discard any type of Reverse Traffic Channel traffic that is not signaling traffic and is not part of the current service configuration.
For any service option connection that is part of the current service configuration, the base station may send a *Service Option Control Message* to invoke a service option specific function in accordance with the requirements for the associated service option.

If SERV_NEG changes from enabled to disabled (see 3.6.6.2.2.2, 3.6.6.2.2.10, and 3.6.6.2.2.11), the base station shall activate the *SO Negotiation Subfunction*.

If the base station receives one of the following service negotiation messages, the base station shall process the message according to the specified requirements, if any:

1. *Service Connect Completion Message*

2. *Service Option Control Message*: If the service option connection specified by the message is part of the current service configuration, and the service option specified by the message is the same as the service option associated with the service option connection, the base station shall process the message in accordance with the requirements for the service option.

3. *Service Request Message*: The base station shall process the message as follows:
   - If the purpose of the message is to accept a proposed service configuration, the base station shall perform one of the following actions:
     - The base station shall send a *Service Connect Message*, *General Handoff Direction Message*, or *Universal Handoff Direction Message* and shall activate the *Waiting for Service Action Time Subfunction*.
     - The base station shall send a *Service Request Message* to propose an alternative service configuration and shall activate the *Waiting for Service Response Message Subfunction*.
   - If the purpose of the message is to reject a proposed service configuration, the base station shall activate the *Normal Service Subfunction*.
   - If the purpose of the message is to propose a service configuration, the base station shall process the message as follows:
     - If the base station accepts the proposed service configuration, the base station shall send a *Service Connect Message*, a *General Handoff Direction Message*, or a *Universal Handoff Direction Message* containing a service configuration record and shall activate the *Waiting for Service Action Time Subfunction*.
     - If the base station does not accept the proposed service configuration and does not have an alternative service configuration to propose, the base station shall send a *Service Response Message* to reject the proposed service configuration. The base station shall activate the *Normal Service Subfunction*. 
– If the base station does not accept the proposed service configuration and has an alternative service configuration to propose, the base station shall perform one of the following actions:

ο Send a Service Response Message to propose the alternative service configuration, or

ο Send a Service Connect Message, a General Handoff Direction Message, or a Universal Handoff Direction Message containing a service configuration record and shall activate the Waiting for Service Action Time Subfunction.

4. Service Response Message

• If the base station receives one of the following service option negotiation messages, the base station shall process the message according to the specified requirements, if any:

1. Service Option Request Order

2. Service Option Response Order

3. Service Option Control Order

3.6.4.1.2.2.3 Waiting for Service Response Message Subfunction

While this subfunction is active, the base station waits to receive a Service Response Message.

While the Waiting for Service Response Message Subfunction is active, the base station shall perform the following:

• If the base station does not receive a Service Response Message, the base station shall activate the Normal Service Subfunction.

• The base station shall process Forward and Reverse Traffic Channel frames in accordance with the current service configuration. The base station shall discard any Reverse Traffic Channel frame which has a format that is not supported by the base station. The base station may discard any type of Reverse Traffic Channel traffic that is not signaling traffic and is not part of the current service configuration.

• For any service option connection that is part of the current service configuration, the base station may send a Service Option Control Message to invoke a service option specific function in accordance with the requirements for the associated service option.

• If SERV_NEG changes from enabled to disabled (see 3.6.6.2.2.2, 3.6.6.2.2.10, and 3.6.6.2.2.11), the base station shall activate the SO Negotiation Subfunction.

• If the base station receives one of the following service negotiation messages, the base station shall process the message according to the specified requirements, if any:
1. **Service Connect Completion Message**

2. **Service Option Control Message**: If the service option connection specified by the message is part of the current service configuration, and the service option specified by the message is the same as the service option associated with the service option connection, the base station shall process the message in accordance with the requirements for the service option.

3. **Service Request Message**: The base station should not process the layer 3 fields of the message.

4. **Service Response Message**: The base station shall process the message as follows:
   - If the service request sequence number (SERV_REQ_SEQ) from the message does not match the sequence number of the Service Request Message for which the base station is expecting a response, the base station shall not process the layer 3 fields of the message.
   - If the purpose of the message is to accept a proposed service configuration, the base station shall perform one of the following actions:
     - The base station shall send a Service Connect Message, a General Handoff Direction Message, or a Universal Handoff Direction Message containing a service configuration record and shall activate the Waiting for Service Action Time Subfunction. Or
     - The base station shall send a Service Request Message to propose an alternative service configuration.
   - If the purpose of the message is to reject a proposed service configuration, the base station shall activate the Normal Service Subfunction.
   - If the purpose of the message is to propose a service configuration, the base station shall process the message as follows:
     - If the base station accepts the proposed service configuration, the base station shall send a Service Connect Message, a General Handoff Direction Message, or a Universal Handoff Direction Message containing a service configuration record and shall activate the Waiting for Service Action Time Subfunction.
     - If the base station does not accept the proposed service configuration and does not have an alternative service configuration to propose, the base station shall send a Service Request Message to reject the proposed service configuration. The base station shall activate the Normal Service Subfunction.
     - If the base station does not accept the proposed service configuration and has an alternative service configuration to propose, the base station shall perform one of the following actions:
o Send a Service Request Message to propose the alternative service configuration, or,

o Send a Service Connect Message, a General Handoff Direction Message, or a Universal Handoff Direction Message containing a service configuration record and shall activate the Waiting for Service Action Time Subfunction

- If the base station receives one of the following service option negotiation messages, the base station shall process the message according to the specified requirements, if any:
  1. Service Option Request Order
  2. Service Option Response Order
  3. Service Option Control Order

3.6.4.1.2.2.4 Waiting for Service Action Time Subfunction

While this subfunction is active, the base station waits for the action time associated with a new service configuration.

While the Waiting for Service Action Time Subfunction is active, the base station shall perform the following:

- Prior to the action time associated with the Service Connect Message, a General Handoff Direction Message, or Universal Handoff Direction Message containing a service configuration record, the base station shall process Forward and Reverse Traffic Channel frames in accordance with the current service configuration. The base station shall discard any Reverse Traffic Channel frame which has a format that is not supported by the base station. The base station may discard any type of Reverse Traffic Channel traffic that is not signaling traffic and is not part of the current service configuration.

- At the action time associated with the Service Connect Message, General Handoff Direction Message, or Universal Handoff Direction Message containing a service configuration record, the base station shall begin to use the service configuration specified by the Service Connect Message, the General Handoff Direction Message, or the Universal Handoff Direction Message containing a service configuration record, as the current service configuration and shall begin to process Forward and Reverse Traffic Channel frames accordingly. The base station shall activate the Waiting for Service Connect Completion Message Subfunction.

- If SERV_NEG changes from enabled to disabled (see 3.6.6.2.2.2, 3.6.6.2.2.10, and 3.6.6.2.2.11), the base station shall activate the SO Negotiation Subfunction.

- If the base station receives one of the following service negotiation messages, the base station shall process the message according to the specified requirements, if any:
  1. Service Connect Completion Message
2. **Service Option Control Message**: If the service option connection specified by the message is part of the current or pending service configuration, and the service option specified by the message is the same as the service option associated with the service option connection, the base station shall process the message in accordance with the requirements for the service option.

3. **Service Request Message**

4. **Service Response Message**

- If the base station receives one of the following service option negotiation messages, the base station shall process the message according to the specified requirements, if any:
  1. **Service Option Request Order**
  2. **Service Option Response Order**
  3. **Service Option Control Order**

### 3.6.4.1.2.2.5 Waiting for Service Connect Completion Message Subfunction

While this subfunction is active, the base station waits to receive a Service Connect Completion Message, a Handoff Completion Message, or an Extended Handoff Completion Message.

While the **Waiting for Service Connect Completion Message Subfunction** is active, the base station shall perform the following:

- If the base station has sent a Service Connect Message and does not receive a Service Connect Completion Message, or if the base station has sent a General Handoff Direction Message or a Universal Handoff Direction Message containing a Service Configuration record and does not receive a Handoff Completion Message, or an Extended Handoff Completion Message, the base station shall activate the **Normal Service Subfunction**.

- The base station shall process Forward and Reverse Traffic Channel frames in accordance with the current service configuration. The base station shall discard any Reverse Traffic Channel frame which has a format that is not supported by the base station. The base station may discard any type of Reverse Traffic Channel traffic that is not signaling traffic and is not part of the current service configuration.

- The base station shall not initiate service negotiation for a new service configuration.

- If SERV_NEG changes from enabled to disabled (see 3.6.6.2.2.2, 3.6.6.2.2.10, and 3.6.6.2.2.11), the base station shall activate the **SO Negotiation Subfunction**.

- If the base station receives one of the following service negotiation messages, the base station shall process the message according to the specified requirements, if any:
1. **Service Connect Completion Message, Handoff Completion Message, or Extended Handoff Completion Message**: The base station shall activate the *Normal Service Subfunction*.

2. **Service Option Control Message**: If the service option connection specified by the message is part of the current service configuration, and the service option specified by the message is the same as the service option associated with the service option connection, the base station shall process the message in accordance with the requirements for the service option.

3. **Service Request Message**

4. **Service Response Message**

   - If the base station receives one of the following service option negotiation messages, the base station shall process the message according to the specified requirements, if any:
     
     1. **Service Option Request Order**
     2. **Service Option Response Order**
     3. **Service Option Control Order**

3.6.4.1.2.2.6 SO Negotiation Subfunction

While this subfunction is active, the base station supports service option negotiation with the mobile station.

Upon activating the *SO Negotiation Subfunction*, the base station shall set SO_REQ to NULL. The base station shall delete from the current service configuration any service option connection which does not use primary traffic on both the Forward and Reverse Traffic Channels.

While the *SO Negotiation Subfunction* is active, the base station shall perform the following:

   - If the current service configuration includes a service option connection, the base station shall process the received primary traffic bits in accordance with the requirements for the service option associated with the service option connection; otherwise, the base station shall discard the received primary traffic bits.
   
   - If the current service configuration includes a service option connection, the base station shall transmit primary traffic bits in accordance with the requirements for the service option associated with the service option connection; otherwise, the base station shall transmit null traffic and power control bits on the Forward Fundamental Channel, if the Fundamental channel is present to transmit power control bits on the Forward Dedicated Control Channel, if only the Dedicated Control Channel is present.
   
   - If the current service configuration includes a service option connection, the base station may send a **Service Option Control Order** to invoke a service option specific function in accordance with the requirements for the service option associated with the service option connection.
To initiate service option negotiation, the base station shall set SO_REQ to the number of the requested service option and shall send a *Service Option Request Order* containing the requested service option number.

If SERV_NEG changes from disabled to enabled (see 3.6.6.2.2.2, 3.6.6.2.2.10, and 3.6.6.2.2.11), the base station shall activate the *Normal Service Subfunction*.

The base station shall process a service option request received in an *Origination Message*, a *Page Response Message*, or a *Service Option Request Order* as follows:

- If the base station accepts the requested service option, the base station shall set SO_REQ to NULL and shall send a *Service Option Response Order* accepting the requested service option within T4b seconds. The base station shall begin using the service configuration implied by the requested service option in accordance with the requirements for the requested service option. The implied service configuration shall include the default Forward and Reverse Multiplex Options and transmission radio configurations associated with the requested service option. This implied service configuration shall include one service option connection for which the service option connection reference is 1, for which the service option is the requested service option, and for which the Forward and Reverse Traffic Channel types are both primary traffic.

- If the base station does not accept the requested service option and has an alternative service option to request, the base station shall set SO_REQ to the alternative service option number and shall send a *Service Option Request Order* requesting the alternative service option within T4b seconds.

- If the base station does not accept the requested service option and does not have an alternative service option to request, the base station shall set SO_REQ to NULL and shall send a *Service Option Response Order* to reject the request within T4b seconds. The base station shall continue to use the current service configuration.

If the base station receives a *Service Option Response Order*, it shall process the order as follows:

- If the service option number specified in the order is equal to SO_REQ, the base station shall set SO_REQ to NULL and shall begin using the service configuration implied by the specified service option in accordance with the requirements for the service option. The implied service configuration shall include the default Forward and Reverse Multiplex Options and radio configurations associated with the requested service option. This implied service configuration shall include one service option connection for which the service option connection reference is 1, for which the service option is the requested service option, and for which the Forward and Reverse Traffic Channel types are both primary traffic.

- If the order indicates a service option rejection, the base station shall set SO_REQ to NULL. The base station shall continue to use the current service configuration.
– If the order does not indicate a service option rejection and the service option specified in the order is not equal to SO_REQ, the base station shall set SO_REQ to NULL, should send a Release Order (ORDQ = '00000010'), and should enter the Release Substate.

• If the base station receives a Service Option Control Order, the base station shall process the order as follows:
  – If the current service configuration includes a service option connection, the base station shall process the received Service Option Control Order in accordance with the requirements for the service option associated with the service option connection.

• If the base station receives one of the following service negotiation messages, the base station shall process the message according to the specified requirements, if any:
  1. Service Connect Completion Message
  2. Service Option Control Message
  3. Service Request Message
  4. Service Response Message

3.6.4.1.3 Ordering of Messages

The Layer 2 protocol does not guarantee delivery of messages in any order. If the base station requires that the mobile station receive a set of messages in a certain order, the base station shall send each message in assured mode requiring confirmation of delivery and shall wait for the confirmation of delivery of each message before transmitting the next message in the set.

3.6.4.1.4 Message Action Times

A Forward Traffic Channel message without a USE_TIME field or with a USE_TIME field set to '0' has an implicit action time. A message that has its USE_TIME field set to '1' has an explicit action time that is specified in the ACTION_TIME field of the message.

A message with an explicit action time is called a pending message.

Unless otherwise specified, a message having an implicit action time shall take effect no later than the first 80 ms boundary (relative to System Time) occurring at least 80 ms after the end of the frame containing the last bit of the message. A message with an explicit action time, except for a Power Up Function Message, shall take effect when System Time (in 80 ms units) modulo 64 becomes equal to the message’s ACTION_TIME field. A Power Up Function Message shall take effect ACTION_TIME_FRAME frames after the time when System Time (in 80 ms units) modulo 64 becomes equal to the message’s ACTION_TIME field. The difference in time between ACTION_TIME and the end of the frame containing the last bit of the message shall be at least 80 ms.

The base station shall support two pending messages at any given time, not including pending Service Option Control Orders, Service Option Control Messages, or Power Up
Function Messages. The number of pending Service Option Control Orders or Service Option Control Messages that the base station is required to support is specific to the service option (see the relevant service option descriptions). In addition, the base station shall support one pending Power Up Function Message.

3.6.4.1.5 Long Code Transition Request Processing

If a request for voice privacy is specified in the Origination Message or Page Response Message, the base station may send a Long Code Transition Request Order (ORDQ = ‘00000001’) requesting a transition to the private long code.

The base station shall process the Long Code Transition Request Order as follows:

- If the Long Code Transition Request Order requests a transition to the private long code and the base station accepts the request, the base station shall send a Long Code Transition Request Order (ORDQ = ‘00000001’). If the base station does not accept the private long code transition request, the base station shall send a Long Code Transition Request Order (ORDQ = ‘00000000’).
- If the Long Code Transition Request Order requests a transition to the public long code and the base station accepts the request, the base station shall send a Long Code Transition Request Order (ORDQ = ‘00000000’). If the base station does not accept the public long code transition request, the base station shall send a Long Code Transition Request Order (ORDQ = ‘00000001’).

The base station shall process the Long Code Transition Response Order as follows:

- If the Long Code Transition Response Order indicates that the mobile station accepts the long code transition requested in the Long Code Transition Request Order sent by the base station, the base station shall use the requested long code mask on both the Forward Traffic Channel and the Reverse Traffic Channel. The base station shall specify an explicit action time in the Long Code Transition Request Order. The base station shall begin using the requested long code mask using the explicit action time (see 3.6.4.1.4).

3.6.4.1.6 Processing Resource Request Messages

The base station shall process Resource Request Message and Resource Request Mini Message, as follows:

- The base station may send one of the messages that assign appropriate resources (e.g. Extended Supplemental Channel Assignment Message, Resource Allocation Message, Resource Allocation Mini Message, Universal Handoff Direction Message, Retry Order, etc) to the mobile station. If the base station sends one of these messages, the base station shall set PILOT_GATING_USE_RATE to ‘0’ and start transmitting the Forward Power Control Subchannel with the maximum rate at the action time of the message.
- The base station may send a Retry Order to the mobile station.
3.6.4.1.7 Response to Enhanced Origination Message

If the base station receives an Enhanced Origination Message, the base station should perform the following:

- If the base station does not accept this call request from the mobile station, the base station should send one of the following messages:

  + A Call Assignment Message to the mobile station, with the RESPONSE_IND field set to ‘1’, the ACCEPT_IND field set to ‘0’, and the TAG field set to the value of the TAG field of the Enhanced Origination Message.

  + A Retry Order if the Enhanced Origination Message is for a packet data service option.

- If the base station accepts this call request from the mobile station, the base station should send a Call Assignment Message, Service Connect Message, General Handoff Direction Message (with the Service Configuration information record included), or Universal Handoff Direction Message (with the Service Configuration information record included) to assign the call:

  - If the GLOBAL_EMERGENCY_CALL indicator is set to ‘1’ and the service associated with this origination is a voice service, the base station shall recognize this as an emergency call and should process the message using an implementation-dependent procedure which may include ignoring the dialed digits. If the base station receives an Origination Message and the GLOBAL_EMERGENCY_CALL indicator is set to ‘1’ and the service associated with this origination is not a voice service, the base station may recognize this as an emergency call and should process the message using an implementation-dependent procedure which may include ignoring the dialed digits.

  - If the base station sends a Call Assignment Message to assign the call, the base station shall perform the following:

    + The base station shall set the RESPONSE_IND field to ‘1’, the ACCEPT_IND field to ‘1’, and the TAG field to the value of the TAG field of the Enhanced Origination Message. The base station shall set the CON_REF_INCL field of the message to ‘1’ and the CON_REF field of the message to the value of the connection reference of the service option connection corresponding to this call.

    + A service option connection corresponding to this call (if not already established) shall be established by performing service negotiation; the base station should initiate service negotiation to establish the service option connection, if permitted by the current service negotiation subfunction.

    + At the action time corresponding to this message, the Layer 3 shall instantiate a Call Control instance (as specified in 3.6.8). The Layer 3 shall identify this Call Control instance by the value of the CON_REF field.
included in the Call Assignment Message.

- If the base station sends a Service Connect Message, General Handoff Direction Message (with the Service Configuration information record included), or a Universal Handoff Direction Message (with the Service Configuration information record included), to assign the call, the base station shall perform the following:
  + The base station shall set the call control parameters corresponding to this call included in the message as follows: The base station shall set the RESPONSE_IND field to ‘1’, and the TAG field to the value of the TAG field of the Enhanced Origination Message.
  + At the action time corresponding to this message, the layer-3 shall instantiate a Call Control instance (as specified in 3.6.8). The layer-3 shall identify this Call Control instance by the value of the CON_REF assigned to the service option connection corresponding to this call.

3.6.4.1.8 Processing Resource Release Request Message and Resource Release Request Mini Message

The base station may perform the following in response to receiving a Resource Release Request Message or a Resource Release Request Mini Message from the mobile station:

- If the mobile station requests to release a service option connection, the base station may send a Service Connect Message, General Handoff Direction Message, or a Universal Handoff Direction Message to release the service option connection.

- If the mobile station requests to commence reverse pilot gating operation, the base station may send a Extended Release Message, Extended Release Mini Message, or a Universal Handoff Direction Message to instruct the mobile station to commence the reverse pilot gating operation.

3.6.4.1.9 Processing Base Station Status Request Message

If the requested RECORD_TYPE equals ‘00000000’ (Pilot Information), the base station should send a Base Station Status Response Message with a RECORD_TYPE of ‘00000000’ (Pilot Information) to the mobile station:

- For each pilot being requested by the mobile station, the base station shall include the corresponding Base Station Identification number.
- If SID and NID information is being requested by the mobile station, the base station shall include the SID and NID information corresponding to these pilots.
3.6.4.2 Traffic Channel Initialization Substate

In this substate, the base station begins transmitting on the Forward Traffic Channel and acquires the Reverse Traffic Channel.

Upon entering the **Traffic Channel Initialization Substate**, the base station shall perform the following:

- Layer 3 shall send an L2-Supervision.Request primitive to Layer 2 to reset the message acknowledgment procedures as specified in 3.2.1.1 and 3.2.2.1 of [4].
- The base station shall set its Forward and Reverse Traffic Channel long code masks to the public long code mask (see [2]).
- The base station shall set its Forward and Reverse Traffic Channel frame offsets (see [2]) to the frame offset assigned to the mobile station.
- If the base station set the ASSIGN_MODE field of the *Channel Assignment Message* to ‘000’, the base station shall set SERV_NEG to disabled. If the base station set the ASSIGN_MODE field of the *Channel Assignment Message* to ‘100’, the base station shall set SERV_NEG to enabled. For operation in band classes other than Band Class 0, SERV_NEG is always equal to enabled.
- If the base station uses the *Extended Channel Assignment Message*, the base station shall set the SERV_NEG to enabled.
- The base station shall determine the initial service configuration as follows:
  - If SERV_NEG is equal to disabled, the initial service configuration shall include Multiplex Option 1 and Radio Configuration 1 for both the Forward and Reverse Traffic Channels, and shall include no service option connections.
  - If SERV_NEG is equal to enabled and the base station set the GRANTED_MODE field of the *Channel Assignment Message* or the *Extended Channel Assignment Message* to ‘00’, the initial service configuration shall include the multiplex option and radio configuration for the Forward and Reverse Traffic Channels as specified by the DEFAULT_CONFIG field, and shall include no service option connections.
  - If SERV_NEG is equal to enabled and the base station set the GRANTED_MODE field of the *Channel Assignment Message* or the *Extended Channel Assignment Message* to ‘01’ or ‘10’, the initial service configuration shall include the default Forward and Reverse Traffic Channel multiplex options that are derived from the radio configurations corresponding to Table 3.7.2.3.2.21-7 and transmission rates corresponding to the service option requested by the mobile station in the *Origination Message*, in the case of a mobile station-originated call, or the *Page Response Message*, in the case of a mobile station-terminated call, and shall include no service option connections.
– If SERV_NEG is equal to enabled and the base station set the GRANTED_MODE field of the Channel Assignment Message to ‘01’ or ‘10’, the initial service configuration shall include the default Forward and Reverse Traffic Channel multiplex options and transmission rates corresponding to the service option requested by the mobile station in the Origination Message, in the case of a mobile station originated call, or the Page Response Message, in the case of a mobile station terminated call, and shall include no service option connections.

- If SERV_NEG is equal to disabled, the base station shall activate the SO Negotiation Subfunction (see 3.6.4.1.2.2.6); otherwise, the base station shall activate the Normal Service Subfunction (see 3.6.4.1.2.2.1).

The base station shall set PILOT_GATING_USE_RATE to ‘0’.

While in the Traffic Channel Initialization Substate, the base station shall perform the following:

- If the Forward Fundamental Channel is assigned, the base station shall transmit null Traffic Channel data on the Forward Fundamental Channel, except when transmitting signaling traffic.
- If FPC_PRI_CHAN is set to ‘0’, the base station shall transmit power control bits on the Forward Fundamental Channel. If FPC_PRI_CHAN is set to ‘1’, the base station shall transmit power control bits on the Forward Dedicated Control Channel.
- If the base station acquires the Reverse Traffic Channel, Layer 3 shall send a reverse dedicated channel acquired indication to Layer 2 (see 2.2.2.1.2 of [4]). The Layer 3 shall instantiate a Call Control instance (as specified in 3.6.8). The Layer 3 shall assign the default identifier of NULL to this Call Control instance. The Layer 3 shall enter the Traffic Channel Substate.
- If the base station fails to acquire the Reverse Traffic Channel, the base station should perform one of the following:
  - retransmit the Channel Assignment Message or the Extended Channel Assignment Message on the Paging Channel and remain in the Traffic Channel Initialization Substate
  - retransmit the Extended Channel Assignment Message on the Forward Common Control Channel and remain in the Traffic Channel Initialization Substate, or
  - disable transmission on the Forward Traffic Channel and discontinue the Traffic Channel Processing for the mobile station.

3.6.4.3 Traffic Channel Substate

In this substate, the base station may exchange Traffic Channel frames with the mobile station in accordance with the current service configuration.

Upon entering the Traffic Channel Substate, the base station shall perform the following:

- If the call is a mobile station terminated call and the base station set BYPASS_ALERT_ANSWER to ‘0’, the base station shall perform the following:
If SERV_NEG is equal to disabled, the base station shall process the service option request specified in the Page Response Message in accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).

If SERV_NEG is equal to enabled and the base station sets the GRANTED_MODE field of the Channel Assignment Message or the Extended Channel Assignment Message to ‘00’ or ‘01’, the base station should initiate service negotiation to request a service configuration in accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).

If SERV_NEG is equal to enabled and the base station set the GRANTED_MODE field of the Channel Assignment Message or the Extended Channel Assignment Message to ‘10’, the base station should send a Service Connect Message in accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).

Otherwise, the base station shall perform the following:

- If SERV_NEG equals enabled, the call is mobile-station-originated and the base station sets the GRANTED_MODE field of the Channel Assignment Message or the Extended Channel Assignment Message to ‘10’, the base station should send a Service Connect Message in accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).

- If SERV_NEG equals disabled and the call is mobile-station-originated, the base station shall process the service option request specified in the Origination Message in accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).

While in the Traffic Channel Substate, the base station shall perform the following:

- The base station shall transmit the power control subchannel as specified in [2].

- The base station shall process Forward and Reverse Traffic Channel frames in accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).

- When PILOT_GATING_USE_RATE is equal to ‘0’ and the base station is to establish a Fundamental Channel or a Dedicated Control Channel, the base station shall send a Universal Handoff Direction Message to the mobile station.

- When PILOT_GATING_USE_RATE is equal to ‘1’ and the base station has data to send, the base station may send a Resource Allocation Message, Resource Allocation Mini Message, Extended Supplemental Channel Assignment Message, Forward Supplemental Channel Assignment Mini Message, Reverse Supplemental Channel Assignment Mini Message, or Universal Handoff Direction Message to start transmitting the Forward Power Control Subchannel with the maximum rate at the action time of the message and start exchange of user information.
If both the Fundamental Channel and the Dedicated Control Channel are currently established, and the base station is to release one of these two channels, the base station shall send a Universal Handoff Direction Message, Extended Release Message, or an Extended Release Mini Message to the mobile station.

When PILOT_GATING_USE_RATE is equal to ‘0’ and the base station does not have any data to send and the base station has determined that the mobile station does not have any data to send (see the RLP out-of-data indication in TIA/EIA/IS-707-A), then the base station may send an Extended Release Message, Extended Release Mini Message or Universal Handoff Direction Message to start transmitting the Forward Power Control Subchannel with the specified rate at the action time of the message and stop the exchange of user information.

If the base station declares a loss of Reverse Traffic Channel continuity (see 3.4), the base station should send a Release Order to the mobile station. If the base station sends a Release Order, the layer 3 shall send a “release indication” to all Call Control instances, and shall enter the Release Substate.

The base station may perform Forward Traffic Channel power control as specified in 3.6.4.1.1.

The base station may request a new service configuration by initiating service negotiation or service option negotiation in accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).

The base station may send a Service Option Control Message or Service Option Control Order to invoke a service option specific function in accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).

The base station may request a long code transition, as specified in 3.6.4.1.5, either autonomously or in response to a request for voice privacy specified in the Origination Message or Page Response Message.

The base station may perform authentication procedures as specified in 3.3.1.

The base station may perform TMSI assignment procedures (see 2.3.15).

For the first call, if the call is mobile-station-originated and the PACA_REORIG field of the Origination Message is equal to ‘1’, the layer 3 shall send a “paca reorig indication” to the Call Control instance.

The base station may control operation of the Forward or Reverse Supplemental Code Channels by including Supplemental Code Channel assignment information in the Supplemental Channel Assignment Message, or the General Handoff Direction Message.

The base station may control operation of the Forward or Reverse Supplemental Channels by including Supplemental Channel assignment information in the Extended Supplemental Channel Assignment Message, the Forward Supplemental Channel Assignment Mini Message, or the Reverse Supplemental Channel Assignment Mini Message.
The base station may assign a new call by sending a *Call Assignment Message*, *Service Connect Message*, *General Handoff Direction Message* (with the Service Configuration information record included), or *Universal Handoff Direction Message* (with the Service Configuration information record included) to assign the call:

- If the base station sends a *Call Assignment Message* to assign the call, the base station shall perform the following:
  + The base station shall set the RESPONSE_IND field to ‘0’.
  + The base station shall set the CON_REF_INCL field of the message to ‘1’ and the CON_REF field of the message to the value of the connection reference of the service option connection corresponding to this call.
  + A service option connection corresponding to this call (if not already established) shall be established by performing service negotiation; the base station should initiate service negotiation to establish the service option connection, if permitted by the current service negotiation subfunction.
  + At the action time corresponding to this message, the layer_3 shall instantiate a Call Control instance (as specified in 3.6.8). The layer_3 shall identify this Call Control instance by the value of the CON_REF field included in the *Call Assignment Message*.

- If the base station sends a *Service Connect Message*, *General Handoff Direction Message* (with the Service Configuration information record included), or *Universal Handoff Direction Message* (with the Service Configuration information record included) to assign the call, the base station shall perform the following:
  + The base station shall set the call control parameters corresponding to this call included in the message as follows: The base station shall set the RESPONSE_IND field to ‘0’, and the BYPASS_ALERT_ANSWER field as required.
  + At the action time corresponding to this message, the layer_3 shall instantiate a Call Control instance (as specified in 3.6.8). The layer_3 shall identify this Call Control instance by the value of the CON_REF assigned to the service option connection corresponding to this call.

- If the layer_3 receives a ‘call release request’ from a Call Control instance, the layer_3 shall perform the following:
  - If the service option connection corresponding to this call is the only one connected, the base station should send the mobile station a *Release Order* and enter the *Release Substate*. 


– If the service option connection corresponding to this call is not the only one connected, the base station should release this service option connection. At the action time of the message, the Layer 3 shall terminate this Call Control instance.

• The base station may send the following messages. Some of these messages are generated by the Call Control Instance. If the base station sends a message, the base station shall comply with the specified requirements for sending the message, if any:

1. **Alert With Information Message:**

2. **Analog Handoff Direction Message:** The base station shall perform the following:
   – If the CON_REF_INCL field was set to ‘0’, the Layer 3 shall terminate all Call Control instances (if there are any) except the one identified by NULL; otherwise, the Layer 3 shall terminate all Call Control instances (if there are any) except the one identified by CON_REF field set in the message. The base station shall perform the following (see [6] for handoff to a wide analog channel and [22] for handoff to an 800 MHz narrow analog channel):
     + If this Call Control instance is in the Waiting for Order Substate, the base station shall enter the Waiting for Order Task.
     + If this Call Control instance is in the Waiting for Answer Substate, the base station shall enter the Waiting for Answer Task.
     + If this Call Control instance is in the Conversation Substate, the base station shall enter the Conversation Task.

3. **Audit Order**

4. **Authentication Challenge Message**

5. **Base Station Challenge Confirmation Order**

6. **Base Station Status Response Message**

7. **Call Assignment Message**

8. **Candidate Frequency Search Request Message**

9. **Candidate Frequency Search Control Message**

10. **Continuous DTMF Tone Order**

11. **Data Burst Message**

12. **Extended Alert With Information Message**

13. **Extended Flash With Information Message**

14. **Extended Handoff Direction Message**

15. **Extended Neighbor List Update Message**
15.16. **Extended Release Message**: If the physical channels indicated in CH_IND field of this message includes all the physical channels currently being processed by the mobile station, the Layer 3 shall send a “release indication” to all Call Control instances, and shall enter the Release Substate.

16.17. **Extended Release Mini Message**: If the physical channels indicated in CH_IND field of this message includes all the physical channels currently being processed by the mobile station, the Layer 3 shall send a “release indication” to all Call Control instances, and shall enter the Release Substate.

17.18. **Extended Supplemental Channel Assignment Message**

18.19. **Forward Supplemental Channel Assignment Mini Message**

19.20. **General Handoff Direction Message**

20.21. **Flash With Information Message**

21.22. **In-Traffic System Parameters Message**

22.23. **Local Control Order**

23.24. **Lock Until Power-Cycled Order**: The base station should send this order in unassured mode.

24.25. **Long Code Transition Request Order**

25.26. **Maintenance Order**:

26.27. **Maintenance Required Order**

27.28. **Message Encryption Mode Order**

28.29. **Mobile Assisted Burst Operation Parameters Message**

29.30. **Mobile Station Registered Message**

30.31. **Neighbor List Update Message**

31.32. **Parameter Update Order** (see 2.3.12.1.3).

32.33. **Periodic Pilot Measurement Request Order**

33.34. **Pilot Measurement Request Order**

34.35. **Power Control Message**

35.36. **Power Control Parameters Message**

36.37. **Power Up Function Message**

37.38. **Power Up Function Completion Message**

38.39. **Resource Allocation Message**

39.40. **Resource Allocation Mini Message**

40.41. **Release Order**: The Layer 3 shall send a “release indication” to all Call Control instances, and shall enter the Release Substate.

41.42. **Retrieve Parameters Message**

3-53
42.43. Retry Order
43.44. Reverse Supplemental Channel Assignment Mini Message
44.45. Security Mode Command Message
45.46. Send Burst DTMF Message
46.47. Service Connect Message: The base station shall send the message in accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).
47.48. Service Option Control Message: The base station shall send the message in accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).
48.49. Service Option Control Order
49.50. Service Option Request Order
50.51. Service Option Response Order
51.52. Service Redirection Message: The layer 3 shall send a “release indication” to all Call Control instances, and shall enter the Release Substate.
52.53. Service Request Message: The base station shall send the message in accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).
53.54. Service Response Message: The base station shall send the message in accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).
54.55. Set Parameters Message
55.56. SSD Update Message
56.57. Status Request Message
57.58. Status Request Order
58.59. Supplemental Channel Assignment Message
59.60. TMSI Assignment Message
60.61. Universal Handoff Direction Message
61.62. User Zone Reject Message
62.63. User Zone Update Message

- If the base station receives one of the following messages from the mobile station, the base station shall process the message according to the specified requirements, if any:

  1. Base Station Challenge Order: The base station shall process the message as described in 2.3.12.1.5.
2. **Base Station Status Request Message**: The base station shall process the message as described in 3.6.4.1.9.

2-3. **Call Cancel Message**

3-4. **Candidate Frequency Search Report Message**: The base station shall process the message as described in 3.6.6.2.2.6.

4-5. **Candidate Frequency Search Response Message**: The base station shall process the message as described in 3.6.6.2.2.4.

5-6. **Connect Order**: If the CON_REF_INCL field is not included in this message or if the CON_REF_INCL field equals ‘0’, the layer 3Layer 3 shall deliver this message to the Call Control instance identified by NULL; otherwise, the layer 3Layer 3 shall deliver this message to the Call Control instance identified by CON_REF.

6-7. **Continuous DTMF Tone Order**: If the CON_REF_INCL field is not included in this message or if the CON_REF_INCL field equals ‘0’, the layer 3Layer 3 shall deliver this message to the Call Control instance identified by NULL; otherwise, the layer 3Layer 3 shall deliver this message to the Call Control instance identified by CON_REF.

7-8. **Data Burst Message**

8-9. **Enhanced Origination Message**: The base station shall process the message as described in 3.6.4.1.7.

9-10. **Extended Flash With Information Message**: If CON_REF_INCL equals ‘0’, the layer 3Layer 3 shall deliver this message to the Call Control instance identified by NULL; otherwise, the layer 3Layer 3 shall deliver this message to the Call Control instance identified by CON_REF.

10-11. **Extended Handoff Completion Message**: The base station shall process the message as described in 3.6.6.2.2.7.

11-12. **Extended Pilot Strength Measurement Message**: The base station shall process the message as described in 3.6.6.2.2.1.


14-15. **Flash With Information Message**: The layer 3Layer 3 shall deliver this message to the Call Control instance identified by NULL.

15-16. **Handoff Completion Message**: The base station shall process the message as described in 3.6.6.2.2.7.

16-17. **Local Control Response Order**

17-18. **Long Code Transition Request Order**: The base station shall process the message as described in 3.6.4.1.5.

18-19. **Long Code Transition Response Order**
19. Mobile Station Reject Order: If the CON_REF_INCL field is included in this message, layer 3 shall perform the following: if the CON_REF_INCL field equals ‘0’, layer 3 shall send a ‘messages rejected indication’ to the Call Control instance identified by NULL; otherwise, layer 3 shall send a ‘messages rejected indication’ to the Call Control instance identified by CON_REF.

20. Origination Continuation Message: The layer 3 shall deliver this message to the Call Control instance identified by NULL.

21. Outer Loop Report Message

22. Parameters Response Message

23. Parameter Update Confirmation Order

24. Periodic Pilot Strength Measurement Message

25. Pilot Strength Measurement Message: The base station shall process the message as described in 3.6.6.2.2.1.

26. Pilot Strength Measurement Mini Message

27. Power Measurement Report Message: The base station may process the message as described in 3.6.4.1.1.

28. Release Order: The base station shall send the mobile station a Release Order within T2b seconds, and the layer 3 shall send a “release indication” to all Call Control instances, and enter the Release Substate; otherwise, the layer 3 shall send a “send alert with info message indication” to all Call Control instances.

29. Resource Release Request Message: The base station shall process the message as described in 3.6.4.1.8.

30. Resource Release Request Mini Message: The base station shall process the message as described in 3.6.4.1.8.

31. Resource Request Message: The base station shall process the message as described in 3.6.4.1.6.

32. Resource Request Mini Message: The base station shall process the message as described in 3.6.4.1.6.

33. Request Analog Service Order: The base station may respond with an Analog Handoff Direction Message.

34. Request Narrow Analog Service Order: The base station may respond with an Analog Handoff Direction Message.

35. Request Wide Analog Service Order: The base station may respond with an Analog Handoff Direction Message.

36. Send Burst DTMF Message: If the CON_REF_INCL field is not included in this message or if the CON_REF_INCL field equals ‘0’, the layer 3 shall deliver
this message to the Call Control instance identified by NULL; otherwise, the
layer 3 shall deliver this message to the Call Control instance identified
by CON_REF.

37. **Service Connect Completion Message:** The base station shall process the
message in accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).

38. **Service Option Control Message:** The base station shall process the message in
accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).

39. **Service Option Control Order:** The base station shall process the message in
accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).

40. **Service Option Request Order:** The base station shall process the message in
accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).

41. **Service Option Response Order:** The base station shall process the message in
accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).

42. **Service Request Message:** The base station shall process the message in
accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).

43. **Service Response Message:** The base station shall process the message in
accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).

44. **SSD Update Confirmation Order**

45. **SSD Update Rejection Order**

46. **Status Response Message**

47. **Status Message**

48. **Supplemental Channel Request Message:** The base station may respond with
a Supplemental Channel Assignment Message, an Extended Supplemental
Channel Assignment Message, or a Retry Order.

49. **Supplemental Channel Request Mini Message:** The base station may respond
with a Forward Supplemental Channel Assignment Mini Message or a Reverse
Supplemental Channel Assignment Mini Message, or both. The base station may
also respond with a Retry Order.

50. **TMSI Assignment Completion Message**

51. **User Zone Update Request Message:** The base station shall process this
message as specified in 3.6.7.2.
3.6.4.4 Release Substate

In this substate, the base station disconnects all calls and physical channels.

While in the Release Substate, the base station shall perform the following:

- The base station shall transmit the power control subchannel as specified in [2].
- The base station shall transmit on the Forward Traffic Channel for at least $T_{3b}$ seconds. The base station shall transmit null traffic and power control bits on the Forward Fundamental Channel, except when transmitting signaling traffic, if the Fundamental Channel is present or transmit power control bits on the Forward Dedicated Control Channel, if only the dedicated Control Channel is present. After $T_{3b}$ seconds, the base station should stop transmitting on the Forward Traffic Channel.
- The base station shall process Reverse Traffic Channel signaling traffic and may discard other types of Reverse Traffic Channel traffic.
- The base station may perform TMSI assignment procedures (see 2.3.15).
- The base station may perform Forward Traffic Channel power control as specified in 3.6.4.1.1.
- The base station may send a Service Option Control Message to invoke a service option specific function in accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).
- The base station may send the following messages. Some of these messages are generated by the Call Control Instance. If the base station sends a message, the base station shall comply with the specified requirements for sending the message, if any.

1. Alert With Information Message
2. Audit Order
3. Candidate Frequency Search Request Message
4. Candidate Frequency Search Control Message
5. Data Burst Message
6. Extended Alert With Information Message
7. Extended Handoff Direction Message
8. Extended Neighbor List Update Message
9. Extended Release Message
10. Extended Supplemental Channel Assignment Message
11. Forward Supplemental Channel Assignment Mini Message
12. General Handoff Direction Message
13. In-Traffic System Parameters Message
14. **Local Control Order**

15. **Lock Until Power-Cycled Order**: The base station should send this order in unassured mode.

16. **Maintenance Order**

17. **Maintenance Required Order**

18. **Mobile Assisted Burst Operation Parameters Message**

19. **Mobile Station Registered Message**

20. **Neighbor List Update Message**

21. **Parameter Update Order** (see 2.3.12.1.3 or 3.7.4).

22. **Power Control Message**

23. **Power Control Parameters Message**

24. **Power Up Function Message**

25. **Power Up Function Completion Message**

26. **Release Order**

27. **Resource Allocation Message**

28. **Resource Allocation Mini Message**

29. **Resource Release Request Message**

30. **Resource Release Request Mini Message**

31. **Resource Request Message**

32. **Resource Request Mini Message**

33. **Retrieve Parameters Message**

34. **Reverse Supplemental Channel Assignment Mini Message**

35. **Service Option Control Message**: The base station shall send the message in accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).

36. **Service Option Control Order**

37. **Status Request Message**

38. **Status Request Order**

39. **Supplemental Channel Assignment Message**

40. **TMSI Assignment Message**

41. **Universal Handoff Direction Message**

42. **User Zone Reject Message**

43. **User Zone Update Message**
If the base station receives one of the following messages from the mobile station, the base station shall process the message according to the specified requirements, if any:

1. **Base Station Challenge Order**: The base station shall process the message as described in 2.3.12.1.5.

2. **Call Cancel Message**

3. **Candidate Frequency Search Report Message**: The base station shall process the message as described in 3.6.6.2.2.6.

4. **Candidate Frequency Search Response Message**: The base station shall process the message as described in 3.6.6.2.2.4.

5. **Connect Order**: If the CON_REF_INCL field is not included in this message or if the CON_REF_INCL field equals ‘0’, the layer 3 shall deliver this message to the Call Control instance identified by NULL; otherwise, the layer 3 shall deliver this message to the Call Control instance identified by CON_REF.

6. **Continuous DTMF Tone Order**: If the CON_REF_INCL field is not included in this message or if the CON_REF_INCL field equals ‘0’, the layer 3 shall deliver this message to the Call Control instance identified by NULL; otherwise, the layer 3 shall deliver this message to the Call Control instance identified by CON_REF.

7. **Data Burst Message**

8. **Enhanced Origination Message**

9. **Extended Flash With Information Message**: If CON_REF_INCL equals ‘0’, the layer 3 shall deliver this message to the Call Control instance identified by NULL; otherwise, the layer 3 shall deliver this message to the Call Control instance identified by CON_REF.

10. **Extended Handoff Completion Message**: The base station shall process the message as described in 3.6.6.2.2.7.

11. **Extended Pilot Strength Measurement Message**: The base station shall process the message as described in 3.6.6.2.2.1.

12. **Extended Release Response Message**:

13. **Flash With Information Message**: The layer 3 shall deliver this message to the Call Control instance identified by NULL.

14. **Handoff Completion Message**: The base station shall process the message as described in 3.6.6.2.2.7.

15. **Local Control Response Order**

16. **Long Code Transition Request Order**

17. **Long Code Transition Response Order**
18. **Mobile Station Reject Order**: If the CON_REF_INCL field is included in this message, layer 3 shall perform the following: if the CON_REF_INCL field equals '0', layer 3 shall send a 'messages rejected indication' to the Call Control instance identified by NULL; otherwise, layer 3 shall send a 'messages rejected indication' to the Call Control instance identified by CON_REF.

19. **Origination Continuation Message**: The layer 3 shall deliver this message to the Call Control instance identified by NULL.

20. **Parameter Update Confirmation Order**

21. **Parameters Response Message**

22. **Periodic Pilot Strength Measurement Message**

23. **Pilot Strength Measurement Message**: The base station shall process the message as described in 3.6.6.2.2.1.

24. **Power Measurement Report Message**

25. **Release Order**

26. **Request Analog Service Order**

27. **Request Narrow Analog Service Order**

28. **Request Wide Analog Service Order**

29. **Send Burst DTMF Message**: If the CON_REF_INCL field is not included in this message or if the CON_REF_INCL field equals '0', the layer 3 shall deliver this message to the Call Control instance identified by NULL; otherwise, the layer 3 shall deliver this message to the Call Control instance identified by CON_REF.

30. **Service Connect Completion Message**

31. **Service Option Control Message**: The base station shall process the message in accordance with the requirements for the active service subfunction (see 3.6.4.1.2.2).

32. **Service Option Control Order**

33. **Service Option Request Order**

34. **Service Option Response Order**

35. **Service Request Message**

36. **Service Response Message**

37. **SSD Update Confirmation Order**

38. **SSD Update Rejection Order**

39. **Status Response Message**

40. **Status Message**
41. **TMSI Assignment Completion Message**

42. **User Zone Update Request Message**: The base station shall process this message as specified in 3.6.7.2.

### 3.6.5 Registration

Registration is the process by which a mobile station notifies the base station of its location, status, identification, slot cycle, and other characteristics. The base station can make use of location information to efficiently page the mobile station when establishing a mobile station terminated call. Registration also provides the mobile station’s SLOT_CYCLE_INDEX parameter so that the base station can determine which Paging Channel or Forward Common Control Channel slots a mobile station operating in the slotted mode is monitoring. Registration also provides the protocol revision number so that the base station knows the capabilities of the mobile station.

The CDMA system supports ten different forms of registration:

1. **Power-up registration.** The mobile station registers when it powers on, or switches from using the analog system.
2. **Power-down registration.** The mobile station registers when it powers off if previously registered in the current serving system.
3. **Timer-based registration.** The mobile station registers when a timer expires.
4. **Distance-based registration.** The mobile station registers when the distance between the current base station and the base station in which it last registered exceeds a threshold.
5. **Zone-based registration.** The mobile station registers when it enters a new zone.
6. **Parameter-change registration.** The mobile station registers when certain of its stored parameters change or when it enters a new system.
7. **Ordered registration.** The mobile station registers when the base station requests it.
8. **Implicit registration.** When a mobile station successfully sends an *Origination Message* or *Page Response Message*, the base station can infer the mobile station’s location. This is considered an implicit registration.
9. **Traffic Channel registration.** Whenever the base station has registration information for a mobile station that has been assigned to a Traffic Channel, the base station can notify the mobile station that it is registered.
10. **User Zone Registration.** The mobile station registers when it selects an active User Zone (see 2.6.9.1.2).

The first five forms of registration, as a group, are called autonomous registration and are conditioned, in part, by roaming status and by indicators contained in the *System Parameters Message* and *ANSI-41 System Parameters Message* (see 2.6.5.3). The base station may initiate ordered registration through the *Registration Request Order*. 
The base station can obtain registration information by sending the Status Request Message to the mobile station on the Paging Channel, the Forward Common Control Channel, or the Forward Traffic Channel. If the base station is operating with the mobile station in Band Class 0, the base station can also obtain registration information by sending the Status Request Order to the mobile station on the Forward Traffic Channel. The base station may notify the mobile station that it is registered through the Mobile Station Registered Message.

3.6.5.1 Registration on the Common Channels

The base station shall specify the forms of registration that are enabled, the corresponding registration parameters, and the roaming status conditions for which registration is enabled in the System Parameters Message and ANSI-41 System Parameters Message. If any of the autonomous registration forms are enabled, the base station should also enable parameter-change registration.

The base station should process an Origination Message or Page Response Message sent on the r-csch as an implicit registration of the mobile station sending the message. The base station can obtain complete registration information about the mobile station at any time by sending a Registration Request Order to the mobile station.

3.6.5.2 Registration on the Traffic Channels

The base station can obtain registration information from a mobile station on the Traffic Channel by means of the Status Request Message or the Status Request Order. When the base station has registration information for a mobile station, the base station may send a Mobile Station Registered Message to the mobile station, specifying the base station’s registration system, zone, and location information.

3.6.6 Handoff Procedures

3.6.6.1 Overview

3.6.6.1.1 Types of Handoff

The base station supports the following three handoff procedures:

- **Soft Handoff**: A handoff in which a new base station commences communications with the mobile station without interrupting the communications with the old base station. The base station can direct the mobile station to perform a soft handoff only when all Forward Traffic Channels assigned to the mobile station have identical band classes, frequency assignments and frame offsets. Soft handoff provides diversity of Forward Traffic Channels and Reverse Traffic Channel paths on the boundaries between base stations.

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3In this section the term base station may imply multiple cells or sectors.
• **CDMA-to-CDMA Hard Handoff**: A handoff in which the base station directs the mobile station to transition between disjoint sets of base stations, different band classes, different frequency assignments, different radio configuration, or different frame offsets.

• **CDMA-to-Analog Handoff**: A handoff in which the base station directs the mobile station from a Forward Traffic Channel to an analog voice channel.

Base station support of CDMA-to-CDMA hard handoff between different band classes and support of CDMA-to-analog handoff is optional.

Section 2.6.6 describes the mobile station requirements during handoff.

### 3.6.6.1.2 Active Set

The Active Set contains the pilots (see 2.6.6.1.2) associated with the Forward Traffic Channels assigned to the mobile station. Initially the base station informs the mobile station of the contents of the Active Set using the *Channel Assignment Message* or the *Extended Channel Assignment Message*; subsequent changes to the contents of the Active Set are provided using the *Extended Handoff Direction Message, General Handoff Direction Message*, or *Universal Handoff Direction Message*.

### 3.6.6.2 Requirements

#### 3.6.6.2.1 Overhead Information

The base station sends the following messages governing the pilot search procedures performed by the mobile station:

• *System Parameters Message*

• *In-Traffic System Parameters Message*

• *Neighbor List Message*

• *Extended Neighbor List Message*

• *Neighbor List Update Message*

• *Extended Neighbor List Update Message*

• *General Neighbor List Message*

• *General Handoff Direction Message*

• *Extended Handoff Direction Message*

• *Candidate Frequency Search Request Message*

• *Candidate Frequency Search Control Message*

• *Universal Handoff Direction Message*

• *Universal Neighbor List Message*

• *MC-RR Parameters Message*
3.6.6.2.1.1 System Parameters

The base station sends handoff related parameters on the Paging Channel in the System Parameters Message and the Extended System Parameters Message, and on the Primary Broadcast Control Channel in the MC-RR Parameters Message.

The base station may revise handoff related parameters for a mobile station operating on the Traffic Channel by sending the In-Traffic System Parameters Message.

The base station may modify the values of the parameters SRCH_WIN_A, T_ADD, T_DROP, T_COMP, and T_TDROP through the Extended Handoff Direction Message, the General Handoff Direction Message, or the Universal Handoff Direction Message. In addition, the base station may also modify the values of the parameters SRCH_WIN_N, SRCH_WIN_R, SOFT_SLOPE, ADD_INTERCEPT, and DROP_INTERCEPT through the General Handoff Direction Message or the Universal Handoff Direction Message.

3.6.6.2.1.2 Neighbor List

The base station sends a Neighbor List on the Paging Channel in the Neighbor List Message, the Extended Neighbor List Message, or the General Neighbor List Message. The base station should list the pilots in the Neighbor List Message in descending priority order (see 2.6.6.2.6.3).

The base station may revise the Neighbor List for a mobile station operating on the Traffic Channel by sending a Neighbor List Update Message or an Extended Neighbor List Update Message.

The base station shall not include a pilot that is a member of the mobile station’s Active Set in a Neighbor List Update Message or an Extended Neighbor List Update Message. The base station shall not specify more than N_8m pilots in the Neighbor List Message, Extended Neighbor List Message, General Neighbor List Message, or in the Extended Neighbor List Update Message. The base station shall not specify more than 20 pilots in the Neighbor List Update Message. The base station should list the pilots in the Neighbor List Update Message in descending priority order (see 2.6.6.2.6.3).

The base station may also indicate the availability of neighboring analog systems in the General Neighbor List Message to assist the mobile station in performing system reselection (see 2.6.2.1.6).

3.6.6.2.1.3 Candidate Frequency Neighbor List

The base station sends a Candidate Frequency Neighbor List and inter-frequency hard handoff related parameters in the Candidate Frequency Search Request Message. The base station shall not specify more than N_8m pilots in the Candidate Frequency Search Request Message.

3.6.6.2.1.4 Candidate Frequency Search List

The base station designates a subset of the Candidate Frequency Neighbor List included in the Candidate Frequency Search Request Message as the Candidate Frequency Search List. For each pilot belonging to the Candidate Frequency Search List, the base station shall set
the corresponding SEARCH_SET field of the Candidate Frequency Search Request Message to ‘1’.

### 3.6.6.2.2 Call Processing During Handoff

#### 3.6.6.2.2.1 Processing the Pilot Strength Measurement Message

The base station should use the pilot strength measurements in the Pilot Strength Measurement Message or the Extended Pilot Strength Measurement Message to determine a new Active Set.

The base station may also use the PN phase measurements in the Pilot Strength Measurement Message or the Extended Pilot Strength Measurement Message to estimate the propagation delay to the mobile station. This estimate can be used to reduce Reverse Traffic Channel acquisition time.

The base station may respond to a Pilot Strength Measurement Message or an Extended Pilot Strength Measurement Message received from the mobile station by sending the Extended Handoff Direction Message, the General Handoff Direction Message, or the Universal Handoff Direction Message.

#### 3.6.6.2.2.2 Processing the Extended Handoff Direction Message

The base station shall maintain a handoff message sequence number. If the base station specifies that the mobile station is to use service negotiation, the base station shall set the SERV_NEG variable (see 3.6.4.1.2.1.4) to be enabled at the action time of the message. The sequence number shall be initialized to zero prior to the transmission of the first Extended Handoff Direction Message, General Handoff Direction Message (see 3.6.6.2.2.10), or the Universal Handoff Direction Message to the mobile station. The base station shall increment the sequence number modulo 4 each time the base station modifies the pilot list (including the order in which pilots are specified within the list) or the code channels (including a change in the ordering such that the first code channel occurrence for any pilot is changed) sent to the mobile station in an Extended Handoff Direction Message, a General Handoff Direction Message, or a Universal Handoff Direction Message.

Following a hard handoff, the base station should set the handoff message sequence number to the value of the LAST_HDM_SEQ field of the Handoff Completion Message or Extended Handoff Completion Message and should use the pilot order contained in the Handoff Completion Message or Extended Handoff Completion Message to interpret the contents of subsequent Power Measurement Report Messages.

The base station shall set the contents of an Extended Handoff Direction Message according to the following rules:

- An Extended Handoff Direction Message shall list no more than \( N_{6m} \) pilots in the new Active Set.
- An Extended Handoff Direction Message shall identify the identical power control subchannels (i.e., those carrying identical power control bits).
An Extended Handoff Direction Message may change the code channel associated with an Active Set pilot that remains in the new Active Set.

The base station specifies the long code mask to be used on the new Forward Traffic Channel by using the PRIVATE_LCM field of the Extended Handoff Direction Message. The base station may change the long code mask to be used on the new Forward Traffic Channel via the PRIVATE_LCM field of the Extended Handoff Direction Message only for CDMA-to-CDMA hard handoffs. If a change of long code mask is specified and the base station does not specify an explicit action time in the Extended Handoff Direction Message, the base station shall begin using the new long code mask on the first 80 ms boundary (relative to System Time) occurring at least 80 ms after the end of the frame containing the last bit of the message.

For CDMA-to-CDMA handoffs, the base station may require the mobile station to perform a reset of the acknowledgment procedures by using the RESET_L2 field of the Extended Handoff Direction Message. If the base station requires the mobile station to reset the acknowledgment procedures, Layer 3 shall send an indication to Layer 2 to reset the acknowledgment procedures (see 3.2.1.1 and 3.2.2.1 of [4]). The acknowledgment procedures shall be reset immediately after the action time of the Extended Handoff Direction Message.

For CDMA-to-CDMA hard handoffs, the base station may alter the frame offset by setting the FRAME_OFFSET field to a new value. If the base station specifies a new frame offset and does not specify an explicit action time, the base station shall change its Forward and Reverse Traffic Channel frame offsets at the second 80 ms boundary (relative to System Time) after the end of transmission of the Extended Handoff Direction Message, unless the end of transmission of the message coincides with an 80 ms boundary, in which case the change in frame offsets shall occur 80 ms after the end of transmission.

For CDMA-to-CDMA hard handoffs to Band Class 0 or Band Class 3, the base station may alter the nominal transmit power offset after handoff by setting the NOM_PWR field to the new nominal transmit power offset. For CDMA-to-CDMA hard handoffs to band classes other than Band Class 0 and Band Class 3, the base station may alter the nominal transmit power offset after handoff by setting both the NOM_PWR and NOM_PWR_EXT fields to the new nominal transmit power offset.

The base station may specify a different band class by setting the BAND_CLASS and CDMA_FREQ fields to the band class and CDMA frequency assignment respectively. The base station shall not specify a band class not supported by the mobile station.

If the base station sends the Extended Handoff Direction Message in assured mode, the base station should set the action time of the message such that there is sufficient time for the mobile station to transmit a message containing the acknowledgment prior to the action time.
For CDMA-to-CDMA hard handoffs, the base station may specify whether the mobile station is to use service negotiation or service option negotiation by setting the SERV_NEG_TYPE field of the Extended Handoff Direction Message. If the base station specifies that the mobile station is to use service negotiation, the base station shall set the SERV_NEG variable (see 3.6.4.1.2.1.4) to enabled at the action time of message. If the base station specifies that the mobile station is to use service option negotiation, the base station shall set SERV_NEG to disabled at the action time of the message.

3.6.6.2.2.3 Processing the Candidate Frequency Search Request Message

The base station may send a Candidate Frequency Search Request Message to direct the mobile station to perform a single or periodic search on the Candidate Frequency.

The base station may request the mobile station to perform an aligned search of the Candidate Frequency Search Set (see 2.6.6.2.8.3). If the base station requests the mobile station to perform an aligned search, the base station shall specify an explicit action time for the Candidate Frequency Search Request Message.

The base station shall maintain a search message sequence number. The sequence number shall be initialized to zero prior to the transmission of the first Candidate Frequency Search Request Message to the mobile station. Each time the base station sends a new Candidate Frequency Search Request Message to the mobile station, it shall set the CFSRM_SEQ field to the current value of the sequence number, and increment the sequence number modulo 4.

3.6.6.2.2.4 Processing the Candidate Frequency Search Response Message

The base station should use the mobile station’s search capabilities as reported in the Candidate Frequency Search Response Message to determine an appropriate period for the mobile station’s periodic search on the Candidate Frequency.

3.6.6.2.2.5 Processing the Candidate Frequency Search Control Message

The base station may send a Candidate Frequency Search Control Message to direct the mobile station to perform a single search, or to start or stop a periodic search on the Candidate Frequency.

The base station may request the mobile station to perform an aligned search of the Candidate Frequency Search Set (see 2.6.6.2.8.3). If the base station requests the mobile station to perform an aligned search, the base station shall specify an explicit action time for the Candidate Frequency Search Control Message.

Each time the base station sends a new Candidate Frequency Search Control Message to the mobile station, it shall set the CFSCM_SEQ field to the current value of the sequence number, and increment the sequence number modulo 4.
3.6.6.2.2.6 Processing the Candidate Frequency Search Report Message

The base station should use the value of the LAST_SRCH_MSG field and of the LAST_SRCH_MSG_SEQ field of the Candidate Frequency Search Report Message to interpret the contents of the message.

If the SEARCH_MODE field of the Candidate Frequency Search Report Message is equal to '0000', the base station should use the pilot strength measurements in the message to determine whether to direct the mobile station to perform a CDMA-to-CDMA inter-frequency handoff, and to determine the new Active Set. If the SEARCH_MODE field of the Candidate Frequency Search Report Message is equal to '0001', the base station should use the analog frequency strength measurements in the message to determine whether to direct the mobile station to perform a CDMA-to-Analog handoff.

3.6.6.2.2.7 Transmitting During Handoff

The base station shall continue transmission to the mobile station on the Fundamental Channel or the Dedicated Control Channel of a Forward Traffic Channel removed from the Active Set until it receives the Handoff Completion Message or Extended Handoff Completion Message from the mobile station or determines that the call has been released.

The base station should discontinue transmission to the mobile station on the Fundamental Channel or the Dedicated Control Channel of a Forward Traffic Channel removed from the Active Set after it receives the Handoff Completion Message or Extended Handoff Completion Message.

For Forward Multiplex Options 3 through 16, the base station should discontinue transmission of Forward Supplemental Code Channels removed from the Code Channel List according to the following rules:

- If a General Handoff Direction Message is used to remove one or more Forward Supplemental Code Channels, the base station should discontinue transmission on those code channels no later than the action time of the General Handoff Direction Message.

- If a Supplemental Channel Assignment Message is used to remove one or more Forward Supplemental Code Channels, the base station should discontinue transmission on those Forward Supplemental Code Channels no later than the implicit action time of the Supplemental Channel Assignment Message.

3.6.6.2.2.8 Ordering Pilot Measurements From the Mobile Station

The base station may direct the mobile station to send a Pilot Strength Measurement Message by sending a Pilot Measurement Request Order.

The base station may send a Periodic Pilot Measurement Request Order to direct the mobile station to send pilot strength measurements one time or periodically. In response to the order, the mobile station reports the pilot strength measurements using the Periodic Pilot Strength Measurement Message.
3.6.6.2.2.9 Processing the Supplemental Channel Assignment Message

The base station may use this message to specify Supplemental Code Channel assignment parameters for the mobile station’s Forward Traffic Channel, Reverse Traffic Channel, or both. This information includes the parameters that control the timing of the Supplemental Code Channel assignment (e.g., starting time and duration), and parameters that control the number of Supplemental Code Channels which will be used during the assignment (e.g., the number of Reverse Supplemental Code Channels on which the mobile station may transmit and the set of Walsh codes on which the mobile station receives Forward Supplemental Code Channels for each pilot in the mobile station’s Active Set). The *Supplemental Channel Assignment Message* shall be used only with Multiplex Options 3 through 16.

The base station shall set the content of a *Supplemental Channel Assignment Message* according to the following rules:

- The base station may set USE_RETRY_DELAY to ‘1’ and RETRY_DELAY to a delay in 320 ms units starting at the next 80 ms system time boundary during which the mobile station is to refrain from sending subsequent *Supplemental Channel Request Messages*. The base station may set RETRY_DELAY to ‘11111111’ to indicate that the mobile station is to refrain from transmitting *Supplemental Channel Request Messages* indefinitely. Otherwise, the base station shall set USE_RETRY_DELAY to ‘0’ and omit RETRY_DELAY in which case the mobile station is to reset any previously set RETRY_DELAY indication.

- The base station shall set REV_DTX_DURATION to the maximum duration of time in units of 20 ms that the mobile station is allowed to stop transmission on a Reverse Supplemental Code Channel before resuming transmission on the Reverse Supplemental Code Channel within the reverse assignment duration. The base station shall set this field to ‘0000’ if the mobile station is to stop using a Reverse Supplemental Code Channel once it has stopped transmitting on that Reverse Supplemental Code Channel. The base station shall set this field to ‘1111’ if the mobile station is allowed to resume transmission on a Reverse Supplemental Code Channel at any time within the reverse assignment duration.

- A *Supplemental Channel Assignment Message* may specify Reverse Supplemental Code Channel assignments. If Reverse Supplemental Code Channel assignment information is included, the base station shall set REV_INCLUDED to ‘1’ and include the appropriate Reverse Supplemental Code Channel assignment information. Otherwise, the base station shall set REV_INCLUDED to ‘0’.

- The base station shall indicate the implicit, explicit, or linked start time for a Reverse Supplemental Code Channel assignment as follows:
  - The base station may set EXPL_REV_START_TIME to ‘1’ and set REV_START_TIME to the System Time, in units of 80 ms (modulo 64), at which the mobile station is to start transmitting on the Reverse Supplemental Code Channels.
- The base station may set USE_REV_HDM_SEQ to ‘1’ and set REV_LINKED_HDM_SEQ to the sequence number of the General Handoff Direction Message (HDM_SEQ) with which this message is linked to indicate that the mobile station is to start processing the Reverse Supplemental Code Channels at the action time of the linked General Handoff Direction Message.

- The base station may set EXPL_REV_START_TIME to ‘0’ and USE_REV_HDM_SEQ to ‘0’ to indicate that the mobile station is to start processing Reverse Supplemental Code Channels at the implicit action time of this message.

- The base station shall not set both EXPL_REV_START_TIME and USE_REV_HDM_SEQ to ‘1’.

- The base station may set USE_REV_DURATION to ‘1’ and REV_DURATION to the time interval, in units of 80 ms, after the implicit, explicit, or linked action time for the message (as specified in 2.6.6.2.5.1), during which the mobile station is to transmit on the specified Reverse Supplemental Code Channels. The base station may set USE_REV_DURATION to ‘0’ to indicate an infinite duration for the assignment of Reverse Supplemental Code Channels. If NUM_REV_CODES is ‘000’, then the base station shall set USE_REV_DURATION to ‘0’.

- If Reverse Supplemental Code Channel assignment information is included, the base station shall set NUM_REV_CODES to the number of Reverse Supplemental Code Channels to be used in this Reverse Supplemental Code Channel assignment. The base station shall not set NUM_REV_CODES to be greater than the number of codes supported by the currently negotiated multiplex option.

- The base station may set USE_T_ADD_ABORT, the Reverse Supplemental Code Channel assignment T_ADD abort indicator, to ‘1’ to indicate that the mobile station is to abort Reverse Supplemental Code Channel assignments implicitly when a T_ADD trigger occurs. Otherwise, the base station shall set USE_T_ADD_ABORT to ‘0’. If NUM_REV_CODES is set to ‘000’, the base station shall set USE_T_ADD_ABORT to ‘0’.

- If the base station is sending this message in response to a Supplemental Channel Request Message which includes a Supplemental Channel Request Message sequence number and the mobile station is to clear the IGNORE_SCAM field, the base station shall set USE_SCRM_SEQ_NUM to ‘1’ and set SCRM_SEQ_NUM to the sequence number corresponding to the SCRM_SEQ_NUM field in a Supplemental Channel Request Message to which the mobile station is to match this message. Otherwise, the base station shall set USE_SCRM_SEQ_NUM to ‘0’ and omit SCRM_SEQ_NUM.

- A Supplemental Channel Assignment Message may specify Forward Supplemental Code Channel assignments. If Forward Supplemental Code Channel assignment information is included, the base station shall set FOR_INCLUDED to ‘1’ and include the appropriate Forward Supplemental Code Channel assignment information. Otherwise, the base station shall set FOR_INCLUDED to ‘0’. 
The base station shall set FOR_SUP_CONFIG to '00' if the mobile station is to stop processing the forward supplemental code after the action time of the Supplemental Channel Assignment Message. The base station should not transmit to the mobile station on the Forward Supplemental Code Channels after the message takes effect.

The base station shall set FOR_SUP_CONFIG to '01' if the mobile station is to start processing the Forward Supplemental Code Channels in the Code Channel List at the implicit, explicit, or linked action time for the message as specified in 2.6.6.2.5.1.

The base station shall set FOR_SUP_CONFIG to '10' if the Forward Supplemental Code Channels associated with the pilots in the Active set are specified in the Supplemental Channel Assignment Message and is to stop processing Forward Supplemental Code Channels at the implicit action time of the message. The base station should not transmit to the mobile station on the Forward Supplemental Code Channels after the message takes effect.

The base station shall set FOR_SUP_CONFIG to '11' if the Forward Supplemental Code Channels associated with the pilots in the Active set are specified in the Supplemental Channel Assignment Message and the mobile station is to start processing the Forward Supplemental Code Channels at the implicit, explicit, or linked action time for the message as specified in 2.6.6.2.5.1.

The base station shall set FOR_DURATION to the time interval, in units of 80 ms, after the implicit, explicit, or linked action time for the message (as specified in 2.6.6.2.5.1), during which the mobile station is to process the specified Forward Supplemental Code Channels. The base station may set USE_FOR_DURATION to '0' to indicate an infinite duration for the allocation of Forward Supplemental Code Channels. The base station should not transmit to the mobile station on the Forward Supplemental Code Channels outside the time interval specified by FOR_DURATION.

The base station may set EXPL_FOR_START_TIME to '1' and set FOR_START_TIME to the System Time, in units of 80 ms (modulo 64), at which the mobile station is to start processing the Forward Supplemental Code Channels.

The base station may set USE_FOR_HDM_SEQ to '1' and set FOR_LINKED_HDM_SEQ to the sequence number of the General Handoff Direction Message (HDM_SEQ) with which this message is linked to indicate that the mobile station is to start processing the Forward Supplemental Code Channels at the action time of the linked General Handoff Direction Message.

The base station shall not set both USE_FOR_HDM_SEQ and EXPL_FOR_START_TIME within a Supplemental Channel Assignment Message to '1'.

The number of Supplemental Code Channels assigned by Supplemental Channel Assignment Message shall not exceed the maximum number of Supplemental Code Channels for the negotiated Forward Multiplex Option.
The base station may set EXPL\_FOR\_START\_TIME to ‘0’ and USE\_FOR\_HDM\_SEQ to ‘0’ to indicate that the mobile station is to start processing Forward Supplemental Code Channels at the implicit action time of this message.

3.6.6.2.10 Processing the General Handoff Direction Message

The base station shall maintain a handoff message sequence number. The sequence number shall be initialized to zero prior to the transmission of the first Extended Handoff Direction Message, General Handoff Direction Message, or Universal Handoff Direction Message (see 3.6.6.2.11) to the mobile station (see 2.6.6.2.2). The base station shall increment the sequence number modulo 4 each time the base station modifies the pilot list (including the order in which pilots are specified within the list) or the code channels (including a change in the ordering such that the first code channel occurrence for any pilot is changed) sent to the mobile station in an Extended Handoff Direction Message, or a General Handoff Direction Message, or a Universal Handoff Direction Message.

Following a hard handoff, the base station should set the handoff message sequence number to the value of the LAST\_HDM\_SEQ field of the Handoff Completion Message or Extended Handoff Completion Message and should use the pilot order contained in the Handoff Completion Message or Extended Handoff Completion Message to interpret the contents of subsequent Power Measurement Report Messages.

The base station shall set the contents of a General Handoff Direction Message according to the following rules:

- A General Handoff Direction Message shall list no more than $N_{6m}$ pilots in the new Active Set.

- The base station may include a Service Configuration Information Record in the General Handoff Direction Message to accept a service configuration proposed in a Service Request Message or Service Response Message, and instruct the mobile station to begin using the service configuration.

- A General Handoff Direction Message shall identify the identical power control subchannels (i.e., those carrying identical power control bits).

- A General Handoff Direction Message shall identify the transmit power level of the power control subchannels to the transmit power level of 20 ms frames at a 9600 bps or 14400 bps rate on their respective associated channels (Forward Fundamental Channel or Forward Dedicated Control Channel).

- For CDMA-to-CDMA handoffs, the base station may specify Power Control Subchannel Gain action time [PC\_ACTION\_TIME]. If PC\_ACTION\_TIME is included in this message, the base station shall apply the new FPC\_SUBCHAN\_GAIN at the time specified by PC\_ACTION\_TIME. If the PC\_ACTION\_TIME is not included in this message but the explicit action time is included, the base station shall apply the new FPC\_SUBCHAN\_GAIN at the action time of the General Handoff Direction Message. If the implicit action time is used, the base station should gradually apply any change in FPC\_SUBCHAN\_GAIN.
• A General Handoff Direction Message may change the code channel associated with an Active Set pilot that remains in the new Active Set.

• The base station specifies the long code mask to be used on the new Forward Traffic Channel by using the PRIVATE_LCM field of the General Handoff Direction Message. The base station may change the long code mask to be used on the new Forward Traffic Channel via the PRIVATE_LCM field of the General Handoff Direction Message only for CDMA-to-CDMA hard handoffs. If a change of long code mask is specified and the base station does not specify an explicit action time in the General Handoff Direction Message, the base station shall begin using the new long code mask on the first 80 ms boundary (relative to System Time) occurring at least 80 ms after the end of the frame containing the last bit of the message.

• For CDMA-to-CDMA handoffs, the base station may require the mobile station to perform a reset of the acknowledgment procedures by using the RESET_L2 field of the General Handoff Direction Message. If the base station requires the mobile station to reset the acknowledgment procedures, Layer 3 shall send an indication to Layer 2 to reset the acknowledgment procedures (see 3.2.1.1 and 3.2.2.1 of [4]). The acknowledgment procedures of the base station that the mobile station is to handoff to shall be reset immediately after the action time of the General Handoff Direction Message.

• For CDMA-to-CDMA hard handoffs, the base station may alter the frame offset by setting the FRAME_OFFSET field to a new value. If the base station specifies a new frame offset and does not specify an explicit action time, the base station shall change its Forward and Reverse Traffic Channel frame offsets at the second 80 ms boundary (relative to System Time) after the end of transmission of the General Handoff Direction Message, unless the end of transmission of the message coincides with an 80 ms boundary, in which case the change in frame offsets shall occur 80 ms after the end of transmission.

• For CDMA-to-CDMA hard handoffs to Band Class 0 or Band Class 3, the base station may alter the nominal transmit power offset after handoff by setting the NOM_PWR field to the new nominal transmit power offset. For CDMA-to-CDMA hard handoffs to band classes other than Band Class 0 and Band Class 3, the base station may alter the nominal transmit power offset after handoff by setting both the NOM_PWR and NOM_PWR_EXT fields to the new nominal transmit power offset.

• The base station may specify a different band class by setting the BAND_CLASS and CDMA_FREQ fields to the band class and CDMA frequency assignment respectively. The base station shall not specify a band class not supported by the mobile station.

• If the base station sends the General Handoff Direction Message in assured mode, the base station should set the action time of the message such that there is sufficient time for the mobile station to transmit a message containing the acknowledgment prior to the action time.
For CDMA-to-CDMA hard handoffs, the base station may specify whether the mobile station is to use service negotiation or service option negotiation by setting the SERV_NEG_TYPE field of the General Handoff Direction Message. If the base station specifies that the mobile station is to use service negotiation, the base station shall set the SERV_NEG variable (see 3.6.4.1.2.1.4) to enabled at the action time of message. If the base station specifies that the mobile station is to use service option negotiation, the base station shall set SERV_NEG to disabled at the action time of the message.

The base station may specify whether the mobile station is to restore its configuration to what it was before the handoff attempt, if it fails in the handoff attempt using criteria specified in the Candidate Frequency Search Request Message, by using the RETURN_IF_HANDOFF_FAIL field of the General Handoff Direction Message. The base station may specify whether the mobile station is to periodically search a CDMA Candidate Frequency for useable pilots, using criteria specified in the Candidate Frequency Search Request Message, by using the PERIODIC_SEARCH field of the General Handoff Direction Message.

The base station may include Forward Supplemental Code Channel assignment information in the General Handoff Direction Message if the Forward Multiplex Option for the currently connected service option is 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, or 16. If Forward Supplemental Code Channel assignment information is included, the base station shall include FOR_INCLUDED, set FOR_INCLUDED to ‘1’, and include the appropriate Forward Supplemental Code Channel assignment information.

The number of Forward Supplemental Code Channels assigned by the General Handoff Direction Message shall not exceed the maximum number of Forward Supplemental Code Channels for the negotiated Forward Multiplex Option.

The base station shall set FOR_SUP_CONFIG to ‘00’ if the mobile station is to stop processing the Forward Supplemental Code Channel after the action time of General Handoff Direction Message. The base station should not transmit to the mobile station on the Forward Supplemental Code Channels after the message takes effect.

The base station shall set FOR_SUP_CONFIG to ‘01’ if the mobile station is to start processing the Forward Supplemental Code Channels in the Code Channel List at the action time of the message.

The base station shall set FOR_SUP_CONFIG to ‘10’ if the Forward Supplemental Code Channels associated with the pilots in the Active set are specified in the General Handoff Direction Message and the mobile station is to stop processing Forward Supplemental Code Channels at the implicit action time of the message. The base station should not transmit to the mobile station on the Forward Supplemental Code Channels after the message takes effect.

The base station shall set FOR_SUP_CONFIG to ‘11’ if the Forward Supplemental Code Channels associated with the pilots in the Active set are specified in the General Handoff Direction Message and the mobile station is to start processing the Forward Supplemental Code Channels at the action time of the message.
• The base station shall set FOR_DURATION to the time interval after the action time
of the message, in units of 80 ms, during which the mobile station is to process the
specified Forward Supplemental Code Channels. The base station may set
USE_FOR_DURATION to '0' to indicate an infinite duration for the allocation of
Forward Supplemental Code Channels. The base station should not transmit to the
mobile station on the Forward Supplemental Code Channels outside the time
interval specified by FOR_DURATION.

• If FOR_INCLUDED is included in the message, the base station shall include
EXPL_CODE_CHAN for each pilot included in the message. If EXPL_CODE_CHAN is
included and set to ‘1’ for a pilot, the code channels associated with the pilot in the
General Handoff Direction Message shall be ordered such that the first code channel
occurrence is associated with the Forward Fundamental Channel and the successive
occurrences are associated with Forward Supplemental Code Channels. If
EXPL_CODE_CHAN is included and is set to ‘0’, for each pilot in the new Active Set,
the base station shall include BASE_CODE_CHAN and set it to the base code
channel index in the range of 1 to (63 - NUM_FOR_SUP + 1), inclusive, that the
mobile station is to use as the first Forward Supplemental Code Channel associated
with this pilot. The mobile station is to use NUM_FOR_SUP adjacent code channels
beginning with index BASE_CODE_CHAN (i.e., BASE_CODE_CHAN through
BASE_CODE_CHAN + NUM_FOR_SUP - 1) for the Forward Supplemental Code
Channels associated with this pilot.

• The base station may include Reverse Supplemental Code Channel assignment
information in the General Handoff Direction Message if the Reverse Multiplex
Option is 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, or 16. If Reverse Supplemental
Code Channel assignment information is included, the base station shall include
REV_INCLUDED, set REV_INCLUDED to ‘1’, and include the appropriate Reverse
Supplemental Code Channel assignment information in the additional fields.

• If Reverse Supplemental Code Channel assignment information is included, the base
station shall set NUM_REV_CODES to the number of Reverse Supplemental Code
Channels to be used by the mobile station. The base station shall not set
NUM_REV_CODES to be greater than the number of codes supported by the
currently negotiated multiplex option.

• The base station may set USE_T_ADD_ABORT, the Reverse Supplemental Code
Channel assignment T_ADD abort indicator, to ‘1’ to indicate that the mobile station
is to abort Reverse Supplemental Code Channel assignments implicitly when a
T_ADD trigger occurs. Otherwise, the base station shall set USE_T_ADD_ABORT to
‘0’. If NUM_REV_CODES is set to ‘000’, the base station shall set
USE_T_ADD_ABORT to ‘0’.
• The base station shall set REV_DTX_DURATION to the maximum duration of time in units of 20 ms that the mobile station is allowed to stop transmission on a Reverse Supplemental Code Channel before resuming transmission on the Reverse Supplemental Code Channel. The base station shall set this field to ‘0000’ if the mobile station is to stop using a Reverse Supplemental Code Channel once it has stopped transmitting on that Reverse Supplemental Code Channel. The base station shall set this field to ‘1111’ if the mobile station is allowed to resume transmission on a Reverse Supplemental Code Channel at any time within the reverse assignment duration.

• The base station may set CLEAR_RETRY_DELAY to ‘1’ to indicate that the mobile station is to cancel any previously stored retry delay. Otherwise, the base station shall set CLEAR_RETRY_DELAY to ‘0’ to indicate that the mobile station is to continue to honor any previously stored retry delay (see 2.6.6.2.5.1).

• The base station may indicate a duration for the Reverse Supplemental Code Channel assignment (in 80 ms superframes) by setting USE_REV_DURATION to ‘1’ and indicating the desired duration in the REV_DURATION field. If USE_REV_DURATION is set to ‘0’, a duration of infinity is indicated, and the base station shall set the REV_DURATION to ‘00000000’. If NUM_REV_CODES is ‘000’, then the base station shall set USE_REV_DURATION to ‘0’ and shall set REV_DURATION to ‘00000000’.

• The base station may set USE_REV_DURATION to ‘1’ and REV_DURATION to the time interval after the action time of the message, in units of 80 ms, during which the mobile station may transmit on the assigned Reverse Supplemental Code Channels. The base station may set USE_REV_DURATION to ‘0’ to indicate an infinite duration for the allocation of Forward Supplemental Code Channels.

• The base station may specify a closed loop power control step size by setting USE_PWR_CNTL_STEP to ‘1’ and indicating the desired power control step size in the PWR_CNTL_STEP field (see 2.1.2.3.2). Otherwise, the base station shall set USE_PWR_CNTL_STEP to ‘0’. The base station shall not specify a power control step size not supported by the mobile station.

3.6.6.2.11 Processing the Universal Handoff Direction Message

The base station shall maintain a handoff message sequence number. The sequence number shall be initialized to zero prior to the transmission of the first Extended Handoff Direction Message (see 3.6.6.2.2), General Handoff Direction Message (see 3.6.6.2.2.10), or Universal Handoff Direction Message to the mobile station. The base station shall increment the sequence number modulo 4 each time the base station modifies the pilot list (including the order in which pilots are specified within the list) or the code channels (including a change in the ordering such that the first code channel occurrence for any pilot is changed) sent to the mobile station in an Extended Handoff Direction Message, a General Handoff Direction Message, or an Universal Direction Message.

Following a hard handoff, the base station should set the handoff message sequence number to the value of the LAST_HDM_SEQ field of the Handoff Completion Message or
Extended Handoff Completion Message and should use the pilot order contained in the
Handoff Completion Message or Extended Handoff Completion Message to interpret the

The base station shall set the contents of a Universal Handoff Direction Message according
to the following rules:

- A Universal Handoff Direction Message shall list no more than \( N_{6m} \) pilots in the new
  Active Set.

- The base station may include a Service Configuration Information Record in the
  Universal Handoff Direction Message to accept a service configuration proposed in a
  Service Request Message or Service Response Message, and instruct the mobile
  station to begin using the service configuration.

- A Universal Handoff Direction Message shall identify the identical power control
  subchannels (i.e., those carrying identical power control bits).

- A Universal Handoff Direction Message shall identify the transmit power level of the
  power control subchannels to the transmit power level of 20 ms frames at a 9600
  bps or 14400 bps rate on their respective associated channels (Forward
  Fundamental Channel or Forward Dedicated Control Channel).

- For CDMA-to-CDMA handoffs, the base station may specify Power Control
  Subchannel Gain action time (PC_ACTION_TIME). If PC_ACTION_TIME is included
  in this message, the base station shall apply the new FPC_SUBCHAN_GAIN at the
  time specified by PC_ACTION_TIME. If the PC_ACTION_TIME is not included in this
  message but the explicit action time is included, the base station shall apply the
  new FPC_SUBCHAN_GAIN at the action time of the Universal Handoff Direction
  Message. If the implicit action time is used, the base station should gradually apply
  any change in FPC_SUBCHAN_GAIN.

- A Universal Handoff Direction Message may change the code channel associated with
  an Active Set pilot that remains in the new Active Set.

- A Universal Handoff Direction Message may delete the code channel associated with
  an Active Set pilot that remains in the new Active Set.

- A Universal Handoff Direction Message may add the code channel associated with an
  Active Set pilot that remains in the new Active Set.

- The base station specifies the long code mask to be used on the new Forward Traffic
  Channel by using the PRIVATE_LCM field of the Universal Handoff Direction
  Message. The base station may change the contents of this field only for CDMA-to-
  CDMA hard handoffs. If a change of long code mask is specified and the base
  station does not specify an explicit action time in the Universal Handoff Direction
  Message, the base station shall begin using the new long code mask on the first 80
  ms boundary (relative to System Time) occurring at least 80 ms after the end of the
  frame containing the last bit of the message.
For CDMA-to-CDMA handoffs, the base station may require the mobile station to perform a reset of the acknowledgment procedures by using the RESET_L2 field of the Universal Handoff Direction Message. If the base station requires the mobile station to reset the acknowledgment procedures, Layer 3 shall send an indication to Layer 2 to reset the acknowledgment procedures (see 3.2.1.1 and 3.2.2.1 of [4]). The acknowledgment procedures of the base station that the mobile station is to handoff to shall be reset immediately after the action time of the General Handoff Direction Message.

For CDMA-to-CDMA hard handoffs, the base station may alter the frame offset by setting the FRAME_OFFSET field to a new value. If the base station specifies a new frame offset and does not specify an explicit action time, the base station shall change its Forward and Reverse Traffic Channel frame offsets at the second 80 ms boundary (relative to System Time) after the end of transmission of the Universal Handoff Direction Message, unless the end of transmission of the message coincides with an 80 ms boundary, in which case the change in frame offsets shall occur 80 ms after the end of transmission.

For CDMA-to-CDMA hard handoffs to Band Class 0 or Band Class 3, the base station may alter the nominal transmit power offset after handoff by setting the NOM_PWR field to the new nominal transmit power offset. For CDMA-to-CDMA hard handoffs to band classes other than Band Class 0 and Band Class 3, the base station may alter the nominal transmit power offset after handoff by setting both the NOM_PWR and NOM_PWR_EXT fields to the new nominal transmit power offset.

The base station may specify a different band class by setting the BAND_CLASS and CDMA_FREQ fields to the band class and CDMA frequency assignment respectively. The base station shall not specify a band class not supported by the mobile station.

If the base station sends the Universal Handoff Direction Message in assured mode, the base station should set the action time of the message such that there is sufficient time for the mobile station to transmit a message containing the acknowledgment prior to the action time.

For CDMA-to-CDMA handoffs, the base station may specify whether the mobile station is to use service negotiation or service option negotiation by setting the SERV_NEG_TYPE field of the Universal Handoff Direction Message. If the base station specifies that the mobile station is to use service negotiation, the base station shall set the SERV_NEG variable (see 3.6.4.1.2.1.4) to enabled at the action time of the message. If the base station specifies that the mobile station is to use service option negotiation, the base station shall set SERV_NEG to disabled at the action time of the message.
The base station may specify whether the mobile station is to restore its
configuration to what it was before the handoff attempt, if it fails in the handoff
attempt using criteria specified in the Candidate Frequency Search Request Message,
by using the RETURN_IF_HANDOFF_FAIL field of the Universal Handoff Direction
Message. The base station may specify whether the mobile station is to periodically
search a CDMA Candidate Frequency for useable pilots, using criteria specified in
the Candidate Frequency Search Request Message, by using the PERIODIC_SEARCH
field of the Universal Handoff Direction Message.

The base station specifies Active Set for the Fundamental Channel only, the
Dedicated Control Channel only, or both. The Active Set of the Dedicated Control
Channel shall be the same as the Active Set of the Fundamental Channel when both
the Fundamental Channel and Dedicated Control Channel are assigned.

The base station may specify the Active Set of the Supplemental Channels. The
Active Set of the Supplemental Channels shall be a subset of the Active Set of the
Fundamental Channel or the Dedicated Control Channel.

A Universal Handoff Direction Message may specify a Reverse Supplemental Channel
assignment. If Reverse Supplemental Channel assignment information is included,
this message contains information that specifies the start time, duration, and the
data transfer rate associated with this Reverse Supplemental Channel assignment.

A Universal Handoff Direction Message may specify a Forward Supplemental
Channel assignment. If Forward Supplemental Channel assignment information is
included, this message contains the start time, duration, and SCCL_INDEX
associated with this Forward Supplemental Channel assignment.

A Universal Handoff Direction Message may update the mapping between a
particular SCCL_INDEX and a set of fields that specifies the data transfer rate, QOF
index, Forward Supplemental Channel Walsh code for each PILOT_PN, and the
active set for the Forward Supplemental Channel associated with FOR_SCH_ID.

A Universal Handoff Direction Message may update REV_WALSH_ID field which
specifies the Reverse Supplemental Walsh cover.

The base station may set CLEAR_RETRY_DELAY to ‘1’ to indicate that the mobile
station is to cancel any previously stored retry delay. Otherwise, the base station
shall set CLEAR_RETRY_DELAY to ‘0’ to indicate that the mobile station is to
continue to honor any previously stored retry delay (see 2.6.6.2.5.1).

3.6.6.2.12 Processing of Extended Supplemental Channel Assignment Message
The base station may use this message to carry Forward Supplemental Channel assignment
information or Reverse Supplemental Channel assignment information.

If Forward Supplemental Channel assignment information is included, this message
contains the start time, duration, and SCCL_INDEX associated with this Forward
Supplemental Channel assignment. If Reverse Supplemental Channel assignment
information is included, this message contains information that specifies the start time,
duration, and the number of information bits per frame (or set of number of bits per frame
if RSCH_VAR_TABLE_IDs[REV_SCH_IDr] is not equal to ‘000’ associated with this Reverse Supplemental Channel assignment.

This message may specify the mapping between a particular SCCL_INDEX and a set of fields that specifies the number of information bits per frame (or set of number of bits per frame if FSCH_VAR_TABLE_IDs[FOR_SCH_IDr] is not equal to ‘000’), QOF index, Forward Supplemental Channel Walsh code for each PILOT_PN, and the active set for the Forward Supplemental Channel associated with FOR_SCH_ID.

This message may also include REV_WALSH_ID field which specifies the Reverse Supplemental Walsh cover.

This message also includes START_TIME_UNIT for this message, Forward Supplemental Channel Assignment Mini Messages, or Reverse Supplemental Channel Assignment Mini Messages, or Universal Handoff Direction Message.

The base station shall set the contents of an Extended Supplemental Channel Assignment Message according to the following rules:

- An Extended Supplemental Channel Assignment Message may specify a Reverse Supplemental Channel assignment. The base station shall set NUM_REV_SCH to the number of Reverse Supplemental Channels to be assigned.

- An Extended Supplemental Channel Assignment Message may specify a Forward Supplemental Channel assignment. The base station shall set NUM_FOR_SCH to the number of Forward Supplemental Channels to be assigned.

- The base station shall set the START_TIME_UNIT field to indicate the unit of the FOR_SCH_START_TIME included in this message and the Forward Supplemental Channel Assignment Mini Messages and REV_SCH_START_TIME included in this message and the Reverse Supplemental Channel Assignment Mini Messages. The base station shall set this field to one less than the number of 20 ms intervals that is to be used by the mobile station for calculating the start time included in Forward Supplemental Channel assignments or Reverse Supplemental Channel assignments.

- An Extended Supplemental Channel Assignment Message may specify Forward Supplemental Channel configuration information. The base station shall set NUM_FOR_SCH_CFG to the number of Forward Supplemental Channel to be configured.

- The base station shall set the NUM_REC field to the number of instances of the following record minus one included in this message. The base station shall set the fields within each record as follows:
  - The base station shall set the SCCL_INDEX field to the index of the Supplemental Channel Code Information Record in the Supplemental Channel Code List Table.
  - The base station shall set the FOR_SCH_NUM_BITS_IDE field to the Forward Supplemental Channel number of information bits index associated with SCCL_INDEX.
The base station shall set the NUM_SUP_SHO field to the number of Forward Supplemental Channels minus one, corresponding to the FOR_SCH_ID and the SCCL_INDEX, for which the frames are to be soft-combined by the mobile station. The base station shall set the fields within each record as follows:

- The base station shall set the PILOT_PN field to the pilot PN sequence offset for this pilot in units of 64 PN chips.
- The base station shall set the QOF_MASK_ID_SCH field to the ID of the Quasi Orthogonal Function mask ID corresponding to the Forward Supplemental Channel Code index.
- The base station shall set the CODE_CHAN_SCH field to the code channel on the Supplemental Channel corresponding to the PILOT_PN.

- REV_SCH_DTX_DURATION: The base station shall set REV_SCH_DTX_DURATION to the maximum duration of time in units of 20 ms that the mobile station is allowed to stop transmission on a Reverse Supplemental Channel before resuming transmission on the Reverse Supplemental Channel within the reverse assignment duration. The base station shall set this field to ‘0000’ if the mobile station is to stop using a Reverse Supplemental Channel once it has stopped transmitting on that Reverse Supplemental Channel. The base station shall set this field to ‘1111’ if the mobile station is allowed to resume transmission on a Reverse Supplemental Channel at any time within the reverse assignment duration.

- The base station may set USE_T_ADD_ABORT, the Reverse Supplemental Channel assignment T_ADD abort indicator, to ‘1’ to indicate that the mobile station is to abort Reverse Supplemental Channel assignments when a T_ADD trigger occurs. Otherwise, the base station shall set USE_T_ADD_ABORT to ‘0’.

- If the base station is sending this message in response to a Supplemental Channel Request Message which includes a Supplemental Channel Request Message sequence number and the mobile station is to clear the IGNORE_ESCAM field, the base station shall set USE_SCRM_SEQ_NUM to ‘1’ and set SCRM_SEQ_NUM to the sequence number corresponding to the SCRM_SEQ_NUM field in a Supplemental Channel Request Message to which the mobile station is to match this message. Otherwise, the base station shall set USE_SCRM_SEQ_NUM to ‘0’ and omit SCRM_SEQ_NUM.

### 3.6.6.2.2.13 Processing of Forward Supplemental Channel Assignment Mini Message

The base station may use this message to specify Forward Supplemental Channel assignment parameters for the mobile station’s Forward Supplemental Channel. This information includes the FOR_SCH_ID, duration, start time, and the index to the previously specified Forward Supplemental Channel Code List, which determines number of information bits per frame (or set of number of bits per frame if FSCH_VAR_TABLE_IDs[FOR_SCH_IDr] is not equal to ‘000’), code channel index, and the identifier of the Quasi Orthogonal Function corresponding to the assignment.
The base station shall set the content of a *Forward Supplemental Channel Assignment Mini Message* according to the following rules:

- The base station shall set the FOR_SCH_ID to Forward Supplemental Channel identifier of the burst assignment that this message carries.

- The base station shall set the FOR_SCH_DURATION field to '0000' to indicate that the mobile station should stop processing the Forward Supplemental Channel starting at the explicit start time of the message specified by FOR_SCH_START_TIME. The base station shall set the FOR_SCH_DURATION field to '1111' to indicate that the mobile station should process the Forward Supplemental Channel, starting at the explicit start time of the message specified by FOR_SCH_START_TIME, until a subsequent *Forward Supplemental Channel Assignment Mini Message* or an *Extended Supplemental Channel Assignment Message* with the same FOR_SCH_ID field is received. The base station shall set the FOR_SCH_DURATION field to the duration in units of 20 ms (see Table 3.7.3.3.2.37-3), starting at the explicit start time of the message specified by FOR_SCH_START_TIME, during which the mobile station is to process the Forward Supplemental Channel.

- The base station shall set the FOR_SCH_START_TIME field to the System Time, in units of time specified by START_TIME_UNIT, (modulo 32) at which the mobile station is to start processing the Forward Supplemental Channel specified in this message. The explicit start time for processing Forward Supplemental Channels is the time for which:

\[
\lfloor t/(START\_TIME\_UNIT+1) \rfloor - \text{FOR\_SCH\_START\_TIME} \mod 32 = 0,
\]

where t is the System Time in units of 20 ms.

- The base station shall set the SCCL_INDEX field to the index of the record in the Forward Supplemental Channel Code list corresponding to the FOR_SCH_ID.

- If the PILOT_GATING_USE_RATE to equal to '1', the base station shall set PILOT_GATING_USE_RATE to '0' and start transmitting the Forward Power Control Subchannel with the maximum rate at the action time of the message.

**3.6.6.2.2.14 Processing of Reverse Supplemental Channel Assignment Mini Message**

The base station may use this message to specify Reverse Supplemental Channel assignment parameters for the mobile station Reverse Supplemental Channel. This information includes the reverse supplemental channel identifier (REV_SCH_ID), the duration of transmission on the Reverse Supplemental Channel, the start time for the burst assignment, and the number of information bits per frame that the mobile station may transmit.

The base station shall set the content of the *Reverse Supplemental Channel Assignment Mini Message* according to the following rules:
• The base station shall set the REV_SCH_DUR\_DURATION field to ‘0000’ to indicate that the mobile station should stop transmitting on the Reverse Supplemental Channel specified by REV_SCH\_ID at the start time specified by REV_SCH\_START\_TIME. The base station shall set this field to ‘1111’ to indicate that the mobile station may transmit on the Reverse Supplemental Channel specified by REV_SCH\_ID, starting at the start time specified by REV_SCH\_START\_TIME. The base station shall set the REV_SCH\_DUR\_DURATION field to the allocated duration (see Table 3.7.3.3.2.37-3), starting at the start time specified by REV_SCH\_START\_TIME, during which the mobile station may transmit on the Reverse Supplemental Channel specified by REV_SCH\_ID.

• The base station shall set the REV_SCH\_START\_TIME field to the System Time, in units of time specified by START\_TIME\_UNIT, (modulo 32) at which the mobile station may start transmitting on the Reverse Supplemental Channel specified in this message. The explicit start time for transmitting on the Reverse Supplemental Channel is the time for which:

$$\left\lfloor \frac{t}{(\text{START\_TIME\_UNIT}+1)} \right\rfloor - \text{REV\_SCH\_START\_TIME} \mod 32 = 0,$$

where $t$ is the System Time in units of 20 ms.

• The base shall set the REV_SCH\_BITS\_IDX (see Table 3.7.3.3.2.37-24) to indicate the Reverse Supplemental Channel number of information bits per frame index.

• If the PILOT\_GATING\_USE\_RATE to equal to ‘1’, the base station shall set PILOT\_GATING\_USE\_RATE to ‘0’ and start transmitting the Forward Power Control Subchannel with the maximum rate at the action time of the message.

3.6.6.2.2.15 Processing of the Mobile Assisted Burst Operation Parameters Message

The base station may use this message to specify the operating parameters in the mobile station for Mobile Assisted Burst Operation procedures.

• A Mobile Assisted Burst Operation Parameters Message may specify pilot strength order change reporting information. If order change reporting information is included, the base station shall set ORDER\_FLAG to ‘1’ and include the appropriate order change reporting fields. Otherwise, the base station shall set ORDER\_FLAG to ‘0’. If ORDER\_FLAG is set to ‘1’, the base station shall perform the following procedures:

  – The base station shall set PS\_MIN\_DELTA to one less than the minimum pilot strength measurement difference between any two pilots in the Active Set (in units of 0.5 dB) that must be measured in order for the mobile station to send a Pilot Strength Measurement Mini Message.

  – The base station shall set ORDER\_INTERVAL to the minimum interval (in 20 ms units) during which the indicated pilot strength measurement difference (greater than or equal to PS\_MIN\_DELTA + 1, in units of 0.5 dB) must be measured by the mobile station in order for the mobile station to send a Pilot Strength Measurement Mini Message.
A Mobile Assisted Burst Operation Parameters Message may specify periodic pilot strength reporting. If periodic reporting information is included, the base station shall set PERIODIC_FLAG to ‘1’ and include the appropriate periodic reporting fields. Otherwise, the base station shall set PERIODIC_FLAG to ‘0’. If PERIODIC_FLAG is set to ‘1’, the base station shall perform the following procedures:

- The base station shall set NUM_PILOTS to the number of pilots for which the mobile station is to send Pilot Strength Measurement Mini Messages.
- The base station shall set PERIODIC_INTERVAL to the interval (in 20 ms units) between Pilot Strength Measurement Mini Messages.

A Mobile Assisted Burst Operation Parameters Message may specify threshold based pilot strength reporting. If threshold based reporting information is included, the base station shall set THRESHOLD_FLAG to ‘1’ and include the appropriate threshold based reporting fields. Otherwise, the base station shall set THRESHOLD_FLAG to ‘0’. If THRESHOLD_FLAG is set to ‘1’, the base station shall perform the following procedures:

- The base station shall set PS_FLOOR_HIGH to the high water mark for lower limit threshold for which the mobile station is to send Pilot Strength Measurement Mini Messages.
- The base station shall set PS_FLOOR_LOW to the low water mark for lower limit threshold for which the mobile station is to send Pilot Strength Measurement Mini Messages.
- The base station shall set PS_CEILING_HIGH to the high water mark for upper limit threshold for which the mobile station is to send Pilot Strength Measurement Mini Messages.
- The base station shall set PS_CEILING_LOW to the low water mark for upper limit threshold for which the mobile station is to send Pilot Strength Measurement Mini Messages.
- The base station shall set THRESHOLD_INTERVAL to the interval (in 20 ms units) between Pilot Strength Measurement Mini Messages.

3.6.6.2.3 Active Set Maintenance
The base station shall maintain an Active Set for each mobile station under its control as follows:

- When the base station sends the Channel Assignment Message, it shall initialize the Active Set to contain only the pilot associated with the assigned Forward Traffic Channel.
- When the base station sends the Extended Channel Assignment Message, it shall initialize the Active Set to contain all pilots included in the message.
• When the base station sends an *Extended Handoff Direction Message*, *General Handoff Direction Message*, or *Universal Handoff Direction Message*, it shall add to the Active Set, before the action time of the message, all pilots included in the message, if they are not already in the Active Set.

• The base station shall delete the pilots that were not included in the most recent *Extended Handoff Direction Message*, *General Handoff Direction Message*, or *Universal Handoff Direction Message*, from the Active Set upon receipt of the *Handoff Completion Message* or *Extended Handoff Completion Message*.

3.6.6.2.4 Soft Handoff

The base station should use soft handoff when directing a mobile station from one Forward Traffic Channel to another Forward Traffic Channel having the same frequency assignment.

3.6.6.2.4.1 Receiving During Soft Handoff

Each base station in the Active Set shall demodulate the Reverse Traffic Channel. The base station should provide diversity combining of the demodulated signals obtained by each base station in the Active Set.

3.6.6.2.4.2 Transmitting During Soft Handoff

The base station shall begin transmitting identical modulation symbols on all Forward Traffic Channels specified in an *Extended Handoff Direction Message* or *General Handoff Direction Message*, or *Universal Handoff Direction Message* (with the possible exception of the power control subchannel) by the action time of the message.

The base station shall transmit identical power control bits on all identical power control subchannels that were identified as such in the last *Extended Handoff Direction Message*, or *General Handoff Direction Message*, or *Universal Handoff Direction Message*.

The base station shall use the same long code mask on all Forward Traffic Channels whose associated pilots are in the Active Set.

3.6.6.2.5 CDMA-to-Analog Hard Handoff

The base station may direct the mobile station to perform a handoff from the CDMA system to an analog system in a band class that the mobile station supports by sending an *Analog Handoff Direction Message*.

3.6.7 CDMA Tiered Services

3.6.7.1 Overview

3.6.7.1.1 Definition

The base station may support Tiered Services to provide individual users or groups of users with custom services and special features based upon their location. The base station may also support Tiered Services to provide private network support. Important to the operation of CDMA Tiered Services is the concept of User Zones. It is via User Zones by which the base station offers custom services based upon the mobile station location.
User Zones are associated with a set of features and services, plus a geographic area in
which the User Zone features/services are made available to the customers that have
subscribed to that User Zone. The boundary of the User Zone Geographic area may be
established based on the coverage area of a public or private base station, or it may be
established independent of RF topology.

User Zones may be supported by the public system on the same frequency as the serving
base station, or they may be supported on a private system operating on a different
frequency.

3.6.7.1.2 Types of User Zones

User Zones may be of two basic types:

- **Broadcast User Zones**: Broadcast User Zones are identified to the mobile station
  using the Paging Channel or the Primary Broadcast Control Channel. In this case,
  the base station broadcasts messages on the Paging Channel or the Primary
  Broadcast Control Channel identifying the User Zones that fall within the coverage
  area of the particular cell/sector. A mobile station, as part of its monitoring of the
  Paging Channel or the Primary Broadcast Control Channel, will identify the
  presence of a particular User Zone.

- **Mobile Specific User Zones**: Mobile Specific User Zones are not broadcast by the base
  station. A mobile station may use other overhead message parameters and compare
  them with internally stored User Zone parameters to identify the presence of a
  particular User Zone. These parameters may include: SID, NID, BASE_ID,
  BASE_LAT, and BASE_LONG.

3.6.7.2 Requirements

If the base station supports CDMA Tiered Services, the base station sends the following
messages to assist the mobile station in identifying the presence of User Zones and to
validate the User Zone requested by a mobile station:

- **User Zone Identification Message**
- **Private Neighbor List Message**
- **User Zone Reject Message**
- **User Zone Update Message**

3.6.7.2.1 User Zone Identification Message

The base station identifies Broadcast User Zones supported by the base station by sending
the **User Zone Identification Message** on the Paging Channel or the Primary Broadcast
Control Channel. The base station should list the UZID of each Broadcast User Zone
supported by the base station.

3.6.7.2.2 Private Neighbor List Message

The base station sends a Private Neighbor List and identifies the User Zones supported by
its private neighbor base stations by sending the Private Neighbor List Message on the Paging Channel or the Primary Broadcast Control Channel. The Private Neighbor List Message shall list no more than N₈m private neighbors.

3.6.7.2.3 User Zone Update Message and User Zone Reject Message on f-dsch

For a mobile station operating in the Traffic Channel Substate or Release Substate of the Mobile Station Control on the Traffic Channel State, the base station may update the User Zone associated with the mobile station by sending a User Zone Update Message. The base station may also send a User Zone Reject Message to reject the User Zone requested by the mobile station in the Origination Message, Page Response Message, or User Zone Update Request Message. The base station may include the ASSIGN_UZID field in the User Zone Reject Message to assign a User Zone to the mobile station to replace the rejected User Zone.

3.6.7.2.4 User Zone Reject Message on f-csch

The base station may send the User Zone Reject Message on the Paging Channel or the Forward Common Control Channel to reject the User Zone requested by the mobile station in the Registration Message, Origination Message, or Page Response Message. The base station may include the ASSIGN_UZID field in the User Zone Reject Message record to assign a User Zone to the mobile station to replace the rejected User Zone.

3.6.8 Call Control Processing

The Call Control consists of the following states:

- Waiting for Order Substate - In this substate, the Call Control instance sends the Alert With Information Message or the Extended Alert With Information Message to the mobile station.
- Waiting for Answer Substate - In this substate, the Call Control instance waits for the Connect Order from the mobile station.
- Conversation Substate - In this substate, the parties involved in this call exchanges Traffic Channel frames in accordance with the current service configuration.
- Call Release Substate - In this substate, the Call Control instance waits for the call to be disconnected.

The following messages are processed by the Call Control:

- Alert With Information Message
- Extended Alert with Information Message
- Flash With Information Message
- Extended Flash With Information Message
• Send Burst DTMF Message
• Origination Continuation Message

The following orders are processed by the Call Control:

• Continuous DTMF Tone Order
• Maintenance Order
• Connect Order

Upon instantiation, the Call Control instance shall perform the following:

• If the call is a mobile station terminated call and the base station set BYPASS_ALERT_ANSWER to ‘1’, the Call Control instance shall enter the Conversation Substate (see 3.6.8.2). If the call is a mobile station terminated call and the base station set BYPASS_ALERT_ANSWER to ‘0’, the Call Control instance shall enter the Waiting for Order Substate (see 3.6.8.1.1).

• If the call is a mobile-station-originated call, the Call Control instance shall enter the Conversation Substate (see 3.6.8.2).

3.6.8.1 Alerting

3.6.8.1.1 Waiting for Order Substate

In this substate, the Call Control instance sends an Alert With Information Message or an Extended Alert With Information Message to the mobile station.

While in the Waiting for Order Substate, the Call Control instance shall perform the following:

• If the Call Control instance receives a “release indication” from the Layer 3, the Call Control instance shall enter the Call Release Substate.

• If the Call Control instance receives a “send alert with info message indication” from the Layer 3, the Call Control instance shall send an Alert with Information Message or an Extended Alert With Information Message to the mobile station within T2b seconds, and enter the Waiting for Answer Substate.

• The Call Control instance may send the following messages:

1. Alert With Information Message: The Call Control instance shall enter the Waiting for Answer Substate.

2. Extended Alert With Information Message: The Call Control instance shall enter the Waiting for Answer Substate.
3. **Maintenance Order**: The Call Control instance shall enter the *Waiting for Answer Substate*.

### 3.6.8.1.2 Waiting for Answer Substate

In this substate, the Call Control instance waits for a *Connect Order* from the mobile station.

While in the *Waiting for Answer Substate*, the Call Control instance shall perform the following:

- If the Call Control instance receives a “release indication” from the *layer 3*, the Call Control instance shall enter the *Call Release Substate*.

- If the Call Control instance receives a “send alert with info message indication” from the *layer 3*, the Call Control instance shall send an *Alert with Information Message* or an *Extended Alert with Information Message* to the mobile station, within T2b seconds, and enter the *Waiting for Answer Substate*.

- The Call Control instance may send the following messages:
  
  1. *Alert With Information Message*
  2. *Extended Alert With Information Message*
  3. **Maintenance Order**

- If the Call Control instance receives one of the following messages from the *layer 3*, the Call Control instance shall process the message according to the specified requirements, if any:

  1. **Connect Order**: The Call Control instance shall enter the *Conversation Substate*.

  2. **Flash With Information Message**: If the message contains a Keypad Facility record with feature codes indicating User Selective Call Forwarding with a pre-registered number, a stored number, or voice mail, the Call Control instance may send a ‘call release request’ to the *layer 3*. If this message contains the Global Emergency Call information record and the call associated with this Call Control instance is a voice call, the base station shall recognize this as an emergency call and should process the message using an implementation-dependent procedure which may include ignoring the dialed digits. If this message contains the Global Emergency Call information record and the call associated with this Call Control instance is not a voice call, the base station may recognize this as an emergency call and should process the message using an implementation-dependent procedure which may include ignoring the dialed digits.
3. **Extended Flash With Information Message**: If the message contains a Keypad Facility record with feature codes indicating User Selective Call Forwarding with a pre-registered number, a stored number, or voice mail, the Call Control instance may send a ‘call release request’ to the layer 3. If this message contains the Global Emergency Call information record and the call associated with this Call Control instance is a voice call, the base station shall recognize this as an emergency call and should process the message using an implementation-dependent procedure which may include ignoring the dialed digits. If this message contains the Global Emergency Call information record and the call associated with this Call Control instance is not a voice call, the base station may recognize this as an emergency call and should process the message using an implementation-dependent procedure which may include ignoring the dialed digits.

4. **Origination Continuation Message**

3.6.8.2 Conversation Substate
While in the Conversation Substate, the Call Control instance shall perform the following:

- If the Call Control instance receives a “release indication” from the layer 3, the Call Control instance shall enter the Call Release Substate.

- If the Call Control instance receives a “paca reorig indication” from the layer 3, the Call Control instance should send either an Alert With Information Message/Extended Alert With Information Message which contains a signal information record with the SIGNAL_TYPE field set to ‘01’ or ‘10’, or an Alert With Information Message/Extended Alert With Information Message which does not contain a signal information record.

- If the Call Control instance receives a “send alert with info message indication” from layer 3, the Call Control instance shall send an Alert with Information Message or an Extended Alert With Information Message to the mobile station within T2b seconds, and enter the Waiting for Answer Substate.

- The Call Control instance may send the following messages:

  1. **Alert With Information Message**: If the message contains a signal information record with the SIGNAL_TYPE field set to ‘01’ or ‘10’, or if the message does not contain a signal information record, the Call Control instance shall enter the Waiting for Answer Substate.

  2. **Extended Alert With Information Message**: If the message contains a signal information record with the SIGNAL_TYPE field set to ‘01’ or ‘10’, or if the message does not contain a signal information record, the Call Control instance shall enter the Waiting for Answer Substate.
3. Continuous DTMF Tone Order

4. Flash With Information Message

5. Extended Flash With Information Message

6. Maintenance Order: The Call Control instance shall enter the Waiting for Answer Substate.

7. Send Burst DTMF Message

- If the Call Control instance receives one of the following messages from layer 3, the Call Control instance shall process the message according to the specified requirements, if any:

1. Continuous DTMF Tone Order

2. Flash With Information Message: If this message contains the Global Emergency Call information record and the call associated with this Call Control instance is a voice call, the base station shall recognize this as an emergency call and should process the message using an implementation-dependent procedure which may include ignoring the dialed digits. If this message contains the Global Emergency Call information record and the call associated with this Call Control instance is not a voice call, the base station may recognize this as an emergency call and should process the message using an implementation-dependent procedure which may include ignoring the dialed digits.

3. Extended Flash With Information Message: If this message contains the Global Emergency Call information record and the call associated with this Call Control instance is a voice call, the base station shall recognize this as an emergency call and should process the message using an implementation-dependent procedure which may include ignoring the dialed digits. If this message contains the Global Emergency Call information record and the call associated with this Call Control instance is not a voice call, the base station may recognize this as an emergency call and should process the message using an implementation-dependent procedure which may include ignoring the dialed digits.

4. Origination Continuation Message

5. Send Burst DTMF Message

3.6.8.3 Call Release Substate

- The Call Control instance may send the following messages:

1. Alert With Information Message: If the message contains a signal information record with the SIGNAL_TYPE field set to ‘01’ or ‘10’, or if the message does not
contain a signal information record, the base station shall enter the *Waiting for Answer Substate*.

2. **Extended Alert With Information Message**: If the message contains a signal information record with the SIGNAL_TYPE field set to ‘01’ or ‘10’, or if the message does not contain a signal information record, the base station shall enter the *Waiting for Answer Substate*.

3. **Maintenance Order**: The Call Control instance shall enter the *Waiting for Answer Substate*.

   - If the Call Control instance receives one of the following messages from Layer 3, the Call Control instance shall process the message according to the specified requirements, if any:

   1. **Connect Order**

   2. **Continuous DTMF Tone Order**

   3. **Flash With Information Message**: If this message contains the Global Emergency Call information record and the call associated with this Call Control instance is a voice call, the base station shall recognize this as an emergency call and should process the message using an implementation-dependent procedure which may include ignoring the dialed digits. If this message contains the Global Emergency Call information record and the call associated with this Call Control instance is not a voice call, the base station may recognize this as an emergency call and should process the message using an implementation-dependent procedure which may include ignoring the dialed digits.

   4. **Extended Flash With Information Message**: If this message contains the Global Emergency Call information record and the call associated with this Call Control instance is a voice call, the base station shall recognize this as an emergency call and should process the message using an implementation-dependent procedure which may include ignoring the dialed digits. If this message contains the Global Emergency Call information record and the call associated with this Call Control instance is not a voice call, the base station may recognize this as an emergency call and should process the message using an implementation-dependent procedure which may include ignoring the dialed digits.

   5. **Origination Continuation Message**

   6. **Send Burst DTMF Message**
No text.
3.7 PDU Formats for Messages

The following sections specify the requirements on the PDU formats transmitted on the f-csch, and the f-dsch.

In any multi-bit field in the following messages, the most significant bit (MSB) shall be transmitted first.

3.7.1 Reserved

3.7.2 f-csch

The f-csch is used to send control information to mobile stations that have not been assigned to a Traffic Channel.

3.7.2.1 Reserved

3.7.2.2 Reserved
3.7.2.3 PDU Formats for Messages on the f-csch

The messages sent on the f-csch are summarized in Table 3.7.2.3-1.
Table 3.7.2.3-1. f-csch Messages (Part 1 of 2)

<table>
<thead>
<tr>
<th>Message Name</th>
<th>MSG_TAG</th>
<th>Section Number</th>
<th>Primary BCCH</th>
<th>F-CCCH</th>
<th>PCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Parameters Message</td>
<td>SPM</td>
<td>3.7.2.3.2.1</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Access Parameters Message</td>
<td>APM</td>
<td>3.7.2.3.2.2</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Neighbor List Message (Band Class 0 only)</td>
<td>NLM</td>
<td>3.7.2.3.2.3</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>CDMA Channel List Message</td>
<td>CCLM</td>
<td>3.7.2.3.2.4</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Order Message</td>
<td>ORDM</td>
<td>3.7.2.3.2.7</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Channel Assignment Message</td>
<td>CAM</td>
<td>3.7.2.3.2.8</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Data Burst Message(^4)</td>
<td>DBM</td>
<td>3.7.2.3.2.9</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Authentication Challenge Message</td>
<td>AUCM</td>
<td>3.7.2.3.2.10</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>SSD Update Message</td>
<td>SSDUM</td>
<td>3.7.2.3.2.11</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Feature Notification Message</td>
<td>FNM</td>
<td>3.7.2.3.2.12</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Extended System Parameters Message</td>
<td>ESPM</td>
<td>3.7.2.3.2.13</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Extended Neighbor List Message (band classes other than Band Class 0)</td>
<td>ENLM</td>
<td>3.7.2.3.2.14</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Status Request Message</td>
<td>STRQM</td>
<td>3.7.2.3.2.15</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Service Redirection Message</td>
<td>SRDM</td>
<td>3.7.2.3.2.16</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>General Page Message</td>
<td>GPM</td>
<td>3.7.2.3.2.17</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Global Service Redirection Message</td>
<td>GSRDM</td>
<td>3.7.2.3.2.18</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>TMSI Assignment Message</td>
<td>TASM</td>
<td>3.7.2.3.2.19</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>PACA Message</td>
<td>PACAM</td>
<td>3.7.2.3.2.20</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Extended Channel Assignment Message</td>
<td>ECAM</td>
<td>3.7.2.3.2.21</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>General Neighbor List Message</td>
<td>GNLM</td>
<td>3.7.2.3.2.22</td>
<td>N</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>User Zone Identification Message</td>
<td>UZIM</td>
<td>3.7.2.3.2.23</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
</tbody>
</table>

\(^4\) When the Data Burst Message is used as a broadcast message, it can be sent on a Broadcast Control Channel other than the Primary Broadcast Control Channel (see 2.6.2.1.1.3).
<table>
<thead>
<tr>
<th><em>Private Neighbor List Message</em></th>
<th>PNLM</th>
<th>3.7.2.3.2.24</th>
<th>Y</th>
<th>N</th>
<th>Y</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message Name</td>
<td>MSG_TAG</td>
<td>Section Number</td>
<td>Primary BCCH</td>
<td>P-CCCH</td>
<td>PCH</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>---------</td>
<td>----------------</td>
<td>--------------</td>
<td>--------</td>
<td>-----</td>
</tr>
<tr>
<td>Sync Channel Message</td>
<td>SCHM</td>
<td>3.7.2.3.2.26</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Extended Global Service Redirection Message</td>
<td>EGSRDM</td>
<td>3.7.2.3.2.27</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Extended CDMA Channel List Message</td>
<td>ECCLM</td>
<td>3.7.2.3.2.28</td>
<td>Y</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>User Zone Reject Message</td>
<td>UZRM</td>
<td>3.7.2.3.2.29</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>ANSI-41 System Parameters Message</td>
<td>A41SPM</td>
<td>3.7.2.3.2.30</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>MC-RR Parameters Message</td>
<td>MCRRPM</td>
<td>3.7.2.3.2.31</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>ANSI-41 RAND Message</td>
<td>A41RANDM</td>
<td>3.7.2.3.2.32</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Enhanced Access Parameters Message</td>
<td>EAPM</td>
<td>3.7.2.3.2.33</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Universal Neighbor List Message</td>
<td>UNLM</td>
<td>3.7.2.3.2.34</td>
<td>Y</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Security Mode Command Message</td>
<td>SMCM</td>
<td>3.7.2.3.2.35</td>
<td>N</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Universal Page Message</td>
<td>UPM</td>
<td>3.7.2.3.2.36</td>
<td>N</td>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>
3.7.2.3.1 Reserved

3.7.2.3.2 Message Body Contents
The following sections specify the contents of message body for each message that may be
sent on the f-csch.
3.7.2.3.2.1 System Parameters Message

MSG_TAG: SPM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>CONFIG_MSG_SEQ</td>
<td>6</td>
</tr>
<tr>
<td>SID</td>
<td>15</td>
</tr>
<tr>
<td>NID</td>
<td>16</td>
</tr>
<tr>
<td>REG_ZONE</td>
<td>12</td>
</tr>
<tr>
<td>TOTAL_ZONES</td>
<td>3</td>
</tr>
<tr>
<td>ZONE_TIMER</td>
<td>3</td>
</tr>
<tr>
<td>MULT_SIDS</td>
<td>1</td>
</tr>
<tr>
<td>MULT_NIDS</td>
<td>1</td>
</tr>
<tr>
<td>BASE_ID</td>
<td>16</td>
</tr>
<tr>
<td>BASE_CLASS</td>
<td>4</td>
</tr>
<tr>
<td>PAGE_CHAN</td>
<td>3</td>
</tr>
<tr>
<td>MAX_SLOT_CYCLE_INDEX</td>
<td>3</td>
</tr>
<tr>
<td>HOME_REG</td>
<td>1</td>
</tr>
<tr>
<td>FOR_SID_REG</td>
<td>1</td>
</tr>
<tr>
<td>FOR_NID_REG</td>
<td>1</td>
</tr>
<tr>
<td>POWER_UP_REG</td>
<td>1</td>
</tr>
<tr>
<td>POWER_DOWN_REG</td>
<td>1</td>
</tr>
<tr>
<td>PARAMETER_REG</td>
<td>1</td>
</tr>
<tr>
<td>REG_PRD</td>
<td>7</td>
</tr>
<tr>
<td>BASE_LAT</td>
<td>22</td>
</tr>
<tr>
<td>BASE_LONG</td>
<td>23</td>
</tr>
<tr>
<td>REG_DIST</td>
<td>11</td>
</tr>
<tr>
<td>SRCH_WIN_A</td>
<td>4</td>
</tr>
<tr>
<td>Field</td>
<td>Length (bits)</td>
</tr>
<tr>
<td>------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>SRCH_WIN_N</td>
<td>4</td>
</tr>
<tr>
<td>SRCH_WIN_R</td>
<td>4</td>
</tr>
<tr>
<td>NGHBR_MAX_AGE</td>
<td>4</td>
</tr>
<tr>
<td>PWR_REP_THRESH</td>
<td>5</td>
</tr>
<tr>
<td>PWR_REP_FRAMES</td>
<td>4</td>
</tr>
<tr>
<td>PWR_THRESH_ENABLE</td>
<td>1</td>
</tr>
<tr>
<td>PWR_PERIOD_ENABLE</td>
<td>1</td>
</tr>
<tr>
<td>PWR_REP_DELAY</td>
<td>5</td>
</tr>
<tr>
<td>RESCAN</td>
<td>1</td>
</tr>
<tr>
<td>T_ADD</td>
<td>6</td>
</tr>
<tr>
<td>T_DROP</td>
<td>6</td>
</tr>
<tr>
<td>T_COMP</td>
<td>4</td>
</tr>
<tr>
<td>T_TDROP</td>
<td>4</td>
</tr>
<tr>
<td>EXT_SYS_PARAMETER</td>
<td>1</td>
</tr>
<tr>
<td>EXT_NGHBR_LIST</td>
<td>1</td>
</tr>
<tr>
<td>GEN_NGHBR_LIST</td>
<td>1</td>
</tr>
<tr>
<td>GLOBAL_REDIRECT</td>
<td>1</td>
</tr>
<tr>
<td>PRI_NGHBR_LIST</td>
<td>1</td>
</tr>
<tr>
<td>USER_ZONE_ID</td>
<td>1</td>
</tr>
<tr>
<td>EXT_GLOBAL_REDIRECT</td>
<td>1</td>
</tr>
<tr>
<td>EXT_CHAN_LIST</td>
<td>1</td>
</tr>
</tbody>
</table>

**PILOT_PN** - Pilot PN sequence offset index. The base station shall set this field to the pilot PN sequence offset for this base station, in units of 64 PN chips.

**CONFIG_MSG_SEQ** - Configuration message sequence number. The base station shall set this field to CONFIG_SEQ (see 3.6.2.2).

**SID** - System identification. The base station shall set this field to the system identification number for this system (see 2.6.5.2).

**NID** - Network identification. This field serves as a sub-identifier of a system as defined by the owner of the SID.
The base station shall set this field to the network identification number for this network (see 2.6.5.2).

**REG_ZONE** - Registration zone.

The base station shall set this field to its registration zone number (see 2.6.5.1.5).

**TOTAL_ZONES** - Number of registration zones to be retained.

The base station shall set this field to the number of registration zones the mobile station is to retain for purposes of zone-based registration (see 2.6.5.1.5).

If zone-based registration is to be disabled, the base station shall set this field to '000'.

**ZONE_TIMER** - Zone timer length.

The base station shall set this field to the ZONE_TIMER value shown in Table 3.7.2.3.2.1-1 corresponding to the length of the zone registration timer to be used by mobile stations.

<table>
<thead>
<tr>
<th>ZONE_TIMER Value (binary)</th>
<th>Timer Length (Minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>1</td>
</tr>
<tr>
<td>001</td>
<td>2</td>
</tr>
<tr>
<td>010</td>
<td>5</td>
</tr>
<tr>
<td>011</td>
<td>10</td>
</tr>
<tr>
<td>100</td>
<td>20</td>
</tr>
<tr>
<td>101</td>
<td>30</td>
</tr>
<tr>
<td>110</td>
<td>45</td>
</tr>
<tr>
<td>111</td>
<td>60</td>
</tr>
</tbody>
</table>

**MULT_SIDS** - Multiple SID storage indicator.

If mobile stations may store entries of SID_NID_LIST containing different SIDs, the base station shall set this field to ‘1’; otherwise the base station shall set this field to ‘0’.

**MULT_NIDS** - Multiple NID storage indicator.

If mobile stations may store multiple entries of SID_NID_LIST having the same SID (with different NIDs), the base station shall set this field to ‘1’; otherwise the base station shall set this field to ‘0’.

**BASE_ID** - Base station identification.
The base station shall set this field to its identification number.

BASE_CLASS - Base station class.

The base station shall set this field to the value shown in Table 3.7.2.3.2.1-2 corresponding to the class of service provided by this base station as follows:

For Band Class 1 and 4, the base station shall set this field to ‘0001’; otherwise, the base station shall set this field to ‘0000’.

<table>
<thead>
<tr>
<th>Value (binary)</th>
<th>Class of Service Provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000</td>
<td>Public Macrocellular System</td>
</tr>
<tr>
<td>0001</td>
<td>Public PCS System</td>
</tr>
<tr>
<td></td>
<td>All other values are reserved.</td>
</tr>
</tbody>
</table>

PAGE_CHAN - Number of Paging Channels.

The base station shall set this field to the number of Paging Channels on this CDMA Channel. The base station shall not set this field to ‘000’.

MAX_SLOT_CYCLE_INDEX - Maximum slot cycle index.

The base station shall set this field to the SLOT_CYCLE_INDEX value corresponding to the maximum slot cycle length permitted (see 2.6.2.1.1).

HOME_REG - Home registration indicator.

If mobile stations that are not roaming (see 2.6.5.3) and have MOB_TERM_HOME equal to ‘1’ are to be enabled for autonomous registrations, the base station shall set this field to ‘1’. If such mobile stations are not to be enabled for autonomous registration, the base station shall set this field to ‘0’.

FOR_SID_REG - SID roamer registration indicator.

If mobile stations that are foreign SID roammers (see 2.6.5.3) and have MOB_TERM_FOR_SID equal to ‘1’ are to be enabled for autonomous registration, the base station shall set this field to ‘1’. If such mobile stations are not to be enabled for autonomous registration, the base station shall set this field to ‘0’.

FOR_NID_REG - NID roamer registration indicator.
If mobile stations that are foreign NID roamers (see 2.6.5.3) and have MOBTERM FOR NID equal to ‘1’ are to be enabled for autonomous registration, the base station shall set this field to ‘1’. If such mobile stations are not to be enabled for autonomous registration, the base station shall set this field to ‘0’.

**POWER_UP_REG** - Power-up registration indicator.

If mobile stations enabled for autonomous registration are to register immediately after powering on and receiving the system overhead messages, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**POWER_DOWN_REG** - Power-down registration indicator.

If mobile stations enabled for autonomous registration are to register immediately before powering down, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**PARAMETER_REG** - Parameter-change registration indicator.

If mobile stations are to register on parameter change events as specified in 2.6.5.1.6, the base station shall set this field to ‘1’. If not, the base station shall set this field to ‘0’.

**REG_PRD** - Registration period.

If mobile stations are not to perform timer-based registration, the base station shall set this field to ‘0000000’. If mobile stations are to perform timer-based registration, the base station shall set this field to the value in the range 29 to 85 inclusive, such that the desired timer value is

\[ \lfloor \frac{\text{REG_PRD}}{4} \rfloor \times 0.08 \text{ seconds.} \]

**BASE_LAT** - Base station latitude.

The base station shall set this field to its latitude in units of 0.25 second, expressed as a two's complement signed number with positive numbers signifying North latitudes. The base station shall set this field to a value in the range -1296000 to 1296000 inclusive (corresponding to a range of -90° to +90°).

**BASE_LONG** - Base station longitude.

The base station shall set this field to its longitude in units of 0.25 second, expressed as a two's complement signed number with positive numbers signifying East longitude. The base station shall set this field to a value in the range -2592000 to 2592000 inclusive (corresponding to a range of -180° to +180°).

**REG_DIST** - Registration distance.

If mobile stations are to perform distance-based registration, the base station shall set this field to the non-zero “distance” beyond which the mobile station is to re-register (see 2.6.5.1.4). If mobile stations are not to perform distance-based registration, the base station shall set this field to 0.
SRCH_WIN_A - Search window size for the Active Set and Candidate Set.

The base station shall set this field to the value shown in Table 2.6.6.2.1-1 corresponding to the search window size to be used by mobile stations for the Active Set and Candidate Set.

SRCH_WIN_N - Search window size for the Neighbor Set.

The base station shall set this field to the value shown in Table 2.6.6.2.1-1 corresponding to the search window size to be used by mobile stations for the Neighbor Set.

SRCH_WIN_R - Search window size for the Remaining Set.

The base station shall set this field to the value shown in Table 2.6.6.2.1-1 corresponding to the search window size to be used by mobile stations for the Remaining Set.

NGHBR_MAX_AGE - Neighbor Set maximum AGE.

The base station shall set this field to the maximum AGE value beyond which mobile stations are to drop members from the Neighbor Set (see 2.6.6.2.6.3).

PWR_REP_THRESH - Power control reporting threshold.

The base station shall set this field to the number of bad frames (see [2]) to be received in a measurement period on the channel which carries the Power Control Subchannel before mobile stations are to generate a Power Measurement Report Message (see 2.6.4.1.1). If the base station sets PWR_THRESH_ENABLE to ‘1’, it shall not set this field to ‘00000’.

PWR_REP_FRAMES - Power control reporting frame count.

The base station shall set this field to the value such that the number given by

\[ \lceil \frac{2\times PWR_REP_FRAMES}{2} \times 5 \rceil \]

frames

is the number of frames over which mobile stations are to count frame errors.

PWR_THRESH-_ENABLE - Threshold report mode indicator.

If mobile stations are to generate threshold Power Measurement Report Messages, the base station shall set this field to ‘1’. If mobile stations are not to generate threshold Power Measurement Report Messages, the base station shall set this field to ‘0’.

PWR_PERIOD-_ENABLE - Periodic report mode indicator.

If mobile stations are to generate periodic Power Measurement Report Messages, the base station shall set this field to ‘1’. If mobile stations are not to generate periodic Power Measurement Report Messages, the base station shall set this field to ‘0’.

PWR_REP_DELAY - Power report delay.
The period that mobile stations wait following a Power Measurement Report Message before restarting frame counting for power control purposes.

The base station shall set this field to the power report delay value, in units of 4 frames (see 2.6.4.1.1).

RESCAN - Rescan indicator.

If mobile stations are to re-initialize and re-acquire the system upon receiving this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

T_ADD - Pilot detection threshold.

This value is used by the mobile station to trigger the transfer of a pilot from the Neighbor Set or Remaining Set to the Candidate Set (see 2.6.6.2) and to trigger the sending of the Pilot Strength Measurement Message or Extended Pilot Strength Measurement Message initiating the handoff process (see 2.6.6.2.5.2).

The base station shall set this field to the pilot detection threshold, expressed as an unsigned binary number equal to \( \lceil -2 \times 10 \times \log_{10} \frac{E_c}{I_o} \rceil \).

T_DROP - Pilot drop threshold.

This value is used by mobile stations to start a handoff drop timer for pilots in the Active Set and the Candidate Set (see 2.6.6.2.3).

The base station shall set this field to the pilot drop threshold, expressed as an unsigned binary number equal to \( \lceil -2 \times 10 \times \log_{10} \frac{E_c}{I_o} \rceil \).

T_COMP - Active Set versus Candidate Set comparison threshold.

Mobile stations transmit a Pilot Strength Measurement Message or an Extended Pilot Strength Measurement Message when the strength of a pilot in the Candidate Set exceeds that of a pilot in the Active Set by this margin (see 2.6.6.2.5.2).

The base station shall set this field to the threshold Candidate Set pilot to Active Set pilot ratio, in units of 0.5 dB.

T_TDROP - Drop timer value.

Timer value after which an action is taken by mobile stations for a pilot that is a member of the Active Set or Candidate Set, and whose strength has not become greater than T_DROP. If the pilot is a member of the Active Set, a Pilot Strength Measurement Message or an Extended Pilot Strength Measurement Message is issued. If the pilot is a member of the Candidate Set, it will be moved to the Neighbor Set.

The base station shall set this field to the T_TDROP value shown in Table 2.6.6.2.3-1 corresponding to the drop timer value to be used by mobile stations.

EXT_SYS_PARAMETER - Extended System Parameters Message indicator.
The base station shall set this field to ‘1’.

**EXT_NGHBRLIST** - *Extended Neighbor List Message* indicator.

The base station sets this field to ‘1’ when it sends the *Extended Neighbor List Message* on the Paging Channel; otherwise the base station sets this field to ‘0’.

If the base station is operating in Band Class 1, Band Class 3, or Band Class 4 with MIN_P_REV less than sixseven, it shall set this field to ‘1’. If the base station is operating in Band Class 0, it shall set this field to ‘0’.

**GEN_NGHBRLIST** - *General Neighbor List Message* indicator.

If the base station is sending the *General Neighbor List Message* on the Paging Channel, it shall set this field to ‘1’; otherwise, it shall set this field to ‘0’.

If the base station is operating in Band Class 1, Band Class 3, or Band Class 4 with MIN_P_REV greater than or equal to sixseven, and if EXT_NGHBRLIST is set to ‘0’, the base station shall set this field to ‘1’.

If the base station is operating in Band Class 0 with MIN_P_REV greater than or equal to seven and if the Neighbor List Message is not sent, the base station shall set this field to ‘1’.

If the base station is operating in Band Class 2, Band Class 5, Band Class 6, Band Class 7, Band Class 8, or Band Class 10, and if EXT_NGHBRLIST is set to ‘0’, the base station shall set this field to ‘1’.

**GLOBAL_REDIRECT** - *Global Service Redirection Message* indicator.

If the base station is sending the *Global Service Redirection Message* on the Paging Channel, it shall set this field to ‘1’; otherwise, it shall set this field to ‘0’.

**PRI_NGHBRLIST** - *Private Neighbor List Message* indicator.

If the base station is sending the *Private Neighbor List Message* on the Paging Channel, it shall set this field to ‘1’; otherwise, it shall set this field to ‘0’.

**USER_ZONE_ID** - *User Zone Identification Message* indicator.

If the base station is sending the *User Zone Identification Message* on the Paging Channel, it shall set this field to ‘1’; otherwise, it shall set this field to ‘0’.

**EXT_GLOBAL_REDIRECT** - Extended *Global Service Redirection Message* indicator.

If the base station is sending the Extended *Global Service Redirection Message* on the Paging Channel, it shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**EXT_CHANLIST** - Extended CDMA Channel List Message indicator.
The base station shall set this field to ‘1’, if the Extended Channel List Message is sent on the Paging Channel, otherwise, it shall set this field to ‘0’.
3.7.2.3.2.2 Access Parameters Message

MSG_TAG: APM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>ACC_MSG_SEQ</td>
<td>6</td>
</tr>
<tr>
<td>ACC_CHAN</td>
<td>5</td>
</tr>
<tr>
<td>NOM_PWR</td>
<td>4</td>
</tr>
<tr>
<td>INIT_PWR</td>
<td>5</td>
</tr>
<tr>
<td>PWR_STEP</td>
<td>3</td>
</tr>
<tr>
<td>NUM_STEP</td>
<td>4</td>
</tr>
<tr>
<td>MAX_CAP_SZ</td>
<td>3</td>
</tr>
<tr>
<td>PAM_SZ</td>
<td>4</td>
</tr>
<tr>
<td>PSIST(0-9)</td>
<td>6</td>
</tr>
<tr>
<td>PSIST(10)</td>
<td>3</td>
</tr>
<tr>
<td>PSIST(11)</td>
<td>3</td>
</tr>
<tr>
<td>PSIST(12)</td>
<td>3</td>
</tr>
<tr>
<td>PSIST(13)</td>
<td>3</td>
</tr>
<tr>
<td>PSIST(14)</td>
<td>3</td>
</tr>
<tr>
<td>PSIST(15)</td>
<td>3</td>
</tr>
<tr>
<td>MSG_PSIST</td>
<td>3</td>
</tr>
<tr>
<td>REG_PSIST</td>
<td>3</td>
</tr>
<tr>
<td>PROBE_PN_RAN</td>
<td>4</td>
</tr>
<tr>
<td>ACC_TMO</td>
<td>4</td>
</tr>
<tr>
<td>PROBE_BKOFF</td>
<td>4</td>
</tr>
<tr>
<td>BKOFF</td>
<td>4</td>
</tr>
</tbody>
</table>

(continues on next page)
<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAX_REQ_SEQ</td>
<td>4</td>
</tr>
<tr>
<td>MAX_RSP_SEQ</td>
<td>4</td>
</tr>
<tr>
<td>AUTH</td>
<td>2</td>
</tr>
<tr>
<td>RAND</td>
<td>0 or 32</td>
</tr>
<tr>
<td>NOM_PWR_EXT</td>
<td>1</td>
</tr>
<tr>
<td>PSIST_EMG_INCL</td>
<td>1</td>
</tr>
<tr>
<td>PSIST_EMG</td>
<td>0 or 3</td>
</tr>
<tr>
<td>ACCT_INCL</td>
<td>1</td>
</tr>
<tr>
<td>ACCT_INCL_EMG</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ACCT_AOC_BITMAP_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ACCT_SO_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>NUM_ACCT_SO</td>
<td>0 or 4</td>
</tr>
</tbody>
</table>

If ACCT_SO_INCL is equal to ‘1’, NUM_ACCT_SO + 1 occurrences of the following variable-field record:

| ACCT_AOC_BITMAP1      | 0 or 5        |
| ACCT_SO              | 16            |

| ACCT_SO_GRP_INCL      | 0 or 1        |
| NUM_ACCT_SO_GRP       | 0 or 3        |

If ACCT_SO_GRP_INCL is equal to ‘1’, NUM_ACCT_SO_GRP + 1 occurrences of the following variable-field record:

| ACCT_AOC_BITMAP2      | 0 or 5        |
| ACCT_SO_GRP           | 5             |

PILOT_PN - Pilot PN sequence offset index.

ACC_MSG_SEQ - Access parameters message sequence number.

ACC_CHAN - Number of Access Channels.
The base station shall set this field to one less than the number of Access Channels associated with this Paging Channel.

**NOM_PWR** - Nominal transmit power offset.

The base station shall set this field to the correction factor to be used by mobile stations in the open loop power estimate, expressed as a two's complement value in units of 1 dB (see [2]).

**INIT_PWR** - Initial power offset for access.

The base station shall set this field to the correction factor to be used by mobile stations in the open loop power estimate for the initial transmission on an Access Channel, expressed as a two's complement value in units of 1 dB (see [2]).

**PWR_STEP** - Power increment.

The base station shall set this field to the value by which mobile stations are to increase their transmit power between successive access probes in an access probe sequence, in units of 1 dB.

**NUM_STEP** - Number of access probes.

The base station shall set this field to one less than the maximum number of access probes mobile stations are to transmit in a single access probe sequence.

**MAX_CAP_SZ** - Maximum Access Channel message capsule size.

The base station shall set this field to the value in the range 0 to 7, three less than the maximum number of Access Channel frames in an Access Channel message capsule.

**PAM_SZ** - Access Channel preamble length.

The base station shall set this field to one less than the number of Access Channel frames that mobile stations are to transmit in each Access Channel preamble.

**PSIST(0-9)** - Persistence value for access overload classes 0 through 9.

If mobile stations in access overload classes 0 through 9 are permitted to transmit requests on the Access Channel, the base station shall set this field to the persistence value to be used. If such mobile stations are not permitted to transmit requests on the Access Channel, the base station shall set this field to ‘111111’.

**PSIST(10)** - Persistence value for access overload class 10 (test mobile stations).

If mobile stations in access overload class 10 are permitted to transmit requests on the Access Channel, the base station shall set this field to the persistence value to be used. If such mobile stations are not permitted to transmit requests on the Access Channel, the base station shall set this field to ‘111’.
PSIST(11) - Persistence value for access overload class 11 (emergency mobile stations).

If mobile stations in access overload class 11 are permitted to transmit requests on the Access Channel, the base station shall set this field to the persistence value to be used. If such mobile stations are not permitted to transmit requests on the Access Channel, the base station shall set this field to ‘111’.

PSIST(12) - Persistence value for access overload class 12.

If mobile stations in access overload class 12 are permitted to transmit requests on the Access Channel, the base station shall set this field to the persistence value to be used. If such mobile stations are not permitted to transmit requests on the Access Channel, the base station shall set this field to ‘111’.

PSIST(13) - Persistence value for access overload class 13.

If mobile stations in access overload class 13 are permitted to transmit requests on the Access Channel, the base station shall set this field to the persistence value to be used. If such mobile stations are not permitted to transmit requests on the Access Channel, the base station shall set this field to ‘111’.

PSIST(14) - Persistence value for access overload class 14.

If mobile stations in access overload class 14 are permitted to transmit requests on the Access Channel, the base station shall set this field to the persistence value to be used. If such mobile stations are not permitted to transmit requests on the Access Channel, the base station shall set this field to ‘111’.

PSIST(15) - Persistence value for access overload class 15.

If mobile stations in access overload class 15 are permitted to transmit requests on the Access Channel, the base station shall set this field to the persistence value to be used. If such mobile stations are not permitted to transmit requests on the Access Channel, the base station shall set this field to ‘111’.

MSG_PSIST - Persistence modifier for Access Channel attempts for message transmissions.

A mobile station multiplies its transmission probability by $2^{-\text{MSG\_PSIST}}$ for such attempts.

The base station shall set this field to the persistence modifier for Access Channel attempts for message transmissions.

REG_PSIST - Persistence modifier for Access Channel attempts for registrations which are not responses to the *Registration Request Order*.

A mobile station multiplies its transmission probability by $2^{-\text{REG\_PSIST}}$ for such attempts.

The base station shall set this field to the persistence modifier for Access Channel attempts for registrations which are not responses to the *Registration Request Order*. 

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PROBE_PN_RAN - Time randomization for Access Channel probes.
A mobile station delays its transmission from System Time by
RN PN chips, where RN is a number determined by hashing
between 0 and $2^{\text{PROBE_PN_RAN}} - 1$ PN chips.
The base station shall set this field to the value in the range 0
to 9 inclusive such that the time randomization range is
$2^{\text{PROBE_PN_RAN}} - 1$ PN chips.

ACC_TMO - Acknowledgment timeout.
The base station shall set this field to two less than the length
of time mobile stations are to wait after the end of an Access
Channel transmission before determining that the base
station did not receive the transmission, in units of 80 ms.

PROBE_BKOFF - Access Channel probe backoff range.
The base station shall set this field to one less than the
maximum number of slots mobile stations are to delay due to
random backoff between consecutive access probes.

BKOFF - Access Channel probe sequence backoff range.
The base station shall set this field to one less than the
maximum number of slots mobile stations are to delay due to
random backoff between successive access probe sequences
and before the first access probe sequence of a response
access.

MAX_REQ_SEQ - Maximum number of access probe sequences for an Access
Channel request.
The base station shall set this field to the maximum number
of access probe sequences mobile stations are to transmit for
an Access Channel request. The base station shall set this
field to a value greater than 0.

MAX_RSP_SEQ - Maximum number of access probe sequences for an Access
Channel response.
The base station shall set this field to the maximum number
of access probe sequences mobile stations are to transmit for
an Access Channel response. The base station shall set this
field to a value greater than 0.

AUTH - Authentication mode.
If mobile stations are to include standard authentication data
in Access Channel messages, the base station shall set this
field to '01'. If mobile stations are not to include
authentication data in Access Channel messages, the base
station shall set this field to '00'. All other values are
reserved.

RAND - Random challenge value.
If the AUTH field is set to '01', the base station shall set this field to the random challenge value to be used by mobile stations for authentication. If the AUTH field is set to any other value, the base station shall omit this field.

NOM_PWR_EXT - Extended nominal transmit power.

If the base station is operating in Band Class 0 or Band Class 3, it shall set this field to '0'.

If the base station is operating in a band class other than Band Class 0 or Band Class 3, otherwise, it shall set this field as follows:

If the correction factor to be used by mobile stations in the open loop power estimate is between -24 dB and -9 dB inclusive, the base station shall set this field to '1'; otherwise (the correction factor is in the range -8 dB to 7 dB inclusive), the base station shall set this field to '0'.

PSIST_EMG_INCL - Emergency persistence included indicator.

If PSIST_EMG is included in this message, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'. The base station shall not include PSIST_EMG in this message if the base station supports the Enhanced Access Channel.

If the base station does not support Common Channel operation and if the base station includes PSIST_EMG, which is applicable to mobile stations with MOB_P_REV equal to or greater than 7, the base station shall set this field to '1'.

PSIST_EMG - Persistence value for emergency call for access overload classes 0 through 9.

If PSIST_EMG_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

If a mobile station in access overload classes 0 through 9 is permitted to transmit emergency requests on the Access Channel, the base station shall set this field to the persistence value to be used for the emergency calls. If such a mobile station is not permitted to transmit emergency requests on the Access Channel, the base station shall set this field to '111'.

ACCT_INCL - Access Control based on Call Type (ACCT) information included indicator.

If the base station enables ACCT for at least one service option, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

If the base station sets this field to '1', then the base station shall also set at least one of ACCT_SO_INCL or ACCT_SO_GRP_INCL to ‘1’.
ACCT_INCL_EMG - Access Control based on Call Type (ACCT) includes emergency calls indicator.

If ACCT_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to ‘0’ if the mobile station is not to apply ACCT to a call that is recognized by the mobile station to be an emergency call; otherwise, the base station shall set this field to ‘1’.

ACCT_AOC

BITMAP_INCL - Access Control based on Call Type (ACCT) access overload class bitmap included indicator.

If ACCT_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to ‘0’ if all mobile stations are to apply ACCT regardless of their access overload classes; otherwise, the base station shall set this field to ‘1’ to indicate that the mobile station is to apply ACCT according to its access overload class.

ACCT_SO_INCL - Access Control based on Call Type (ACCT) service option included indicator.

If ACCT_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to ‘1’ if at least one occurrence of the ACCT_SO field is included in this message; otherwise, the base station shall set this field to ‘0’.

NUM_ACCT_SO - Number of service options for Access Control based on Call Type (ACCT).

If ACCT_SO_INCL is not included, or is included and set to ‘0’, then the base station shall omit this field; otherwise, the base station shall include this field and set it to one less than the number of occurrences of the ACCT_SO field included in this message.

If ACCT_SO_INCL is included and set to ‘1’, then the base station shall include NUM_ACCT_SO + 1 occurrences of the following variable-field record:

ACCT_AOC_BITMAP1 - Access Control based on Call Type (ACCT) access overload class bitmap.

If ACCT_AOC_BITMAP_INCL is set to ‘0’, then the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

This field consists of the subfields defined in Table 3.7.2.3.2.2-1.
Table 3.7.2.3.2.2-1. ACCT access overload class bitmap subfields.

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
<th>Subfield Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCOLC_0_1</td>
<td>1</td>
<td>Access overload classes 0 and 1</td>
</tr>
<tr>
<td>ACCOLC_2_3</td>
<td>1</td>
<td>Access overload classes 2 and 3</td>
</tr>
<tr>
<td>ACCOLC_4_5</td>
<td>1</td>
<td>Access overload classes 4 and 5</td>
</tr>
<tr>
<td>ACCOLC_6_7</td>
<td>1</td>
<td>Access overload classes 6 and 7</td>
</tr>
<tr>
<td>ACCOLC_8_9</td>
<td>1</td>
<td>Access overload classes 8 and 9</td>
</tr>
</tbody>
</table>

The base station shall set a subfield to ‘1’ to indicate that mobile stations having the corresponding access overload class are not permitted to perform access attempts using the associated service option ACCT_SO; otherwise, the base station shall set the subfield to ‘0’.

ACCT_SO - Access Control based on Call Type (ACCT) service option number.

The base station shall set this field to the value of the service option number (as specified in [30]) that has ACCT enabled.

ACCT_SO_GRP_INCL - Access Control based on Call Type (ACCT) service option group included indicator.

If ACCT_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to ‘1’ if at least one occurrence of the ACCT_SO_GRP field is included in this message; otherwise, the base station shall set this field to ‘0’.

NUM_ACCT_SO_GRP - Number of service option groups for Access Control based on Call Type (ACCT).

If ACCT_SO_GRP_INCL is not included, or is included and set to ‘0’, then the base station shall omit this field; otherwise, the base station shall include this field and set it to one less than the number of occurrences of the ACCT_SO_GRP field included in this message.

If ACCT_SO_GRP_INCL is included and set to ‘1’, then the base station shall include NUM_ACCT_SO_GRP + 1 occurrences of the following variable-field record:

ACCT_AOC_BITMAP2 - Access Control based on Call Type (ACCT) access overload class bitmap.

If ACCT_AOC_BITMAP_INCL is set to ‘0’, then the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:
This field consists of the subfields defined in Table 3.7.2.3.2.2-1. The base station shall set a subfield to ‘1’ to indicate that mobile stations having the corresponding access overload class are not permitted to perform access attempts using a service option specified by the associated ACCT_SO_GRP field; otherwise, the base station shall set the subfield to ‘0’.

ACCT_SO_GRP - Access Control based on Call Type (ACCT) service option group number.

The base station shall set this field to the value of the service option group number (as specified in [30]) whose members all have ACCT enabled.
3.7.2.3.2.3 Neighbor List Message

MSG_TAG: NLM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>CONFIG_MSG_SEQ</td>
<td>6</td>
</tr>
<tr>
<td>PILOT_INC</td>
<td>4</td>
</tr>
</tbody>
</table>

Zero or more occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGHBR_CONFIG</td>
<td>3</td>
</tr>
<tr>
<td>NGHBR_PN</td>
<td>9</td>
</tr>
</tbody>
</table>

**PILOT_PN** - Pilot PN sequence offset index.

The base station shall set this field to the pilot PN sequence offset for this base station, in units of 64 PN chips.

**CONFIG_MSG_SEQ** - Configuration message sequence number.

The base station shall set this field to CONFIG_SEQ (see 3.6.2.2).

**PILOT_INC** - Pilot PN sequence offset index increment.

A mobile station searches for Remaining Set pilots at pilot PN sequence index values that are multiples of this value.

The base station shall set this field to the pilot PN sequence increment, in units of 64 PN chips, that mobile stations are to use for searching the Remaining Set. The base station should set this field to the largest increment such that the pilot PN sequence offsets of all its neighbor base stations are integer multiples of that increment.

The base station shall set this field to a value in the range 1 to 15 inclusive.

The base station shall include one occurrence of the following two-field record for each member mobile stations are to place in their Neighbor Sets. The base station may include zero or more occurrences of the following record.

**NGHBR_CONFIG** - Neighbor configuration.

The base station shall set this field to the value shown in Table 3.7.2.3.2.3-1 corresponding to the configuration of this neighbor.
<table>
<thead>
<tr>
<th>Value (binary)</th>
<th>Neighbor Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>The neighbor base station has the same number of frequencies having Paging Channels as the current base station. The neighbor base station has a CDMA frequency assignment that is same as this current CDMA frequency assignment and with the same number of Paging Channels. The position of the neighbor CDMA frequency assignment in the <em>CDMA Channel List Message</em> or the <em>Extended CDMA Channel List Message</em> transmitted by the neighbor base station is the same as the position of this current CDMA frequency assignment in the <em>CDMA Channel List Message</em> or the <em>Extended CDMA Channel List Message</em> transmitted by the current base station.</td>
</tr>
<tr>
<td>001</td>
<td>The neighbor base station has the same number of frequencies having Paging Channels as the current base station. The neighbor base station has a CDMA frequency assignment that is same as this current CDMA frequency assignment but possibly with a different number of Paging Channels. The position of the neighbor CDMA frequency assignment in the <em>CDMA Channel List Message</em> or the <em>Extended CDMA Channel List Message</em> transmitted by the neighbor base station is the same as the position of this current CDMA frequency assignment in the <em>CDMA Channel List Message</em> or the <em>Extended CDMA Channel List Message</em> transmitted by the current base station. This corresponding neighbor CDMA frequency assignment does have a Primary Paging Channel.</td>
</tr>
<tr>
<td>010</td>
<td>The neighbor base station may have a different number of frequencies having Paging Channels as the current base station. The neighbor base station has a Primary Paging Channel on the first CDMA Channel listed in the <em>CDMA Channel List Message</em> or the <em>Extended CDMA Channel List Message</em> transmitted by the current base station.</td>
</tr>
<tr>
<td>011</td>
<td>The neighbor base station configuration is unknown but the neighbor base station has a Pilot Channel on the CDMA frequency assignment that is same as this current CDMA frequency assignment.</td>
</tr>
<tr>
<td>------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>100-111</td>
<td>Reserved.</td>
</tr>
</tbody>
</table>

1. NGHBR_PN - Neighbor pilot PN sequence offset index.
2. The base station shall set this field to the pilot PN sequence offset for this neighbor, in units of 64 PN chips.
3.7.2.3.2.4 CDMA Channel List Message

MSG_TAG: CCLM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>CONFIG_MSG_SEQ</td>
<td>6</td>
</tr>
</tbody>
</table>

One or more occurrences of the following field:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDMA_FREQ</td>
<td>11</td>
</tr>
</tbody>
</table>

- **PILOT_PN** - Pilot PN sequence offset index.
  - The base station shall set this field to the pilot PN sequence offset for this base station, in units of 64 PN chips.

- **CONFIG_MSG_SEQ** - Configuration message sequence number.
  - The base station shall set this field to CONFIG_SEQ (see 3.6.2.2).

- **CDMA_FREQ** - CDMA Channel frequency assignment.
  - The order in which occurrences of this field are included gives the designations of the supported CDMA Channels as CDMA Channel 1 through CDMA Channel N.
  - The base station shall include one occurrence of this field for each CDMA Channel containing a Paging Channel that is supported by this base station. If the supported CDMA Channels are in the preferred set of CDMA frequency assignments (see [2]), the base station shall include their occurrences of this field first.
  - The base station shall set each occurrence of this field to the CDMA channel number corresponding to the CDMA frequency assignment for that CDMA Channel (see [2]).
1 3.7.2.3.2.5 Reserved
2 No text.
1 3.7.2.3.2.6 Reserved
2 No text.
3.7.2.3.2.7 Order Message

MSG_TAG: ORDM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORDER</td>
<td>6</td>
</tr>
<tr>
<td>ADD_RECORD_LEN</td>
<td>3</td>
</tr>
<tr>
<td>Order-specific fields (if used)</td>
<td>8 × ADD_RECORD_LEN</td>
</tr>
</tbody>
</table>

ORDER - Order code.

The base station shall set this field to the ORDER code (see 3.7.4) for this type of order.

ADD_RECORD_LEN - Additional record length.

The base station shall set this field to the number of octets in the order-specific fields included in this order record.

Order-specific fields - Order-specific fields.

The base station shall include order-specific fields as specified in 3.7.4 for this type of order.
3.7.2.3.2.8 Channel Assignment Message

MSG_TAG: CAM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSIGN_MODE</td>
<td>3</td>
</tr>
<tr>
<td>ADD_RECORD_LEN</td>
<td>3</td>
</tr>
<tr>
<td>Additional record fields</td>
<td>8 × ADD_RECORD_LEN</td>
</tr>
</tbody>
</table>

If ASSIGN_MODE = ‘000’, the additional record fields shall be:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREQ_INCL</td>
<td>1</td>
</tr>
<tr>
<td>CODE_CHAN</td>
<td>8</td>
</tr>
<tr>
<td>CDMA_FREQ</td>
<td>0 or 11</td>
</tr>
<tr>
<td>FRAME_OFFSET</td>
<td>4</td>
</tr>
<tr>
<td>ENCRYPT_MODE</td>
<td>2</td>
</tr>
<tr>
<td>D_SIG_ENCRYPT_MODE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>USE_NEW_KEY</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ENC_KEY_SIZE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>KEY_SEQ</td>
<td>0 or 4</td>
</tr>
<tr>
<td>C_SIG_ENCRYPT_MODE_INCL</td>
<td>1</td>
</tr>
<tr>
<td>C_SIG_ENCRYPT_MODE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 - 7 (as needed)</td>
</tr>
</tbody>
</table>

If ASSIGN_MODE = ‘001’, the additional record fields shall be:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESPOND</td>
<td>1</td>
</tr>
<tr>
<td>FREQ_INCL</td>
<td>1</td>
</tr>
<tr>
<td>CDMA_FREQ</td>
<td>0 or 11</td>
</tr>
</tbody>
</table>

One or more occurrences of the following field:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
</tbody>
</table>

RESERVED                      | 0 - 7 (as needed) |
If ASSIGN_MODE = ‘010’, the additional record fields shall be:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESPOND</td>
<td>1</td>
</tr>
<tr>
<td>ANALOG_SYS</td>
<td>1</td>
</tr>
<tr>
<td>USE_ANALOG_SYS</td>
<td>1</td>
</tr>
<tr>
<td>BAND_CLASS</td>
<td>5</td>
</tr>
</tbody>
</table>

If ASSIGN_MODE = ‘011’, the additional record fields shall be:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SID</td>
<td>15</td>
</tr>
<tr>
<td>VMAC</td>
<td>3</td>
</tr>
<tr>
<td>ANALOG_CHAN</td>
<td>11</td>
</tr>
<tr>
<td>SCC</td>
<td>2</td>
</tr>
<tr>
<td>MEM</td>
<td>1</td>
</tr>
<tr>
<td>AN_CHAN_TYPE</td>
<td>2</td>
</tr>
<tr>
<td>DSCC_MSB</td>
<td>1</td>
</tr>
<tr>
<td>BAND_CLASS</td>
<td>5</td>
</tr>
</tbody>
</table>
If ASSIGN_MODE = ‘100’, the additional record fields shall be:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREQ_INCL</td>
<td>1</td>
</tr>
<tr>
<td>RESERVED</td>
<td>3</td>
</tr>
<tr>
<td>BYPASS_ALERT_ANSWER</td>
<td>1</td>
</tr>
<tr>
<td>DEFAULT_CONFIG</td>
<td>3</td>
</tr>
<tr>
<td>GRANTED_MODE</td>
<td>2</td>
</tr>
<tr>
<td>CODE_CHAN</td>
<td>8</td>
</tr>
<tr>
<td>FRAME_OFFSET</td>
<td>4</td>
</tr>
<tr>
<td>ENCRYPT_MODE</td>
<td>2</td>
</tr>
<tr>
<td>BAND_CLASS</td>
<td>0 or 5</td>
</tr>
<tr>
<td>CDMA_FREQ</td>
<td>0 or 11</td>
</tr>
<tr>
<td>D_SIG_ENCRYPT_MODE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>USE_NEW_KEY</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ENC_KEY_SIZE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>KEY_SEQ</td>
<td>0 or 4</td>
</tr>
<tr>
<td>C_SIG_ENCRYPT_MODE_INCL</td>
<td>1</td>
</tr>
<tr>
<td>C_SIG_ENCRYPT_MODE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 - 7 (as needed)</td>
</tr>
</tbody>
</table>

If ASSIGN_MODE = ‘101’, the additional record fields shall be:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESPOND</td>
<td>1</td>
</tr>
<tr>
<td>FREQ_INCL</td>
<td>1</td>
</tr>
<tr>
<td>BAND_CLASS</td>
<td>0 or 5</td>
</tr>
<tr>
<td>CDMA_FREQ</td>
<td>0 or 11</td>
</tr>
</tbody>
</table>

One or more occurrences of the following field:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESERVED</td>
<td>0 - 7 (as needed)</td>
</tr>
</tbody>
</table>

ASSIGN_MODE - Assignment mode.
The base station shall set this field to the value shown in Table 3.7.2.3.2.8-1 corresponding to the assignment mode for this assignment.

<table>
<thead>
<tr>
<th>Value (binary)</th>
<th>Assignment Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>Traffic Channel Assignment (Band Class 0 only)</td>
</tr>
<tr>
<td>001</td>
<td>Paging Channel Assignment (Band Class 0 only)</td>
</tr>
<tr>
<td>010</td>
<td>Acquire Analog System</td>
</tr>
<tr>
<td>011</td>
<td>Analog Voice Channel Assignment</td>
</tr>
<tr>
<td>100</td>
<td>Extended Traffic Channel Assignment</td>
</tr>
<tr>
<td>101</td>
<td>Extended Paging Channel Assignment</td>
</tr>
</tbody>
</table>

All other values are reserved.

ADD_RECORD_LEN - Additional record length.

The base station shall set this field to the number of octets in the additional record fields included in this assignment record.

Additional record fields - Additional record fields.

The additional record fields are determined by the value of ASSIGN_MODE, as described below.

If the ASSIGN_MODE field is set to ‘000’, the base station shall include the following fields:

FREQ_INCL - Frequency included indicator.

If the CDMA_FREQ field is included in this assignment record, the base station shall set this bit to ‘1’. If the CDMA_FREQ field is not included in this assignment record, the base station shall set this bit to ‘0’.

CODE_CHAN - Code channel.

The base station shall set this field to the code channel index (see [2]) in the range 1 to 63 inclusive that the mobile station is to use on the Fundamental Channel of the Forward Traffic Channel.

CDMA_FREQ - Frequency assignment.
If the FREQ_INCL bit is set to ‘1’, the base station shall set this field to the CDMA Channel number corresponding to the CDMA frequency assignment for the CDMA Channel containing the Forward Traffic Channel the mobile station is to use. If the FREQ_INCL bit is set to ‘0’, the base station shall omit this field.

FRAME_OFFSET - Frame offset.

The Forward and Reverse Traffic Channel frames are delayed FRAME_OFFSET × 1.25 ms relative to system timing (see [2]).

The base station shall set this field to the Forward and Reverse Traffic Channel frame offset.

ENCRIPT_MODE - Message encryption mode.

The base station shall set this field to the ENCRYPT_MODE value shown in Table 3.7.2.3.2.8-2 corresponding to the encrypting mode that is to be used for signaling messages, as specified in 2.3.12.2.

<table>
<thead>
<tr>
<th>ENCRYPT_MODE Field (binary)</th>
<th>Encryption Mode Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Encryption disabled</td>
</tr>
<tr>
<td>01</td>
<td>Basic encryption of call control messages</td>
</tr>
<tr>
<td>10</td>
<td>Enhanced encryption of call control messages</td>
</tr>
<tr>
<td>11</td>
<td>Extended encryption of call control messages</td>
</tr>
</tbody>
</table>

D_SIG_ENCRYPT-MODE - General-Dedicated channel signaling encryption mode indicator.

If ENCRYPT_MODE is set to ‘11’, the base station shall include this field and shall set it to the_dedicated channel signaling message encryption mode, as shown in Table 3.7.4.5-1; otherwise the base station shall omit this field.

USE_NEW_KEY - Use new encryption key indication

If ENCRYPT_MODE is set to ‘10’ or ‘11’, the base station shall include this field; otherwise, the base station shall omit this field. If this field is included, the base station shall set this field to ‘0’ to indicate that the stored encryption key is to be used by the mobile station and to ‘1’ to indicate that the new encryption key is to be used by the mobile station.

ENC_KEY_SIZE - Encryption key size indication.
If ENCRYPT_MODE is set to ‘10’ or ‘11’, USE_NEW_KEY is included and is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and shall set it to the encryption key size, as shown in Table 3.7.4.5-2. Otherwise, the base station shall omit this field.

KEY_SEQ — Encryption key sequence number.

If USE_NEW_KEY is included and is set to ‘0’, the base station shall include this field; otherwise, the base station shall omit this field. If this field is included, the base station shall set it to the encryption key sequence number to be used by the mobile station.

C_SIG_ENCRYPT_MODE_INCL — Common channel signaling encryption mode included indicator.

If P_REV_IN_USE is less than seven, the base station shall set this field to ‘0’; otherwise, the base station shall set this field as follows:

If common channel signaling encryption information is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

C_SIG_ENCRYPT_MODE — Common channel signaling encryption mode indicator.

If C_SIG_ENCRYPT_MODE_INCL is set to ‘1’, the base station shall include this field and shall set it to the common channel signaling encryption mode, as shown in Table 3.7.4.5-1; otherwise, the base station shall omit this field.

RESERVED — Reserved bits.

The base station shall add reserved bits as needed in order to make the total length of the fields after the preceding ADD_RECORD_LEN field through this RESERVED field equal to an integer number of octets. The base station shall set these bits to ‘0’.

If the ASSIGN_MODE field is set to ‘001’, the base station shall include the following fields:

RESPOND — Respond on new Access Channel indicator.

If the mobile station is to retransmit an *Origination Message* or *Page Response Message* after processing this channel assignment, the base station shall set this field to ‘1’. The base station may set this field to ‘0’ only in response to a *Page Response Message*. 

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FREQ_INCL  - Frequency included indicator.

If the CDMA_FREQ field is included in this assignment record, the base station shall set this bit to ‘1’. If the CDMA_FREQ field is not included in this assignment record, the base station shall set this bit to ‘0’.

CDMA_FREQ  - Frequency assignment.

If the FREQ_INCL bit is set to ‘1’, the base station shall set this field to the CDMA Channel number corresponding to the CDMA frequency assignment for the CDMA Channel containing the Paging Channel the mobile station is to use. If the FREQ_INCL bit is set to ‘0’, the base station shall omit this field.

PILOT_PN  - Pilot PN sequence offset index.

The base station shall include one occurrence of this field for each base station whose Paging Channel may be monitored by the mobile station. For each occurrence, the base station shall set this field to the pilot PN sequence offset for a base station, in units of 64 PN chips. The base station having this pilot PN sequence offset should support a Primary Paging Channel with the same Paging Channel rate as the current base station.

RESERVED  - Reserved bits.

The base station shall add reserved bits as needed in order to make the total length of the fields, after the preceding ADD_RECORD_LEN field through this RESERVED field, equal to an integer number of octets. The base station shall set these bits to ‘0’.

If the ASSIGN_MODE field is set to ‘010’, the base station shall include the following fields:

RESPOND  - Respond on analog control channel indicator.

If the mobile station is to retransmit an *Origination Message* or *Page Response Message* on the analog control channel (see [6]) after processing this channel assignment, the base station shall set this field to ‘1’. The base station may set this field to ‘0’ only in response to a *Page Response Message*.

ANALOG_SYS  - System indicator.

If USE_ANALOG_SYS is equal to ‘0’, the base station shall set this field to ‘0’. Otherwise, the base station shall set this field to ‘0’ if the mobile station is to use analog system A, or to ‘1’ if the mobile station is to use analog system B.

USE_ANALOG_SYS  - Use analog system indicator.

The base station shall set this field to ‘1’ to direct the mobile station to the analog system specified by ANALOG_SYS; otherwise, the base station shall set this field to ‘0’.

BAND_CLASS  - Band class.
The base station shall set this field according to values defined in [30].

If the ASSIGN_MODE field is set to '011', the base station shall include the following fields:

- **SID** - System identification of the analog system.
  
  The base station shall set this field to the system identification of the analog system supporting the assigned voice channel for this assignment (see [6]).

- **VMAC** - Voice mobile station attenuation code.
  
  The base station shall set this field to the mobile station power level associated with the assigned voice channel for this assignment (see [6]).

- **ANALOG_CHAN** - Voice channel number.
  
  The base station shall set this field to the voice channel number for this assignment (see [6]).

- **SCC** - SAT color code.
  
  The base station shall set this field to the supervisory audio tone color code associated with the assigned voice channel. If the assignment is to a narrow analog channel, the base station shall set this field to the two least significant bits of the DSCC.

- **MEM** - Message encryption mode indicator.
  
  If analog control message encryption is to be enabled on the assigned forward and reverse analog voice channels, the base station shall set this bit to '1'; otherwise, the base station shall set this bit to '0'.

- **AN_CHAN_TYPE** - Analog voice channel type.
  
  The base station shall set this field to the analog channel type as specified in Table 3.7.3.2.6-1. If the mobile station does not have narrow analog capability, the base station shall set this field to '00'.

- **DSCC_MSB** - Digital supervisory audio tone color code most significant bit.
  
  The base station shall set this field to '0' when directing handoff to a wide analog channel. The base station shall set this field to the most significant bit of the DSCC when directing handoff to a narrow analog channel.

- **BAND_CLASS** - Band class.
  
  The base station shall set this field according to values defined in [30].

If the ASSIGN_MODE field is set to ‘100’, the base station shall include the following fields:
FREQ_INCL - Frequency included indicator.
If the BAND_CLASS and CDMA_FREQ fields are included in this assignment record, the base station shall set this bit to ‘1’. If the BAND_CLASS and CDMA_FREQ fields are not included in this assignment record, the base station shall set this bit to ‘0’.

RESERVED - Reserved bits.
The base station shall set this field to ‘000’.

BYPASS_ALERT-_ANSWER - Bypass alert indicator.
If the MOB_P_REV of the current band class of the mobile station is less than or equal to three, the base station shall set this field to ‘0’; otherwise, the base station shall set this field as follows.
If the base station has received a Page Response Message that specifies a packet data service option, and the mobile station is to bypass the Waiting for Order Substate and the Waiting for Mobile Station Answer Substate, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

DEFAULT_CONFIG - Default Configuration.
If the GRANTED_MODE field is set to ‘00’, the base station shall set this field as specified in Table 3.7.2.3.2.8-3 to indicate an initial multiplex option and radio configuration for the Forward and Reverse Traffic Channels.
Table 3.7.2.3.2.8-3. Default Configuration

<table>
<thead>
<tr>
<th>Value (binary)</th>
<th>Default Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>Multiplex Option 1 and Radio Configuration 1 for both the Forward Traffic Channel and the Reverse Traffic Channel</td>
</tr>
<tr>
<td>001</td>
<td>Multiplex Option 2 and Radio Configuration 2 for both the Forward Traffic Channel and the Reverse Traffic Channel</td>
</tr>
<tr>
<td>010</td>
<td>Multiplex Option 1 and Radio Configuration 1 for the Forward Traffic channel; Multiplex Option 2 and Radio Configuration 2 for the Reverse Traffic channel</td>
</tr>
<tr>
<td>011</td>
<td>Multiplex Option 2 and Radio Configuration 2 for the Forward Traffic channel; Multiplex Option 1 and Radio Configuration 1 for the Reverse Traffic channel</td>
</tr>
</tbody>
</table>

All other values are reserved.

GRANTED_MODE - Granted mode.

The base station shall set this field to ‘00’ to indicate that the mobile station is to use an initial service configuration consisting of the multiplex option and radio configuration defined by the DEFAULT_CONFIG field for the Forward and Reverse Traffic Channels, and to indicate that service negotiation is to take place before the base station sends the first Service Connect Message.

The base station shall set this field to ‘01’ to indicate that the mobile station is to use an initial service configuration consisting of the default multiplex option and transmission rates corresponding to the service option requested by the mobile station either in the Origination Message or Page Response Message, and to indicate that service negotiation is to take place before the base station sends the first Service Connect Message.
The base station shall set this field to ‘10’ to indicate that the mobile station is to use an initial service configuration consisting of the default multiplex option and transmission rates corresponding to the service option requested by the mobile station either in the Origination Message or Page Response Message, and to indicate that service negotiation is not to take place before the base station sends the first Service Connect Message.

**CODE_CHAN** - Code channel.

The base station shall set this field to the code channel index (see [2]) in the range 1 to 63 inclusive that the mobile station is to use on the Fundamental Channel of the Forward Traffic Channel.

**FRAME_OFFSET** - Frame offset.

The Forward and Reverse Traffic Channel frames are delayed FRAME_OFFSET × 1.25 ms relative to system timing (see [2]).

The base station shall set this field to the Forward and Reverse Traffic Channel frame offset.

**ENCRYPT_MODE** - Message encryption mode.

The base station shall set this field to the ENCRYPT_MODE value shown in Table 3.7.2.3.2.8-2 corresponding to the encrypting mode that is to be used for signaling messages, as specified in 2.3.12.2.

**BAND_CLASS** - Band class.

If the FREQ_INCL bit is set to ‘1’, the base station shall set this field to the CDMA band class, as specified in [30], corresponding to the CDMA frequency assignment for the CDMA Channel containing the Forward Traffic Channel the mobile station is to use. If the FREQ_INCL bit is set to ‘0’, the base station shall omit this field.

**CDMA_FREQ** - Frequency assignment.

If the FREQ_INCL bit is set to ‘1’, the base station shall set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA frequency assignment for the CDMA Channel containing the Forward Traffic Channel the mobile station is to use. If the FREQ_INCL bit is set to ‘0’, the base station shall omit this field.

**D_SIG_ENCRYPT_MODE** - Dedicated channel signaling encryption mode indicator.

If ENCRYPT_MODE is set to ‘11’, the base station shall include this field and shall set it to the dedicated channel signaling encryption mode, as shown in Table 3.7.4.5-1; otherwise the base station shall omit this field.

**USE_NEW_KEY** - Use new encryption key indication.
If ENCRYPT_MODE is set to ‘10’ or ‘11’, the base station shall include this field; otherwise, the base station shall omit this field. If this field is included, the base station shall set this field to ‘0’ to indicate that the stored encryption key is to be used by the mobile station and to ‘1’ to indicate that the new encryption key is to be used by the mobile station.

ENC_KEY_SIZE - Encryption key size indication.

If ENCRYPT_MODE is set to ‘10’ or ‘11’ USE_NEW_KEY is included and is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and shall set it to the encryption key size, as shown in Table 3.7.4.5-2; otherwise, the base station shall omit this field.

KEY_SEQ - Encryption key sequence number.

If USE_NEW_KEY is included and is set to ‘0’, the base station shall include this field; otherwise, the base station shall omit this field. If this field is included, the base station shall set it to the encryption key sequence number to be used by the mobile station.

C_SIG_ENCRYPT_MODE_INCL - Common channel signaling encryption mode included indicator.

If P_REV_IN_USE is less than seven, the base station shall set this field to ‘0’; otherwise, the base station shall set this field as follows:

If common channel signaling encryption information is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

C_SIG_ENCRYPT_MODE - Common channel signaling encryption mode indicator.

If C_SIG_ENCRYPT_MODE_INCL is set to ‘1’, the base station shall include this field and shall set it to the common channel signaling encryption mode, as shown in Table 3.7.4.5-1; otherwise, the base station shall omit this field.

RESERVED - Reserved bits.

The base station shall add reserved bits as needed in order to make the total length of the fields after the preceding ADD_RECORD_LEN field through this RESERVED field equal to an integer number of octets. The base station shall set these bits to ‘0’.

If the ASSIGN_MODE field is set to ‘101’, the base station shall include the following fields:
RESPOND - Respond on new Access Channel indicator.

If the mobile station is to retransmit an *Origination Message* or *Page Response Message* after processing this channel assignment, the base station shall set this field to ‘1’. The base station may set this field to ‘0’ only in response to a *Page Response Message*.

FREQ_INCL - Frequency included indicator.

If the BAND_CLASS and CDMA_FREQ fields are included in this assignment record, the base station shall set this bit to ‘1’. If the BAND_CLASS and CDMA_FREQ fields are not included in this assignment record, the base station shall set this bit to ‘0’.

BAND_CLASS - Band class.

If the FREQ_INCL bit is set to ‘1’, the base station shall set this field to the CDMA band class, as specified in [30], corresponding to the CDMA frequency assignment for the CDMA Channel containing the Paging Channel the mobile station is to use. If the FREQ_INCL bit is set to ‘0’, the base station shall omit this field.

CDMA_FREQ - Frequency assignment.

If the FREQ_INCL bit is set to ‘1’, the base station shall set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA frequency assignment for the CDMA Channel containing the Paging Channel the mobile station is to use. If the FREQ_INCL bit is set to ‘0’, the base station shall omit this field.

PILOT_PN - Pilot PN sequence offset index.

The base station shall include one occurrence of this field for each base station whose Paging Channel may be monitored by the mobile station. For each occurrence, the base station shall set this field to the pilot PN sequence offset for a base station, in units of 64 PN chips. The base station having this pilot PN sequence offset should support a Primary Paging Channel with the same Paging Channel rate as the current base station.

RESERVED - Reserved bits.

The base station shall add reserved bits as needed in order to make the total length of the fields after the preceding ADD_RECORD_LEN field through this RESERVED field equal to an integer number of octets. The base station shall set these bits to ‘0’.
3.7.2.3.2.9 Data Burst Message

MSG_TAG: DBM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSG_NUMBER</td>
<td>8</td>
</tr>
<tr>
<td>BURST_TYPE</td>
<td>6</td>
</tr>
<tr>
<td>NUM_MSGS</td>
<td>8</td>
</tr>
<tr>
<td>NUM_FIELDS</td>
<td>8</td>
</tr>
</tbody>
</table>

NUM_FIELDS occurrences of the following field:

| CHARi         | 8             |

MSG_NUMBER - Message number.

The base station shall set this field to the number of this message within the data burst stream.

BURST_TYPE - Data burst type.

The base station shall set the value of this field for the type of this data burst as defined in [30]. If the mobile station sets this field equal to ‘111110’, it shall set the first two CHARi fields of this message equal to EXTENDED_BURST_TYPE_INTERNATIONAL as described in the definition of CHARi below. If the base station sets this field equal to ‘111111’, it shall set the first two CHARi fields of this message equal to the EXTENDED_BURST_TYPE as described in the definition of CHARi below.

NUM_MSGS - Number of messages in the data burst stream.

The base station shall set this field to the number of messages in this data burst stream.

NUM_FIELDS - Number of characters in this message.

The base station shall set this field to the number of occurrences of the CHARi field included in this message.

CHARi - Character.

The base station shall include NUM_FIELDS occurrences of this field. The base station shall set these fields to the corresponding octet of the data burst stream.
If the BURST_TYPE field of this message is equal to ‘111110’, the first two CHARi octets shall represent a 16 bit EXTENDED_BURST_TYPE_INTERNATIONAL field, which is encoded as shown below. The first ten bits of this field contain a binary mapping of the Mobile Country Code (MCC) associated with the national standards organization administering the use of the remaining octets of the message. Encoding of the MCC shall be as specified in 2.3.1.3. The remaining six bits of the EXTENDED_BURST_TYPE_INTERNATIONAL field shall specify the COUNTRY_BURST_TYPE. The base station shall set the value of the COUNTRY_BURST_TYPE according to the type of this data burst as defined in standards governed by the country where this data burst type is to be used.

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile Country Code</td>
<td>10</td>
</tr>
<tr>
<td>COUNTRY_BURST_TYPE</td>
<td>6</td>
</tr>
<tr>
<td>Remaining CHARi fields</td>
<td>(8 \times (NUM_FIELDS - 2))</td>
</tr>
</tbody>
</table>

If the BURST_TYPE field of this message is equal to ‘111111’, the first two CHARi octets shall represent a single, 16 bit, EXTENDED_BURST_TYPE field, as shown below. The base station shall set the value of the EXTENDED_BURST_TYPE according to the type of this data burst as defined in [30].

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTENDED_BURST_TYPE (first two CHARi fields)</td>
<td>16</td>
</tr>
<tr>
<td>Remaining CHARi fields</td>
<td>(8 \times (NUM_FIELDS - 2))</td>
</tr>
</tbody>
</table>
3.7.2.3.2.10 Authentication Challenge Message

MSG_TAG: AUCM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RANDU</td>
<td>24</td>
</tr>
</tbody>
</table>

RANDU - Random challenge data.

The base station shall set this field to the random challenge data (see 2.3.12.1.4).
3.7.2.3.2.11 SSD Update Message

MSG_TAG: SSDUM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RANDSSD</td>
<td>56</td>
</tr>
</tbody>
</table>

RANDSSD - Random data for the computation of SSD.

The base station shall set this field as specified in 2.3.12.1.5.
3.7.2.3.2.12 Feature Notification Message

**MSG_TAG:** FNM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELEASE</td>
<td>1</td>
</tr>
</tbody>
</table>

One or more occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>$8 \times \text{RECORD_LEN}$</td>
</tr>
</tbody>
</table>

**RELEASE** - Origination completion indicator.

The base station shall set this field to ‘1’ if this message is used to complete an origination request from the mobile station (see 2.6.3.5); otherwise, the base station shall set this field to ‘0’.

The base station shall include occurrences of the following three-field record as specified in 3.7.5.

**RECORD_TYPE** - Information record type.

The base station shall set this field as specified in 3.7.5.

**RECORD_LEN** - Information record length.

The base station shall set this field to the number of octets in the type-specific fields included in this record.

**Type-specific fields** - Type-specific fields.

The base station shall include type-specific fields as specified in 3.7.5.
3.7.2.3.2.13 Extended System Parameters Message

**MSG_TAG:** ESPM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>CONFIG_MSG_SEQ</td>
<td>6</td>
</tr>
<tr>
<td>DELETE_FOR_TMSI</td>
<td>1</td>
</tr>
<tr>
<td>USE_TMSI</td>
<td>1</td>
</tr>
<tr>
<td>PREF_MSID_TYPE</td>
<td>2</td>
</tr>
<tr>
<td>MCC</td>
<td>10</td>
</tr>
<tr>
<td>IMSI_11_12</td>
<td>7</td>
</tr>
<tr>
<td>TMSI_ZONE_LEN</td>
<td>4</td>
</tr>
<tr>
<td>TMSI_ZONE</td>
<td>$8 \times$ TMSI_ZONE_LEN</td>
</tr>
<tr>
<td>BCAST_INDEX</td>
<td>3</td>
</tr>
<tr>
<td>IMSI_T_SUPPORTED</td>
<td>1</td>
</tr>
<tr>
<td>P_REV</td>
<td>8</td>
</tr>
<tr>
<td>MIN_P_REV</td>
<td>8</td>
</tr>
<tr>
<td>SOFT_SLOPE</td>
<td>6</td>
</tr>
<tr>
<td>ADD_INTERCEPT</td>
<td>6</td>
</tr>
<tr>
<td>DROP_INTERCEPT</td>
<td>6</td>
</tr>
<tr>
<td>PACKET_ZONE_ID</td>
<td>8</td>
</tr>
<tr>
<td>MAX_NUM_ALT_SO</td>
<td>3</td>
</tr>
<tr>
<td>RESELECTINCLUDED</td>
<td>1</td>
</tr>
<tr>
<td>EC_THRESH</td>
<td>0 or 5</td>
</tr>
<tr>
<td>EC_IO_THRESH</td>
<td>0 or 5</td>
</tr>
<tr>
<td>PILOT_REPORT</td>
<td>1</td>
</tr>
<tr>
<td>NGHBR_SET_ENTRY_INFO</td>
<td>1</td>
</tr>
<tr>
<td>ACC_ENT_HO_ORDER</td>
<td>0 or 1</td>
</tr>
<tr>
<td>NGHBR_SET_ACCESS_INFO</td>
<td>1</td>
</tr>
<tr>
<td>ACCESS_HO</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ACCESS_HO_MSG_RSP</td>
<td>0 or 1</td>
</tr>
</tbody>
</table>

(continues on next page)
<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCESS_PROBE_HO</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ACC_HO_LIST_UPD</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ACC_PROBE_HO_OTHER_MSG</td>
<td>0 or 1</td>
</tr>
<tr>
<td>MAX_NUM_PROBE_HO</td>
<td>0 or 3</td>
</tr>
<tr>
<td>NGHBR_SET_SIZE</td>
<td>0 or 6</td>
</tr>
</tbody>
</table>

If NGHBR_SET_ENTRY_INFO = 1, NGHBR_SET_SIZE occurrences of the following field; otherwise, no occurrence of the following field:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCESS_ENTRY_HO</td>
<td>1</td>
</tr>
</tbody>
</table>

If NGHBR_SET_ACCESS_INFO = 1, NGHBR_SET_SIZE occurrences of the following field; otherwise, no occurrence of the following field:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCESS_HO_ALLOWED</td>
<td>1</td>
</tr>
<tr>
<td>BROADCAST_GPS_ASST</td>
<td>1</td>
</tr>
<tr>
<td>QPCH_SUPPORTED</td>
<td>1</td>
</tr>
<tr>
<td>NUM_QPCH</td>
<td>0 or 2</td>
</tr>
<tr>
<td>QPCH_RATE</td>
<td>0 or 1</td>
</tr>
<tr>
<td>QPCH_POWER_LEVEL_PAGE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>QPCH_CCI_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>QPCH_POWER_LEVEL_CONFIG</td>
<td>0 or 3</td>
</tr>
<tr>
<td>SDB_SUPPORTED</td>
<td>1</td>
</tr>
<tr>
<td>RLGAIN_TRAFFIC_PILOT</td>
<td>6</td>
</tr>
<tr>
<td>REV_PWR_CNTL_DELAY_INCL</td>
<td>1</td>
</tr>
<tr>
<td>REV_PWR_CNTL_DELAY</td>
<td>0 or 2</td>
</tr>
<tr>
<td>AUTO_MSG_SUPPORTED</td>
<td>1</td>
</tr>
<tr>
<td>AUTO_MSG_INTERVAL</td>
<td>0 or 3</td>
</tr>
</tbody>
</table>

(continues on next page)
### Field Length (bits)

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOB_QOS</td>
<td>1</td>
</tr>
<tr>
<td>ENC_SUPPORTED</td>
<td>1</td>
</tr>
<tr>
<td>SIG_ENCRYPT_SUP</td>
<td>0 or 8</td>
</tr>
<tr>
<td>UI_ENCRYPT_SUP</td>
<td>0 or 8</td>
</tr>
<tr>
<td>STORE_KEY</td>
<td>0 or 1</td>
</tr>
<tr>
<td>USE_SYNC_ID</td>
<td>1</td>
</tr>
<tr>
<td>CS_SUPPORTED</td>
<td>1</td>
</tr>
<tr>
<td>BCCH_SUPPORTED</td>
<td>1</td>
</tr>
<tr>
<td>MS_INIT_POS_LOC_SUP_IND</td>
<td>1</td>
</tr>
<tr>
<td>PILOT_INFO_REQ_SUPPORTED</td>
<td>1</td>
</tr>
</tbody>
</table>

#### PILOT_PN
- Pilot PN sequence offset index.
  - The base station shall set this field to the pilot PN sequence offset for this base station, in units of 64 PN chips.

#### CONFIG_MSG_SEQ
- Configuration message sequence number.
  - The base station shall set this field to CONFIG_SEQ (see 3.6.2.2).

#### DELETE_FOR_TMSI
- Delete foreign TMSI.
  - The base station shall set this field to ‘1’ to cause the mobile station to delete its TMSI if the TMSI was assigned in a different TMSI zone from that specified by the TMSI_ZONE field of this message; otherwise, the base station shall set this field to ‘0’.

#### USE_TMSI
- Use TMSI indicator.
  - The base station shall set this field to the value shown in Table 3.7.2.3.2.13-1 corresponding to the type of MSID that the mobile station is to use on the Access Channel.

#### PREF_MSID_TYPE
- Preferred Access Channel Mobile Station Identifier Type.
  - The base station shall set this field to the value shown in Table 3.7.2.3.2.13-1 corresponding to the type of MSID that the mobile station is to use on the Access Channel.
### Table 3.7.2.3.2.13-1. Preferred MSID Types

<table>
<thead>
<tr>
<th>USE_TMSI (binary)</th>
<th>USE_TMSI (binary)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>00</td>
<td>IMSI_S and ESN</td>
</tr>
<tr>
<td>0</td>
<td>10</td>
<td>IMSI</td>
</tr>
<tr>
<td>0</td>
<td>11</td>
<td>IMSI and ESN</td>
</tr>
<tr>
<td>1</td>
<td>10</td>
<td>TMSI (valid TMSI is assigned); IMSI (TMSI not assigned)</td>
</tr>
<tr>
<td>1</td>
<td>11</td>
<td>TMSI (valid TMSI is assigned); IMSI and ESN (TMSI not assigned)</td>
</tr>
</tbody>
</table>

All other values are reserved.

---

   - The base station shall set this field to the MCC (see 2.3.1).

2. **IMSI_11_12** - 11th and 12th digits of the IMSI.
   - The base station shall set this field to the IMSI_11_12 (see 2.3.1).

3. **TMSI_ZONE_LEN** - TMSI zone length.
   - The base station shall set this field to the number of octets included in the TMSI_ZONE. The base station shall set this field to a value in the range 1 to 8 inclusive.

4. **TMSI_ZONE** - TMSI zone.
   - The base station shall set this field to the TMSI zone number as specified in [27].

5. **BCAST_INDEX** - Broadcast slot cycle index.
   - To enable periodic broadcast paging, the base station shall set this field to an unsigned 3-bit number in the range 1-7, equal to the broadcast slot cycle index as defined in 2.6.2.1.1.3.3. To disable periodic broadcast paging, the base station shall set this field to ‘000’.

6. **IMSI_T_SUPPORTED** - IMSI_T support indicator.
   - The base station shall set this field to ‘1’ to indicate support for a 15-digit IMSI_T addressing according to [18].

7. **P_REV** - Protocol revision level.
   - The base station shall set this field to ‘00000111’.

8. **MIN_P_REV** - Minimum protocol revision level.
The base station sets this field to prevent mobile stations which cannot be supported by the base station from accessing the system.

The base station shall set this field to the minimum protocol revision level that it supports. For Band Class 0 operation, the base station should set this field to a value of ‘00000010’ or greater. For Band Class 1 or Band Class 4 operation, the base station should set this field to a value of ‘00000001’ or greater. For Band Class 3 operation, the base station should set this field to a value of ‘00000011’ or greater. For Band Class 2 or Band Class 5 operation, the base station should set this field to ‘00000001’ or greater. For Band Class 6, Band Class 7, Band Class 8, or Band Class 9 operation, the base station should set this field to ‘00000101’, or greater. For Band Class 10 operation, the base station should set this field to ‘00000110’, or greater.

SOFT_SLOPE - The slope in the inequality criterion for adding a pilot to the Active Set, or dropping a pilot from the Active Set (see 2.6.6.2.3 and 2.6.6.2.5.2).

The base station shall set this field as an unsigned binary number.

ADD_INTERCEPT - The intercept in the inequality criterion for adding a pilot to the Active Set (see 2.6.6.2.5.2).

The base station shall set this field as a two’s complement signed binary number, in units of dB.

DROP_INTERCEPT - The intercept in the inequality criterion for dropping a pilot from the Active Set (see 2.6.6.2.3).

The base station shall set this field as a two’s complement signed binary number, in units of dB.

PACKET_ZONE_ID - Packet data services zone identifier.

If the base station supports a packet data service zone, the base station shall set this field to its non-zero packet data services zone identifier.

If the base station does not support a packet data service zone, the base station shall set this field to ‘00000000’.

MAX_NUM_ALT_SO - Maximum number of alternative service options.

The base station shall set this field to the maximum number of alternative service option numbers that the mobile station is allowed to include in the Origination Message or the Page Response Message.

For mobile stations with MOB_P_REVs less than seven, the alternative service options are those service options defined in [30] and related to SERVICE_OPTION in Origination Message and the Page Response Message.
For mobile stations with MOB_P_REVs equal to or greater than seven, the alternative service options are those service options defined in [30] without service group number assigned and related to SERVICE_OPTION in Origination Message and the Page Response Message.

If the base station sets this field to a value greater than zero, in addition, the base station shall allow the mobile station with MOB_P_REVs equal to or greater than 7 to include

- a 4 or 8-bit service option bitmap in the Origination Message and the Page Response Message;
- alternate service option numbers, not limited to MAX_ALT_SO_NUM, in the Enhanced Origination Message.

**RESELECT_INCLUDED** - System reselection parameters included.

If the base station is including system reselection parameters, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**EC_THRESH** - Pilot power threshold.

If RESELECT_INCLUDED is set to ‘1’, the base station shall include the field EC_THRESH and set this field to:

\[
\left\lceil \frac{(\text{pilot_power_threshold} + 115)}{20} \right\rceil
\]

where \(\text{pilot_power_threshold}\) is the pilot power, \(E_c\), in dBm/1.23 MHz, below which the mobile station is to perform system reselection; otherwise, the base station shall omit this field.

**EC_IO_THRESH** - Pilot \(E_c/I_o\) threshold.

If RESELECT_INCLUDED is set to ‘1’, the base station shall include the field EC_IO_THRESH and set this field to:

\[
\left\lfloor -20 \log_{10} (\text{pilot_threshold}) \right\rfloor
\]

where \(\text{pilot_threshold}\) is the pilot \(E_c/I_o\) below which the mobile station is to perform system reselection; otherwise, the base station shall omit this field.

**PILOT_REPORT** - Pilot reporting indicator.

The base station shall set this field to ‘1’ if the mobile station is to report the additional pilots which have pilot strengths exceeding \(T_{ADD}\) in all Access Channel messages. The base station shall set this field to ‘0’ if the mobile station is to report the additional pilots which have pilot strengths exceeding \(T_{ADD}\) only in the Origination Message and the Page Response Message.

**NGHBR_SET-_ENTRY_INFO** - Neighbor Set access entry handoff information included indicator.

If the base station is including information on the Neighbor Set access entry handoff, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.
ACC_ENT_HO_ORDER - Access entry handoff permitted indicator.
If NGHBR_SET_ENTRY_INFO is set to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

The base station shall set this field to ‘1’ if the mobile station is permitted to perform an access entry handoff after receiving a message while performing the Mobile Station Order and Message Processing Operation in the Mobile Station Idle State (see 2.6.2.4); otherwise, the base station shall set this field to ‘0’.

NGHBR_SET_ACCESS_INFO - Neighbor Set access handoff included indicator.
If the base station is including information on the Neighbor Set access handoff or access probe handoff, the base station shall set this field to ‘1’, otherwise, the base station shall set this field to ‘0’.

ACCESS_HO - Access handoff permitted indicator.
If NGHBR_SET_ACCESS_INFO is set to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

The base station shall set this field to ‘1’ if the mobile station is permitted to perform an access handoff (see 2.6.3.1.3.2); otherwise, the base station shall set this field to ‘0’.

ACCESS_HO_MSG_RSP - Access handoff permitted for message response indicator.
If ACCESS_HO is set to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

The base station shall set this field to ‘1’ if the mobile station is permitted to perform an access handoff after receiving a message and before responding to that message in the System Access State; otherwise, the base station shall set this field to ‘0’.

ACCESS_PROBE_HO - Access probe handoff permitted indicator.
If NGHBR_SET_ACCESS_INFO is set to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

The base station shall set this field to ‘1’ if the mobile station is permitted to perform an access probe handoff (see 2.6.3.1.3.3); otherwise, the base station shall set this field to ‘0’.

ACC_HO_LIST_UPD - Access handoff list update permitted indicator.
If ACCESS_PROBE_HO is included and is set to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.
The base station shall set this field to ‘1’ if the mobile station is permitted to update the access handoff list during an access attempt (see 2.6.3.1.7.2); otherwise, the base station shall set this field to ‘0’.

**ACC_PROBE_HO-OTHER_MSG** - Access probe handoff permitted for messages other than the *Origination Message* and the *Page Response Message*.

If ACCESS_PROBE_HO is set to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

The base station shall set this field to ‘1’ if the mobile station is permitted to perform an access probe handoff for messages other than the *Origination Message* and the *Page Response Message*. The base station shall set this field to ‘0’ if the mobile station is permitted to perform an access probe handoff only for the *Origination Message* and the *Page Response Message*. See 2.6.3.1.3.3.

**MAX_NUM_PROBE_HO** - Maximum number of times that the mobile station is permitted to perform an access probe handoff.

If ACCESS_PROBE_HO is set to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

The base station shall set this field to the maximum number of times the mobile station is allowed to perform an access probe handoff within an access attempt minus one.

**NGHBR_SET_SIZE** - Size of the Neighbor Set.

If NGHBR_SET_ENTRY_INFO or NGHBR_SET_ACCESS_INFO is equal to ‘1’, the base station shall set this field to the number of pilots included in the *Neighbor List Message*, *Extended Neighbor List Message*, or *General Neighbor List Message*; otherwise, the base station shall omit this field.

If NGHBR_SET_ENTRY_INFO is equal to ‘1’, the base station shall include NGHBR_SET_SIZE occurrences of the following field:

**ACCESS_ENTRY_HO** - Access entry handoff permitted when entering the System Access State.
The base station shall set this field to ‘1’ if the mobile station is permitted to perform an access entry handoff to the base station associated with the corresponding pilot between the time it receives a message on the Paging Channel when in the Mobile Station Idle State and it enters the System Access State to respond to the message; otherwise, the base station shall set this field to ‘0’. The base station shall use the same order for the ACCESS_ENTRY_HO fields in this message as is used for pilots which are listed in the Neighbor List Message, Extended Neighbor List Message, or General Neighbor List Message. Specifically, the $i^{th}$ occurrence of the ACCESS_ENTRY_HO field shall correspond the $i^{th}$ pilot in the Neighbor List Message, Extended Neighbor List Message, or General Neighbor List Message.

If NGHBR_SET_ACCESS_INFO is equal to ‘1’, the base station shall include NGHBR_SET_SIZE occurrences of the following field:

**ACCESS_HO_ALLOWED** - Access handoff and access probe handoff permitted for the corresponding pilot while in the System Access State.

The base station shall set this field to ‘1’ if the mobile station is permitted to perform an access handoff or access probe handoff to the base station associated with the corresponding pilot when the mobile station is in the System Access State (see 2.6.3.1.8 and 2.6.3.1.9); otherwise, the base station shall set this field to ‘0’. The base station shall use the same order for the ACCESS_HO_ALLOWED fields in this message as is used for pilots which are listed in the Neighbor List Message, Extended Neighbor List Message, or General Neighbor List Message. Specifically, the $i^{th}$ occurrence of the ACCESS_HO_ALLOWED field shall correspond the $i^{th}$ pilot in the Neighbor List Message, Extended Neighbor List Message, or General Neighbor List Message.

**BROADCAST_GPS_ASST** - Broadcast GPS Assist Indicator.

The base station shall set this field to ‘1’ if it supports Broadcast GPS Assist capability; otherwise, the base station shall set this field to ‘0’.

**QPCH_SUPPORTED** - Quick Paging Channel Supported Indication.

If the base station supports Quick Paging Channel operation, the base station shall set this field to ‘1’; otherwise the base station shall set this field to ‘0’.

**NUM_QPCH** - Number of Quick Paging Channels.

If the base station sets QPCH_SUPPORTED to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

The base station shall set this field to the number of Quick Paging Channels on this CDMA Channel. The base station shall not set this field to ‘00’.

**QPCH_RATE** - Quick Paging Channel indicator rate.
If the base station sets QPCH_SUPPORTED to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

The base station shall set this field to the QPCH_RATE field value shown in Table 3.7.2.3.2.13-2 corresponding to the indicator rate used by the Quick Paging Channel in the system.

<table>
<thead>
<tr>
<th>QPCH_RATE Field (binary)</th>
<th>QPCH indicator data rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>4800 bps</td>
</tr>
<tr>
<td>1</td>
<td>9600 bps</td>
</tr>
</tbody>
</table>

QPCH_POWER_LEVEL_PAGE - Quick Paging Channel paging indicator transmit power level.

If the base station sets QPCH_SUPPORTED to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

The base station shall set this field to the Quick Paging Channel paging indicator transmit power level relative to that of the Pilot Channel as specified in Table 3.7.2.3.2.13-3.
<table>
<thead>
<tr>
<th>QPCH_POWER_LEVEL_PAGE (binary)</th>
<th>Transmit Power Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>5 dB below the Pilot Channel Transmit Power</td>
</tr>
<tr>
<td>001</td>
<td>4 dB below the Pilot Channel Transmit Power</td>
</tr>
<tr>
<td>010</td>
<td>3 dB below the Pilot Channel Transmit Power</td>
</tr>
<tr>
<td>011</td>
<td>2 dB below the Pilot Channel Transmit Power</td>
</tr>
<tr>
<td>100</td>
<td>1 dB below the Pilot Channel Transmit Power</td>
</tr>
<tr>
<td>101</td>
<td>Same as the Pilot Channel Transmit Power</td>
</tr>
<tr>
<td>110</td>
<td>1 dB above the Pilot Channel Transmit Power</td>
</tr>
<tr>
<td>111</td>
<td>2 dB above the Pilot Channel Transmit Power</td>
</tr>
</tbody>
</table>
QPCH_CCI_SUPPORTED - Quick Paging Channel configuration change indicator supported.

If QPCH_SUPPORTED is set to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

If the base station supports configuration change indicators on the Quick Paging Channel, the base station shall set this field to ‘1’; otherwise the base station shall set this field to ‘0’.

QPCH_POWER_LEVEL_CONFIG - Quick Paging Channel configuration change indicator transmit power level.

If the base station includes the QPCH_CCI_SUPPORTED field and sets it to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

The base station shall set this field to the Quick Paging Channel configuration change indicator transmit power level relative to that of the Pilot Channel as specified in Table 3.7.2.3.2.13-3.

SDB_SUPPORTED - Short Data Burst supported indicator.

The base station shall set this field to ‘1’ if the mobile station is permitted to send a Short Data Burst; otherwise, the base station shall set this field to ‘0’.

RLGAIN_TRAFFIC_PILOT - Gain adjustment of the Reverse Traffic Channel relative to the Reverse Pilot Channel for Radio Configurations greater than 2.

The base station shall set this field to the correction factor to be used by mobile stations in setting the power of a reverse traffic channel, expressed as a two’s complement value in units of 0.125 dB (see 2.1.2.3.3 of [2]).

REV_PWR_CNTL_DELAY_INCL - Reverse Power Control Delay included indicator.

The base station shall set this field to ‘1’ if the base station includes the REV_PWR_CNTL_DELAY field in this message; otherwise, the base station shall set this field to ‘0’.

REV_PWR_CNTL_DELAY - The reverse power control delay.

If REV_PWR_CNTL_DELAY_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to the closed-loop reverse power control delay minus one (the closed-loop reverse power control delay is the time between the end of a gated-on reverse PCG and the beginning of the reverse PCG where the corresponding feedback is sent on the Forward Power Control Subchannel, see 2.1.2.3.2 of [2]), in units of 1.25 ms.

AUTO_MSG-
**AUTO_MSG_SUPPORTED** - Autonomous message supported indicator.

If the base station allows the autonomous delivery of the Device Information Message on the r-csch, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**AUTO_MSG_INTERVAL** - Autonomous message interval.

If AUTO_MSG_SUPPORTED is set to ‘1’, the base station shall omit this field; otherwise, the base station shall include this field and shall set this field to the AUTO_MSG_INTERVAL value shown in Table 3.7.2.3.2.13-4 to indicate the minimum time interval between autonomous messages sent by a mobile station to the infrastructure. This parameter is intended to allow the infrastructure to limit the frequency of autonomous messages sent by a mobile station on the r-csch.

Table 3.7.2.3.2.13-4. AUTO_MSG_INTERVAL Values

<table>
<thead>
<tr>
<th>AUTO_MSG_INTERVAL</th>
<th>Interval Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>(binary)</td>
<td>(milliseconds)</td>
</tr>
<tr>
<td>000</td>
<td>200</td>
</tr>
<tr>
<td>001</td>
<td>500</td>
</tr>
<tr>
<td>010</td>
<td>1000</td>
</tr>
<tr>
<td>011</td>
<td>1500</td>
</tr>
<tr>
<td>100</td>
<td>2000</td>
</tr>
<tr>
<td>101</td>
<td>5000</td>
</tr>
<tr>
<td>110</td>
<td>10000</td>
</tr>
<tr>
<td>111</td>
<td>15000</td>
</tr>
</tbody>
</table>

**MOB_QOS** - Indicator granting permission to the mobile station to request QoS parameter settings in the Origination Message, Origination Continuation Message, or Enhanced Origination Message.

The base station shall set this field to ‘1’, if the mobile station is allowed to include a QoS record in the Origination Message, Origination Continuation Message, or Enhanced Origination Message; or to ‘0’, otherwise, the base station shall set this field to ‘0’.
ENC_SUPPORTED – Encryption fields included.
The base station shall set this field to ‘1’ if the encryption related fields are included; otherwise the base station shall set this field to ‘0’.

SIG_ENCRYPT_SUP – Signaling encryption supported indicator.
If ENC_SUPPORTED is equal to ‘1’, the base station shall include this field; otherwise, the base station shall omit this field. If this field is included, this field indicates which signaling encryption algorithms are supported by the base station.
This field consists of the subfields shown in Table 2.7.1.3.2.1-5.
If this field is included, the base station shall set the subfields as follows:
The base station shall set the CMEA subfield to ‘1’.
The base station shall set each other subfield to ‘1’ if the corresponding signaling encryption algorithm is supported by the base station; otherwise, the base station shall set the subfield to ‘0’.
The base station shall set the RESERVED subfield to ‘000000’.

UI_ENCRYPT_SUP – User information encryption supported indicator.
If ENC_SUPPORTED is equal to ‘1’, the base station shall include this field; otherwise, the base station shall omit this field. If this field is included, the base station shall set this field to indicate the supported user information encryption algorithms.
This field consists of the subfields shown in Table 2.7.1.3.2.4-9.
The base station shall set each subfield to ‘1’ if the corresponding user information encryption algorithm is supported by the base station; otherwise, the base station shall set the subfield to ‘0’.

STORE_KEY – Store session key indicator.
If ENC_SUPPORTED is equal to ‘1’, the base station shall include this field; otherwise, the base station shall omit this field. If this field is included, the base station shall set this field to ‘1’ to indicate that the mobile station is to store the session key; otherwise the base station shall set this field to ‘0’.

USE_SYNC_ID – Sync ID supported indicator.
The base station shall set this field to ‘1’ to indicate that the mobile station is permitted to include the SYNC_ID field in the Page Response Message and the Origination Message. Otherwise, the base station shall set this field to ‘0’.

CS_SUPPORTED – Concurrent Services supported indicator.
If the base station supports concurrent services, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**BCCH_SUPPORTED** - Primary Broadcast Channel Supported Indicator.

If the base station supports Primary Broadcast Control Channel, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**MS_INIT_POS_LOC** - Mobile station initiated position location determination supported indicator.

If the base station supports mobile station initiated position determination, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**PILOT_INFO_REQ_SUPPORTED** - Pilot information request supported indicator.

If the base station supports mobile station request for pilot information using the “Pilot Information” record in the Base Station Status Request Message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.
### 3.7.2.3.2.14 Extended Neighbor List Message

**MSG_TAG: ENLM**

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>CONFIG_MSG_SEQ</td>
<td>6</td>
</tr>
<tr>
<td>PILOT_INC</td>
<td>4</td>
</tr>
</tbody>
</table>

Zero or more occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGHBR_CONFIG</td>
<td>3</td>
</tr>
<tr>
<td>NGHBR_PN</td>
<td>9</td>
</tr>
<tr>
<td>SEARCH_PRIORITY</td>
<td>2</td>
</tr>
<tr>
<td>FREQ_INCL</td>
<td>1</td>
</tr>
<tr>
<td>NGHBR_BAND</td>
<td>0 or 5</td>
</tr>
<tr>
<td>NGHBR_FREQ</td>
<td>0 or 11</td>
</tr>
</tbody>
</table>

**PILOT_PN** - Pilot PN sequence offset index.

The base station shall set this field to the pilot PN sequence offset for this base station, in units of 64 PN chips.

**CONFIG_MSG_SEQ** - Configuration message sequence number.

The base station shall set this field to CONFIG_SEQ (see 3.6.2.2).

**PILOT_INC** - Pilot PN sequence offset index increment.

A mobile station searches for Remaining Set pilots at pilot PN sequence index values that are multiples of this value.

The base station shall set this field to the pilot PN sequence increment, in units of 64 PN chips, that mobile stations are to use for searching the Remaining Set. The base station should set this field to the largest increment such that the pilot PN sequence offsets of all its neighbor base stations are integer multiples of that increment.

The base station shall set this field to a value in the range 1 to 15 inclusive.
The base station shall include one occurrence of the following record for each pilot that a mobile station is to place in its Neighbor Set.

NGHBR_CONFIG - Neighbor configuration.

The base station shall set this field to the value shown in Table 3.7.2.3.2.14-1 corresponding to the configuration of this neighbor.

<table>
<thead>
<tr>
<th>Value (binary)</th>
<th>Neighbor Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>The neighbor base station has the same number of frequencies having Paging Channels as the current base station. The neighbor base station has a CDMA frequency assignment corresponding to this CDMA frequency assignment with the same number of Paging Channels, and the neighbor CDMA frequency is given as follows:</td>
</tr>
<tr>
<td></td>
<td>• If FREQ_INCL equals ‘0’ for this record, this corresponding CDMA frequency assignment is the current CDMA frequency assignment.</td>
</tr>
<tr>
<td></td>
<td>• If FREQ_INCL equals ‘1’ for this record, this corresponding CDMA frequency assignment is given by NGHBR_BAND and NGHBR_FREQ.</td>
</tr>
<tr>
<td></td>
<td>The position of the neighbor CDMA frequency assignment in the CDMA Channel List Message or the Extended CDMA Channel List Message transmitted by the neighbor base station is the same as the position of this current CDMA frequency assignment in the CDMA Channel List Message or the Extended CDMA Channel List Message transmitted by the current base station.</td>
</tr>
</tbody>
</table>
The neighbor base station has the same number of frequencies having Paging Channels as the current base station.

The neighbor base station has a CDMA frequency assignment corresponding to this CDMA frequency assignment with a different number of Paging Channels, and the neighbor CDMA frequency is given as follows:

- If FREQ_INCL equals ‘0’ for this record, this corresponding CDMA frequency assignment is the current CDMA frequency assignment.
- If FREQ_INCL equals ‘1’ for this record, this corresponding CDMA frequency assignment is given by NGHBR_BAND and NGHBR_FREQ.

The position of the neighbor CDMA frequency assignment in the CDMA Channel List Message or the Extended CDMA Channel List Message transmitted by the neighbor base station is the same as the position of this current CDMA frequency assignment in the CDMA Channel List Message or the Extended CDMA Channel List Message transmitted by the current base station.

This corresponding neighbor CDMA frequency assignment does have a Primary Paging Channel.

The neighbor base station may have a different number of frequencies having Paging Channels as the current base station.

The neighbor base station has a Primary Paging Channel on the following CDMA frequency:

- If FREQ_INCL equals ‘0’ for this record, the neighbor base station has a Primary Paging Channel on the first CDMA Channel listed in the CDMA Channel List Message or the Extended CDMA Channel List Message transmitted by the current base station.
- If FREQ_INCL equals ‘1’ for this record, the neighbor base station has a Primary Paging Channel on the CDMA frequency assignment given by NGHBR_BAND and NGHBR_FREQ.
<table>
<thead>
<tr>
<th>011</th>
<th>The neighbor base station configuration is unknown but the neighbor base station has a Pilot Channel on the following frequency:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- If FREQ_INCL equals ‘0’ for this record, the neighbor CDMA frequency assignment is the same as the current CDMA frequency assignment and has a Pilot Channel.</td>
</tr>
<tr>
<td></td>
<td>- If FREQ_INCL equals ‘1’ for this record, the CDMA frequency assignment given by NGHBR_BAND and NGHBR_FREQ has a Pilot Channel.</td>
</tr>
<tr>
<td>100-111</td>
<td>Reserved.</td>
</tr>
</tbody>
</table>

1  NGHBR_PN - Neighbor pilot PN sequence offset index.

The base station shall set this field to the pilot PN sequence offset for this neighbor, in units of 64 PN chips.

2  SEARCH_PRIORITY - Pilot Channel search priority.

The base station shall set this field to the search priority for the Pilot Channel corresponding to NGHBR_PN. The base station shall set the search priority as shown in Table 3.7.2.3.2.14-2.

<table>
<thead>
<tr>
<th>Table 3.7.2.3.2.14-2. Search Priority Field</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Value (binary)</strong></td>
</tr>
<tr>
<td>---------------------</td>
</tr>
<tr>
<td>00</td>
</tr>
<tr>
<td>01</td>
</tr>
<tr>
<td>10</td>
</tr>
<tr>
<td>11</td>
</tr>
</tbody>
</table>

11  FREQ_INCL - Frequency included indicator.

If the NGHBR_BAND and NGHBR_FREQ fields are included for this neighbor base station, the base station shall set this bit to ‘1’. If the NGHBR_BAND and NGHBR_FREQ fields are not included for this neighbor base station, the base station shall set this bit to ‘0’.

12  NGHBR_BAND - Neighbor band class.

If the FREQ_INCL bit is set to ‘1’, the base station shall set this field to the CDMA band class, as specified in [30], corresponding to the CDMA frequency assignment for the CDMA Channel containing the Paging Channel the mobile station is to search. If the FREQ_INCL bit is set to ‘0’, the base station shall omit this field.
NGHBR_FREQ - Neighbor frequency assignment.

If the FREQ_INCL bit is set to ‘1’, the base station shall set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA frequency assignment for the CDMA Channel containing the Paging Channel the mobile station is to search. If the FREQ_INCL bit is set to ‘0’, the base station shall omit this field.
### 3.7.2.3.2.15 Status Request Message

**MSG_TAG**: STRQM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESERVED</td>
<td>4</td>
</tr>
<tr>
<td>QUAL_INFO_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>QUAL_INFO_LEN</td>
<td>3</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>$8 \times \text{QUAL_INFO_LEN}$</td>
</tr>
<tr>
<td>NUM_FIELDS</td>
<td>4</td>
</tr>
</tbody>
</table>

**NUM_FIELDS** occurrences of the following field:

| RECORD_TYPE | 8 |

**RESERVED** - Reserved bits.

The base station shall set this field to ‘0000’.

**QUAL_INFO_TYPE** - Qualification information type.

The base station shall set this field to the value shown in Table 3.7.2.3.2.15-1 to show the inclusion of qualification information in the type-specific fields. The base station shall include the required qualification information in this message.

#### Table 3.7.2.3.2.15-1. Qualification Information Type

<table>
<thead>
<tr>
<th>Value (binary)</th>
<th>Included Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>00000000</td>
<td>None</td>
</tr>
<tr>
<td>00000001</td>
<td>BAND_CLASS</td>
</tr>
<tr>
<td>00000010</td>
<td>BAND_CLASS and OP_MODE</td>
</tr>
</tbody>
</table>

All other values are reserved.
### Table 3.7.2.3.2.15-2. Status Information Record Types

<table>
<thead>
<tr>
<th>Information Record Requested</th>
<th>Record Type (see Table 2.7.4-1) (binary)</th>
<th>QUAL_INFO_TYPE (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reserved for obsolete Identification</td>
<td>00000110</td>
<td></td>
</tr>
<tr>
<td>Call Mode</td>
<td>00000111</td>
<td>00000000</td>
</tr>
<tr>
<td>Terminal Information</td>
<td>00001000</td>
<td>00000010</td>
</tr>
<tr>
<td>Roaming Information</td>
<td>00001001</td>
<td>00000010</td>
</tr>
<tr>
<td>Security Status</td>
<td>00001010</td>
<td>00000000</td>
</tr>
<tr>
<td>IMSI</td>
<td>00001100</td>
<td>00000000</td>
</tr>
<tr>
<td>ESN</td>
<td>00001101</td>
<td>00000000</td>
</tr>
<tr>
<td>Band Class Information</td>
<td>00001110</td>
<td>00000000</td>
</tr>
<tr>
<td>Power Class Information</td>
<td>00010000</td>
<td>00000000</td>
</tr>
<tr>
<td>Operating Mode Information</td>
<td>00010001</td>
<td>00000000</td>
</tr>
<tr>
<td>Service Option Information</td>
<td>00010010</td>
<td>00000000</td>
</tr>
<tr>
<td>Multiplex Option Information</td>
<td>00010011</td>
<td>00000000</td>
</tr>
<tr>
<td>Service Configuration</td>
<td>00010100</td>
<td>00000000</td>
</tr>
<tr>
<td>Power Control Information</td>
<td>00010101</td>
<td>00000000</td>
</tr>
<tr>
<td>IMSI_M</td>
<td>00011000</td>
<td>00000000</td>
</tr>
<tr>
<td>IMSI_T</td>
<td>00011001</td>
<td>00000000</td>
</tr>
<tr>
<td>Capability Information</td>
<td>00011010</td>
<td>00000000</td>
</tr>
<tr>
<td>Channel Configuration Capability Information</td>
<td>00011011</td>
<td>00000000</td>
</tr>
<tr>
<td>Extended Multiplex Option Information</td>
<td>00011100</td>
<td>00000000</td>
</tr>
<tr>
<td>Geo-location Information</td>
<td>00011110</td>
<td>00000000</td>
</tr>
<tr>
<td>Band Subclass Information</td>
<td>00011111</td>
<td>00000001</td>
</tr>
<tr>
<td>Hook Status</td>
<td>00100001</td>
<td>00000000</td>
</tr>
<tr>
<td>Encryption Capability</td>
<td>00100011</td>
<td>00000000</td>
</tr>
</tbody>
</table>

All other record type values are reserved.
QUAL_INFO_LEN - Qualification information length.

The base station shall set this field to the number of octets included in the type-specific fields of the qualification information.

Type-specific fields - Type-specific fields.

The base station shall set these fields to the qualification information according to the QUAL_INFO_TYPE field.

If QUAL_INFO_TYPE is equal to ‘00000000’, the type-specific fields are omitted.

If QUAL_INFO_TYPE is equal to ‘00000001’, the base station shall use the following fixed-length format for the type-specific fields:

<table>
<thead>
<tr>
<th>Type-specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAND_CLASS</td>
<td>5</td>
</tr>
<tr>
<td>RESERVED</td>
<td>3</td>
</tr>
</tbody>
</table>

If QUAL_INFO_TYPE is equal to ‘00000010’, the base station shall use the following fixed-length format for the type-specific fields:

<table>
<thead>
<tr>
<th>Type-specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAND_CLASS</td>
<td>5</td>
</tr>
<tr>
<td>OP_MODE</td>
<td>8</td>
</tr>
<tr>
<td>RESERVED</td>
<td>3</td>
</tr>
</tbody>
</table>

BAND_CLASS - Band class.

The base station shall set this field as defined in [30] to specify the band class qualification information.

OP_MODE - Operating mode.

The base station shall set this field as shown in Table 3.7.2.3.2.15-3 to specify the operating mode qualification information if MOB_P_REV of the current band class is less than or equal to three. The base station shall set this field as shown in Table 3.7.2.3.2.15-4 to specify the operating mode qualification information if MOB_P_REV of the current band class is greater than three.
### Table 3.7.2.3.2.15-3. Operating Mode for MOB_P_REV
#### Less Than or Equal to Three

<table>
<thead>
<tr>
<th>Description</th>
<th>Value (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDMA mode in Band Class 1 or Band Class 4</td>
<td>00000000</td>
</tr>
<tr>
<td>CDMA mode in Band Class 0 or Band Class 3</td>
<td>00000001</td>
</tr>
<tr>
<td>analog mode [6]</td>
<td>00000010</td>
</tr>
<tr>
<td>wide analog mode [22]</td>
<td>00000011</td>
</tr>
<tr>
<td>Narrow analog mode [22]</td>
<td>00000100</td>
</tr>
</tbody>
</table>

All other values are reserved.

### Table 3.7.2.3.2.15-4. Operating Mode for MOB_P_REV
#### Greater Than Three

<table>
<thead>
<tr>
<th>Description</th>
<th>Standards</th>
<th>Value (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDMA mode</td>
<td>[5]</td>
<td>00000000 or 00000001</td>
</tr>
<tr>
<td>Analog mode</td>
<td>[6]</td>
<td>00000010</td>
</tr>
<tr>
<td>Wide analog mode</td>
<td>[22]</td>
<td>00000011</td>
</tr>
<tr>
<td>Narrow analog mode</td>
<td>[22]</td>
<td>00000100</td>
</tr>
<tr>
<td>DS-41 mode</td>
<td>[32]</td>
<td>00000101</td>
</tr>
<tr>
<td>MC-MAP mode</td>
<td>[31]</td>
<td>00000110</td>
</tr>
</tbody>
</table>

All other values are reserved.

**NUM_FIELDS** - Number of requested fields in this message.

The base station shall set this field to the number of occurrences of RECORD_TYPE in this message.

The base station shall only request the status information records qualified by the included qualification information in this message. The base station shall include one occurrence of the following field for each information record that is requested:

**RECORD_TYPE** - Information record type.

The base station shall set this field to the record type value shown in Table 3.7.2.3.2.15-2 corresponding to the information record requested.
If MOB_P_REV is equal to or greater than seven, the base station shall not request the Call Mode information record (record type 00000111 in Table 3.7.2.3.2.15-2).
3GPP2 C.S0005-A v6.0

3.7.2.3.2.16 Service Redirection Message

MSG_TAG: SRDM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RETURN_IF_FAIL</td>
<td>1</td>
</tr>
<tr>
<td>DELETE_TMSI</td>
<td>1</td>
</tr>
<tr>
<td>REDIRECT_TYPE</td>
<td>1</td>
</tr>
</tbody>
</table>

One occurrence of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>8 \times RECORD_LEN</td>
</tr>
</tbody>
</table>

RETURN_IF_FAIL - Return if fail indicator.

The base station shall set this field to ‘1’ if the mobile station is required to return to the system from which it is being redirected upon failure to obtain service using the redirection criteria specified in this message; otherwise, the base station shall set this field to ‘0’.

DELETE_TMSI - Delete TMSI indicator.

The base station shall set this field to ‘1’ if the mobile station is required to delete the TMSI assigned to the mobile station; otherwise, the base station shall set this field to ‘0’.

REDIRECT_TYPE - Redirect indicator.

The base station shall set this field to the REDIRECT_TYPE value shown in Table 3.7.2.3.2.16-2 corresponding to the redirection type.

Table 3.7.2.3.2.16-1. Redirection Types

<table>
<thead>
<tr>
<th>Description</th>
<th>REDIRECT_TYPE (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal redirection</td>
<td>0</td>
</tr>
<tr>
<td>NDSS redirection</td>
<td>1</td>
</tr>
</tbody>
</table>

The base station shall include one occurrence of the following record:

RECORD_TYPE - Redirection record type.

The base station shall set this field to the RECORD_TYPE value shown in Table 3.7.2.3.2.16-2 corresponding to the type of redirection specified by this record.
Table 3.7.2.3.2.16-2. Redirection Record Types

<table>
<thead>
<tr>
<th>Description</th>
<th>RECORD_TYPE (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NDSS off indication</td>
<td>00000000</td>
</tr>
<tr>
<td>Redirection to an analog system as defined in [12], [21], [22], [25], [24], and [6]</td>
<td>00000001</td>
</tr>
<tr>
<td>Redirection to a CDMA system as defined in [24] and [2]</td>
<td>00000010</td>
</tr>
<tr>
<td>Redirection to a TACS analog system as defined in Department of Trade and Industry’s TACS Mobile Station-Land Station Compatibility Specification, Issue 4, Amendment 1.</td>
<td>00000011</td>
</tr>
<tr>
<td>Redirection to a JTACS analog system as defined in ARIB’s RCR STD-36.</td>
<td>00000100</td>
</tr>
<tr>
<td>Redirection to a DS-41 system as defined in [32].</td>
<td>00000101</td>
</tr>
<tr>
<td>All other RECORD_TYPE values are reserved</td>
<td></td>
</tr>
</tbody>
</table>

RECORD_LEN - Redirection record length.
If RECORD_TYPE equals to ‘00000000’, the base station shall set this field to ‘00000000’; otherwise, the base station shall set this field to the number of octets in the type-specific fields of this redirection record.

Type-specific fields - Redirection record type-specific fields.
The base station shall include type-specific fields based on the RECORD_TYPE of this redirection record.

If RECORD_TYPE is equal to ‘00000000’, the base station shall not include the type-specific fields.
If RECORD_TYPE is equal to ‘00000001’, the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXPECTED_SID</td>
<td>15</td>
</tr>
<tr>
<td>IGNORE_CDMA</td>
<td>1</td>
</tr>
<tr>
<td>SYS_ORDERING</td>
<td>3</td>
</tr>
<tr>
<td>RESERVED</td>
<td>5</td>
</tr>
</tbody>
</table>
EXPECTED_SID - Expected SID.

If the base station is redirecting the mobile station to a specific system, the base station shall set this field to the SID of that system; otherwise, the base station shall set this field to 0.

IGNORE_CDMA - Ignore CDMA Available indicator.

The base station shall set this field to ‘1’ to indicate that the mobile station is to ignore the CDMA Capability Message on the analog system to which it is being redirected. The base station shall set this field to ‘0’ to indicate that the mobile station may discontinue service on the system to which it is being redirected if the mobile station receives a CDMA Capability Message with CDMA_AVAIL equal to ‘1’, and the preferred mode of the mobile station is CDMA.

SYS_ORDERING - System ordering.

The base station shall set this field to the SYS_ORDERING value shown in Table 3.7.2.3.2.16-3 corresponding to the order in which the mobile station is to attempt to obtain service on an analog system.
### Table 3.7.2.3.2.16-3. SYS_ORDERING

<table>
<thead>
<tr>
<th>Description</th>
<th>SYS_ORDERING (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attempt to obtain service on either System A or B in accordance with the custom system selection process (see 2.6.1.1.1).</td>
<td>000</td>
</tr>
<tr>
<td>Attempt to obtain service on System A only.</td>
<td>001</td>
</tr>
<tr>
<td>Attempt to obtain service on System B only.</td>
<td>010</td>
</tr>
<tr>
<td>Attempt to obtain service on System A first. If unsuccessful, attempt to obtain service on System B.</td>
<td>011</td>
</tr>
<tr>
<td>Attempt to obtain service on System B first. If unsuccessful, attempt to obtain service on System A.</td>
<td>100</td>
</tr>
<tr>
<td>Attempt to obtain service on either System A or System B. If unsuccessful, attempt to obtain service on the alternate system (System A or System B).</td>
<td>101</td>
</tr>
<tr>
<td>All other SYS_ORDERING values are reserved</td>
<td></td>
</tr>
</tbody>
</table>

RESERVED - Reserved bits.

The base station shall set this field to ‘00000’.

If RECORD_TYPE is equal to ‘00000010’, the base station shall include the following fields:
<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAND_CLASS</td>
<td>5</td>
</tr>
<tr>
<td>EXPECTED_SID</td>
<td>15</td>
</tr>
<tr>
<td>EXPECTED_NID</td>
<td>16</td>
</tr>
<tr>
<td>RESERVED</td>
<td>4</td>
</tr>
<tr>
<td>NUM_CHANS</td>
<td>4</td>
</tr>
</tbody>
</table>

NUM_CHANS occurrences of the following field:

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDMA_CHAN</td>
<td>11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAND_CLASS</td>
<td>Band class. The base station shall set this field to the CDMA band class, as specified in [30].</td>
</tr>
<tr>
<td>EXPECTED_SID</td>
<td>Expected SID. If the base station is redirecting the mobile station to a specific system, the base station shall set this field to the SID of that system; otherwise, the base station shall set this field to 0.</td>
</tr>
<tr>
<td>EXPECTED_NID</td>
<td>Expected NID. If the base station is redirecting the mobile station to a specific network, the base station shall set this field to the NID of that network; otherwise, the base station shall set this field to 65535.</td>
</tr>
<tr>
<td>RESERVED</td>
<td>Reserved bits. The base station shall set this field to ‘0000’.</td>
</tr>
<tr>
<td>NUM_CHANS</td>
<td>Number of CDMA Channels. The base station shall set this field to the number of occurrences of the CDMA_CHAN field in this record.</td>
</tr>
<tr>
<td>CDMA_CHAN</td>
<td>CDMA Channel number. For each CDMA Channel on which the mobile station is to attempt to acquire a CDMA system, the base station shall include one occurrence of this field specifying the associated CDMA Channel number.</td>
</tr>
<tr>
<td>RESERVED</td>
<td>Reserved bits. The base station shall add reserved bits as needed in order to make the length of the record equal to an integer number of octets. The base station shall set these bits to ‘0’.</td>
</tr>
</tbody>
</table>
3.7.2.3.2.17 General Page Message

MSG_TAG: GPM

When Layer 3 at the base station sends a PDU corresponding to the **General Page Message** to Layer 2, it also sends the GPM Common fields to Layer 2. These GPM Common fields and PDUs are used by Layer 2 to assemble a Layer 2 PDU corresponding to the **General Page Message** (see 3.1.2.3 of [4]).

GPM Common Fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONFIG_MSG_SEQ</td>
<td>6</td>
</tr>
<tr>
<td>ACC_MSG_SEQ</td>
<td>6</td>
</tr>
<tr>
<td>CLASS_0_DONE</td>
<td>1</td>
</tr>
<tr>
<td>CLASS_1_DONE</td>
<td>1</td>
</tr>
<tr>
<td>TMSI_DONE</td>
<td>1</td>
</tr>
<tr>
<td>ORDERED_TMSIS</td>
<td>1</td>
</tr>
<tr>
<td>BROADCAST_DONE</td>
<td>1</td>
</tr>
<tr>
<td>RESERVED</td>
<td>4</td>
</tr>
<tr>
<td>ADD_LENGTH</td>
<td>3</td>
</tr>
<tr>
<td>ADD_PFIELD</td>
<td>$8 \times \text{ADD_LENGTH}$</td>
</tr>
</tbody>
</table>

PDU Format for a mobile station-addressed page:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SERVICE_OPTION</td>
<td>0 or 16</td>
</tr>
</tbody>
</table>

PDU Format for a broadcast page:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>0</td>
</tr>
</tbody>
</table>

PDU Format for an enhanced broadcast page:
<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCCH_INDEX TCN</td>
<td>3</td>
</tr>
<tr>
<td>TIME_OFFSET</td>
<td>10</td>
</tr>
<tr>
<td>REPEAT_TIME_OFFSET</td>
<td>0 or 5</td>
</tr>
<tr>
<td>ADD_BCAST_RECORD</td>
<td>0 or 8 × EXT_BCAST_RECORD × SDU_LENGTH (see [4])</td>
</tr>
</tbody>
</table>

1. **CONFIG MSG SEQ** - Configuration message sequence number.

The base station shall set this field to CONFIG_SEQ (see 3.6.2.2).

2. **ACC MSG SEQ** - Access parameters message sequence number.

The base station shall set this field to ACC_CONFIG_SEQ (see 3.6.2.2).

3. **CLASS 0 DONE** - Class 0 pages are done.

If all messages and records directed to mobile stations operating in the slotted mode, active in this slot, and having an assigned class 0 IMSI have been sent by the end of this General Page Message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

4. **CLASS 1 DONE** - Class 1 pages are done.

If all messages and records directed to mobile stations operating in the slotted mode, active in this slot, and having an assigned class 1 IMSI have been sent by the end of this General Page Message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

5. **TMSI DONE** - TMSI pages are done.

If all the page records having PAGE_CLASS equal to ‘10’ or other directed messages for mobile stations operating in the slotted mode, active in this slot, and having an assigned TMSI have been sent by the end of this General Page Message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

6. **ORDERED TMSIS** - TMSIs sent in numerical order.

If all the page records of PAGE_CLASS equal to ‘10’ are sent such that the TMSI code values of the TMSI CODE ADDR fields for the mobile stations operating in the slotted mode are in ascending numerical order in all the General Page Messages sent within this slot, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

7. **BROADCAST DONE** - Broadcast pages are done.
If all broadcast page records (PAGE_CLASS equal to ‘11’) have been sent by the end of this General Page Message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

RESERVED - Reserved bits.

The base station shall set this field to ‘0000’.

ADD_LENGTH - Number of octets in the page message specific fields.

If there are no additional page message specific fields, the base station shall set this field to ‘000’.

ADD_PFIELD - Additional page message specific fields.

The base station shall not include any additional page message specific fields, if ADD_LENGTH is ‘000’.

SERVICE_OPTION - Service option.

If the base station requests a special service option in the page type-specific fields (i.e., the SDU_INCLUDED field, see [4], is set to ‘1’), the base station shall set this field to the service option code shown in [30], corresponding to the requested service option; otherwise, the base station shall omit this field.

BCCH_INDEX - BCN - BCCH index | Broadcast Control Channel Number.

The base station shall set this field to the index of the BCCH to which the mobile station is being redirected.

TIME_OFFSET - BCCH time offset.

The base station shall set this field to one less than the time offset, in units of 40 ms, from the beginning of the slot in which this message began to the beginning of the Broadcast Control Channel slot to which the mobile station is being directed.

REPEAT_TIME-OFFSET - BCCH offset of repeat.

If EXT_BCAST_SDU_LENGTH_IND (see [4]) is set to ‘01’ or ‘11’ this field is included, the base station shall set this field to one less than the time offset, in units of 40 ms, from the time specified by TIME_OFFSET to the beginning of the Broadcast Control Channel slot to which the mobile station is being directed for a repeat of the broadcast message. Otherwise, the base station shall omit this field.

ADD_BCAST_RECORD - Additional broadcast information record.

The base station shall omit this field if EXT_BCAST_SDU_LENGTH_IND (see 3.1.2.3.1.8 of [4]) is set to ‘00’ or ‘01’; otherwise, the base station shall include EXT_BCAST_SDU_LENGTH (see 3.1.2.3.1.8 of [4]) octets in this field.
3.7.2.3.2.18 Global Service Redirection Message

**MSG_TAG: GSRDM**

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>CONFIG_MSG_SEQ</td>
<td>6</td>
</tr>
<tr>
<td>REDIRECT_ACCOLC</td>
<td>16</td>
</tr>
<tr>
<td>RETURN_IF_FAIL</td>
<td>1</td>
</tr>
<tr>
<td>DELETE_TMSI</td>
<td>1</td>
</tr>
<tr>
<td>EXCL_P_REV_MS</td>
<td>1</td>
</tr>
</tbody>
</table>

One occurrence of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>$8 \times \text{RECORD_LEN}$</td>
</tr>
</tbody>
</table>

- **PILOT_PN** - Pilot PN sequence offset index.
  
  The base station shall set this field to the pilot PN sequence offset for this base station, in units of 64 PN chips.

- **CONFIG_MSG_SEQ** - Configuration message sequence number.
  
  The base station shall set this field to CONFIG_SEQ (see 3.6.2.2).
REDIRECT_ACCOLC - Redirected access overload classes.

This field consists of the following subfields:

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
<th>Subfield Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCOLC_0</td>
<td>1</td>
<td>Access overload class 0</td>
</tr>
<tr>
<td>ACCOLC_1</td>
<td>1</td>
<td>Access overload class 1</td>
</tr>
<tr>
<td>ACCOLC_2</td>
<td>1</td>
<td>Access overload class 2</td>
</tr>
<tr>
<td>ACCOLC_3</td>
<td>1</td>
<td>Access overload class 3</td>
</tr>
<tr>
<td>ACCOLC_4</td>
<td>1</td>
<td>Access overload class 4</td>
</tr>
<tr>
<td>ACCOLC_5</td>
<td>1</td>
<td>Access overload class 5</td>
</tr>
<tr>
<td>ACCOLC_6</td>
<td>1</td>
<td>Access overload class 6</td>
</tr>
<tr>
<td>ACCOLC_7</td>
<td>1</td>
<td>Access overload class 7</td>
</tr>
<tr>
<td>ACCOLC_8</td>
<td>1</td>
<td>Access overload class 8</td>
</tr>
<tr>
<td>ACCOLC_9</td>
<td>1</td>
<td>Access overload class 9</td>
</tr>
<tr>
<td>ACCOLC_10</td>
<td>1</td>
<td>Access overload class 10</td>
</tr>
<tr>
<td>ACCOLC_11</td>
<td>1</td>
<td>Access overload class 11</td>
</tr>
<tr>
<td>ACCOLC_12</td>
<td>1</td>
<td>Access overload class 12</td>
</tr>
<tr>
<td>ACCOLC_13</td>
<td>1</td>
<td>Access overload class 13</td>
</tr>
<tr>
<td>ACCOLC_14</td>
<td>1</td>
<td>Access overload class 14</td>
</tr>
<tr>
<td>ACCOLC_15</td>
<td>1</td>
<td>Access overload class 15</td>
</tr>
</tbody>
</table>

The base station shall set the subfields corresponding to the access overload classes of mobile stations which are to be redirected to ‘1’, and shall set the remaining subfields to ‘0’.

RETURN_IF_FAIL - Return if fail indicator.

The base station shall set this field to ‘1’ if the mobile station is required to return to the system from which it is being redirected upon failure to obtain service using the redirection criteria specified in this message; otherwise, the base station shall set this field to ‘0’.

DELETE_TMSI - Delete TMSI indicator.

The base station shall set this field to ‘1’ if the mobile station, which the corresponding REDIRECT_ACCOLC subfield is set to ‘1’, is required to delete the TMSI assigned to the mobile station; otherwise, the base station shall set this field to ‘0’.

EXCL_P_REV_MS - Exclude redirection indicator.
If this message does not apply to mobile stations with MOB_P_REV greater than or equal to six, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

The base station shall include one occurrence of the following three-field record:

- **RECORD_TYPE** - Redirection record type. The base station shall set this field to the RECORD_TYPE value shown in Table 3.7.2.3.2.16-2 corresponding to the type of redirection specified by this record.

- **RECORD_LEN** - Redirection record length. The base station shall set this field to the number of octets in the type-specific fields of this redirection record.

- **Type-specific fields** - Redirection record type-specific fields. The base station shall include type-specific fields based on the RECORD_TYPE of this redirection record.

If RECORD_TYPE is equal to ‘00000001’, the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXPECTED_SID</td>
<td>15</td>
</tr>
<tr>
<td>IGNORE_CDMA</td>
<td>1</td>
</tr>
<tr>
<td>SYS_ORDERING</td>
<td>3</td>
</tr>
<tr>
<td>MAX_REDIRECT_DELAY</td>
<td>5</td>
</tr>
</tbody>
</table>

- **EXPECTED_SID** - Expected SID. If the base station is redirecting the mobile station to a specific system, the base station shall set this field to the SID of that system; otherwise, the base station shall set this field to 0.

- **IGNORE_CDMA** - Ignore CDMA Available indicator. The base station shall set this field to ‘1’ to indicate that the mobile station is to ignore the CDMA Capability Message on the analog system to which it is being redirected. The base station shall set this field to ‘0’ to indicate that the mobile station may discontinue service on the system to which it is being redirected if the mobile station receives a CDMA Capability Message with CDMA_AVAIL equal to ‘1’, and the preferred mode of the mobile station is CDMA.

- **SYS_ORDERING** - System ordering.
The base station shall set this field to the SYS_ORDERING value shown in Table 3.7.2.3.2.16-3 corresponding to the order in which the mobile station is to attempt to obtain service on an analog system.

**MAX_REDIRECT_DELAY** - Maximum delay upon redirection.

The base station shall set this field to the maximum delay time, in units of 8 second increments, to be used by mobile stations in the event of a global redirection to analog mode. This operation can be invoked to avoid overloading an underlying analog cell’s reverse control channel.

If RECORD_TYPE is equal to ‘00000010’, the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAND_CLASS</td>
<td>5</td>
</tr>
<tr>
<td>EXPECTED_SID</td>
<td>15</td>
</tr>
<tr>
<td>EXPECTED_NID</td>
<td>16</td>
</tr>
<tr>
<td>RESERVED</td>
<td>4</td>
</tr>
<tr>
<td>NUM_CHANS</td>
<td>4</td>
</tr>
</tbody>
</table>

NUM_CHANS occurrences of the following field:

| CDMA_CHAN         | 11            |

**BAND_CLASS** - Band class.

The base station shall set this field to the CDMA band class, as specified in [30].

**EXPECTED_SID** - Expected SID.

If the base station is redirecting the mobile station to a specific system, the base station shall set this field to the SID of that system; otherwise, the base station shall set this field to 0.

**EXPECTED_NID** - Expected NID.

If the base station is redirecting the mobile station to a specific network, the base station shall set this field to the NID of that network; otherwise, the base station shall set this field to 65535.

**RESERVED** - Reserved bits.

The base station shall set this field to ‘0000’.

**NUM_CHANS** - Number of CDMA Channels.
The base station shall set this field to the number of occurrences of the CDMA_CHAN field in this record.

**CDMA_CHAN** - CDMA Channel number.

For each CDMA Channel on which the mobile station is to attempt to acquire a CDMA system, the base station shall include one occurrence of this field specifying the associated CDMA Channel number.

**RESERVED** - Reserved bits.

The base station shall add reserved bits as needed in order to make the length of the record equal to an integer number of octets. The base station shall set these bits to ‘0’.
3.7.2.3.2.19 TMSI Assignment Message

MSG_TAG: TASM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESERVED</td>
<td>5</td>
</tr>
<tr>
<td>TMSI_ZONE_LEN</td>
<td>4</td>
</tr>
<tr>
<td>TMSI_ZONE</td>
<td>8 × TMSI_ZONE_LEN</td>
</tr>
<tr>
<td>TMSI_CODE</td>
<td>32</td>
</tr>
<tr>
<td>TMSI_EXP_TIME</td>
<td>24</td>
</tr>
</tbody>
</table>

RESERVED - Reserved bits.

The base station shall set this field to ‘00000’.

TMSI_ZONE_LEN - TMSI zone length.

The base station shall set this field to the number of octets included in the TMSI_ZONE. The base station shall set this field to a value in the range 1 to 8 inclusive.

TMSI_ZONE - TMSI zone.

The base station shall set this field to the TMSI zone number, as specified in [27].

TMSI_CODE - Temporary mobile station identity code.

The base station shall set this field to the 32-bit TMSI code assigned to the mobile station.

If the base station is to deassign the TMSI, the base station shall set all the bits in this field to ‘1’.

TMSI_EXP_TIME - TMSI expiration time.

The base station shall set this field to the System Time in the units of 80 ms × 2^{12} when the TMSI is to expire.
3.7.2.3.2.20 PACA Message

MSG_TAG: PACAM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESERVED</td>
<td>7</td>
</tr>
<tr>
<td>PURPOSE</td>
<td>4</td>
</tr>
<tr>
<td>Q_POS</td>
<td>8</td>
</tr>
<tr>
<td>PACA_TIMEOUT</td>
<td>3</td>
</tr>
</tbody>
</table>

RESERVED - Reserved bits.
The base station shall set this field to ‘0000000’.

PURPOSE - Purpose of the PACA Message.
The base station shall set this field to the appropriate PURPOSE code from Table 3.7.2.3.2.20-1 to indicate the purpose of the message.

Table 3.7.2.3.2.20-1. Purpose of PACA Message

<table>
<thead>
<tr>
<th>PURPOSE (binary)</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000</td>
<td>Indicates that the purpose of the message is to respond to an Origination Message.</td>
</tr>
<tr>
<td>0001</td>
<td>Indicates that the purpose of the message is to provide the queue position of the PACA call.</td>
</tr>
<tr>
<td>0010</td>
<td>Indicates that the purpose of the message is to instruct the mobile station to re-originate the PACA call.</td>
</tr>
<tr>
<td>0011</td>
<td>Indicates that the purpose of the message is to cancel the PACA call.</td>
</tr>
<tr>
<td>0100 – 1111</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

Q_POS - PACA queue position.
If the PURPOSE field of this message is set to ‘0000’ or ‘0001’, the base station shall set this field to the queue position of the PACA call. If the queue position exceeds 255, the base station shall set this field to ‘11111111’. If the queue position is unknown or the PURPOSE field of this message is set to ‘0010’ or ‘0011’, the base station shall set this field to ‘00000000’.
PACA_TIMEOUT - PACA state timer duration.

The base station shall set this field to the PACA_TIMEOUT value shown in Table 3.7.2.3.2.20-2 corresponding to the length of the PACA state timer to be used by the mobile stations.

**Table 3.7.2.3.2.20-2. Value of PACA State Timer**

<table>
<thead>
<tr>
<th>PACA_TIMEOUT Value (binary)</th>
<th>Timer Length (Minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>1</td>
</tr>
<tr>
<td>001</td>
<td>2</td>
</tr>
<tr>
<td>010</td>
<td>5</td>
</tr>
<tr>
<td>011</td>
<td>10</td>
</tr>
<tr>
<td>100</td>
<td>20</td>
</tr>
<tr>
<td>101</td>
<td>30</td>
</tr>
<tr>
<td>110</td>
<td>45</td>
</tr>
<tr>
<td>111</td>
<td>60</td>
</tr>
</tbody>
</table>
3.7.2.3.2.21 Extended Channel Assignment Message

MSG_TAG: ECAM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASSIGN_Mode</td>
<td>3</td>
</tr>
<tr>
<td>RESERVED_2</td>
<td>5</td>
</tr>
<tr>
<td>Additional record fields</td>
<td>8 × (ADD_RECORD_LEN – 1) See [4]</td>
</tr>
</tbody>
</table>
If ASSIGN_MODE = ‘000’, the additional record fields shall be:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREQ_INCL</td>
<td>1</td>
</tr>
<tr>
<td>DEFAULT_CONFIG</td>
<td>3</td>
</tr>
<tr>
<td>BYPASS_ALERT_ANSWER</td>
<td>1</td>
</tr>
<tr>
<td>RESERVED</td>
<td>1</td>
</tr>
<tr>
<td>NUM_PILOTS</td>
<td>3</td>
</tr>
<tr>
<td>GRANTED_MODE</td>
<td>2</td>
</tr>
<tr>
<td>FRAME_OFFSET</td>
<td>4</td>
</tr>
<tr>
<td>ENCRYPT_MODE</td>
<td>2</td>
</tr>
<tr>
<td>BAND_CLASS</td>
<td>0 or 5</td>
</tr>
<tr>
<td>CDMA_FREQ</td>
<td>0 or 11</td>
</tr>
</tbody>
</table>

NUM_PILOTS plus one occurrence of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>PWR_COMB_IND</td>
<td>1</td>
</tr>
<tr>
<td>CODE_CHAN</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR_FCH_RC</td>
<td>5</td>
</tr>
<tr>
<td>REV_FCH_RC</td>
<td>5</td>
</tr>
<tr>
<td>FPC_FCH_INIT_SETPT</td>
<td>8</td>
</tr>
<tr>
<td>FPC_SUBCHAN_GAIN</td>
<td>5</td>
</tr>
<tr>
<td>RLGAIN_ADJ</td>
<td>4</td>
</tr>
<tr>
<td>FPC_FCH_FER</td>
<td>5</td>
</tr>
<tr>
<td>FPC_FCH_MIN_SETPT</td>
<td>8</td>
</tr>
<tr>
<td>FPC_FCH_MAX_SETPT</td>
<td>8</td>
</tr>
<tr>
<td>REV_FCH_GATING_MODE</td>
<td>1</td>
</tr>
<tr>
<td>REV_PWR_CNTL_DELAY_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>REV_PWR_CNTL_DELAY</td>
<td>0 or 2</td>
</tr>
<tr>
<td>D_SIG_ENCRYPT_MODE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>USE_NEW_KEY</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ENC_KEY_SIZE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>KEY_SEQ</td>
<td>0 or 4</td>
</tr>
<tr>
<td>Field</td>
<td>Value</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>C_SIG_ENCRYPT_MODE_INCL</td>
<td>1</td>
</tr>
<tr>
<td>C_SIG_ENCRYPT_MODE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 – 7 (as needed)</td>
</tr>
</tbody>
</table>
If \texttt{ASSIGN\_MODE} = ‘001’, the additional record fields shall be:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESPOND</td>
<td>1</td>
</tr>
<tr>
<td>FREQ_INCL</td>
<td>1</td>
</tr>
<tr>
<td>BAND_CLASS</td>
<td>0 or 5</td>
</tr>
<tr>
<td>CDMA_FREQ</td>
<td>0 or 11</td>
</tr>
<tr>
<td>NUM_PILOTS</td>
<td>6</td>
</tr>
</tbody>
</table>

\text{NUM\_PILOTS} plus one occurrence of the following field:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
</tbody>
</table>

If \texttt{ASSIGN\_MODE} = ‘010’, the additional record fields shall be:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESPOND</td>
<td>1</td>
</tr>
<tr>
<td>ANALOG_SYS</td>
<td>1</td>
</tr>
<tr>
<td>USE_ANALOG_SYS</td>
<td>1</td>
</tr>
<tr>
<td>BAND_CLASS</td>
<td>5</td>
</tr>
</tbody>
</table>

If \texttt{ASSIGN\_MODE} = ‘011’, the additional record fields shall be:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SID</td>
<td>15</td>
</tr>
<tr>
<td>VMAC</td>
<td>3</td>
</tr>
<tr>
<td>ANALOG_CHAN</td>
<td>11</td>
</tr>
<tr>
<td>SCC</td>
<td>2</td>
</tr>
<tr>
<td>MEM</td>
<td>1</td>
</tr>
<tr>
<td>AN_CHAN_TYPE</td>
<td>2</td>
</tr>
<tr>
<td>DSCC_MSB</td>
<td>1</td>
</tr>
<tr>
<td>BAND_CLASS</td>
<td>5</td>
</tr>
</tbody>
</table>
If ASSIGN_MODE = ‘100’, the additional record fields shall be:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREQ_INCL</td>
<td>1</td>
</tr>
<tr>
<td>BAND_CLASS</td>
<td>0 or 5</td>
</tr>
<tr>
<td>CDMA_FREQ</td>
<td>0 or 11</td>
</tr>
<tr>
<td>BYPASS_ALERT_ANSWER</td>
<td>1</td>
</tr>
<tr>
<td>GRANTED_MODE</td>
<td>2</td>
</tr>
<tr>
<td>DEFAULT_CONFIG</td>
<td>3</td>
</tr>
<tr>
<td>FOR_RC</td>
<td>5</td>
</tr>
<tr>
<td>REV_RC</td>
<td>5</td>
</tr>
<tr>
<td>FRAME_OFFSET</td>
<td>4</td>
</tr>
<tr>
<td>ENCRYPT_MODE</td>
<td>2</td>
</tr>
<tr>
<td>FPC_SUBCHAN_GAIN</td>
<td>5</td>
</tr>
<tr>
<td>RLGAIN_ADJ</td>
<td>4</td>
</tr>
<tr>
<td>NUM_PILOTS</td>
<td>3</td>
</tr>
<tr>
<td>CH_IND</td>
<td>2</td>
</tr>
<tr>
<td>CH_RECORD_LEN</td>
<td>5</td>
</tr>
<tr>
<td>CH_RECORD_FIELDS</td>
<td>$8 \times$ CH_RECORD_LEN</td>
</tr>
<tr>
<td>REV_FCH_GATING_MODE</td>
<td>1</td>
</tr>
<tr>
<td>REV_PWR_CNTL_DELAY_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>REV_PWR_CNTL_DELAY</td>
<td>0 or 2</td>
</tr>
<tr>
<td>D_SIG_ENCRIPT_MODE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>USE_NEW_KEY</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ENC_KEY_SIZE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>KEY_SEQ</td>
<td>0 or 4</td>
</tr>
<tr>
<td>C_SIG_ENCRIPT_MODE_INCL</td>
<td>1</td>
</tr>
<tr>
<td>C_SIG_ENCRIPT_MODE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>3XFL_1XRL_INCL</td>
<td>1</td>
</tr>
<tr>
<td>1XRL_FREQ_OFFSET</td>
<td>0 or 2</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 – 7 (as needed)</td>
</tr>
</tbody>
</table>
If CH_IND = ‘01’, the CH_RECORD_FIELDS shall be:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>FPC_FCH_INIT_SETPT</td>
<td>8</td>
</tr>
<tr>
<td>FPC_FCH_FER</td>
<td>5</td>
</tr>
<tr>
<td>FPC_FCH_MIN_SETPT</td>
<td>8</td>
</tr>
<tr>
<td>FPC_FCH_MAX_SETPT</td>
<td>8</td>
</tr>
<tr>
<td>NUM_PILOTS plus one occurrence of the following record:</td>
<td></td>
</tr>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>ADD_PILOT_REC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>PILOT_REC_TYPE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>0 or 3</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>0 or (8 × RECORD_LEN)</td>
</tr>
<tr>
<td>PWR_COMB_IND</td>
<td>1</td>
</tr>
<tr>
<td>CODE_CHAN_FCH</td>
<td>11</td>
</tr>
<tr>
<td>QOF_MASK_ID_FCH</td>
<td>2</td>
</tr>
</tbody>
</table>

NUM_PILOTS plus one occurrence of the following record if 3X_FCH_INFO_INCL is set to ‘1’:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>3X_FCH_INFO_INCL</td>
<td>1</td>
</tr>
<tr>
<td>3X_FCH_LOW_INCL</td>
<td>1</td>
</tr>
<tr>
<td>QOF_MASK_ID_FCH_LOW</td>
<td>0 or 2</td>
</tr>
<tr>
<td>CODE_CHAN_FCH_LOW</td>
<td>0 or 11</td>
</tr>
<tr>
<td>3X_FCH_HIGH_INCL</td>
<td>1</td>
</tr>
<tr>
<td>QOF_MASK_ID_FCH_HIGH</td>
<td>0 or 2</td>
</tr>
<tr>
<td>CODE_CHAN_FCH_HIGH</td>
<td>0 or 11</td>
</tr>
</tbody>
</table>

RESERVED                  | 0 – 7 (as needed) |
If CH_IND = ‘10’, the CH_RECORD_FIELDS shall be:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>FPC_DCCH_INIT_SETPT</td>
<td>8</td>
</tr>
<tr>
<td>FPC_DCCH_FER</td>
<td>5</td>
</tr>
<tr>
<td>FPC_DCCH_MIN_SETPT</td>
<td>8</td>
</tr>
<tr>
<td>FPC_DCCH_MAX_SETPT</td>
<td>8</td>
</tr>
</tbody>
</table>

NUM_PILOTS plus one occurrence of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>ADD_PILOT_REC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>PILOT_REC_TYPE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>0 or 3</td>
</tr>
</tbody>
</table>

Type-specific fields 0 or (8 × RECORD_LEN)

<table>
<thead>
<tr>
<th>Field</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>PWR_COMB_IND</td>
<td>1</td>
</tr>
<tr>
<td>CODE_CHAN_DCCH</td>
<td>11</td>
</tr>
<tr>
<td>QOF_MASK_ID_DCCH</td>
<td>2</td>
</tr>
</tbody>
</table>

3X_DCCH_INFO_INCL  1

NUM_PILOTS plus one occurrence of the following record if 3X_DCCH_INFO_INCL is set to ‘1’:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>3X_DCCH_LOW_INCL</td>
<td>1</td>
</tr>
<tr>
<td>QOF_MASK_ID_DCCH_LOW</td>
<td>0 or 2</td>
</tr>
<tr>
<td>CODE_CHAN_DCCH_LOW</td>
<td>0 or 11</td>
</tr>
<tr>
<td>3X_DCCH_HIGH_INCL</td>
<td>1</td>
</tr>
<tr>
<td>QOF_MASK_ID_DCCH_HIGH</td>
<td>0 or 2</td>
</tr>
<tr>
<td>CODE_CHAN_DCCH_HIGH</td>
<td>0 or 11</td>
</tr>
</tbody>
</table>

RESERVED 0 - 7 (as needed)
If CH_IND = ‘11’, the CH_RECORD_FIELDS shall be:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>FPC_FCH_INIT_SETPT</td>
<td>8</td>
</tr>
<tr>
<td>FPC_DCCH_INIT_SETPT</td>
<td>8</td>
</tr>
<tr>
<td>FPC_PRI_CHAN</td>
<td>1</td>
</tr>
<tr>
<td>FPC_FCH_FER</td>
<td>5</td>
</tr>
<tr>
<td>FPC_FCH_MIN_SETPT</td>
<td>8</td>
</tr>
<tr>
<td>FPC_FCH_MAX_SETPT</td>
<td>8</td>
</tr>
<tr>
<td>FPC_DCCH_FER</td>
<td>5</td>
</tr>
<tr>
<td>FPC_DCCH_MIN_SETPT</td>
<td>8</td>
</tr>
<tr>
<td>FPC_DCCH_MAX_SETPT</td>
<td>8</td>
</tr>
</tbody>
</table>

NUM_PILOTs plus one occurrence of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>ADD_PILOT_REC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>PILOT_REC_TYPE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>0 or 3</td>
</tr>
</tbody>
</table>

Type-specific fields: 0 or (8 x RECORD_LEN)

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PWR_COMB_IND</td>
<td>1</td>
</tr>
<tr>
<td>CODE_CHAN_FCH</td>
<td>11</td>
</tr>
<tr>
<td>QOF_MASK_ID_FCH</td>
<td>2</td>
</tr>
<tr>
<td>CODE_CHAN_DCCH</td>
<td>11</td>
</tr>
<tr>
<td>QOF_MASK_ID_DCCH</td>
<td>2</td>
</tr>
</tbody>
</table>

3X_FCH_INFO_INCL 1

NUM_PILOTs plus one occurrence of the following record if 3X_FCH_INFO_INCL is set to ‘1’:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>3X_FCH_LOW_INCL</td>
<td>1</td>
</tr>
<tr>
<td>QOF_MASK_ID_FCH_LOW</td>
<td>0 or 2</td>
</tr>
<tr>
<td>CODE_CHAN_FCH_LOW</td>
<td>0 or 11</td>
</tr>
</tbody>
</table>

(continues on next page)
ASSIGN_MODE - Assignment mode.

The base station shall set this field to the value shown in Table 3.7.2.3.2.21-1 corresponding to the assignment mode for this assignment.

Table 3.7.2.3.2.21-1. Assignment Mode

<table>
<thead>
<tr>
<th>Value (binary)</th>
<th>Assignment Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>Traffic Channel Assignment</td>
</tr>
<tr>
<td>001</td>
<td>Paging Channel Assignment</td>
</tr>
<tr>
<td>010</td>
<td>Acquire Analog System</td>
</tr>
<tr>
<td>011</td>
<td>Analog Voice Channel Assignment</td>
</tr>
<tr>
<td>100</td>
<td>Enhanced Traffic Channel Assignment</td>
</tr>
</tbody>
</table>

All other values are reserved.

RESERVED_2 - Reserved bits.

The base station shall set this field to ‘00000’.

Additional record fields - Additional record fields.
The additional record fields are determined by the value of ASSIGN_MODE, as described below.

If the ASSIGN_MODE field is set to '000', the base station shall include the following fields:

- **FREQ_INCL** - Frequency included indicator.
  - If the BAND_CLASS and CDMA_FREQ fields are included in this assignment record, the base station shall set this bit to '1'. If the BAND_CLASS and CDMA_FREQ fields are not included in this assignment record, the base station shall set this bit to '0'.

- **DEFAULT_CONFIG** - Default Configuration.
  - If the GRANTED_MODE field is set to '00', the base station shall set this field as specified in Table 3.7.2.3.2.21-2 to indicate an initial multiplex option and radio configuration for the Forward and Reverse Traffic Channels.
  - If MOB_P_REV is less than six, the base station shall not set this field to '100'.

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Table 3.7.2.3.2.21-2. Default Configuration

<table>
<thead>
<tr>
<th>Value (binary)</th>
<th>Default Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>Multiplex Option 1 and Radio Configuration 1 for both the Forward Traffic Channel and the Reverse Traffic Channel</td>
</tr>
<tr>
<td>001</td>
<td>Multiplex Option 2 and Radio Configuration 2 for both the Forward Traffic Channel and the Reverse Traffic Channel</td>
</tr>
<tr>
<td>010</td>
<td>Multiplex Option 1 and Radio Configuration 1 for the Forward Traffic channel; Multiplex Option 2 and Radio Configuration 2 for the Reverse Traffic channel</td>
</tr>
<tr>
<td>011</td>
<td>Multiplex Option 2 and Radio Configuration 2 for the Forward Traffic channel; Multiplex Option 1 and Radio Configuration 1 for the Reverse Traffic channel</td>
</tr>
<tr>
<td>100</td>
<td>FOR_FCH_RC or FOR_RC included in this message for the Forward Fundamental Channel or the Forward Dedicated Control Channel and REV_FCH_RC or REV_RC included in this message for the Reverse Fundamental or the Reverse Dedicated Control Channel. Use 20ms frames. Use Multiplex Option 1 for radio configurations that include the bit rate of 9600 bps; Use Multiplex Option 2 for radio configurations that include the bit rate of 14400 bps.</td>
</tr>
</tbody>
</table>

All other values are reserved.

BYPASS_ALERT-ANSWER - Bypass alert indicator.
If the base station has received a Page Response Message that specifies a packet data service option, and the mobile station is to bypass the Waiting for Order Substate and the Waiting for Mobile Station Answer Substate, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

RESERVED - Reserved bit.
The base station shall set this field to ‘0’.
NUM_PILOTS - Number of pilots in the Active Set.

The base station shall set this field to number of pilots that are to be in the mobile station’s Active Set on the Traffic Channel minus one. The base station shall set this field to the value in the range 0 to N6m-1 inclusive.

GRANTED_MODE - Granted mode.

The base station shall set this field to ‘00’ to indicate that the mobile station is to use an initial service configuration consisting of the multiplex option and radio configuration defined by the DEFAULT_CONFIG field for the Forward and Reverse Traffic Channels, and to indicate that service negotiation may take place before the base station sends the first Service Connect Message.

The base station shall set this field to ‘01’ to indicate that the mobile station is to use an initial service configuration consisting of the default multiplex option and transmission rates corresponding to the service option requested by the that is derived from the radio configuration corresponding to Table 3.7.2.3.2.21-7 mobile station either in the Origination Message or Page Response Message, and to indicate that service negotiation may take place before the base station sends the first Service Connect Message.

The base station shall set this field to ‘10’ to indicate that the mobile station is to use an initial service configuration consisting of the default multiplex option and transmission that is derived from the radio configuration corresponding to Table 3.7.2.3.2.21-7 rates corresponding to the service option requested by the mobile station either in the Origination Message or Page Response Message, and to indicate that service negotiation is not to take place before the base station sends the first Service Connect Message.

Table 3.7.2.3.2.21-7. Mapping between Multiplex Options and Radio Configurations

<table>
<thead>
<tr>
<th>Multiplex Option</th>
<th>Radio Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiplex Option 1</td>
<td>Forward link: RC1, RC3, RC4, RC6, or RC7</td>
</tr>
<tr>
<td></td>
<td>Reverse Link: RC1, RC3 or RC5</td>
</tr>
<tr>
<td>Multiplex Option 2</td>
<td>Forward link: RC2, RC5, RC 8, or RC9</td>
</tr>
<tr>
<td></td>
<td>Reverse Link: RC2, RC4 or RC 6</td>
</tr>
</tbody>
</table>

FRAME_OFFSET - Frame offset.

The Forward and Reverse Traffic Channel frames are delayed FRAME_OFFSET × 1.25 ms relative to system timing (see [2]).
The base station shall set this field to the Forward and Reverse Traffic Channel frame offset.

**ENCRYPT_MODE** - Message encryption mode.
The base station shall set this field to the ENCRYPT_MODE value shown in Table 3.7.2.3.2.8-2 corresponding to the encrypting mode that is to be used for signaling messages, as specified in 2.3.12.2.

**BAND_CLASS** - Band class.
If the FREQ_INCL bit is set to ‘1’, the base station shall set this field to the CDMA band class, as specified in [30], corresponding to the CDMA frequency assignment for the CDMA Channel containing the Forward Traffic Channel the mobile station is to use. If the FREQ_INCL bit is set to ‘0’, the base station shall omit this field.

**CDMA_FREQ** - Frequency assignment.
If the FREQ_INCL bit is set to ‘1’, the base station shall set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA frequency assignment for the CDMA Channel containing the Forward Traffic Channel the mobile station is to use. If the FREQ_INCL bit is set to ‘0’, the base station shall omit this field.

The base station shall include NUM_PILOTS plus one occurrence of the following three-field record, one for each member of the mobile station’s Active Set on the Traffic Channel.

**PILOT_PN** - Pilot PN sequence offset index.
The base station shall set this field to the pilot PN sequence offset for this pilot in units of 64 PN chips.

**PWR_COMB_IND** - Power control symbol combining indicator.
If the Forward Traffic Channel associated with this pilot will carry the same closed-loop power control subchannel bits as that of the previous pilot in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’. For the first occurrence of this record in the message, the base station shall set this field to ‘0’.

**CODE_CHAN** - Code channel index.
The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the Forward Traffic Channel associated with this pilot. If Radio Configuration 1, 2, 3, or 5 (see 3.1.3.1.2 of [2]) is used, the base station shall set this field in the range 1 to 63 inclusive. If Radio Configuration 4, 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

**FOR_FCH_RC** - Forward Fundamental Channel radio configuration
The base station shall set this field to the radio configuration
(see Table 3.7.2.3.2.21-3) to be used by the mobile station on
the Forward Fundamental Channel before the first Service
Connect Message is sent to the mobile station.

If GRANTED_MODE is set to ‘00’, and DEFAULT_CONFIG is
not set to ‘100’ (see Table 3.7.2.3.2.21-2), the base station
shall set this field to either ‘00001’ or ‘00010’ (see Table
3.7.2.3.2.21-3).

REV_FCH_RC - Reverse Fundamental Channel radio configuration

The base station shall set this field to the radio configuration
(see Table 3.7.2.3.2.21-3) to be used by the mobile station on
the Reverse Fundamental Channel before the first Service
Connect Message is sent to the mobile station.

If GRANTED_MODE is set to ‘00’, and DEFAULT_CONFIG is
not set to ‘100’ (see Table 3.7.2.3.2.21-2), the base station
shall set this field to either ‘00001’ or ‘00010’ (see Table
3.7.2.3.2.21-3).

Table 3.7.2.3.2.21-3. Radio Configurations

<table>
<thead>
<tr>
<th>Value (binary)</th>
<th>Radio Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>00001</td>
<td>RC 1</td>
</tr>
<tr>
<td>00010</td>
<td>RC 2</td>
</tr>
<tr>
<td>00011</td>
<td>RC 3</td>
</tr>
<tr>
<td>00100</td>
<td>RC 4</td>
</tr>
<tr>
<td>00101</td>
<td>RC 5</td>
</tr>
<tr>
<td>00110</td>
<td>RC 6</td>
</tr>
<tr>
<td>00111</td>
<td>RC 7</td>
</tr>
<tr>
<td>01000</td>
<td>RC 8</td>
</tr>
<tr>
<td>01001</td>
<td>RC 9</td>
</tr>
</tbody>
</table>

All other values are reserved.

FPC_FCH_INIT_SETPT - Initial Fundamental Channel outer loop Eb/Nt setpoint.

The base station shall set this field to initial Fundamental
Channel outer loop Eb/Nt setpoint, in units of 0.125 dB.

FPC_SUBCHAN_GAIN - Forward power control subchannel relative gain.
The base station shall set FPC_SUBCHAN_GAIN equal to the power level of the forward link power control subchannel relative to the power level of 20 ms frames at a 9600 bps or 14400 bps rate of the Forward Fundamental Channel that the Forward Power Control Subchannel is punctured on. The base station shall set the value in units of 0.25 dB.

RLGAIN_ADJ - Reverse Traffic Channel power relative to access power.

The base station shall set this field to adjust the initial Traffic Channel transmission power relative to the Access Channel or Enhanced Access Channel transmission power. The base station shall set this field as a two’s complement signed binary number, in units of 1 dB.

FPC_FCH_FER - Fundamental Channel target Frame Error Rate.

The base station shall set this field to the target Frame Error Rate on the Forward Fundamental Channel, as specified in Table 3.7.3.3.2.25-2.

FPC_FCH_MIN_SETPT - Minimum Fundamental Channel Outer Loop Eb/Nt setpoint.

The base station shall set this field to minimum Fundamental Channel Outer Loop Eb/Nt setpoint, in units of 0.125 dB.

FPC_FCH_MAX_SETPT - Maximum Fundamental Channel Outer Loop Eb/Nt setpoint.

The base station shall set this field to maximum Fundamental Channel Outer Loop Eb/Nt setpoint, in units of 0.125 dB.

REV_FCH-_GATING_MODE - Reverse eighth gating mode indicator.

The base station shall set this field to ‘1’ if the mobile station is allowed to perform the reverse eighth gating mode where the 1/8th rate frames on the Reverse Fundamental Channel are gated off for 10 ms per frame (see 2.1.2.3.2 of [2]); otherwise, the base station shall set this field to ‘0’.

The base station shall not set this field to ‘1’ if REV_FCH_GATING_REQ included in the Origination Message or Page Response Message is set to ‘0’.

REV_PWR-_CNTL_DELAY_INCL - Reverse power control delay included indicator.

If REV_FCH_GATING_MODE is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows.

The base station shall set this field to ‘1’ if REV_PWR_CNTL_DELAY is included in this message; otherwise, the base station shall set this field to ‘0’.

If the REV_FCH_GATING_MODE field in this message is set to ‘1’ and the REV_PWR_CNTL_DELAY_INCL field in the Extended System Parameters Message or MC-RR Parameters Message is set to ‘0’, the base station shall set this field to ‘1’.
REV_PWR_CNTL_DELAY - The reverse power control delay.

If REV_PWR_CNTL_DELAY_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to the closed-loop reverse power control delay minus one (the closed-loop reverse power control delay is the time between the end of a gated-on reverse PCG and the beginning of the reverse PCG where the corresponding feedback is sent on the Forward Power Control Subchannel, see 2.1.2.3.2 of [2]) used by the mobile station after handoff, in units of 1.25 ms.

D_SIG_ENCRYPT_MODE - General Dedicated channel signaling encryption mode indicator.

If ENCRYPT_MODE is set to '11', the base station shall include this field and shall set it to the dedicated channel signaling message encryption mode, as shown in Table 3.7.4.5-1; otherwise the base station shall omit this field.

USE_NEW_KEY - Use new encryption key indication

If ENCRYPT_MODE is set to '10' or '11', the base station shall include this field. If this field is included, the base station shall set this field to '0' to indicate that the stored encryption key to be used by the mobile station. Otherwise, the base station shall set this field to '1' to indicate that the new encryption key to be used by the mobile station.

ENC_KEY_SIZE - Encryption key size indication.

If ENCRYPT_MODE is set to '10' or '11' USE_NEW_KEY is included and is set to '0', the base station shall include this field and shall set it to the encryption key size, as shown in Table 3.7.4.5-2; otherwise, the base station shall omit this field.

KEY_SEQ - Encryption key sequence number.

If USE_NEW_KEY is included and is set to '0', the base station shall include this field; otherwise, the base station shall omit this field. If this field is included, the base station shall set it to the encryption key sequence number to be used by the mobile station.

C_SIG_ENCRYPT_MODE_INCL - Common channel signaling encryption mode included indicator.

If P_REV_IN_USE is less than seven, the base station shall set this field to '0'; otherwise, the base station shall set this field as follows:

If common channel signaling encryption information is included in this message, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

C_SIG_ENCRYPT
_MODE_ - Common channel signaling encryption mode indicator.

If C_SIG_ENCRYPT_MODE_INCL is set to ‘1’, the base station shall include this field and shall set it to the common channel signaling_encryption_mode, as shown in Table 3.7.4.5-1; otherwise, the base station shall omit this field.

RESERVED - Reserved bits.

The base station shall add reserved bits as needed in order to make the total length of the fields after the preceding ADD_RECORD_LEN field through this RESERVED field equal to an integer number of octets. The base station shall set these bits to ‘0’.

If the ASSIGN_MODE field is set to ‘001’, the base station shall include the following fields:

RESPOND - Respond on new Access Channel indicator.

If the mobile station is to retransmit an Origination Message or Page Response Message after processing this channel assignment, the base station shall set this field to ‘1’. The base station may set this field to ‘0’ only in response to a Page Response Message.

FREQ_INCL - Frequency included indicator.

If the BAND_CLASS and CDMA_FREQ fields are included in this assignment record, the base station shall set this bit to ‘1’. If the BAND_CLASS and CDMA_FREQ fields are not included in this assignment record, the base station shall set this bit to ‘0’.

BAND_CLASS - Band class.

If the FREQ_INCL bit is set to ‘1’, the base station shall set this field to the CDMA band class, as specified in [30], corresponding to the CDMA frequency assignment for the CDMA Channel containing the Paging Channel the mobile station is to use. If the FREQ_INCL bit is set to ‘0’, the base station shall omit this field.

CDMA_FREQ - Frequency assignment.

If the FREQ_INCL bit is set to ‘1’, the base station shall set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA frequency assignment for the CDMA Channel containing the Paging Channel the mobile station is to use. If the FREQ_INCL bit is set to ‘0’, the base station shall omit this field.
NUM_PILOTS - Number of pilots whose Paging Channel may be monitored.

The base station shall set this field to the number of pilots whose Paging Channel may be monitored by the mobile station minus one. The base station shall set this field to the value in the range 0 to N8m – 1 inclusive.

The base station shall include NUM_PILOTS plus one occurrence of the following field record for each pilot whose Paging Channel may be monitored by the mobile station.

PILOT_PN - Pilot PN sequence offset index.

The base station shall include one occurrence of this field for each base station whose Paging Channel may be monitored by the mobile station. For each occurrence, the base station shall set this field to the pilot PN sequence offset for a base station, in units of 64 PN chips. The base station having this pilot PN sequence offset should support a Primary Paging Channel with the same Paging Channel rate as the current base station.

RESERVED - Reserved bits.

The base station shall add reserved bits as needed in order to make the total length of the fields after the preceding ADD_RECORD_LEN field through this RESERVED field equal to an integer number of octets. The base station shall set these bits to ‘0’.

If the ASSIGN_MODE field is set to ‘010’, the base station shall include the following fields:

RESPOND - Respond on analog control channel indicator.

If the mobile station is to retransmit an Origination Message or Page Response Message on the analog control channel (see [6]) after processing this channel assignment, the base station shall set this field to ‘1’. The base station may set this field to ‘0’ only in response to a Page Response Message.

ANALOG_SYS - System indicator.

If USE_ANALOG_SYS is equal to ‘0’, the base station shall set this field to ‘0’; otherwise, the base station shall set this field to ‘0’ if the mobile station is to use analog system A, or to ‘1’ if the mobile station is to use analog system B.

USE_ANALOG_SYS - Use analog system indicator.

The base station shall set this field to ‘1’ to direct the mobile station to the analog system specified by ANALOG_SYS; otherwise, the base station shall set this field to ‘0’.

BAND_CLASS - Band class.

The base station shall set this field according to values defined in [30].
If the ASSIGN_MODE field is set to ‘011’, the base station shall include the following fields:

**SID** - System identification of the analog system.

The base station shall set this field to the system identification of the analog system supporting the assigned voice channel for this assignment (see [6]).

**VMAC** - Voice mobile station attenuation code.

The base station shall set this field to the mobile station power level associated with the assigned voice channel for this assignment (see [6]).

**ANALOG_CHAN** - Voice channel number.

The base station shall set this field to the voice channel number for this assignment (see [6]).

**SCC** - SAT color code.

The base station shall set this field to the supervisory audio tone color code associated with the assigned voice channel. If the assignment is to a narrow analog channel, the base station shall set this field to the two least significant bits of the DSCC.

**MEM** - Message encryption mode indicator.

If analog control message encryption is to be enabled on the assigned forward and reverse analog voice channels, the base station shall set this bit to ‘1’; otherwise, the base station shall set this bit to ‘0’.

**AN_CHAN_TYPE** - Analog voice channel type.

The base station shall set this field to the analog channel type as specified in Table 3.7.3.3.2.6-1. If the mobile station does not have narrow analog capability, the base station shall set this field to ‘00’.

**DSCC_MSB** - Digital supervisory audio tone color code most significant bit.

The base station shall set this field to ‘0’ when directing handoff to a wide analog channel. The base station shall set this field to the most significant bit of the DSCC when directing handoff to a narrow analog channel.

**BAND_CLASS** - Band class.

The base station shall set this field according to values defined in [30].

If the ASSIGN_MODE field is set to ‘100’, the base station shall include the following fields:

**FREQ_INCL** - Frequency included indicator.

If the BAND_CLASS and CDMA_FREQ fields are included in this assignment record, the base station shall set this bit to ‘1’. If the BAND_CLASS and CDMA_FREQ fields are not included in this assignment record, the base station shall set this bit to ‘0’.

<table>
<thead>
<tr>
<th>BAND_CLASS</th>
<th>Band class.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>If the FREQ_INCL bit is set to ‘1’, the base station shall set this field to the CDMA band class, as specified in [30], corresponding to the CDMA frequency assignment for the CDMA Channel containing the Forward Traffic Channel(s) the mobile station is to use. If the FREQ_INCL bit is set to ‘0’, the base station shall omit this field.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CDMA_FREQ</th>
<th>Frequency assignment.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>If the FREQ_INCL bit is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:</td>
</tr>
<tr>
<td></td>
<td>If FOR_RC is set to a Radio Configuration associated with Spreading Rate 1, the FREQ_INCL bit is set to ‘1’, the base station shall set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA frequency assignment for the CDMA Channel containing the Forward Traffic Channel(s) the mobile station is to use. If FOR_RC is set to a Radio Configuration associated with Spreading Rate 3, the base station shall set this field to the center SR3 frequency assignment containing the Forward Traffic Channel(s) the mobile station is to use.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BYPASS_ALERT-ANSWER</th>
<th>Bypass alert indicator.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>If the base station has received a Page Response Message that specifies a packet data service option, and the mobile station is to bypass the Waiting for Order Substate and the Waiting for Mobile Station Answer Substate, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GRANTED_MODE</th>
<th>Granted mode.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The base station shall set this field to ‘00’ to indicate that the mobile station is to use an initial service configuration consisting of the multiplex option and Radio Configuration defined by the DEFAULT_CONFIG field for the Forward and Reverse Traffic channels, and to indicate that service negotiation may take place before the base station sends the first Service Connect Message.</td>
</tr>
<tr>
<td></td>
<td>The base station shall set this field to ‘01’ to indicate that the mobile station is to use an initial service configuration consisting of the default multiplex option that is derived from the radio configuration corresponding to Table 3.7.2.3.2.21-7 and transmission rates corresponding to the service option requested by the mobile station either in the Origination Message or Page Response Message, and to indicate that service negotiation may take place before the base station sends the first Service Connect Message.</td>
</tr>
</tbody>
</table>
The base station shall set this field to ‘10’ to indicate that the
mobile station is to use an initial service configuration
consisting of the default multiplex option that is derived from
the radio configuration corresponding to Table 3.7.2.3.2.21-7
and transmission rates corresponding to the service option
requested by the mobile station either in the Origination
Message or Page Response Message, and to indicate that
service negotiation is not to take place before the base station
sends the first Service Connect Message.

DEFAULT_CONFIG - Default Configuration.
If the GRANTED_MODE field is set to ‘00’, the base station
shall set this field as specified in Table 3.7.2.3.2.21-2 to
indicate an initial multiplex option and Radio Configuration
for the Forward and Reverse Traffic Channels.

FOR_RC - Forward Traffic Channel radio configuration.
The base station shall set this field to the radio configuration
(see Table 3.7.2.3.2.21-3) to be used by the mobile station on
the Forward Traffic (Fundamental and Dedicated Control)
Channel before the first Service Connect Message is sent to the
mobile station.
If GRANTED_MODE is set to ‘00’, and DEFAULT_CONFIG is
not set to ‘100’ (see Table 3.7.2.3.2.21-2), the base station
shall set this field to either ‘00001’ or ‘00010’ (see Table
3.7.2.3.2.21-3).

REV_RC - Reverse Traffic Channel radio configuration.
The base station shall set this field to the radio configuration
(see Table 3.7.2.3.2.21-3) to be used by the mobile station on
the Reverse Traffic (Fundamental and Dedicated Control)
Channel before the first Service Connect Message is sent to the
mobile station.
If GRANTED_MODE is set to ‘00’, and DEFAULT_CONFIG is
not set to ‘100’ (see Table 3.7.2.3.2.21-2), the base station
shall set this field to either ‘0001’ or ‘0010’ (see Table
3.7.2.3.21-3).

FRAME_OFFSET - Frame offset.
The Forward and Reverse Traffic Channel frames are delayed
FRAME_OFFSET \times 1.25 \text{ ms} \text{ relative to system timing (see [2]).}
The base station shall set this field to the Forward and
Reverse Traffic Channel frame offset.

ENCRIPT_MODE - Message encryption mode.
The base station shall set this field to the ENCRYPT_MODE
value shown in Table 3.7.2.3.2.8-2 corresponding to the
encrypting mode that is to be used for signaling messages, as
specified in 2.3.12.2.

FPC_SUBCHAN_GAIN - Forward Power Control Subchannel relative gain.
The base station shall set FPC_SUBCHAN_GAIN equal to the power level of the forward link power control subchannel relative to the power level of 20 ms frames at a 9600 bps or 14400 bps rate on the Forward Fundamental Channel or the Forward Dedicated Control Channel that the Forward Power Control Subchannel is punctured on. The base station shall set the value in units of 0.25 dB.

RLGAIN_ADJ  -  Reverse Traffic Channel power relative to access power.

The base station shall set this field to adjust the initial Traffic Channel transmission power relative to the Access Channel or Enhanced Access Channel transmission power. The base station shall set this field as a two's complement signed binary number, in units of 1 dB.

NUM_PILOTS  -  Number of pilots in the Active Set.

The base station shall set this field to number of pilots that are to be in the mobile station's Active Set on the Traffic Channel minus one. The base station shall set this field to the value in the range 0 to N6m-1 inclusive.

CH_IND  -  Channel indicator.

The base station shall set this field as shown in Table 3.7.2.3.2.21-4.

<table>
<thead>
<tr>
<th>Value (Binary)</th>
<th>Channels Being Assigned</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Reserved</td>
</tr>
<tr>
<td>01</td>
<td>Fundamental Channel only</td>
</tr>
<tr>
<td>10</td>
<td>Dedicated Control Channel only</td>
</tr>
<tr>
<td>11</td>
<td>Both Fundamental Channel and Dedicated Control Channel</td>
</tr>
</tbody>
</table>

CH_RECORD_LEN  -  Channel record length.

The base station shall set this field to the number of octets in the CH_RECORDFIELDS included in this channel record.

CH_RECORD_FIELDS  -  Channel record fields.

The channel record fields are determined by the value of CH_IND, as described below.

REV_FCH-_GATING_MODE  -  Reverse eighth gating mode indicator.
The base station shall set this field to ‘1’ if the mobile station is allowed to perform the reverse eighth gating mode where the 1/8\textsuperscript{th} rate frames on the Reverse Fundamental Channel are gated off for 10 ms per frame (see 2.1.2.3.2 of [2]); otherwise, the base station shall set this field to ‘0’.

The base station shall not set this field to ‘1’ if REV_FCH_GATING_REQ included in the Origination Message or Page Response Message is set to ‘0’.

\textbf{REV_PWR_CNTL_DELAY_INCL} - Reverse power control delay included indicator.

If REV_FCH_GATING_MODE is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to ‘1’ if REV_PWR_CNTL_DELAY is included in this message; otherwise, the base station shall set this field to ‘0’.

If the REV_FCH_GATING_MODE field in this message is set to ‘1’ and the REV_PWR_CNTL_INCL field in the Extended System Parameters Message is set to ‘0’, the base station shall set this field to ‘1’.

\textbf{REV_PWR_CNTL_DELAY} - The reverse power control delay.

If REV_PWR_CNTL_DELAY_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to the closed-loop reverse power control delay minus one (the closed-loop reverse power control delay is the time between the end of a gated-on reverse PCG and the beginning of the reverse PCG where the corresponding feedback is sent on the Forward Power Control Subchannel, see 2.1.2.3.2 of [2]) used by the mobile station after handoff, in units of 1.25 ms.

\textbf{D_SIG_ENCRYPT_MODE} - Dedicated channelGeneral encryption mode indicator.

If ENCRYPT_MODE is set to ‘11’, the base station shall include this field and shall set it to the dedicated channel signaling message encryption mode, as shown in Table 3.7.4.5-1; otherwise the base station shall omit this field.

\textbf{USE_NEW_KEY} - Use new encryption key indication

If ENCRYPT_MODE is set to ‘10’ or ‘11’, the base station shall include this field. If this field is included, the base station shall set this field to ‘0’ to indicate that the stored encryption key to be used by the mobile station. Otherwise, the base station shall set this field to ‘1’ to indicate that the new encryption key to be used by the mobile station.
ENC_KEY_SIZE - Encryption key size indication.

If ENCRYPT_MODE is set to ‘10’ or ‘11’ USE_NEW_KEY is included and is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and shall set it to the encryption key size, as shown in Table 3.7.4.5-2; otherwise, the base station shall omit this field.

KEY_SEQ - Encryption key sequence number.

If USE_NEW_KEY is included and is set to ‘0’, the base station shall include this field; otherwise, the base station shall omit this field.

C_SIG_ENCRYPT_MODE_INCL - Common channel signaling encryption mode included indicator.

If P_REV_IN_USE is less than seven, the base station shall set this field to ‘0’; otherwise, the base station shall set this field as follows:

If common channel signaling encryption information is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

C_SIG_ENCRYPT_MODE - Common channel signaling encryption mode indicator.

If C_SIG_ENCRYPT_MODE_INCL is set to ‘1’, the base station shall include this field and shall set it to the common channel signaling encryption mode, as shown in Table 3.7.4.5-1; otherwise, the base station shall omit this field.

3XFL_1XRL_INCL - 3X Forward Link and 1X Reverse Link indicator.

The base station shall set this field to ‘1’ if the base station is assigning 3X traffic channel on the Forward Link and 1X traffic channel on the Reverse Link; otherwise, the base station shall set this field to ‘0’.

1XRL_FREQ_OFFSET - 1X Reverse Link frequency offset.

If 3XFL_1XRL_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the value shown in Table 3.7.2.3.2.21-5 corresponding to the frequency offset of the 1X reverse link.
Table 3.7.2.3.2.21-5. 1X Reverse Link Frequency Offset

<table>
<thead>
<tr>
<th>1XRL_FREQ_OFFSET (Binary)</th>
<th>1X Reverse Link frequency offset</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>The Reverse Link is on the lowest SR3 frequency</td>
</tr>
<tr>
<td>01</td>
<td>The Reverse Link is on the center SR3 frequency</td>
</tr>
<tr>
<td>10</td>
<td>The Reverse Link is on the highest SR3 frequency</td>
</tr>
<tr>
<td>11</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

RESERVED - Reserved bits.

The base station shall set all the bits of this field to ‘0’ to make the entire record octet-aligned.

If the CH_IND field is set to ‘01’, the base station shall include the following fields:

FPC_FCH_INIT_SETPT - Initial Fundamental Channel outer loop Eb/Nt setpoint.

The base station shall set this field to initial Fundamental Channel outer loop Eb/Nt setpoint, in units of 0.125 dB.

FPC_FCH_FER - Fundamental channel target Frame Error Rate.

The base station shall set this field to the target Frame Error Rate on the Forward Fundamental Channel, as specified in Table 3.7.3.3.2.25-2.

FPC_FCH_MIN_SETPT - Minimum Fundamental Channel Outer Loop Eb/Nt setpoint.

The base station shall set this field to minimum Fundamental Channel Outer Loop Eb/Nt setpoint, in units of 0.125 dB.

FPC_FCH_MAX_SETPT - Maximum Fundamental Channel Outer Loop Eb/Nt setpoint.

The base station shall set this field to maximum Fundamental Channel Outer Loop Eb/Nt setpoint, in units of 0.125 dB.

The base station shall include NUM_PILOTS plus one occurrence of the following record, one for each member of the mobile station’s Active Set on the Traffic Channel.

PILOT_PN - Pilot PN sequence offset index.

The base station shall set this field to the pilot PN sequence offset for this pilot in units of 64 PN chips.
ADD_PILOT_REC_INCL - Additional pilot information included indicator.

The base station shall set this field to ‘1’ if additional pilot information listed in PILOT_REC_TYPE and RECORD_LEN fields are included. The base station shall set this field to ‘0’ if the corresponding pilot is the common pilot and there is no additional pilot information included.

PILOT_REC_TYPE - Pilot record type.

If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall set this field to the PILOT_REC_TYPE value shown in Table 3.7.2.3.2.21-6 corresponding to the type of Pilot Record specified by this record.

If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

<table>
<thead>
<tr>
<th>Description</th>
<th>PILOT_REC_TYPE (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1X Common Pilot with Transmit Diversity</td>
<td>000</td>
</tr>
<tr>
<td>1X Auxiliary Pilot</td>
<td>001</td>
</tr>
<tr>
<td>1X Auxiliary Pilot with Transmit Diversity</td>
<td>010</td>
</tr>
<tr>
<td>3X Common Pilot</td>
<td>011</td>
</tr>
<tr>
<td>3X Auxiliary Pilot</td>
<td>100</td>
</tr>
<tr>
<td>All other PILOT_REC_TYPE values are reserved</td>
<td></td>
</tr>
</tbody>
</table>

RECORD_LEN - Pilot record length.

If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall set this field to the number of octets in the type-specific fields of this pilot record.

If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

Type-specific fields - Pilot record type-specific fields.

If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall include type-specific fields based on the PILOT_REC_TYPE of this pilot record as described in 3.7.6.1.

If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

PWR_COMB_IND - Power control symbol combining indicator.
If the Forward Fundamental Traffic Channel associated with this pilot will carry the same closed-loop power control subchannel bits as that of the previous pilot in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’. For the first occurrence of this record in the message, the base station shall set this field to ‘0’.

**CODE_CHAN_FCH** - Code channel index for the Fundamental Channel.

If FOR_RC is set to a Radio Configuration associated with Spreading Rate 1, the base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the Forward Fundamental Channel associated with this pilot. If FOR_RC is set to a Radio Configuration associated with Spreading Rate 3, the base station shall set this field to the code channel index that the mobile station is to use on the Forward Fundamental on the center SR3 frequency.

If Radio Configuration 1, 2, 3, or 5 (see 3.1.3.1.2 of [2]) is used, the base station shall set this field in the range 1 to 63 inclusive. If Radio Configuration 4, 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

**QOF_MASK_ID_FCH** - Quasi-Orthogonal Function Mask Identifier for the Fundamental Channel.

If FOR_RC is set to a Radio Configuration associated with Spreading Rate 1, the base station shall set this field to the quasi-orthogonal function mask identifier (see Table 3.1.3.1.12-2 of [2]) that the mobile station is to use on the Forward Fundamental Channel associated with this pilot. If FOR_RC is set to a Radio Configuration associated with Spreading Rate 3, the base station shall set this field to the quasi-orthogonal function mask identifier that the mobile station is to use on the Forward Fundamental Channel on the center SR3 frequency.

**3X_FCH_INFO_INCL** - 3X FCH information included indicator.

If the 3X Fundamental Channel information is included, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

The base station shall include NUM_PILOTS plus one occurrence of the following record if 3X_FCH_INFO_INCL is set to ‘1’. The base station shall use the same order for the following fields as is used for the PILOT_PN fields listed in this message.

**3X_FCH_LOW_INCL** - FCH code channel on the lowest SR3 frequency included indicator.

If the FCH on the lowest SR3 frequency has a different code channel than the FCH on the center SR3 frequency, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.
QOF_MASK_ID-FCH_LOW – QOF index for the FCH on the lowest SR3 frequency.

If 3X_FCH_LOW_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) corresponding to the QOF index for the FCH on the lowest SR3 frequency.

CODE_CHAN-FCH_LOW - Code channel for the FCH on the lowest SR3 frequency.

If 3X_FCH_LOW_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the FCH on the lowest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

3X_FCH_HIGH_INCL – FCH code channel on the highest SR3 frequency included indicator.

If the FCH on the highest SR3 frequency has a different code channel than the FCH on the center SR3 frequency, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

QOF_MASK_ID-FCH_HIGH – QOF index for the FCH on the highest SR3 frequency.

If 3X_FCH_HIGH_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) corresponding to the QOF index for the FCH on the highest SR3 frequency.

CODE_CHAN-FCH_HIGH – Code channel for the FCH on the highest SR3 frequency.

If 3X_FCH_HIGH_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:
The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the FCH on the highest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

RESERVED - Reserved bits.

The base station shall add reserved bits as needed in order to make the total length of the fields after the preceding CH_RECORD_LEN field through this RESERVED field equal to an integer number of octets. The base station shall set these bits to ‘0’.

If the CH_IND field is set to ‘10’, the base station shall include the following fields:

FPC_DCCH_INIT_SETPT - Initial Dedicated Control Channel outer loop Eb/Nt setpoint.

The base station shall set this field to initial Dedicated Control Channel outer loop Eb/Nt setpoint, in units of 0.125 dB.

FPC_DCCH_FER - Dedicated Control Channel target Frame Error Rate.

The base station shall set this field to the target Frame Error Rate on the Dedicated Control Channel, as specified in Table 3.7.3.3.2.25-2.

FPC_DCCH_MIN_SETPT - Minimum Dedicated Control Channel Outer Loop Eb/Nt setpoint.

The base station shall set this field to minimum Dedicated Control Channel Outer Loop Eb/Nt setpoint, in units of 0.125 dB.

FPC_DCCH_MAX_SETPT - Maximum Dedicated Control Channel Outer Loop Eb/Nt setpoint.

The base station shall set this field to maximum Dedicated Control Channel Outer Loop Eb/Nt setpoint, in units of 0.125 dB.

The base station shall include NUM_PILOTS plus one occurrence of the following three-field record for each member of the mobile station’s Active Set on the Traffic Channel.

PILOT_PN - Pilot PN sequence offset index.

The base station shall set this field to the pilot PN sequence offset for this pilot in units of 64 PN chips.

ADD_PILOT_REC_INCL - Additional pilot information included indicator.

The base station shall set this field to ‘1’ if additional pilot information listed in PILOT_REC_TYPE and RECORD_LEN fields are included. The base station shall set this field to ‘0’ if the corresponding pilot is the common pilot and there is no additional pilot information included.

PILOT_REC_TYPE - Pilot record type.
If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall set this field to the PILOT_REC_TYPE value shown in Table 3.7.2.3.2.21-6 corresponding to the type of Pilot Record specified by this record.

If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

**RECORD_LEN** - Pilot record length.

If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall set this field to the number of octets in the type-specific fields of this pilot record.

If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

**Type-specific fields** - Pilot record type-specific fields.

If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall include type-specific fields based on the PILOT_REC_TYPE of this pilot record.

If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field as described in 3.7.6.1.

**PWR_COMB_IND** - Power control symbol combining indicator.

If the Forward Dedicated Control Traffic Channel associated with this pilot will carry the same closed-loop power control subchannel bits as that of the previous pilot in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’. For the first occurrence of this record in the message, the base station shall set this field to ‘0’.

**CODE_CHAN_DCCH** - Code channel index for the Dedicated Control Channel.

If FOR_RC is set to a Radio Configuration associated with Spreading Rate 1, the base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the Forward Dedicated Control Channel associated with this pilot. If FOR_RC is set to a Radio Configuration associated with Spreading Rate 3, the base station shall set this field to the code channel index that the mobile station is to use on the Forward Dedicated Control Channel on the center SR3 frequency.

If Radio Configuration 1, 2, 3, or 5 (see 3.1.3.1.2 of [2]) is used, the base station shall set this field in the range 1 to 63 inclusive. If Radio Configuration 4, 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

**QOF_MASK_ID_DCCH** - Quasi-Orthogonal Function Mask Identifier for the Dedicated Control Channel.
If FOR_RC is set to a Radio Configuration associated with Spreading Rate 1, the base station shall set this field to the quasi-orthogonal function mask identifier (see Table 3.1.3.1.12-2 of [2]) that the mobile station is to use on the Forward Dedicated Control Channel associated with this pilot.

If FOR_RC is set to a Radio Configuration associated with Spreading Rate 3, the base station shall set this field to the quasi-orthogonal function mask identifier (see Table 3.1.3.1.12-2 of [2]) that the mobile station is to use on the Forward Dedicated Control Channel on the center SR3 frequency.

3X_DCCH_INFO_INCL – 3X DCCH information included indicator.

If the 3X Dedicated Control Channel information is included, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

The base station shall include NUM_PILOTS plus one occurrence of the following record if 3X_DCCH_INFO_INCL is set to ‘1’. The base station shall use the same order for the following fields as is used for the PILOT_PN fields listed in this message.

3X_DCCH_LOW_INCL – DCCH code channel on the lowest SR3 frequency included indicator.

If the DCCH on the lowest SR3 frequencies has a different code channel than the DCCH on the center SR3 frequency, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

QOF_MASK_ID-_DCCH_LOW – QOF index for the DCCH on the lowest SR3 frequency.

If 3X_DCCH_LOW_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) corresponding to the QOF index for the DCCH on the lowest SR3 frequency.

CODE_CHAN-_DCCH_LOW – Code channel for the DCCH on the lowest SR3 frequency.

If 3X_DCCH_LOW_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the DCCH on the lowest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

3X_DCCH_HIGH_INCL – DCCH code channel on the highest SR3 frequency included indicator.
If the DCCH on the highest SR3 frequencies has a different
code channel than the DCCH on the center SR3 frequency,
the base station shall set this field to ‘1’; otherwise, the base
station shall set this field to ‘0’.

QOF_MASK_ID-_DCCH_HIGH – QOF index for the DCCH on the highest SR3 frequency.

If 3X_DCCH_HIGH_INCL is set to ‘0’, the base station shall
omit this field; otherwise, the base station shall set this field
as follows:

The base station shall set this field to the index of the Quasi-
orthogonal function (see Table 3.1.3.1.12-2 of [2]
corresponding to the QOF index for the DCCH on the highest
SR3 frequency.

CODE_CHAN-_DCCH_HIGH – Code channel for the DCCH on the highest SR3 frequency.

If 3X_DCCH_HIGH_INCL is set to ‘0’, the base station shall
omit this field; otherwise, the base station shall set this field
as follows:

The base station shall set this field to the code channel index
(see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is
to use on the DCCH on the highest SR3 frequency. If Radio
Configuration 6 or 8 is used, the base station shall set this
field in the range 1 to 127 inclusive. If Radio Configuration 7
or 9 is used, the base station shall set this field in the range 1
to 255 inclusive.

RESERVED - Reserved bits.

The base station shall add reserved bits as needed in order to
make the total length of the fields after the preceding
CH_RECORD_LEN field through this RESERVED field equal to
an integer number of octets. The base station shall set these
bits to ‘0’.

If the CH_IND field is set to ‘11’, the base station shall include the following fields:

FPC_FCH_INIT_SETPT - Initial Fundamental Channel outer loop Eb/Nt setpoint.

The base station shall set this field to initial Fundamental
Channel outer loop Eb/Nt setpoint, in units of 0.125 dB.

FPC_DCCH_INIT_SETPT - Initial Dedicated Control Channel outer loop Eb/Nt setpoint.

The base station shall set this field to initial Dedicated Control
Channel outer loop Eb/Nt setpoint, in units of 0.125 dB.

FPC_PRI_CHAN - Power Control Subchannel indicator.
The base station shall set this field to ‘0’ if the mobile station is to perform the primary inner loop estimation on the received Forward Fundamental Channel and the base station is to multiplex the Power Control Subchannel on the Forward Fundamental Channel. The base station shall set this field to ‘1’ if the mobile station is to perform the primary inner loop estimation on the received Forward Dedicated Control Channel and the base station is to multiplex the Power Control Subchannel on the Forward Dedicated Control Channel.

FPC_FCH_FER - Fundamental channel target Frame Error Rate. The base station shall set this field to the target Frame Error Rate on the Forward Fundamental Channel.

FPC_FCH_MIN_SETPT - Minimum Fundamental Channel Outer Loop Eb/Nt setpoint. The base station shall set this field to minimum Fundamental Channel Outer Loop Eb/Nt setpoint, in units of 0.125 dB.

FPC_FCH_MAX_SETPT - Maximum Fundamental Channel Outer Loop Eb/Nt setpoint. The base station shall set this field to maximum Fundamental Channel Outer Loop Eb/Nt setpoint, in units of 0.125 dB.

FPC_DCCH_FER - Dedicated Control Channel target Frame Error Rate. The base station shall set this field to the target Frame Error Rate on the Dedicated Control Channel.

FPC_DCCH_MIN_SETPT - Minimum Dedicated Control Channel Outer Loop Eb/Nt setpoint. The base station shall set this field to minimum Dedicated Control Channel Outer Loop Eb/Nt setpoint, in units of 0.125 dB.

FPC_DCCH_MAX_SETPT - Maximum Dedicated Control Channel Outer Loop Eb/Nt setpoint. The base station shall set this field to maximum Dedicated Control Channel Outer Loop Eb/Nt setpoint, in units of 0.125 dB.

The base station shall include NUM_PILOTS plus one occurrence of the following three-field record, one for each member of the mobile station’s Active Set on the Traffic Channel.

PILOT_PN - Pilot PN sequence offset index. The base station shall set this field to the pilot PN sequence offset for this pilot in units of 64 PN chips.

ADD_PILOT_REC_INCL - Additional pilot information included indicator.
The base station shall set this field to ‘1’ if additional pilot information listed in PILOT_REC_TYPE and RECORD_LEN fields are included. The base station shall set this field to ‘0’ if the corresponding pilot is the common pilot and there is no additional pilot information included.

**PILOT_REC_TYPE** - Pilot record type.

If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall set this field to the PILOT_REC_TYPE value shown in Table 3.7.2.3.2.21-6 corresponding to the type of Pilot Record specified by this record. If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

**RECORD_LEN** - Pilot record length.

If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall set this field to the number of octets in the type-specific fields of this pilot record. If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

**Type-specific fields** - Pilot record type-specific fields.

If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall include type-specific fields based on the PILOT_REC_TYPE of this pilot record as described in 3.7.6.1. If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

**PWR_COMB_IND** - Power control symbol combining indicator.

If the Forward Fundamental Traffic Channel associated with this pilot will carry the same closed-loop power control subchannel bits as that of the previous pilot in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’. For the first occurrence of this record in the message, the base station shall set this field to ‘0’.

**CODE_CHAN_FCH** - Code channel index for the Fundamental Channel.

If FOR_RC is set to a Radio Configuration associated with Spreading Rate 1, the base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the Forward Channel associated with this pilot. If FOR_RC is set to a Radio Configuration associated with Spreading Rate 3, the base station shall set this field to the code channel index that the mobile station is to use on the Forward Channel on the center SR3 frequency.
If Radio Configuration 1, 2, 3, or 5 (see 3.1.3.1.2 of [2]) is used, the base station shall set this field in the range 1 to 63 inclusive. If Radio Configuration 4, 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

**QOF_MASK_ID_FCH** - Quasi-Orthogonal Function Mask Identifier for the Fundamental Channel.

If FOR_RC is set to a Radio Configuration associated with Spreading Rate 1, the base station shall set this field to the quasi-orthogonal function mask identifier (see Table 3.1.3.1.12-2 of [2]) that the mobile station is to use on the Forward Fundamental Channel associated with this pilot. If FOR_RC is set to a Radio Configuration associated with Spreading Rate 3, the base station shall set this field to the quasi-orthogonal function mask identifier that the mobile station is to use on the Forward Fundamental Channel on the center SR3 frequency.

**CODE_CHAN_DCCH** - Code channel index for the Dedicated Control channel.

If FOR_RC is set to a Radio Configuration associated with Spreading Rate 1, the base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]), in the range of 1 to 255 inclusive, that the mobile station is to use on the Dedicated Control Channel associated with this pilot. If FOR_RC is set to a Radio Configuration associated with Spreading Rate 3, the base station shall set this field to the code channel index in the range of 1 to 255 inclusive, that the mobile station is to use on the Dedicated Control Channel on the center SR3 frequency.

If Radio Configuration 1, 2, 3, or 5 (see 3.1.3.1.2 of [2]) is used, the base station shall set this field in the range 1 to 63 inclusive. If Radio Configuration 4, 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

**QOF_MASK_ID_DCCH** - Quasi-Orthogonal Function Mask Identifier for the Dedicated Control Channel.

If FOR_RC is set to a Radio Configuration associated with Spreading Rate 1, the base station shall set this field to the quasi-orthogonal function mask identifier (see Table 3.1.3.1.12-2 of [2]) that the mobile station is to use on the Forward Dedicated Control Channel associated with this pilot. If FOR_RC is set to a Radio Configuration associated with Spreading Rate 3, the base station shall set this field to the quasi-orthogonal function mask identifier that the mobile station is to use on the Forward Dedicated Control Channel on the center SR3 frequency.

**3X_FCH_INFO_INCL** - 3X FCH information included indicator.
If the 3X Fundamental Channel information is included, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

The base station shall include NUM_PILOTS plus one occurrence of the following record if 3X_FCH_INFO_INCL is set to ‘1’. The base station shall use the same order for the following fields as is used for the PILOT_PN fields listed in this message.

3X_FCH_LOW_INCL  –  FCH code channel on the lowest SR3 frequency included indicator.

If the FCH on the lowest SR3 frequencies has a different code channel than the FCH on the center SR3 frequency, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

QOF_MASK_ID-_FCH_LOW  –  QOF index for the FCH on the lowest SR3 frequency.

If 3X_FCH_LOW_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) corresponding to the QOF index for the FCH on the lowest SR3 frequency.

CODE_CHAN-_FCH_LOW  –  Code channel for the FCH on the lowest SR3 frequency.

If 3X_FCH_LOW_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the FCH on the lowest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

3X_FCH_HIGH_INCL  –  FCH code channel on the highest SR3 frequency included indicator.

If the FCH on the highest SR3 frequencies has a different code channel than the FCH on the center SR3 frequency, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

QOF_MASK_ID-_FCH_HIGH  –  QOF index for the FCH on the highest SR3 frequency.

If 3X_FCH_HIGH_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:
The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) corresponding to the QOF index for the FCH on the highest SR3 frequency.

**CODE_CHAN_FCH_HIGH**  
- Code channel for the FCH on the highest SR3 frequency.

If 3X_FCH_HIGH_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the FCH on the highest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

**3X_DCCH_INFO_INCL**  
- 3X DCCH information included indicator.

If the 3X Dedicated Control Channel information is included, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

The base station shall include NUM_PILOTS plus one occurrence of the following record if 3X_DCCH_INFO_INCL is set to ‘1’. The base station shall use the same order for the following fields as is used for the PILOT_PN fields listed in this message.

**3X_DCCH_LOW_INCL**  
- DCCH code channel on the lowest SR3 frequency included indicator.

If the DCCH on the lowest SR3 frequencies has a different code channel than the DCCH on the center SR3 frequency, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**QOF_MASK_ID_DCCH_LOW**  
- QOF index for the DCCH on the lowest SR3 frequency.

If 3X_DCCH_LOW_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) corresponding to the QOF index for the DCCH on the lowest SR3 frequency.

**CODE_CHAN_DCCH_LOW**  
- Code channel for the DCCH on the lowest SR3 frequency.

If 3X_DCCH_LOW_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:
The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the DCCH on the lowest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

3X_DCCH_HIGH_INCL – DCCH code channel on the highest SR3 frequency included indicator.

If the DCCH on the highest SR3 frequencies has a different code channel than the DCCH on the center SR3 frequency, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

QOF_MASK_ID_DCCH_HIGH – QOF index for the DCCH on the highest SR3 frequency.

If 3X_DCCH_HIGH_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2] corresponding to the QOF index for the DCCH on the highest SR3 frequency.

CODE_CHAN_DCCH_HIGH – Code channel for the DCCH on the highest SR3 frequency.

If 3X_DCCH_HIGH_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the DCCH on the highest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

RESERVED – Reserved bits.

The base station shall add reserved bits as needed in order to make the total length of the fields after the preceding CH_RECORD_LEN field through this RESERVED field equal to an integer number of octets. The base station shall set these bits to ‘0’.
### 3.7.2.3.2.22 General Neighbor List Message

**MSG_TAG:** GNLM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>CONFIG_MSG_SEQ</td>
<td>6</td>
</tr>
<tr>
<td>PILOT_INC</td>
<td>4</td>
</tr>
<tr>
<td>NGHBR_SRCH_MODE</td>
<td>2</td>
</tr>
<tr>
<td>NGHBR_CONFIG_PN_INCL</td>
<td>1</td>
</tr>
<tr>
<td>FREQ_FIELDS_INCL</td>
<td>1</td>
</tr>
<tr>
<td>USE_TIMING</td>
<td>1</td>
</tr>
<tr>
<td>GLOBAL_TIMING_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>GLOBAL_TX_DURATION</td>
<td>0 or 4</td>
</tr>
<tr>
<td>GLOBAL_TX_PERIOD</td>
<td>0 or 7</td>
</tr>
<tr>
<td>NUM_NGHBR</td>
<td>6</td>
</tr>
</tbody>
</table>

**NUM_NGHBR** occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGHBR_CONFIG</td>
<td>0 or 3</td>
</tr>
<tr>
<td>NGHBR_PN</td>
<td>0 or 9</td>
</tr>
<tr>
<td>SEARCH_PRIORITY</td>
<td>0 or 2</td>
</tr>
<tr>
<td>SRCH_WIN_NGHBR</td>
<td>0 or 4</td>
</tr>
<tr>
<td>FREQ_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>NGHBR_BAND</td>
<td>0 or 5</td>
</tr>
<tr>
<td>NGHBR_FREQ</td>
<td>0 or 11</td>
</tr>
<tr>
<td>TIMING_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>NGHBR_TX_OFFSET</td>
<td>0 or 7</td>
</tr>
<tr>
<td>NGHBR_TX_DURATION</td>
<td>0 or 4</td>
</tr>
<tr>
<td>NGHBR_TX_PERIOD</td>
<td>0 or 7</td>
</tr>
</tbody>
</table>

(continues on next page)
### Field Length (bits)

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUM_ANALOG_NGHBR</td>
<td>3</td>
</tr>
<tr>
<td>BAND_CLASS</td>
<td>5</td>
</tr>
<tr>
<td>SYS_A_B</td>
<td>2</td>
</tr>
<tr>
<td>SRCH_OFFSET_INCL</td>
<td>1</td>
</tr>
<tr>
<td>ADD_PILOT_REC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>NGHBR_PILOT_REC_TYPE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>0 or 3</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>0 or 8 × RECORD_LEN</td>
</tr>
<tr>
<td>SRCH_OFFSET_NGHBR</td>
<td>0 or 3</td>
</tr>
<tr>
<td>BCCH_IND_INCL</td>
<td>1</td>
</tr>
<tr>
<td>BCCH_SUPPORT</td>
<td>0 or 1</td>
</tr>
</tbody>
</table>

### Field Definitions

- **PILOT_PN** - Pilot PN sequence offset index.
  - The base station shall set this field to the pilot PN sequence offset for this base station, in units of 64 PN chips.

- **CONFIG_MSG_SEQ** - Configuration message sequence number.
  - The base station shall set this field to CONFIG_SEQ (see 3.6.2.2).

- **PILOT_INC** - Pilot PN sequence offset index increment.
  - A mobile station searches for Remaining Set pilots at pilot PN sequence index values that are multiples of this value.
  - The base station shall set this field to the pilot PN sequence increment, in units of 64 PN chips, that mobile stations are to use for searching the Remaining Set. The base station should set this field to the largest increment such that the pilot PN sequence offsets of all its neighbor base stations are integer multiples of that increment.
  - The base station shall set this field to a value in the range 1 to 15 inclusive.

- **NGHBR_SRCH_MODE** - Search mode.
The base station shall set this field to the value shown in Table 3.7.2.3.2.22-1 corresponding to the search mode.

<table>
<thead>
<tr>
<th>Value (binary)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>No search priorities or search windows</td>
</tr>
<tr>
<td>01</td>
<td>Search priorities</td>
</tr>
<tr>
<td>10</td>
<td>Search windows</td>
</tr>
<tr>
<td>11</td>
<td>Search windows and search priorities</td>
</tr>
</tbody>
</table>

NGHBR_CONFIG_PN_INCL - Neighbor configuration and PN offset included.

If neighbor configuration and PN offset fields are included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

FREQ_FIELDS_INCL - Frequency fields included.

If frequency fields are included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

USE_TIMING - Use timing indicator.

If base station timing information is included for neighbor base stations, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

GLOBAL_TIMING_INCL - Global timing included.

If USE_TIMING is set to ‘1’, the base station shall include the field GLOBAL_TIMING_INCL and set this field as described below; otherwise, the base station shall omit this field.

If base station timing information is included globally for all neighbor base stations with TIMING_INCL equal to ‘1’, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

GLOBAL_TX_DURATION - Global neighbor transmit time duration.

If GLOBAL_TIMING_INCL is included and is set to ‘1’, the base station shall include the field GLOBAL_TX_DURATION and shall set this field as described below; otherwise, the base station shall omit this field.
The base station shall set this field to the duration of the base station transmit window, during each period, in units of 80 ms. The base station should set this field to a value of 3 or greater.

GLOBAL_TX_PERIOD - Global neighbor transmit time period.

If GLOBAL_TIMING_INCL is included and is set to ‘1’, the base station shall include the field GLOBAL_TX_PERIOD and shall set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to duration of the period, in units of 80 ms.

NUM_NGHB - Number of neighbor pilot PN sequences.

The base station shall set this field to the number of neighbors included in the message.

The base station shall include one occurrence of the following record for each pilot that a mobile station is to place in its Neighbor Set. The base station shall use the same order for the following record in this message as is used for pilots which are listed in the Neighbor List Message or Extended Neighbor List Message. Specifically, the $i^{th}$ occurrence of the following record shall correspond to the $i^{th}$ pilot in the Neighbor List Message or in the Extended Neighbor List Message.

NGHB_CONFIG - Neighbor configuration.

If NGHB_CONFIG_PN_INCL = ‘1’, the base station shall set this field to the value shown in Table 3.7.2.3.2.22-2 corresponding to the configuration of this neighbor; otherwise, the base station shall omit this field.
### Table 3.7.2.3.22-2. Neighbor Configuration Field

<table>
<thead>
<tr>
<th>Value (binary)</th>
<th>Neighbor Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>The neighbor base station has the same number of frequencies having Paging Channels as the current base station. The neighbor base station has a CDMA frequency assignment corresponding to this current CDMA frequency assignment with the same number of Paging Channels, and the neighbor CDMA frequency is given as follows:</td>
</tr>
<tr>
<td></td>
<td>• If FREQ_INCL equals ‘0’ for this record, this corresponding CDMA frequency assignment is the current CDMA frequency assignment.</td>
</tr>
<tr>
<td></td>
<td>• If FREQ_INCL equals ‘1’ for this record, this corresponding CDMA frequency assignment is given by NGHBR_BAND and NGHBR_FREQ.</td>
</tr>
<tr>
<td></td>
<td>The position of the neighbor CDMA frequency assignment in the <em>CDMA Channel List Message</em> or the <em>Extended CDMA Channel List Message</em> transmitted by the neighbor base station is the same as the position of this current CDMA frequency assignment in the <em>CDMA Channel List Message</em> or the <em>Extended CDMA Channel List Message</em> transmitted by the current base station.</td>
</tr>
<tr>
<td>001</td>
<td>The neighbor base station has the same number of frequencies having Paging Channels as the current base station. The neighbor base station has a CDMA frequency assignment corresponding to this current CDMA frequency assignment but possibly with a different number of Paging Channels, and the neighbor CDMA frequency is given as follows:</td>
</tr>
<tr>
<td></td>
<td>• If FREQ_INCL equals ‘0’ for this record, this corresponding CDMA frequency assignment is the current CDMA frequency assignment.</td>
</tr>
<tr>
<td></td>
<td>• If FREQ_INCL equals ‘1’ for this record, this corresponding CDMA frequency assignment is given by NGHBR_BAND and NGHBR_FREQ.</td>
</tr>
<tr>
<td></td>
<td>The position of the neighbor CDMA frequency assignment in the <em>CDMA Channel List Message</em> or the <em>Extended CDMA Channel List Message</em> transmitted by the neighbor base station is the same as the position of this current CDMA frequency assignment in the <em>CDMA Channel List Message</em> or the <em>Extended CDMA Channel List Message</em> transmitted by the current base station.</td>
</tr>
<tr>
<td></td>
<td>This corresponding neighbor CDMA frequency assignment does have a Primary Paging Channel.</td>
</tr>
</tbody>
</table>
The neighbor base station may have a different number of frequencies having Paging Channels as the current base station.

The neighbor base station has a Primary Paging Channel on the following CDMA frequency:

- If FREQ_INCL equals ‘0’ for this record, the neighbor base station has a Primary Paging Channel on the first CDMA Channel listed in the CDMA Channel List Message or the Extended CDMA Channel List Message transmitted by the current base station.

- If FREQ_INCL equals ‘1’ for this record, the neighbor base station has a Primary Paging Channel on the CDMA frequency assignment given by NGHBR_BAND and NGHBR_FREQ.

The neighbor base station configuration is unknown but the neighbor base station has a Pilot Channel on the following frequency:

- If FREQ_INCL equals ‘0’ for this record, the neighbor CDMA frequency assignment is the same as the current CDMA frequency assignment and has a Pilot Channel.

- If FREQ_INCL equals ‘1’ for this record, the CDMA frequency assignment given by NGHBR_BAND and NGHBR_FREQ has a Pilot Channel.

Reserved.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGHBR_PN</td>
<td>Neighbor pilot PN sequence offset index.</td>
</tr>
<tr>
<td></td>
<td>If NGHBR_CONFIG_PN_INCL = ‘1’, the base station shall set this field to the pilot PN sequence offset for this neighbor, in units of 64 PN chips; otherwise, the base station shall omit this field.</td>
</tr>
<tr>
<td>SEARCH_PRIORITY</td>
<td>Pilot Channel search priority.</td>
</tr>
<tr>
<td></td>
<td>If NGHBR_SRCH_MODE = ‘01’ or NGHBR_SRCH_MODE = ‘11’, then the base station shall set this field to the search priority for the Pilot Channel corresponding to NGHBR_PN. The base station shall set the search priority as shown in Table 3.7.2.3.2.22-3. If NGHBR_SRCH_MODE is set to any other value, the base station shall omit this field.</td>
</tr>
</tbody>
</table>
Table 3.7.2.3.2.22-3. Search Priority Field

<table>
<thead>
<tr>
<th>Value (binary)</th>
<th>Search Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Low</td>
</tr>
<tr>
<td>01</td>
<td>Medium</td>
</tr>
<tr>
<td>10</td>
<td>High</td>
</tr>
<tr>
<td>11</td>
<td>Very High</td>
</tr>
</tbody>
</table>

SRCH_WIN_NGHB - Neighbor pilot channel search window size.

If NGHBR_SRCH_MODE = ‘10’ or ‘11’, then the base station shall set this field to the value shown in Table 2.6.6.2.1-1 corresponding to the search window size to be used by mobile stations for this neighbor. If NGHBR_SRCH_MODE is set to any other value, the base station shall omit this field.

FREQ_INCL - Frequency included indicator.

If FREQ_FIELDS_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

If the NGHBR_BAND and NGHBR_FREQ fields are included for this neighbor base station, the base station shall set this bit to ‘1’. If the NGHBR_BAND and NGHBR_FREQ fields are not included in this assignment record, the base station shall set this bit to ‘0’.

NGHBR_BAND - Neighbor band class.

If the FREQ_INCL bit is included and is set to ‘1’, the base station shall set this field to the CDMA band class, as specified in [30], corresponding to the CDMA frequency assignment for the CDMA Channel containing the Paging Channel the mobile station is to search. If the FREQ_INCL bit is omitted or is set to ‘0’, the base station shall omit this field.

NGHBR_FREQ - Neighbor frequency assignment.

If the FREQ_INCL bit is omitted or is set to ‘0’, the base station shall omit this field.

If the FREQ_INCL bit is included and is set to ‘1’ and the corresponding neighbor has a 1X neighbor pilot record type, the base station shall set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA frequency assignment for the CDMA Channel containing the Paging Channel the mobile station is to search.
If the FREQ_INCL bit is included and is set to ‘1’ and the corresponding neighbor has a 3X neighbor pilot record type, the base station shall set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the center SR3 frequency assignment containing the Paging Channel the mobile station is to search.

TIMING_INCL - Timing included indicator.

If USE_TIMING is set to ‘1’, the base station shall include the field TIMING_INCL and set this field as described below; otherwise, the base station shall omit this field.

If base station timing information is included for this neighbor base station, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

NGHBR_TX_OFFSET - Neighbor transmit time offset.

If TIMING_INCL is included and is set to ‘1’, the base station shall include the field NGHBR_TX_OFFSET and set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to the time offset, in units of 80 ms, from the beginning of the neighbor timing period to the beginning of the first base station transmit window within the period. The beginning of the neighbor timing period occurs when \( \lfloor t/4 \rfloor \mod (16384) = 0 \).

NGHBR_TX_DURATION - Neighbor transmit time duration.

If TIMING_INCL is included and is set to ‘1’ and GLOBAL_TIMING_INCL is set to ‘0’, the base station shall include the field NGHBR_TX_DURATION and set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to duration of the base station transmit window, during each period, in units of 80 ms. The base station should set this field to a value of 3 or greater.

NGHBR_TX_PERIOD - Neighbor transmit time period.

If TIMING_INCL is included and is set to ‘1’ and GLOBAL_TIMING_INCL is set to ‘0’, the base station shall include the field NGHBR_TX_PERIOD and set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to duration of the period, in units of 80 ms.

NUM_ANALOG_NGHBR - Number of neighboring analog systems.

The base station shall set this field to the number of neighboring analog systems included in the message.
The base station shall include one occurrence of the following record for each neighboring analog system included in the message:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAND_CLASS</td>
<td>Band class.</td>
</tr>
<tr>
<td>SYS_A_B</td>
<td>System A/B.</td>
</tr>
<tr>
<td>SRCH_OFFSET_INCL</td>
<td>Neighbor pilot channel search window offset included.</td>
</tr>
<tr>
<td>ADD_PILOT_REC_INCL</td>
<td>Additional pilot information included indicator.</td>
</tr>
<tr>
<td>NGHBRS_PILOT_REC_TYPE</td>
<td>Neighbor Pilot record type</td>
</tr>
</tbody>
</table>

The base station shall set this field to the CDMA band class, as specified in [30].

If BAND_CLASS is set to ‘00000’ or to ‘00011’, the base station shall set this field to the value shown in Table 3.7.2.3.2.22-4 corresponding to the availability of neighboring analog systems; otherwise, the base station shall set this field to ‘00’.

**Table 3.7.2.3.2.22-4. Cellular System A/B**

<table>
<thead>
<tr>
<th>Cellular System A/B</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESERVED</td>
<td>00</td>
</tr>
<tr>
<td>System A</td>
<td>01</td>
</tr>
<tr>
<td>System B</td>
<td>10</td>
</tr>
<tr>
<td>System A and B</td>
<td>11</td>
</tr>
</tbody>
</table>

The base station shall include one occurrence of the following record for each mobile station is to place in its Neighbor Set. The base station shall use the same order for the following record in this message as is used for pilots which are listed in the Neighbor List Message or Extended Neighbor List Message. Specifically, the \( i \)th occurrence of the following record shall correspond the \( i \)th pilot in the Neighbor List Message or in the Extended Neighbor List Message.

The base station shall set this field to ‘1’ if additional pilot information listed in the NGHBRS_PILOT_REC_TYPE and RECORD_LEN fields are included. The base station shall set this field to ‘0’ if the corresponding pilot is the common pilot and there is no additional pilot information included.

If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall set this field to the NGHBRS_PILOT_REC_TYPE value shown in Table 3.7.2.3.2.22-5 corresponding to the type of Pilot Record specified by this record.
Table 3.7.2.3.2.22-5. Neighbor Pilot Record Types

<table>
<thead>
<tr>
<th>Description</th>
<th>NGHBR_PILOT_REC_TYPE (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1X Common Pilot with Transmit Diversity</td>
<td>000</td>
</tr>
<tr>
<td>1X Auxiliary Pilot</td>
<td>001</td>
</tr>
<tr>
<td>1X Auxiliary Pilot with Transmit Diversity</td>
<td>010</td>
</tr>
<tr>
<td>3X Common Pilot</td>
<td>011</td>
</tr>
<tr>
<td>3X Auxiliary Pilot</td>
<td>100</td>
</tr>
<tr>
<td>All other NGHBR_PILOT_REC_TYPE values are reserved</td>
<td></td>
</tr>
</tbody>
</table>

If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

RECORD_LEN - Pilot record length.

If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall set this field to the number of octets in the type-specific fields of this pilot record.

If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

Type-specific fields - Pilot record type-specific fields.

If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall include type-specific fields based on the NGHBR_PILOT_REC_TYPE of this pilot record.

If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

If NGHBR_PILOT_REC_TYPE is equal to ‘000’, the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TD_POWER_LEVEL</td>
<td>2</td>
</tr>
<tr>
<td>TD_MODE</td>
<td>2</td>
</tr>
<tr>
<td>RESERVED</td>
<td>4</td>
</tr>
</tbody>
</table>

TD_POWER_LEVEL - TD Transmit Power Level.
The base station shall set this field to the TD transmit power level relative to that of the Forward Pilot Channel as specified in Table 3.7.2.3.2.26-4.

TD_MODE - Transmit Diversity mode.

The base station shall set this field to the Transmit Diversity mode, as specified in Table 3.7.2.3.2.26-3.

RESERVED - Reserved bits.

The base station shall set this field to ‘0000’.

If NGHBR_PILOT_REC_TYPE is equal to ‘001’, the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QOF</td>
<td>2</td>
</tr>
<tr>
<td>WALSH_LENGTH</td>
<td>3</td>
</tr>
<tr>
<td>AUX_PILOT_WALSH</td>
<td>WALSH_LENGTH+6</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 to 7 (as needed)</td>
</tr>
</tbody>
</table>

QOF - Quasi-orthogonal function index.

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]).

WALSH_LENGTH - Length of the Walsh Code.

The base station shall set this field to the WALSH_LENGTH value shown in Table 3.7.2.3.2.22–6 corresponding to the length of the Walsh code for the pilot that is used in as the Auxiliary pilot.

Table 3.7.2.3.2.22-6. Walsh Code Length

<table>
<thead>
<tr>
<th>WALSH_LENGTH (binary)</th>
<th>Length of the Walsh Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘000’</td>
<td>64</td>
</tr>
<tr>
<td>‘001’</td>
<td>128</td>
</tr>
<tr>
<td>‘010’</td>
<td>256</td>
</tr>
<tr>
<td>‘011’</td>
<td>512</td>
</tr>
<tr>
<td>‘100’–‘111’</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

AUX_PILOT_WALSH - Walsh Code for the Auxiliary Pilot.

The base station shall set this field to the Walsh code corresponding to the Auxiliary pilot.

RESERVED - Reserved bits.
The base station shall set all the bits of this field to '0' to make the entire record octet-aligned.

If NGHBR_PILOT_REC_TYPE is equal to '010', the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QOF</td>
<td>2</td>
</tr>
<tr>
<td>WALSH_LENGTH</td>
<td>3</td>
</tr>
<tr>
<td>AUX_WALSH</td>
<td>WALSH_LENGTH+6</td>
</tr>
<tr>
<td>AUX_TD_POWER_LEVEL</td>
<td>2</td>
</tr>
<tr>
<td>TD_MODE</td>
<td>2</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 to 7 (as needed)</td>
</tr>
</tbody>
</table>

QOF - Quasi-orthogonal function index for the Auxiliary Transmit Diversity Pilot.

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]).

WALSH_LENGTH - Length of the Walsh Code.

The base station shall set this field to the WALSH_LENGTH value shown in 3.7.2.3.2.22-6 corresponding to the length of the Walsh code for the pilots that are used as Auxiliary pilot in the transmit diversity mode.

AUX_WALSH - Walsh Code for the Auxiliary Pilot.

The base station shall set this field to the Walsh code corresponding to the Auxiliary Pilot.

AUX_TD_POWER_LEVEL - Auxiliary Transmit Diversity Pilot Power Level.

The base station shall set this field to the Auxiliary Transmit Diversity Pilot transmit power level relative to that of the Auxiliary Pilot as specified in Table 3.7.2.3.2.22-7.
Table 3.7.2.3.22-7. Auxiliary Transmit Diversity Pilot

Transmit Power Level

<table>
<thead>
<tr>
<th>AUX_TD_POWER_LEVEL</th>
<th>Transmit Power Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>9 dB below the Auxiliary Pilot Channel transmit power</td>
</tr>
<tr>
<td>01</td>
<td>6 dB below the Auxiliary Pilot Channel transmit power</td>
</tr>
<tr>
<td>10</td>
<td>3 dB below the Auxiliary Pilot Channel transmit power</td>
</tr>
<tr>
<td>11</td>
<td>Same as the Auxiliary Pilot Channel transmit power</td>
</tr>
</tbody>
</table>

TD_MODE - Transmit Diversity mode.

The base station shall set this field to the Transmit Diversity mode, as specified in Table 3.7.2.3.26-3.

RESERVED - Reserved bits.

The base station shall set all the bits of this field to ‘0’ to make the entire record octet-aligned.

If NGHBR_PILOT_REC_TYPE is equal to ‘011’, the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR3_PRIMARY_PILOT</td>
<td>2</td>
</tr>
<tr>
<td>SR3_PILOT_POWER1</td>
<td>3</td>
</tr>
<tr>
<td>SR3_PILOT_POWER2</td>
<td>3</td>
</tr>
</tbody>
</table>

SR3_PRIMARY_PILOT - Primary SR3 pilot.

The base station shall set this field to the value shown in Table 3.7.2.3.26-5 corresponding to the position of the primary SR3 pilot.

SR3_PILOT_POWER1 - The primary SR3 pilot power level relative to that of the pilot on the lower frequency of the two remaining SR3 frequencies.

The base station shall set this field to the value shown in Table 3.7.2.3.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the lower frequency of the two remaining SR3 frequencies.

SR3_PILOT_POWER2 - The primary SR3 pilot power level relative to that of the pilot on the higher frequency of the two remaining SR3 frequencies.

The base station shall set this field to the value shown in Table 3.7.2.3.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the higher frequency of the two remaining SR3 frequencies.
RESERVED —— Reserved bits.

The base station shall set this field to ‘0000000’.

If NGHBR_PILOT_REC_TYPE is equal to ‘100’, the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR3_PRIMARY_PILOT</td>
<td>2</td>
</tr>
<tr>
<td>SR3_PILOT_POWER1</td>
<td>3</td>
</tr>
<tr>
<td>SR3_PILOT_POWER2</td>
<td>3</td>
</tr>
<tr>
<td>QOF</td>
<td>2</td>
</tr>
<tr>
<td>WALSH_LENGTH</td>
<td>3</td>
</tr>
<tr>
<td>AUX_PILOT_WALSH</td>
<td>WALSH_LENGTH+6</td>
</tr>
<tr>
<td>ADD_INFO_INCL1</td>
<td>1</td>
</tr>
<tr>
<td>QOF1</td>
<td>0 or 2</td>
</tr>
<tr>
<td>WALSH_LENGTH1</td>
<td>0 or 3</td>
</tr>
<tr>
<td>AUX_PILOT_WALSH1</td>
<td>0 or WALSH_LENGTH1+6</td>
</tr>
<tr>
<td>ADD_INFO_INCL2</td>
<td>1</td>
</tr>
<tr>
<td>QOF2</td>
<td>0 or 2</td>
</tr>
<tr>
<td>WALSH_LENGTH2</td>
<td>0 or 3</td>
</tr>
<tr>
<td>AUX_PILOT_WALSH2</td>
<td>0 or WALSH_LENGTH2+6</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 – 7 (as needed)</td>
</tr>
</tbody>
</table>

SR3_PRIMARY_PILOT — Primary SR3 pilot.

The base station shall set this field to the value shown in Table 3.7.2.3.2.26-5 corresponding to the position of the primary SR3 pilot.

SR3_PILOT_POWER1 — The primary SR3 pilot power level relative to that of the pilot on the lower frequency of the two remaining SR3 frequencies.

The base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the lower frequency of the two remaining SR3 frequencies.

SR3_PILOT_POWER2 — The primary SR3 pilot power level relative to that of the pilot on the higher frequency of the two remaining SR3 frequencies.

The base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the higher frequency of the two remaining SR3 frequencies.
QOF - Quasi-orthogonal function index.

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the frequency of the primary pilot.

WALSH_LENGTH - Length of the Walsh Code.

The base station shall set this field to the WALSH_LENGTH value shown in Table 3.7.2.3.2.22–6 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot on the frequency of the primary pilot.

AUX_PILOT_WALSH - Walsh Code for the Auxiliary Pilot.

The base station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the frequency of the primary pilot.

ADD_INFO_INCL1 - Additional information included for the pilot on the lower frequency of the two remaining SR3 frequencies.

If the additional information for the pilot on the lower frequencies of the two remaining SR3 frequencies is the same as pilot on the primary frequency, the base station shall set this field to ‘0’; otherwise, the base station shall set this field to ‘1’.

QOF1 - Quasi-orthogonal function index for the pilot on the lower frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL1 is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the lower frequency of the two remaining SR3 frequencies.

WALSH_LENGTH1 - Length of the Walsh Code for the pilot on the lower frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL1 is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the WALSH_LENGTH value shown in Table 3.7.2.3.2.22–6 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot on the lower frequency of the two remaining SR3 frequencies.

AUX_PILOT_WALSH1 - Walsh Code for the Auxiliary Pilot on the lower frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL1 is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the lower frequency of the two remaining SR3 frequencies.
ADD_INFO_INCL2 - Additional information included for the pilot on the higher frequency of the two remaining SR3 frequencies.

If the additional information for the pilot on the higher frequencies of the two remaining SR3 frequencies is the same as pilot on the primary frequency, the base station shall set this field to ‘0’; otherwise, the base station shall set this field to ‘1’.

QOF2 - Quasi-orthogonal function index for the pilot on the higher frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL2 is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.12-2 of [2]) on the higher frequency of the two remaining SR3 frequencies.

WALSH_LENGTH2 - Length of the Walsh Code for the pilot on the higher frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL2 is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the WALSH_LENGTH value shown in Table 3.7.2.3.2.22–6 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot on the higher frequency of the two remaining SR3 frequencies.

AUX_PILOT_WALSH2 - Walsh Code for the Auxiliary Pilot on the higher frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL2 is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the higher frequency of the two remaining SR3 frequencies.

RESERVED - Reserved bits.

The base station shall set all the bits of this field to ‘0’ to make the entire record octet-aligned.

SRCH_OFFSET_NGHBR - Neighbor pilot channel search window size offset.

If SRCH_OFFSET_INCL equals to ‘1’, then the base station shall set this field to the value shown in Table 2.6.6.2.1-2 corresponding to the search window offset to be used by mobile stations for this neighbor; otherwise, the base station shall omit this field.

BCCH_IND_INCL - BCCH support included indicator.

If the BCCH_SUPPORT field is included in the following records, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.
If BCCH_IND_INCL is set to ‘1’, the base station shall include one occurrence of the following field for each pilot that a mobile station is to place in its Neighbor Set. The base station shall use the same order for the following record in this message as is used for pilots which are listed in the Neighbor List Message or Extended Neighbor List Message. Specifically, the $i^{th}$ occurrence of the following record shall correspond the $i^{th}$ pilot in the Neighbor List Message or in the Extended Neighbor List Message.

**BCCH_SUPPORT** - BCCH support indicator.

If this neighbor base station supports Broadcast Control Channel, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.
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3.7.2.3.2.23 User Zone Identification Message

MSG_TAG: UZIM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>CONFIG_MSG_SEQ</td>
<td>6</td>
</tr>
<tr>
<td>UZ_EXIT</td>
<td>4</td>
</tr>
<tr>
<td>NUM_UZID</td>
<td>4</td>
</tr>
</tbody>
</table>

NUM_UZID occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UZID</td>
<td>16</td>
</tr>
<tr>
<td>UZ_REV</td>
<td>4</td>
</tr>
<tr>
<td>TEMP_SUB</td>
<td>1</td>
</tr>
</tbody>
</table>

PILOT_PN - Pilot PN sequence offset index.

The base station shall set this field to the pilot PN sequence offset for this base station, in units of 64 PN chips.

CONFIG_MSG_SEQ - Configuration message sequence number.

The base station shall set this field to CONFIG_SEQ (see 3.6.2.2).

UZ_EXIT - User Zone Exit parameter.

The base station shall set this field to the User Zone exit parameter (see 2.6.9.2.1). The base station shall set this field to a value (in dB) in the range 0 to 15.

NUM_UZID - Number of User Zone identifiers.

The base station shall set this field to the number of user zone identifiers included in this message.

The base station shall include NUM_UZID occurrences of the following record.

UZID - User Zone identifier.

The base station shall set this field to the User Zone identifier (see 3.6.7) supported by the base station.

UZ_REV - User Zone update revision number.

The base station shall set this field to the User Zone update revision number.

TEMP_SUB - Temporary subscription flag.

If the corresponding User Zone allows for temporary subscription, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.
### Private Neighbor List Message

**MSG_TAG:** PNLM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>CONFIG_MSG_SEQ</td>
<td>6</td>
</tr>
<tr>
<td>NUM_RADIO_INTERFACE</td>
<td>4</td>
</tr>
</tbody>
</table>

**PILOT_PN** - Pilot PN sequence offset index.

The base station shall set this field to the pilot PN sequence offset for this base station, in units of 64 PN chips.

**CONFIG_MSG_SEQ** - Configuration message sequence number.

The base station shall set this field to CONFIG_SEQ (see 3.6.2.2).

**NUM_RADIO_INTERFACE** - Number of interface types.

The base station shall set this field to the number of radio interface types for which private neighbors are included in this message.

The base station shall include **NUM_RADIO_INTERFACE** occurrences of the following record, one occurrence for each radio interface for which private neighbors are included in this message.

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RADIO_INTERFACE_TYPE</td>
<td>4</td>
</tr>
<tr>
<td>RADIO_INTERFACE_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Radio Interface Type-specific fields</td>
<td>8× RADIO_INTERFACE_LEN</td>
</tr>
</tbody>
</table>

**RADIO_INTERFACE_TYPE** - The radio interface type.

The base station shall set this field to the radio interface type of this record as specified in Table 3.7.2.3.24-1.
Table 3.7.2.3.2.24-1. Radio Interface Type

<table>
<thead>
<tr>
<th>RAIO_INTERFACE_TYPE (binary)</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000</td>
<td>MC system</td>
</tr>
<tr>
<td>0001-1111</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

- **RADIO-INTERFACE_LEN** - The length of the Radio Interface Type-specific fields. The base station shall set this field to the number of octets in the Radio Interface Type-specific fields of this record.

If RADIO_INTERFACE_TYPE is equal to ‘0000’, the base station shall set the radio interface type-specific fields as follows:

- include the following fields:
<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMON_INCL</td>
<td>1</td>
</tr>
<tr>
<td>COMMON_BAND_CLASS</td>
<td>0 or 5</td>
</tr>
<tr>
<td>COMMON_NGHBR_FREQ</td>
<td>0 or 11</td>
</tr>
<tr>
<td>SRCH_WIN_PN</td>
<td>4</td>
</tr>
<tr>
<td>NUM_PRI_NGHBR</td>
<td>6</td>
</tr>
</tbody>
</table>

NUM_PRI_NGHBR occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SID</td>
<td>15</td>
</tr>
<tr>
<td>NID</td>
<td>16</td>
</tr>
<tr>
<td>PRI_NGHBR_PN</td>
<td>9</td>
</tr>
<tr>
<td>ADD_PILOT_REC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>NGHBR_PILOT_REC_TYPE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>0 or 3</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>0 or 8× RECORD_LEN</td>
</tr>
<tr>
<td>BAND_CLASS</td>
<td>0 or 5</td>
</tr>
<tr>
<td>NGHBR_FREQ</td>
<td>0 or 11</td>
</tr>
<tr>
<td>UZID_INCL</td>
<td>1</td>
</tr>
<tr>
<td>NUM_UZID</td>
<td>0 or 4</td>
</tr>
</tbody>
</table>

If UZID_INCL = 1, NUM_UZID occurrences of the following subrecord; otherwise, no occurrence of the following subrecord:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UZID</td>
<td>0 or 16</td>
</tr>
<tr>
<td>UZ_REV</td>
<td>0 or 4</td>
</tr>
<tr>
<td>TEMP_SUB</td>
<td>0 or 1</td>
</tr>
</tbody>
</table>

RESERVED 0 - 7 (as needed)

**COMMON_INCL** - Common configuration included indicator.

If all private neighbor base stations included in this message are on the same CDMA band class and CDMA Channel number as specified in the COMMON_BAND_CLASS and COMMON_NGHBR_FREQ fields, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**COMMON_BAND_CLASS** - Neighbor band class.
If COMMON_INCL is set to ‘1’, the base station shall set this field to the CDMA band class as specified in [30] in Table 3.7.2.3.2.8.3 corresponding to the CDMA frequency assignment for the CDMA Channel containing the Paging Channel or the Forward Common Control Channel for all private neighbors; otherwise, the base station shall omit this field.

**COMMON_NGHBR_FREQ** - Neighbor frequency assignment.

If the COMMON_INCL bit is set to ‘1’, the base station shall set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA frequency assignment for the CDMA Channel containing the Paging Channel or the Forward Common Control Channel for all private neighbor base station; otherwise, the base station shall omit this field.

**SRCH_WIN_N** - Search window size for the Private Neighbor Set.

The base station shall set this field to the value shown in Table 2.6.6.2.1-1 corresponding to the search window size to be used by mobile stations for the Private Neighbor Set.

**NUM_PRI_NGHBR** - Number of private neighbor pilot PN sequences.

The base station shall set this field to the number of private neighbors included in the message.

The base station shall include NUM_PRI_NGHBR occurrences of the following record.

**SID** - System Identification.

The base station shall set this field to the system identification number for this private neighbor system (see 2.6.5.2).

**NID** - Network Identification.

This field serves as a sub-identifier of a system as defined by the owner of the SID.

The base station shall set this field to the system identification number for this private neighbor network (see 2.6.5.2).

**PRI_NGHBR_PN** - Private neighbor pilot PN sequence offset index.

The base station shall set this field to the pilot PN sequence offset for this private neighbor, in units of 64 PN chips.

**ADD_PILOT_REC_INCL** - Additional pilot information included indicator.

The base station shall set this field to ‘1’ if additional pilot information listed in the NGHBR_PILOT_REC_TYPE and RECORD_LEN fields are included. The base station shall set this field to ‘0’ if the corresponding pilot is the common pilot and there is no additional pilot information included.

**NGHBR_PILOT_REC_TYPE** - Neighbor Pilot record type
If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall set this field to the NGHBR_PILOT_REC_TYPE value shown in Table 3.7.2.3.2.22-5 corresponding to the type of Pilot Record specified by this record.

If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

RECORD_LEN - Pilot record length.

If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall set this field to the number of octets in the type-specific fields of this pilot record.

If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

Type-specific fields - Pilot record type-specific fields.

If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall include type-specific fields based on the NGHBR_PILOT_REC_TYPE of this pilot record.

If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

If NGHBR_PILOT_REC_TYPE is equal to ‘000’, the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TD_POWER_LEVEL</td>
<td>2</td>
</tr>
<tr>
<td>TD_MODE</td>
<td>2</td>
</tr>
<tr>
<td>RESERVED</td>
<td>4</td>
</tr>
</tbody>
</table>

TD_POWER_LEVEL - TD Transmit Power Level.

The base station shall set this field to the TD transmit power level relative to that of the Forward Pilot Channel as specified in Table 3.7.2.3.2.26-4.

TD_MODE - Transmit Diversity mode.

The base station shall set this field to the Transmit Diversity mode, as specified in Table 3.7.2.3.2.26-3.

RESERVED - Reserved bits.

The base station shall set this field to ‘0000’.

If NGHBR_PILOT_REC_TYPE is equal to ‘001’, the base station shall include the following fields:
Field | Length (bits)
--- | ---
QOF | 2
WALSH_LENGTH | 3
AUX_PILOT_WALSH | WALSH_LENGTH+6
RESERVED | 0 to 7 (as needed)

QOF - Quasi-orthogonal function index.
The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]).

WALSH_LENGTH - Length of the Walsh Code.
The base station shall set this field to the WALSH_LENGTH value shown in Table 3.7.2.3.2.22–6 corresponding to the length of the Walsh code for the pilot that is used in as the Auxiliary pilot.

AUX_PILOT_WALSH - Walsh Code for the Auxiliary Pilot.
The base station shall set this field to the Walsh code corresponding to the Auxiliary pilot.

RESERVED - Reserved bits.
The base station shall set all the bits of this field to '0' to make the entire record octet-aligned.

If NGHBR_PILOT_REC_TYPE is equal to ‘010’, the base station shall include the following fields:

Field | Length (bits)
--- | ---
QOF | 2
WALSH_LENGTH | 3
AUX_WALSH | WALSH_LENGTH+6
AUX_TD_POWER_LEVEL | 2
TD_MODE | 2
RESERVED | 0 to 7 (as needed)

QOF - Quasi-orthogonal function index for the Auxiliary Transmit Diversity Pilot.
The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]).

WALSH_LENGTH - Length of the Walsh Code.
The base station shall set this field to the WALSH_LENGTH value shown in 3.7.2.3.2.22-6 corresponding to the length of the Walsh code for the pilots that are used as Auxiliary pilot in the transmit diversity mode.

**AUX_WALSH** - Walsh Code for the Auxiliary Pilot.

The base station shall set this field to the Walsh code corresponding to the Auxiliary Pilot.

**AUX_TD-_POWER_LEVEL** - Auxiliary Transmit Diversity Pilot Power Level.

The base station shall set this field to the Auxiliary Transmit Diversity Pilot transmit power level relative to that of the Auxiliary Pilot as specified in Table 3.7.2.3.2.22-7.

**TD_MODE** - Transmit Diversity mode.

The base station shall set this field to the Transmit Diversity mode, as specified in Table 3.7.2.3.2.26-3.

**RESERVED** - Reserved bits.

The base station shall set all the bits of this field to '0' to make the entire record octet-aligned.

If NGHBR_PILOT_REC_TYPE is equal to '011', the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR3_PRIMARY_PILOT</td>
<td>2</td>
</tr>
<tr>
<td>SR3_PILOT_POWER1</td>
<td>3</td>
</tr>
<tr>
<td>SR3_PILOT_POWER2</td>
<td>3</td>
</tr>
</tbody>
</table>

**SR3_PRIMARY_PILOT** - Primary SR3 pilot.

The base station shall set this field to the value shown in Table 3.7.2.3.2.26-5 corresponding to the position of the primary SR3 pilot.

**SR3_PILOT_POWER1** - The primary SR3 pilot power level relative to that of the pilot on the lower frequency of the two remaining SR3 frequencies.

The base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the lower frequency of the two remaining SR3 frequencies.

**SR3_PILOT_POWER2** - The primary SR3 pilot power level relative to that of the pilot on the higher frequency of the two remaining SR3 frequencies.

The base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the higher frequency of the two remaining SR3 frequencies.

**RESERVED** - Reserved bits.
The base station shall set this field to ‘0000000’.

If NGHBR_PILOT_REC_TYPE is equal to ‘100’, the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR3_PRIMARY_PILOT</td>
<td>2</td>
</tr>
<tr>
<td>SR3_PILOT_POWER1</td>
<td>3</td>
</tr>
<tr>
<td>SR3_PILOT_POWER2</td>
<td>3</td>
</tr>
<tr>
<td>QOF</td>
<td>2</td>
</tr>
<tr>
<td>WALSH_LENGTH</td>
<td>3</td>
</tr>
<tr>
<td>AUX_PILOT_WALSH</td>
<td>WALSH_LENGTH+6</td>
</tr>
<tr>
<td>ADD_INFO_INCL1</td>
<td>1</td>
</tr>
<tr>
<td>QOF1</td>
<td>0 or 2</td>
</tr>
<tr>
<td>WALSH_LENGTH1</td>
<td>0 or 3</td>
</tr>
<tr>
<td>AUX_PILOT_WALSH1</td>
<td>0 or WALSH_LENGTH1+6</td>
</tr>
<tr>
<td>ADD_INFO_INCL2</td>
<td>1</td>
</tr>
<tr>
<td>QOF2</td>
<td>0 or 2</td>
</tr>
<tr>
<td>WALSH_LENGTH2</td>
<td>0 or 3</td>
</tr>
<tr>
<td>AUX_PILOT_WALSH2</td>
<td>0 or WALSH_LENGTH2+6</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 – 7 (as needed)</td>
</tr>
</tbody>
</table>

SR3_PRIMARY_PILOT - Primary SR3 pilot.

The base station shall set this field to the value shown in Table 3.7.2.3.2.26-5 corresponding to the position of the primary SR3 pilot.

SR3_PILOT_POWER1 - The primary SR3 pilot power level relative to that of the pilot on the lower frequency of the two remaining SR3 frequencies.

The base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the lower frequency of the two remaining SR3 frequencies.

SR3_PILOT_POWER2 - The primary SR3 pilot power level relative to that of the pilot on the higher frequency of the two remaining SR3 frequencies.

The base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the higher frequency of the two remaining SR3 frequencies.

QOF - Quasi-orthogonal function index.
The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the frequency of the primary pilot.

**WALSH_LENGTH** - Length of the Walsh Code.

The base station shall set this field to the WALSH_LENGTH value shown in Table 3.7.2.3.2.22–6 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot on the frequency of the primary pilot.

**AUX_PILOT_WALSH** - Walsh Code for the Auxiliary Pilot.

The base station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the frequency of the primary pilot.

**ADD_INFO_INCL1** - Additional information included for the pilot on the lower frequency of the two remaining SR3 frequencies.

If the additional information for the pilot on the lower frequencies of the two remaining SR3 frequencies is the same as pilot on the primary frequency, the base station shall set this field to ‘0’; otherwise, the base station shall set this field to ‘1’.

**QOF1** - Quasi-orthogonal function index for the pilot on the lower frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL1 is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the lower frequency of the two remaining SR3 frequencies.

**WALSH_LENGTH1** - Length of the Walsh Code for the pilot on the lower frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL1 is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the WALSH_LENGTH value shown in Table 3.7.2.3.2.22–6 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot on the lower frequency of the two remaining SR3 frequencies.

**AUX_PILOT_WALSH1** - Walsh Code for the Auxiliary Pilot on the lower frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL1 is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the lower frequency of the two remaining SR3 frequencies.
ADD_INFO_INCL2 - Additional information included for the pilot on the higher frequency of the two remaining SR3 frequencies.

If the additional information for the pilot on the higher frequencies of the two remaining SR3 frequencies is the same as pilot on the primary frequency, the base station shall set this field to '0'; otherwise, the base station shall set this field to '1'.

QOF2 - Quasi-orthogonal function index for the pilot on the higher frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL2 is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the higher frequency of the two remaining SR3 frequencies.

WALSH_LENGTH2 - Length of the Walsh Code for the pilot on the higher frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL2 is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the WALSH_LENGTH value shown in Table 3.7.2.3.2.22–6 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot on the higher frequency of the two remaining SR3 frequencies.

AUX_PILOT_WALSH2 - Walsh Code for the Auxiliary Pilot on the higher frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL2 is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the higher frequency of the two remaining SR3 frequencies.

RESERVED - Reserved bits.

The base station shall set all the bits of this field to '0' to make the entire record octet-aligned.

BAND_CLASS - Neighbor band class.

If COMMON_INCL is set to '0', the base station shall set this field to the CDMA band class as specified in [30] in Table 3.7.2.3.2.8–3 corresponding to the CDMA frequency assignment for the CDMA Channel containing the Paging Channel for the private neighbor; otherwise, the base station shall omit this field.

NGHBR_FREQ - Neighbor frequency assignment.
If the COMMON_INCL bit is set to ‘0’, the base station shall set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA frequency assignment for the CDMA Channel containing the Paging Channel for the private neighbor base station; otherwise, the base station shall omit this field.

**UZID_INCL** - User Zone identifier included indicator.

If the UZID information is included, the base station shall set this field to ‘1'; otherwise, the base station shall set this field to ‘0’.

**NUM_UZID** - Number of User Zone identifiers.

If UZID_INCL is set to ‘1’, the base station shall set this field to the number of occurrences of UZID supported by the private neighbor base station; otherwise, the base station shall omit this field.

If UZID_INCL is set to ‘1’, the base station shall include NUM_UZID occurrences of the following three-field subrecord; otherwise, the base station shall omit this subrecord.

**UZID** - User Zone identifiers.

The base station shall set this field to the User Zone identifier supported by the private neighbor base station.

**UZ_REV** - User Zone update revision number.

The base station shall set this field to the User Zone update revision number.

**TEMP_SUB** - Temporary subscription flag.

If the corresponding User Zone allows for temporary subscription, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**RESERVED** - Reserved bits.

The base station shall add reserved bits as needed in order to make the length of the entire record equal to an integer number of octets. The base station shall set these bits to ‘0’.
3.7.2.3.2.25 Reserved
### 3.7.2.3.2.26 Sync Channel Message

**MSG_TAG:** SCHM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P_REV</td>
<td>8</td>
</tr>
<tr>
<td>MIN_P_REV</td>
<td>8</td>
</tr>
<tr>
<td>SID</td>
<td>15</td>
</tr>
<tr>
<td>NID</td>
<td>16</td>
</tr>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>LC_STATE</td>
<td>42</td>
</tr>
<tr>
<td>SYS_TIME</td>
<td>36</td>
</tr>
<tr>
<td>LP_SEC</td>
<td>8</td>
</tr>
<tr>
<td>LTM_OFF</td>
<td>6</td>
</tr>
<tr>
<td>DAYLT</td>
<td>1</td>
</tr>
<tr>
<td>PRAT</td>
<td>2</td>
</tr>
<tr>
<td>CDMA_FREQ</td>
<td>11</td>
</tr>
<tr>
<td>EXT_CDMA_FREQ</td>
<td>11</td>
</tr>
<tr>
<td>SR1_BCCH_NON_TD_INCL</td>
<td>1</td>
</tr>
<tr>
<td>SR1_BRAT_NON_TD</td>
<td>0 or 1</td>
</tr>
<tr>
<td>SR1_CRAT_NON_TD</td>
<td>0 or 2</td>
</tr>
<tr>
<td>SR1_BCCH_CODE_CHAN_NON_TD</td>
<td>0 or 6</td>
</tr>
<tr>
<td>SR1_TD_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>SR1_CDMA_FREQ_TD</td>
<td>0 or 11</td>
</tr>
<tr>
<td>SR1_BRAT_TD</td>
<td>0 or 2</td>
</tr>
<tr>
<td>SR1_CRAT_TD</td>
<td>0 or 1</td>
</tr>
<tr>
<td>SR1_BCCH_CODE_CHAN_TD</td>
<td>0 or 6</td>
</tr>
</tbody>
</table>
### Field Length (bits)

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR1_TD_MODE</td>
<td>0 or 2</td>
</tr>
<tr>
<td>SR1_TD_POWER_LEVEL</td>
<td>0 or 2</td>
</tr>
<tr>
<td>SR3_INCL</td>
<td>1</td>
</tr>
<tr>
<td>SR3_CENTER_FREQ_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>SR3_CENTER_FREQ</td>
<td>0 or 11</td>
</tr>
<tr>
<td>SR3_BRAT</td>
<td>0 or 2</td>
</tr>
<tr>
<td>SR3_BCCH_CODE_CHAN</td>
<td>0 or 7</td>
</tr>
<tr>
<td>SR3_PRIMARY_PILOT</td>
<td>0 or 2</td>
</tr>
<tr>
<td>SR3_PILOT_POWER1</td>
<td>0 or 3</td>
</tr>
<tr>
<td>SR3_PILOT_POWER2</td>
<td>0 or 3</td>
</tr>
<tr>
<td>DS_INCL</td>
<td>1</td>
</tr>
<tr>
<td>DS_BLOB</td>
<td>0 or 24</td>
</tr>
</tbody>
</table>

1. **P_REV** - Protocol revision level.

   The base station shall set this field to ‘00000111’.

2. **MIN_P_REV** - Minimum protocol revision level.

   The base station sets this field to prevent mobile stations which cannot be supported by the base station from accessing the system.

   The base station shall set this field to the minimum protocol revision level that it supports. For Band Class 0 operation, the base station should set this field to a value of ‘00000010’ or greater. For Band Class 1 or Band Class 4 operation, the base station should set this field to a value of ‘00000001’ or greater. For Band Class 3 operation, the base station should set this field to a value of ‘00000011’ or greater. For Band Class 2 or Band Class 5 operation, the base station should set this field to ‘00000010’, or greater. For Band Class 6, Band Class 7, Band Class 8, or Band Class 9, or Band Class 10 operation, the base station should set this field to ‘00000110’ or greater.

3. **SID** - System identification.

   The base station shall set this field to the system identification number for this system (see 2.6.5.2).


   This field serves as a sub-identifier of a system as defined by the owner of the SID.

   The base station shall set this field to the network identification number for this network (see 2.6.5.2).
PILOT_PN - Pilot PN sequence offset index.
The base station shall set this field to the pilot PN sequence offset for this base station, in units of 64 PN chips.

LC_STATE - Long code state.
The base station shall set this field to the long code state at the time given by the SYS_TIME field of this message.

SYS_TIME - System time.
The base station shall set this field to the System Time as of four Sync Channel superframes (320 ms) after the end of the last superframe containing any part of this Sync Channel Message, minus the pilot PN sequence offset, in units of 80 ms (see 1.3 of [2]).

LP_SEC - The number of leap seconds that have occurred since the start of System Time.
The base station shall set this field to the number of leap seconds that have occurred since the start of System Time, as of the time given by the SYS_TIME field of this message.

LTM_OFF - Offset of local time from System Time.
The base station shall set this field to the two's complement offset of local time from System Time, in units of 30 minutes.
The local time of day, in units of 80 ms, as of four Sync Channel superframes (320 ms) after the end of the last superframe containing any part of this Sync Channel Message, minus the pilot PN sequence offset, is equal to SYS_TIME - (LP_SEC \times 12.5) + (LTM_OFF \times 22500).

DAYLT - Daylight savings time indicator.
If daylight savings time is in effect, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

PRAT - Paging Channel data rate.
The base station shall set this field to the PRAT field value shown in Table 3.7.2.3.2.26-1 corresponding to the data rate used by the Paging Channels in the system.

Table 3.7.2.3.2.26-1. Paging Channel Data Rate

<table>
<thead>
<tr>
<th>PRAT Field (binary)</th>
<th>Paging Channel data rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>9600 bps</td>
</tr>
<tr>
<td>01</td>
<td>4800 bps</td>
</tr>
<tr>
<td>10</td>
<td>Reserved</td>
</tr>
<tr>
<td>11</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

CDMA_FREQ - Frequency assignment.
The base station shall set this field to the CDMA Channel number corresponding to the CDMA frequency assignment for the CDMA Channel containing a Primary Paging Channel.\textsuperscript{5}

**EXT_CDMA_FREQ** - Extended frequency assignment.

The base station shall set this field to the CDMA Channel number corresponding to the CDMA frequency assignment for the CDMA Channel containing a Primary Paging Channel that a mobile station capable of Radio Configurations greater than 2 or capable of supporting Quick Paging Channel will use.

**SR1_BCCH_NON_TD_INCL** - Common Channel in non TD mode on Spreading Rate 1 supported-information included indicator.

The base station shall set this field to ‘1’ if the base station supports-includes common channels (BCCH/F-CCCH/EACH) information in non TD mode; otherwise, the base station shall set this field to ‘0’.

**SR1_NON_TD_FREQ_INCL** - Non Transmit Diversity frequency included indicator.

If **SR1_BCCH_NON_TD_INCL** is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to ‘1’ if **SR1_CDMA_FREQ_NON_TD** is included in the message. The base station shall set this field to ‘0’ if the frequency specified by the EXT_CDMA_FREQ field is used for BCCH frequency assignment.

**SR1_CDMA_FREQ_NON_TD** - Frequency assignment for non-transmit diversity operation.

If **SR1_NON_TD_FREQ_INCL** is not included, or is included and set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the CDMA Channel number corresponding to the CDMA frequency assignment for the CDMA Channel containing a Broadcast Control Channel that does not support the TD operation.

**SR1_BRAT_NON_TD** - BCCH data rate in non-TD mode for Spreading Rate 1.

If **SR1_BCCH_NON_TD_INCL** is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

\textsuperscript{5} If compatibility with IS-95-A mobile stations is desired in a Band Class 0 system, the CDMA_FREQ field is set to the CDMA frequency assignment containing this Sync Channel.
The base station shall set this field to the BRAT field value shown in Table 3.7.2.3.2.26-2 corresponding to the data rate used by the Primary Broadcast Control Channel in the system.

<table>
<thead>
<tr>
<th>BRAT Field (binary)</th>
<th>Broadcast Control Channel data rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>4800 bps</td>
</tr>
<tr>
<td>01</td>
<td>9600 bps</td>
</tr>
<tr>
<td>10</td>
<td>19200 bps</td>
</tr>
<tr>
<td>11</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

Table 3.7.2.3.2.26-2. Broadcast Control Channel Data Rate

SR1_CRAT_NON_TD – BCCH code rate in non Transmit Diversity mode for Spreading Rate 1.

If SR1_BCCH_NON_TD_INCLSUPPORTED is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to ‘0’ if the BCCH Code Rate is 1/4 (see 3.1.3.1.2.1 of [2]). The base station shall set this field to ‘1’ if the BCCH code rate is 1/2 (see 3.1.3.1.2.1 of [2]).

SR1_BCCH_CODE_CHAN_NON_TD – Walsh code for the Spreading Rate 1 BCCH in non Transmit Diversity mode.

If SR1_BCCH_NON_TD_INCLSUPPORTED is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the Walsh code corresponding to the Spreading Rate 1 BCCH in non Transmit Diversity mode.

SR1_TD_INCL - Spreading Rate 1 Transmit Diversity frequency information included indicator.

If SR1_BCCH_SUPPORTED is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to ‘1’ if SR1_CDMA_FREQ_TD, SR1_BRAT_TD, ____SR1_CRAT_TD, SR1_TD_MODE, and SR1_TD_POWER_LEVEL are included in the message; otherwise, the base station shall set this field to ‘0’.

SR1_CDMA_FREQ_FREQ_TD - Spreading Rate 1 frequency assignment for Transmit Diversity operation.
If SR1_TD_INCL is not included in this message or is included but is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the CDMA Channel number corresponding to the CDMA frequency assignment for the CDMA Channel containing a BCCH Channel that supports the TD operation.

**SR1_BRAT_TD** - BCCH data rate in Transmit Diversity mode for Spreading Rate 1.

If SR1_TD_INCL is not included in this message or is included but is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the BRAT field value shown in Table 3.7.2.3.2.26-2 corresponding to the data rate used by the Primary Broadcast Control Channel in the system.

**SR1_CRAT_TD** - BCCH code rate in Transmit Diversity mode for Spreading Rate 1.

If SR1_TD_INCL is not included in this message or is included but is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to '0' if the BCCH Code Rate is 1/4 (see 3.1.3.1.2.1 of [2]). The base station shall set this field to '1' if the BCCH Code Rate is 1/2 (see 3.1.3.1.2.1 of [2]).

**SR1_BCCH_CODE_CHAN_TD** - Walsh code for the Spreading Rate 1 BCCH in Transmit Diversity mode.

If SR1_TD_INCL is not included in this message or is included but is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the Walsh code corresponding to the Spreading Rate 1 BCCH in Transmit Diversity mode.

**SR1_TD_MODE** - Spreading Rate 1 Transmit Diversity Mode.

If SR1_TD_INCL is not included in this message or is included but is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field corresponding to Table 3.7.2.3.2.26-3.
Table 3.7.2.3.2.26-3. TD Mode

<table>
<thead>
<tr>
<th>TD_MODE</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>OTD (Orthogonal Transmit Diversity) mode</td>
</tr>
<tr>
<td>01</td>
<td>STS (Space Time Spreading) mode</td>
</tr>
<tr>
<td>10-11</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

SR1_TD_\_POWER_LEVEL - Spreading Rate 1 TD transmit power level.
If SR1_TD_INCL is not included in this message or is included but is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the TD transmit power level relative to that of the Forward Pilot Channel, as specified in Table 3.7.2.3.2.26-4.

Table 3.7.2.3.2.26-4. TD Transmit Power Level

<table>
<thead>
<tr>
<th>TD_POWER_LEVEL</th>
<th>Transmit Power Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>9 dB below the Forward Pilot Channel transmit power</td>
</tr>
<tr>
<td>01</td>
<td>6 dB below the Forward Pilot Channel transmit power</td>
</tr>
<tr>
<td>10</td>
<td>3 dB below the Forward Pilot Channel transmit power</td>
</tr>
<tr>
<td>11</td>
<td>Same as the Forward Pilot Channel transmit power</td>
</tr>
</tbody>
</table>

SR3_INCL - Spreading Rate 3 information included indicator.
The base station shall set this field to ‘1’ if the Spreading Rate 3 information is included in this message; otherwise, the base station shall set this field to ‘0’.

SR3_CENTER-_FREQ_INCL - Center SR3 frequency assignment included.
If SR3_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:
The base station shall set this field to ‘1’, if the CDMA Channel number corresponding to the SR3 center frequency assignment for the CDMA Channel containing a Broadcast Control Channel is different to EXT_CDMA_FREQ. Otherwise, the base station shall set this field to ‘0’.

SR3_CENTER_FREQ – Center SR3 frequency assignment.

If SR3_CENTER_FREQ_INCL is not included or is included but is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the CDMA Channel number corresponding to the SR3 center frequency assignment for the CDMA Channel containing a Broadcast Control Channel.

SR3_BRAT – Spreading Rate 3 BCCH data rate.

If SR3_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the BCCH rate field value shown in Table 3.7.2.3.2.26-2 corresponding to the data rate used by the Primary Broadcast Control Channel in the system.

SR3_BCCH_CODE_CHAN – Spreading Rate 3 BCCH Walsh code.

If SR3_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the Walsh code corresponding to the Spreading Rate 3 BCCH.

SR3_PRIMARY_PILOT – Primary SR3 pilot.

If SR3_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the value shown in Table 3.7.2.3.2.26-5 corresponding to the position of the primary SR3 pilot.
Table 3.7.2.3.2.26-5. The Position of the Primary SR3 Pilot

<table>
<thead>
<tr>
<th>SR3_PRIMARY_PILOT (Binary)</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>The primary pilot is on the lowest SR3 frequency</td>
</tr>
<tr>
<td>01</td>
<td>The primary pilot is on the center SR3 frequency</td>
</tr>
<tr>
<td>10</td>
<td>The primary pilot is on the highest SR3 frequency</td>
</tr>
<tr>
<td>11</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

SR3_PILOT_POWER1 – The primary SR3 pilot power level relative to that of the pilot on the lower frequency of the two remaining SR3 frequencies. If SR3_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the lower frequency of the two remaining SR3 frequencies.

Table 3.7.2.3.2.26-6. Pilot Transmission Power

<table>
<thead>
<tr>
<th>SR3_PILOT_POWER1, SR3_PILOT_POWER2 (Binary)</th>
<th>Relative Transmission Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>0dB</td>
</tr>
<tr>
<td>001</td>
<td>1dB</td>
</tr>
<tr>
<td>010</td>
<td>2dB</td>
</tr>
<tr>
<td>011</td>
<td>3dB</td>
</tr>
<tr>
<td>100</td>
<td>4dB</td>
</tr>
<tr>
<td>101</td>
<td>5dB</td>
</tr>
<tr>
<td>110</td>
<td>6dB</td>
</tr>
<tr>
<td>111</td>
<td>7dB</td>
</tr>
</tbody>
</table>

SR3_PILOT_POWER2 – The primary SR3 pilot power level relative to that of the pilot on the higher frequency of the two remaining SR3 frequencies.
If SR3_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the higher frequency of the two remaining SR3 frequencies.

**DS_INCL** - Direct Spread (DS) System and Information Available.

If the base station is a pilot beacon and includes the DS_BLOB field (containing information on how to access a DS system, see [32]), the base station shall set this field to ‘1’; otherwise the base shall set this field to ‘0’.

**DS_BLOB** - Access Information about a Direct Spread (DS) System.

If DS_INCL is set to ‘1’, the base station shall include this field and set it as described in [32]. If DS_INCL is set to ‘0’, the base station shall omit this field.
3.7.2.3.2.27 Extended Global Service Redirection Message

MSG_TAG: EGSRDMP

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>CONFIG_MSG_SEQ</td>
<td>6</td>
</tr>
<tr>
<td>REDIRECT_ACCOLC</td>
<td>16</td>
</tr>
<tr>
<td>RETURN_IF_FAIL</td>
<td>1</td>
</tr>
<tr>
<td>DELETE_TMSI</td>
<td>1</td>
</tr>
<tr>
<td>REDIRECT_P_REV_INCL</td>
<td>1</td>
</tr>
<tr>
<td>EXCL_P_REV_IND</td>
<td>0 or 1</td>
</tr>
<tr>
<td>REDIRECT_P_MIN</td>
<td>0 or 8</td>
</tr>
<tr>
<td>REDIRECT_P_MAX</td>
<td>0 or 8</td>
</tr>
</tbody>
</table>

One occurrence of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>8 × RECORD_LEN</td>
</tr>
</tbody>
</table>

PILOT_PN - Pilot PN sequence offset index.

The base station shall set this field to the pilot PN sequence offset for this base station, in units of 64 PN chips.

CONFIG_MSG_SEQ - Configuration message sequence number.

The base station shall set this field to CONFIG_SEQ (see 3.6.2.2).

REDIRECT_ACCOLC - Redirected access overload classes.

See REDIRECT_ACCOLC field defined in 3.7.2.3.2.18.

The base station shall set the subfields corresponding to the access overload classes of mobile stations which are to be redirected to ‘1’, and shall set the remaining subfields to ‘0’.
RETURN_IF_FAIL - Return if fail indicator.

The base station shall set this field to ‘1’ if the mobile station is required to return to the system from which it is being redirected upon failure to obtain service using the redirection criteria specified in this message; otherwise, the base station shall set this field to ‘0’.

DELETE_TMSI - Delete TMSI indicator.

The base station shall set this field to ‘1’ if the mobile station is required to delete the TMSI assigned to the mobile station; otherwise, the base station shall set this field to ‘0’.

REDIRECT_P_REV_INCL - Redirection mobile protocol revision included.

If the redirection specified in this message applies to the mobile stations of some specific protocol revisions, the base station shall set this field to ‘1’; otherwise, if this redirection applies to all mobile stations, the base station shall set this field to ‘0’.

EXCL_P_REV_IND - Excluding mobile protocol revision indicator.

If the REDIRECT_P_REV_INCL is set to ‘1’, the base station shall include this field and set this field as described below; otherwise, the base station shall omit this field.

If mobile stations with MOB_P_REV in the range between REDIRECT_P_MIN and REDIRECT_P_MAX inclusive are excluded from this Global Service Redirection, the base station shall set this field to ‘1’. Otherwise, if the mobile stations with MOB_P_REV in the protocol revision range specified in DIRECT_P_MIN and DIRECT_P_MAX are subjected to the redirection, the base station shall set this field to ‘0’.

REDIRECT_P_MIN - Minimum redirection protocol revision.

If REDIRECT_P_REV_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows.

The base station shall set this field to the minimum protocol revision of which mobile stations are subjected to as specified by the action contained in EXCL_P_REV_IND (i.e., to be redirected or excluded from redirection). The base station shall set this field to a protocol revision equal to or greater than six.

REDIRECT_P_MAX - Maximum redirection protocol revision.

If REDIRECT_P_REV_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows.

The base station shall set this field to the maximum protocol revision of which mobile stations are subjected to as specified by the action contained in EXCL_P_REV_IND (i.e., to be redirected or excluded from redirection). The base station shall set this field to a protocol revision equal to or greater than six.
The base station shall include one occurrence of the following three-field record:

- RECORD_TYPE - Redirection record type.
  
  The base station shall set this field to the RECORD_TYPE value shown in Table 3.7.2.3.2.16-2 corresponding to the type of redirection specified by this record.

- RECORD_LEN - Redirection record length.
  
  The base station shall set this field to the number of octets in the type-specific fields of this redirection record.

- Type-specific fields - Redirection record type-specific fields.
  
  The base station shall include type-specific fields based on the RECORD_TYPE of this redirection record.

If RECORD_TYPE is equal to ‘00000001’, the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXPECTED_SID</td>
<td>15</td>
</tr>
<tr>
<td>IGNORE_CDMA</td>
<td>1</td>
</tr>
<tr>
<td>SYS_ORDERING</td>
<td>3</td>
</tr>
<tr>
<td>MAX_REDIRECT_DELAY</td>
<td>5</td>
</tr>
</tbody>
</table>

- EXPECTED_SID - Expected SID.
  
  If the base station is redirecting the mobile station to a specific system, the base station shall set this field to the SID of that system; otherwise, the base station shall set this field to 0.

- IGNORE_CDMA - Ignore CDMA Available indicator.
  
  The base station shall set this field to ‘1’ to indicate that the mobile station is to ignore the CDMA Capability Message on the analog system to which it is being redirected. The base station shall set this field to ‘0’ to indicate that the mobile station may discontinue service on the system to which it is being redirected if the mobile station receives a CDMA Capability Message with CDMA_AVAIL equal to ‘1’, and the preferred mode of the mobile station is CDMA.

- SYS_ORDERING - System ordering.
  
  The base station shall set this field to the SYS_ORDERING value shown in Table 3.7.2.3.2.16-3 corresponding to the order in which the mobile station is to attempt to obtain service on an analog system.

- MAX_REDIRECT_DELAY - Maximum delay upon redirection.
The base station shall set this field to the maximum delay time, in units of 8 seconds, to be used by mobile stations in the event of a global redirection to analog mode. This operation can be invoked to avoid overloading an underlying analog cell’s reverse control channel.

If RECORD_TYPE is equal to ‘00000010’, the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAND_CLASS</td>
<td>5</td>
</tr>
<tr>
<td>EXPECTED_SID</td>
<td>15</td>
</tr>
<tr>
<td>EXPECTED_NID</td>
<td>16</td>
</tr>
<tr>
<td>RESERVED</td>
<td>4</td>
</tr>
<tr>
<td>NUM_CHANS</td>
<td>4</td>
</tr>
</tbody>
</table>

NUM_CHANS occurrences of the following field:

| CDMA_CHAN          | 11            |

- **BAND_CLASS** - Band class.
  The base station shall set this field to the CDMA band class, as specified in [30].

- **EXPECTED_SID** - Expected SID.
  If the base station is redirecting the mobile station to a specific system, the base station shall set this field to the SID of that system; otherwise, the base station shall set this field to ‘0’.

- **EXPECTED_NID** - Expected NID.
  If the base station is redirecting the mobile station to a specific network, the base station shall set this field to the NID of that network; otherwise, the base station shall set this field to 65535.

- **RESERVED** - Reserved bits.
  The base station shall set this field to ‘0’

- **NUM_CHANS** - Number of CDMA Channels.
  The base station shall set this field to the number of occurrences of the CDMA_CHAN field in this record.

- **CDMA_CHAN** - CDMA Channel number.
For each CDMA Channel on which the mobile station is to attempt to acquire a CDMA system, the base station shall include one occurrence of this field specifying the associated CDMA Channel number.

| RESERVED | Reserved bits. |

The base station shall add reserved bits as needed in order to make the length of the entire record equal to an integer number of octets. The base station shall set these bits to ‘0’.
3.7.2.3.2.28 Extended CDMA Channel List Message

**MSG_TAG**: ECCLM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>CONFIG_MSG_SEQ</td>
<td>6</td>
</tr>
<tr>
<td>NUM_FREQ</td>
<td>4</td>
</tr>
</tbody>
</table>

NUM_FREQ occurrences of the following field:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDMA_FREQ</td>
<td>11</td>
</tr>
</tbody>
</table>

**RC_QPCH_SEL_INCL**

If RC_QPCH_SEL_INCL is equal to ‘1’, include NUM_FREQ occurrences of the following field:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC_QPCH_HASH_IND</td>
<td>1</td>
</tr>
</tbody>
</table>

**TD_SEL_INCL**

If TD_SEL_INCL is equal to ‘1’, include NUM_FREQ occurrences of the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TD_HASH_IND</td>
<td>1</td>
</tr>
<tr>
<td>TD_POWER_LEVEL</td>
<td>0 or 2</td>
</tr>
</tbody>
</table>

**PILOT_PN** - Pilot PN sequence offset index.

The base station shall set this field to the pilot PN sequence offset for this base station, in units of 64 PN chips.

**CONFIG_MSG_SEQ** - Configuration message sequence number.

The base station shall set this field to CONFIG_SEQ (see 3.6.2.2).

**NUM_FREQ** - Number of CDMA Frequencies

The base station shall set this field to the number of supported CDMA frequencies included in this message.

*The base station shall not set this field to ‘0000’.*
CDMA_FREQ - CDMA Channel frequency assignment.

The base station shall include one occurrence of this field for each CDMA Channel, containing either a Paging Channel, or a Broadcast Control Channel and Forward Common Control Channel.

The base station shall set each occurrence of this field to the CDMA channel number corresponding to the CDMA frequency assignment for that CDMA Channel (see [2]).

If the base station supports a CDMA frequency assignment without transmit diversity, the base station should not set the first occurrence of this field to a CDMA channel number corresponding to a transmit diversity frequency assignment.

RC_QPCH_SEL_INCL - RC and QPCH Selection included indicator

The base station shall set this field to ‘1’, if NUM_FREQ occurrences of RC_QPCH_HASH_IND are included; otherwise, it shall set this field to ‘0’.

If the base station sets this field to ‘1’, the base station shall set the RC_QPCH_HASH_IND field to ‘1’ in at least one of the following one-field records:

RC_QPCH_HASH_IND - RC_QPCH channel hashing indicator

If RC_QPCH_SEL_INCL is set to ‘1’, the base station shall include NUM_FREQ occurrences of this field and set this field as follow; otherwise, the base station shall omit this field.

When the Extended CDMA Channel List Message is sent on the Paging Channel, the base station shall perform the following:

If the associated CDMA_FREQ is to be selected for CDMA channel hashing by mobile stations capable of RC greater than two or capable of supporting Quick Paging Channel, the base station shall set the field to ‘1’; otherwise, the base station shall set this field to ‘0’.

When the Extended CDMA Channel List Message is sent on the Primary Broadcast Control Channel, the base station shall set this field to ‘1’, if the corresponding CDMA channel is to be selected for channel hashing by mobile stations capable of Radio Configurations greater than two or capable of supporting Quick Paging Channel with Quick Paging Channel capability.

TD_SEL_INCL - Transmit diversity selection indicator included.

The base station shall set this field to ‘1’, if the base station includes transmit diversity selection information in this message; otherwise, the base station shall set this field to ‘0’.

When the Extended CDMA Channel List Message is sent on the Paging Channel, the base station shall set this field to ‘0’.
TD_MODE - Transmit diversity mode.

If the field TD_SEL_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to the Transmit Diversity mode, as specified in Table 3.7.2.3.2.26-3.

If the TD_SEL_INCL is set to ‘1’, the base station shall include NUM_FREQ occurrences of the following two-field record, and shall set the TD_HASH_IND field to ‘1’ in at least one of the records:

TD_HASH_IND - Transmit diversity hash indicator.

If the associated CDMA_FREQ is to be selected for CDMA channel hashing by mobile stations capable of supporting transmit diversity [TD_MODE], the base station shall set the field to ‘1’; otherwise, the base station shall set this field to ‘0’.

TD_POWER_LEVEL - Transmit diversity power level.

If TD_HASH_IND is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it to the transmit diversity transmission power level relative to that of the Forward Pilot Channel, as specified in Table 3.7.2.3.2.26-4.
3.7.2.3.2.29 User Zone Reject Message

MSG_TAG: UZRM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REJECT_UZID</td>
<td>16</td>
</tr>
<tr>
<td>REJECT_ACTION_INDI</td>
<td>3</td>
</tr>
<tr>
<td>UZID_ASSIGN_INCL</td>
<td>1</td>
</tr>
<tr>
<td>ASSIGN_UZID</td>
<td>0 or 16</td>
</tr>
</tbody>
</table>

REJECT_UZID - Rejected User Zone identifier.

The base station shall set this field to the User Zone identifier of the User Zone rejected by the base station.

REJECT_ACTION_INDI - Rejection action indicator.

The base station shall set this field to the value shown in Table 3.7.2.3.2.29-1 corresponding to the User Zone rejection action field to identify the mobile station action.

Table 3.7.2.3.2.29-1. Rejection Action Indicators

<table>
<thead>
<tr>
<th>Description</th>
<th>REJECT_ACTION_INDI (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disable UZID until Next Update</td>
<td>000</td>
</tr>
<tr>
<td>Disable UZID until next power cycle</td>
<td>001</td>
</tr>
<tr>
<td>Disable UZID until new SID</td>
<td>010</td>
</tr>
<tr>
<td>Disable UZID until new SID/NID</td>
<td>011</td>
</tr>
<tr>
<td>Disable UZID until next BASE_ID</td>
<td>100</td>
</tr>
<tr>
<td>All other REJECT_ACTION_INDI values are reserved</td>
<td></td>
</tr>
</tbody>
</table>

UZID_ASSIGN_INCL - User Zone identifier assignment included indicator.

If assigned UZID information is included, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.
ASSIGN_UZID - Assigned User Zone identifiers.

The base station shall set this field to the User Zone identifier of the User Zone assigned to the mobile station.
3.7.2.3.2.30 ANSI-41 System Parameters Message

MSG_TAG: A41SPM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>CONFIG_MSG_SEQ</td>
<td>6</td>
</tr>
<tr>
<td>SID</td>
<td>15</td>
</tr>
<tr>
<td>NID</td>
<td>16</td>
</tr>
<tr>
<td>PACKET_ZONE_ID</td>
<td>8</td>
</tr>
<tr>
<td>REG_ZONE</td>
<td>12</td>
</tr>
<tr>
<td>TOTAL_ZONES</td>
<td>3</td>
</tr>
<tr>
<td>ZONE_TIMER</td>
<td>3</td>
</tr>
<tr>
<td>MULT_SIDS</td>
<td>1</td>
</tr>
<tr>
<td>MULT_NIDS</td>
<td>1</td>
</tr>
<tr>
<td>HOME_REG</td>
<td>1</td>
</tr>
<tr>
<td>FOR_SID_REG</td>
<td>1</td>
</tr>
<tr>
<td>FOR_NID_REG</td>
<td>1</td>
</tr>
<tr>
<td>POWER_UP_REG</td>
<td>1</td>
</tr>
<tr>
<td>POWER_DOWN_REG</td>
<td>1</td>
</tr>
<tr>
<td>PARAMETER_REG</td>
<td>1</td>
</tr>
<tr>
<td>REG_PRD</td>
<td>7</td>
</tr>
<tr>
<td>DIST_REG_INCL</td>
<td>1</td>
</tr>
<tr>
<td>REG_DIST</td>
<td>0 or 11</td>
</tr>
<tr>
<td>DELETE_FOR_TMSI</td>
<td>1</td>
</tr>
<tr>
<td>USE_TMSI</td>
<td>1</td>
</tr>
<tr>
<td>PREF_MSID_TYPE</td>
<td>2</td>
</tr>
</tbody>
</table>

(continues on next page)
<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TMSI_ZONE_LEN</td>
<td>4</td>
</tr>
<tr>
<td>TMSI_ZONE</td>
<td>$8 \times$ TMSI_ZONE_LEN</td>
</tr>
<tr>
<td>IMSI_T_SUPPORTED</td>
<td>1</td>
</tr>
<tr>
<td>MAX_NUM_ALT_SO</td>
<td>3</td>
</tr>
<tr>
<td>AUTO_MSG_SUPPORTED</td>
<td>1</td>
</tr>
<tr>
<td>AUTO_MSG_INTERVAL</td>
<td>0 or 3</td>
</tr>
<tr>
<td>OTHER_INFO_INCL</td>
<td>1</td>
</tr>
<tr>
<td>BASE_ID</td>
<td>0 or 16</td>
</tr>
<tr>
<td>MCC</td>
<td>0 or 10</td>
</tr>
<tr>
<td>IMSI_11_12</td>
<td>0 or 7</td>
</tr>
<tr>
<td>BROADCAST_GPS_ASST</td>
<td>0 or 1</td>
</tr>
<tr>
<td>SIG_ENCRYPT_SUP</td>
<td>0 or 8</td>
</tr>
<tr>
<td>STORE_KEY</td>
<td>0 or 1</td>
</tr>
<tr>
<td>CS_SUPPORTED</td>
<td>1</td>
</tr>
<tr>
<td>MS_INIT_POS_LOC_SUP_IND</td>
<td>1</td>
</tr>
</tbody>
</table>

**PILOT_PN** - Pilot PN sequence offset index.

The base station shall set this field to the pilot PN sequence offset for this base station, in units of 64 PN chips.

**CONFIG_MSG_SEQ** - Configuration message sequence number.

The base station shall set this field to CONFIG_SEQ (see 3.6.2.2).

**SID** - System identification.

The base station shall set this field to the system identification number for this system (see 2.6.5.2).

**NID** - Network identification.

This field serves as a sub-identifier of a system as defined by the owner of the SID.

The base station shall set this field to the network identification number for this network (see 2.6.5.2).

**PACKET_ZONE_ID** - Packet data services zone identifier.

If the base station supports a packet data service zone, the base station shall set this field to its non-zero packet data services zone identifier.
If the base station does not support a packet data service zone, the base station shall set this field to ‘00000000’.

**REG_ZONE** - Registration zone.

The base station shall set this field to its registration zone number (see 2.6.5.1.5).

**TOTAL_ZONES** - Number of registration zones to be retained.

The base station shall set this field to the number of registration zones the mobile station is to retain for purposes of zone-based registration (see 2.6.5.1.5).

If zone-based registration is to be disabled, the base station shall set this field to ‘000’.

**ZONE_TIMER** - Zone timer length.

The base station shall set this field to the ZONE_TIMER value shown in Table 3.7.2.3.2.30-1 corresponding to the length of the zone registration timer to be used by mobile stations.

### Table 3.7.2.3.2.30-1. Value of Zone Timer

<table>
<thead>
<tr>
<th>ZONE_TIMER Value (binary)</th>
<th>Timer Length (Minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>1</td>
</tr>
<tr>
<td>001</td>
<td>2</td>
</tr>
<tr>
<td>010</td>
<td>5</td>
</tr>
<tr>
<td>011</td>
<td>10</td>
</tr>
<tr>
<td>100</td>
<td>20</td>
</tr>
<tr>
<td>101</td>
<td>30</td>
</tr>
<tr>
<td>110</td>
<td>45</td>
</tr>
<tr>
<td>111</td>
<td>60</td>
</tr>
</tbody>
</table>

**MULT_SIDS** - Multiple SID storage indicator.

If mobile stations may store entries of SID_NID_LIST containing different SIDs, the base station shall set this field to ‘1’; otherwise the base station shall set this field to ‘0’.

**MULT_NIDS** - Multiple NID storage indicator.

If mobile stations may store multiple entries of SID_NID_LIST having the same SID (with different NIDs), the base station shall set this field to ‘1’; otherwise the base station shall set this field to ‘0’.
HOME_REG  -  Home registration indicator.

If mobile stations that are not roaming (see 2.6.5.3) and have MOB_TERM_HOME equal to ‘1’ are to be enabled for autonomous registrations, the base station shall set this field to ‘1’. If such mobile stations are not to be enabled for autonomous registration, the base station shall set this field to ‘0’.

FOR_SID_REG  -  SID roamer registration indicator.

If mobile stations that are foreign SID roamers (see 2.6.5.3) and have MOB_TERM_FOR_SID equal to ‘1’ are to be enabled for autonomous registration, the base station shall set this field to ‘1’. If such mobile stations are not to be enabled for autonomous registration, the base station shall set this field to ‘0’.

FOR_NID_REG  -  NID roamer registration indicator.

If mobile stations that are foreign NID roamers (see 2.6.5.3) and have MOB_TERM_FOR_NID equal to ‘1’ are to be enabled for autonomous registration, the base station shall set this field to ‘1’. If such mobile stations are not to be enabled for autonomous registration, the base station shall set this field to ‘0’.

POWER_UP_REG  -  Power-up registration indicator.

If mobile stations enabled for autonomous registration are to register immediately after powering on and receiving the system overhead messages, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

POWER_DOWN_REG  -  Power-down registration indicator.

If mobile stations enabled for autonomous registration are to register immediately before powering down, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

PARAMETER_REG  -  Parameter-change registration indicator.

If mobile stations are to register on parameter change events as specified in 2.6.5.1.6, the base station shall set this field to ‘1’. If not, the base station shall set this field to ‘0’.

REG_PRD  -  Registration period.

If mobile stations are not to perform timer-based registration, the base station shall set this field to ‘0000000’. If mobile stations are to perform timer-based registration, the base station shall set this field to the value in the range 29 to 85 inclusive, such that the desired timer value is

$$\left\lfloor \frac{\text{REG_PRD}}{4} \right\rfloor \times 0.08 \text{ seconds}.$$
DIST_REG_INCL - Distance-Based Registration Information Included.

The base station shall set this field to ‘1’ if it includes distance-based registration information in the message and mobile stations are to perform distance-based registration; otherwise the base station shall set this field to ‘0’.

REG_DIST - Registration distance.

If DIST_REG_INCL is set to ‘1’, the base station shall include the field REG_DIST and shall set this field as shown below; otherwise, the base station shall omit this field.

The base station shall set this field to the non-zero “distance” beyond which the mobile station is to re-register (see 2.6.5.1.4).

DELETE_FOR_TMSI - Delete foreign TMSI.

The base station shall set this field to ‘1’ to cause the mobile station to delete its TMSI if the TMSI was assigned in a different TMSI zone from that specified by the TMSI_ZONE field of this message; otherwise, the base station shall set this field to ‘0’.

USE_TMSI - Use TMSI indicator.

The base station shall set this field to the value shown in Table 3.7.2.3.2.2930-2 corresponding to the type of MSID that the mobile station is to use on the Enhanced Access Channel.

PREF_MSID_TYPE - Preferred Enhanced Access Channel Mobile Station Identifier Type.

The base station shall set this field to the value shown in Table 3.7.2.3.2.30-2 corresponding to the type of MSID that the mobile station is to use on the Enhanced Access Channel.

<table>
<thead>
<tr>
<th>USE_TMSI (binary)</th>
<th>PREF_MSID_TYPE (binary)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>00</td>
<td>IMSI_S and ESN</td>
</tr>
<tr>
<td>0</td>
<td>10</td>
<td>IMSI</td>
</tr>
<tr>
<td>0</td>
<td>11</td>
<td>IMSI and ESN</td>
</tr>
<tr>
<td>1</td>
<td>10</td>
<td>TMSI (valid TMSI is assigned); IMSI (TMSI not assigned)</td>
</tr>
<tr>
<td>1</td>
<td>11</td>
<td>TMSI (valid TMSI is assigned); IMSI and ESN (TMSI not assigned)</td>
</tr>
</tbody>
</table>

All other values are reserved.
TMSI_ZONE_LEN - TMSI zone length.
The base station shall set this field to the number of octets included in the TMSI_ZONE. The base station shall set this field to a value in the range 1 to 8 inclusive.

TMSI_ZONE - TMSI zone.
The base station shall set this field to the TMSI zone number as specified in [27].

IMSI_T_SUPPORTED - IMSI_T support indicator.
The base station shall set this field to ‘1’ to indicate support for a 15-digit IMSI_T addressing according to [18].

MAX_NUM_ALT_SO - Maximum number of alternative service options.
The base station shall set this field to the maximum number of service option numbers defined in [30], corresponding to alternative service options with no service option group number assigned, that the mobile station is allowed to include in the Origination Message, and the Page Response.

If the base station sets this field to a value greater than zero, in addition, the base station shall allow the mobile station to include

- a 4-bit or 8-bit service option bitmap in the Origination Message and the Page Response Message;
- alternate service option numbers, not limited to MAX_ALT_SO_NUM, in the Enhanced Origination Message.

AUTO_MSG_SUPPORTED - Autonomous message supported indicator.
If the base station allows the autonomous delivery of the Device Information Message on the r-csch, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

AUTO_MSG_INTERVAL - Autonomous message interval.
If AUTO_MSG_SUPPORTED is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and shall set this field to the AUTO_MSG_INTERVAL value shown in Table 3.7.2.3.2.13-4 to indicate the minimum time interval between autonomous messages sent by a mobile station to the infrastructure. This parameter is intended to allow the infrastructure to limit the frequency of autonomous messages sent by a mobile station on the r-csch.

OTHER_INFO_INCL - Other information included indicator.
The base station shall set this field to ‘1’ if the MC-RR Parameters Message is not sent; otherwise, the base station shall set this field to ‘0’.
BASE_ID - Base station identification.

If OTHER_INFO_INCL is set to ‘1’, the base station shall include this field and set it as follows; otherwise, the base station shall omit this field.

The base station shall set this field to its identification number.


If OTHER_INFO_INCL is set to ‘1’, the base station shall include this field and set it as follows; otherwise, the base station shall omit this field.

The base station shall set this field to the MCC (see 2.3.1).

IMSI_11_12 - 11th and 12th digits of the IMSI.

If OTHER_INFO_INCL is set to ‘1’, the base station shall include this field and set it as follows; otherwise, the base station shall omit this field.

The base station shall set this field to the IMSI_11_12 (see 2.3.1).

BROADCAST_GPS_ASST - Broadcast GPS Assist Indicator.

If OTHER_INFO_INCL is set to ‘1’, the base station shall include this field and set it as follows; otherwise, the base station shall omit this field.

The base station shall set this field to ‘1’ if it supports Broadcast GPS Assist capability; otherwise, the base station shall set this field to ‘0’.

SIG_ENCRYPT_SUP - Signaling Encryption supported indicator.

If OTHER_INFO_INCL is set to ‘1’, the base station shall include this field and set it as follows; otherwise, the base station shall omit this field.

This field consists of the subfields shown in Table 2.7.1.3.2.1-5.

If this field is included, the base station shall set the subfields as follows:

The base station shall set the CMEA subfield to ‘1’.

The base station shall set each other subfield to ‘1’ if the corresponding signaling encryption algorithm is supported by the base station; otherwise, the base station shall set the subfield to ‘0’.

The base station shall set the RESERVED subfield to ‘000000’.

STORE_KEY - Store session key indicator.

If OTHER_INFO_INCL is set to ‘1’, the base station shall include this field and set it as follows; otherwise, the base station shall omit this field.
The base station shall set this field to ‘1’ to indicate that the mobile station is to store the session key; otherwise the base station shall set this field to ‘0’.

CS_SUPPORTED – Concurrent Services supported indicator.

If the base station supports concurrent services, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

MS_INIT_POS_LOC - Mobile station initiated position location determination supported indicator.

If the base station supports mobile station initiated position determination, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.
### 3.7.2.3.2.31 MC-RR Parameters Message

**MSG_TAG: MCRRPM**

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>CONFIG_MSG_SEQ</td>
<td>6</td>
</tr>
<tr>
<td>BASE_ID</td>
<td>16</td>
</tr>
<tr>
<td>P_REV</td>
<td>8</td>
</tr>
<tr>
<td>MIN_P_REV</td>
<td>8</td>
</tr>
<tr>
<td>SR3_INCL</td>
<td>1</td>
</tr>
<tr>
<td>SR3_CENTER_FREQ_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>SR3_CENTER_FREQ</td>
<td>0 or 11</td>
</tr>
<tr>
<td>SR3_BRAT</td>
<td>0 or 2</td>
</tr>
<tr>
<td>SR3_BCCH_CODE_CHAN</td>
<td>0 or 7</td>
</tr>
<tr>
<td>SR3_PRIMARY_PILOT</td>
<td>0 or 2</td>
</tr>
<tr>
<td>SR3_PILOT_POWER1</td>
<td>0 or 3</td>
</tr>
<tr>
<td>SR3_PILOT_POWER2</td>
<td>0 or 3</td>
</tr>
<tr>
<td>SRCH_WIN_A</td>
<td>4</td>
</tr>
<tr>
<td>SRCH_WIN_R</td>
<td>4</td>
</tr>
<tr>
<td>T_ADD</td>
<td>6</td>
</tr>
<tr>
<td>T_DROP</td>
<td>6</td>
</tr>
<tr>
<td>T_COMP</td>
<td>4</td>
</tr>
<tr>
<td>T_TDROP</td>
<td>4</td>
</tr>
<tr>
<td>NGHBR_MAX_AGE</td>
<td>4</td>
</tr>
<tr>
<td>SOFT_SLOPE</td>
<td>6</td>
</tr>
<tr>
<td>ADD_INTERCEPT</td>
<td>6</td>
</tr>
<tr>
<td>DROP_INTERCEPT</td>
<td>6</td>
</tr>
<tr>
<td>ENC_SUPPORTED</td>
<td>1</td>
</tr>
<tr>
<td>SIG_ENCRYPT_SUP</td>
<td>0 or 8</td>
</tr>
<tr>
<td>UI_ENCRYPT_SUP</td>
<td>0 or 8</td>
</tr>
<tr>
<td><strong>STORE_KEY</strong></td>
<td>0 or 1</td>
</tr>
</tbody>
</table>

(continues on next page)
# Field Length (bits)

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD_FIELDS_LEN</td>
<td>8</td>
</tr>
<tr>
<td>ADD_FIELDS</td>
<td>$8 \times$ ADD_FIELDS_LEN</td>
</tr>
<tr>
<td>CCH_INFO_INCL</td>
<td>1</td>
</tr>
<tr>
<td>MCC</td>
<td>0 or 10</td>
</tr>
<tr>
<td>IMSI_11_12</td>
<td>0 or 7</td>
</tr>
<tr>
<td>MAX_SLOT_CYCLE_INDEX</td>
<td>0 or 3</td>
</tr>
<tr>
<td>PWR_REP_THRESH</td>
<td>0 or 5</td>
</tr>
<tr>
<td>PWR_REP_FRAMES</td>
<td>0 or 4</td>
</tr>
<tr>
<td>PWR_THRESH_ENABLE</td>
<td>0 or 1</td>
</tr>
<tr>
<td>PWR_PERIOD_ENABLE</td>
<td>0 or 1</td>
</tr>
<tr>
<td>PWR_REP_DELAY</td>
<td>0 or 5</td>
</tr>
<tr>
<td>RESELECT_INCLUDED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>EC_THRESH</td>
<td>0 or 5</td>
</tr>
<tr>
<td>EC_IO_THRESH</td>
<td>0 or 5</td>
</tr>
<tr>
<td>BASE_LAT</td>
<td>0 or 22</td>
</tr>
<tr>
<td>BASE_LONG</td>
<td>0 or 23</td>
</tr>
<tr>
<td>PILOT_REPORT</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ACC_ENT_HO_ORDER</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ACCESS_HO</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ACCESS_HO_MSG_RSP</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ACCESS_PROBE_HO</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ACC_HO_LIST_UPD</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ACC_PROBE_HO_OTHER_MSG</td>
<td>0 or 1</td>
</tr>
<tr>
<td>MAX_NUM_PROBE_HO</td>
<td>0 or 3</td>
</tr>
<tr>
<td>NUM_FCCCH</td>
<td>0 or 3</td>
</tr>
<tr>
<td>FCCCH_RATE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>FCCCH_CODE_RATE</td>
<td>0 or 1</td>
</tr>
</tbody>
</table>

NUM_FCCCH occurrences of the following one field record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FCCCH_CODE_CHAN</td>
<td>8</td>
</tr>
</tbody>
</table>

(continues on next page)
<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCAST_INDEX</td>
<td>0 or 3</td>
</tr>
<tr>
<td>NUM_BCCH_BCAST</td>
<td>0 or 3</td>
</tr>
</tbody>
</table>

NUM_BCCH_BCAST occurrences of the following three-field record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCCH_CODE_CHAN</td>
<td>7</td>
</tr>
<tr>
<td>BRAT</td>
<td>2</td>
</tr>
<tr>
<td>BCCH_CODE_RATE</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QPCH_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>NUM_QPCH</td>
<td>0 or 2</td>
</tr>
<tr>
<td>QPCH_RATE</td>
<td>0 or 1</td>
</tr>
<tr>
<td>QPCH_POWER_LEVEL_PAGE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>QPCH_CCI_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>QPCH_POWER_LEVEL_CONFIG</td>
<td>0 or 3</td>
</tr>
</tbody>
</table>

NUM_QPCH occurrences of the following one field record if operating in Spreading Rate 3 common channel:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QPCH_CODE_CHAN</td>
<td>0 or 8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QPCH_BI_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>QPCH_POWER_LEVEL_BCAST</td>
<td>0 or 3</td>
</tr>
<tr>
<td>SDB_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>BROADCAST_GPS_ASST</td>
<td>0 or 1</td>
</tr>
<tr>
<td>RLGAIN_TRAFFIC_PILOT</td>
<td>0 or 6</td>
</tr>
<tr>
<td>REV_PWR_CNTL_DELAY_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>REV_PWR_CNTL_DELAY</td>
<td>0 or 2</td>
</tr>
<tr>
<td>MOB_QOS</td>
<td>0 or 1</td>
</tr>
<tr>
<td>USE_SYNC_ID</td>
<td>0 or 1</td>
</tr>
<tr>
<td>NUM_OPT_MSG</td>
<td>0 or 4</td>
</tr>
</tbody>
</table>

(continues on next page)
<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SENDING_RAND</td>
<td>0 or 1</td>
</tr>
<tr>
<td>PRI_NGHBR_LIST</td>
<td>0 or 1</td>
</tr>
<tr>
<td>USER_ZONE_ID</td>
<td>0 or 1</td>
</tr>
<tr>
<td>EXT_GLOBAL_REDIRECT</td>
<td>0 or 1</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 or (NUM_OPT_MSG – 4)</td>
</tr>
<tr>
<td>PILOT_INFO_REQ_SUPPORTED</td>
<td>0 or 1</td>
</tr>
</tbody>
</table>

**PILOT_PN** - Pilot PN sequence offset index.

The base station shall set this field to the pilot PN sequence offset for this base station, in units of 64 PN chips.

**CONFIG_MSG_SEQ** - Configuration message sequence number.

The base station shall set this field to CONFIG_SEQ (see 3.6.2.2).

**BASE_ID** - Base station identification.

The base station shall set this field to its identification number.

**P_REV** - Protocol revision level.

The base station shall set this field to ‘00000111’.

**MIN_P_REV** - Minimum protocol revision level.

The base station sets this field to prevent mobile stations, which cannot be supported by the base station from accessing the system.

The base station shall set this field to the minimum protocol revision level that it supports. For Band Class 0 operation, the base station should set this field to a value of ‘00000010’ or greater. For Band Class 1 or Band Class 4 operation, the base station should set this field to a value of ‘00000001’ or greater. For Band Class 3 operation, the base station should set this field to a value of ‘00000011’ or greater. For Band Class 2 or Band Class 5 operation, the base station should set this field to ‘00000101’, or greater. For Band Class 6, Band Class 7, Band Class 8, or Band Class 9, or Band Class 10 operation, the base station should set this field to ‘00000110’ or greater.

**SR3_INCL** - Spreading Rate 3 common channel parameters included indicator.
The base station shall set this field to ‘1’ if the base station includes SR3 related parameters in this message; otherwise, the base station shall set this field to ‘0’.

If the base station is operating in SR3 mode, the base station shall set this field to ‘0’.

**SR3_CENTER_FREQ_INCL** - Center SR3 frequency assignment included.

If SR3_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to ‘1’, if the CDMA Channel number corresponding to the SR3 center frequency assignment for the CDMA Channel containing a Broadcast Control Channel is different from the current SR1 frequency assignment. Otherwise, the base station shall set this field to ‘0’.

**SR3_CENTER_FREQ** - Center SR3 frequency assignment.

If SR3_CENTER_FREQ_INCL is not included or is included but is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the CDMA Channel number corresponding to the SR3 center frequency assignment for the CDMA Channel containing a Broadcast Control Channel.

**SR3_BRAT** - Spreading Rate 3 BCCH data rate.

If SR3_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the BCCH rate field value shown in Table 3.7.2.3.2.26-2 corresponding to the data rate used by the Primary Broadcast Control Channel in the system.

**SR3_BCCH_CODE_CHAN** - Spreading Rate 3 BCCH Walsh code index.

If SR3_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the Walsh code index corresponding to the Spreading Rate 3 BCCH.

**SR3_PRIMARY_PILOT** - Primary SR3 pilot.

If SR3_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the value shown in Table 3.7.2.3.2.26-5 corresponding to the position of the primary SR3 pilot.

**SR3_PILOT_POWER1** - The primary SR3 pilot power level relative to that of the pilot on the lower frequency of the two remaining SR3 frequencies.
If SR3_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the lower frequency of the two remaining SR3 frequencies.

SR3_PILOT_POWER2 - The primary SR3 pilot power level relative to that of the pilot on the higher frequency of the two remaining SR3 frequencies.

If SR3_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the higher frequency of the two remaining SR3 frequencies.

SRCH_WIN_A - Search window size for the Active Set and Candidate Set.

The base station shall set this field to the value shown in Table 2.6.6.2.1-1 corresponding to the search window size to be used by mobile stations for the Active Set and Candidate Set.

SRCH_WIN_R - Search window size for the Remaining Set.

The base station shall set this field to the value shown in Table 2.6.6.2.1-1 corresponding to the search window size to be used by mobile stations for the Remaining Set.

T_ADD - Pilot detection threshold.

This value is used by the mobile station to trigger the transfer of a pilot from the Neighbor Set or Remaining Set to the Candidate Set (see 2.6.6.2.6) and to trigger the sending of the Park Strength Measurement Message or Extended Pilot Strength Measurement Message initiating the handoff process (see 2.6.6.2.5.2).

The base station shall set this field to the pilot detection threshold, expressed as an unsigned binary number equal to \[ \lfloor -2 \times 10 \times \log_{10} \frac{E_c}{I_o} \rfloor \].

T_DROP - Pilot drop threshold.

This value is used by mobile stations to start a handoff drop timer for pilots in the Active Set and the Candidate Set (see 2.6.6.2.3).

The base station shall set this field to the pilot drop threshold, expressed as an unsigned binary number equal to \[ \lfloor -2 \times 10 \times \log_{10} \frac{E_c}{I_o} \rfloor \].

T_COMP - Active Set versus Candidate Set comparison threshold.

Mobile stations transmit a Pilot Strength Measurement Message or Extended Pilot Strength Measurement Message when the strength of a pilot in the Candidate Set exceeds that of a pilot in the Active Set by this margin (see 2.6.6.2.5.2).

The base station shall set this field to the threshold Candidate Set pilot to Active Set pilot ratio, in units of 0.5 dB.
T_TDROP - Drop timer value.

Timer value after which an action is taken by mobile stations for a pilot that is a member of the Active Set or Candidate Set, and whose strength has not become greater than T_DROP. If the pilot is a member of the Active Set, a Pilot Strength Measurement Message or Extended Pilot Strength Measurement Message is issued. If the pilot is a member of the Candidate Set, it will be moved to the Neighbor Set.

The base station shall set this field to the T_TDROP value shown in Table 2.6.6.2.3-1 corresponding to the drop timer value to be used by mobile stations.

NGHBR_MAX_AGE - Neighbor Set maximum AGE.

The base station shall set this field to the maximum AGE value beyond which mobile stations are to drop members from the Neighbor Set (see 2.6.6.2.6.3).

SOFT_SLOPE - The slope in the inequality criterion for adding a pilot to the Active Set, or dropping a pilot from the Active Set (see 2.6.6.2.3 and 2.6.6.2.5.2).

The base station shall set this field as an unsigned binary number.

ADD_INTERCEPT - The intercept in the inequality criterion for adding a pilot to the Active Set (see 2.6.6.2.5.2).

The base station shall set this field as a two’s complement signed binary number, in units of dB.

DROP_INTERCEPT - The intercept in the inequality criterion for dropping a pilot from the Active Set (see 2.6.6.2.3).

The base station shall set this field as a two’s complement signed binary number, in units of dB.

ENC_SUPPORTED - Encryption fields included.

The base station shall set this field to ‘1’ if the encryption related fields are included; otherwise the base station shall set this field to ‘0’.

SIG_ENCRYPT_SUP - Signaling encryption supported indicator.

If ENC_SUPPORTED is equal to ‘1’, the base station shall include this field; otherwise, the base station shall omit this field. If this field is included, this field indicates which signaling encryption algorithms are supported by the base station.
This field consists of the subfields shown in Table 2.7.1.3.2.1-5.

If this field is included, the base station shall set the subfields as follows:

The base station shall set the CMEA subfield to ‘1’.

The base station shall set each other subfield to ‘1’ if the corresponding signaling encryption algorithm is supported by the base station; otherwise, the base station shall set the subfield to ‘0’.

The base station shall set the RESERVED subfield to ‘000000’.

**UI_ENCRYPT_SUP** – User information encryption supported indicator.

If ENC_SUPPORTED is equal to ‘1’, the base station shall include this field; otherwise, the base station shall omit this field. If this field is included, the base station shall set this field to indicate the supported user information encryption algorithms.

This field consists of the subfields shown in Table 2.7.1.3.2.4-9.

The base station shall set each subfield to ‘1’ if the corresponding user information encryption algorithm is supported by the base station; otherwise, the base station shall set the subfield to ‘0’.

**STORE_KEY** – Store session key indicator

If ENC_SUPPORTED is equal to ‘1’, the base station shall include this field; otherwise, the base station shall omit this field. If this field is included, the base station shall set this field to ‘1’ to indicate that the mobile station is to store the session key; otherwise the base station shall set this field to ‘0’.

**ADD_FIELDS_LEN** – Additional fields length.

The base station shall set this field to the number of octets included in the ADD_FIELDS. The base station shall set this field to ‘00000000’.

**ADD_FIELDS** – Additional fields.

The base station shall include 8 x ADD_FIELDS_LEN bits to support additional fields, if any.

**CCH_INFO_INCL** – Common Channel information included indicator.

If the message is sent on the f-csch and additional information is included, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

The base station shall set this field to ‘1’.

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If CCH_INFO_INCL is set to ‘1’, the base station shall include this field and set it as follows; otherwise, the base station shall omit this field.
The base station shall set this field to the MCC (see 2.3.1).

IMSI_11_12 - 11th and 12th digits of the IMSI.
If CCH_INFO_INCL is set to ‘1’, the base station shall include this field and set it as follows; otherwise, the base station shall omit this field.
The base station shall set this field to the IMSI_11_12 (see 2.3.1).

MAX_SLOT_CYCLE_INDEX - Maximum slot cycle index.
If CCH_INFO_INCL is set to ‘1’, the base station shall include the field MAX_SLOT_CYCLE_INDEX and shall set this field as shown below; otherwise, the base station shall omit this field.
The base station shall set this field to the SLOT_CYCLE_INDEX value corresponding to the maximum slot cycle length permitted (see 2.6.2.1.1).

PWR_REP_THRESH - Power control reporting threshold.
If CCH_INFO_INCL is set to ‘1’, the base station shall include the field PWR_REP_THRESH and shall set this field as shown below; otherwise, the base station shall omit this field.
The base station shall set this field to the number of bad frames (see [2]) to be received in a measurement period on the channel which carries the Power Control Subchannel before mobile stations are to generate a Power Measurement Report Message (see 2.6.4.1.1). If the base station sets PWR_THRESH_ENABLE to ‘1’, it shall not set this field to ‘00000’.

PWR_REP_FRAMES - Power control reporting frame count.
If CCH_INFO_INCL is set to ‘1’, the base station shall include the field PWR_REP_FRAMES and shall set this field as shown below; otherwise, the base station shall omit this field.
The base station shall set this field to the value such that the number given by
\[
\left\lfloor 2 \left( \frac{PWR_REP_FRAMES}{2} \right) \times 5 \right\rfloor \text{ frames}
\]
is the number of frames over which mobile stations are to count frame errors.

PWR_THRESH_ENABLE - Threshold report mode indicator.
If CCH_INFO_INCL is set to ‘1’, the base station shall include the field PWR_THRESH_ENABLE and shall set this field as shown below; otherwise, the base station shall omit this field.
If mobile stations are to generate threshold Power Measurement Report Messages, the base station shall set this field to ‘1’. If mobile stations are not to generate threshold Power Measurement Report Messages, the base station shall set this field to ‘0’.

PWR_PERIOD_ENABLE - Periodic report mode indicator.

If CCH_INFO_INCL is set to ‘1’, the base station shall include the field PWR_PERIOD_ENABLE and shall set this field as shown below; otherwise, the base station shall omit this field.

If mobile stations are to generate periodic Power Measurement Report Messages, the base station shall set this field to ‘1’. If mobile stations are not to generate periodic Power Measurement Report Messages, the base station shall set this field to ‘0’.

PWR_REP_DELAY - Power report delay.

The period that mobile stations wait following a Power Measurement Report Message before restarting frame counting for power control purposes.

If CCH_INFO_INCL is set to ‘1’, the base station shall include the field PWR_REP_DELAY and shall set this field as shown below; otherwise, the base station shall omit this field.

The base station shall set this field to the power report delay value, in units of 4 frames (see 2.6.4.1.1).

RESELECT_INCLUDED - System reselection parameters included.

If CCH_INFO_INCL is set to ‘1’, the base station shall include the field RESELECT_INCLUDED and shall set this field as shown below; otherwise, the base station shall omit this field.

If the base station is including system reselection parameters, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

EC_THRESH - Pilot power threshold.

If RESELECT_INCLUDED is included and is set to ‘1’, the base station shall include the field EC_THRESH and shall set this field as shown below; otherwise, the base station shall omit this field.

The base station shall set this field to:

\[
\lceil \text{pilot\_power\_threshold} + 115 \rceil
\]

where \text{pilot\_power\_threshold} is the pilot power, \( E_c \), in dBm/1.23 MHz, below which the mobile station is to perform system reselection.

EC_IO_THRESH - Pilot \( E_c/ I_o \) threshold.

If RESELECT_INCLUDED is included and is set to ‘1’, the base station shall include the field EC_IO_THRESH and shall set this field as shown below; otherwise, the base station shall omit this field.
The base station shall set this field to:

\[-20 \times \log_{10}(\text{pilot\_threshold})\]

where \text{pilot\_threshold} is the pilot \(\text{E}\text{c}/\text{I}_0\) below which the mobile station is to perform system reselection.

**BASE_LAT** - Base station latitude.

If **CCH\_INFO\_INCL** is set to ‘1’, the base station shall include this field and set it as shown below; otherwise, the base station shall omit this field.

The base station shall set this field to its latitude in units of 0.25 second, expressed as a two’s complement signed number with positive numbers signifying North latitudes. The base station shall set this field to a value in the range \(-1296000\) to \(1296000\) inclusive (corresponding to a range of \(-90^\circ\) to \(+90^\circ\)).

**BASE_LONG** - Base station longitude.

If **CCH\_INFO\_INCL** is set to ‘1’, the base station shall include this field and set it as shown below; otherwise, the base station shall omit this field.

The base station shall set this field to its longitude in units of 0.25 second, expressed as a two’s complement signed number with positive numbers signifying East longitude. The base station shall set this field to a value in the range \(-2592000\) to \(2592000\) inclusive (corresponding to a range of \(-180^\circ\) to \(+180^\circ\)).

**PILOT_REPORT** - Pilot reporting indicator.

If **CCH\_INFO\_INCL** is set to ‘1’, the base station shall include the field **PILOT_REPORT** and shall set this field as shown below; otherwise, the base station shall omit this field.

The base station shall set this field to ‘1’ if the mobile station is to report the additional pilots which have pilot strengths exceeding \(T\text{\_ADD}\) in all Enhanced Access Channel messages. The base station shall set this field to ‘0’ if the mobile station is to report the additional pilots which have pilot strengths exceeding \(T\text{\_ADD}\) only in the **Origination Message** and the **Page Response Message**.

**ACC_ENT_HO_ORDER** - Access entry handoff permitted indicator.

If **CCH\_INFO\_INCL** is set to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

The base station shall set this field to ‘1’ if the mobile station is permitted to perform an access entry handoff after receiving a message while performing the **Mobile Station Order and Message Processing Operation** in the **Mobile Station Idle State** (see 2.6.2.4); otherwise, the base station shall set this field to ‘0’.
ACCESS_HO - Access handoff permitted indicator.

If CCH_INFO_INCL is set to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

The base station shall set this field to ‘1’ if the mobile station is permitted to perform an access handoff (see 2.6.3.1.3.2); otherwise, the base station shall set this field to ‘0’.

ACCESS_HO_MSG_RSP - Access handoff permitted for message response indicator.

If ACCESS_HO is included and set to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

The base station shall set this field to ‘1’ if the mobile station is permitted to perform an access handoff after receiving a message and before responding to that message in the System Access State; otherwise, the base station shall set this field to ‘0’.

ACCESS_PROBE_HO - Access probe handoff permitted indicator.

If CCH_INFO_INCL is set to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

The base station shall set this field to ‘1’ if the mobile station is permitted to perform an access probe handoff (see 2.6.3.1.3.3); otherwise, the base station shall set this field to ‘0’.

ACC_HO_LIST_UPD - Access handoff list update permitted indicator.

If ACCESS_PROBE_HO is included and is set to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

The base station shall set this field to ‘1’ if the mobile station is permitted to update the access handoff list during an access attempt (see 2.6.3.1.7.2); otherwise, the base station shall set this field to ‘0’.

ACC_PROBE_HO_-OTHER_MSG - Access probe handoff permitted for messages other than the Origination Message and the Page Response Message.

If ACCESS_PROBE_HO is included and set to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

The base station shall set this field to ‘1’ if the mobile station is permitted to perform an access probe handoff for messages other than the Origination Message and the Page Response Message. The base station shall set this field to ‘0’ if the mobile station is permitted to perform an access probe handoff only for the Origination Message and the Page Response Message. See 2.6.3.1.3.3.

MAX_NUM_PROBE_HO - Maximum number of times that the mobile station is permitted to perform an access probe handoff.
If ACCESS_PROBE_HO is included and set to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

The base station shall set this field to the maximum number of times the mobile station is allowed to perform an access probe handoff within an access attempt minus one.

**NUM_FCCCH** - Total number of Forward Common Control Channels.

If CCH_INFO_INCL is set to ‘1’, the base station shall include this field and shall set it as shown below; otherwise, the base station shall omit this field.

The base station shall set this field to the total number of Forward Common Control Channels on this CDMA Channel.

*If this is not a pilot beacon base station, the base station shall set this field to an integer value greater than 0.*

**FCCCH_RATE** - Rate words for the Forward Common Control Channels.

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If CCH_INFO_INCL is set to ‘1’ and NUM_FCCCH is not equal to ‘0’, the base station shall include this field and shall set it as shown below; otherwise, the base station shall omit this field.

The base station shall set this field to the FCCCH rate field value shown in Table 3.7.2.3.2.31-1 corresponding to the data rate used on the Forward Common Control Channels in the system.

**Table 3.7.2.3.2.31-1. Forward Common Control Channel Rate Words**

<table>
<thead>
<tr>
<th>FCCCH Rate Field (binary)</th>
<th>Forward Common Control Channel rate word</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>9600 bps, 20 ms frame size</td>
</tr>
<tr>
<td>001</td>
<td>19200 bps, 20 ms frame size</td>
</tr>
<tr>
<td>010</td>
<td>19200 bps, 10 ms frame size</td>
</tr>
<tr>
<td>011</td>
<td>38400 bps, 20 ms frame size</td>
</tr>
<tr>
<td>100</td>
<td>38400 bps, 10 ms frame size</td>
</tr>
<tr>
<td>101</td>
<td>38400 bps, 5 ms frame size</td>
</tr>
<tr>
<td>110 – 111</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

**FCCCH_CODE_RATE** - Code Rate for the Forward Common Control Channels.

---

If CCH_INFO_INCL is set to ‘1’ and NUM_FCCCH is not equal to ‘0’, the base station shall include this field and shall set it as shown below; otherwise, the base station shall omit
this field.

If the FCCCH is operating in Spreading Rate 1, the base station shall set this field to ‘0’ if the FCCCH Code Rate is 1/4 (see 3.1.3.1.2.1 of [2]). The base station shall set this field to ‘1’ if the FCCCH Code Rate is 1/2 (see 3.1.3.1.2.1 of [2]).

If the FCCCH is operating in Spreading Rate 3, the base station shall set this field to ‘0’.

The base station shall include NUM_FCCCH occurrences of the following one field record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FCCCH_CODE_CHAN</td>
<td>Code channel index for the Forward Common Control Channel.</td>
</tr>
<tr>
<td></td>
<td>The base station shall set this field to the code channel index (see [2]) in the range 1 to 256 inclusive that the mobile station is to use on the Forward Common Control Channel.</td>
</tr>
<tr>
<td>BCAST_INDEX</td>
<td>Broadcast index.</td>
</tr>
<tr>
<td></td>
<td>If CCH_INFO_INCL is set to ‘1’, the base station shall include the field BCAST_INDEX and shall set this field as shown below; otherwise, the base station shall omit this field.</td>
</tr>
<tr>
<td></td>
<td>If Periodic Enhanced Broadcast Paging is disabled, the base station shall set this field to ‘000’; otherwise, the base station shall set this field to the Broadcast Index (see 2.6.2.1.1.3.3.24).</td>
</tr>
<tr>
<td>NUM_BCCH_BCAST</td>
<td>The number of Broadcast Control Channels used for transmitting broadcast messages.</td>
</tr>
<tr>
<td></td>
<td>If CCH_INFO_INCL is set to ‘1’, the base station shall include this field and set it as shown below; otherwise, the base station shall omit this field.</td>
</tr>
<tr>
<td></td>
<td>If the base station supports transmission of broadcast messages, the base station shall set this field to the number of Broadcast Control Channels used for transmitting broadcast messages. If the base station supports transmission of broadcast messages, the base station shall not set this field to ‘000’.</td>
</tr>
</tbody>
</table>

If the NUM_BCCH_BCAST field is included, the base station shall set NUM_BCCH_BCAST occurrences of the following three-field record, where the ith occurrence corresponds to a BCCH indexed by BCN of i+1:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCCH_CODE_CHAN</td>
<td>The Walsh Code index for the Broadcast Control Channel specified by BCCH_ID.</td>
</tr>
<tr>
<td></td>
<td>The base station shall set this field to the Walsh code corresponding to the Broadcast Control Channel specified by BCCH_ID.</td>
</tr>
<tr>
<td>BRAT</td>
<td>BCCH data rate.</td>
</tr>
<tr>
<td></td>
<td>The base station shall set this field to the BRAT field value shown in Table 3.7.2.3.2.31-2 corresponding to the data rate used by the Broadcast Control Channel to which the mobile station is being directed.</td>
</tr>
</tbody>
</table>
Table 3.7.2.3.2.31-2. Broadcast Control Channel Data Rate

<table>
<thead>
<tr>
<th>BRAT Field (binary)</th>
<th>Broadcast Control Channel data rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>4800 bps</td>
</tr>
<tr>
<td>01</td>
<td>9600 bps</td>
</tr>
<tr>
<td>10</td>
<td>19200 bps</td>
</tr>
<tr>
<td>11</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

BCCH_CODE_RATE - BCCH code rate.

For spreading rate 1, the base station shall set this field to ‘0’ if the BCCH Code Rate is 1/4 (see 3.1.3.1.2.1 of [2]). For spreading rate 1, the base station shall set this field to ‘1’ if the BCCH code rate is 1/2 (see 3.1.3.1.2.1 of [2]). For spreading rate 3, the base station shall set this field to ‘0’.

QPCH_SUPPORTED - Quick Paging Channel Supported Indication.

If CCH_INFO_INCL is set to ‘1’, the base station shall include the field QPCH_SUPPORTED and shall set this field as shown below; otherwise, the base station shall omit this field.

If the base station supports Quick Paging Channel operation, the base station shall set this field to ‘1’; otherwise the base station shall set this field to ‘0’.

NUM_QPCH - Number of Quick Paging Channels.

If QPCH_SUPPORTED is included and set to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

The base station shall set this field to the number of Quick Paging Channels on this CDMA Channel. The base station shall not set this field to ‘00’.

QPCH_RATE - Quick Paging Channel indicator rate.

If QPCH_SUPPORTED is included and set to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

The base station shall set this field to the QPCH_RATE field value shown in Table 3.7.2.3.2.13-2 corresponding to the indicator rate used by the Quick Paging Channel in the system.

QPCH_POWER-LEVEL_PAGE - Quick Paging Channel paging indicator transmit power level.

If QPCH_SUPPORTED is included and set to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.
The base station shall set this field to the Quick Paging Channel paging indicator transmit power level relative to that of the Pilot Channel as specified in Table 3.7.2.3.2.31-3.

Table 3.7.2.3.2.31-3. Quick Paging Channel Transmit Power Level

<table>
<thead>
<tr>
<th>QPCH_POWER_LEVEL_PAGE</th>
<th>Transmit Power Level</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(binary)</td>
</tr>
<tr>
<td>000</td>
<td>5 dB below the Pilot Channel Transmit Power</td>
</tr>
<tr>
<td>001</td>
<td>4 dB below the Pilot Channel Transmit Power</td>
</tr>
<tr>
<td>010</td>
<td>3 dB below the Pilot Channel Transmit Power</td>
</tr>
<tr>
<td>011</td>
<td>2 dB below the Pilot Channel Transmit Power</td>
</tr>
<tr>
<td>100</td>
<td>1 dB below the Pilot Channel Transmit Power</td>
</tr>
<tr>
<td>101</td>
<td>Same as the Pilot Channel Transmit Power</td>
</tr>
<tr>
<td>110</td>
<td>1 dB above the Pilot Channel Transmit Power</td>
</tr>
<tr>
<td>111</td>
<td>2 dB above the Pilot Channel Transmit Power</td>
</tr>
</tbody>
</table>

QPCH_CCI_SUPPORTED - Quick Paging Channel configuration change indicator supported.

If QPCH_SUPPORTED is included and set to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

If the base station supports configuration change indicators on the Quick Paging Channel, the base station shall set this field to ‘1’; otherwise the base station shall set this field to ‘0’.

QPCH_POWER_LEVEL_CONFIG - Quick Paging Channel configuration change indicator transmit power level.

If QPCH_CCI_SUPPORTED is included and set to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.
The base station shall set this field to the Quick Paging Channel configuration change indicator transmit power level relative to that of the Pilot Channel as specified in Table 3.7.2.3.2.31-3.

If the base station is operating in Spreading Rate 3 BCCH channel, the base station shall include NUM_QPCH occurrences of the following one field record:

- **QPCH_CODE_CHAN** - Code channel index of the Quick Paging Channel for Spreading Rate 3.
  
The base station shall set this field to the code channel index (see [2]) in the range 1 to 256 inclusive that the mobile station is to use on the Quick Paging Channel for Spreading Rate 3.

- **QPCH_BI_SUPPORTED** - Quick Paging Channel broadcast indicator supported.
  
  If QPCH_SUPPORTED is included and set to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

  If the base station supports broadcast indicators on the Quick Paging Channel, the base station shall set this field to ‘1’; otherwise the base station shall set this field to ‘0’.

- **QPCH_POWER_LEVEL_BCST** - Quick Paging Channel broadcast indicator transmit power level.
  
  If QPCH_BI_SUPPORTED is included and set to ‘1’, the base station shall include this field and set it as described below; otherwise, the base station shall omit this field.

  The base station shall set this field to the Quick Paging Channel broadcast indicator transmit power level relative to that of the Pilot Channel as specified in Table 3.7.2.3.2.31-3.

- **SDB_SUPPORTED** - Short Data Burst supported indicator.
  
  If CCH_INFO_INCL is set to ‘1’, the base station shall include the field SDB_SUPPORTED and shall set this field as shown below; otherwise, the base station shall omit this field.

  The base station shall set this field to ‘1’ if the mobile station is permitted to send a Short Data Burst; otherwise, the base station shall set this field to ‘0’.

- **BROADCAST_GPS_ASST** - Broadcast GPS Assist Indicator.
  
  If CCH_INFO_INCL is set to ‘1’, the base station shall include the field BROADCAST_GPS_ASST and shall set this field as shown below; otherwise, the base station shall omit this field.

  The base station shall set this field to ‘1’ if it supports Broadcast GPS Assist capability; otherwise, the base station shall set this field to ‘0’.

- **RLGAIN_TRAFFIC_PILOT** - Gain adjustment of the Reverse Traffic Channel relative to the Reverse Pilot Channel for Radio Configurations greater than 2.
If CCH_INFO_INCL is set to ‘1’, the base station shall include the field RLGAIN_TRAFFIC_PILOT and shall set this field as shown below; otherwise, the base station shall omit this field.

The base station shall set this field to the correction factor to be used by mobile stations in setting the power of a reverse traffic channel, expressed as a two's complement value in units of 0.125 dB (see 2.1.2.3.3 of [2]).

<table>
<thead>
<tr>
<th>REV_PWR_CNTL_DELAY_INCL</th>
<th>- Reverse Power Control Delay included indicator.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>If CCH_INFO_INCL is set to ‘1’, the base station shall include this field and set it as shown below; otherwise, the base station shall omit this field.</td>
</tr>
<tr>
<td></td>
<td>The base station shall set this field to ‘1’ if the base station includes the REV_PWR_CNTL_DELAY field in this message; otherwise, the base station shall set this field to ‘0’.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REV_PWR_CNTL_DELAY</th>
<th>- The reverse power control delay.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>If REV_PWR_CNTL_DELAY_INCL is included and set to ‘1’, the base station shall include this field and set it as follows; otherwise, the base station shall omit this field.</td>
</tr>
<tr>
<td></td>
<td>The base station shall set this field to the closed-loop reverse power control delay minus one (the closed-loop reverse power control delay is the time between the end of a gated-on reverse PCG and the beginning of the reverse PCG where the corresponding feedback is sent on the Forward Power Control Subchannel, see 2.1.2.3.2 of [2]), in units of 1.25 ms.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MOB_QOS</th>
<th>- Indicator granting permission to the mobile station to request QoS parameter settings in the Origination Message, Origination Continuation Message, or Enhanced Origination Message.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>If CCH_INFO_INCL is set to ‘1’, the base station shall include this field and set it as shown below; otherwise, the base station shall omit this field.</td>
</tr>
<tr>
<td></td>
<td>The base station shall set this field to ‘1’, if the mobile station is allowed to include a QoS record in the Origination Message, Origination Continuation Message, or Enhanced Origination Message; or to ‘0’, otherwise, the base station shall set this field to ‘0’.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>USE_SYNC_ID</th>
<th>- Sync ID supported indicator.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>If CCH_INFO_INCL is set to ‘1’, the base station shall include this field and set it as shown below; otherwise, the base station shall omit this field.</td>
</tr>
<tr>
<td></td>
<td>The base station shall set this field to ‘1’ to indicate that the mobile station is permitted to include the SYNC_ID field in the Page Response Message and the Origination Message. Otherwise, the base station shall set this field to ‘0’.</td>
</tr>
</tbody>
</table>
NUM_OPT_MSG - Number of optional overhead messages to be sent.

If CCH_INFO_INCL is set to ‘1’, the base station shall include this field and shall set this field as shown below; otherwise, the base station shall omit this field.

The base station shall set this field to the number of optional overhead messages to be sent.

SENDING_RAND - ANSI-41 RAND Message indicator.

If NUM_OPT_MSG is included and is equal to or greater than 1, the base station shall include the field SENDING_RAND and shall set this field as shown below; otherwise, the base station shall omit this field.

If the base station is sending the ANSI-41 RAND Message on the Primary Broadcast Control Channel, it shall set this field to ‘1’; otherwise, it shall set this field to ‘0’.

PRI_NGHBR_LIST - Private Neighbor List Message indicator.

If NUM_OPT_MSG is included and is equal to or greater than 2, the base station shall include the field PRI_NGHBR_LIST and shall set this field as shown below; otherwise, the base station shall omit this field.

If the base station is sending the Private Neighbor List Message on the Primary Broadcast Control Channel, it shall set this field to ‘1’; otherwise, it shall set this field to ‘0’.

USER_ZONE_ID - User Zone Identification Message indicator.

If NUM_OPT_MSG is included and is equal to or greater than 3, the base station shall include the field USER_ZONE_ID and shall set this field as shown below; otherwise, the base station shall omit this field.

If the base station is sending the User Zone Identification Message on the Primary Broadcast Control Channel, it shall set this field to ‘1’; otherwise, it shall set this field to ‘0’.

EXT_GLOBAL_REDIRECT - Extended Global Service Redirection Message indicator.

If NUM_OPT_MSG is included and is equal to or greater than 4, the base station shall include the field EXT_GLOBAL_REDIRECT and shall set this field as shown below; otherwise, the base station shall omit this field.

If the base station is sending the Extended Global Service Redirection Message on the Primary Broadcast Control Channel, it shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

RESERVED - Reserved bits.

If NUM_OPT_MSG is included and is equal to or greater than 5, the base station shall include the field RESERVED and shall set this field as shown below; otherwise, the base station shall omit this field.
The base station shall add \((\text{NUM\_OPT\_MSG} - 4)\) reserved bits. The base station shall set these bits to ‘0’.

```
PILOT_INFO_REQ
  SUPPORTED       - Pilot information request supported indicator.

  If \(\text{CCH\_INFO\_INCL}\) is set to ‘1’, the base station shall include
  this field and set it as shown below; otherwise, the base
  station shall omit this field.

  If the base station supports mobile station request for pilot
  information using the “Pilot Information” record in the \textit{Base
  Station Status Request Message}, the base station shall set this
  field to ‘1’; otherwise, the base station shall set this field to ‘0’.
```
3.7.2.3.2.32 ANSI-41 RAND Message

MSG_TAG: A41RANDM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>RESERVED</td>
<td>6</td>
</tr>
<tr>
<td>RAND</td>
<td>32</td>
</tr>
</tbody>
</table>

PILOT_PN - Pilot PN sequence offset index.

The base station shall set this field to the pilot PN sequence offset for this base station, in units of 64 PN chips.

RESERVED - Reserved bits.

The base station shall set this field to ‘000000’.

RAND - Random challenge value.

The base station shall set this field to the random challenge value to be used by mobile stations for authentication.
### 3.7.2.3.2.33 Enhanced Access Parameters Message

**MSG_TAG: EAPM**

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>ACC_MSG_SEQ</td>
<td>6</td>
</tr>
<tr>
<td>PSIST_PARMS_INCL</td>
<td>1</td>
</tr>
<tr>
<td>PSIST_PARMS_LEN</td>
<td>0 or 5</td>
</tr>
<tr>
<td>PSIST(0-9)_EACH</td>
<td>0 or 6</td>
</tr>
<tr>
<td>PSIST(10)_EACH</td>
<td>0 or 3</td>
</tr>
<tr>
<td>PSIST(11)_EACH</td>
<td>0 or 3</td>
</tr>
<tr>
<td>PSIST(12)_EACH</td>
<td>0 or 3</td>
</tr>
<tr>
<td>PSIST(13)_EACH</td>
<td>0 or 3</td>
</tr>
<tr>
<td>PSIST(14)_EACH</td>
<td>0 or 3</td>
</tr>
<tr>
<td>PSIST(15)_EACH</td>
<td>0 or 3</td>
</tr>
<tr>
<td>PSIST_EMG</td>
<td>0 or 3</td>
</tr>
<tr>
<td>MSG_PSIST_EACH</td>
<td>0 or 3</td>
</tr>
<tr>
<td>REG_PSIST_EACH</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 – 7 (as needed)</td>
</tr>
<tr>
<td>LAC_PARMS_LEN</td>
<td>4</td>
</tr>
<tr>
<td>ACC_TMO</td>
<td>6</td>
</tr>
<tr>
<td>PROBE_PN_RAN_RESERVED_1</td>
<td>4</td>
</tr>
<tr>
<td>MAX_REQ_SEQ</td>
<td>4</td>
</tr>
<tr>
<td>MAX_RSP_SEQ</td>
<td>4</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 – 7 (as needed)</td>
</tr>
</tbody>
</table>

(continues on next page)
<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUM_MODE_SELECTION_ENTRIES</td>
<td>3</td>
</tr>
<tr>
<td>NUM_MODE_SELECTION_ENTRIES + 1 occurrences of the following record:</td>
<td></td>
</tr>
<tr>
<td>ACCESS_MODE</td>
<td>3</td>
</tr>
<tr>
<td>ACCESS_MODE_MIN_DURATION</td>
<td>10</td>
</tr>
<tr>
<td>ACCESS_MODE_MAX_DURATION</td>
<td>10</td>
</tr>
<tr>
<td>RLGAIN_COMMON_PILOT</td>
<td>6</td>
</tr>
<tr>
<td>IC_THRESH</td>
<td>4</td>
</tr>
<tr>
<td>IC_MAX</td>
<td>4</td>
</tr>
<tr>
<td>NUM_MODE_PARM_REC</td>
<td>3</td>
</tr>
<tr>
<td>NUM_MODE_PARM_REC + 1 occurrences of the following record:</td>
<td></td>
</tr>
<tr>
<td>EACH_PARM_REC_LEN</td>
<td>4</td>
</tr>
<tr>
<td>APPLICABLE_MODES</td>
<td>8</td>
</tr>
<tr>
<td>EACH_NOM_PWR</td>
<td>5</td>
</tr>
<tr>
<td>EACH_INIT_PWR</td>
<td>5</td>
</tr>
<tr>
<td>EACH_PWR_STEP</td>
<td>3</td>
</tr>
<tr>
<td>EACH_NUM_STEP</td>
<td>4</td>
</tr>
<tr>
<td>EACH_PREAMBLE_ENABLED</td>
<td>1</td>
</tr>
<tr>
<td>EACH_PREAMBLE_NUM_FRAC</td>
<td>0 or 4</td>
</tr>
<tr>
<td>EACH_PREAMBLE_FRAC_DURATION</td>
<td>0 or 4</td>
</tr>
<tr>
<td>EACH_PREAMBLE_OFF_DURATION</td>
<td>0 or 4</td>
</tr>
<tr>
<td>EACH_PREAMBLE_ADD_DURATION</td>
<td>0 or 4</td>
</tr>
<tr>
<td>EACH_ACCESS_THRESH</td>
<td>6</td>
</tr>
<tr>
<td>EACH_PROBE_BKOFF</td>
<td>4</td>
</tr>
<tr>
<td>EACH_BKOFF</td>
<td>4</td>
</tr>
<tr>
<td>EACH_SLOT</td>
<td>6</td>
</tr>
<tr>
<td>EACH_SLOT_OFFSET1</td>
<td>6</td>
</tr>
<tr>
<td>Field</td>
<td>Length (bits)</td>
</tr>
<tr>
<td>------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>EACH_SLOT_OFFSET2</td>
<td>6</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 – 7 (as needed)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA_PARMS_LEN</td>
<td>32</td>
</tr>
<tr>
<td>NUM_EACH_BA</td>
<td>0 or 5</td>
</tr>
<tr>
<td>EACH_BA_RATES_SUPPORTED</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 – 7 (as needed)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA_PARMS_LEN</td>
<td>5</td>
</tr>
<tr>
<td>NUM_EACH_RA</td>
<td>0 or 5</td>
</tr>
<tr>
<td>NUM_CACH</td>
<td>0 or 3</td>
</tr>
<tr>
<td>CACH_CODE_RATE</td>
<td>0 or 1</td>
</tr>
</tbody>
</table>

If RA_PARMS_LEN is not equal to ‘00000’, the base station shall include (NUM_CACH + 1) occurrences of the following one field record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CACH_CODE_CHAN</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUM_RCCCH</td>
<td>0 or 5</td>
</tr>
<tr>
<td>RCCCH_RATES_SUPPORTED</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RCCCH_PREAMBLE_ENABLED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>RCCCH_PREAMBLE_NUM_FRAC</td>
<td>0 or 4</td>
</tr>
<tr>
<td>RCCCH_PREAMBLE_FRAC_DURATION</td>
<td>0 or 4</td>
</tr>
<tr>
<td>RCCCH_PREAMBLE_OFF_DURATION</td>
<td>0 or 4</td>
</tr>
<tr>
<td>RCCCH_PREAMBLE_ADD_DURATION</td>
<td>0 or 4</td>
</tr>
<tr>
<td>RCCCH_SLOT</td>
<td>0 or 6</td>
</tr>
<tr>
<td>RCCCH_SLOT_OFFSET1</td>
<td>0 or 6</td>
</tr>
<tr>
<td>RCCCH_SLOT_OFFSET2</td>
<td>0 or 6</td>
</tr>
<tr>
<td>RCCCH_NOM_PWR</td>
<td>0 or 5</td>
</tr>
<tr>
<td>RCCCH_INIT_PWR</td>
<td>0 or 5</td>
</tr>
<tr>
<td>RA_PC_DELAY</td>
<td>0 or 5</td>
</tr>
</tbody>
</table>

(continues on next page)
<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EACAM_CACH_DELAY</td>
<td>0 or 4</td>
</tr>
<tr>
<td>RCCCH_HO_SUPPORTED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>RCCCH_HO_THRESH</td>
<td>0 or 4</td>
</tr>
<tr>
<td>EACAM_PCCAM_DELAY</td>
<td>0 or 5</td>
</tr>
<tr>
<td>NUM_CPCCH</td>
<td>0 or 2</td>
</tr>
<tr>
<td>CPCCH_RATE</td>
<td>0 or 2</td>
</tr>
</tbody>
</table>

If RA_PARMS_LEN is not equal to ‘00000’, the base station shall include \((\text{NUM}_\text{CPCCH} + 1)\) occurrences of the following one field record:

| CPCCH_CODE_CHAN       | 8             |

| NUM_PCSCH_RA          | 0 or 7        |
| RESERVED              | 0 – 7 (as needed) |

| ACCT_INCL             | 1             |
| ACCT_INCL_EMG         | 0 or 1        |
| ACCT_AOC_BITMAP_INCL  | 0 or 1        |
| ACCT_SO_INCL          | 0 or 1        |
| NUM_ACCT_SO           | 0 or 4        |

If ACCT_SO_INCL is equal to ‘1’, \(\text{NUM}_\text{ACCT}_\text{SO} + 1\) occurrences of the following variable-field record:

| ACCT_AOC_BITMAP1      | 0 or 5        |
| ACCT_SO               | 16            |

| ACCT_SO_GRP_INCL      | 0 or 1        |
| NUM_ACCT_SO_GRP       | 0 or 3        |

If ACCT_SO_GRP_INCL is equal to ‘1’, \(\text{NUM}_\text{ACCT}_\text{SO} \text{GRP} + 1\) occurrences of the following variable-field record:

| ACCT_AOC_BITMAP2      | 0 or 5        |
| ACCT_SO_GRP           | 5             |

PILOT_PN - Pilot PN sequence offset index.
The base station shall set this field to the pilot PN sequence offset for this base station, in units of 64 PN chips.

ACC_MSG_SEQ - Enhanced Access Parameters Message sequence number.

The base station shall set this field to ACC_CONFIG_SEQ (see 2.6.2.2.15).

PSIST_PARMS_INCL - Persistence parameters included indicator.

If persistence parameters are included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

PSIST_PARMS_LEN - Length of persistence parameters record.

If PSIST_PARMS_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field to the total length, in octets, of persistence parameters included in the message, including the PSIST_PARMS_LEN and RESERVED fields.

PSIST(0-9)_EACH - Persistence value for access overload classes 0 through 9.

If PSIST_PARMS_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

If a mobile station in access overload classes 0 through 9 is permitted to transmit requests on the Enhanced Access Channel, the base station shall set this field to the persistence value to be used. If such a mobile station is not permitted to transmit requests on the Enhanced Access Channel, the base station shall set this field to ‘111111’.

PSIST(10)_EACH - Persistence value for access overload class 10 (test mobile stations).

If PSIST_PARMS_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

If a mobile station in access overload class 10 is permitted to transmit requests on the Enhanced Access Channel, the base station shall set this field to the persistence value to be used. If such a mobile station is not permitted to transmit requests on the Enhanced Access Channel, the base station shall set this field to ‘111’.

PSIST(11)_EACH - Persistence value for access overload class 11 (emergency mobile stations).

If PSIST_PARMS_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:
If a mobile station in access overload class 11 is permitted to transmit requests on the Enhanced Access Channel, the base station shall set this field to the persistence value to be used. If such a mobile station is not permitted to transmit requests on the Enhanced Access Channel, the base station shall set this field to ‘111’.

**PSIST(12)_EACH** - Persistence value for access overload class 12.

If PSIST_PARMS_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

If a mobile station in access overload class 12 is permitted to transmit requests on the Enhanced Access Channel, the base station shall set this field to the persistence value to be used. If such a mobile station is not permitted to transmit requests on the Enhanced Access Channel, the base station shall set this field to ‘111’.

**PSIST(13)_EACH** - Persistence value for access overload class 13.

If PSIST_PARMS_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

If a mobile station in access overload class 13 is permitted to transmit requests on the Enhanced Access Channel, the base station shall set this field to the persistence value to be used. If such a mobile station is not permitted to transmit requests on the Enhanced Access Channel, the base station shall set this field to ‘111’.

**PSIST(14)_EACH** - Persistence value for access overload class 14.

If PSIST_PARMS_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

If a mobile station in access overload class 14 is permitted to transmit requests on the Enhanced Access Channel, the base station shall set this field to the persistence value to be used. If such a mobile station is not permitted to transmit requests on the Enhanced Access Channel, the base station shall set this field to ‘111’.

**PSIST(15)_EACH** - Persistence value for access overload class 15.

If PSIST_PARMS_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

If a mobile station in access overload class 15 is permitted to transmit requests on the Enhanced Access Channel, the base station shall set this field to the persistence value to be used. If such a mobile station is not permitted to transmit requests on the Enhanced Access Channel, the base station shall set this field to ‘111’.
PSIST_EMG - Persistence value for emergency call for access overload classes 0 through 9.

If PSIST_PARMS_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

If a mobile station in access overload classes 0 through 9 is permitted to transmit emergency requests on the Enhanced Access Channel, the base station shall set this field to the persistence value to be used for the emergency calls. If such a mobile station is not permitted to transmit emergency requests on the Enhanced Access Channel, the base station shall set this field to ‘111’.

MSG_PSIST_EACH - Persistence modifier for Enhanced Access Channel attempts for message transmissions.

If PSIST_PARMS_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field to the persistence modifier for Enhanced Access Channel attempts for message transmissions.

REG_PSIST_EACH - Persistence modifier for Enhanced Access Channel attempts for registrations which are not responses to the Registration Request Order.

If PSIST_PARMS_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field to the persistence modifier for Enhanced Access Channel attempts for registrations which are not responses to the Registration Request Order.

RESERVED - Reserved bits.

If PSIST_PARMS_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include as many bits as required to make the length of the persistence parameters record an integral number of octets. If this field is included, the base station shall set each of these bits to ‘0’.

LAC_PARMS_LEN - Length of Link Access Control parameter fields.

The base station shall set this field to the total length, in octets, of Link Access Control parameters included in the message, including the LAC_PARMS_LEN and RESERVED fields.

ACC_TMO - Acknowledgment timeout.

The base station shall set this field to one less than the length of time, in units of 20 ms, that a mobile station is to wait to receive a Layer 2 acknowledgment after the end of an Enhanced Access Channel transmission.

PROBE_PN_RAN - Time randomization for Enhanced Access Channel probes.
The base station shall set this field to the value in the range 0 to 9 inclusive, so that the time randomization range to be used by a mobile station is 0 to $2^{\text{PROBE\_PN\_RAN\_EACH\_1\_PN}}$ chips.

**RESERVED_1** - The reserved bits

The base station shall set this field to '0000'.

**MAX_REQ_SEQ** - Maximum number of access probe sequences for an Enhanced Access Channel request.

The base station shall set this field to the maximum number of access probe sequences a mobile station is to transmit for an Enhanced Access Channel request. The base station shall set this field to a value greater than 0.

**MAX_RSP_SEQ** - Maximum number of access probe sequences for an Enhanced Access Channel response.

The base station shall set this field to the maximum number of access probe sequences a mobile station is to transmit for an Enhanced Access Channel response. The base station shall set this field to a value greater than 0.

**RESERVED** - Reserved Bits.

The base station shall include as many bits as required to make the length of the Link Access Control parameters record an integral number of octets. The base station shall set each of these bits to '0'.

**NUM_MODE_SELECTION_ENTRIES** - Number of entries of the Mode Selection Table.

The base station shall set this field to the number of entries of the Mode Selection Table, minus one.

The base station shall include NUM_MODE_SELECTION_ENTRIES + 1 occurrences of the following three-field record:

**ACCESS_MODE** - Access Mode used for the Enhanced Access Channel.

The base station shall set this field to the Access Mode value shown in Table 3.7.2.3.2.33-1 corresponding to the Access Mode used.

**Table 3.7.2.3.2.33-1. Enhanced Access Modes**

<table>
<thead>
<tr>
<th>ACCESS_MODE (binary)</th>
<th>Access Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>Basic Access Mode</td>
</tr>
<tr>
<td>001</td>
<td>Reservation Access Mode</td>
</tr>
<tr>
<td>010 – 011</td>
<td>Reserved</td>
</tr>
</tbody>
</table>
_DURATION - The minimum message duration for the corresponding Access Mode.

The base station shall set this field to the minimum message duration for the corresponding Access Mode, in units of 5 ms. See [3].

ACCESS_MODE_MAX-_DURATION - The maximum message duration for the corresponding Access Mode.

The base station shall set this field to the maximum message duration for the corresponding Access Mode, in units of 5 ms. See [3].

RLGAIN_COMMON-_PILOT - Gain adjustment of the Enhanced Access Channel or Reverse Common Control Channel relative to the Reverse Pilot Channel.

The base station shall set this field to the correction factor to be used by mobile stations in setting the power of a code channel, expressed as a two’s complement value in units of 0.125 dB (see 2.1.2.3.3 of [2]).

IC_THRESH - Interference correction threshold.

The threshold level at which the interference correction begins to be applied.

The base station shall set this field to the negative of the interference correction threshold to be used by mobile stations to determine the interference correction, in units of 1 dB (see 2.1.2.3.1.2 of [2]).

IC_MAX - The maximum interference correction that can be applied.

The base station shall set this field to the maximum interference correction that can be applied, in units of 1 dB (see 2.1.2.3.1.2 of [2]).

NUM_MODE_PARM-_REC - The number of mode-specific parameter records.

The base station shall set this field to the number of mode-specific parameter records included in the message, minus one.

The base station shall include NUM_MODE_PARM_REC + 1 occurrences of the following record:

EACH_PARM_REC-_LEN - Length of the mode-specific parameters record.

The base station shall set this field to the total length, in octets, of the mode-specific parameters record, including the EACH_PARM_REC_LEN and RESERVED fields.

APPLICABLE_MODES - Access modes to which the access parameters specified in this record apply.
The base station shall set each subfield of the APPLICABLE_MODES field as follows: the base station shall set the subfield to ‘1’ if the access parameters included in this record are applicable to the corresponding Access Mode in Table 3.7.2.3.2.33-2; otherwise, the base station shall set the subfield to ‘0’.

Table 3.7.2.3.2.33-2. Applicable Modes

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
<th>Subfield Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC_MODE_1</td>
<td>1</td>
<td>Basic Access Mode</td>
</tr>
<tr>
<td>ACC_MODE_2</td>
<td>1</td>
<td>Reservation Access Mode</td>
</tr>
<tr>
<td>RESERVED</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

- EACH_NOM_PWR - Nominal transmit power offset for the Enhanced Access Channels.
  The base station shall set this field to the correction factor to be used by a mobile station in the open loop power estimate, expressed as a two’s complement value in units of 1 dB (see [2]).
- EACH_INIT_PWR - Initial power offset for the Enhanced Access Channels.
  The base station shall set this field to the correction factor to be used by a mobile station in the open loop power estimate for the initial transmission on an Enhanced Access Channel, expressed as a two’s complement value in units of 1 dB (see [2]).
- EACH_PWR_STEP - Power increment for the Enhanced Access Channels.
  The base station shall set this field to the value by which a mobile station is to increase their transmit power between successive access probes in an access probe sequence, in units of 1 dB.
- EACH_NUM_STEP - Number of access probes.
  The base station shall set this field to one less than the maximum number of access probes a mobile station is to transmit in a single access probe sequence.
- EACH_PREAMBLE-_ENABLED - Preamble enabled indicator for the Enhanced Access Channel.
  The base station shall set this field to ‘1’ if EACH preambles related information is included in this message; otherwise, the base station shall set this field to ‘0’.
- EACH_PREAMBLE-_NUM_FRAC - The number of fractional preambles on the Enhanced Access Channels.
If EACH_PREAMBLE_ENABLED is set to ‘1’, the base station shall set this field to the number of fractional preambles minus one on the Enhanced Access Channels; otherwise, the base station shall omit this field.

**EACH_PREAMBLE-_FRAC_DURATION** - Fractional preamble duration on the Enhanced Access Channels.

If EACH_PREAMBLE_ENABLED is set to ‘1’, the base station shall set this field to the fractional preamble duration minus one on an Enhanced Access Channel, in units of 1.25 ms; otherwise, the base station shall omit this field.

**EACH_PREAMBLE-_OFF_DURATION** - Fractional preamble gated-off duration on the Enhanced Access Channels.

If EACH_PREAMBLE_ENABLED is set to ‘1’, the base station shall set this field to the fractional preamble gated-off duration (in units of 1.25 ms) after the transmission of each fractional preamble on an Enhanced Access Channel; otherwise, the base station shall omit this field.

**EACH_PREAMBLE-_ADD_DURATION** - Additional preamble duration on the Enhanced Access Channels.

If EACH_PREAMBLE_ENABLED is set to ‘1’, the base station shall set this field to the additional preamble duration on an Enhanced Access Channel, in units of 1.25 ms; otherwise, the base station shall omit this field.

**EACH_ACCESS-_THRESH** - Pilot $E_{c}/I_o$ threshold for transmission on the Enhanced Access Channels.

The base station shall set this field to:

$$-20 \times \log_{10} \text{pilot\_threshold}$$

where $\text{pilot\_threshold}$ is the pilot $E_{c}/I_o$ threshold below which the mobile station is not to transmit a probe on an Enhanced Access Channel.

**RESERVED** - Reserved bits.

The base station shall set this field to ‘000000’.

**EACH_PROBE_BKOFF** - Enhanced Access Channel probe backoff range.

The base station shall set this field to one less than the maximum number of slots a mobile station is to delay due to random backoff between consecutive enhanced access probes.
EACH_BKOFF - Enhanced Access Channel probe sequence backoff range.
The base station shall set this field to one less than the maximum number of slots a mobile station is to delay due to random backoff between successive enhanced access probe sequences and before the first enhanced access probe sequence of a response access.

EACH_SLOT - Slot duration for the Enhanced Access Channels.
The base station shall set this field to N where the slot duration of the Enhanced Access Channel is \((N+1) \times 1.25\) ms. The base station shall set this field to a value between 0 and 63.

EACH_SLOT_OFFSET1 - First slot offset for the Enhanced Access Channels.
The base station shall set this field so that the Enhanced Access Channel has a slot offset equal to 
\[(EACH_ID \times EACH_SLOT_OFFSET2 + EACH_SLOT_OFFSET1) \mod (EACH_SLOT+1),\]
where EACH_ID is the Enhanced Access Channel Index. The base station shall set this field to a value between 0 and 63, in units of 1.25 ms.

EACH_SLOT_OFFSET2 - Relative slot offset for the Enhanced Access Channels.
The base station shall set this field so that the Enhanced Access Channel has a slot offset equal to 
\[(EACH_ID \times EACH_SLOT_OFFSET2 + EACH_SLOT_OFFSET1) \mod (EACH_SLOT+1),\]
where EACH_ID is the Enhanced Access Channel Index. The base station shall set this field to a value between 0 and 63, in units of 1.25 ms.

RESERVED - Reserved bits.
The base station shall include as many bits as required to make the length of the mode-specific parameters record an integral number of octets. The base station shall set each of these bits to ‘0’.

BA_PARMS_LEN - Length of Basic Access Mode parameter record.
The base station shall set this field to the total length, in octets, of Basic Access Mode parameters record included in the message, excluding the BA_PARMS_LEN and including the RESERVED fields. If there are no fields other than the BA_PARMS_LEN in this record, the base station shall set this field to ‘000’.

NUM_EACH_BA - Number of Enhanced Access Channels used for the Basic Access Mode.
If BA_PARMS_LEN is equal to ‘000’, the base station shall omit this field; otherwise, the base station shall include this field and set this field to the number of Enhanced Access Channels used for the Basic Access mode minus one.

EACH_BA_RATES-
_SUPPORTED - Supported rate words for the Basic Access mode on the Enhanced Access Channels.

If BA_PARMS_LEN is equal to ‘000’, the base station shall omit this field; otherwise, the base station shall include this field and set each subfield of the EACH_BA_RATES_SUPPORTED field as follows: the base station shall set the subfield to ‘1’ if the corresponding mode in Table 3.7.2.3.2.33-3 is allowed; otherwise the base station shall set the subfield to ‘0’.

<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
<th>Subfield Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RATE_SIZE_1</td>
<td>1</td>
<td>9600 bps, 20 ms frame size</td>
</tr>
<tr>
<td>RATE_SIZE_2</td>
<td>1</td>
<td>19200 bps, 20 ms frame size</td>
</tr>
<tr>
<td>RATE_SIZE_3</td>
<td>1</td>
<td>19200 bps, 10 ms frame size</td>
</tr>
<tr>
<td>RATE_SIZE_4</td>
<td>1</td>
<td>38400 bps, 20 ms frame size</td>
</tr>
<tr>
<td>RATE_SIZE_5</td>
<td>1</td>
<td>38400 bps, 10 ms frame size</td>
</tr>
<tr>
<td>RATE_SIZE_6</td>
<td>1</td>
<td>38400 bps, 5 ms frame size</td>
</tr>
<tr>
<td>RESERVED</td>
<td>2</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

RESERVED - Reserved bits.

If BA_PARMS_LEN is equal to ‘000’, the base station shall omit this field; otherwise, the base station shall include as many bits as required to make the length of the Basic Access Mode record (excluding the BA_PARMS_LEN field but including the RESERVED field) an integral number of octets. The base station shall set each of these bits to ‘0’.

RA_PARMS_LEN - Length of Reservation Access Mode parameters record.

The base station shall set this field to the total length, in octets, of Reservation Access Mode parameters record included in the message, excluding the RA_PARMS_LEN and but including the RESERVED fields.

NUM_EACH_RA - Number of Enhanced Access Channels used for the Reservation Access Mode.

If RA_PARMS_LEN is equal to ‘00000’, the base station shall omit this field; otherwise, the base station shall include this field and set this field to the number of Enhanced Access Channels used for the Reservation Access mode minus one.

NUM_CACH - Number of Common Assignment Channels.
If RA_PARMS_LEN is equal to ‘00000’, the base station shall omit this field; otherwise, the base station shall include this field and set this field to the number of Common Assignment Channels supported by the system minus one.

CACH_CODE_RATE - Code Rate for the Common Assignment Channels.

If RA_PARMS_LEN is equal to ‘00000’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

If the CACH is operating in Spreading Rate 1, the base station shall set this field to ‘0’ if the CACH Code Rate is 1/4 (see 3.1.3.1.2.1 of [2]). The base station shall set this field to ‘1’ if the CACH Code Rate is 1/2 (see 3.1.3.1.2.1 of [2]).

If the CACH is operating in Spreading Rate 3, the base station shall set this field to ‘0’.

If RA_PARMS_LEN is not equal to ‘00000’, the base station shall include (NUM_CACH + 1) occurrences of the following one field record:

CACH_CODE_CHAN - Code channel index for the Common Assignment Channel.

The base station shall set this field to the code channel index (see [2]) in the range 1 to 256 inclusive that the mobile station is to use on the Common Assignment Channel.

NUM_RCCCH - Number of Reverse Common Control Channels used for the Reservation Mode.

If RA_PARMS_LEN is equal to ‘00000’, the base station shall omit this field; otherwise, the base station shall include this field and set this field to the number of Reverse Common Control Channels used for the Reservation mode minus one.

RCCCH_RATES_SUPPORTED - Supported rate words on the Reverse Common Control Channels.

If RA_PARMS_LEN is equal to ‘00000’, the base station shall omit this field; otherwise, the base station shall include this field and set each bit of the RCCCH_RATES_SUPPORTED field as follows: the base station shall set the bit to ‘1’ if the corresponding mode in Table 3.7.2.3.2.3 is allowed; otherwise the base station shall set the bit to ‘0’.

RCCCH_PREAMBLE_ENABLED - Preamble enabled indicator for the Reverse Common Control Channel.

If RA_PARMS_LEN is equal to ‘00000’, the base station shall omit this field; otherwise, the base station shall include this field and set this field as follows:

If RCCCH preambles related information is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.
RCCCH_PREAMBLE_-NUM_FRAC - Number of fractional preambles on the Reverse Common Control Channels.

   If RCCCH_PREAMBLE_ENABLED is included and is set to ‘1’, the base station shall set this field to the number of fractional preambles minus one on the Reverse Common Control Channels; otherwise, the base station shall omit this field.

RCCCH_PREAMBLE_-FRAC_DURATION - Fractional preamble duration for the Reverse Common Control Channels.

   If RCCCH_PREAMBLE_ENABLED is included and is set to ‘1’, the base station shall set this field to the fractional preamble duration minus one on a Reverse Common Control Channel, in units of 1.25 ms; otherwise, the base station shall omit this field.

RCCCH_PREAMBLE_-OFF_DUR - Fractional preamble gated-off duration on Reverse Common Control Channels.

   If RCCCH_PREAMBLE_ENABLED is included and is set to ‘1’, the base station shall set this field to the fractional preamble gated-off duration (in units of 1.25 ms) after the transmission of each fractional preamble on a Reverse Common Control Channel; otherwise, the base station shall omit this field.

RCCCH_PREAMBLE_-ADD_DUR - Additional preamble duration on the Reverse Common Control Channels.

   If RCCCH_PREAMBLE_ENABLED is included and is set to ‘1’, the base station shall set this field to the additional preamble duration on a Reverse Common Control Channel, in units of 1.25 ms; otherwise, the base station shall omit this field.

RCCCH_SLOT - Slot interval for the Reverse Common Control Channels.

   If RA_PARMS_LEN is equal to ‘00000’, the base station shall omit this field; otherwise, the base station shall include this field and set this field to N where the slot duration on the Reverse Common Control Channel is \((N+1) \times 1.25\) ms. The base station shall set this field to a value between 0 and 63, in units of 1.25 ms.

RCCCH_SLOT_OFFSET1 - First slot offset for the Reverse Common Control Channels.

   If RA_PARMS_LEN is equal to ‘00000’, the base station shall omit this field; otherwise, the base station shall include this field and set this field so that Reverse Common Control Channel has a slot offset equal to \((RCCCH_ID \times RCCCH_SLOT_OFFSET2 + RCCCH_SLOT_OFFSET1) \mod (RCCCH SLOT+1)\), where RCCCH_ID is the Reverse Common Control Channel Index. The base station shall set this field to a value between 0 and 63, in units of 1.25 ms.
RCCCH_SLOT_OFFSET2 - Second slot offset for the Reverse Common Control Channels. If RA_PARMS_LEN is equal to ‘00000’, the base station shall omit this field; otherwise, the base station shall include this field and set this field so that Reverse Common Control Channel has a slot offset equal to \((RCCCH_ID \times \text{RCCCH_SLOT_OFFSET2} + \text{RCCCH_SLOT_OFFSET1}) \mod (\text{RCCCH_SLOT}+1)\), where RCCCH_ID is the Reverse Common Control Channel Index. The base station shall set this field to a value between 0 and \(63\), in units of 1.25 ms.

RCCCH_NOM_PWR - Nominal transmit power offset for the Reverse Common Control Channels. If RA_PARMS_LEN is equal to ‘00000’, the base station shall omit this field; otherwise, the base station shall include this field and set this field to the correction factor to be used by a mobile station in the open loop power estimate, expressed as a two’s complement value in units of 1 dB (see [2]).

RCCCH_INIT_PWR - Initial power offset for the Reverse Common Control Channels. If RA_PARMS_LEN is equal to ‘00000’, the base station shall omit this field; otherwise, the base station shall include this field and set this field to the correction factor to be used by a mobile station in the open loop power estimate for the initial transmission on a Reverse Common Control Channel, expressed as a two’s complement value in units of 1 dB (see [2]).

RA_PC_DELAY - Power control delay for the Reverse Common Control Channel. If RA_PARMS_LEN is equal to ‘00000’, the base station shall omit this field; otherwise, the base station shall include this field and set this field to the number of power control bits the mobile is to disregard after initiating transmission on a Reverse Common Control Channel.

EACAM_CACH_DELAY - Maximum time after an Enhanced Access Channel header transmission for receiving a response on the Common Assignment Channel when Reverse Common Control Channel soft handoff has not been requested. If RA_PARMS_LEN is equal to ‘00000’, the base station shall omit this field; otherwise, the base station shall include this field and set this field to the number of complete Common Assignment Channel frames minus one, from the end of the R-EACH Header, for which a mobile station is to wait for the Early Acknowledgement Channel Assignment Message if the mobile station has not requested Reverse Common Control Channel soft handoff.

RCCCH_HO-_SUPPORTED - Reverse Common Control Channel handoff supported indicator.
If $\text{RA_PARMS_LEN}$ is equal to ‘00000’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to ‘1’ if Reverse Common Control Channel handoff is supported by the base station; otherwise, the base station shall set this field to ‘0’.

**RCCCH\_HO\_THRESH** - Reverse Common Control Channel soft handoff threshold.

If $\text{RCCCH\_HO\_SUPPORTED}$ is included and is set to ‘1’, the base station shall include this field; otherwise the base station shall omit this field; otherwise, the base station shall set this field to:

$$\left\lfloor -20 \times \log_{10} p_{\text{threshold}} \right\rfloor$$

where $p_{\text{threshold}}$ is the pilot $E_c/I_0$ threshold used to determine whether the mobile station requests Reverse Common Control Channel in soft handoff.

This is a positive value in units of 0.5 dB.

**EACAM\_PCCAM\_DELAY** - Maximum time after an Enhanced Access Channel header transmission for receiving a response on the Common Assignment Channel when Reverse Common Control Channel soft handoff has been requested.

If $\text{RCCCH\_HO\_SUPPORTED}$ is included and is set to ‘1’, the base station shall include this field; otherwise the base station shall omit this field; otherwise;

If included, the base station shall set this field to the number of complete Common Assignment Channel frames minus one, from the end of the $\text{R-EACH Header}$, for which a mobile station is to wait for the $\text{Early Acknowledgement Channel Assignment Message}$ and $\text{Power Control Channel Assignment Message}$ if the mobile station has requested Reverse Common Control Channel soft handoff [see [3]].

**NUM\_CPCCH** - Number of Common Power Control Channels.

If $\text{RA_PARMS\_LEN}$ is equal to ‘00000’, the base station shall omit this field; otherwise, the base station shall include this field and set this field to the number of Common Power Control Channels supported minus one.

**CPCCH\_RATE** - Power control rate for the Common Power Control Channels.

If $\text{RA_PARMS\_LEN}$ is equal to ‘00000’, the base station shall omit this field; otherwise, the base station shall include this field and set this field to the value shown in Table 3.7.2.32.33-4 corresponding to the power control rate for the Common Power Control Channels.
### Table 3.7.2.3.2.33-4. CPCCH Power Control Rate

<table>
<thead>
<tr>
<th>CPCCH_RATE (Binary)</th>
<th>Power Control Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>200 bps</td>
</tr>
<tr>
<td>01</td>
<td>400 bps</td>
</tr>
<tr>
<td>10</td>
<td>800 bps</td>
</tr>
<tr>
<td>11</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

If RA_PARMS_LEN is not equal to ‘00000’, the base station shall include \((\text{NUM\_CPCCH} + 1)\) occurrences of the following one field record:

**CPCCH_CODE_CHAN** - Code channel index for the Common Power Control Channel.

The base station shall set this field to the code channel index (see [2]) in the range 1 to 128 inclusive that the mobile station is to use on the Common Power Control Channel.

**NUM_PCSCH_RA** - Number of Power Control Subchannels used for the Reservation Access Mode.

If RA_PARMS_LEN is equal to ‘00000’, the base station shall omit this field; otherwise, the base station shall include this field and set this field to the number of Power Control Subchannels used for the Reservation Access Mode minus one.

**RESERVED** - Reserved bits.

If RA_PARMS_LEN is equal to ‘00000’, the base station shall omit this field; otherwise, the base station shall include as many bits as required to make the length of the Reservation Access Mode record (excluding the RA_PARMS_LEN but including the RESERVED field) an integral number of octets. The base station shall set each of these bits to ‘0’.

**ACCT_INCL** - Access Control based on Call Type (ACCT) information included indicator.

If the base station enables ACCT for at least one service option, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

If the base station sets this field to ‘1’, then the base station shall also set at least one of ACCT_SO_INCL or ACCT_SO_GRP_INCL to ‘1’.

**ACCT_INCL_EMG** - Access Control based on Call Type (ACCT) includes emergency calls indicator.

If ACCT_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:
The base station shall set this field to ‘0’ if the mobile station
is not to apply ACCT to a call that is recognized by the mobile
station to be an emergency call; otherwise, the base station
shall set this field to ‘1’.

ACCT AOC

BITMAP_INCL - Access Control based on Call Type (ACCT) access overload
class bitmap included indicator.

If ACCT_INCL is set to ‘0’, the base station shall omit this
field; otherwise, the base station shall include this field and
set it as follows:
The base station shall set this field to ‘0’ if all mobile stations
are to apply ACCT regardless of their access overload classes;
otherwise, the base station shall set this field to ‘1’ to indicate
that the mobile station is to apply ACCT according to its
access overload class.

ACCT SO INCL - Access Control based on Call Type (ACCT) service option
included indicator.

If ACCT_INCL is set to ‘0’, the base station shall omit this
field; otherwise, the base station shall include this field and
set it as follows:
The base station shall set this field to ‘1’ if at least one
occurrence of the ACCT_SO field is included in this message;
otherwise, the base station shall set this field to ‘0’.

NUM_ACCT_SO - Number of service options for Access Control based on Call
Type (ACCT).

If ACCT_SO_INCL is not included, or is included and set to ‘0’,
then the base station shall omit this field; otherwise, the base
station shall include this field and set it to one less than the
number of occurrences of the ACCT_SO field included in this
message.

If ACCT_SO_INCL is included and set to ‘1’, then the base station shall include
NUM_ACCT_SO + 1 occurrences of the following variable-field record:

ACCT_AOC_BITMAP1 - Access Control based on Call Type (ACCT) access overload
class bitmap.

If ACCT_AOC_BITMAP_INCL is set to ‘0’, then the base station
shall omit this field; otherwise, the base station shall include
this field and set it as follows:

This field consists of the subfields defined in Table
3.7.2.3.2.2-1.

The base station shall set a subfield to ‘1’ to indicate that
mobile stations having the corresponding access overload
class are not permitted to perform access attempts using the
associated service option ACCT_SO; otherwise, the base
station shall set the subfield to ‘0’.
ACCT_SO - Access Control based on Call Type (ACCT) service option number.

The base station shall set this field to the value of the service option number (as specified in [30]) that has ACCT enabled.

ACCT_SO_GRP_INCL - Access Control based on Call Type (ACCT) service option group included indicator.

If ACCT_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to '1' if at least one occurrence of the ACCT_SO_GRP field is included in this message; otherwise, the base station shall set this field to '0'.

NUM_ACCT_SO_GRP - Number of service option groups for Access Control based on Call Type (ACCT).

If ACCT_SO_GRP_INCL is not included, or is included and set to '0', then the base station shall omit this field; otherwise, the base station shall include this field and set it to one less than the number of occurrences of the ACCT_SO_GRP field included in this message.

If ACCT_SO_GRP_INCL is included and set to '1', then the base station shall include NUM_ACCT_SO_GRP + 1 occurrences of the following variable-field record:

ACCT_AOC_BITMAP2 - Access Control based on Call Type (ACCT) access overload class bitmap.

If ACCT_AOC_BITMAP_INCL is set to '0', then the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

This field consists of the subfields defined in Table 3.7.2.3.2.2-1. The base station shall set a subfield to '1' to indicate that mobile stations having the corresponding access overload class are not permitted to perform access attempts using a service option specified by the associated ACCT_SO_GRP field; otherwise, the base station shall set the subfield to '0'.

ACCT_SO_GRP - Access Control based on Call Type (ACCT) service option group number.

The base station shall set this field to the value of the service option group number (as specified in [30]) whose members all have ACCT enabled.
3.7.2.3.2.34 Universal Neighbor List Message

MSG_TAG: UNLM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>CONFIG_MSG_SEQ</td>
<td>6</td>
</tr>
<tr>
<td>NUM_RADIO_INTERFACE</td>
<td>4</td>
</tr>
</tbody>
</table>

NUM_RADIO_INTERFACE occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RADIO_INTERFACE_TYPE</td>
<td>4</td>
</tr>
<tr>
<td>RADIO_INTERFACE_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Radio Interface Type-specific fields</td>
<td>8 × RADIO_INTERFACE_LEN</td>
</tr>
</tbody>
</table>

PILOT_PN - Pilot PN sequence offset index.

The base station shall set this field to the pilot PN sequence offset for this base station, in units of 64 PN chips.

CONFIG_MSG_SEQ - Configuration message sequence number.

The base station shall set this field to CONFIG_SEQ (see 3.6.2.2).

NUM_RADIO_INTERFACE - Number of interface types.

The base station shall set this field to the number of radio interface types for which neighbors are included in this message.

The base station shall include NUM_RADIO_INTERFACE occurrences of the following record, one occurrence for each radio interface for which neighbors are included in this message.

RADIO_INTERFACE_TYPE - The radio interface type.

The base station shall set this field to the radio interface type of this record as specified in Table 3.7.2.3.2.34-1.
Table 3.7.2.3.2.34-1. Radio Interface Type

<table>
<thead>
<tr>
<th>RADIO_INTERFACE_TYPE (binary)</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000</td>
<td>MC system</td>
</tr>
<tr>
<td>0001</td>
<td>Analog system</td>
</tr>
<tr>
<td>0010-1111</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

RADIO_INTERFACE_LENGTH - The length of the Radio Interface Type-specific fields.

The base station shall set this field to the number of octets in the Radio Interface Type-specific fields of this record.

If RADIO_INTERFACE_TYPE is equal to ‘0000’, the base station shall include the following fields:
<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_INC</td>
<td>4</td>
</tr>
<tr>
<td>NGHBR_SRCH_MODE</td>
<td>2</td>
</tr>
<tr>
<td>SRCH_WIN_N</td>
<td>0 or 4</td>
</tr>
<tr>
<td>SRCH_OFFSET_INCL</td>
<td>1</td>
</tr>
<tr>
<td>FREQ_FIELDS_INCL</td>
<td>1</td>
</tr>
<tr>
<td>USE_TIMING</td>
<td>1</td>
</tr>
<tr>
<td>GLOBAL_TIMING_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>GLOBAL_TX_DURATION</td>
<td>0 or 4</td>
</tr>
<tr>
<td>GLOBAL_TX_PERIOD</td>
<td>0 or 7</td>
</tr>
<tr>
<td>NGHBR_SET_ENTRY_INFO</td>
<td>1</td>
</tr>
<tr>
<td>NGHBR_SET_ACCESS_INFO</td>
<td>1</td>
</tr>
<tr>
<td>NUM_NGHBR</td>
<td>6</td>
</tr>
</tbody>
</table>

NUM_NGHBR occurrences of the following subrecord:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGHBR_CONFIG</td>
<td>3</td>
</tr>
<tr>
<td>NGHBR_PN</td>
<td>9</td>
</tr>
<tr>
<td>BCCH_SUPPORT</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ADD_PILOT_REC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>NGHBR_PILOT_REC_TYPE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>0 or 3</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>0 or $8 \times \text{RECORD_LEN}$</td>
</tr>
</tbody>
</table>

(continues on next page)
### Field Length (bits)

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SEARCH_PRIORITY</td>
<td>0 or 2</td>
</tr>
<tr>
<td>SRCH_WIN_NGHBR</td>
<td>0 or 4</td>
</tr>
<tr>
<td>SRCH_OFFSET_NGHBR</td>
<td>0 or 3</td>
</tr>
<tr>
<td>FREQ_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>NGHBR_BAND</td>
<td>0 or 5</td>
</tr>
<tr>
<td>NGHBR_FREQ</td>
<td>0 or 11</td>
</tr>
<tr>
<td>TIMING_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>NGHBR_TX_OFFSET</td>
<td>0 or 7</td>
</tr>
<tr>
<td>NGHBR_TX_DURATION</td>
<td>0 or 4</td>
</tr>
<tr>
<td>NGHBR_TX_PERIOD</td>
<td>0 or 7</td>
</tr>
<tr>
<td>ACCESS_ENTRY_HO</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ACCESS_HO_ALLOWED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 – 7 (as needed)</td>
</tr>
</tbody>
</table>

1. **PILOT_INC** - Pilot PN sequence offset index increment.

   A mobile station searches for Remaining-Set pilots at pilot PN sequence index values that are multiples of this value.

   The base station shall set this field to the pilot PN sequence increment, in units of 64 PN chips, that mobile stations are to use for searching the Remaining Set. The base station should set this field to the largest increment such that the pilot PN sequence offsets of all its neighbor base stations are integer multiples of that increment.

   The base station shall set this field to a value in the range 1 to 15 inclusive.

2. **NGHBR_SRCH_MODE** - Search mode.

   The base station shall set this field to the value shown in Table 3.7.2.3.2.34-2 corresponding to the search mode.
Table 3.7.2.3.2.34-2. Search Mode Field

<table>
<thead>
<tr>
<th>Value (binary)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>No search priorities or search windows</td>
</tr>
<tr>
<td>01</td>
<td>Search priorities</td>
</tr>
<tr>
<td>10</td>
<td>Search windows</td>
</tr>
<tr>
<td>11</td>
<td>Search windows and search priorities</td>
</tr>
</tbody>
</table>

SRCH_WIN_N - Search window size for the Neighbor Set.
If NGHBR_SRCH_MODE = '00' or NGHBR_SRCH_MODE = '01', the base station shall include the field SRCH_WIN_N and shall set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to the value shown in Table 2.6.6.2.1-1 corresponding to the search window size to be used by mobile stations for the Neighbor Set.

SRCH_OFFSET_INCL - Neighbor pilot channel search window offset included.
If NGHBR_SRCH_MODE = '10' or '11' and if the SRCH_OFFSET_NGHBR field is included in the following records, the base station shall set this bit to '1'; otherwise, the base station shall set this bit to '0'.

FREQ_FIELDS_INCL - Frequency fields included.
If frequency fields are included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

USE_TIMING - Use timing indicator.
If base station timing information is included for neighbor base stations, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

GLOBAL_TIMING-_INCL - Global timing included.
If USE_TIMING is set to ‘1’, the base station shall include the field GLOBAL_TIMING_INCL and shall set this field as described below; otherwise, the base station shall omit this field.
If base station timing information is included globally for all neighbor base stations with TIMING_INCL equal to ‘1’, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

GLOBAL_TX-_DURATION - Global neighbor transmit time duration.
If GLOBAL_TIMING_INCL is included and is set to ‘1’, the base station shall include the field GLOBAL_TX_DURATION and shall set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to the duration of the base station transmit window, during each period, in units of 80 ms. The base station should set this field to a value of 3 or greater.

GLOBAL_TX-_PERIOD - Global neighbor transmit time period.

If GLOBAL_TIMING_INCL is included and is set to ‘1’, the base station shall include the field GLOBAL_TX_PERIOD and shall set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to duration of the period, in units of 80 ms.

NGHBR_SET-_ENTRY_INFO - Neighbor Set access entry handoff information included indicator.

If the base station is including information on the Neighbor Set access entry handoff, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

NGHBR_SET-_ACCESS_INFO - Neighbor Set access handoff included indicator.

If the base station is including information on the Neighbor Set access handoff or access probe handoff, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

NUM_NGHBUR - Number of neighbor pilot PN sequences.

The base station shall set this field to the number of neighbors included in the message.

The base station shall include one occurrence of the following subrecord for each pilot that a mobile station is to place in its Neighbor Set.
NGHBR_CONFIG - Neighbor configuration.

The base station shall set this field to the value shown in Table 3.7.2.3.2.34-3 corresponding to the configuration of this neighbor.

### Table 3.7.2.3.2.34-3. Neighbor Configuration Field

<table>
<thead>
<tr>
<th>Value (binary)</th>
<th>Neighbor Configuration</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>The neighbor base station has the same number of frequencies having Primary Broadcast Control Channel/Forward Common Control Channels as the current base station. The neighbor base station has a CDMA frequency assignment corresponding to this CDMA frequency assignment with the same number of Forward Common Control Channels, and the neighbor frequency is given as follows:</td>
</tr>
<tr>
<td></td>
<td>• If FREQ_INCL equals ‘0’ for this record, this corresponding CDMA frequency assignment is the current CDMA frequency assignment.</td>
</tr>
<tr>
<td></td>
<td>• If FREQ_INCL equals ‘1’ for this record, this corresponding CDMA frequency assignment is given by NGHBR_BAND and NGHBR_FREQ.</td>
</tr>
<tr>
<td></td>
<td>The position of the neighbor CDMA frequency assignment in the <em>Extended CDMA Channel List Message</em> transmitted by the neighbor base station is the same as the position of this current CDMA frequency assignment in the <em>Extended CDMA Channel List Message</em> transmitted by the current base station.</td>
</tr>
<tr>
<td></td>
<td>The rate, code rate, and code channel of the Primary Broadcast Control Channel on this corresponding CDMA frequency are the same values as the current ones.</td>
</tr>
<tr>
<td></td>
<td>The rate, code rate, and code channel of the corresponding Forward Common Control Channel on this corresponding CDMA frequency are the same values as the current ones.</td>
</tr>
</tbody>
</table>
The neighbor base station does not have any frequencies with Primary Broadcast Control Channel/Forward Common Control Channel.

The neighbor base station has the same number of frequencies having Paging Channels as the current base station has frequencies having Primary Broadcast Control Channel/Forward Common Control Channel.

The neighbor base station has a CDMA frequency assignment corresponding to this CDMA frequency assignment but possibly with a different number of Paging Channels, and the neighbor frequency is given as follows:

- If FREQ_INCL equals ‘0’ for this record, this corresponding CDMA frequency assignment is the current CDMA frequency assignment.
- If FREQ_INCL equals ‘1’ for this record, this corresponding CDMA frequency assignment is given by NGHBR_BAND and NGHBR_FREQ.

The position of the neighbor CDMA frequency assignment in the Extended CDMA Channel List Message transmitted by the neighbor base station is the same as the position of this current CDMA frequency assignment in the Extended CDMA Channel List Message transmitted by the current base station.

This corresponding neighbor CDMA frequency assignment does have a Primary Paging Channel, at 9600 bps.

The neighbor base station may have a different number of frequencies having Primary Broadcast Control Channel/Forward Common Control Channel as the current base station.

The neighbor base station has a Primary Broadcast Control Channel on the following frequency:

- If FREQ_INCL equals ‘0’ for this record, the neighbor base station has a Primary Broadcast Control Channel on the first CDMA Channel listed in the Extended CDMA Channel List Message transmitted by the current base station.
- If FREQ_INCL equals ‘1’ for this record, the neighbor base station has a Primary Broadcast Control Channel on the CDMA frequency assignment given by NGHBR_BAND and NGHBR_FREQ.

The rate, code rate, and code channel of the Primary Broadcast Control Channel on this corresponding CDMA frequency are the same values as the current ones.
<table>
<thead>
<tr>
<th></th>
<th>The neighbor base station configuration is unknown but the neighbor base station has a Pilot Channel on the following frequency:</th>
</tr>
</thead>
<tbody>
<tr>
<td>011</td>
<td>• If FREQ_INCL equals ‘0’ for this record, the neighbor CDMA frequency assignment is the same as the current CDMA frequency assignment and has a Pilot Channel.</td>
</tr>
<tr>
<td></td>
<td>• If FREQ_INCL equals ‘1’ for this record, the CDMA frequency assignment given by NGHBR_BAND and NGHBR_FREQ has a Pilot Channel.</td>
</tr>
<tr>
<td>100</td>
<td>The neighbor base station has the same number of frequencies having Primary Broadcast Control Channel/Forward Common Control Channel as the current base station.</td>
</tr>
<tr>
<td></td>
<td>The neighbor base station has a CDMA frequency assignment corresponding to this CDMA frequency assignment with a Primary Broadcast Control Channel, and the neighbor CDMA frequency is given as follows:</td>
</tr>
<tr>
<td></td>
<td>• If FREQ_INCL equals ‘0’ for this record, this corresponding CDMA frequency assignment is the current CDMA frequency assignment.</td>
</tr>
<tr>
<td></td>
<td>• If FREQ_INCL equals ‘1’ for this record, this corresponding CDMA frequency assignment is given by NGHBR_BAND and NGHBR_FREQ.</td>
</tr>
<tr>
<td>101-111</td>
<td>Reserved.</td>
</tr>
</tbody>
</table>

1 NGHBR_PN - Neighbor pilot PN sequence offset index. 
2 The base station shall set this field to the pilot PN sequence offset for this neighbor, in units of 64 PN chips.
3 BCCH_SUPPORT - BCCH support indicator.
4 If the NGHBR_CONFIG field is not set to ‘011’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:
If this neighbor base station supports Broadcast Control Channel, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**ADD_PILOT_REC_INCL** - Additional pilot information included indicator.

The base station shall set this field to ‘1’ if additional pilot information listed in the **NGHBR_PILOT_REC_TYPE** and **RECORD_LEN** fields are included. The base station shall set this field to ‘0’ if the corresponding pilot is the common pilot and there is no additional pilot information included.

**NGHBR_PILOT_REC_TYPE** - Neighbor Pilot record type

If **ADD_PILOT_REC_INCL** is set to ‘1’, the base station shall set this field to the **NGHBR_PILOT_REC_TYPE** value shown in Table 3.7.2.3.2.34-4 corresponding to the type of Pilot Record specified by this record.

<table>
<thead>
<tr>
<th>Description</th>
<th><strong>NGHBR_PILOT_REC_TYPE</strong> (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1X Common Pilot with Transmit Diversity</td>
<td>000</td>
</tr>
<tr>
<td>1X Auxiliary Pilot</td>
<td>001</td>
</tr>
<tr>
<td>1X Auxiliary Pilot with Transmit Diversity</td>
<td>010</td>
</tr>
<tr>
<td>3X Common Pilot</td>
<td>011</td>
</tr>
<tr>
<td>3X Auxiliary Pilot</td>
<td>100</td>
</tr>
<tr>
<td>All other <strong>NGHBR_PILOT_REC_TYPE</strong> values are reserved</td>
<td></td>
</tr>
</tbody>
</table>

If **ADD_PILOT_REC_INCL** is set to ‘0’, the base station shall omit this field.

**RECORD_LEN** - Pilot record length.

If **ADD_PILOT_REC_INCL** is set to ‘1’, the base station shall set this field to the number of octets in the type-specific fields of this pilot record.

If **ADD_PILOT_REC_INCL** is set to ‘0’, the base station shall omit this field.

**Type-specific fields** - Pilot record type-specific fields.

If **ADD_PILOT_REC_INCL** is set to ‘1’, the base station shall include type-specific fields based on the **NGHBR_PILOT_REC_TYPE** of this pilot record.

If **ADD_PILOT_REC_INCL** is set to ‘0’, the base station shall omit this field.
If NGHBR_PILOT_REC_TYPE is equal to '000', the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TD_POWER_LEVEL</td>
<td>2</td>
</tr>
<tr>
<td>TD_MODE</td>
<td>2</td>
</tr>
<tr>
<td>RESERVED</td>
<td>4</td>
</tr>
</tbody>
</table>

- **TD_POWER_LEVEL** - TD Transmit Power Level.
  - The base station shall set this field to the TD transmit power level relative to that of the Forward Pilot Channel as specified in Table 3.7.2.3.2.26-4.

- **TD_MODE** - Transmit Diversity mode.
  - The base station shall set this field to the Transmit Diversity mode, as specified in Table 3.7.2.3.2.26-3.

- **RESERVED** - Reserved bits.
  - The base station shall set this field to '0000'.

If NGHBR_PILOT_REC_TYPE is equal to '001', the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QOF</td>
<td>2</td>
</tr>
<tr>
<td>WALSH_LENGTH</td>
<td>3</td>
</tr>
<tr>
<td>AUX_PILOT_WALSH</td>
<td>WALSH_LENGTH + 6</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 to 7 (as needed)</td>
</tr>
</tbody>
</table>

- **QOF** - Quasi-orthogonal function index.
  - The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]).

- **WALSH_LENGTH** - Length of the Walsh Code.
  - The base station shall set this field to the WALSH_LENGTH value shown in Table 3.7.2.3.2.22–6 corresponding to the length of the Walsh code for the pilot that is used in as the Auxiliary pilot.

- **AUX_PILOT_WALSH** - Walsh Code for the Auxiliary Pilot.
  - The base station shall set this field to the Walsh code corresponding to the Auxiliary pilot.

- **RESERVED** - Reserved bits.
The base station shall set all the bits of this field to ‘0’ to make the entire record octet-aligned.

If NGHBR_PILOT_REC_TYPE is equal to ‘010’, the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QOF</td>
<td>2</td>
</tr>
<tr>
<td>WALSH_LENGTH</td>
<td>3</td>
</tr>
<tr>
<td>AUX_WALSH</td>
<td>WALSH_LENGTH+6</td>
</tr>
<tr>
<td>AUX_TD_POWER_LEVEL</td>
<td>2</td>
</tr>
<tr>
<td>TD_MODE</td>
<td>2</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 to 7 (as needed)</td>
</tr>
</tbody>
</table>

QOF - Quasi-orthogonal function index for the Auxiliary Transmit Diversity Pilot.

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]).

WALSH_LENGTH - Length of the Walsh Code.

The base station shall set this field to the WALSH_LENGTH value shown in 3.7.2.3.2.22-6 corresponding to the length of the Walsh code for the pilots that are used as Auxiliary pilot in the transmit diversity mode.

AUX_WALSH - Walsh Code for the Auxiliary Pilot.

The base station shall set this field to the Walsh code corresponding to the Auxiliary Pilot.

AUX_TD_POWER_LEVEL - Auxiliary Transmit Diversity Pilot Power Level.

The base station shall set this field to the Auxiliary Transmit Diversity Pilot transmit power level relative to that of the Auxiliary Pilot as specified in Table 3.7.2.3.2.22-7.

TD_MODE - Transmit Diversity mode.

The base station shall set this field to the Transmit Diversity mode, as specified in Table 3.7.2.3.2.26-3.

RESERVED - Reserved bits.

The base station shall set all the bits of this field to ‘0’ to make the entire record octet-aligned.

If NGHBR_PILOT_REC_TYPE is equal to ‘011’, the base station shall include the following fields:
Field Length (bits)

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR3_PRIMARY_PILOT</td>
<td>2</td>
</tr>
<tr>
<td>SR3_PILOT_POWER1</td>
<td>3</td>
</tr>
<tr>
<td>SR3_PILOT_POWER2</td>
<td>3</td>
</tr>
</tbody>
</table>

SR3_PRIMARY_PILOT – Primary SR3 pilot.

The base station shall set this field to the value shown in Table 3.7.2.3.2.26-5 corresponding to the position of the primary SR3 pilot.

SR3_PILOT_POWER1 – The primary SR3 pilot power level relative to that of the pilot on the lower frequency of the two remaining SR3 frequencies.

The base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the lower frequency of the two remaining SR3 frequencies.

SR3_PILOT_POWER2 – The primary SR3 pilot power level relative to that of the pilot on the higher frequency of the two remaining SR3 frequencies.

The base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the higher frequency of the two remaining SR3 frequencies.

RESERVED – Reserved bits.

The base station shall set this field to '000000'.

If NGHBR_PILOT_REC_TYPE is equal to ‘100’, the base station shall include the following fields:
<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR3_PRIMARY_PILOT</td>
<td>2</td>
</tr>
<tr>
<td>SR3_PILOT_POWER1</td>
<td>3</td>
</tr>
<tr>
<td>SR3_PILOT_POWER2</td>
<td>3</td>
</tr>
<tr>
<td>QOF</td>
<td>2</td>
</tr>
<tr>
<td>WALSH_LENGTH</td>
<td>3</td>
</tr>
<tr>
<td>AUX_PILOT_WALSH</td>
<td>WALSH_LENGTH+6</td>
</tr>
<tr>
<td>ADD_INFO_INCL1</td>
<td>1</td>
</tr>
<tr>
<td>QOF1</td>
<td>0 or 2</td>
</tr>
<tr>
<td>WALSH_LENGTH1</td>
<td>0 or 3</td>
</tr>
<tr>
<td>AUX_PILOT_WALSH1</td>
<td>0 or WALSH_LENGTH1+6</td>
</tr>
<tr>
<td>ADD_INFO_INCL2</td>
<td>1</td>
</tr>
<tr>
<td>QOF2</td>
<td>0 or 2</td>
</tr>
<tr>
<td>WALSH_LENGTH2</td>
<td>0 or 3</td>
</tr>
<tr>
<td>AUX_PILOT_WALSH2</td>
<td>0 or WALSH_LENGTH2+6</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 – 7 (as needed)</td>
</tr>
</tbody>
</table>

SR3_PRIMARY_PILOT – Primary SR3 pilot.

The base station shall set this field to the value shown in Table 3.7.2.3.2.26-5 corresponding to the position of the primary SR3 pilot.

SR3_PILOT_POWER1 – The primary SR3 pilot power level relative to that of the pilot on the lower frequency of the two remaining SR3 frequencies.

The base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the lower frequency of the two remaining SR3 frequencies.

SR3_PILOT_POWER2 – The primary SR3 pilot power level relative to that of the pilot on the higher frequency of the two remaining SR3 frequencies.

The base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the higher frequency of the two remaining SR3 frequencies.

QOF – Quasi-orthogonal function index.

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2] on the frequency of the primary pilot.

WALSH_LENGTH – Length of the Walsh Code.
The base station shall set this field to the WALSH_LENGTH value shown in Table 3.7.2.3.2.22–6 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot on the frequency of the primary pilot.

**AUX_PILOT_WALSH** - Walsh Code for the Auxiliary Pilot.

The base station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the frequency of the primary pilot.

**ADD_INFO_INCL1** - Additional information included for the pilot on the lower frequency of the two remaining SR3 frequencies.

If the additional information for the pilot on the lower frequencies of the two remaining SR3 frequencies is the same as pilot on the primary frequency, the base station shall set this field to '0'; otherwise, the base station shall set this field to '1'.

**QOF1** - Quasi-orthogonal function index for the pilot on the lower frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL1 is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function [see Table 3.1.3.1.12-2 of [2] on the lower frequency of the two remaining SR3 frequencies.

**WALSH_LENGTH1** - Length of the Walsh Code for the pilot on the lower frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL1 is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the WALSH_LENGTH value shown in Table 3.7.2.3.2.22–6 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot on the lower frequency of the two remaining SR3 frequencies.

**AUX_PILOT_WALSH1** - Walsh Code for the Auxiliary Pilot on the lower frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL1 is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the lower frequency of the two remaining SR3 frequencies.

**ADD_INFO_INCL2** - Additional information included for the pilot on the higher frequency of the two remaining SR3 frequencies.
If the additional information for the pilot on the higher frequencies of the two remaining SR3 frequencies is the same as pilot on the primary frequency, the base station shall set this field to ‘0’; otherwise, the base station shall set this field to ‘1’.

**QOF2** - Quasi-orthogonal function index for the pilot on the higher frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL2 is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the higher frequency of the two remaining SR3 frequencies.

**WALSH_LENGTH2** - Length of the Walsh Code for the pilot on the higher frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL2 is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the WALSH_LENGTH value shown in Table 3.7.2.3.2.22–6 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot on the higher frequency of the two remaining SR3 frequencies.

**AUX_PILOT_WALSH2** - Walsh Code for the Auxiliary Pilot on the higher frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL2 is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the higher frequency of the two remaining SR3 frequencies.

**RESERVED** - Reserved bits.

The base station shall set all the bits of this field to ‘0’ to make the entire record octet-aligned.

**SEARCH_PRIORITY** - Pilot Channel search priority.

If NGHBR_SRCH_MODE = ‘01’ or NGHBR_SRCH_MODE = ‘11’, the base station shall include the field SEARCH_PRIORITY and shall set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to the search priority for the Pilot Channel corresponding to NGHBR_PN. The base station shall set the search priority as shown in Table 3.7.2.3.2.34-4.
Table 3.7.2.3.2.34-4. Search Priority Field

<table>
<thead>
<tr>
<th>Value (binary)</th>
<th>Search Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Low</td>
</tr>
<tr>
<td>01</td>
<td>Medium</td>
</tr>
<tr>
<td>10</td>
<td>High</td>
</tr>
<tr>
<td>11</td>
<td>Very High</td>
</tr>
</tbody>
</table>

SRCH_WIN_NGHBR - Neighbor pilot channel search window size.

If NGHBR_SRCH_MODE = ‘10’ or NGHBR_SRCH_MODE = ‘11’, the base station shall include the field SRCH_WIN_NGHBR and shall set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to the value shown in Table 2.6.6.2.1-1 corresponding to the search window size to be used by mobile stations for this neighbor.

SRCH_OFFSET_NGHBR - Neighbor pilot channel search window size offset.

If SRCH_OFFSET_INCL equals to ‘1’, then the base station shall include the field SRCH_OFFSET_NGHBR and shall set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to the value shown in Table 2.6.6.2.1-2 corresponding to the search window offset to be used by mobile stations for this neighbor.

FREQ_INCL - Frequency included indicator.

If FREQ_FIELDS_INCL is set to ‘1’, the base station shall include the field FREQ_INCL and shall set this field as described below; otherwise, the base station shall omit this field.

If the NGHBR_BAND and NGHBR_FREQ fields are included for this neighbor base station, the base station shall set this bit to ‘1’. If the NGHBR_BAND and NGHBR_FREQ fields are not included in this assignment record, the base station shall set this bit to ‘0’.

NGHBR_BAND - Neighbor band class.

If the FREQ_INCL field is included and is set to ‘1’, the base station shall include the field NGHBR_BAND and shall set this field as described below; otherwise, the base station shall omit this field.
The base station shall set this field to the CDMA band class, as specified in [30], corresponding to the CDMA frequency assignment for the CDMA Channel containing the Broadcast Control Channel/Forward Common Control Channel the mobile station is to search.

**NGHBRT_FREQ** - Neighbor frequency assignment.

If the FREQ_INCL field is omitted or is set to ‘0’, the base station shall omit this field.

If the FREQ_INCL field is included and is set to ‘1’ and the corresponding neighbor has a 1X neighbor pilot record type, the base station shall set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA frequency assignment for the CDMA Channel containing the Broadcast Control Channel/Forward Common Control Channel the mobile station is to search.

If the FREQ_INCL field is included and is set to ‘1’ and the corresponding neighbor has a 3X neighbor pilot record type, the base station shall set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the center SR3 frequency assignment containing the Broadcast Control Channel/Forward Common Control Channel the mobile station is to search.

**TIMING_INCL** - Timing included indicator.

If USE_TIMING is set to ‘1’, the base station shall include the field TIMING_INCL and set this field as described below; otherwise, the base station shall omit this field.

If base station timing information is included for this neighbor base station, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**NGHBRTX_OFFSET** - Neighbor transmit time offset.

If TIMING_INCL is included and is set to ‘1’, the base station shall include the field NGHBRTX_OFFSET and shall set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to the time offset, in units of 80 ms, from the beginning of the neighbor timing period to the beginning of the first base station transmit window within the period. The beginning of the neighbor timing period occurs when \( \lfloor t/4 \rfloor \mod (16384) = 0 \).

**NGHBRTX DURATION** - Neighbor transmit time duration.

If TIMING_INCL is included and is set to ‘1’ and GLOBAL_TIMING_INCL is set to ‘0’, the base station shall include the field NGHBRTX DURATION and shall set this field as described below; otherwise, the base station shall omit this field.
The base station shall set this field to duration of the base station transmit window, during each period, in units of 80 ms. The base station should set this field to a value of 3 or greater.

**NGHBR_TX_PERIOD** - Neighbor transmit time period.

If TIMING_INCL is included and is set to ‘1’ and GLOBAL_TIMING_INCL is set to ‘0’, the base station shall include the field NGHBR_TX_PERIOD and shall set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to duration of the period, in units of 80 ms.

**ACCESS_ENTRY_HO** - Access entry handoff permitted when entering the System Access State.

If NGHBR_SET_ENTRY_INFO is equal to ‘1’, the base station shall include the field ACCESS_ENTRY_HO and shall set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to ‘1’ if the mobile station is permitted to perform an access entry handoff to the base station associated with the corresponding pilot between the time it receives a message on the Paging Channel when in the Mobile Station Idle State and it enters the System Access State to respond to the message; otherwise, the base station shall set this field to ‘0’.

**ACCESS_HO_ALLOWED** - Access handoff and access probe handoff permitted for the corresponding pilot while in the System Access State.

If NGHBR_SET_ACCESS_INFO is equal to ‘1’, the base station shall include the field ACCESS_HO_ALLOWED and shall set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to ‘1’ if the mobile station is permitted to perform an access handoff or access probe handoff to the base station associated with the corresponding pilot when the mobile station is in the System Access State (see 2.6.3.1.8 and 2.6.3.1.9); otherwise, the base station shall set this field to ‘0’.

**RESERVED** - Reserved bits.

The base station shall add reserved bits as needed in order to make the length of the entire RADIO_INTERFACE_TYPE record equal to an integer number of octets. The base station shall set these bits to ‘0’.

If RADIO_INTERFACE_TYPE is equal to ‘0001’, the base station shall include the following fields:
NUM_ANALOG_NGHBR - Number of neighboring analog systems.

The base station shall include one occurrence of the following subrecord for each neighboring analog system included in the message:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUM_ANALOG_NGHBR</td>
<td>3</td>
</tr>
<tr>
<td>BAND_CLASS</td>
<td>5</td>
</tr>
<tr>
<td>SYS_A_B</td>
<td>2</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 – 7 (as needed)</td>
</tr>
</tbody>
</table>

The base station shall set this field to the number of neighboring analog systems included in the message.

The base station shall set this field to the CDMA band class, as specified in [30].

SYS_A_B - System A/B.

If BAND_CLASS is set to '00000' or to '00011', the base station shall set this field to the value shown in Table 3.7.2.3.2.34-5 corresponding to the availability of neighboring analog systems; otherwise, the base station shall set this field to '00'.

<table>
<thead>
<tr>
<th>Cellular System A/B</th>
<th>Value (Binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESERVED</td>
<td>00</td>
</tr>
<tr>
<td>System A</td>
<td>01</td>
</tr>
<tr>
<td>System B</td>
<td>10</td>
</tr>
<tr>
<td>System A and B</td>
<td>11</td>
</tr>
</tbody>
</table>

RESERVED - Reserved bits.

The base station shall add reserved bits as needed in order to make the length of the entire RADIO_INTERFACE_TYPE record equal to an integer number of octets. The base station shall set these bits to '0'.
3.7.2.3.2.35 Security Mode Command Message

MSG_TAG: SMCM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C_SIG_ENCRYPT_MODE</td>
<td>3</td>
</tr>
<tr>
<td>USE_NEW_KEY</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ENC_KEY_SIZE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>KEY_SEQ</td>
<td>0 or 4</td>
</tr>
</tbody>
</table>

**C_SIG_ENCRYPT_MODE** - Common channel encryption mode indicator.

The base station shall set this field to the common channel signaling message encryption mode, as shown in Table 3.7.4.5-1.

**USE_NEW_KEY** - Use new encryption key indication

If C_SIG_ENCRYPT_MODE is equal to '001', the base station shall include this field; otherwise, the base station shall omit this field.

If this field is included, the base station shall set this field to '0' to indicate that the stored encryption key is to be used by the mobile station, and to '1' to indicate that the new encryption key is to be used by the mobile station.

**ENC_KEY_SIZE** - Key size used for user information and signaling encryption

If C_SIG_ENCRYPT_MODE is equal to '001', USE_NEW_KEY is included and is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set this field to the encryption_key_size for user information encryption and signaling encryption according to as shown in Table 3.7.4.5-2; otherwise, the base station shall omit this field.

**KEY_SEQ** - Encryption key sequence number.

If USE_NEW_KEY is included and is set to '0', the base station shall include this field; otherwise, the base station shall omit this field. If this field is included, the base station shall set it to the encryption_key_sequence_number to be used by the mobile station.
3.7.2.3.2.36 Universal Page Message

MSG_TAG: UPM

When Layer 3 at the base station sends a PDU corresponding to the Universal Page Message to Layer 2, it also sends the UPM Common fields to Layer 2. These UPM Common fields and PDUs are used by Layer 2 to assemble the Layer 2 PDU or PDUs corresponding to the Universal Page Message (see 3.1.2.3 of [4]).

UPM Common Fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONFIG_MSG_SEQ</td>
<td>6</td>
</tr>
<tr>
<td>ACC_MSG_SEQ</td>
<td>6</td>
</tr>
<tr>
<td>READ_NEXT_SLOT</td>
<td>1</td>
</tr>
<tr>
<td>READ_NEXT_SLOT_BCAST</td>
<td>1</td>
</tr>
</tbody>
</table>

PDU Format for a mobile station-addressed page:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SERVICE_OPTION</td>
<td>16</td>
</tr>
<tr>
<td>ADD_MS_RECORD</td>
<td>0 (\times) (8 \times) EXT_MS_SDU_LENGTH (see [4])</td>
</tr>
</tbody>
</table>

PDU Format for a mobile station-directed message announcement:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>0</td>
</tr>
</tbody>
</table>

PDU Format for an enhanced broadcast page:
### Field Length (bits)

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCCH_INDEX BCN</td>
<td>3</td>
</tr>
<tr>
<td>TIME_OFFSET</td>
<td>10</td>
</tr>
<tr>
<td>REPEAT_TIME_OFFSET</td>
<td>0 or 5</td>
</tr>
<tr>
<td>ADD_BCAST_RECORD</td>
<td>0 or 8 × EXT_BCAST-_SDU_LENGTH (see [4])</td>
</tr>
</tbody>
</table>

1. **CONFIG_MSG_SEQ** - Configuration message sequence number. The base station shall set this field to CONFIG_SEQ (see 3.6.2.2).

2. **ACC_MSG_SEQ** - Access parameters message sequence number. The base station shall set this field to ACC_CONFIG_SEQ (see 3.6.2.2).

3. **READ_NEXT SLOT** - Pages carried into next slot indicator. If all messages and records directed to mobile stations operating in the slotted mode and active in this slot, are included in this slot, the base station shall set this field to ‘0’; otherwise, the base station shall set this field to ‘1’.

4. **READ_NEXT SLOT_BCAST** - Enhanced Broadcast Pages carried into next slot indicator. If all enhanced broadcast pages directed to mobile stations operating in the slotted mode and active in this slot to receive enhanced broadcast pages are included in this slot, the base station shall set this field to ‘0’; otherwise, the base station shall set this field to ‘1’.

5. **SERVICE_OPTION** - Service option. The base station shall set this field to the service option code shown in [30]TSB58-B, corresponding to the requested service option.

6. **ADD_MS_RECORD** - Additional mobile station-addressed information record. The base station shall omit this field if EXT_MS_SDU_LENGTH_INCL (see 3.1.2.3.1.8 of [4]) is set to ‘0’; otherwise, the base station shall include EXT_MS_SDU_LENGTH (see 3.1.2.3.1.8 of [4]) octets in this field.

7. **BCCH_INDEX BCN** - BCCH time index Broadcast Control Channel Number. The base station shall set this field to the index of the BCCH to which the mobile station is being redirected.

8. **TIME_OFFSET** - BCCH offset.
The base station shall set this field to one less than the time offset, in units of 40 ms, from the beginning of the slot in which this message began to the beginning of the Broadcast Control Channel slot to which the mobile station is being directed.

**REPEAT_TIME-OFFSET** - BCCH offset of repeat.

If EXT_BCAST_SDU_LENGTH_IND (see [4]) is set to ‘01’ or ‘11’ this field is included, the base station shall set this field to one less than the time offset, in units of 40 ms, from the time specified by TIME_OFFSET to the beginning of the Broadcast Control Channel slot to which the mobile station is being directed for a repeat of the broadcast message. Otherwise, the base station shall omit this field.

**ADD_BCAST_RECORD** - Additional broadcast information record.

The base station shall omit this field if EXT_BCAST_SDU_LENGTH_IND (see 3.1.2.3.1.8 of [4]) is set to ‘00’ or ‘01’; otherwise, the base station shall include EXT_BCAST_SDU_LENGTH (see 3.1.2.3.1.8 of [4]) octets in this field.
During Traffic Channel operation, the base station sends signaling messages to the mobile station using the f-dsch.

3.7.3.1 Reserved

3.7.3.2 Reserved
3.7.3.3 PDU Formats on the f-dsch

The signaling messages sent over the f-dsch are summarized in Table 3.7.3.3-1.

Table 3.7.3.3-1. f-dsch Messages (Part 1 of 2)

<table>
<thead>
<tr>
<th>Message Name</th>
<th>MSG_TAG</th>
<th>Section Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order Message</td>
<td>ORDRM</td>
<td>3.7.3.3.2.1</td>
</tr>
<tr>
<td>Authentication Challenge Message</td>
<td>AUCM</td>
<td>3.7.3.3.2.2</td>
</tr>
<tr>
<td>Alert With Information Message</td>
<td>AWIM</td>
<td>3.7.3.3.2.3</td>
</tr>
<tr>
<td>Data Burst Message</td>
<td>DBM</td>
<td>3.7.3.3.2.4</td>
</tr>
<tr>
<td>Analog Handoff Direction Message</td>
<td>AHDM</td>
<td>3.7.3.3.2.6</td>
</tr>
<tr>
<td>In-Traffic System Parameters Message</td>
<td>ITSPM</td>
<td>3.7.3.3.2.7</td>
</tr>
<tr>
<td>Neighbor List Update Message</td>
<td>NLUM</td>
<td>3.7.3.3.2.8</td>
</tr>
<tr>
<td>Send Burst DTMF Message</td>
<td>BDTMFM</td>
<td>3.7.3.3.2.9</td>
</tr>
<tr>
<td>Power Control Parameters Message</td>
<td>PCNPM</td>
<td>3.7.3.3.2.10</td>
</tr>
<tr>
<td>Retrieve Parameters Message</td>
<td>RTPM</td>
<td>3.7.3.3.2.11</td>
</tr>
<tr>
<td>Set Parameters Message</td>
<td>STPM</td>
<td>3.7.3.3.2.12</td>
</tr>
<tr>
<td>SSD Update Message</td>
<td>SSDUM</td>
<td>3.7.3.3.2.13</td>
</tr>
<tr>
<td>Flash With Information Message</td>
<td>FWIM</td>
<td>3.7.3.3.2.14</td>
</tr>
<tr>
<td>Mobile Station Registered Message</td>
<td>MSRM</td>
<td>3.7.3.3.2.15</td>
</tr>
<tr>
<td>Status Request Message</td>
<td>STRQM</td>
<td>3.7.3.3.2.16</td>
</tr>
<tr>
<td>Extended Handoff Direction Message</td>
<td>EHDM</td>
<td>3.7.3.3.2.17</td>
</tr>
<tr>
<td>Service Request Message</td>
<td>SRQM</td>
<td>3.7.3.3.2.18</td>
</tr>
<tr>
<td>Service Response Message</td>
<td>SRPM</td>
<td>3.7.3.3.2.19</td>
</tr>
<tr>
<td>Service Connect Message</td>
<td>SCM</td>
<td>3.7.3.3.2.20</td>
</tr>
<tr>
<td>Service Option Control Message</td>
<td>SOCM</td>
<td>3.7.3.3.2.21</td>
</tr>
<tr>
<td>TMSI Assignment Message</td>
<td>TASM</td>
<td>3.7.3.3.2.22</td>
</tr>
<tr>
<td>Service Redirection Message</td>
<td>SRDM</td>
<td>3.7.3.3.2.23</td>
</tr>
<tr>
<td>Supplemental Channel Assignment Message</td>
<td>SCAM</td>
<td>3.7.3.3.2.24</td>
</tr>
<tr>
<td>Power Control Message</td>
<td>PCNM</td>
<td>3.7.3.3.2.25</td>
</tr>
</tbody>
</table>
Table 3.7.3.3-1. f-dsch Messages (Part 2 of 2)

<table>
<thead>
<tr>
<th>Message Name</th>
<th>MSG_TAG</th>
<th>Section Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extended Neighbor List Update Message</td>
<td>ENLUM</td>
<td>3.7.3.3.2.26</td>
</tr>
<tr>
<td>Candidate Frequency Search Request Message</td>
<td>CFRQM</td>
<td>3.7.3.3.2.27</td>
</tr>
<tr>
<td>Candidate Frequency Search Control Message</td>
<td>CFSCNM</td>
<td>3.7.3.3.2.28</td>
</tr>
<tr>
<td>Power Up Function Message</td>
<td>PUFM</td>
<td>3.7.3.3.2.29</td>
</tr>
<tr>
<td>Power Up Function Completion Message</td>
<td>PUFCM</td>
<td>3.7.3.3.2.30</td>
</tr>
<tr>
<td>General Handoff Direction Message</td>
<td>GHDM</td>
<td>3.7.3.3.2.31</td>
</tr>
<tr>
<td>Resource Allocation Message</td>
<td>RAM</td>
<td>3.7.3.3.2.32</td>
</tr>
<tr>
<td>Resource Allocation Mini Message</td>
<td>RAMM</td>
<td>3.7.3.3.2.33</td>
</tr>
<tr>
<td>Extended Release Message</td>
<td>ERM</td>
<td>3.7.3.3.2.34</td>
</tr>
<tr>
<td>Extended Release Mini Message</td>
<td>ERMM</td>
<td>3.7.3.3.2.35</td>
</tr>
<tr>
<td>Universal Handoff Direction Message</td>
<td>UHDM</td>
<td>3.7.3.3.2.36</td>
</tr>
<tr>
<td>Extended Supplemental Channel Assignment Message</td>
<td>ESCAM</td>
<td>3.7.3.3.2.37</td>
</tr>
<tr>
<td>Forward Supplemental Channel Assignment Mini</td>
<td>FSCAMM</td>
<td>3.7.3.3.2.38</td>
</tr>
<tr>
<td>Reverse Supplemental Channel Assignment Mini</td>
<td>RSCAMM</td>
<td>3.7.3.3.2.39</td>
</tr>
<tr>
<td>Mobile Assisted Burst Operation Parameters Message</td>
<td>MABOPM</td>
<td>3.7.3.3.2.40</td>
</tr>
<tr>
<td>User Zone Reject Message</td>
<td>UZRM</td>
<td>3.7.3.3.2.41</td>
</tr>
<tr>
<td>User Zone Update Message</td>
<td>UZUM</td>
<td>3.7.3.3.2.42</td>
</tr>
<tr>
<td>Call Assignment Message</td>
<td>CLAM</td>
<td>3.7.3.3.2.43</td>
</tr>
<tr>
<td>Extended Alert With Information Message</td>
<td>EAWIM</td>
<td>3.7.3.3.2.44</td>
</tr>
<tr>
<td>Extended Flash With Information Message</td>
<td>EFWIM</td>
<td>3.7.3.3.2.45</td>
</tr>
<tr>
<td>Security Mode Command Message</td>
<td>SMCM</td>
<td>3.7.3.3.2.46</td>
</tr>
<tr>
<td>Base Station Status Response Message</td>
<td>BSSRSPM</td>
<td>3.7.3.3.2.47</td>
</tr>
</tbody>
</table>

3.7.3.3.1 Reserved

3.7.3.3.2 Message Body Contents

The following sections specify the contents of the message body for each message that may be sent on the f-dsch.
3.7.3.3.2.1 Order Message

MSG_TAG: ORDRM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE_TIME</td>
<td>1</td>
</tr>
<tr>
<td>ACTION_TIME</td>
<td>6</td>
</tr>
<tr>
<td>ORDER</td>
<td>6</td>
</tr>
<tr>
<td>ADD_RECORD_LEN</td>
<td>3</td>
</tr>
<tr>
<td>Order-specific fields (if used)</td>
<td>$8 \times ADD]_\text{RECORD}_\text{LEN}$</td>
</tr>
<tr>
<td>CON_REF_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>CON_REF</td>
<td>0 or 8</td>
</tr>
</tbody>
</table>

**USE_TIME** - Use action time indicator.

This field indicates whether an explicit action time is specified in this order.

If an explicit action time can be specified for this order code, as shown in Table 3.7.4-1, the base station may set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**ACTION_TIME** - Action time.

If the USE_TIME field is set to ‘1’, the base station shall set this field to the System Time, in units of 80 ms (modulo 64), at which the order is to take effect. If the USE_TIME field is set to ‘0’ the base station shall set this field to ‘000000’.

**ORDER** - Order code.

The base station shall set this field to the ORDER code for this type of Order Message (see 3.7.4).

**ADD_RECORD_LEN** - Additional record length.

The base station shall set this field to the number of octets in the order-specific fields included in this message.

**Order-specific fields** - Order-specific fields.

The base station shall include order-specific fields as specified in 3.7.4.

**CON_REF_INCL** - Connection reference included indicator.

If the order carried by this message is not a Call Control order (see 3.6.8), the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:
The base station shall set this field to ‘1’ if the connection reference field is included in this message; otherwise, it shall set this field to ‘0’.

CON_REF – Connection reference.

If the CON_REF_INCL field is not included or is included but is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and shall set it to the value of the connection reference assigned to the service option connection of the call, to which this message corresponds.
### 3.7.3.3.2.2 Authentication Challenge Message

**MSG_TAG**: AUCM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RANDU</td>
<td>24</td>
</tr>
</tbody>
</table>

*RANDU - Random challenge data.*

*The base station shall set this field as specified in 2.3.12.1.4.*
3.7.3.3.2.3 Alert With Information Message

MSG_TAG: AWIM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>$8 \times $RECORD_LEN</td>
</tr>
</tbody>
</table>

The base station shall include occurrences of the following three-field record as specified in 3.7.5.

- RECORD_TYPE - Information record type.
  - The base station shall set this field as specified in 3.7.5.

- RECORD_LEN - Information record length.
  - The base station shall set this field to the number of octets in the type-specific fields included in this record.

- Type-specific fields - Type-specific fields.
  - The base station shall include type-specific fields as specified in 3.7.5.
3.7.3.3.2.4 Data Burst Message

**MSG_TAG:** DBM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSG_NUMBER</td>
<td>8</td>
</tr>
<tr>
<td>BURST_TYPE</td>
<td>6</td>
</tr>
<tr>
<td>NUM_MSGS</td>
<td>8</td>
</tr>
<tr>
<td>NUM_FIELDS</td>
<td>8</td>
</tr>
</tbody>
</table>

**NUM_FIELDS** occurrences of the following field:

| CHARi          | 8             |

**MSG_NUMBER** - Message number.

The base station shall set this field to the number of this message within the data burst stream.

**BURST_TYPE** - Data burst type.

The base station shall set the value of this field for the type of this data burst as defined in [30]. If the base station sets this field equal to ‘111110’, it shall set the first two CHARi fields of this message equal to the EXTENDED_BURST_TYPE_INTERNATIONAL field as described in the definition of CHARi below. If the base station sets this field equal to ‘111111’, it shall set the first two CHARi fields of this message equal to the EXTENDED_BURST_TYPE as described in the definition of CHARi below.

**NUM_MSGS** - Number of messages in the data burst stream.

The base station shall set this field to the number of messages in this data burst stream.

**NUM_FIELDS** - Number of characters in this message.

The base station shall set this field to the number of occurrences of the CHARi field included in this message.

**CHARi** - Character.

The base station shall include **NUM_FIELDS** occurrences of this field. The base station shall set these fields to the corresponding octet of the data burst stream.
If the BURST_TYPE field of this message is equal to ‘111110’, the first two CHARi octets shall represent a 16 bit EXTENDED_BURST_TYPE_INTERNATIONAL field, which is encoded as shown below. The first ten bits of this field contain a binary mapping of the Mobile Country Code (MCC) associated with the national standards organization administering the use of the remaining octets of the message. Encoding of the MCC shall be as specified in 2.3.1.3. The remaining six bits of the EXTENDED_BURST_TYPE_INTERNATIONAL field shall specify the COUNTRY_BURST_TYPE. The base station shall set the value of the COUNTRY_BURST_TYPE according to the type of this data burst as defined in standards governed by the country where this data burst type is to be used.

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile Country Code</td>
<td>10</td>
</tr>
<tr>
<td>COUNTRY_BURST_TYPE</td>
<td>6</td>
</tr>
<tr>
<td>Remaining CHARi fields</td>
<td>8 x (NUM_FIELDS – 2)</td>
</tr>
</tbody>
</table>

If the BURST_TYPE field of this message is equal to ‘111111’, the first two CHARi octets shall represent a single, 16 bit, EXTENDED_BURST_TYPE field, as shown below. The base station shall set the value of the EXTENDED_BURST_TYPE field according to the type of this data burst as defined in [30].

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTENDED_BURST_TYPE (first two CHARi fields)</td>
<td>16</td>
</tr>
<tr>
<td>Remaining CHARi fields</td>
<td>8 x (NUM_FIELDS – 2)</td>
</tr>
<tr>
<td></td>
<td>3.7.3.3.2.5 Reserved</td>
</tr>
<tr>
<td>---</td>
<td>----------------------</td>
</tr>
<tr>
<td>2</td>
<td>No text.</td>
</tr>
</tbody>
</table>
3.7.3.3.2.6 Analog Handoff Direction Message

MSG_TAG: AHDM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE_TIME</td>
<td>1</td>
</tr>
<tr>
<td>ACTION_TIME</td>
<td>6</td>
</tr>
<tr>
<td>SID</td>
<td>15</td>
</tr>
<tr>
<td>VMAC</td>
<td>3</td>
</tr>
<tr>
<td>ANALOG_CHAN</td>
<td>11</td>
</tr>
<tr>
<td>SCC</td>
<td>2</td>
</tr>
<tr>
<td>MEM</td>
<td>1</td>
</tr>
<tr>
<td>AN_CHAN_TYPE</td>
<td>2</td>
</tr>
<tr>
<td>DSCC_MSB</td>
<td>1</td>
</tr>
<tr>
<td>BAND_CLASS</td>
<td>5</td>
</tr>
<tr>
<td>CON_REF_INCL</td>
<td>1</td>
</tr>
<tr>
<td>CON_REF</td>
<td>0 or 8</td>
</tr>
</tbody>
</table>

**USE_TIME** - Use action time indicator.

This field indicates whether an explicit action time is specified in this message.

If an explicit action time is specified in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**ACTION_TIME** - Action time.

If the USE_TIME field is set to ‘1’, the base station shall set this field to the System Time, in units of 80 ms (modulo 64), at which the handoff is to take effect. If the USE_TIME field is set to ‘0’ the base station shall set this field to ‘000000’.

**SID** - System identification of the analog system.

The base station shall set this field to the system identification number for the analog system (see [6]).

**VMAC** - Voice mobile station attenuation code.

This field indicates the mobile station’s power level associated with the designated voice channel.

The base shall set this field to the MAC value shown in Table 2.1.2-1 of [12] corresponding to the nominal power for this mobile station.
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ANALOG_CHAN - Analog voice channel number.

The base station shall set this field to the channel number of the analog voice channel, as specified in Table 2.1.1-1 of [12].

SCC - SAT color code.

This indicates the supervisory audio tone associated with the designated analog voice channel.

The base station shall set this field to the SAT value shown in Table 3.7.1-2 of [12] and 2.4.1 of [12].

If the assignment is to a narrow analog channel, the base station shall set this field to the two least significant bits of the DSCC.

MEM - Message encryption mode indicator.

To enable analog control message encryption on the assigned forward and reverse analog voice channels, the base station shall set this bit to ‘1’. To disable analog control message encryption, the base station shall set this bit to ‘0’.

AN_CHAN_TYPE - Analog voice channel type.

The base station shall set this field to the analog channel type as specified in Table 3.7.3.3.2.6-1. If the mobile station does not have narrow analog capability, the base station shall set this field to ‘00’.

<table>
<thead>
<tr>
<th>Description</th>
<th>Analog Ch</th>
<th>AN_CHAN_TYPE (Binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wide channel on ANALOG_CHAN</td>
<td>N</td>
<td>00</td>
</tr>
<tr>
<td>Narrow channel 10 kHz below ANALOG_CHAN</td>
<td>NL</td>
<td>01</td>
</tr>
<tr>
<td>Narrow channel 10 kHz above ANALOG_CHAN</td>
<td>NU</td>
<td>10</td>
</tr>
<tr>
<td>Narrow channel centered on ANALOG_CHAN</td>
<td>NM</td>
<td>11</td>
</tr>
</tbody>
</table>

DSCC_MSB - Digital supervisory audio tone color code most significant bit.

The base station shall set this field to ‘0’ when directing handoff to a wide analog channel. The base station shall set this field to the most significant bit of the DSCC when directing handoff to a narrow analog channel.

BAND_CLASS - Band class.

The base station shall set this field according to values defined in [30].
CON_REF_INCL – Connection reference included indicator.

The base station shall set this field to ‘1’ if the connection reference field is included in this message; otherwise, it shall set this field to ‘0’.

CON_REF – Connection reference.

If the CON_REF_INCL field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and shall set it to the value of the connection reference assigned to the service option connection of the call which is to be transferred to the analog system.
3.7.3.3.7 In-Traffic System Parameters Message

**MSG_TAG: ITSPM**

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SID</td>
<td>15</td>
</tr>
<tr>
<td>NID</td>
<td>16</td>
</tr>
<tr>
<td>SRCH_WIN_A</td>
<td>4</td>
</tr>
<tr>
<td>SRCH_WIN_N</td>
<td>4</td>
</tr>
<tr>
<td>SRCH_WIN_R</td>
<td>4</td>
</tr>
<tr>
<td>T_ADD</td>
<td>6</td>
</tr>
<tr>
<td>T_DROP</td>
<td>6</td>
</tr>
<tr>
<td>T_COMP</td>
<td>4</td>
</tr>
<tr>
<td>T_TDROP</td>
<td>4</td>
</tr>
<tr>
<td>NGHBR_MAX_AGE</td>
<td>4</td>
</tr>
<tr>
<td>P_REV</td>
<td>8</td>
</tr>
<tr>
<td>SOFT_SLOPE</td>
<td>6</td>
</tr>
<tr>
<td>ADD_INTERCEPT</td>
<td>6</td>
</tr>
<tr>
<td>DROP_INTERCEPT</td>
<td>6</td>
</tr>
<tr>
<td>PACKET_ZONE_ID</td>
<td>8</td>
</tr>
<tr>
<td>EXTENSION</td>
<td>1</td>
</tr>
<tr>
<td>T_MULCHAN</td>
<td>0 or 3</td>
</tr>
<tr>
<td>BEGIN_PREAMBLE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RESUME_PREAMBLE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>T_SLOTTED_INCL</td>
<td>1</td>
</tr>
<tr>
<td>T_SLOTTED</td>
<td>0 or 8</td>
</tr>
<tr>
<td>ENC_SUPPORTED</td>
<td>1</td>
</tr>
<tr>
<td>SIG_ENCRYPT_SUP</td>
<td>0 or 8</td>
</tr>
<tr>
<td>UI_ENCRYPT_SUP</td>
<td>0 or 8</td>
</tr>
<tr>
<td>CS_SUPPORTED</td>
<td>1</td>
</tr>
</tbody>
</table>

**SID** - System identification.

The base station shall set this field to the system identification number for this cellular system (see 2.6.5.2).
NID - Network identification.
This field serves as a sub-identifier of a system as defined by
the owner of the SID.

The base station shall set this field to the network
identification number for this network (see 2.6.5.2).

SRCH_WIN_A - Search window size for the Active Set and Candidate Set.

The base station shall set this field to the window size
parameter shown in Table 2.6.6.2.1-1 corresponding to the
number of PN chips that the mobile station is to search for
pilots in the Active Set and Candidate Set.

SRCH_WIN_N - Search window size for the Neighbor Set.

The base station shall set this field to the window size
parameter shown in Table 2.6.6.2.1-1 corresponding to the
number of PN chips that the mobile station is to search for
pilots in the Neighbor Set.

SRCH_WIN_R - Search window size for the Remaining Set.

The base station shall set this field to the window size
parameter shown in Table 2.6.6.2.1-1 corresponding to the
number of PN chips that the mobile station is to search for
pilots in the Remaining Set.

T_ADD - Pilot detection threshold.

This value is used by the mobile station to trigger the transfer
of a pilot from the Neighbor Set or Remaining Set to the
Candidate Set (see 2.6.6.2.6) and to trigger the sending of the
Pilot Strength Measurement Message or Extended Pilot Strength
Measurement Message initiating the handoff process (see
2.6.6.2.5.2).

The base station shall set this field to the pilot detection
threshold, expressed as an unsigned binary number equal to
\[-2 \times 10 \times \log_{10} \frac{E_c}{I_o} \].

T_DROP - Pilot drop threshold.

This value is used by the mobile station to start a handoff
drop timer for pilots in the Active Set and the Candidate Set
(see 2.6.6.2.3).

The base station shall set this field to the pilot drop threshold,
expressed as an unsigned binary number equal to
\[-2 \times 10 \times \log_{10} \frac{E_c}{I_o} \].

T_COMP - Active Set versus Candidate Set comparison threshold.

The mobile station transmits a Pilot Strength Measurement
Message or an Extended Pilot Strength Measurement Message
when the strength of a pilot in the Candidate Set exceeds that
of a pilot in the Active Set by this margin (see 2.6.6.2.5.2).

The base station shall set this field to the threshold Candidate
Set pilot to Active Set pilot ratio, in units of 0.5 dB.
T_TDROP - Drop timer value.

Timer value after which an action is taken by the mobile station for a pilot that is a member of the Active Set or Candidate Set, and whose strength has not become greater than T_DROPOff. If the pilot is a member of the Active Set, a Pilot Strength Measurement Message or an Extended Pilot Strength Measurement Message is issued. If the pilot is a member of the Candidate Set, it will be moved to the Neighbor Set.

The base station shall set this field to the T_TDROP value shown in Table 2.6.6.2.3-1 corresponding to the drop timer value to be used by the mobile station.

NGHBR_MAX_AGE - Maximum age for retention of Neighbor Set members.

The mobile station drops neighbor set members whose AGE count exceeds this field.

The base station shall set this field to the Neighbor Set maximum age retention value (see 2.6.6.2.6.3).

P_REV - Protocol revision level.

The base station shall set this field to the base station protocol revision level.

SOFT_SLOPE - The slope in the inequality criterion for adding a pilot to the Active Set, or dropping a pilot from the Active Set (see 2.6.6.2.3 and 2.6.6.2.5.2).

The base station shall set this field as an unsigned binary number.

ADD_INTERCEPT - The intercept in the inequality criterion for adding a pilot to the Active Set (see 2.6.6.2.5.2).

The base station shall set this field as a two's complement signed binary number, in units of dB.

DROP_INTERCEPT - The intercept in the inequality criterion for dropping a pilot from the Active Set (see 2.6.6.2.3).

The base station shall set this field as a two's complement signed binary number, in units of dB.

PACKET_ZONE_ID - Packet data services zone identifier.

If the base station supports a packet data service zone, the base station shall set this field to its non-zero packet data services zone identifier.

If the base station does not support a packet data service zone, the base station shall set this field to '00000000'.

EXTENSION - Indicator that extension fields are present.

If Reverse Supplemental Code Channel or Reverse Supplemental Channel system parameters are included in this message, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.
T_MULCHAN - *Supplemental Channel Request Message* pilot strength reporting offset.

If EXTENSION is set to ‘1’, the base station shall include this field and set this field to the threshold offset that the mobile station is to use when reporting neighbor pilot strength measurements in a *Supplemental Channel Request Message*. The mobile station is to interpret this field as an offset to T_ADD ranging from 0.5 dB (corresponding to T_MULCHAN = ‘000’) to 4.0 dB (corresponding to T_MULCHAN = ‘111’) in 0.5 dB increments.

BEGIN_PREAMBLE - Number of preamble frames on Reverse Supplemental Code Channels at the beginning of transmission on Reverse Supplemental Code Channel.

If EXTENSION is set to ‘1’, the base station shall include this field and set this field to the number of Reverse Supplemental Code Channel preamble frames that the mobile station is to send when beginning transmission on Reverse Supplemental Code Channels.

RESUME_PREAMBLE - Number of preamble frames on Reverse Supplemental Code Channels at the resumption of transmission.

If EXTENSION is set to ‘1’, the base station shall include this field and set this field to the number of Reverse Supplemental Code Channel preamble frames that the mobile station is to send when resuming transmission on a Reverse Supplemental Code Channel following an autonomous suspension of transmission on an allocated Supplemental Code Channel.

T_SLOTTED_INCL - Slotted timer value included indicator.

The base station shall set this field to ‘1’ if the slotted timer value is included; otherwise, the base station shall set this field to ‘0’.

T_SLOTTED - Slotted timer value

If T_SLOTTED_INCL is set to ‘1’, the base station shall include this field and set this field to the value of the TMS_Slotted timer to be used by the mobile station in units of 80 ms. otherwise, the base station shall omit this field.

ENC_SUPPORTED – Encryption fields included.

The base station shall set this field to ‘1’ in the encryption related fields are included; otherwise the base station shall set this field to ‘0’.

SIG_ENCRYPT_SUP – Signaling Encryption supported indicator.

If ENC_SUPPORTED is equal to ‘1’, the base station shall include this field; otherwise, the base station shall omit this field. If this field is included, this field indicates which signaling encryption algorithms are supported by the base station.

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This field consists of the subfields shown in Table 2.7.1.3.2.1-5.

If this field is included, the base station shall set the subfields as follows:

The base station shall set the CMEA subfield to ‘1’.

The base station shall set each other subfield to ‘1’ if the corresponding signaling algorithm is supported by the base station; otherwise, the base station shall set the subfield to ‘0’.

The base station shall set the RESERVED subfield to ‘000000’.

**UI_ENCRYPT_SUP** – User information Encryption supported indicator.

If ENC_SUPPORTED is equal to ‘1’, the base station shall include this field; otherwise, the base station shall omit this field. If this field is included, the base station shall set this field to indicate the supported user information encryption algorithms.

This field consists of the subfields shown in Table 2.7.1.3.2.4-9.

The base station shall set each subfield to ‘1’ if the corresponding user information encryption algorithm is supported by the base station; otherwise, the base station shall set the subfield to ‘0’.

**CS_SUPPORTED** – Concurrent Services supported indicator.

If the base station supports concurrent services, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.
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3.7.3.3.2.8 Neighbor List Update Message

MSG_TAG: NLUM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_INC</td>
<td>4</td>
</tr>
</tbody>
</table>

One to 20 occurrences of the following field:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGHBR_PN</td>
<td>9</td>
</tr>
</tbody>
</table>

PILOT_INC - Pilot PN sequence offset index increment.

The mobile station searches for Remaining Set pilots at pilot PN sequence offset index values that are multiples of this value.

The base station shall set this field to the pilot PN sequence increment, in units of 64 PN chips, that the mobile station is to use for searching the Remaining Set. The base station should set this field to the largest increment such that the pilot PN sequence offsets of all its neighbor base stations are integer multiples of that increment.

NGHBR_PN - Neighbor pilot PN sequence offset index.

The base station shall include one occurrence of this field for each pilot in its neighbor list. The base station shall set this field to the pilot's PN sequence offset, in units of 64 PN chips. The base station shall include no more than 20 occurrences of this field.
3.7.3.3.2.9 Send Burst DTMF Message

MSG_TAG: BDTMFM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUM_DIGITS</td>
<td>8</td>
</tr>
<tr>
<td>DTMF_ON_LENGTH</td>
<td>3</td>
</tr>
<tr>
<td>DTMF_OFF_LENGTH</td>
<td>3</td>
</tr>
</tbody>
</table>

NUM_DIGITS occurrences of the following field:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIGITi</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON_REF_INCL</td>
<td>1</td>
</tr>
<tr>
<td>CON_REF</td>
<td>0 or 8</td>
</tr>
</tbody>
</table>

NUM_DIGITS - Number of DTMF digits.
The base station shall set this field to the number of DTMF digits included in this message.

DTMF_ON_LENGTH - DTMF pulse width code.
The base station shall set this field to the DTMF_ON_LENGTH value shown in Table 2.7.2.3.2.7-1 corresponding to the requested pulse width of the DTMF pulse to be generated by the mobile station.

DTMF_OFF_LENGTH - DTMF interdigit interval code.
The base station shall set this field to the DTMF_OFF_LENGTH value shown in Table 2.7.2.3.2.7-2 corresponding to the requested minimum interdigit interval between DTMF pulses to be generated by the mobile station.

DIGITi - DTMF digit.
The base station shall include one occurrence of this field for each DTMF digit to be generated by the mobile station. The base station shall set each occurrence of this field to the code value shown in Table 2.7.1.3.2.4-4 corresponding to the dialed digit.

CON_REF_INCL – Connection reference included indicator.
The base station shall set this field to ‘1’ if the connection reference field is included in this message; otherwise, it shall set this field to ‘0’.
CON_REF – Connection reference.

If the CON_REF_INCL field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and shall set it to the value of the connection reference assigned to the service option connection of the call, to which this message corresponds.
3.7.3.3.2.10 Power Control Parameters Message

MSG_TAG: PCNPM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PWR_REP_THRESH</td>
<td>5</td>
</tr>
<tr>
<td>PWR_REP_FRAMES</td>
<td>4</td>
</tr>
<tr>
<td>PWR_THRESH_ENABLE</td>
<td>1</td>
</tr>
<tr>
<td>PWR_PERIOD_ENABLE</td>
<td>1</td>
</tr>
<tr>
<td>PWR_REP_DELAY</td>
<td>5</td>
</tr>
</tbody>
</table>

PWR_REP_THRESH - Power control reporting threshold.

The base station shall set this field to the number of bad frames (see [2]) to be received in a measurement period on the channel which carries the Power Control Subchannel before the mobile station is to generate a *Power Measurement Report Message* (see 2.6.4.1.1). If the base station sets PWR_THRESH_ENABLE to ‘1’, it shall not set this field to ‘00000’.

PWR_REP_FRAMES - Power control reporting frame count.

The base station shall set this field to the value such that the number given by

$$\left\lceil \frac{2\times \text{PWR_REP_FRAMES}}{2} \times 5 \right\rceil$$

frames

is the number of frames over which the mobile station is to count frame errors.

PWR_THRESH_ENABLE - Threshold report mode indicator.

If the mobile station is to generate threshold *Power Measurement Report Messages*, the base station shall set this field to ‘1’. If the mobile station is not to generate threshold *Power Measurement Report Messages*, the base station shall set this field to ‘0’.

PWR_PERIOD_ENABLE - Periodic report mode indicator.

If the mobile station is to generate periodic *Power Measurement Report Messages*, the base station shall set this field to ‘1’. If the mobile station is not to generate periodic *Power Measurement Report Messages*, the base station shall set this field to ‘0’.

PWR_REP_DELAY - Power report delay.

The period that the mobile station waits following a *Power Measurement Report Message* before restarting frame counting for power control purposes.
The base station shall set this field to the power report delay value, in units of 4 frames (see 2.6.4.1.1).
3.7.3.3.2.11 Retrieve Parameters Message

MSG_TAG: RTPM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PARAMETER_ID</td>
<td>16</td>
</tr>
</tbody>
</table>

One or more occurrences of the following field:

PARAMETER_ID - Parameter identification.

The base station can request the mobile station to report any parameter specified in Table E-1.

The base station shall include one occurrence of this field for each parameter requested. The base station shall set this field to the parameter identification number specified in Table E-1 corresponding to the parameter requested.
3.7.3.3.2.12 Set Parameters Message

MSG_TAG: STPM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>One or more occurrences of the following record:</td>
<td></td>
</tr>
<tr>
<td>PARAMETER_ID</td>
<td>16</td>
</tr>
<tr>
<td>PARAMETER_LEN</td>
<td>10</td>
</tr>
<tr>
<td>PARAMETER</td>
<td>PARAMETER_LEN + 1</td>
</tr>
</tbody>
</table>

The base station shall include one occurrence of the following three-field record for each parameter to be set.

PARAMETER_ID - Parameter identification.

The base station shall set this field to the identification shown in Table E-1 corresponding to the settable parameter to be set.

PARAMETER_LEN - Parameter length.

The base station shall set this field to the length shown in Table E-1 corresponding to the parameter to be set.

PARAMETER - Parameter value.

The base station shall set this field to the value of the parameter specified by the PARAMETER_ID field.
3.7.3.3.2.13 SSD Update Message

**MSG_TAG:** SSDUM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RANDSSD</td>
<td>56</td>
</tr>
</tbody>
</table>

- **RANDSSD** - Random data.
- The base station shall set this field as specified in 2.3.12.1.5.
3.7.3.3.2.14 Flash With Information Message

**MSG_TAG**: FWIM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>$8 \times $RECORD_LEN</td>
</tr>
</tbody>
</table>

One or more occurrences of the following record:

The base station shall include occurrences of the following three-field record as specified in 3.7.5.

- **RECORD_TYPE**: Information record type.
  - The base station shall set this field as specified in 3.7.5.

- **RECORD_LEN**: Information record length.
  - The base station shall set this field to the number of octets in the type-specific fields included in this record.

- Type-specific fields: Type-specific fields.
  - The base station shall include type-specific fields as specified in 3.7.5.
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3.7.3.3.2.15 Mobile Station Registered Message

MSG_TAG: MSRM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SID</td>
<td>15</td>
</tr>
<tr>
<td>NID</td>
<td>16</td>
</tr>
<tr>
<td>REG_ZONE</td>
<td>12</td>
</tr>
<tr>
<td>TOTAL_ZONES</td>
<td>3</td>
</tr>
<tr>
<td>ZONE_TIMER</td>
<td>3</td>
</tr>
<tr>
<td>MULT_SIDS</td>
<td>1</td>
</tr>
<tr>
<td>MULT_NIDS</td>
<td>1</td>
</tr>
<tr>
<td>BASE_LAT</td>
<td>22</td>
</tr>
<tr>
<td>BASE_LONG</td>
<td>23</td>
</tr>
<tr>
<td>REG_DIST</td>
<td>11</td>
</tr>
</tbody>
</table>

SID - System identification.

The base station shall set this field to the system identification number for this system.

NID - Network identification.

This field serves as a sub-identifier of a system as defined by the owner of the SID.

The base station shall set this field to the network identification number for this network. The NID value of 65,535 is reserved.

REG_ZONE - Registration zone.

The base station shall set this field to its registration zone number (see 2.6.5.1.5).

TOTAL_ZONES - Number of registration zones to be retained.

The base station shall set this field to the number of registration zones the mobile station is to retain for purposes of zone-based registration (see 2.6.5.1.5).

If zone-based registration is to be disabled, the base station shall set this field to ‘000’.

ZONE_TIMER - Zone timer length.

The base station shall set this field to the ZONE_TIMER value shown in Table 3.7.2.3.2.1-1 corresponding to the length of the zone registration timer to be used by mobile stations.
MULT_SIDS - Multiple SID storage indicator.

If mobile stations may store entries of SID_NID_LIST containing different SIDs, the base station shall set this field to ‘1’; otherwise the base station shall set this field to ‘0’.

MULT_NIDS - Multiple NID storage indicator.

If mobile stations may store multiple entries of SID_NID_LIST having the same SID (with different NIDs), the base station shall set this field to ‘1’; otherwise the base station shall set this field to ‘0’.

BASE_LAT - Base station latitude.

The base station shall set this field to its latitude in units of 0.25 second, expressed as a two’s complement signed number with positive numbers signifying North latitudes. The base station shall set this field to a value in the range -1296000 to 1296000 inclusive (corresponding to a range of -90° to +90°).

BASE_LONG - Base station longitude.

The base station shall set this field to its longitude in units of 0.25 second, expressed as a two’s complement signed number with positive numbers signifying East longitude. The base station shall set this field to a value in the range -2592000 to 2592000 inclusive (corresponding to a range of -180° to +180°).

REG_DIST - Registration distance.

If mobile stations are to perform distance-based registration, the base station shall set this field to the non-zero “distance” beyond which the mobile station is to re-register (see 2.6.5.1.4). If mobile stations are not to perform distance-based registration, the base station shall set this field to 0.
3.7.3.3.2.16 Status Request Message

MSG_TAG: STRQM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QUAL_INFO_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>QUAL_INFO_LEN</td>
<td>3</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>8 × QUAL_INFO_LEN</td>
</tr>
<tr>
<td>NUM_FIELDS</td>
<td>4</td>
</tr>
</tbody>
</table>

NUM_FIELDS occurrences of the following field:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_TYPE</td>
<td>8</td>
</tr>
</tbody>
</table>

QUAL_INFO_TYPE - Qualification information type.

The base station shall set this field to the value shown in Table 3.7.2.3.2.15-1 to show the inclusion of qualification information in the type-specific fields.

QUAL_INFO_LEN - Qualification information length.

The base station shall set this field to the number of octets included in the type-specific fields of the qualification information.

Type-specific fields - Type-specific fields.

The base station shall set these fields to the qualification information according to the QUAL_INFO_TYPE field.

If QUAL_INFO_TYPE is equal to ‘00000000’, the type-specific fields are omitted.

If QUAL_INFO_TYPE is equal to ‘00000001’, the base station shall use the following fixed-length format for the type-specific fields:

<table>
<thead>
<tr>
<th>Type-specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAND_CLASS</td>
<td>5</td>
</tr>
<tr>
<td>RESERVED</td>
<td>3</td>
</tr>
</tbody>
</table>

If QUAL_INFO_TYPE is equal to ‘00000010’, the base station shall use the following fixed-length format for the type-specific fields:
<table>
<thead>
<tr>
<th>Type-specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAND_CLASS</td>
<td>5</td>
</tr>
<tr>
<td>OP_MODE</td>
<td>8</td>
</tr>
<tr>
<td>RESERVED</td>
<td>3</td>
</tr>
</tbody>
</table>

1. **BAND_CLASS** - Band class.
   The base station shall set this field to the CDMA band class, as specified in [30].

2. **OP_MODE** - Operating mode.
   The base station shall set this field as shown in Table 3.7.2.3.2.15-3 to specify the operating mode qualification information.

3. **RESERVED** - Reserved bits.
   The base station shall set this field to ‘000’.

4. **NUM_FIELDS** - Number of requested record fields in this message.
   The base station shall set this field to the number of occurrences of RECORD_TYPE in this message.

The base station shall only request the status information records qualified by the included qualification information in this message. The base station shall include one occurrence of the following field for each information record that is requested:

5. **RECORD_TYPE** - Information record type.
   The base station shall set this field to the record type value shown in Table 3.7.2.3.2.15-2 corresponding to the information record requested.
3.7.3.3.2.17 Extended Handoff Direction Message

**MSG_TAG:** EHDM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE_TIME</td>
<td>1</td>
</tr>
<tr>
<td>ACTION_TIME</td>
<td>6</td>
</tr>
<tr>
<td>HDM_SEQ</td>
<td>2</td>
</tr>
<tr>
<td>SEARCH_INCLUDED</td>
<td>1</td>
</tr>
<tr>
<td>SRCH_WIN_A</td>
<td>0 or 4</td>
</tr>
<tr>
<td>T_ADD</td>
<td>0 or 6</td>
</tr>
<tr>
<td>T_DROP</td>
<td>0 or 6</td>
</tr>
<tr>
<td>T_COMP</td>
<td>0 or 4</td>
</tr>
<tr>
<td>T_TDROP</td>
<td>0 or 4</td>
</tr>
<tr>
<td>HARD_INCLUDED</td>
<td>1</td>
</tr>
<tr>
<td>FRAME_OFFSET</td>
<td>0 or 4</td>
</tr>
<tr>
<td>PRIVATE_LCM</td>
<td>0 or 1</td>
</tr>
<tr>
<td>RESET_L2</td>
<td>0 or 1</td>
</tr>
<tr>
<td>RESET_FPC</td>
<td>0 or 1</td>
</tr>
<tr>
<td>SERV_NEG_TYPE</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ENCRYPT_MODE</td>
<td>0 or 2</td>
</tr>
<tr>
<td>NOM_PWR_EXT</td>
<td>0 or 1</td>
</tr>
<tr>
<td>NOM_PWR</td>
<td>0 or 4</td>
</tr>
<tr>
<td>NUM_PREAMBLE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>BAND_CLASS</td>
<td>0 or 5</td>
</tr>
<tr>
<td>CDMA_FREQ</td>
<td>0 or 11</td>
</tr>
</tbody>
</table>

(continues on next page)
### Field Length (bits)

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD_LENGTH</td>
<td>3</td>
</tr>
<tr>
<td>Additional fields</td>
<td>$8 \times \text{ADD}_\text{LENGTH}$</td>
</tr>
</tbody>
</table>

One or more occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>PWR_COMB_IND</td>
<td>1</td>
</tr>
<tr>
<td>CODE_CHAN</td>
<td>8</td>
</tr>
</tbody>
</table>

**USE_TIME** - Use action time indicator.

This field indicates whether an explicit action time is specified in this message.

If an explicit action time is specified in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**ACTION_TIME** - Action time.

If the USE_TIME field is set to ‘1’, the base station shall set this field to the System Time, in units of 80 ms (modulo 64), at which the handoff is to take effect. If the USE_TIME field is set to ‘0’ the base station shall set this field to ‘000000’.

**HDM_SEQ** - *Extended Handoff Direction Message* sequence number.

This field is used by the mobile station in the *Power Measurement Report Message* to identify the order in which the reported pilot strengths are sent.

The base station shall set this field as specified in 2.6.6.2.2.2.

**SEARCH_INCLUDED** - Pilot search parameters included.

If the mobile station is to change its pilot search parameters, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**SRCH_WIN_A** - Search window size for the Active Set and Candidate Set.

If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field SRCH_WIN_A and set this field to the window size parameter shown in Table 2.6.6.2.1-1 corresponding to the number of PN chips that the mobile station is to search for pilots in the Active Set and Candidate Set; otherwise, the base station shall omit this field.

**T_ADD** - Pilot detection threshold.
This value is used by the mobile station to trigger the transfer of a pilot from the Neighbor Set or Remaining Set to the Candidate Set (see 2.6.6.2.6) and to trigger the sending of the *Pilot Strength Measurement Message* or *Extended Pilot Strength Measurement Message* initiating the handoff process (see 2.6.6.2.5.2).

If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field T_ADD and set this field to the pilot detection threshold, expressed as an unsigned binary number equal to \[ -2 \times 10 \times \log_{10} \frac{E_c}{I_o} \]; otherwise, the base station shall omit this field.

**T_DROP** - Pilot drop threshold.

This value is used by mobile stations to start a handoff drop timer for pilots in the Active Set and the Candidate Set (see 2.6.6.2.3).

If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field T_DROP and set this field to the pilot drop threshold, expressed as an unsigned binary number equal to \[ -2 \times 10 \times \log_{10} \frac{E_c}{I_o} \]; otherwise, the base station shall omit this field.

**T_COMP** - Active Set versus Candidate Set comparison threshold.

The mobile station transmits a *Pilot Strength Measurement Message* or an *Extended Pilot Strength Measurement Message* when the strength of a pilot in the Candidate Set exceeds that of a pilot in the Active Set by this margin (see 2.6.6.2.5.2).

If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field T_COMP and set this field to the threshold Candidate Set pilot to Active Set pilot ratio, in units of 0.5 dB; otherwise, the base station shall omit this field.

**T_TDROP** - Drop timer value.

Timer value after which an action is taken by the mobile station for a pilot that is a member of the Active Set or Candidate Set, and whose strength has not become greater than T_DROP. If the pilot is a member of the Active Set, a *Pilot Strength Measurement Message* or an *Extended Pilot Strength Measurement Message* is issued. If the pilot is a member of the Candidate Set, it will be moved to the Neighbor Set.

If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field T_TDROP and set this field to the T_TDROP value shown in Table 2.6.6.2.3-1 corresponding to the drop timer value to be used by the mobile station; otherwise, the base station shall omit this field.

**HARD_INCLUDED** - Hard handoff parameters included.
If the mobile station is to change FRAME_OFFSET, PRIVATE_LCM, ENCRYPT_MODE, SERV_NEG_TYPE, NOM_PWR_EXT, NUM_PREAMBLE, NOM_PWR, BAND_CLASS, or CDMA_FREQ, or the mobile station is to perform a reset of the acknowledgment procedures, or the mobile station is to reset Forward Traffic Channel power control counters, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**FRAME_OFFSET** - Frame offset.

The Forward and Reverse Traffic Channel frames are delayed FRAME_OFFSET × 1.25 ms relative to system timing (see [2]).

If HARD_INCLUDED is set to ‘1’, the base station shall include the field FRAME_OFFSET and set it to the Forward and Reverse Traffic Channel frame offset; otherwise, the base station shall omit this field.

**PRIVATE_LCM** - Private long code mask indicator.

This field is used to change the long code mask after a hard handoff.

If HARD_INCLUDED is set to ‘1’, the base station shall include the field PRIVATE_LCM and set it as described below; otherwise, the base station shall omit this field.

If the private long code mask is to be used after the handoff, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**RESET_L2** - Reset acknowledgment procedures command.

This field is used to reset acknowledgment processing in the mobile station.

If HARD_INCLUDED is set to ‘1’, the base station shall include the field RESET_L2 and set it as described below; otherwise, the base station shall omit this field.

If the field is included and the mobile station is to reset its acknowledgment procedures, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**RESET_FPC** - Reset Forward Traffic Channel power control.

This field is used to reset the Forward Traffic Channel power control counters.

If HARD_INCLUDED is set to ‘1’, the base station shall include the field RESET_FPC and set it as described below; otherwise, the base station shall omit this field.

The base station shall set this field to ‘0’ if the Forward Traffic Channel power control counters are to be maintained after completion of the handoff. If the counters are to be initialized as specified in 2.6.4.1.1.1, then the base station shall set this field to ‘1’.

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SERV_NEG_TYPE - Service negotiation type.
If HARD_INCLUDED is set to ‘1’, the base station shall include
the field SERV_NEG_TYPE and set it as described below;
otherwise, the base station shall omit this field.
If the mobile station is to use service negotiation, the base
station shall set this field to ‘1’. If the mobile station is to use
service option negotiation, the base station shall set this field
to ‘0’.

ENCRIPT_MODE - Message encryption mode.
If HARD_INCLUDED is set to ‘1’, the base station shall include
the field ENCRYPT_MODE and set it to the ENCRYPT_MODE
value shown in Table 3.7.2.3.2.8-2 corresponding to the
encrypting mode that is to be used for messages sent on the
Forward and Reverse Traffic Channels, as specified
in 2.3.12.2; otherwise, the base station shall omit this field.

NOM_PWR_EXT - Extended nominal transmit power.
If HARD_INCLUDED is set to ‘1’, the base station shall include
this field and set it as described below; otherwise, the base
station shall omit this field.
If this field is included and the mobile station is being handed
off to a base station operating in Band Class 0 or Band Class
3, the base station shall set this field to ‘0’; otherwise,
If this field is included and the mobile station is being handed
off to a base station operating in a band class other than
Band Class 0 or Band Class 3, the base station shall set this
field to ‘1’ if the correction factor to be used by the mobile
station in the open loop power estimate is between –24 dB and
–9 dB inclusive; otherwise (the correction factor is in the
range –8 dB to 7 dB inclusive), the base station shall set this
field to ‘0’.

NOM_PWR - Nominal transmit power offset.
If HARD_INCLUDED is set to ‘1’, the base station shall include
the field NOM_PWR and set it to the correction factor to be
used by the mobile station in the open loop power estimate,
expressed as a two’s complement value in units of 1 dB
(see [2]); otherwise, the base station shall omit this field.

NUM_PREAMBLE - Traffic Channel preamble length.
If HARD_INCLUDED is set to ‘0’, the base station shall omit
the NUM_PREAMBLE field; otherwise, the base station shall
include this field and set it to the length of Traffic Channel
preamble that the mobile station is to send when performing a
handoff; as follows:
If, after the handoff, radio configuration 1 or radio configuration 2 is to be used, the base station shall set NUM_PREAMBLE to the Traffic Channel preamble length in 20 ms units; otherwise, the base station shall set NUM_PREAMBLE to the value shown in Table 3.7.3.3.2.17-1 corresponding to the Traffic Channel preamble length in 1.25 ms units.

**Table 3.7.3.3.2.17-1. Traffic Channel Preamble Length**

<table>
<thead>
<tr>
<th>NUM_PREAMBLE (binary)</th>
<th>Preamble Length in 1.25 ms Increments</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>0</td>
</tr>
<tr>
<td>001</td>
<td>2</td>
</tr>
<tr>
<td>010</td>
<td>4</td>
</tr>
<tr>
<td>011</td>
<td>6</td>
</tr>
<tr>
<td>100</td>
<td>8</td>
</tr>
<tr>
<td>101</td>
<td>10</td>
</tr>
<tr>
<td>110</td>
<td>12</td>
</tr>
<tr>
<td>111</td>
<td>16</td>
</tr>
</tbody>
</table>

**BAND_CLASS** - Band class.

If HARD_INCLUDED is set to ‘1’, the base station shall include the field BAND_CLASS and set it to the CDMA band class corresponding to the CDMA frequency assignment for the CDMA Channel as specified in [30]; otherwise, the base station shall omit this field.

**CDMA_FREQ** - Frequency assignment.

If HARD_INCLUDED is set to ‘1’, the base station shall include the field CDMA_FREQ and set it to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA frequency assignment for the CDMA Channel as specified in [2]; otherwise, the base station shall omit this field.

**ADD_LENGTH** - Number of octets in the additional fields.

The base station shall set this field to the number of octets included in the Additional fields. If Additional fields are not included in this message, the base station shall set this field to ‘000’.

**Additional fields** - Additional fields.

If the ADD_LENGTH field is not equal to ‘000’, the base station shall include the following fields as additional fields.
<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P_REV</td>
<td>8</td>
</tr>
</tbody>
</table>

P_REV - Protocol revision level.

The base station shall set this field to the base station protocol revision level that the mobile station is to use after completion of the handoff.

The base station shall include one occurrence of the following three-field record for each member of the mobile station’s new Active Set.

PILOT_PN - Pilot PN sequence offset index.

The base station shall set this field to the pilot PN sequence offset for this pilot in units of 64 PN chips.

PWR_COMB_IND - Power control symbol combining indicator.

If the Forward Traffic Channel associated with this pilot will carry the same closed-loop power control subchannel bits as that of the previous pilot in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’. For the first occurrence of this record in the message, the base station shall set this field to ‘0’.

CODE_CHAN - Code channel index.

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use as the Forward Fundamental Channel associated with this pilot. If Radio Configuration 1, 2, 3, or 5 (see 3.1.3.1.2 of [2]) is used, the base station shall set this field in the range 1 to 63 inclusive. If Radio Configuration 4, 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.
3.7.3.3.2.18 Service Request Message

MSG_TAG: SRQM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SERV_REQ_SEQ</td>
<td>3</td>
</tr>
<tr>
<td>REQ_PURPOSE</td>
<td>4</td>
</tr>
</tbody>
</table>

Zero or one occurrence of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>$8 \times \text{RECORD_LEN}$</td>
</tr>
</tbody>
</table>

SERV_REQ_SEQ - Service request sequence number.

The base station shall set this field to the service request sequence number pertaining to this request message as specified in 3.6.4.1.2.1.1.

REQ_PURPOSE - Request purpose.

The base station shall set this field to the appropriate REQ_PURPOSE code from Table 3.7.3.3.2.18-1 to indicate the purpose of the message.

**Table 3.7.3.3.2.18-1. REQ_PURPOSE Codes**

<table>
<thead>
<tr>
<th>REQ_PURPOSE (binary)</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>0001</td>
<td>Indicates that the purpose of this message is to reject a proposed service configuration.</td>
</tr>
<tr>
<td>0010</td>
<td>Indicates that the purpose of this message is to propose a service configuration.</td>
</tr>
</tbody>
</table>

All other REQ_PURPOSE codes are reserved.

If the REQ_PURPOSE code is set to '0010', the base station shall include one occurrence of the following three-field record to specify the proposed service configuration; otherwise, the base station shall not include the following record.

RECORD_TYPE - Information record type.
The base station shall set this field to the record type value shown in Table 3.7.5-1 corresponding to the Service Configuration information record.

**RECORD_LEN** - Information record length.

The base station shall set this field to the number of octets included in the type-specific fields of the Service Configuration information record.

**Type-specific fields** - Type-specific fields.

The base station shall set these fields as specified in 3.7.5.7 for the Service Configuration information record.
3GPP2 C.S0005-A v6.0

3.7.3.3.2.19 Service Response Message

MSG_TAG: SRPM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SERV_REQ_SEQ</td>
<td>3</td>
</tr>
<tr>
<td>RESP_PURPOSE</td>
<td>4</td>
</tr>
</tbody>
</table>

Zero or one occurrence of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>$8 \times$ RECORD_LEN</td>
</tr>
</tbody>
</table>

SERV_REQ_SEQ - Service request sequence number.

The base station shall set this field to the value of the SERV_REQ_SEQ field in the Service Request Message to which it is responding.

RESP_PURPOSE - Response purpose.

The base station shall set this field to the appropriate RESP_PURPOSE code from Table 3.7.3.3.2.19-1 to indicate the purpose of the message.

Table 3.7.3.3.2.19-1. RESP_PURPOSE Codes

<table>
<thead>
<tr>
<th>RESP_PURPOSE (binary)</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>0001</td>
<td>Indicates that the purpose of the message is to reject a proposed service configuration.</td>
</tr>
<tr>
<td>0010</td>
<td>Indicates that the purpose of the message is to propose a service configuration.</td>
</tr>
</tbody>
</table>

All other RESP_PURPOSE codes are reserved.

If the RESP_PURPOSE code is set to ‘0010’, the base station shall include one occurrence of the following three-field record to specify the proposed service configuration; otherwise, the base station shall not include the following record.

RECORD_TYPE - Information record type.
The base station shall set this field to the record type value shown in Table 3.7.5-1 corresponding to the Service Configuration information record.

**RECORD_LEN** - Information record length.

The base station shall set this field to the number of octets included in the type-specific fields of the Service Configuration information record.

**Type-specific fields** - Type-specific fields.

The base station shall set these fields as specified in 3.7.5.7 for the Service Configuration information record.
3.7.3.3.2.20 Service Connect Message

**MSG_TAG: SCM**

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE_TIME</td>
<td>1</td>
</tr>
<tr>
<td>ACTION_TIME</td>
<td>6</td>
</tr>
<tr>
<td>SERV_CON_SEQ</td>
<td>3</td>
</tr>
<tr>
<td>RESERVED</td>
<td>42</td>
</tr>
<tr>
<td>USE_OLD_SERV_CONFIG</td>
<td>42</td>
</tr>
<tr>
<td>SYNC_ID_INCL</td>
<td>1</td>
</tr>
<tr>
<td>SYNC_ID_LEN</td>
<td>0 or 4</td>
</tr>
<tr>
<td>SYNC_ID</td>
<td>0 or (8 x</td>
</tr>
<tr>
<td></td>
<td>SYNC_ID_LEN)</td>
</tr>
</tbody>
</table>

Zero or one occurrence of the following three-field record:

<table>
<thead>
<tr>
<th>RECORD_TYPE</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>8 x RECORD_LEN</td>
</tr>
</tbody>
</table>

Zero or one occurrence of the following three-field record:

<table>
<thead>
<tr>
<th>RECORD_TYPE</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>8 x RECORD_LEN</td>
</tr>
</tbody>
</table>

CC_INFO_INCL | 0 or 1 |
NUM_CALLS_ASSIGN | 0 or 8 |

NUM_CALLS_ASSIGN occurrences of the following variable length record:

| CON_REF | 8 |
| RESPONSE_IND | 1 |
| TAG     | 0 or 4 |
| BYPASS_ALERT_ANSWER | 0 or 1 |

**USE_TIME** - Use action time indicator.
This field indicates whether an explicit action time is specified in this message.

If an explicit action time is specified in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**ACTION_TIME** - Action time.

If the USE_TIME field is set to ‘1’, the base station shall set this field to the System Time, in units of 80 ms (modulo 64), at which the specified service configuration is to take effect. If the USE_TIME field is set to ‘0’ the base station shall set this field to ‘000000’.

**SERV_CON_SEQ** - Connect sequence number.

The base station shall set this field to the connect sequence number pertaining to this connect message as specified in 3.6.4.1.2.1.2.

**RESERVED** - Reserved bits.

The base station shall set this field to ‘0000’.

**USE_OLD-_SERV_CONFIG** - Use stored service configuration indicator.

This field may be used by the base station to instruct the mobile station to use the stored service configuration (that is, both the Service Configuration information record and the Non-negotiable Service Configuration information record) if based on the value of the 16-bit CRC computed over the new service configuration (see 2.6.11) matches the SYNC_ID that the mobile station has reported in the Origination Message or Page Response Message.

If MOB_P_REV is less than seven, the base station shall set this field to ‘00’.

---

—or if a service configuration has been sent successfully to the mobile station upon entering the Traffic Channel Substate, the base station shall set this field to ‘00’; otherwise, the base station shall set this field according to Table 3.7.3.3.2.20-1 as follows:
### Table 3.7.3.2.20-1. USE_OLD_SERV_CONFIG values

<table>
<thead>
<tr>
<th>USE_OLD_SERV_CONFIG Field (binary)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Mobile Station is to use the SCR and NNSCR included in this message</td>
</tr>
<tr>
<td>01</td>
<td>Mobile Station is to use the stored service configuration</td>
</tr>
<tr>
<td>10</td>
<td>Mobile Station is to use the stored service configuration but with the modifications specified by the SCR and NNSCR included in this message</td>
</tr>
<tr>
<td>11</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

If the base station is to direct the mobile station to use the stored service configuration (that is, both the Service Configuration information record and the Non-negotiable Service Configuration information record), the base station shall set this field to ‘1’; otherwise the base station shall set this field to ‘0’.

SYNC_ID_INCL - Service Configuration synchronization identifier included indicator.

If MOB_P_REV is less than seven or USE_OLD_SERV_CONFIG field is set to ‘01’, the base station shall set this field to ‘0’. The base station shall set this field to ‘1’ if the SYNC_ID field is included in this message; otherwise, the base station shall set this field to ‘0’.

SYNC_ID_LEN - Service Configuration synchronization identifier length.

If the SYNC_ID_INCL field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:
The base station shall set this field to the length (in octets) of the SYNC_ID field included in this message. The base station shall set this field to a value larger than zero.

SYNC_ID - Service Configuration synchronization identifier.

If the SYNC_ID_INCL field is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to the synchronization identifier corresponding to the service configuration conveyed by this message.

If USE_OLD_SERV_CONFIG is equal to '0', the base station shall omit the following record; otherwise the base station shall include one occurrence of the following three-field record to specify the service configuration.

RECORD_TYPE - Information record type.

The base station shall set this field to the record type value shown in Table 3.7.5-1 corresponding to the Service Configuration information record.

RECORD_LEN - Information record length.

The base station shall set this field to the number of octets included in the type-specific fields of the Service Configuration information record.

Type-specific fields - Type-specific fields.

The base station shall set these fields as specified in 3.7.5.7 for the Service Configuration information record.

If USE_OLD_SERV_CONFIG is equal to '0', the base station shall omit the following record; otherwise the base station shall include one occurrence of the following three-field record to specify the non-negotiable service configuration parameters.

RECORD_TYPE - Information record type.

The base station shall set this field to the record type value shown in Table 3.7.5-1 corresponding to the Non-Negotiable Service Configuration information record.

RECORD_LEN - Information record length.

The base station shall set this field to the number of octets included in the type-specific fields of the Non-Negotiable Service Configuration information record.

Type-specific fields - Type-specific fields.

The base station shall set these fields as specified in 3.7.5.20 for the Non-Negotiable Service Configuration information record.
CC_INFO_INCL - Call Control information included indicator.

If the USE_OLD_SERV_CONFIG field is set to '01' or '10', the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to '1' if Call Control related parameters (to assign new call(s)) are included in this message; otherwise, the base station shall set this field to '0'.

NUM_CALLS_ASSIGN - Number of call assignments.

If the CC_INFO_INCL field is not included or is included but is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to the number of new call assignments included in this message.

The base station shall include NUM_CALLS_ASSIGN occurrences of the following variable length record.

CON_REF - Connection reference.

The base station shall set this field to the connection reference of the service option connection corresponding to this call.

RESPONSE_IND - Response indicator.

The base station shall set this field to '1' if this call assignment is a response to an Enhanced Origination Message from the mobile station; otherwise, the base station shall set this field to '0'.

TAG - Transaction identifier.

If the RESPONSE_IND field is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to the value of the TAG field received in the Enhanced Origination Message to which this call assignment is the response.

BYPASS_ALERT- _ANSWER - Bypass alert indicator.
If the RESPONSE_IND field is set to ‘1’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

If the mobile station is to bypass the *Waiting for Order Substate* and the *Waiting for Mobile Station Answer Substate* for this call, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.
3.7.3.3.2.21 Service Option Control Message

MSG_TAG: SOCM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE_TIME</td>
<td>1</td>
</tr>
<tr>
<td>ACTION_TIME</td>
<td>6</td>
</tr>
<tr>
<td>CON_REF</td>
<td>8</td>
</tr>
<tr>
<td>SERVICE_OPTION</td>
<td>16</td>
</tr>
<tr>
<td>CTL_REC_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>8 x CTL_REC_LEN</td>
</tr>
</tbody>
</table>

USE_TIME - Use action time indicator.

This field indicates whether an explicit action time is specified in this message.

If an explicit action time is specified in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

ACTION_TIME - Action time.

If the USE_TIME field is set to ‘1’, the base station shall set this field to the System Time, in units of 80 ms (modulo 64), at which the message is to take effect. If the USE_TIME field is set to ‘0’ the base station shall set this field to ‘000000’.

CON_REF - Service option connection reference.

The base station shall set this field to the reference for the service option connection.

SERVICE_OPTION - Service option.

The base station shall set this field to the service option in use with the service option connection.

CTL_REC_LEN - Service option control record length.

The base station shall set this field to the number of octets included in the type-specific fields of this service option control record.

Type-specific fields - Type-specific fields.

The base station shall set these fields as specified by the requirements for the service option, which are defined external to this specification. See relevant service option specification.
3.7.3.3.22 TMSI Assignment Message

**MSG_TAG**: TASM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TMSI_ZONE_LEN</td>
<td>4</td>
</tr>
<tr>
<td>TMSI_ZONE</td>
<td>$8 \times \text{TMSI_ZONE_LEN}$</td>
</tr>
<tr>
<td>TMSI_CODE</td>
<td>32</td>
</tr>
<tr>
<td>TMSI_EXP_TIME</td>
<td>24</td>
</tr>
</tbody>
</table>

- **TMSI_ZONE_LEN** - TMSI zone length.
  - The base station shall set this field to the number of octets included in the TMSI_ZONE. The base station shall set this field to a value in the range 1 to 8 inclusive.

- **TMSI_ZONE** - TMSI zone.
  - The base station shall set this field to the TMSI zone number, as specified in [27].

- **TMSI_CODE** - Temporary mobile station identity code.
  - The base station shall set this field to the 32-bit TMSI code assigned to the mobile station.
  - If the base station is to deassign the TMSI, the base station shall set all the bits in this field to ‘1’.

- **TMSI_EXP_TIME** - TMSI expiration time.
  - The base station shall set this field to the System Time in the units of $80 \text{ ms} \times 2^{12}$ when the TMSI is to expire.
### 3.7.3.3.2.23 Service Redirection Message

**MSG_TAG:** SRDM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RETURN_IF_FAIL</td>
<td>1</td>
</tr>
<tr>
<td>DELETE_TMSI</td>
<td>1</td>
</tr>
<tr>
<td>REDIRECT_TYPE</td>
<td>1</td>
</tr>
</tbody>
</table>

One or more occurrences of the following field:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>(8 \times \text{RECORD_LEN})</td>
</tr>
</tbody>
</table>

**RETURN_IF_FAIL** - Return if fail indicator.

The base station shall set this field to ‘1’ if the mobile station is required to return to the system from which it is being redirected upon failure to obtain service using the redirection criteria specified in this message; otherwise, the base station shall set this field to ‘0’.

**DELETE_TMSI** - Delete TMSI indicator.

The base station shall set this field to ‘1’ if the mobile station is required to delete the TMSI assigned to the mobile station; otherwise, the base station shall set this field to ‘0’.

**REDIRECT_TYPE** - Redirect indicator.

The base station shall set this field to the REDIRECT_TYPE value shown in Table 3.7.2.3.2.16-1 corresponding to the redirection type.

The base station shall include one occurrence of the following record:

**RECORD_TYPE** - Redirection record type.

The base station shall set this field to the RECORD_TYPE value shown in Table 3.7.2.3.2.16-2 corresponding to the type of redirection specified by this record.

**RECORD_LEN** - Redirection record length.

If RECORD_TYPE equals to ‘00000000’, the base station shall set this field to ‘00000000’; otherwise, the base station shall set this field to the number of octets in the type-specific fields of this redirection record.

**Type-specific fields** - Redirection record type-specific fields.
The base station shall include type-specific fields based on the RECORD_TYPE of this redirection record.

If RECORD_TYPE is equal to ‘00000000’, the base station shall not include the type-specific fields.

If RECORD_TYPE is equal to ‘00000001’, the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXPECTED_SID</td>
<td>15</td>
</tr>
<tr>
<td>IGNORE_CDMA</td>
<td>1</td>
</tr>
<tr>
<td>SYS_ORDERING</td>
<td>3</td>
</tr>
<tr>
<td>RESERVED</td>
<td>5</td>
</tr>
</tbody>
</table>

EXPECTED_SID - Expected SID.

If the base station is redirecting the mobile station to a specific system, the base station shall set this field to the SID of that system; otherwise, the base station shall set this field to 0.

IGNORE_CDMA - Ignore CDMA Available indicator.

The base station shall set this field to ‘1’ to indicate that the mobile station is to ignore the CDMA Capability Message on the analog system to which it is being redirected. The base station shall set this field to ‘0’ to indicate that the mobile station may discontinue service on the system to which it is being redirected if the mobile station receives a CDMA Capability Message with CDMA_AVAIL equal to ‘1’, and the preferred mode of the mobile station is CDMA.

SYS_ORDERING - System ordering.

The base station shall set this field to the SYS_ORDERING value shown in Table 3.7.2.3.2.16-3 corresponding to the order in which the mobile station is to attempt to obtain service on an analog system.

RESERVED - Reserved bits.

The base station shall set this field to ‘00000’.

If RECORD_TYPE is equal to ‘00000010’, the base station shall include the following fields:
<table>
<thead>
<tr>
<th>Subfield</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAND_CLASS</td>
<td>5</td>
</tr>
<tr>
<td>EXPECTED_SID</td>
<td>15</td>
</tr>
<tr>
<td>EXPECTED_NID</td>
<td>16</td>
</tr>
<tr>
<td>RESERVED</td>
<td>4</td>
</tr>
<tr>
<td>NUM_CHANS</td>
<td>4</td>
</tr>
</tbody>
</table>

NUM_CHANS occurrences of the following field:

| CDMA_CHAN | 11 |

| RESERVED | 0-7 (as needed) |

1. **BAND_CLASS** - Band class.
   - The base station shall set this field to the CDMA band class, as specified in [30].

2. **EXPECTED_SID** - Expected SID.
   - If the base station is redirecting the mobile station to a specific system, the base station shall set this field to the SID of that system; otherwise, the base station shall set this field to 0.

3. **EXPECTED_NID** - Expected NID.
   - If the base station is redirecting the mobile station to a specific network, the base station shall set this field to the NID of that network; otherwise, the base station shall set this field to 65535.

4. **RESERVED** - Reserved bits.
   - The base station shall set this field to ‘0000’.

5. **NUM_CHANS** - Number of CDMA Channels.
   - The base station shall set this field to the number of occurrences of the CDMA_CHAN field in this record.

6. **CDMA_CHAN** - CDMA Channel number.
   - For each CDMA Channel on which the mobile station is to attempt to acquire a CDMA system, the base station shall include one occurrence of this field specifying the associated CDMA Channel number.

7. **RESERVED** - Reserved bits.
   - The base station shall add reserved bits as needed in order to make the length of the entire record equal to an integer number of octets. The base station shall set these bits to ‘0’.
3.7.3.3.2.24 Supplemental Channel Assignment Message

MSG_TAG: SCAM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE_RETRY_DELAY</td>
<td>1</td>
</tr>
<tr>
<td>RETRY_DELAY</td>
<td>0 or 8</td>
</tr>
<tr>
<td>REV_INCLUDED</td>
<td>1</td>
</tr>
</tbody>
</table>

Include the following record only if REV_INCLUDED is set to ‘1’:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REV_DTX_DURATION</td>
<td>4</td>
</tr>
<tr>
<td>EXPL_REV_START_TIME</td>
<td>1</td>
</tr>
<tr>
<td>REV_START_TIME</td>
<td>0 or 6</td>
</tr>
<tr>
<td>USE_REV_DURATION</td>
<td>1</td>
</tr>
<tr>
<td>REV_DURATION</td>
<td>0 or 8</td>
</tr>
<tr>
<td>USE_REV_HDM_SEQ</td>
<td>1</td>
</tr>
<tr>
<td>REV_LINKED_HDM_SEQ</td>
<td>0 or 2</td>
</tr>
<tr>
<td>NUM_REV_CODES</td>
<td>3</td>
</tr>
<tr>
<td>USE_T_ADD_ABORT</td>
<td>1</td>
</tr>
<tr>
<td>USE_SCRM_SEQ_NUM</td>
<td>1</td>
</tr>
<tr>
<td>SCRM_SEQ_NUM</td>
<td>0 or 4</td>
</tr>
<tr>
<td>REV_PARMS_INCLUDED</td>
<td>1</td>
</tr>
<tr>
<td>T_MULCHAN</td>
<td>0 or 3</td>
</tr>
<tr>
<td>BEGIN_PREAMBLE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RESUME_PREAMBLE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>FOR_INCLUDED</td>
<td>1</td>
</tr>
</tbody>
</table>

(continues on next page)
Include the following record only if FOR_INCLUDED is set to ‘1’:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR_SUP_CONFIG</td>
<td>2</td>
</tr>
<tr>
<td>EXPL_FOR_START_TIME</td>
<td>0 or 1</td>
</tr>
<tr>
<td>FOR_START_TIME</td>
<td>0 or 6</td>
</tr>
<tr>
<td>USE_FOR_DURATION</td>
<td>1</td>
</tr>
<tr>
<td>FOR_DURATION</td>
<td>0 or 8</td>
</tr>
<tr>
<td>USE_FOR_HDM_SEQ</td>
<td>0 or 1</td>
</tr>
<tr>
<td>FOR_LINKED_HDM_SEQ</td>
<td>0 or 2</td>
</tr>
</tbody>
</table>

Include the following fields and records only if FOR_INCLUDED is set to ‘1’ and FOR_SUP_CONFIG is set to ‘10’ or ‘11’:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUM_SUP_PILOTS</td>
<td>3</td>
</tr>
<tr>
<td>NUM_FOR_SUP</td>
<td>3</td>
</tr>
</tbody>
</table>

Include NUM_SUP_PILOTS occurrences of the following record only if FOR_INCLUDED is set to ‘1’ and FOR_SUP_CONFIG is set to ‘10’ or ‘11’:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>EXPL_CODE_CHAN</td>
<td>1</td>
</tr>
</tbody>
</table>

If EXPL_CODE_CHAN is set to ‘1’, for each PILOT_PN include NUM_FOR_SUP occurrences of the following field:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>SUP_CODE_CHAN</td>
<td>0 or 8</td>
</tr>
</tbody>
</table>

If EXPL_CODE_CHAN is set to ‘0’, the following field is included:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>BASE_CODE_CHAN</td>
<td>0 or 8</td>
</tr>
</tbody>
</table>

USE_RETRY_DELAY - Assign or Retry Indicator.

The base station shall set this field to ‘1’ to indicate that this message contains a retry delay time; otherwise, the base station shall set this field to ‘0’ to indicate that no RETRY_DELAY has been included.

RETRY_DELAY - Supplemental Channel Request Message retry delay.
If USE_RETRY_DELAY is set to ‘1’, the base station shall include and set this field to the duration of the delay interval in units of 320 ms (4 frames) from the next 80 ms system time boundary during which the mobile station is not permitted to send a Supplemental Channel Request Message. The base station shall set RETRY_DELAY to ‘11111111’ to indicate that the mobile station is to refrain from sending Supplemental Channel Request Messages indefinitely.

REV_INCLUDED - Reverse Supplemental Code Channel configuration indicator.

The base station shall set this field to ‘1’ to indicate that this message contains assignment information for Reverse Supplemental Code Channels; otherwise, the base station shall set this field to ‘0’.

If REV_INCLUDED is set to ‘1’, then the base station shall include the following fields, otherwise the base station shall omit the following fields:

REV_DTX_DURATION - Reverse Discontinuous Transmission Duration.

The base station shall set this field to the maximum duration of time in units of 20 ms that the mobile station is allowed to stop transmission on a Reverse Supplemental Code Channel within the reverse assignment duration. The base station shall set this field to ‘0000’ if the mobile station is to stop using a Reverse Supplemental Code Channel once it has stopped transmitting on that Reverse Supplemental Code Channel. The base station shall set this field to ‘1111’ if the mobile station is allowed to resume transmission on a Reverse Supplemental Code Channel at any time within the reverse assignment duration.

EXPL_REV_START_TIME - Explicit Reverse Supplemental Code Channel assignment start time indicator.

This field indicates whether a start time for the specified Reverse Supplemental Channel Assignment is specified in this message. If a REV_START_TIME is specified in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’. If EXPL_REV_START_TIME is set to ‘1’, then the base station shall set USE_REV_HDM_SEQ to ‘0’.

REV_START_TIME - Explicit start time for Reverse Supplemental Code Channel assignment.

If EXPL_REV_START_TIME is included and set to ‘1’, the base station shall include and set this field to the System Time, in units of 80 ms (modulo 64), at which the mobile station may start transmitting on the specified number of Reverse Supplemental Code Channels. If EXPL_REV_START_TIME is omitted or set to ‘0’, the base station shall omit this field.

USE_REV_DURATION - Use reverse duration indicator.
REV_DURATION - Duration of Reverse Supplemental Code Channel assignment.

The base station shall include this field only if the USE_REV_DURATION field is included and set to ‘1’. If this field is included, this field indicates the allocated duration, in units of 80 ms, during which the mobile station may transmit on Reverse Supplemental Code Channels.

USE_REV_HDM_SEQ - Use Reverse General Handoff Direction Message sequence number indicator.

The base station shall set this field to ‘1’ to indicate that this Reverse Supplemental Code Channel assignment shall take effect at the same time as a corresponding General Handoff Direction Message; otherwise, the base station shall set this field to ‘0’. If USE_REV_HDM_SEQ is set to ‘1’, then the base station shall set EXPL_REV_START_TIME to ‘0’.

REV_LINKED_HDM_SEQ - Sequence number of the reverse linked General Handoff Direction Message.

If USE_REV_HDM_SEQ is included and set to ‘1’, then the base station shall set this field to the sequence number of the General Handoff Direction Message (HDM_SEQ) to which this Reverse Supplemental Code Channel assignment is linked.

NUM_REV_CODES - Number of Reverse Supplemental Code Channels.

The base station shall set this field to the number of Reverse Supplemental Code Channels that are assigned to the mobile station.

USE_T_ADD_ABORT - Reverse use T_ADD abort indicator.

The base station shall set this field to ‘1’ to indicate that the mobile station is to utilize the T_ADD Reverse Supplemental Code Channel abort feature for this reverse assignment; otherwise, the base station shall set this field to ‘0’.

USE_SCRM_SEQ_NUM - Use Supplemental Channel Request Message sequence number indicator.

The base station shall set this field to ‘1’ if the SCRM_SEQ_NUM field is included in this message; otherwise, the base station shall set this field to ‘0’.

SCRM_SEQ_NUM - Supplemental Channel Request Message sequence number.
If USE_SCRM_SEQ_NUM is set to ‘1’, the base station shall set this field to the sequence number corresponding to the SCRM_SEQ_NUM field in a Supplemental Channel Request Message to which the mobile station is to match this message; otherwise, the base station shall omit this field.

**REV_PARMS_INCLUDED** - Reverse additional parameters included flag.

The base station shall set this field to ‘1’ if the following three fields (T_MULCHAN, BEGIN_PREAMBLE, and RESUME_PREAMBLE) are included in this message; otherwise, the base station shall set this field to ‘0’.

**T_MULCHAN** - Supplemental Channel Request Message pilot strength reporting offset.

If REV_PARMS_INCLUDED is set to ‘1’, the base station shall include this field and set this field to the threshold offset that the mobile station is to use when reporting neighbor pilot strength measurements in a Supplemental Channel Request Message. The mobile station is to interpret this field as an offset to T_ADD ranging from 0.5 dB (corresponding to T_MULCHAN = ‘000’) to 4.0 dB (corresponding to T_MULCHAN = ‘111’) in 0.5 dB increments.

**BEGIN_PREAMBLE** - Number of preamble frames on Reverse Supplemental Code Channels at the beginning of transmission on Reverse Supplemental Code Channel.

If REV_PARMS_INCLUDED is set to ‘1’, the base station shall include this field and set this field to the number of Reverse Supplemental Code Channel preamble frames that the mobile station is to send when beginning transmission on Reverse Supplemental Code Channels.

**RESUME_PREAMBLE** - Number of preamble frames on Reverse Supplemental Code Channels at the resumption of transmission.

If REV_PARMS_INCLUDED is set to ‘1’, the base station shall include this field and set this field to the number of Reverse Supplemental Code Channel preamble frames that the mobile station is to send when resuming transmission on a Reverse Supplemental Code Channel following an autonomous suspension of transmission on an allocated Supplemental Code Channel.

**FOR_INCLUDED** - Forward Supplemental Code Channel configuration indicator.

The base station shall set this field to ‘1’ to indicate that this message contains assignment information for Forward Supplemental Code Channels; otherwise, the base station shall set this field to ‘0’.

If FOR_INCLUDED is set to ‘1’, then the base station shall include the remaining fields in this message, otherwise the base station shall omit all of the following except for RESERVED.

**FOR_SUP_CONFIG** - Forward Supplemental Code Channel configuration indicator.
The base station shall set this field to ‘00’ to indicate that the mobile station is to stop processing the Forward Supplemental Code Channels at the implicit action time of the message.

The base station shall set this field to ‘01’ to indicate that the mobile station is to start processing the Forward Supplemental Code Channels in the Code Channel List at the implicit, explicit, or linked start time specified by this message (see 2.6.6.2.5.1).

The base station shall set this field to ‘10’ if the Forward Supplemental Code Channels are specified in the message and the mobile station is to update its Code Channel List and stop processing the Forward Supplemental Code Channels at the implicit action time of the message.

The base station shall set this field to ‘11’ if the Forward Supplemental Code Channels are specified in the message and the mobile station is to start processing the Forward Supplemental Code Channels at the implicit, explicit, or linked start time specified by this message (see 2.6.6.2.5.1).

**EXPL_FOR_START_TIME** - Explicit forward start time indicator.

This field indicates whether an explicit Forward Supplemental Code Channel start time is specified in this message.

The base station shall include this field only if FOR_SUP_CONFIG is set to ‘01’ or ‘11’. If a FOR_START_TIME is specified in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’. If EXPL_FOR_START_TIME is set to ‘1’, then the base station shall set USE_FOR_HDM_SEQ to ‘0’.

The following field is included only if EXPL_FOR_START_TIME is included and set to ‘1’:

**FOR_START_TIME** - Start time of the Forward Supplemental Code Channel assignment.

The base station shall include this field only if FOR_SUP_CONFIG is set to ‘01’ or ‘11’. If the EXPL_FOR_START_TIME field is set to ‘1’, the base station shall set this field to the System Time, in units of 80 ms (modulo 64), at which the mobile station is to start processing the Forward Supplemental Code Channels. If EXPL_FOR_START_TIME is set to ‘0’ the base station shall omit this field.

**USE_FOR_DURATION** - Use forward duration indicator.

The base station shall set this field to ‘1’ if FOR_DURATION is included in the message; otherwise, the base station shall set this field to ‘0’.
If FOR_SUP_CONFIG is set to ‘01’ or ‘11’, then the base station may set this field to ‘0’ to indicate that the mobile station is to be assigned an infinite Forward Supplemental Code Channel assignment duration (i.e., the mobile station is to continue processing Forward Supplemental Code Channels until it receives a subsequent Supplemental Channel Assignment Message or a General Handoff Direction Message that specifies an updated FOR_DURATION). Otherwise, the base station may set this field to ‘1’ to indicate that the mobile station is to be given a Forward Supplemental Code Channel assignment for the duration specified by the FOR_DURATION field.

If FOR_SUP_CONFIG is set to ‘00’ or ‘10’, then the base station shall set USE_FOR_DURATION to ‘0’.

**FOR_DURATION** - Duration of Forward Supplemental Code Channel assignment.

The base station shall include this field only if USE_FOR_DURATION is included and set to ‘1’. If this field is included, this field indicates allocated duration, in units of 80 ms, during which the mobile station is to process the Forward Supplemental Code Channels.

**USE_FOR_HDM_SEQ** - Use Forward General Handoff Direction Message sequence number indicator.

This field indicates whether processing of the Forward Supplemental Code Channels shall take effect at the same time as a corresponding General Handoff Direction Message.

The base station shall include this field only if FOR_SUP_CONFIG is equal to ‘01’ or ‘11’. If this message is linked with a General Handoff Direction Message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’. If USE_FOR_HDM_SEQ is set to ‘1’, then the base station shall set EXPL_FOR_START_TIME to ‘0’.

**FOR_LINKED_HDM_SEQ** - Sequence number of the General Handoff Direction Message.

If the USE_FOR_HDM_SEQ field is included and set to ‘1’, the base station shall set this field to the sequence number of the General Handoff Direction Message (HDM_SEQ) to which this Forward Supplemental Code Channel assignment is linked; otherwise, if USE_FOR_HDM_SEQ is not included or is set to ‘0’, then base station shall omit this field.

**NUM_SUP_PILOTS** - Number of pilots in the Active Set which have at least one associated Supplemental Code Channel.

If FOR_SUP_CONFIG is included and is set to ‘10’ or ‘11’, the base station shall include this field and shall set this field to the number of pilots for which there is at least one associated Supplemental Code Channel. This field shall not be included if FOR_SUP_CONFIG is omitted or is set to ‘01’ or ‘00’.

**NUM_FOR_SUP** - Number of Forward Supplemental Code Channels.
If FOR_SUP_CONFIG is included and is set to ‘10’ or ‘11’, the base station shall include this field and shall set this field to the number of Forward Supplemental Code Channels assigned to the mobile station. NUM_FOR_SUP shall not exceed the maximum number of Forward Supplemental Code Channels for the negotiated multiplex option. This field shall not be included if FOR_SUP_CONFIG is omitted or is set to ‘01’ or ‘00’.

If FOR_SUP_CONFIG is included and is set to ‘10’ or ‘11’, the base station shall include NUM_SUP_PILOTS occurrences of the following record, one for each pilot for which there is at least one associated Supplemental Code Channel:

- **PILOT_PN** - Pilot PN sequence offset index.
  - The base station shall set this field to the pilot PN sequence offset for this pilot in units of 64 PN chips.

- **EXPL_CODE_CHAN** - Explicit code channel indicator
  - The base station shall set this field to ‘1’ to indicate explicit assignment of each Forward Supplemental Code Channel. The base station shall set this field to ‘0’ if the mobile station is to use NUM_FOR_SUP successive code channels beginning with index BASE_CODE_CHAN (i.e., BASE_CODE_CHAN through BASE_CODE_CHAN + NUM_FOR_SUP – 1). In both cases (i.e., the explicit code channel list format and range format), the order of the code channel indices is the same for all the pilots specified in this message (i.e., the \(i^{th}\) code channel index in the list for each pilot PN sequence offset indicates the appropriate code channel to be used for the \(i^{th}\) Forward Supplemental Code Channel).

If EXPL_CODE_CHAN is set to ‘1’, then the base station shall include NUM_FOR_SUP occurrences of the following field, one for each pilot which has been included:

- **SUP_CODE_CHAN** - Supplemental Code Channel index.
  - The base station shall set this field to the code channel index (see [2]) in the range 1 to 63 inclusive of the Supplemental Code Channel associated with this pilot.

If EXPL_CODE_CHAN is set to ‘0’ then the base station shall include the following field:

- **BASE_CODE_CHAN** - Base code channel index.
  - If EXPL_CODE_CHAN is equal to ‘0’ the base station shall include this field and set it to the base code channel index (see [2]) in the range of 1 to \((63 - \text{NUM_FOR_SUP} + 1)\), inclusive, that the mobile station is to use as the first Forward Supplemental Code Channel associated with this pilot. The mobile station is to use NUM_FOR_SUP successive code channels beginning with index BASE_CODE_CHAN (i.e., BASE_CODE_CHAN through BASE_CODE_CHAN + NUM_FOR_SUP – 1) for the Forward Supplemental Code Channels associated with this pilot.
The base station shall not include this field if 
EXPL_CODE_CHAN is equal to ‘1’ or if EXPL_CODE_CHAN is 
not included.
### 3.7.3.3.2.25 Power Control Message

**MSG_TAG: PCNM**

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PWR_CNTL_STEP</td>
<td>3</td>
</tr>
<tr>
<td>USE_TIME</td>
<td>1</td>
</tr>
<tr>
<td>ACTION_TIME</td>
<td>0 or 6</td>
</tr>
<tr>
<td>FPC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>FPC_MODE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>FPC_PRI_CHAN</td>
<td>0 or 1</td>
</tr>
<tr>
<td>FPC_OLP_C_FCH_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>FPC_FCH_FER</td>
<td>0 or 5</td>
</tr>
<tr>
<td>FPC_FCH_MIN_SETPT</td>
<td>0 or 8</td>
</tr>
<tr>
<td>FPC_FCH_MAX_SETPT</td>
<td>0 or 8</td>
</tr>
<tr>
<td>FPC_OLP_DCCH_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>FPC_DCCH_FER</td>
<td>0 or 5</td>
</tr>
<tr>
<td>FPC_DCCH_MIN_SETPT</td>
<td>0 or 8</td>
</tr>
<tr>
<td>FPC_DCCH_MAX_SETPT</td>
<td>0 or 8</td>
</tr>
<tr>
<td>FPC_SEC_CHAN</td>
<td>0 or 1</td>
</tr>
<tr>
<td>NUMSUP</td>
<td>0 or 2</td>
</tr>
</tbody>
</table>

Include NUMSUP occurrence of the following four fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCH_ID</td>
<td>1</td>
</tr>
<tr>
<td>FPC_SCH_FER</td>
<td>5</td>
</tr>
<tr>
<td>FPC_SCH_MIN_SETPT</td>
<td>8</td>
</tr>
<tr>
<td>FPC_SCH_MAX_SETPT</td>
<td>8</td>
</tr>
<tr>
<td>FPC_THRESH_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>Field</td>
<td>Length (bits)</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>FPC_SETPT_THRESH</td>
<td>0 or 8</td>
</tr>
<tr>
<td>FPC_THRESH_SCH_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>FPC_SETPT_THRESH_SCH</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RPC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>RPC_NUM_REC</td>
<td>0 or 2</td>
</tr>
</tbody>
</table>

If RPC INCL is set to ‘1’, RPC_NUM_REC occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RPC_ADJ_REC_TYPE</td>
<td>4</td>
</tr>
<tr>
<td>RPC_ADJ_REC_LEN</td>
<td>5</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>$8 \times$ RPC_ADJ_REC_LEN</td>
</tr>
</tbody>
</table>

**PWR_CNTL_STEP** - Power control step size

The base station shall set this field to the closed loop power control step size parameter shown in Table 3.7.3.3.2.25-1 corresponding to the power control step size that the mobile station is to use for closed loop power control.

**Table 3.7.3.3.2.25-1. Closed Loop Power Control Step Size**

<table>
<thead>
<tr>
<th>PWR_CNTL_STEP (binary)</th>
<th>Power Control Step Size (dB nominal)</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>1</td>
</tr>
<tr>
<td>001</td>
<td>0.5</td>
</tr>
<tr>
<td>010</td>
<td>0.25</td>
</tr>
</tbody>
</table>

All other PWR_CNTL_STEP values are reserved.

**USE_TIME** - Use action time indicator.

This field indicates whether an ACTION_TIME is specified in this message.

If an ACTION_TIME is specified in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**ACTION_TIME** - Action time.

If the USE_TIME field is set to ‘1’, the base station shall set this field to the System Time, in units of 80 ms (modulo 64), at which the message is to take effect. If the USE_TIME field is set to ‘0’ the base station shall omit this field.
FPC_INCL - Forward Link Power Control parameter included indicator.
If the forward power control related information is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

FPC_MODE - Forward Power Control Operation Mode Indicator
If FPC_INCL is set to ‘0’ the base station shall omit this field; otherwise, the base station shall set this field as follows:
The base station shall set the value to the forward power control operation mode (see [2]).

FPC_PRI_CHAN - Power Control Subchannel indicator.
If FPC_INCL is set to ‘0’ the base station shall omit this field; otherwise, the base station shall set this field as follows:
The base station shall set this field to ‘0’ if the mobile station is to perform the primary inner loop estimation on the received Forward Fundamental Channel and the base station is to multiplex the Power Control Subchannel on the Forward Fundamental Channel. The base station shall set this field to ‘1’ if the mobile station is to perform the primary inner loop estimation on the received Forward Dedicated Control Channel and the base station is to multiplex the Power Control Subchannel on the Forward Dedicated Control Channel.
If only the Fundamental Channel is assigned, the base station shall set this field to ‘0’. If only the Dedicated Control Channel is assigned, the base station shall set this field to ‘1’.

FPC_OLPC_FCH_INCL - Fundamental Channel Outer Loop Power Control parameter included indicator.
If FPC_INCL is set to ‘0’ the base station shall omit this field; otherwise, the base station shall set this field as follows:
If the forward link fundamental channel outer loop power control parameters are included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

FPC_FCH_FER - Fundamental channel target Frame Error Rate.
If FPC_OLPC_FCH_INCL is included and set to ‘1’, the base station shall set this field to the target Frame Error Rate on the Forward Fundamental Channel, as specified in Table 3.7.3.3.2.25-2; otherwise, the base station shall omit this field.
Table 3.7.3.3.25-2.  Target Frame Error Rate

<table>
<thead>
<tr>
<th>FER (Binary)</th>
<th>Frame Error Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>00000</td>
<td>0.2%</td>
</tr>
<tr>
<td>00001-10100</td>
<td>0.5% -10% (in units of 0.5%)</td>
</tr>
<tr>
<td>10101-11001</td>
<td>11% - 15% (in units of 1.0%)</td>
</tr>
<tr>
<td>11010-11110</td>
<td>18% - 30% (in units of 3.0%)</td>
</tr>
<tr>
<td>11111</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

FPC_FCH_MIN_SETPT - Minimum Fundamental Channel Outer Loop Eb/Nt setpoint

If FPC_OLPC_FCH_INCL is included and set to ‘1’, the base station shall set this field to minimum Fundamental Channel Outer Loop Eb/Nt setpoint, in units of 0.125 dB; otherwise, the base station shall omit this field.

The base station shall set this field to ‘11111111’, when it directs the mobile station to set this Eb/No setpoint to the current setpoint used at the mobile station on this channel.

FPC_FCH_MAX_SETPT - Maximum Fundamental Channel Outer Loop Eb/Nt setpoint

If FPC_OLPC_FCH_INCL is included and set to ‘1’, the base station shall set this field to maximum Fundamental Channel Outer Loop Eb/Nt setpoint, in units of 0.125 dB; otherwise, the base station shall omit this field.

The base station shall set this field to ‘11111111’, when it directs the mobile station to set this Eb/No setpoint to the current setpoint used at the mobile station on this channel.

FPC_OLPC_DCCH_INCL - Dedicated Control Channel Outer Loop Power Control parameter included indicator.

If FPC_INCL is set to ‘0’ the base station shall omit this field; otherwise, the base station shall set this field as follows:

If the forward link Dedicated Control Channel outer loop power control parameters are included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

FPC_DCCH_FER - Dedicated Control Channel target Frame Error Rate.

If FPC_OLPC_DCCH_INCL is included and set to ‘1’, the base station shall set this field to the target Frame Error Rate on the Forward Dedicated Control Channel, as specified in Table 3.7.3.3.2.25-2; otherwise, the base station shall omit this field.

FPC_DCCH_MIN_SETPT - Minimum Dedicated Control Channel Outer Loop Eb/Nt setpoint.
If FPC_OLPC_DCCH_INCL is included and set to ‘1’, the base station shall set this field to minimum Dedicated Control Channel Outer Loop Eb/Nt setpoint, in units of 0.125 dB; otherwise, the base station shall omit this field.

The base station shall set this field to ‘11111111’, when it directs the mobile station to set this Eb/No setpoint to the current setpoint used at the mobile station on this channel.

**FPC_DCCH_MAX_SETPT** - Maximum Dedicated Control Channel Outer Loop Eb/Nt setpoint.

If FPC_OLPC_DCCH_INCL is included and set to ‘1’, the base station shall set this field to maximum Dedicated Control Channel Outer Loop Eb/Nt setpoint, in units of 0.125 dB; otherwise, the base station shall omit this field.

The base station shall set this field to ‘11111111’, when it directs the mobile station to set this Eb/No setpoint to the current setpoint used at the mobile station on this channel.

**FPC_SEC_CHAN** - Master Supplemental channel index.

If FPC_INCL is set to ‘1’ and FPC_MODE is set to ‘001’, ‘010’, ‘101’, or ‘110’, the base station shall set this field to the master Supplemental Channel index; otherwise, the base station shall omit this field.

**NUM_SUP** - Number of Supplemental Channels.

If FPC_INCL is set to ‘0’ the base station shall omit this field; otherwise, the base station shall set this field to the total number of the Supplemental Channels.

The base station shall include NUM_SUP occurrences of the following record:

**SCH_ID** - Supplemental channel index.

The base station shall set this field to the Supplemental Channel index.

**FPC_SCH_FER** - Supplemental channel target Frame Error Rate.

The base station shall set this field to the target Frame Error Rate on the Supplemental Channel, as specified in Table 3.7.3.3.2.25-2.

**FPC_MIN_SCH_SETPT** - Minimum Supplemental Channel outer loop Eb/Nt setpoint.

The base station shall set this field to minimum Supplemental Channel Outer Loop Eb/Nt setpoint, in units of 0.125 dB.

The base station shall set this field to ‘11111111’, when it directs the mobile station to set this Eb/No setpoint to the current setpoint used at the mobile station on this channel.

**FPC_MAX_SCH_SETPT** - Maximum Supplemental Channel outer loop Eb/Nt setpoint.

The base station shall set this field to maximum Supplemental Channel Outer Loop Eb/Nt setpoint, in units of 0.125 dB.
The base station shall set this field to ‘11111111’, when it directs the mobile station to set this Eb/No setpoint to the current setpoint used at the mobile station on this channel.

FPC_THRESH_INCL - Setpoint Report Threshold included indicator.

If FPC_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

If FPC_SETPT_THRESH is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

FPC_SETPT_THRESH - Setpoint Report Threshold.

If FPC_THRESH_INCL is set to ‘1’, the base station shall set the value to FPC_SETPT_THRESH (in units of 0.125 dB) above which the outer loop report message will be sent by the mobile station; otherwise, the base station shall omit this field.

FPC_THRESH_SCH_INCL - SCH Setpoint Report Threshold included indicator.

If FPC_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

If FPC_SETPT_THRESH_SCH is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

FPC_SETPT_THRESH_SCH - SCH Setpoint Report Threshold.

If FPC_THRESH_SCH_INCL is set to ‘1’, the base station shall set the value to FPC_SETPT_THRESH_SCH (in units of 0.125 dB) above which the outer loop report message will be sent by the mobile station; otherwise, the base station shall omit this field.

RPC_INCL - Reverse Link Power Control parameter included indicator.

If the reverse power control related information is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

RPC_NUM_REC - Number of records for Reverse Link Power Control.

If RPC_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field to one less than the number of records included in this message.

If RPC_NUM_REC is included in this message, the base station shall include RPC_NUM_REC occurrences of the following record:

RPC_ADJ_REC_TYPE - Reverse Link Power Control adjustment record type.

The base station shall set this field to the value shown in Table 3.7.2.3.2.25-3 corresponding to the type of adjustment that is to be used.
Table 3.7.3.3.25-3. **RPC_ADJ_REC_TYPE** and **RPC_ADJ_REC_LEN** fields

<table>
<thead>
<tr>
<th>Description</th>
<th>RPC_ADJ_REC_TYPE</th>
<th>RPC_ADJ_REC_LEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reverse Channel Adjustment Gain</td>
<td>0000</td>
<td>2-5</td>
</tr>
<tr>
<td>Attribute Adjustment Gain for Basic Rates</td>
<td>0001</td>
<td>2-26</td>
</tr>
<tr>
<td>Attribute Adjustment Gain for Higher Rates</td>
<td>0010</td>
<td>2-31</td>
</tr>
</tbody>
</table>

All other values are reserved.

RPC_ADJ_REC_LEN - Reverse Link Power Control adjustment record length. The base station shall set this field to the number of octets in the type-specific fields of this adjustment record as given in Table 3.7.2.3.25-3.

Type-specific fields - Reverse Link Power Control adjustment record type-specific fields. The base station shall include type-specific fields based on the RPC_ADJ_REC_TYPE of this adjustment record, as specified as below.
If RPC_ADJ_REC_TYPE is equal to ‘0000’, the base station shall set type-specific fields as specified in Table 3.7.2.3.2.25-4.

**Table 3.7.2.3.2.25-4. Type Specific Fields for RECORD_TYPE = ‘0000’**

<table>
<thead>
<tr>
<th>Fields</th>
<th>Length (Bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FCH_INCL</td>
<td>1</td>
</tr>
<tr>
<td>FCH_CHAN_ADJ_GAIN</td>
<td>0 or 8</td>
</tr>
<tr>
<td>DCCH_INCL</td>
<td>1</td>
</tr>
<tr>
<td>DCCH_CHAN_ADJ_GAIN</td>
<td>0 or 8</td>
</tr>
<tr>
<td>SCH0_INCL</td>
<td>1</td>
</tr>
<tr>
<td>SCH0_CHAN_ADJ_GAIN</td>
<td>0 or 8</td>
</tr>
<tr>
<td>SCH1_INCL</td>
<td>1</td>
</tr>
<tr>
<td>SCH1_CHAN_ADJ_GAIN</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0-7 (if needed)</td>
</tr>
</tbody>
</table>

FCH_INCL - FCH channel adjustment gain included indicator.

If FCH_CHAN_ADJ_GAIN is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

FCH_CHAN_ADJ_GAIN - Channel adjustment gain for Reverse Fundamental Channel.

If FCH_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set each field to the value of the gain adjustment that the mobile station is to make for the Reverse Fundamental Channel. The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB. The base station shall set the value in the range from –48 to 48 inclusive.

DCCH_INCL - DCCH channel adjustment gain included indicator.

If DCCH_CHAN_ADJ_GAIN is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

DCCH_CHAN_ADJ_GAIN - Channel adjustment gain for the Reverse Dedicated Control Channel.
If DCCH_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set each field to the value of the gain adjustment that the mobile station is to make for the Reverse Dedicated Control Channel. The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB. The base station shall set the value in the range from –48 to 48 inclusive.

SCH0_INCL - SCH0 channel adjustment gain included indicator.
If SCH0_CHAN_ADJ_GAIN is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

SCH0_CHAN_ADJ_GAIN - Channel adjustment gain for Reverse Supplemental Channel 0.
If SCH0_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set each field to the value of the gain adjustment that the mobile station is to make for the Reverse Supplemental Channel 0. The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB. The base station shall set the value in the range from –48 to 48 inclusive.

SCH1_INCL - SCH1 channel adjustment gain included indicator.
If SCH1_CHAN_ADJ_GAIN is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

SCH1_CHAN_ADJ_GAIN - Channel adjustment gain for Reverse Supplemental Channel 1.
If SCH1_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set each field to the value of the gain adjustment that the mobile station is to make for the Supplemental Channel 1. The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB. The base station shall set the value in the range from –48 to 48 inclusive.

RESERVED - Reserved bits.
The base station shall add reserved bits as needed in order to make the length of the entire record equal to an integer number of octets. The base station shall set these bits to ‘0’.

If RPC_ADJ_REC_TYPE is equal to ‘0001’, the base station shall set type-specific fields as specified in Table 3.7.2.3.2.25-5.
Table 3.7.2.3.25-5. Type Specific Fields for 
RECORD_TYPE = ‘0001’

<table>
<thead>
<tr>
<th>Fields</th>
<th>Length (Bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RL_ATT_ADJ_GAIN_TYPE</td>
<td>1</td>
</tr>
<tr>
<td>RC3 RC5 20MS_INCL</td>
<td>1</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_1500</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_2700</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_4800</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_9600</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RC4 RC6 20MS_INCL</td>
<td>1</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_1800</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_3600</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_7200</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_14400</td>
<td>0 or 8</td>
</tr>
<tr>
<td>5MS_INCL</td>
<td>1</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_9600_5MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RC3 RC5 40MS_INCL</td>
<td>1</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_1350_40MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_2400_40MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_4800_40MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_9600_40MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RC4 RC6 40MS_INCL</td>
<td>1</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_1800_40MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_3600_40MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_7200_40MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_14400_40MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RC3 RC5 80MS_INCL</td>
<td>1</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_1200_80MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_2400_80MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_4800_80MS</td>
<td>0 or 8</td>
</tr>
</tbody>
</table>

(continues on next page)
<table>
<thead>
<tr>
<th>Fields</th>
<th>Length (Bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RL_ATT_ADJ_GAIN_9600_80MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RC4_RC6_80MS_INCL</td>
<td>1</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_1800_80MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_3600_80MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_7200_80MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_14400_80MS</td>
<td>0 or 8</td>
</tr>
</tbody>
</table>

| RESERVED                                   | 0-7 (if needed) |

**RL_ATT_ADJ_GAIN_TYPE** - Reverse Link Attribute Adjustment Gain value type indicator.

If the following fields are set to the nominal attribute gain adjustment values that the mobile station is to use for the transmission attributes (relative to Nominal_Attribute_Gain specified in Table 2.1.2.3.3.2-1 of [2]), the base station shall set this field to ‘0’. If the following fields are set to the pilot reference level adjustment values that the mobile station is to use for the transmission attributes (relative to Pilot_Reference_Level specified in Table 2.1.2.3.3.2-1 of [2]), the base station shall set this field to ‘1’.

**RC3_RC5_20MS_INCL** - Reverse Link Attribute Adjustment Gain for Radio Configuration 3 or 5 of 20 ms frame included indicator.

If Reverse Link Attribute adjustment Gain for Radio Configuration 3 or 5 of 20 ms frame is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**RL_ATT_ADJ_GAIN_1500** - Reverse Link Attribute Adjustment Gain for the transmission rate 1500 bits/s.

If RC3_RC5_20MS_INCL is set to ‘0’, the base station shall omit this field.

If RC3_RC5_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 1500 bits/s, convolutional code and 20ms frame. The base station shall set the value in the range from –48 to 48 inclusive.
If RC3_RC5_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 1500 bits/s, convolutional code and 20ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

**RL_ATT_ADJ_GAIN_2700** - Reverse Link Attribute Adjustment Gain for the transmission rate 2700 bits/s.

If RC3_RC5_20MS_INCL is set to ‘0’, the base station shall omit this field.

If RC3_RC5_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 2700 bits/s, convolutional code and 20ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

**RL_ATT_ADJ_GAIN_4800** - Reverse Link Attribute Gain Adjustment for the transmission rate 4800 bits/s.

If RC3_RC5_20MS_INCL is set to ‘0’, the base station shall omit this field.

If RC3_RC5_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 4800 bits/s, convolutional code and 20ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC3_RC5_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 4800 bits/s, convolutional code and 20ms frame. The base station shall set the value in the range from 0 to 63 inclusive.
The base station shall set this field to the correction factor expressed as a two's complement value in units of 0.125 dB.

**RL_ATT_ADJ_GAIN_9600** - Reverse Link Attribute Gain Adjustment for the transmission rate 9600 bits/s.

If RC3_RC5_20MS_INCL is set to ‘0’, the base station shall omit this field.

If RC3_RC5_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 9600 bits/s, convolutional code and 20ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC3_RC5_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 9600 bits/s, convolutional code and 20ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

**RC4_RC6-20MS_INCL** - Reverse Link Attribute Adjustment Gain for Radio Configuration 4 or 6 of 20ms frame included indicator.

If Reverse Link Attribute Adjustment Gain for Radio Configuration 4 or 6 of 20ms frame is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**RL_ATT_ADJ_GAIN_1800** - Reverse Link Attribute Gain Adjustment for the transmission rate 1800 bits/s.

If RC4_RC6_20MS_INCL is set to ‘0’, the base station shall omit this field.

If RC4_RC6_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 1800 bits/s, convolutional code and 20ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC4_RC6_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 1800 bits/s, convolutional code and 20ms frame. The base station shall set the value in the range from 0 to 63 inclusive.
The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

RL_ATT_ADJ_GAIN_3600 - Reverse Link Attribute Adjustment Gain for the transmission rate 3600 bits/s.

If RC4_RC6_20MS_INCL is set to ‘0’, the base station shall omit this field.

If RC4_RC6_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 3600 bits/s, convolutional code and 20ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC4_RC6_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 3600 bits/s, convolutional code and 20ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

RL_ATT_ADJ_GAIN_7200 - Reverse Link Attribute Adjustment Gain for the transmission rate 7200 bits/s.

If RC4_RC6_20MS_INCL is set to ‘0’, the base station shall omit this field.

If RC4_RC6_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 7200 bits/s, convolutional code and 20ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC4_RC6_20MS_INCL is set to ‘1’ and NORM_ATT_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 7200 bits/s, convolutional code and 20ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

RL_ATT_ADJ_GAIN_14400- Reverse Link Attribute Adjustment Gain for the transmission rate 14400 bits/s.

If RC4_RC6_20MS_INCL is set to ‘0’, the base station shall omit this field.
If RC4_RC6_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 14400 bits/s, convolutional code and 20ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC4_RC6_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 14400 bits/s, convolutional code and 20ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two's complement value in units of 0.125 dB.

5MS_INCL - 5ms frame Reverse Link Attribute Adjustment Gain included indicator.

If Reverse Link Attribute Adjustment Gain for 5ms frame is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

RL_ATT_ADJ_GAIN-_9600_5MS - Reverse Link Attribute Adjustment Gain for the transmission rate 9600 bits/s with 5ms frame.

If 5MS_INCL is set to ‘0’, the base station shall omit this field.

If 5MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 9600 bits/s, convolutional code and 5ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If 5MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 9600 bits/s, convolutional code and 5ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

RC3_RC5_40MS_INCL - Reverse Link Attribute Adjustment Gain for Radio Configuration 3 or 5 of 40 ms frame included indicator.

If Reverse Link Attribute adjustment Gain for Radio Configuration 3 or 5 of 40 ms frame is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

RL_ATT_ADJ_GAIN-
1350_40MS - Reverse Link Attribute Adjustment Gain for the transmission rate 1350 bits/s.

If RC3_RC5_40MS_INCL is set to ‘0’, the base station shall omit this field.

If RC3_RC5_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 1350 bits/s, convolutional code and 40ms frame. The base station shall set the value in the range from −48 to 48 inclusive.

If RC3_RC5_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 1350 bits/s, convolutional code and 40ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

2400_40MS - Reverse Link Attribute Adjustment Gain for the transmission rate 2400 bits/s.

If RC3_RC5_40MS_INCL is set to ‘0’, the base station shall omit this field.

If RC3_RC5_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 2400 bits/s, convolutional code and 40ms frame. The base station shall set the value in the range from −48 to 48 inclusive.

If RC3_RC5_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 2400 bits/s, convolutional code and 40ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

4800_40MS - Reverse Link Attribute Gain Adjustment for the transmission rate 4800 bits/s.

If RC3_RC5_40MS_INCL is set to ‘0’, the base station shall omit this field.
If RC3_RC5_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 4800 bits/s, convolutional code and 40ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC3_RC5_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 4800 bits/s, convolutional code and 40ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two's complement value in units of 0.125 dB.

**RL_ATT_ADJ_GAIN-_9600_40MS** - Reverse Link Attribute Gain Adjustment for the transmission rate 9600 bits/s.

If RC3_RC5_40MS_INCL is set to ‘0’, the base station shall omit this field.

If RC3_RC5_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 9600 bits/s, convolutional code and 40ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC3_RC5_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 9600 bits/s, convolutional code and 40ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two's complement value in units of 0.125 dB.

**RC4_RC6_40MS_INCL** - Reverse Link Attribute Adjustment Gain for Radio Configuration 4 or 6 of 40ms frame included indicator.

If Reverse Link Attribute Adjustment Gain for Radio Configuration 4 or 6 of 40ms frame is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**RL_ATT_ADJ_GAIN-_1800_40MS** - Reverse Link Attribute Gain Adjustment for the transmission rate 1800 bits/s.
If RC4_RC6_40MS_INCL is set to ‘0’, the base station shall omit this field.

If RC4_RC6_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 1800 bits/s, convolutional code and 40ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC4_RC6_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 1800 bits/s, convolutional code and 40ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

**RL_ATT_ADJ_GAIN-3600_40MS** - Reverse Link Attribute Adjustment Gain for the transmission rate 3600 bits/s.

If RC4_RC6_40MS_INCL is set to ‘0’, the base station shall omit this field.

If RC4_RC6_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 3600 bits/s, convolutional code and 40ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC4_RC6_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 3600 bits/s, convolutional code and 40ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

**RL_ATT_ADJ_GAIN-7200_40MS** - Reverse Link Attribute Adjustment Gain for the transmission rate 7200 bits/s.

If RC4_RC6_40MS_INCL is set to ‘0’, the base station shall omit this field.
If RC4_RC6_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 7200 bits/s, convolutional code and 40ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC4_RC6_40MS_INCL is set to ‘1’ and NORM_ATT_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 7200 bits/s, convolutional code and 40ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

RL_ATT_ADJ_GAIN_14400_40MS - Reverse Link Attribute Adjustment Gain for the transmission rate 14400 bits/s.

If RC4_RC6_40MS_INCL is set to ‘0’, the base station shall omit this field.

If RC4_RC6_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 14400 bits/s, convolutional code and 40ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC4_RC6_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 14400 bits/s, convolutional code and 40ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

RC3_RC5_80MS_INCL - Reverse Link Attribute Adjustment Gain for Radio Configuration 3 or 5 of 80 ms frame included indicator.

If Reverse Link Attribute adjustment Gain for Radio Configuration 3 or 5 of 80 ms frame is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

RL_ATT_ADJ_GAIN_1200_80MS - Reverse Link Attribute Adjustment Gain for the transmission rate 1200 bits/s.
If RC3_RC5_80MS_INCL is set to ‘0’, the base station shall omit this field.

If RC3_RC5_80MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 1200 bits/s, convolutional code and 80ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC3_RC5_80MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 1200 bits/s, convolutional code and 80ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

- **RL_ATT_ADJ_GAIN_-_2400_80MS**
  - Reverse Link Attribute Adjustment Gain for the transmission rate 2400 bits/s.
  
  If RC3_RC5_80MS_INCL is set to ‘0’, the base station shall omit this field.

  If RC3_RC5_80MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 2400 bits/s, convolutional code and 80ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

  If RC3_RC5_80MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 2400 bits/s, convolutional code and 80ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

  The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

- **RL_ATT_ADJ_GAIN_-_4800_80MS**
  - Reverse Link Attribute Gain Adjustment for the transmission rate 4800 bits/s.

  If RC3_RC5_80MS_INCL is set to ‘0’, the base station shall omit this field.
If `RC3_RC5_40MS_INCL` is set to ‘1’ and `RL_ATT_ADJ_GAIN_TYPE` is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 4800 bits/s, convolutional code and 80ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If `RC3_RC5_80MS_INCL` is set to ‘1’ and `RL_ATT_ADJ_GAIN_TYPE` is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 4800 bits/s, convolutional code and 80ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

**RL_ATT_ADJ_GAIN_-9600_80MS** - Reverse Link Attribute Gain Adjustment for the transmission rate 9600 bits/s.

If `RC3_RC5_80MS_INCL` is set to ‘0’, the base station shall omit this field.

If `RC3_RC5_80MS_INCL` is set to ‘1’ and `RL_ATT_ADJ_GAIN_TYPE` is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 9600 bits/s, convolutional code and 80ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If `RC3_RC5_80MS_INCL` is set to ‘1’ and `RL_ATT_ADJ_GAIN_TYPE` is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 9600 bits/s, convolutional code and 80ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

**RC4_RC6_80MS_INCL** - Reverse Link Attribute Adjustment Gain for Radio Configuration 4 or 6 of 80ms frame included indicator.

If Reverse Link Attribute Adjustment Gain for Radio Configuration 4 or 6 of 80ms frame is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**RL_ATT_ADJ_GAIN_-1800_80MS** - Reverse Link Attribute Gain Adjustment for the transmission rate 1800 bits/s.
If RC4_RC6_80MS_INCL is set to ‘0’, the base station shall omit this field.

If RC4_RC6_80MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 1800 bits/s, convolutional code and 80ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC4_RC6_80MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 1800 bits/s, convolutional code and 80ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

RL_ATT_ADJ_GAIN_-3600_80MS - Reverse Link Attribute Adjustment Gain for the transmission rate 3600 bits/s.

If RC4_RC6_80MS_INCL is set to ‘0’, the base station shall omit this field.

If RC4_RC6_80MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 3600 bits/s, convolutional code and 80ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC4_RC6_80MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 3600 bits/s, convolutional code and 80ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

RL_ATT_ADJ_GAIN-_7200_80MS - Reverse Link Attribute Adjustment Gain for the transmission rate 7200 bits/s.

If RC4_RC6_80MS_INCL is set to ‘0’, the base station shall omit this field.
If RC4_RC6_80MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 7200 bits/s, convolutional code and 80ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC4_RC6_80MS_INCL is set to ‘1’ and NORM_ATT_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 7200 bits/s, convolutional code and 80ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

RL_ATT_ADJ_GAIN_TYPE_14400_80MS - Reverse Link Attribute Adjustment Gain for the transmission rate 14400 bits/s.

If RC4_RC6_80MS_INCL is set to ‘0’, the base station shall omit this field.

If RC4_RC6_80MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 14400 bits/s, convolutional code and 80ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC4_RC6_80MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 14400 bits/s, convolutional code and 80ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

RESERVED - Reserved bits.

The base station shall add reserved bits as needed in order to make the length of the entire record equal to an integer number of octets. The base station shall set these bits to ‘0’.

If RPC_ADJ_REC_TYPE is equal to ‘0010’, the base station shall set type-specific fields as specified in Table 3.7.2.3.2.25-6.
<table>
<thead>
<tr>
<th>Fields</th>
<th>Length (Bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CODE_TYPE</td>
<td>1</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_TYPE</td>
<td>1</td>
</tr>
<tr>
<td>RC3_RC5_20MS_INCL</td>
<td>1</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_19200</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_38400</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_76800</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_153600</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_307200</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_614400</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RC4_RC6_20MS_INCL</td>
<td>1</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_28800</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_57600</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_115200</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_230400</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_460800</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_1036800</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RC3_RC5_40MS_INCL</td>
<td>1</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_19200_40MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_38400_40MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_76800_40MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_153600_40MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_307200_40MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RC4_RC6_40MS_INCL</td>
<td>1</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_28800_40MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_57600_40MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_115200_40MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>Fields</td>
<td>Length (Bits)</td>
</tr>
<tr>
<td>------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_230400_40MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_518400_40MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RC3_RC5_80MS_INCL</td>
<td>1</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_19200_80MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_38400_80MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_76800_80MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_153600_80MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RC4_RC6_80MS_INCL</td>
<td>1</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_28800_80MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_57600_80MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_115200_80MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RL_ATT_ADJ_GAIN_259200_80MS</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0-7 (if needed)</td>
</tr>
</tbody>
</table>

**CODE_TYPE** - Coding type indicator.

If the following corresponding gain adjustment fields apply for the convolutional code, the base station shall set this field to ‘0’. If the following corresponding gain adjustment fields apply for the Turbo code, the base station shall set this field to ‘1’.

**RL_ATT_ADJ_GAIN_TYPE** - Reverse Link Attribute adjustment Gain value type indicator.

If the following corresponding gain adjustment fields are set to the value of the nominal attribute gain adjustment that the mobile station is to make for the corresponding transmission attributes (relative to Nominal_Attribute_Gain specified in Table 2.1.2.3.3-1 of [2]), the base station shall set this field to ‘0’. If the following corresponding gain adjustment fields are set to the value of the pilot reference level adjustment that the mobile station is to use for the corresponding transmission attributes (relative to Pilot_Reference_Level specified in Table 2.1.2.3.3-1 of [2]), the base station shall set this field to ‘1’.

**RC3_RC5_20MS_INCL** - Reverse Link Attribute Adjustment Gain for Radio Configuration 3 or 5 of 20ms frame included indicator.

If Reverse Link Attribute Adjustment Gain for Radio Configuration 3 or 5 of 20ms frame is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.
RL_ATT_ADJ_GAIN_-19200 - Reverse Link Attribute Adjustment Gain for the transmission rate 19200 bits/s.

If RC3_RC5_20MS_INCL is set to ‘0’, the base station shall omit this field.

If RC3_RC5_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 19200 bits/s, and 20ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC3_RC5_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 19200 bits/s and 20ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

RL_ATT_ADJ_GAIN_-38400 - Reverse Link Attribute Adjustment Gain for the transmission rate 38400 bits/s.

If RC3_RC5_20MS_INCL is set to ‘0’, the base station shall omit this field.

If RC3_RC5_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 38400 bits/s, and 20ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC3_RC5_20MS_INCL is set to ‘1’ and NORM_ATT_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 38400 bits/s and 20ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

RL_ATT_ADJ_GAIN_-76800 - Reverse Link Attribute Adjustment Gain for the transmission rate 76800 bits/s.

If RC3_RC5_20MS_INCL is set to ‘0’, the base station shall omit this field.
If RC3_RC5_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 76800 bits/s, and 20ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC3_RC5_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 76800 bits/s and 20ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two's complement value in units of 0.125 dB.

RL_ATT_ADJ_GAIN_-_153600 - Reverse Link Attribute Adjustment Gain for the transmission rate 153600 bits/s.

If RC3_RC5_20MS_INCL is set to ‘0’, the base station shall omit this field.

If RC3_RC5_20MS_INCL is set to ‘1’ and NORM_ATT_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 153600 bits/s, and 20ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC3_RC5_20MS_INCL is set to ‘1’ and NORM_ATT_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 153600 bits/s and 20ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two's complement value in units of 0.125 dB.

RL_ATT_ADJ_GAIN_-_307200 - Reverse Link Attribute Adjustment Gain for the transmission rate 307200 bits/s.

If RC3_RC5_20MS_INCL is set to ‘0’, the base station shall omit this field.
If RC3_RC5_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 307200 bits/s, and 20ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC3_RC5_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 307200 bits/s and 20ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

RL_ATT_ADJ_GAIN_-_614400 - Reverse Link Attribute Adjustment Gain for the transmission rate 614400 bits/s.

If RC3_RC5_20MS_INCL is set to ‘0’, the base station shall omit this field.

If RC3_RC5_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 614400 bits/s, and 20ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC3_RC5_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 614400 bits/s and 20ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

RC4_RC6_-_20MS_INCL - Reverse Link Attribute Adjustment Gain for Radio Configuration 4 or 6 of 20ms frame included indicator.

If Reverse Link Attribute Adjustment Gain for Radio Configuration 4 or 6 of 20ms frame is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

RL_ATT_ADJ_GAIN_-_28800 - Reverse Link Attribute Adjustment Gain for the transmission rate 28800 bits/s.
If RC4_RC6_20MS_INCL is set to '0', the base station shall omit this field.

If RC4_RC6_20MS_INCL is set to '1' and RL_ATT_ADJ_GAIN_TYPE is set to '0', the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 28800 bits/s, and 20ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC4_RC6_20MS_INCL is set to '1' and NORM_ATT_GAIN_TYPE is set to '1', the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 28800 bits/s and 20ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two's complement value in units of 0.125 dB.

RL_ATT_ADJ_GAIN_57600 - Reverse Link Attribute Adjustment Gain for the transmission rate 57600 bits/s.

If RC4_RC6_20MS_INCL is set to '0', the base station shall omit this field.

If RC4_RC6_20MS_INCL is set to '1' and NORM_ATT_GAIN_TYPE is set to '0', the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 57600 bits/s, and 20ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC4_RC6_20MS_INCL is set to '1' and NORM_ATT_GAIN_TYPE is set to '1', the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 57600 bits/s and 20ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two's complement value in units of 0.125 dB.

RL_ATT_ADJ_GAIN_115200 - Reverse Link Attribute Adjustment Gain for the transmission rate 115200 bits/s.

If RC4_RC6_20MS_INCL is set to '0', the base station shall omit this field.
If RC4_RC6_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 115200 bits/s, and 20ms frame. The base station shall set the value in the range from −48 to 48 inclusive.

If RC4_RC6_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 115200 bits/s and 20ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

RL_ATT_ADJ_GAIN_-230400 - Reverse Link Attribute Adjustment Gain for the transmission rate 230400 bits/s.

If RC4_RC6_20MS_INCL is set to ‘0’, the base station shall omit this field.

If RC4_RC6_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 230400 bits/s, and 20ms frame. The base station shall set the value in the range from −48 to 48 inclusive.

If RC4_RC6_20MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 230400 bits/s and 20ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

RL_ATT_ADJ_GAIN_-460800 - Reverse Link Attribute Adjustment Gain for the transmission rate 460800 bits/s.

If RC4_RC6_20MS_INCL is set to ‘0’, the base station shall omit this field.
If `RC4_RC6_20MS_INCL` is set to ‘1’ and `RL_ATT_ADJ_GAIN_TYPE` is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 460800 bits/s, and 20ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If `RC4_RC6_20MS_INCL` is set to ‘1’ and `RL_ATT_ADJ_GAIN_TYPE` is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 460800 bits/s and 20ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

**RL_ATT_ADJ_GAIN**

- **1036800** - Reverse Link Attribute Adjustment Gain for the transmission rate 1036800 bits/s.

If `RC4_RC6_20MS_INCL` is set to ‘0’, the base station shall omit this field.

If `RC4_RC6_20MS_INCL` is set to ‘1’ and `RL_ATT_ADJ_GAIN_TYPE` is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 1036800 bits/s, and 20ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If `RC4_RC6_20MS_INCL` is set to ‘1’ and `RL_ATT_ADJ_GAIN_TYPE` is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 1306800 bits/s and 20ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

**RC3_RC5_40MS_INCL** - Reverse Link Attribute Adjustment Gain for Radio Configuration 3 or 5 of 40ms frame included indicator.

If Reverse Link Attribute Adjustment Gain for Radio Configuration 3 or 5 of 40ms frame is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**RL_ATT_ADJ_GAIN**

- **19200_40MS** - Reverse Link Attribute Adjustment Gain for the transmission rate 19200 bits/s.
If RC3_RC5_40MS_INCL is set to ‘0’, the base station shall omit this field.

If RC3_RC5_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 19200 bits/s, and 40ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC3_RC5_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 19200 bits/s and 40ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

RL_ATT_ADJ_GAIN_-_38400_40MS - Reverse Link Attribute Adjustment Gain for the transmission rate 38400 bits/s.

If RC3_RC5_40MS_INCL is set to ‘0’, the base station shall omit this field.

If RC3_RC5_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 38400 bits/s, and 40ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC3_RC5_40MS_INCL is set to ‘1’ and NORM_ATT_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 38400 bits/s and 40ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

RL_ATT_ADJ_GAIN_-_76800_40MS - Reverse Link Attribute Adjustment Gain for the transmission rate 76800 bits/s.

If RC3_RC5_40MS_INCL is set to ‘0’, the base station shall omit this field.
If RC3_RC5_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 76800 bits/s, and 40ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC3_RC5_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 76800 bits/s and 40ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

RL_ATT_ADJ_GAIN_TYPE - 153600_40MS - Reverse Link Attribute Adjustment Gain for the transmission rate 153600 bits/s.

If RC3_RC5_40MS_INCL is set to ‘0’, the base station shall omit this field.

If RC3_RC5_40MS_INCL is set to ‘1’ and NORM_ATT_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 153600 bits/s, and 40ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC3_RC5_40MS_INCL is set to ‘1’ and NORM_ATT_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 153600 bits/s and 40ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

RL_ATT_ADJ_GAIN_TYPE - 307200_40MS - Reverse Link Attribute Adjustment Gain for the transmission rate 307200 bits/s.

If RC3_RC5_40MS_INCL is set to ‘0’, the base station shall omit this field.
If RC3_RC5_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 307200 bits/s, and 40ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC3_RC5_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 307200 bits/s and 40ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

- **RC4_RC6_40MS_INCL** - Reverse Link Attribute Adjustment Gain for Radio Configuration 4 or 6 of 40ms frame included indicator.

If Reverse Link Attribute Adjustment Gain for Radio Configuration 4 or 6 of 40ms frame is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

- **RL_ATT_ADJ_GAIN_28800_40MS** - Reverse Link Attribute Adjustment Gain for the transmission rate 28800 bits/s.

If RC4_RC6_40MS_INCL is set to ‘0’, the base station shall omit this field.

If RC4_RC6_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 28800 bits/s, and 40ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC4_RC6_40MS_INCL is set to ‘1’ and NORM_ATT_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 28800 bits/s and 40ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

- **RL_ATT_ADJ_GAIN_57600_40MS** - Reverse Link Attribute Adjustment Gain for the transmission rate 57600 bits/s.
If RC4_RC6_40MS_INCL is set to '0', the base station shall omit this field.

If RC4_RC6_40MS_INCL is set to '1' and NORM_ATT_GAIN_TYPE is set to '0', the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 57600 bits/s, and 40ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC4_RC6_40MS_INCL is set to '1' and NORM_ATT_GAIN_TYPE is set to '1', the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 57600 bits/s and 40ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

**RL_ATT_ADJ_GAIN**

Reverse Link Attribute Adjustment Gain for the transmission rate 115200 bits/s.

If RC4_RC6_40MS_INCL is set to '0', the base station shall omit this field.

If RC4_RC6_40MS_INCL is set to '1' and RL_ATT_ADJ_GAIN_TYPE is set to '0', the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 115200 bits/s, and 40ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC4_RC6_40MS_INCL is set to '1' and RL_ATT_ADJ_GAIN_TYPE is set to '1', the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 115200 bits/s and 40ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

**RL_ATT_ADJ_GAIN**

Reverse Link Attribute Adjustment Gain for the transmission rate 230400 bits/s.

If RC4_RC6_40MS_INCL is set to '0', the base station shall omit this field.
If RC4_RC6_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 230400 bits/s, and 40ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC4_RC6_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 230400 bits/s, and 40ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

The base station shall set this field to the correction factor expressed as a two's complement value in units of 0.125 dB.

If RC4_RC6_40MS_INCL is set to ‘0’, the base station shall omit this field.

If RC4_RC6_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 518400 bits/s, and 40ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC4_RC6_40MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 518400 bits/s, and 40ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two's complement value in units of 0.125 dB.

If Reverse Link Attribute Adjustment Gain for Radio Configuration 3 or 5 of 80ms frame is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

The base station shall set this field to the correction factor expressed as a two's complement value in units of 0.125 dB.

If Reverse Link Attribute Adjustment Gain for Radio Configuration 3 or 5 of 80ms frame included indicator.

If Reverse Link Attribute Adjustment Gain for the transmission rate 19200 bits/s.
If RC3_RC5_80MS_INCL is set to ‘0’, the base station shall omit this field.

If RC3_RC5_80MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 19200 bits/s, and 80ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC3_RC5_80MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 19200 bits/s and 80ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

RL_ATT_ADJ_GAIN-
_38400_80MS - Reverse Link Attribute Adjustment Gain for the transmission rate 38400 bits/s.

If RC3_RC5_80MS_INCL is set to ‘0’, the base station shall omit this field.

If RC3_RC5_80MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 38400 bits/s, and 80ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC3_RC5_80MS_INCL is set to ‘1’ and NORM_ATT_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 38400 bits/s and 80ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

RL_ATT_ADJ_GAIN-
_76800_80MS - Reverse Link Attribute Adjustment Gain for the transmission rate 76800 bits/s.

If RC3_RC5_80MS_INCL is set to ‘0’, the base station shall omit this field.
If RC3_RC5_80MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 76800 bits/s, and 80ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC3_RC5_80MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 76800 bits/s and 80ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

RL_ATT_ADJ_GAIN_-_153600_80MS - Reverse Link Attribute Adjustment Gain for the transmission rate 153600 bits/s.

If RC3_RC5_80MS_INCL is set to ‘0’, the base station shall omit this field.

If RC3_RC5_80MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 153600 bits/s, and 80ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC3_RC5_80MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 153600 bits/s and 80ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

RC4_RC6_80MS_INCL - Reverse Link Attribute Adjustment Gain for Radio Configuration 4 or 6 of 80ms frame included indicator.

If Reverse Link Attribute Adjustment Gain for Radio Configuration 4 or 6 of 80ms frame is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

RL_ATT_ADJ_GAIN_-_28800_80MS - Reverse Link Attribute Adjustment Gain for the transmission rate 28800 bits/s.
If RC4_RC6_80MS_INCL is set to '0', the base station shall omit this field.

If RC4_RC6_80MS_INCL is set to '1' and RL_ATT_ADJ_GAIN_TYPE is set to '0', the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 28800 bits/s, and 80ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC4_RC6_80MS_INCL is set to '1' and NORM_ATT_GAIN_TYPE is set to '1', the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 28800 bits/s and 80ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two's complement value in units of 0.125 dB.

RL_ATT_ADJ_GAIN_-_57600_80MS - Reverse Link Attribute Adjustment Gain for the transmission rate 57600 bits/s.

If RC4_RC6_80MS_INCL is set to '0', the base station shall omit this field.

If RC4_RC6_80MS_INCL is set to '1' and NORM_ATT_GAIN_TYPE is set to '0', the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 57600 bits/s, and 80ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC4_RC6_80MS_INCL is set to '1' and NORM_ATT_GAIN_TYPE is set to '1', the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 57600 bits/s and 80ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two's complement value in units of 0.125 dB.

RL_ATT_ADJ_GAIN_-_115200_80MS - Reverse Link Attribute Adjustment Gain for the transmission rate 115200 bits/s.

If RC4_RC6_80MS_INCL is set to '0', the base station shall omit this field.
If RC4_RC6_80MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 115200 bits/s, and 80ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC4_RC6_80MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 115200 bits/s and 80ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

RL_ATT_ADJ_GAIN_TYPE - Reverse Link Attribute Adjustment Gain for the transmission rate 259200 bits/s.

If RC4_RC6_80MS_INCL is set to ‘0’, the base station shall omit this field.

If RC4_RC6_80MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘0’, the base station shall set this field to the value of the nominal attribute gain adjustment that the mobile station is to make for the transmission attributes with transmission rate 259200 bits/s, and 80ms frame. The base station shall set the value in the range from –48 to 48 inclusive.

If RC4_RC6_80MS_INCL is set to ‘1’ and RL_ATT_ADJ_GAIN_TYPE is set to ‘1’, the base station shall set this field to the value of the pilot reference level adjustment that the mobile station is to make for the transmission attributes with transmission rate 259200 bits/s and 80ms frame. The base station shall set the value in the range from 0 to 63 inclusive.

The base station shall set this field to the correction factor expressed as a two’s complement value in units of 0.125 dB.

RESERVED - Reserved bits.

The base station shall add reserved bits as needed in order to make the length of the entire record equal to an integer number of octets. The base station shall set these bits to ‘0’.
3.7.3.3.2.26 Extended Neighbor List Update Message

**MSG_TAG: ENLUM**

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_INC</td>
<td>4</td>
</tr>
<tr>
<td>NGHBR_SRCH_MODE</td>
<td>2</td>
</tr>
<tr>
<td>SRCH_WIN_N</td>
<td>4</td>
</tr>
<tr>
<td>USE_TIMING</td>
<td>1</td>
</tr>
<tr>
<td>GLOBAL_TIMING_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>GLOBAL_TX_DURATION</td>
<td>0 or 4</td>
</tr>
<tr>
<td>GLOBAL_TX_PERIOD</td>
<td>0 or 7</td>
</tr>
<tr>
<td>NUM_NGHBRS</td>
<td>6</td>
</tr>
</tbody>
</table>

NUM_NGHBRS occurrences of the following field:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGHBR_PN</td>
<td>9</td>
</tr>
<tr>
<td>SEARCH_PRIORITY</td>
<td>0 or 2</td>
</tr>
<tr>
<td>SRCH_WIN_NGHBR</td>
<td>0 or 4</td>
</tr>
<tr>
<td>TIMING_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>NGHBR_TX_OFFSET</td>
<td>0 or 7</td>
</tr>
<tr>
<td>NGHBR_TX_DURATION</td>
<td>0 or 4</td>
</tr>
<tr>
<td>NGHBR_TX_PERIOD</td>
<td>0 or 7</td>
</tr>
</tbody>
</table>

**SRCH_OFFSET_INCL** 1

NUM_NGHBRS occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD_PILOT_REC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>NGHBR_PILOT_REC_TYPE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>0 or 3</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>0 or $8 \times$ RECORD_LEN</td>
</tr>
<tr>
<td>SRCH_OFFSET_NGHBR</td>
<td>0 or 3</td>
</tr>
</tbody>
</table>

**PILOT_INC** - Pilot PN sequence offset index increment.

A mobile station searches for Remaining Set pilots at pilot PN sequence index values that are multiples of this value.
The base station shall set this field to the pilot PN sequence increment, in units of 64 PN chips, that mobile stations are to use for searching the Remaining Set. The base station should set this field to the largest increment such that the pilot PN sequence offsets of all its neighbor base stations are integer multiples of that increment.

The base station shall set this field to a value in the range 1 to 15 inclusive.

**NGHBR_SRCH_MODE** - Search mode.

The base station shall set this field to the value specified in Table 3.7.3.3.2.26-1 corresponding to the search mode.

**Table 3.7.3.3.2.26-1. NGHBR_SRCH_MODE Field**

<table>
<thead>
<tr>
<th>Value (binary)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>No search priorities or search windows</td>
</tr>
<tr>
<td>01</td>
<td>Search priorities</td>
</tr>
<tr>
<td>10</td>
<td>Search windows</td>
</tr>
<tr>
<td>11</td>
<td>Search windows and search priorities</td>
</tr>
</tbody>
</table>

**SRCH_WIN_N** - Default search window size for the Neighbor Set.

The base station shall set this field to the value specified in Table 2.6.6.2.1-1 corresponding to the default search window size to be used by the mobile station for its Neighbor Set. The mobile station uses the default search window size for all pilots in its Neighbor Set when the search window is not specified for each pilot individually (NGHBR_SRCH_MODE is set to a value other than ‘10’ and ‘11’).

**USE_TIMING** - Use timing indicator.

If base station timing information is included for neighbor base stations, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**GLOBAL_TIMING_INCL** - Global timing included.

If USE_TIMING is set to ‘1’, the base station shall include the field GLOBAL_TIMING_INCL and set this field as described below; otherwise, the base station shall omit this field.

If base station timing information is included globally for all neighbor base stations with TIMING_INCL equal to ‘1’, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.
_DURATION - Global neighbor transmit time duration.

If GLOBAL_TIMING_INCL is included and is set to ‘1’, the base station shall include the field GLOBAL_TX_DURATION and shall set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to the duration of the base station transmit window, during each period, in units of 80 ms. The base station should set this field to a value of 3 or greater.

GLOBAL_TX-PERIOD - Global neighbor transmit time period.

If GLOBAL_TIMING_INCL is included and is set to ‘1’, the base station shall include the field GLOBAL_TX_PERIOD and shall set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to duration of the period, in units of 80 ms.

NUM_NGHB - Number of neighbor pilot PN sequences.

The base station shall set this field to the number of neighbors included in the message.

The base station shall include one occurrence of the following record for each pilot that a mobile station is to place in its Neighbor Set

NGHBR_PN - Neighbor pilot PN sequence offset index.

The base station shall include one occurrence of this field for each pilot in its neighbor list. The base station shall set this field to the pilot’s PN sequence offset, in units of 64 PN chips.

SEARCH_PRIORITY - Pilot Channel search priority.

If NGHBR_SRCH_MODE is set to ‘01’ or ‘11’, then the base station shall set this field to the search priority for this neighbor. The base station shall set the search priority as specified in Table 3.7.3.3.2.26-2. If NGHBR_SRCH_MODE is set to any other value, the base station shall omit this field.
Table 3.7.3.3.2.26-2. SEARCH_PRIORITY Field

<table>
<thead>
<tr>
<th>Value (binary)</th>
<th>Search Priority</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Low</td>
</tr>
<tr>
<td>01</td>
<td>Medium</td>
</tr>
<tr>
<td>10</td>
<td>High</td>
</tr>
<tr>
<td>11</td>
<td>Very High</td>
</tr>
</tbody>
</table>

SRCH_WIN_NGHB - Neighbor pilot channel search window size.

If NGHBR_SRCH_MODE is set to ‘10’ or ‘11’, then the base station shall set this field to the value specified in Table 2.6.6.2.1-1 corresponding to the search window size to be used by the mobile stations for this neighbor. If NGHBR_SRCH_MODE is set to any other value, the base station shall omit this field.

TIMING_INCL - Timing included indicator.

If USE_TIMING is set to ‘1’, the base station shall include the field TIMING_INCL and set this field as described below; otherwise, the base station shall omit this field.

If base station timing information is included for this neighbor base station, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

NGHBR_TX_OFFSET - Neighbor transmit time offset.

If TIMING_INCL is included and is set to ‘1’, the base station shall include the field NGHBR_TX_OFFSET and set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to the time offset, in units of 80 ms, from the beginning of the neighbor timing period to the beginning of the first base station transmit window within the period. The beginning of the neighbor timing period occurs when \( \lfloor t/4 \rfloor \mod (16384) = 0 \).

NGHBR_TX_DURATION - Neighbor transmit time duration.

If TIMING_INCL is included and is set to ‘1’ and GLOBAL_TIMING_INCL is set to ‘0’, the base station shall include the field NGHBR_TX_DURATION and set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to duration of the base station transmit window, during each period, in units of 80 ms. The base station should set this field to a value of 3 or greater.

NGHBR_TX_PERIOD - Neighbor transmit time period.
If TIMING_INCL is included and is set to ‘1’ and GLOBAL_TIMING_INCL is set to ‘0’, the base station shall include the field NGHBR_TX_PERIOD and set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to duration of the period, in units of 80 ms.

SRCH_OFFSET_INCL - Neighbor pilot channel search window offset included.

If NGHBR_SRCH_MODE = ‘10’ or ‘11’ and if the SRCH_OFFSET_NGHBR field is included in the following records, the base station shall set this bit to ‘1’; otherwise, the base station shall set this bit to ‘0’.

The base station shall include one occurrence of the following record for each pilot that a mobile station is to place in its Neighbor Set. The base station shall use the same order for the following record as is used for previous pilots which are listed in this message. Specifically, the $i^{th}$ occurrence of the following record shall correspond the $i^{th}$ pilot in this message.

ADD_PILOT_REC_INCL - Additional pilot information included indicator.

The base station shall set this field to ‘1’ if additional pilot information listed in NGHBR_PILOT_REC_TYPE and RECORD_LEN fields are included. The base station shall set this field to ‘0’ if the corresponding pilot is the common pilot and there is no additional pilot information included.

NGHBR_PILOT-_REC_TYPE - Neighbor Pilot record type

If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall set this field to the NGHBR_PILOT_REC_TYPE value shown in Table 3.7.2.3.22-5 corresponding to the type of Pilot Record specified by this record.

If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

RECORD_LEN - Pilot record length.

If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall set this field to the number of octets in the type-specific fields of this pilot record.

If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

Type-specific fields - Pilot record type-specific fields.

If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall include type-specific fields based on the NGHBR_PILOT_REC_TYPE of this pilot record.

If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.
If NGHBR_PILOT_REC_TYPE is equal to ‘000’, the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TD_POWER_LEVEL</td>
<td>2</td>
</tr>
<tr>
<td>TD_MODE</td>
<td>2</td>
</tr>
<tr>
<td>RESERVED</td>
<td>4</td>
</tr>
</tbody>
</table>

**TD_POWER_LEVEL** - TD Transmit Power Level.
The base station shall set this field to the TD transmit power level relative to that of the Forward Pilot Channel as specified in Table 3.7.2.3.2.26-4.

**TD_MODE** - Transmit Diversity mode.
The base station shall set this field to the Transmit Diversity mode, as specified in Table 3.7.2.3.2.26-3.

**RESERVED** - Reserved bits.
The base station shall set this field to ‘0000’.

If NGHBR_PILOT_REC_TYPE is equal to ‘001’, the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QOF</td>
<td>2</td>
</tr>
<tr>
<td>WALSH_LENGTH</td>
<td>3</td>
</tr>
<tr>
<td>AUX_PILOT_WALSH</td>
<td>WALSH_LENGTH+6</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 to 7 (as needed)</td>
</tr>
</tbody>
</table>

**QOF** - Quasi-orthogonal function index.
The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]).

**WALSH_LENGTH** - Length of the Walsh code.
The base station shall set this field to the WALSH_LENGTH value shown in Table 3.7.2.3.2.22–6 corresponding to the length of the Walsh code for the pilot that is used in as the Auxiliary Pilot.

**AUX_PILOT_WALSH** - Walsh code for the Auxiliary Pilot.
The base station shall set this field to the Walsh code corresponding to the Auxiliary Pilot.

**RESERVED** - Reserved bits.
The base station shall set all the bits of this field to ‘0’ to make the entire record octet-aligned.

If NGHBR_PILOT_REC_TYPE is equal to ‘010’, the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QOF</td>
<td>2</td>
</tr>
<tr>
<td>WALSH_LENGTH</td>
<td>3</td>
</tr>
<tr>
<td>AUX_WALSH</td>
<td>WALSH_LENGTH+6</td>
</tr>
<tr>
<td>AUX_TD_POWER_LEVEL</td>
<td>2</td>
</tr>
<tr>
<td>TD_MODE</td>
<td>2</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 to 7 (as needed)</td>
</tr>
</tbody>
</table>

QOF - Quasi-orthogonal function index for the Auxiliary Transmit Diversity Pilot.

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]).

WALSH_LENGTH - Length of the Walsh code.

The base station shall set this field to the WALSH_LENGTH value shown in 3.7.2.3.2.22-6 corresponding to the length of the Walsh code for the pilots that are used as Auxiliary pilot in the transmit diversity mode.

AUX_WALSH - Walsh code for the Auxiliary Pilot.

The base station shall set this field to the Walsh code corresponding to the Auxiliary Pilot.

AUX_TD_POWER_LEVEL - Auxiliary Transmit Diversity Pilot power level.

The base station shall set this field to the Auxiliary Transmit Diversity Pilot transmit power level relative to that of the Auxiliary Pilot as specified in Table 3.7.2.3.2.22-7.

TD_MODE - Transmit Diversity mode.

The base station shall set this field to the Transmit Diversity mode, as specified in Table 3.7.2.3.2.26-3.

RESERVED - Reserved bits.

The base station shall set all the bits of this field to ‘0’ to make the entire record octet-aligned.

If NGHBR_PILOT_REC_TYPE is equal to ‘011’, the base station shall include the following fields:
### Field Length (bits)

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR3_PRIMARY_PILOT</td>
<td>2</td>
</tr>
<tr>
<td>SR3_PILOT_POWER1</td>
<td>3</td>
</tr>
<tr>
<td>SR3_PILOT_POWER2</td>
<td>3</td>
</tr>
<tr>
<td>RESERVED</td>
<td>7</td>
</tr>
</tbody>
</table>

1. **SR3_PRIMARY_PILOT** – Primary SR3 pilot.

   The base station shall set this field to the value shown in Table 3.7.2.3.2.26-5 corresponding to the position of the primary SR3 pilot.

2. **SR3_PILOT_POWER1** – The primary SR3 pilot power level relative to that of the pilot on the lower frequency of the two remaining SR3 frequencies.

   The base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the lower frequency of the two remaining SR3 frequencies.

3. **SR3_PILOT_POWER2** – The primary SR3 pilot power level relative to that of the pilot on the higher frequency of the two remaining SR3 frequencies.

   The base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the higher frequency of the two remaining SR3 frequencies.

4. **RESERVED** – Reserved bits.

   The base station shall set this field to ‘0000000’.

If NGHBR_PILOT_REC_TYPE is equal to ‘100’, the base station shall include the following fields:
<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR3_PRIMARY_PILOT</td>
<td>2</td>
</tr>
<tr>
<td>SR3_PILOT_POWER1</td>
<td>3</td>
</tr>
<tr>
<td>SR3_PILOT_POWER2</td>
<td>3</td>
</tr>
<tr>
<td>QOF</td>
<td>2</td>
</tr>
<tr>
<td>WALSH_LENGTH</td>
<td>3</td>
</tr>
<tr>
<td>AUX_PILOT_WALSH</td>
<td>WALSH_LENGTH+6</td>
</tr>
<tr>
<td>ADD_INFO_INCL1</td>
<td>1</td>
</tr>
<tr>
<td>QOF1</td>
<td>0 or 2</td>
</tr>
<tr>
<td>WALSH_LENGTH1</td>
<td>0 or 3</td>
</tr>
<tr>
<td>AUX_PILOT_WALSH1</td>
<td>0 or WALSH_LENGTH1+6</td>
</tr>
<tr>
<td>ADD_INFO_INCL2</td>
<td>1</td>
</tr>
<tr>
<td>QOF2</td>
<td>0 or 2</td>
</tr>
<tr>
<td>WALSH_LENGTH2</td>
<td>0 or 3</td>
</tr>
<tr>
<td>AUX_PILOT_WALSH2</td>
<td>0 or WALSH_LENGTH2+6</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 – 7 (as needed)</td>
</tr>
</tbody>
</table>

SR3_PRIMARY_PILOT – Primary SR3 pilot.

The base station shall set this field to the value shown in Table 3.7.2.3.2.26-5 corresponding to the position of the primary SR3 pilot.

SR3_PILOT_POWER1 – The primary SR3 pilot power level relative to that of the pilot on the lower frequency of the two remaining SR3 frequencies.

The base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the lower frequency of the two remaining SR3 frequencies.

SR3_PILOT_POWER2 – The primary SR3 pilot power level relative to that of the pilot on the higher frequency of the two remaining SR3 frequencies.

The base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the higher frequency of the two remaining SR3 frequencies.

QOF – Quasi-orthogonal function index.

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the frequency of the primary pilot.

WALSH_LENGTH – Length of the Walsh Code.
The base station shall set this field to the WALSH_LENGTH value shown in Table 3.7.2.3.2.22–6 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot on the frequency of the primary pilot.

**AUX_PILOT_WALSH** - Walsh Code for the Auxiliary Pilot.

The base station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the frequency of the primary pilot.

**ADD_INFO_INCL1** - Additional information included for the pilot on the lower frequency of the two remaining SR3 frequencies.

If the additional information for the pilot on the lower frequencies of the two remaining SR3 frequencies is the same as pilot on the primary frequency, the base station shall set this field to ‘0’; otherwise, the base station shall set this field to ‘1’.

**QOF1** - Quasi-orthogonal function index for the pilot on the lower frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL1 is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the lower frequency of the two remaining SR3 frequencies.

**WALSH_LENGTH1** - Length of the Walsh Code for the pilot on the lower frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL1 is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the WALSH_LENGTH value shown in Table 3.7.2.3.2.22–6 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot on the lower frequency of the two remaining SR3 frequencies.

**AUX_PILOT_WALSH1** - Walsh Code for the Auxiliary Pilot on the lower frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL1 is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the lower frequency of the two remaining SR3 frequencies.

**ADD_INFO_INCL2** - Additional information included for the pilot on the higher frequency of the two remaining SR3 frequencies.
If the additional information for the pilot on the higher frequencies of the two remaining SR3 frequencies is the same as pilot on the primary frequency, the base station shall set this field to ‘0’; otherwise, the base station shall set this field to ‘1’.

**QOF2** - Quasi-orthogonal function index for the pilot on the higher frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL2 is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the higher frequency of the two remaining SR3 frequencies.

**WALSH_LENGTH2** - Length of the Walsh Code for the pilot on the higher frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL2 is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the WALSH_LENGTH value shown in Table 3.7.2.3.2.22–6 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot on the higher frequency of the two remaining SR3 frequencies.

**AUX_PILOT_WALSH2** - Walsh Code for the Auxiliary Pilot on the higher frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL2 is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the higher frequency of the two remaining SR3 frequencies.

**RESERVED** - Reserved bits.

The base station shall set all the bits of this field to ‘0’ to make the entire record octet-aligned.

**SRCH_OFFSET_NGHB**R - Neighbor pilot channel search window offset.

If SRCH_OFFSET_INCL equals to ‘1’, then the base station shall set this field to the value shown in Table 2.6.6.2.1-2 corresponding to the search window offset to be used by the mobile station for this neighbor; otherwise, the base station shall omit this field.
3.7.3.3.2.27 Candidate Frequency Search Request Message

**MSG_TAG**: CFSRQM

### Field Length (bits)

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE_TIME</td>
<td>1</td>
</tr>
<tr>
<td>ACTION_TIME</td>
<td>6</td>
</tr>
<tr>
<td>RESERVED_1</td>
<td>4</td>
</tr>
<tr>
<td>CFSRM_SEQ</td>
<td>2</td>
</tr>
<tr>
<td>SEARCH_TYPE</td>
<td>2</td>
</tr>
<tr>
<td>SEARCH_PERIOD</td>
<td>4</td>
</tr>
<tr>
<td>SEARCH_MODE</td>
<td>4</td>
</tr>
<tr>
<td>MODE_SPECIFIC_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Mode-specific fields</td>
<td>(8 \times) MODE_SPECIFIC_LEN</td>
</tr>
<tr>
<td>ALIGN_TIMING</td>
<td>1</td>
</tr>
<tr>
<td>SEARCH_OFFSET</td>
<td>0 or 6</td>
</tr>
</tbody>
</table>

**USE_TIME** - Use action time indicator.

This field indicates whether an explicit action time is specified in this message.

If an explicit action time is specified in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

If the base station requests the mobile station to perform an aligned search (see 2.6.6.2.8.3), the base station shall specify an explicit action time for the message.

**ACTION_TIME** - Action time.

If the USE_TIME field is set to ‘1’, the base station shall set this field to the System Time, in units of 80 ms (modulo 64), at which the message is to take effect. If the USE_TIME field is set to ‘0’ the base station shall set this field to ‘000000’.

**RESERVED_1** - Reserved bits.

The base station shall set this field to ‘0000’.

**CFSRM_SEQ** - Candidate Frequency Search Request Message sequence number.

The base station shall set this field to the Candidate Frequency Search Request Message sequence number, as specified in 2.6.6.2.2.3.
SEARCH_TYPE - Search command.

The base station shall set this field to the appropriate SEARCH_TYPE code from Table 3.7.3.2.27-1 to indicate the purpose of the message.

### Table 3.7.3.2.27-1. SEARCH_TYPE Codes

<table>
<thead>
<tr>
<th>SEARCH_TYPE (binary)</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Directs the mobile station to stop any periodic search in progress (see 2.6.6.2.8.3.4 and 2.6.6.2.10.4)</td>
</tr>
<tr>
<td>01</td>
<td>Directs the mobile station to perform a single search (see 2.6.6.2.8.3.1 and 2.6.6.2.10.1).</td>
</tr>
<tr>
<td>11</td>
<td>Directs the mobile station to perform a periodic search (see 2.6.6.2.8.3.2 and 2.6.6.2.10.2).</td>
</tr>
<tr>
<td>10</td>
<td>Reserved.</td>
</tr>
</tbody>
</table>

SEARCH_PERIOD - Time between successive searches on the Candidate Frequency. for periodic searches.

The base station shall set this field to the SEARCH_PERIOD value shown in Table 2.6.6.2.8.3.2-1 corresponding to the search period to be used by the mobile station, i.e., the time between the beginning of successive searches on the Candidate Frequency.

SEARCH_MODE - Search mode.

The base station shall set this field to the SEARCH_MODE value specified in Table 3.7.3.2.27-2 corresponding to the type of search specified by this message.

### Table 3.7.3.2.27-2. SEARCH_MODE Types

<table>
<thead>
<tr>
<th>SEARCH_MODE (binary)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000</td>
<td>Searches for CDMA pilots on a Candidate Frequency.</td>
</tr>
<tr>
<td>0001</td>
<td>Searches for analog channels.</td>
</tr>
<tr>
<td>0010</td>
<td>Searches for Direct Spread (DS) neighbor cell.</td>
</tr>
<tr>
<td>0011-1111</td>
<td>Reserved</td>
</tr>
</tbody>
</table>
MODE_SPECIFIC_LEN - Length of mode-specific fields.
The base station shall set this field to the number of octets in
the mode-specific fields of this message.

Mode-specific fields - Search mode-specific fields.
The base station shall include mode-specific fields based on
the SEARCH_MODE field.

If SEARCH_MODE is equal to ‘0000’, the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAND_CLASS</td>
<td>5</td>
</tr>
<tr>
<td>CDMA_FREQ</td>
<td>11</td>
</tr>
<tr>
<td>SF_TOTAL_EC_THRESH</td>
<td>5</td>
</tr>
<tr>
<td>SF_TOTAL_EC_IO_THRESH</td>
<td>5</td>
</tr>
<tr>
<td>DIFF_RX_PWR_THRESH</td>
<td>5</td>
</tr>
<tr>
<td>MIN_TOTAL_PILOT_EC_IO</td>
<td>5</td>
</tr>
<tr>
<td>CF_T_ADD</td>
<td>6</td>
</tr>
<tr>
<td>TF_WAIT_TIME</td>
<td>4</td>
</tr>
<tr>
<td>CF_PILOT_INC</td>
<td>4</td>
</tr>
<tr>
<td>CF_SRCH_WIN_N</td>
<td>4</td>
</tr>
<tr>
<td>CF_SRCH_WIN_R</td>
<td>4</td>
</tr>
<tr>
<td>RESERVED_2</td>
<td>5</td>
</tr>
<tr>
<td>PILOT_UPDATE</td>
<td>1</td>
</tr>
</tbody>
</table>

If PILOT_UPDATE is set to ‘1’ the base station shall include the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUM_PILOTS</td>
<td>6</td>
</tr>
<tr>
<td>CF_NGHBR_SRCH_MODE</td>
<td>2</td>
</tr>
</tbody>
</table>

If PILOT_UPDATE is set to ‘1’, the base station shall include NUM_PILOTS occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGHBR_PN</td>
<td>9</td>
</tr>
<tr>
<td>SEARCH_SET</td>
<td>1</td>
</tr>
<tr>
<td>SEARCH_PRIORITY</td>
<td>0 or 2</td>
</tr>
<tr>
<td>SRCH_WIN_NGHBR</td>
<td>0 or 4</td>
</tr>
</tbody>
</table>

If PILOT_UPDATE is set to ‘1’, the base station shall include the following field:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF_SRCH_OFFSET_INCL</td>
<td>1</td>
</tr>
</tbody>
</table>
If PILOT_UPDATE is set to ‘1’, the base station shall include NUM_PILOTS occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADD_PILOT_REC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>NGHBR_PILOT_REC_TYPE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>0 or 3</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>0 or 8 × RECORD_LEN</td>
</tr>
<tr>
<td>SRCH_OFFSET_NGHBR</td>
<td>0 or 3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESERVED_3</td>
<td>0 - 7 (as needed)</td>
</tr>
</tbody>
</table>

BAND_CLASS - Band class.

The base station shall set this field to the CDMA band class of the Candidate Frequency.

CDMA_FREQ - Frequency assignment.

The base station shall set this field to the CDMA frequency assignment for the Candidate Frequency.

SF_TOTAL_EC-_THRESH - Serving Frequency total pilot $E_c$ threshold.

If the mobile station is not to use the measurement of total $E_c$ of the pilots in the Serving Frequency Active Set in the Candidate Frequency periodic search procedure, the base station shall set this field to ‘11111’; otherwise, the base station shall set this field to

$$\left\lceil \frac{10 \times \log_{10} (total\_ec\_thresh) + 120}{2} \right\rceil$$

where $total\_ec\_thresh$ is defined by the following rule: The mobile station is not to visit the CDMA Candidate Frequency to search for pilots if the total $E_c$ of the pilots in the Serving Frequency Active Set is greater than $total\_ec\_thresh$.

SF_TOTAL_EC-_IO_THRESH - Serving Frequency total pilot $E_c/I_o$ threshold.

If the mobile station is not to use the measurement of total $E_c/I_o$ of the pilots in the Serving Frequency Active Set in the Candidate Frequency periodic search procedure, the base station shall set this field to ‘11111’; otherwise, the base station shall set this field to

$$\left\lfloor -20 \times \log_{10} (total\_ec\_io\_thresh) \right\rfloor$$
where total_ec_io_thresh is defined by the following rule: The mobile station is not to visit the CDMA Candidate Frequency to search for pilots if the total $E_c/I_o$ of the pilots in the Serving Frequency Active Set is greater than total_ec_io_thresh.

**DIFF_RX_PWR-THRESH** - Minimum difference in received power.

If this message is used for the Candidate Frequency single or periodic search procedure:

If the mobile station is to search for pilots on the CDMA Candidate Frequency irrespective of the received power on the Candidate Frequency, the base station shall set this field to '00000'; otherwise, the base station shall set this field to

$$\left\lfloor \frac{\text{minimum_power_diff} + 30}{2} \right\rfloor$$

where minimum_power_diff is determined by the following rule: The mobile station is not to search for pilots on the CDMA Candidate Frequency if $(\text{cand_freq_pwr} - \text{serving_freq_pwr})$ is less than minimum_power_diff (in dB), where cand_freq_pwr is the received power on the CDMA Candidate Frequency, in dBm / 1.23 MHz, and serving_freq_pwr is the received power on the Serving Frequency, in dBm / 1.23 MHz.

If this message is used for the Hard Handoff with Return on Failure procedure:

If the mobile station is to continue hard handoff procedures irrespective of the received power on the Target Frequency, the base station shall set this field to '00000'; otherwise, the base station shall set this field to

$$\left\lfloor \frac{\text{minimum_power_diff} + 30}{2} \right\rfloor$$

where minimum_power_diff is determined by the following rule: The mobile station is to declare the handoff attempt to be unsuccessful if $(\text{target_freq_pwr} - \text{serving_freq_pwr})$ is less than minimum_power_diff (in dB), where target_freq_pwr is the received power on the CDMA Target Frequency, in dBm / 1.23 MHz, and serving_freq_pwr is the received power on the Serving Frequency, in dBm / 1.23 MHz.

**MIN_TOTAL_PILOT-EC_IO** - Minimum total pilot $E_c/ I_o$.

If this message is used for the Candidate Frequency periodic search procedure:
If the mobile station is to search for pilots on the CDMA Candidate Frequency irrespective of the strength of pilots in the Candidate Frequency Search Set, the base station shall set this field to ‘00000’; otherwise, the base station shall set this field to 

\[ -20 \times \log_{10} \text{total pilot threshold} \]

where \text{total pilot threshold} is defined by the following rule:

The mobile station is not to send the Candidate Frequency Search Report Message if the sum of $E_c/I_o$ of all pilots in the mobile station’s Candidate Frequency Search Set that measure above CF_T_ADD is less than total_pilot_threshold.

If this message is used for the Hard Handoff with Return on Failure procedure:

If the mobile station is to attempt to demodulate the Forward Traffic Channels irrespective of the strength of pilots in the Active Set, the base station shall set this field to ‘00000’; otherwise, the base station shall set this field to 

\[ -20 \times \log_{10} \text{total pilot threshold} \]

where \text{total pilot threshold} is defined by the following rule:

The mobile station is not to attempt to demodulate the Forward Traffic Channels if the sum of $E_c/I_o$ of all pilots in the mobile station’s Active Set is less than total_pilot_threshold.

\[ \text{CF_T_ADD} \] - Pilot detection threshold for the CDMA Candidate Frequency.

This value is used by the mobile station to trigger the sending of the Candidate Frequency Search Report Message during a periodic search of the CDMA Candidate Frequency (see 2.6.6.2.8.3.2).

The base station shall set this field to the pilot detection threshold, expressed as an unsigned binary number equal to 

\[ -2 \times 10 \times \log_{10} E_c/I_o \]

\[ \text{TF_WAIT_TIME} \] - The total maximum wait time on the CDMA Target Frequency.

The base station shall set this field to the maximum wait time, in units of 80 ms, that the mobile station is to spend waiting for a period of $(N_{11m} \times 20)$ ms with sufficient signal quality (e.g. good frames) on the CDMA Target Frequency.

\[ \text{CF_PILOT_INC} \] - Pilot PN sequence offset index increment to be used on the CDMA Candidate Frequency after handoff.
The base station shall set this field to the pilot PN sequence increment, in units of 64 PN chips, that the mobile station is to use for searching the Remaining Set, after a handoff to the CDMA Candidate Frequency is successfully completed. The base station should set this field to the largest increment such that the pilot PN sequence offsets of all its neighbor base stations are integer multiples of that increment.

**CF_SRCH_WIN_N** - Default search window size for the Candidate Frequency Search Set.

The base station shall set this field to the value specified in Table 2.6.6.2.1-1 corresponding to the default search window size to be used by the mobile station for its Candidate Frequency Neighbor Search Set. The mobile station uses the default search window size for all pilots in its Candidate Frequency Neighbor Search Set when the search window has not been specified for each pilot individually.

**CF_SRCH_WIN_R** - Search window size for the Remaining Set on the CDMA Candidate Frequency.

The base station shall set this field to the window size parameter shown in Table 2.6.6.2.1-1 corresponding to the number of PN chips that the mobile station is to search for pilots in the Remaining Set on the CDMA Candidate Frequency after a handoff is successfully completed.

**RESERVED_2** - Reserved bits.

The base station shall set this field to '00000'.

**PILOT_UPDATE** - Pilot search parameter update indicator.

If the mobile station is to change its pilot search parameters, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

**NUM_PILOTS** - Number of pilots included in the message.

The base station shall set this field to the number of the CDMA Candidate Frequency pilots included in this message. The base station shall set this field to a value from 0 to $N_{8m}$, inclusive.

**CF_NGHBR_SRCH_MODE** - Search mode for Candidate Frequency Search Set.

The base station shall set this field to the value shown in Table 3.7.3.3.2.27-3 corresponding to the search mode.
Table 3.7.3.3.2.27-3. CF_NGHBR_SRCH_MODE Field

<table>
<thead>
<tr>
<th>Value (binary)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>No search priorities or search windows specified</td>
</tr>
<tr>
<td>01</td>
<td>Search priorities specified</td>
</tr>
<tr>
<td>10</td>
<td>Search windows specified</td>
</tr>
<tr>
<td>11</td>
<td>Search windows and search priorities specified</td>
</tr>
</tbody>
</table>

The base station shall include NUM_PILOTS occurrences of the following four-field record, one for each included CDMA Candidate Frequency pilot.

- **NGHBR_PN** - Neighbor pilot PN sequence offset index.
  - The base station shall set this field to the pilot’s PN sequence offset, in units of 64 PN chips.

- **SEARCH_SET** - Flag to indicate if the corresponding pilot is to be searched.
  - The base station shall set this field to ‘1’ if the mobile station should add the corresponding pilot to its Candidate Frequency Search Set; otherwise, the base station shall set this field to ‘0’.

- **SEARCH_PRIORITY** - Pilot Channel search priority.
  - If CF_NGHBR_SRCH_MODE is set to ‘01’ or ‘11’, then the base station shall set this field to the search priority for this neighbor. The base station shall set the search priority as specified in Table 3.7.3.3.2.26-2. If CF_NGHBR_SRCH_MODE is set to any other value, the base station shall omit this field.

- **SRCH_WIN_NGHBR** - Neighbor pilot channel search window size.
  - If CF_NGHBR_SRCH_MODE is set to ‘10’ or ‘11’, then the base station shall set this field to the value specified in Table 2.6.6.2.1-1 corresponding to the search window size to be used by mobile stations for this neighbor. If the CF_NGHBR_SRCH_MODE is set to any other value, the base station shall omit this field.

- **CF_SRCH_OFFSET_INCL** - Neighbor pilot channel search window offset included.
  - If PILOT_UPDATE is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:
    - If CF_NGHBR_SRCH_MODE is set to ‘10’ or ‘11’ and if SRCH_OFFSET_NGHBR is included in the message, the base station shall set this bit to ‘1’; otherwise, the base station shall set this bit to ‘0’.
  - If PILOT_UPDATE is set to ‘1’, the base station shall include NUM_PILOTS occurrences of the following four-field record, one for each included CDMA Candidate Frequency Pilot.

- **ADD_PILOT_REC_INCL** - Additional pilot information included indicator.
The base station shall set this field to ‘1’ if additional pilot information listed in NGHBR_PILOT_REC_TYPE and RECORD_LEN fields are included. The base station shall set this field to ‘0’ if the corresponding pilot is the common pilot and there is no additional pilot information included.

NGHBR_PILOT-_REC_TYPE - Neighbor Pilot record type

If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall set this field to the NGHBR_PILOT_REC_TYPE value shown in Table 3.7.2.3.2.22-5 corresponding to the type of Pilot Record specified by this record.

If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

RECORD_LEN - Pilot record length.

If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall set this field to the number of octets in the type-specific fields of this pilot record.

If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

Type-specific fields - Pilot record type-specific fields.

If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall include type-specific fields based on the NGHBR_PILOT_REC_TYPE of this pilot record.

If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

If NGHBR_PILOT_REC_TYPE is equal to ‘000’, the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TD_POWER_LEVEL</td>
<td>2</td>
</tr>
<tr>
<td>TD_MODE</td>
<td>2</td>
</tr>
<tr>
<td>RESERVED</td>
<td>4</td>
</tr>
</tbody>
</table>

TD_POWER_LEVEL - TD Transmit Power Level.

The base station shall set this field to the TD transmit power level relative to that of the Forward Pilot Channel as specified in Table 3.7.2.3.2.26-4.

TD_MODE - Transmit Diversity mode.

The base station shall set this field to the Transmit Diversity mode, as specified in Table 3.7.2.3.2.26-3.

RESERVED - Reserved bits.
The base station shall set these bits to ‘0000’.

If NGHBR_PILOT_REC_TYPE is equal to ‘001’, the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QOF</td>
<td>2</td>
</tr>
<tr>
<td>WALSH_LENGTH</td>
<td>3</td>
</tr>
<tr>
<td>AUX_PILOT_WALSH</td>
<td>WALSH_LENGTH+6</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 to 7 (as needed)</td>
</tr>
</tbody>
</table>

- **QOF** - Quasi-orthogonal function index.
  
  The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]).

- **WALSH_LENGTH** - Length of the Walsh code.
  
  The base station shall set this field to the WALSH_LENGTH value shown in Table 3.7.2.3.2.22–6 corresponding to the length of the Walsh code for the pilot that is used in as the Auxiliary pilot.

- **AUX_PILOT_WALSH** - Walsh code for the Auxiliary Pilot.
  
  The base station shall set this field to the Walsh code corresponding to the Auxiliary Pilot.

- **RESERVED** - Reserved bits.
  
  The base station shall set all the bits of this field to ‘0’ to make the entire record octet-aligned.

If NGHBR_PILOT_REC_TYPE is equal to ‘010’, the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QOF</td>
<td>2</td>
</tr>
<tr>
<td>WALSH_LENGTH</td>
<td>3</td>
</tr>
<tr>
<td>AUX_WALSH</td>
<td>WALSH_LENGTH+6</td>
</tr>
<tr>
<td>AUX_TD_POWER_LEVEL</td>
<td>WALSH_LENGTH+6</td>
</tr>
<tr>
<td>TD_MODE</td>
<td>2</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 to 7 (as needed)</td>
</tr>
</tbody>
</table>

- **QOF** - Quasi-orthogonal function index for the Auxiliary Transmit Diversity Pilot.
  
  The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]).
WALSH_LENGTH  - Length of the Walsh code.
The base station shall set this field to the WALSH_LENGTH value shown in 3.7.2.3.2.22-6 corresponding to the length of the Walsh code for the pilots that are used as Auxiliary pilot in the transmit diversity mode.

AUX_WALSH  - Walsh code for the Auxiliary Pilot.
The base station shall set this field to the Walsh code corresponding to the Auxiliary Pilot.

AUX_TD_POWER_LEVEL  - Auxiliary Transmit Diversity Pilot power level.
The base station shall set this field to the Auxiliary Transmit Diversity Pilot transmit power level relative to that of the Auxiliary Pilot as specified in Table 3.7.2.3.2.22-7.

TD_MODE  - Transmit Diversity mode.
The base station shall set this field to the Transmit Diversity mode, as specified in Table 3.7.2.3.2.26-3.

RESERVED  - Reserved bits.
The base station shall set all the bits of this field to ‘0’ to make the entire record octet-aligned.

If NGHBR_PILOT_REC_TYPE is equal to ‘011’, the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR3_PRIMARY_PILOT</td>
<td>2</td>
</tr>
<tr>
<td>SR3_PILOT_POWER1</td>
<td>3</td>
</tr>
<tr>
<td>SR3_PILOT_POWER2</td>
<td>3</td>
</tr>
</tbody>
</table>

SR3_PRIMARY_PILOT  - Primary SR3 pilot.
The base station shall set this field to the value shown in Table 3.7.2.3.2.26-5 corresponding to the position of the primary SR3 pilot.

SR3_PILOT_POWER1  - The primary SR3 pilot power level relative to that of the pilot on the lower frequency of the two remaining SR3 frequencies.
The base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the lower frequency of the two remaining SR3 frequencies.

SR3_PILOT_POWER2  - The primary SR3 pilot power level relative to that of the pilot on the higher frequency of the two remaining SR3 frequencies.
The base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the higher frequency of the two remaining SR3 frequencies.
RESERVED ——— Reserved bits.

The base station shall set this field to ‘0000000’.

If NGHBR_PILOT_REC_TYPE is equal to ‘100’, the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR3_PRIMARY_PILOT</td>
<td>2</td>
</tr>
<tr>
<td>SR3_PILOT_POWER1</td>
<td>3</td>
</tr>
<tr>
<td>SR3_PILOT_POWER2</td>
<td>3</td>
</tr>
<tr>
<td>QOF</td>
<td>2</td>
</tr>
<tr>
<td>WALSH_LENGTH</td>
<td>3</td>
</tr>
<tr>
<td>AUX_PILOT_WALSH</td>
<td>WALSH_LENGTH+6</td>
</tr>
<tr>
<td>ADD_INFO_INCL1</td>
<td>1</td>
</tr>
<tr>
<td>QOF1</td>
<td>0 or 2</td>
</tr>
<tr>
<td>WALSH_LENGTH1</td>
<td>0 or 3</td>
</tr>
<tr>
<td>AUX_PILOT_WALSH1</td>
<td>0 or WALSH_LENGTH1+6</td>
</tr>
<tr>
<td>ADD_INFO_INCL2</td>
<td>1</td>
</tr>
<tr>
<td>QOF2</td>
<td>0 or 2</td>
</tr>
<tr>
<td>WALSH_LENGTH2</td>
<td>0 or 3</td>
</tr>
<tr>
<td>AUX_PILOT_WALSH2</td>
<td>0 or WALSH_LENGTH2+6</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 – 7 (as needed)</td>
</tr>
</tbody>
</table>

SR3_PRIMARY_PILOT — Primary SR3 pilot.

The base station shall set this field to the value shown in Table 3.7.2.3.2.26-5 corresponding to the position of the primary SR3 pilot.

SR3_PILOT_POWER1 — The primary SR3 pilot power level relative to that of the pilot on the lower frequency of the two remaining SR3 frequencies.

The base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the lower frequency of the two remaining SR3 frequencies.

SR3_PILOT_POWER2 — The primary SR3 pilot power level relative to that of the pilot on the higher frequency of the two remaining SR3 frequencies.

The base station shall set this field to the value shown in Table 3.7.2.3.2.26-6 corresponding to the power level of the primary pilot with respect to the pilot on the higher frequency of the two remaining SR3 frequencies.
QOF - Quasi-orthogonal function index.

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the frequency of the primary pilot.

WALSH_LENGTH - Length of the Walsh Code.

The base station shall set this field to the WALSH_LENGTH value shown in Table 3.7.2.3.2.22–6 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot on the frequency of the primary pilot.

AUX_PILOT_WALSH - Walsh Code for the Auxiliary Pilot.

The base station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the frequency of the primary pilot.

ADD_INFO_INCL1 - Additional information included for the pilot on the lower frequency of the two remaining SR3 frequencies.

If the additional information for the pilot on the lower frequencies of the two remaining SR3 frequencies is the same as pilot on the primary frequency, the base station shall set this field to ‘0’; otherwise, the base station shall set this field to ‘1’.

QOF1 - Quasi-orthogonal function index for the pilot on the lower frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL1 is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the lower frequency of the two remaining SR3 frequencies.

WALSH_LENGTH1 - Length of the Walsh Code for the pilot on the lower frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL1 is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the WALSH_LENGTH value shown in Table 3.7.2.3.2.22–6 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot on the lower frequency of the two remaining SR3 frequencies.

AUX_PILOT_WALSH1 - Walsh Code for the Auxiliary Pilot on the lower frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL1 is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the lower frequency of the two remaining SR3 frequencies.
ADD_INFO_INCL2 - Additional information included for the pilot on the higher frequency of the two remaining SR3 frequencies.

If the additional information for the pilot on the higher frequencies of the two remaining SR3 frequencies is the same as pilot on the primary frequency, the base station shall set this field to '0'; otherwise, the base station shall set this field to '1'.

QOF2 - Quasi-orthogonal function index for the pilot on the higher frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL2 is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the higher frequency of the two remaining SR3 frequencies.

WALSH_LENGTH2 - Length of the Walsh Code for the pilot on the higher frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL2 is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the WALSH_LENGTH value shown in Table 3.7.2.3.2.22–6 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot on the higher frequency of the two remaining SR3 frequencies.

AUX_PILOT_WALSH2 - Walsh Code for the Auxiliary Pilot on the higher frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL2 is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the higher frequency of the two remaining SR3 frequencies.

RESERVED - Reserved bits.

The base station shall set all the bits of this field to '0' to make the entire record octet-aligned.

SRCH_OFFSET_NGHBR - Neighbor pilot channel search window offset.

If CF_SRCH_OFFSET_INCL is included and equals to ‘1’, then the base station shall set this field to the value specified in Table 2.6.6.2.1-2 corresponding to the search window offset to be used by the mobile station for this neighbor; otherwise, the base station shall omit this field.

RESERVED_3 - Reserved bits.

The base station shall add reserved bits as needed in order to make the length of the Mode-specific fields equal to an integer number of octets. The base station shall set these bits to ‘0’.

3-472
If SEARCH_MODE is equal to ‘0001’, the base station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAND_CLASS</td>
<td>5</td>
</tr>
<tr>
<td>SF_TOTAL_EC_THRESH</td>
<td>5</td>
</tr>
<tr>
<td>SF_TOTAL_EC_IO_THRESH</td>
<td>5</td>
</tr>
<tr>
<td>RESERVED_4</td>
<td>6</td>
</tr>
<tr>
<td>NUM_ANALOG_FREQS</td>
<td>3</td>
</tr>
</tbody>
</table>

NUM_ANALOG_FREQS occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANALOG_FREQ</td>
<td>11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESERVED_5</td>
<td>0-7</td>
</tr>
</tbody>
</table>

**BAND_CLASS** - Band class.

The base station shall set this field to the CDMA band class associated with the analog frequencies included in this message.

**SF_TOTAL_EC-_THRESH** - Serving Frequency total pilot $E_c$ threshold.

If the mobile station is not to use the measurement of total $E_c$ of the pilots in the Serving Frequency Active Set in the Analog Frequencies periodic search procedure, the base station shall set this field to ‘11111’; otherwise, the base station shall set this field to

\[
\left\lfloor \frac{10 \times \log_{10} (total_{ec\_thresh}) + 120}{2} \right\rfloor
\]

where $total_{ec\_thresh}$ is defined by the following rule: The mobile station is not to visit any analog frequency if the total $E_c$ of the pilots in the Serving Frequency Active Set is greater than $total_{ec\_thresh}$.

**SF_TOTAL_EC-_IO_THRESH** - Serving Frequency total pilot $E_c/I_o$ threshold.

If the mobile station is not to use the measurement of total $E_c/I_o$ of the pilots in the Serving Frequency Active Set in the Analog Frequencies periodic search procedure, the base station shall set this field to ‘11111’; otherwise, the base station shall set this field to

\[
\left\lfloor -20 \times \log_{10} (total_{ec\_io\_thresh}) \right\rfloor
\]
where $total_{ec\_io\_thresh}$ is defined by the following rule: The mobile station is not to visit any analog frequency if the total \( E_c/I_o \) of the pilots in the Serving Frequency Active Set is greater than $total_{ec\_io\_thresh}$.

**RESERVED_4** - Reserved bits.

The base station shall set this field to ‘000000’.

**NUM_ANALOG_FREQS** - Number of analog frequencies.

The base station shall set this field to the number of neighbors on the candidate frequency. The base station shall set this field to a value from 1 to 7, inclusive.

The message will include **NUM_ANALOG_FREQS** occurrences of the following one-field record, one for each neighbor on the candidate frequency.

**ANALOG_FREQ** - Analog frequency channel number.

The base station shall set this field to the analog frequency channel number to search.

**RESERVED_5** - Reserved bits.

The base station shall add reserved bits as needed in order to make the length of the Mode-specific fields equal to an integer number of octets. The base station shall set these bits to ‘0’.

**ALIGN_TIMING** - Align timing indicator.

If the base station requests that the mobile station offset the start of the first search from the action time of this message (or of a subsequent Candidate Frequency Search Control Message that starts a search) by a delay specified by the SEARCH_OFFSET field, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**SEARCH_OFFSET** - Search offset.

If the **ALIGN_TIMING** field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it to

\[
\text{min} \left( 63, \left\lfloor \frac{\text{search\_offset\_time}}{0.00125} \right\rfloor \right)
\]

where $\text{search\_offset\_time}$ is the time offset, in seconds, of the start of the first search from the action time of this message (or of a subsequent Candidate Frequency Search Control Message that starts a search).
3.7.3.3.2.28 Candidate Frequency Search Control Message

MSG_TAG: CFSCNM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE_TIME</td>
<td>1</td>
</tr>
<tr>
<td>ACTION_TIME</td>
<td>6</td>
</tr>
<tr>
<td>CFSCM_SEQ</td>
<td>2</td>
</tr>
<tr>
<td>SEARCH_TYPE</td>
<td>2</td>
</tr>
<tr>
<td>ALIGN_TIMING</td>
<td>1</td>
</tr>
</tbody>
</table>

**USE_TIME** - Use action time indicator.

This field indicates whether an explicit action time is specified in this message.

If an explicit action time is specified in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

If the base station requests the mobile station to perform an aligned search (see 2.6.6.2.8.3), the base station shall specify an explicit action time for the message.

**ACTION_TIME** - Action time.

If the USE_TIME field is set to ‘1’, the base station shall set this field to the System Time, in units of 80 ms (modulo 64), at which the message is to take effect. If the USE_TIME field is set to ‘0’ the base station shall set this field to ‘000000’.

**CFSCM_SEQ** - Candidate Frequency Search Control Message sequence number.

The base station shall set this field to the Candidate Frequency Search Control Message sequence number, as specified in 3.6.6.2.2.5.

**SEARCH_TYPE** - Search command.

The base station shall set this field to the appropriate SEARCH_TYPE code from Table 3.7.3.3.2.27-1 to indicate the purpose of the message.

**ALIGN_TIMING** - Align timing indicator.

If the base station requests that the mobile station offset the start of the first search from the action time of this message by a delay specified by the SEARCH_OFFSET field of the last Candidate Frequency Search Request Message sent to the mobile station, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.
3.7.3.3.2.29 Power Up Function Message

MSG_TAG: PUF

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE_TIME</td>
<td>1</td>
</tr>
<tr>
<td>ACTION_TIME</td>
<td>6</td>
</tr>
<tr>
<td>ACTION_TIME_FRAME</td>
<td>2</td>
</tr>
<tr>
<td>PUF_SETUP_SIZE</td>
<td>6</td>
</tr>
<tr>
<td>PUF_PULSE_SIZE</td>
<td>7</td>
</tr>
<tr>
<td>PUF_INTERVAL</td>
<td>10</td>
</tr>
<tr>
<td>PUF_INIT_PWR</td>
<td>6</td>
</tr>
<tr>
<td>PUF_PWR_STEP</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL_PUF_PROBES</td>
<td>4</td>
</tr>
<tr>
<td>MAX_PWR_PUF</td>
<td>4</td>
</tr>
<tr>
<td>PUF_FREQ_INCL</td>
<td>1</td>
</tr>
<tr>
<td>PUF_BAND_CLASS</td>
<td>0 or 5</td>
</tr>
<tr>
<td>PUF_CDMA_FREQ</td>
<td>0 or 11</td>
</tr>
</tbody>
</table>

USE_TIME - Use action time indicator.
The base station shall set this field to ‘1’.

ACTION_TIME - Action time.
The base station shall set this field to the System Time, in units of 80 ms (modulo 64), used in calculating the start of the first PUF probe.

ACTION_TIME_FRAME - Action time frame.
The base station shall set this field to the number of frames after ACTION_TIME that the mobile station is to begin the first PUF probe.

PUF_SETUP_SIZE - Number of PUF setup power control groups.
The base station shall set this field to one less than the number of power control groups that the mobile station is to transmit at nominal power prior to transmitting a PUF pulse.
The base station shall set the values of PUF_SETUP_SIZE and PUF_PULSE_SIZE so that \([\text{PUF.Setup.Size} + 1 + \text{PUF.Pulse.Size} + 1] \mod 16\) is not equal to 0.

PUF_PULSE_SIZE - Number of PUF pulse power control groups.
The base station shall set this field to one less than the number of power control groups that the mobile station is to transmit at elevated power level during the PUF pulse. The base station shall set the values of PUF_SETUP_SIZE and PUF_PULSE_SIZE so that \((\text{PUF\_SETUP\_SIZE} + 1 + \text{PUF\_PULSE\_SIZE} + 1) \mod 16\) is not equal to 0.

**PUF\_INTERVAL** - PUF interval.

The base station shall set this field to the number of frames between the start of each PUF probe.

**PUF\_INIT\_PWR** - Power increase of initial PUF pulse.

The base station shall set this field to the amount (in dB) that the mobile station is to increase its mean output power for the first PUF pulse.

**PUF\_PWR\_STEP** - PUF power step.

The base station shall set this field to the value (in dB) by which the mobile station is to increment the power of a PUF pulse above nominal power from one PUF pulse to the next.

**TOTAL\_PUF\_PROBES** - Total number of PUF probes.

The base station shall set this field to one less than the maximum number of PUF probes the mobile station is to transmit in a PUF attempt.

**MAX\_PWR\_PUF** - Maximum number of PUF probes transmitted at full power.

The base station shall set this field to one less than the number of PUF pulses that the mobile station is to transmit at maximum power level.

**PUF\_FREQ\_INCL** - Frequency included indicator.

If the mobile station is to change PUF\_BAND\_CLASS or PUF\_CDMA\_FREQ, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**PUF\_BAND\_CLASS** - Band class.

If PUF\_FREQ\_INCL is set to ‘1’, the base station shall include this field and set it to the CDMA band class corresponding to the CDMA frequency assignment for the CDMA Channel as specified in [30]; otherwise, the base station shall omit this field.

**PUF\_CDMA\_FREQ** - Frequency assignment.

If PUF\_FREQ\_INCL is set to ‘1’, the base station shall include this field and set it to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA frequency for the CDMA Channel as specified in [2]; otherwise, the base station shall omit this field.
3.7.3.2.30 Power Up Function Completion Message

**MSG_TAG:** PUFCM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESERVED</td>
<td>6</td>
</tr>
<tr>
<td>LOC_IND</td>
<td>1</td>
</tr>
<tr>
<td>RESERVED_1</td>
<td>0 or 3</td>
</tr>
<tr>
<td>MS_LAT</td>
<td>0 or 22</td>
</tr>
<tr>
<td>MS_LONG</td>
<td>0 or 23</td>
</tr>
<tr>
<td>MS_LOC_TSTAMP</td>
<td>0 or 24</td>
</tr>
</tbody>
</table>

**RESERVED** - Reserved bits.

The base station shall set these bits to ‘000000’.

**LOC_IND** - Location indicator

If the base station is to include MS_LAT, MS_LONG, and MS_LOC_TSTAMP in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**RESERVED_1** - Reserved bits.

If LOC_IND is equal to ‘1’, the base station shall set these bits to ‘000’; otherwise, the base station shall not include this field.

**MS_LAT** - Mobile station latitude.

If LOC_IND is equal to ‘1’, the base station shall set this field to the mobile station’s latitude in units of 0.25 second, expressed as a two’s complement signed number with positive numbers signifying North latitudes. The base station shall set this field to a value in the range -1296000 to 1296000 inclusive (corresponding to a range of -90° to +90°).

Otherwise, the base station shall not include this field.

**MS_LONG** - Mobile station longitude.

If LOC_IND is equal to ‘1’, the base station shall set this field to the mobile station’s longitude in units of 0.25 second, expressed as a two’s complement signed number with positive numbers signifying East longitude. The base station shall set this field to a value in the range -2592000 to 2592000 inclusive (corresponding to a range of -180° to +180°).

Otherwise, the base station shall not include this field.

**MS_LOC_TSTAMP** - Time stamp.
If LOC_IND is equal to ‘1’, the base station shall set this field to the time at which the mobile station’s location parameters were received; otherwise, the base station shall not include this field.

This field is formatted as shown below.

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HOURS</td>
<td>8</td>
</tr>
<tr>
<td>MINUTES</td>
<td>8</td>
</tr>
<tr>
<td>SECONDS</td>
<td>8</td>
</tr>
</tbody>
</table>

Note: All subfields contain two 4-bit BCD numbers giving the decimal value of the subfield. For example, if the minute is 53, the MINUTES subfield contains ‘01010011’.

- **HOURS** - Current hour (UTC).
  - The base station shall set this field to the current hour (UTC), in the range 0-23.

- **MINUTES** - Current minutes (UTC).
  - The base station shall set this field to the current minutes (UTC), in the range 0-59.

- **SECONDS** - Current seconds (UTC).
  - The base station shall set this field to the current seconds (UTC), in the range 0-59.
### 3.7.3.3.2.31 General Handoff Direction Message

**MSG TAG:** GHDM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE_TIME</td>
<td>1</td>
</tr>
<tr>
<td>ACTION_TIME</td>
<td>0 or 6</td>
</tr>
<tr>
<td>HDM_SEQ</td>
<td>2</td>
</tr>
<tr>
<td>SEARCHINCLUDED</td>
<td>1</td>
</tr>
<tr>
<td>SRCH_WIN_A</td>
<td>0 or 4</td>
</tr>
<tr>
<td>SRCH_WIN_N</td>
<td>0 or 4</td>
</tr>
<tr>
<td>SRCH_WIN_R</td>
<td>0 or 4</td>
</tr>
<tr>
<td>T_ADD</td>
<td>0 or 6</td>
</tr>
<tr>
<td>T_DROP</td>
<td>0 or 6</td>
</tr>
<tr>
<td>T_COMP</td>
<td>0 or 4</td>
</tr>
<tr>
<td>T_TDROP</td>
<td>0 or 4</td>
</tr>
<tr>
<td>SOFT_SLOPE</td>
<td>0 or 6</td>
</tr>
<tr>
<td>ADD_INTERCEPT</td>
<td>0 or 6</td>
</tr>
<tr>
<td>DROP_INTERCEPT</td>
<td>0 or 6</td>
</tr>
<tr>
<td>EXTRA_PARMS</td>
<td>1</td>
</tr>
<tr>
<td>P_REV</td>
<td>0 or 8</td>
</tr>
<tr>
<td>PACKET_ZONE_ID</td>
<td>0 or 8</td>
</tr>
<tr>
<td>FRAME_OFFSET</td>
<td>0 or 4</td>
</tr>
<tr>
<td>PRIVATE_LCM</td>
<td>0 or 1</td>
</tr>
<tr>
<td>RESET_L2</td>
<td>0 or 1</td>
</tr>
<tr>
<td>RESET_FPC</td>
<td>0 or 1</td>
</tr>
<tr>
<td>SERV_NEG_TYPE</td>
<td>0 or 1</td>
</tr>
</tbody>
</table>

(continues on next page)
<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENCRYPT_MODE</td>
<td>0 or 2</td>
</tr>
<tr>
<td>NOM_PWR_EXT</td>
<td>0 or 1</td>
</tr>
<tr>
<td>NOM_PWR</td>
<td>0 or 4</td>
</tr>
<tr>
<td>NUM_PREAMBLE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>BAND_CLASS</td>
<td>0 or 5</td>
</tr>
<tr>
<td>CDMA_FREQ</td>
<td>0 or 11</td>
</tr>
<tr>
<td>RETURN_IF_HANDOFF_FAIL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>COMPLETE_SEARCH</td>
<td>0 or 1</td>
</tr>
<tr>
<td>PERIODIC_SEARCH</td>
<td>0 or 1</td>
</tr>
<tr>
<td>SCR_INCLUDED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>SERV_CON_SEQ</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RECORD_TYPE</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>0 or 8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>0 or 8 x RECORD_LEN</td>
</tr>
<tr>
<td>SUP_CHAN_PARMS_INCLUDED</td>
<td>1</td>
</tr>
<tr>
<td>FOR_INCLUDED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>FOR_SUP_CONFIG</td>
<td>0 or 2</td>
</tr>
<tr>
<td>NUM_FOR_SUP</td>
<td>0 or 3</td>
</tr>
<tr>
<td>USE_FOR_DURATION</td>
<td>0 or 1</td>
</tr>
<tr>
<td>FOR_DURATION</td>
<td>0 or 8</td>
</tr>
<tr>
<td>REV_INCLUDED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>REV_DTX_DURATION</td>
<td>0 or 4</td>
</tr>
<tr>
<td>CLEAR_RETRY_DELAY</td>
<td>0 or 1</td>
</tr>
<tr>
<td>USE_REV_DURATION</td>
<td>0 or 1</td>
</tr>
<tr>
<td>REV_DURATION</td>
<td>0 or 8</td>
</tr>
<tr>
<td>NUM_REV_CODES</td>
<td>0 or 3</td>
</tr>
<tr>
<td>USE_T_ADD_ABORT</td>
<td>0 or 1</td>
</tr>
<tr>
<td>REV_PARMS_INCLUDED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>T_MULCHAN</td>
<td>0 or 3</td>
</tr>
<tr>
<td>BEGIN_PREAMBLE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RESUME_PREAMBLE</td>
<td>0 or 3</td>
</tr>
</tbody>
</table>

(continues on next page)
<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE_PWR_CNTL_STEP</td>
<td>1</td>
</tr>
<tr>
<td>PWR_CNTL_STEP</td>
<td>0 or 3</td>
</tr>
<tr>
<td>NUM_PILOTS</td>
<td>3</td>
</tr>
</tbody>
</table>

NUM_PILOTS occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>PWR_COMB_IND</td>
<td>1</td>
</tr>
<tr>
<td>FOR_FUND_CODE_CHAN</td>
<td>8</td>
</tr>
<tr>
<td>FOR_SUP_INCLUDED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>FOR_SUP_CHAN_REC Record</td>
<td>0 or 9 or (1 + 8 × NUM_FOR_SUP)</td>
</tr>
<tr>
<td>FPC_SUBCHAN_GAIN</td>
<td>5</td>
</tr>
<tr>
<td>USE_PC_TIME</td>
<td>1</td>
</tr>
<tr>
<td>PC_ACTION_TIME</td>
<td>0 or 6</td>
</tr>
<tr>
<td>RLGAIN_TRAFFIC_PILOT</td>
<td>0 or 6</td>
</tr>
<tr>
<td>DEFAULT_RLAG</td>
<td>0 or 1</td>
</tr>
<tr>
<td>NNSCR_INCLUDED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>RECORD_TYPE</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>0 or 8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>0 or 8 x RECORD_LEN</td>
</tr>
<tr>
<td>REV_FCH_GATING_MODE</td>
<td>1</td>
</tr>
<tr>
<td>REV_PWR_CNTL_DELAY_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>REV_PWR_CNTL_DELAY</td>
<td>0 or 2</td>
</tr>
<tr>
<td>Field</td>
<td>Length (bits)</td>
</tr>
<tr>
<td>------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>D_SIG_ENCRYPT_MODE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>USE_NEW_KEY</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ENC_KEY_SIZE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>KEY_SEQ</td>
<td>0 or 4</td>
</tr>
<tr>
<td>SYNC_ID_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>SYNC_ID_LEN</td>
<td>0 or 4</td>
</tr>
<tr>
<td>SYNC_ID</td>
<td>0 or (8 x SYNC_ID_LEN)</td>
</tr>
<tr>
<td>CC_INFO_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>NUM_CALLS.Assign</td>
<td>0 or 8</td>
</tr>
</tbody>
</table>

NUM_CALLS_ASSIGN occurrences of the following variable length record

<table>
<thead>
<tr>
<th>Field</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON_REF</td>
<td>8</td>
</tr>
<tr>
<td>RESPONSE_IND</td>
<td>1</td>
</tr>
<tr>
<td>TAG</td>
<td>0 or 4</td>
</tr>
<tr>
<td>BYPASS_ALERT_ANSWER</td>
<td>0 or 1</td>
</tr>
</tbody>
</table>

CS_SUPPORTED 1

USE_TIME - Use action time indicator.

This field indicates whether an explicit action time is specified in this message.

If an explicit action time is specified in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

ACTION_TIME - Action time.

If the USE_TIME field is set to ‘1’, the base station shall set this field to the System Time, in units of 80 ms (modulo 64), at which the handoff is to take effect. If the USE_TIME field is set to ‘0’ the base station shall omit this field.

HDM_SEQ - General Handoff Direction Message sequence number.

This field is used by the mobile station in the Power Measurement Report Message to identify the order in which the reported pilot strengths are sent.
The base station shall set this field to the handoff message sequence number, as specified in 3.6.6.2.2.10.

SEARCH_INCLUDED - Pilot search parameters included.

If the mobile station is to change its pilot search parameters, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

SRCH_WIN_A - Search window size for the Active Set and Candidate Set.

If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field SRCH_WIN_A and set this field to the window size parameter shown in Table 2.6.6.2.1-1 corresponding to the number of PN chips that the mobile station is to search for pilots in the Active Set and the Candidate Set; otherwise, the base station shall omit this field.

SRCH_WIN_N - Search window size for the Neighbor Set.

If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field SRCH_WIN_N and set this field to the window size parameter shown in Table 2.6.6.2.1-1 corresponding to the search window size to by used by mobile stations for the Neighbor Set after completion of the handoff; otherwise, the base station shall omit this field.

SRCH_WIN_R - Search window size for the Remaining Set.

If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field SRCH_WIN_R and set this field to the window size parameter shown in Table 2.6.6.2.1-1 corresponding to the search window size to by used by mobile stations for the Remaining Set after completion of the handoff; otherwise, the base station shall omit this field.

T_ADD - Pilot detection threshold.

This value is used by the mobile station to trigger the transfer of a pilot from the Neighbor Set or Remaining Set to the Candidate Set (see 2.6.6.2.6) and to trigger the sending of the Pilot Strength Measurement Message or Extended Pilot Strength Measurement Message initiating the handoff process (see 2.6.6.2.5.2).

If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field T_ADD and set this field to the pilot detection threshold, expressed as an unsigned binary number equal to \( \lfloor -2 \times 10 \times \log_{10} \frac{E_c}{I_o} \rfloor \); otherwise, the base station shall omit this field.

T_DROP - Pilot drop threshold.

This value is used by mobile stations to start a handoff drop timer for pilots in the Active Set and the Candidate Set (see 2.6.6.2.3).
If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field T_DROP and set this field to the pilot drop threshold, expressed as an unsigned binary number equal to \[-2 \times 10 \times \log_{10} E_c/I_o\]; otherwise, the base station shall omit this field.

**T_COMP** - Active Set versus Candidate Set comparison threshold.

The mobile station transmits a *Pilot Strength Measurement Message* or *Extended Pilot Strength Measurement Message* when the strength of a pilot in the Candidate Set exceeds that of a pilot in the Active Set by this margin (see 2.6.6.2.5.2).

If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field T_COMP and set this field to the threshold Candidate Set pilot to Active Set pilot ratio, in units of 0.5 dB; otherwise, the base station shall omit this field.

**T_TDROP** - Drop timer value.

Timer value after which an action is taken by the mobile station for a pilot that is a member of the Active Set or Candidate Set, and whose strength has not become greater than T_DROP. If the pilot is a member of the Active Set, a *Pilot Strength Measurement Message* or *Extended Pilot Strength Measurement Message* is issued. If the pilot is a member of the Candidate Set, it will be moved to the Neighbor Set.

If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field T_TDROP and set this field to the T_TDROP value shown in Table 2.6.6.2.3-1 corresponding to the drop timer value to be used by the mobile station; otherwise, the base station shall omit this field.

**SOFT_SLOPE** - The slope in the inequality criterion for adding a pilot to the active set, or dropping a pilot from the active set (see 2.6.6.2.3 and 2.6.6.2.5.2).

If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field SOFT_SLOPE in the additional fields and set this field as an unsigned binary number; otherwise, the base station shall omit this field.

**ADD_INTERCEPT** - The intercept in the inequality criterion for adding a pilot to the active set (see 2.6.6.2.5.2).

If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field ADD_INTERCEPT in the additional fields and set this field as a two’s complement signed binary number; otherwise, the base station shall omit this field.

**DROP_INTERCEPT** - The intercept in the inequality criterion for dropping a pilot from the active set (see 2.6.6.2.3).

If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field DROP_INTERCEPT in the additional fields and set this field as a two’s complement signed binary number; otherwise, the base station shall omit this field.

**EXTRA_PARMS** - Extra parameters included.
If the mobile station is to change FRAME_OFFSET, PRIVATE_LCM, ENCRYPT_MODE, NOM_PWR, BAND_CLASS, or CDMA_FREQ, or the mobile station is to perform a reset of the acknowledgment procedures, or the mobile station is to reset Forward Traffic Channel power control counters, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

P_REV - Protocol revision level.

If EXTRA_PARMS is set to ‘1’, the base station shall set this field to the base station protocol revision level that the mobile station is to use after completion of the handoff; otherwise, the base station shall omit this field.

PACKET_ZONE_ID - Packet data services zone identifier.

If EXTRA_PARMS is set to ‘1’, the base station shall include the field PACKET_ZONE_ID and set this field as described below; otherwise, the base station shall omit this field.

If the base station supports a packet data service zone, the base station shall set this field to the non-zero packet data services zone identifier that the mobile station is to use after completion of the handoff.

If the base station does not support a packet data service zone, the base station shall set this field to ‘00000000’.

FRAME_OFFSET - Frame offset.

The Forward and Reverse Traffic Channel frames are delayed FRAME_OFFSET × 1.25 ms relative to system timing (see of [2]).

If EXTRA_PARMS is set to ‘1’, the base station shall include the field FRAME_OFFSET and set this field to the Forward and Reverse Traffic Channel frame offset; otherwise, the base station shall omit this field.

PRIVATE_LCM - Private long code mask indicator.

This field is used to change the long code mask after a hard handoff.

If EXTRA_PARMS is set to ‘1’, the base station shall include the field PRIVATE_LCM and set this field as described below; otherwise, the base station shall omit this field.

If the private long code mask is to be used after the handoff, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

RESET_L2 - Reset acknowledgment procedures command.

This field is used to reset acknowledgment processing in the mobile station.

If EXTRA_PARMS is set to ‘1’, the base station shall include the field RESET_L2 and set this field as described below; otherwise, the base station shall omit this field.
If the field is included and the mobile station is to reset its acknowledgment procedures, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**RESET_FPC** - Reset Forward Traffic Channel power control.

This field is used to reset the Forward Traffic Channel power control counters.

If EXTRA_PARMS is set to ‘1’, the base station shall include the field RESET_FPC and set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to ‘0’ if the Forward Traffic Channel power control counters are to be maintained after completion of the handoff. If the counters are to be initialized as specified in 2.6.4.1.1.1, then the base station shall set this field to ‘1’.

**SERV_NEG_TYPE** - Service negotiation type.

If EXTRA_PARMS is set to ‘1’, the base station shall include the field SERV_NEG_TYPE and set this field as described below; otherwise, the base station shall omit this field.

If the mobile station is to use service negotiation, the base station shall set this field to ‘1’. If the mobile station is to use service option negotiation, the base station shall set this field to ‘0’.

**ENCRYPT_MODE** - Message encryption mode.

If EXTRA_PARMS is set to ‘1’, the base station shall include the field ENCRYPT_MODE and set this field to the ENCRYPT_MODE value shown in Table 3.7.2.3.2.8-2 corresponding to the encryption mode that is to be used for messages sent on the Forward and Reverse Traffic Channels, as specified in 2.3.12.2; otherwise, the base station shall omit this field.

**NOM_PWR_EXT** - Extended nominal transmit power.

If EXTRA_PARMS is set to ‘1’, the base station shall include this field and set this field as described below; otherwise, the base station shall omit this field.

If this field is included and the mobile station is being handed off to a base station operating in Band Class 0 or Band Class 3, the base station shall set this field to ‘0’; otherwise, the base station shall set this field to ‘1’ if the correction factor to be used by the mobile station in the open loop power estimate is between -24 dB and -9 dB inclusive; otherwise (the correction factor is in the range -8 dB to 7 dB inclusive), the base station shall set this field to ‘0’.

**NOM_PWR** - Nominal transmit power offset.
If EXTRA_PARMS is set to ‘1’, the base station shall include the field NOM_PWR and set this field to the correction factor to be used by the mobile station in the open loop power estimate, expressed as a two’s complement value in units of 1 dB (see [2]); otherwise, the base station shall omit this field.

**NUM_PREAMBLE** - Traffic Channel preamble length.

If EXTRA_PARMS is set to ‘0’, the base station shall omit the NUM_PREAMBLE field; otherwise, the base station shall include this field and set it to the length of Traffic Channel preamble that the mobile station is to send when performing a handoff; as follows:

- If, after the handoff, radio configuration 1 or radio configuration 2 is to be used, the base station shall set NUM_PREAMBLE to the Traffic Channel preamble length in 20 ms units; otherwise, the base station shall set NUM_PREAMBLE to the value shown in Table 3.7.3.3.2.17-1 corresponding to the Traffic Channel preamble length in 1.25 ms units.

**BAND_CLASS** - Band class.

If EXTRA_PARMS is set to ‘1’, the base station shall include the field BAND_CLASS and set this field to the CDMA band class corresponding to the CDMA frequency assignment for the CDMA Channel as specified in [30]; otherwise, the base station shall omit this field.

**CDMA_FREQ** - Frequency assignment.

If EXTRA_PARMS is set to ‘1’, the base station shall include the field CDMA_FREQ and set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA frequency assignment for the CDMA Channel as specified in [2]; otherwise, the base station shall omit this field.

**RETURN_IF_HANDOFF_FAIL** - Return on failure flag.

If the base station includes this field, it shall set this field to ‘1’ if the mobile station is to resume the use of the Active Set on the Serving Frequency following an unsuccessful hard handoff attempt, as specified in 2.6.6.2.8.2; otherwise, the base station shall set this field to ‘0’.

**COMPLETE_SEARCH** - Flag to complete search.

If RETURN_IF_HANDOFF_FAIL is included and is set to ‘1’, the base station shall include the field COMPLETE_SEARCH and set this field as described below; otherwise, the base station shall omit this field.
If the base station includes this field, it shall set this field to ‘1’ if the mobile station is to complete the search of the Candidate Frequency Search Set before resuming the use of the Active Set on the Serving Frequency when an inter-frequency handoff attempt is unsuccessful, as specified in 2.6.6.2.8.2; otherwise, the base station shall set this field to ‘0’.

PERIODIC_SEARCH - Flag to search the Candidate Frequency periodically.

If EXTRA_PARMS is set to ‘1’, the base station shall include the field PERIODIC_SEARCH and set this field as described below; otherwise, the base station shall omit this field.

If the base station includes this field, it shall set this field to ‘1’ if the mobile station is to periodically search the Candidate Frequency, as specified in 2.6.6.2.8.3; otherwise, the base station shall set this field to ‘0’.

SCR_INCLUDED - Service Configuration Record included indicator.

If EXTRA_PARMS is set to ‘1’, the base station shall include the field SCR_INCLUDED and shall set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to ‘1’ if it includes Service Configuration Record in the message; otherwise, the base station shall set this field to ‘0’.

SERV_CON_SEQ - Connect sequence number.

If SCR_INCLUDED is included and is set to ‘1’, the base station shall include the field SERV_CON_SEQ and shall set this field to the connect sequence number pertaining to this service configuration as specified in 3.6.4.1.2.1.2.

If SCR_INCLUDED is included and is set to ‘1’, the base station shall include one occurrence of the following three-field record to specify the service configuration.

RECORD_TYPE - Information record type.

If SCR_INCLUDED is included and is set to ‘1’, the base station shall include the field RECORD_TYPE and shall set this field to the record type value shown in Table 3.7.5-1 corresponding to the Service Configuration information record.

RECORD_LEN - Information record length.

If SCR_INCLUDED is included and is set to ‘1’, the base station shall include the field RECORD_LEN and shall set this field to the number of octets included in the type-specific fields of the Service Configuration information record.

Type-specific fields - Type-specific fields.

If SCR_INCLUDED is included and is set to ‘1’, the base station shall include the type specific fields and shall set these fields as specified in 3.7.5.7 for the Service Configuration information record.
SUP_CHAN_PARAMSINCLUDED - Supplemental channel parameters included indicator.

The base station shall set this field to '1' if the base station includes the FOR_INCLUDED, REV_INCLUDED, and REV_PARMS_INCLUDED fields in the message; otherwise, the base station shall set this field to '0'.

FOR_INCLUDED - Forward assignment information included indicator.

If SUP_CHAN_PARAMSINCLUDED is set to ‘1’, the base station shall include the field FOR_INCLUDED and set this field as described below; otherwise, the base station shall omit this field.

If the base station includes this field, it shall set this field to ‘1’ if Forward Supplemental Code Channel assignment information is included in the message; otherwise, the base station shall set this field to ‘0’.

FOR_SUP_CONFIG - Forward Supplemental Code Channel configuration indicator.

If FOR_INCLUDED is included and is set to ‘1’, the base station shall include the field FOR_SUP_CONFIG and set this field according to the following rules:

The base station shall set this field to '00' if Forward Supplemental Code Channels are not specified in the message, and the mobile station is to stop processing all Forward Supplemental Code Channels.

The base station shall set this field to '01' if Forward Supplemental Code Channels are not specified in the message, and the mobile station is to start processing the Forward Supplemental Code Channels previously stored in its Code Channel List, CODE_CHAN_LISTs.

The base station shall set this field to '10' if the Forward Supplemental Code Channels are specified in the message, and the mobile station is to stop processing all Forward Supplemental Code Channels in CODE_CHAN_LISTs, and to update the CODE_CHAN_LISTs, according to the information contained in the message.

The base station shall set this field to '11' if the Forward Supplemental Code Channels are specified in the message, and the mobile station is to update its Code Channel List, CODE_CHAN_LISTs, according to the information contained in the message and to start processing the Forward Supplemental Code Channels.

NUM_FOR_SUP - Number of Forward Supplemental Code Channels.
If FOR_SUP_CONFIG is included and is set to ‘10’ or ‘11’, the base station shall include the field NUM_FOR_SUP and set it to the number of Forward Supplemental Code Channels assigned to the mobile station; otherwise, the base station shall omit this field. NUM_FOR_SUP shall not exceed the maximum number of Forward Supplemental Code Channels for the negotiated multiplex option.

**USE_FOR_DURATION** - Use forward duration indicator.

If FOR_SUP_CONFIG is included and is set to ‘01’ or ‘11’ the base station shall include the field USE_FOR_DURATION and set this field as described below; otherwise the base station shall omit this field.

The base station shall set this field to ‘1’ if the FOR_DURATION field is included in the message and the mobile station is to process the Forward Supplemental Code Channels for a time duration indicated by FOR_DURATION.

The base station shall set this field to ‘0’ if the mobile station is to process the Forward Supplemental Code Channels for an indefinite duration (i.e., the mobile station is to continue processing Forward Supplemental Code Channels until it receives a subsequent Supplemental Channel Assignment Message or a General Handoff Direction Message that specifies a different Forward Supplemental Code Channel assignment.

**FOR_DURATION** - Duration of Forward Supplemental Code Channel assignment.

If USE_FOR_DURATION is included and is set to ‘1’ the base station shall include the field FOR_DURATION and set this field to the allocated duration, in units of 80 ms, for which the mobile station is to process the Forward Supplemental Code Channels; otherwise, the base station shall omit this field.

**REV_INCLUDED** - Reverse assignment information included indicator.

If SUP_CHAN_PARMS_INCLUDED is set to ‘1’, the base station shall include the field REV_INCLUDED and set this field as described below; otherwise, the base station shall omit this field.

If the base station includes this field, it shall set this field to ‘1’ if Reverse Supplemental Code Channel assignment information is included in the message; otherwise, the base station shall set this field to ‘0’.

**REV_DTX_DURATION** - Reverse Discontinuous Transmission Duration.

If REV_INCLUDED is included and is set to ‘1’, the base station shall include the field REV_DTX_DURATION; otherwise the base station shall omit this field.
If the base station includes this field, it shall set this field to the maximum duration of time in units of 20 ms that the mobile station is allowed to stop transmission on a Reverse Supplemental Code Channel within the reverse assignment duration. The base station shall set this field to ‘0000’ if the mobile station is to stop using a Reverse Supplemental Code Channel once it has stopped transmitting on that Reverse Supplemental Code Channel. The base station shall set this field to ‘1111’ if the mobile station is allowed to resume transmission on a Reverse Supplemental Code Channel at any time within the reverse assignment duration.

**CLEAR_RETRY_DELAY** - Clear retry delay indicator.

If REVINCLUDED is included and is set to ‘1’, the base station shall include the field CLEAR_RETRY_DELAY and set this field as described below; otherwise the base station shall omit this field.

The base station shall set this field to ‘1’ to indicate that the mobile station is to clear any existing retry delay which it has stored (see 2.6.6.2.5.1); otherwise, the base station shall set this field to ‘0’.

**USE_REV_DURATION** - Use reverse duration indicator.

If REVINCLUDED is included and is set to ‘1’, the base station shall include the field USE_REV_DURATION and set this field as described below; otherwise the base station shall omit this field.

The base station shall set this field to ‘1’ if the REV_DURATION field is included in the message and the mobile station is allowed to transmit on the Reverse Supplemental Code Channels for a time duration indicated by REV_DURATION.

The base station shall set this field to ‘0’ if the mobile station is allowed to transmit on the Reverse Supplemental Code Channels for an indefinite duration (i.e., the mobile station may continue to transmit on the Reverse Supplemental Code Channels until it receives a subsequent Supplemental Channel Assignment Message or a General Handoff Direction Message that specifies a different Reverse Supplemental Code Channel assignment.

**REV_DURATION** - Duration of Reverse Supplemental Code Channel Assignment.

If USE_REV_DURATION is included and is set to ‘1’, the base station shall include the field REV_DURATION and set this field to the allocated duration, in units of 80 ms, for which the mobile station may transmit on Reverse Supplemental Code Channels; otherwise the base station shall omit this field.

**NUM_REV_CODES** - Number of Reverse Supplemental Code Channels.
If REV_INCLUDED is included and is set to ‘1’, the base station shall include the field NUM_REV_CODES and set this field to the number of Reverse Supplemental Code Channels which are assigned to the mobile station; otherwise the base station shall omit this field.

**USE_T_ADD_ABORT**  -  Reverse use T_ADD abort indicator.

If REV_INCLUDED is included and is set to ‘1’, the base station shall include the field USE_T_ADD_ABORT and set this field as described below; otherwise the base station shall omit this field.

The base station shall set this field to ‘1’ to indicate that the mobile station is to use the T_ADD Reverse Supplemental Code Channel abort feature for this reverse assignment; otherwise, the base station shall set this field to ‘0’.

**REV_PARMS_INCLUDED**  -  Reverse assignment parameters included indicator.

If SUP_CHAN_PARMS_INCLUDED is set to ‘1’, the base station shall include the field REV_PARMS_INCLUDED and set this field as described below; otherwise, the base station shall omit this field.

If the base station includes this field, it shall set this field to ‘1’ if the following three fields are included in the message; otherwise, the base station shall set this field to ‘0’.

**T_MULCHAN**  -  Supplemental Channel Request Message pilot strength reporting offset.

If REV_PARMS_INCLUDED is included and is set to ‘1’, the base station shall include the field T_MULCHAN and set this field as described below; otherwise the base station shall omit this field.

The base station shall set this field to the threshold offset that the mobile station is to use when reporting neighbor pilot strength measurements in a Supplemental Channel Request Message. The mobile station is to interpret this field as an offset to T_ADD ranging from 0.5 dB (corresponding to T_MULCHAN = ‘000’) to 4.0 dB (corresponding to T_MULCHAN = ‘111’), in 0.5 dB increments.

**BEGIN_PREAMBLE**  -  Number of preamble frames on Reverse Supplemental Code Channels at the beginning of transmission on Reverse Supplemental Code Channel.

If REV_PARMS_INCLUDED is included and is set to ‘1’, the base station shall include the field BEGIN_PREAMBLE and set this field to the number of Reverse Supplemental Code Channel preamble frames that the mobile station is to send when beginning transmission on Reverse Supplemental Code Channels; otherwise the base station shall omit this field.

**RESUME_PREAMBLE**  -  Number of preamble frames on Reverse Supplemental Code Channels at the resumption of transmission.
If REV_PARMS_INCLUDED is included and is set to ‘1’, the base station shall include the field RESUME_PREAMBLE and set this field to the number of Reverse Supplemental Code Channel preamble frames that the mobile station is to send when resuming transmission on a Reverse Supplemental Code Channel following an autonomous suspension of transmission on an allocated Supplemental Code Channel; otherwise the base station shall omit this field.

**USE_PWR_CNTL_STEP** - Power control step size indicator. The base station shall set this field to ‘1’ if the field PWR_CNTL_STEP is included in the message.

**PWR_CNTL_STEP** - Power control step size. If USE_PWR_CNTL_STEP is set to ‘1’, then the base station shall include the field PWR_CNTL_STEP and set this field to the step size that the mobile station is to use for closed loop power control, according to Table 3.7.3.3.2.25-1; otherwise, the base station shall omit this field.

**NUM_PILOT** - Number of pilots included in the message. The base station shall set this field to the number of pilots included in the message. The base station shall set this field to an integer that is equal to or greater than 1.

The base station shall include one occurrence of the following four-part record for each of the NUM_PILOT pilots included in the message:

**PILOT_PN** - Pilot PN sequence offset index. The base station shall set this field to the pilot PN sequence offset for this pilot in units of 64 PN chips.

**PWR_COMB_IND** - Power control symbol combining indicator. If the Forward Traffic Channel associated with this pilot will carry the same closed-loop power control subchannel bits as that of the previous pilot in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’. The base station shall set this field to ‘0’ in the first record in the pilot list.

**FOR_FUND_CODE_CHAN** - Forward Fundamental Channel. The base station shall set this field to the code channel index to be used for the Forward Fundamental Channel associated with this pilot.

**FOR_SUP_INCLUDED** - Forward Supplemental Code Channel included. The base station shall include this field if FOR_SUP_CONFIG is included and is set to ‘10’ or ‘11’. If included, the base station shall set this field to ‘1’ if there are Supplemental Code Channels associated with this pilot.

**FOR_SUP_CHAN_REC** - Forward Supplemental Code Channel record
If FOR_SUP_INCLUDED is set to ‘1’, the base station shall include the record FOR_SUP_CHAN_REC and set its fields as described below; otherwise, the base station shall omit this record.

FOR_SUP_CHAN_REC contains information about Forward Supplemental Code Channels associated with this pilot, and consists of the field EXPL_CODE_CHAN, and either the BASE_CODE_CHAN field or NUM_FOR_SUP occurrences of the FOR_SUP_CODE_CHAN field, as shown below.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXPL_CODE_CHAN</td>
<td>Explicit code channel indicator.</td>
</tr>
<tr>
<td>BASE_CODE_CHAN</td>
<td>Base code channel index.</td>
</tr>
<tr>
<td>FOR_SUP_CODE_CHAN</td>
<td>Forward Supplemental Code Channel.</td>
</tr>
</tbody>
</table>

If EXPL_CODE_CHAN is equal to ‘1’, NUM_FOR_SUP occurrences of the following field:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR_SUP_CODE_CHAN</td>
<td>Forward Supplemental Code Channel.</td>
</tr>
</tbody>
</table>

EXPL_CODE_CHAN - Explicit code channel indicator.

The base station shall set this field to ‘1’ to indicate explicit assignment of each Forward Supplemental Code Channel by means of the field FOR_SUP_CODE_CHAN. The base station shall set this field to ‘0’ if the mobile station is to use NUM_FOR_SUP adjacent code channels beginning with index BASE_CODE_CHAN (i.e., BASE_CODE_CHAN through BASE_CODE_CHAN + NUM_FOR_SUP - 1).

In both cases (i.e., the explicit code channel list format and range format), the order of the code channel indices is the same for all pilots specified in this message (i.e., for each pilot, the \(i^{th}\) entry in the list indicates the code channel index to be used for the \(i^{th}\) Forward Supplemental Code Channel associated with that pilot).

BASE_CODE_CHAN - Base code channel index.

If the EXPL_CODE_CHAN field is included and is set to ‘0’ the base station shall include the field BASE_CODE_CHAN and set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to the base code channel index (see [2]) in the range of 1 to \(63 - \text{NUM_FOR_SUP} + 1\), inclusive, that the mobile station is to use as the first Forward Supplemental Code Channel associated with this pilot. The mobile station is to use code channel index \((\text{BASE_CODE_CHAN} + i - 1)\), where \(i\) ranges from 1 to \(\text{NUM_FOR_SUP}\), for the \(i^{th}\) Forward Supplemental Code Channel associated with this pilot.

FOR_SUP_CODE_CHAN - Forward Supplemental Code Channel.
If EXPL_CODE_CHAN is included and is set to ‘1’, the base station shall include NUM_FOR_SUP occurrences of the field FOR_SUP_CODE_CHAN and set this field as described below; otherwise the base station shall omit this field.

The base station shall set the $i^{th}$ occurrence of this field to the code channel index (see [2]), in the range 1 to 63 inclusive, that the mobile station is to use for the $i^{th}$ Forward Code Channel associated with this pilot.

**FPC_SUBCHAN_GAIN** - Forward power control subchannel relative gain.

The base station shall set FPC_SUBCHAN_GAIN equal to the power level of the forward link power control subchannel relative to that of 20 ms frames at a 9600 bps or 14400 bps rate on the Forward Fundamental Channel or the Forward Dedicated Control Channel that the Forward Power Control Subchannel is punctured on. The base station shall set the value in units of 0.25 dB.

**USE_PC_TIME** - Use power control action time indicator.

This field indicates whether an explicit time [PC_ACTION_TIME] at which a new value for Power Control Subchannel to traffic ratio (FPC_SUBCHAN_GAIN) takes effect is specified in the message.

If an explicit action time is specified in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**PC_ACTION_TIME** - Power Control Subchannel gain action time.

If the USE_PC_TIME field is set to ‘1’, the base station shall set this field to the System Time, in units of 80 ms (modulo 64), at which FPC_SUBCHAN_GAIN specified in this message is to take effect. If the USE_PC_TIME field is set to ‘0’ the base station shall omit this field.

**RLGAIN_TRAFFIC-_PILOT** - Gain adjustment of the Reverse Traffic Channel relative to the Reverse Pilot Channel power for Radio Configurations greater than 2.

If EXTRA_PARMS is set to ‘1’, the base station shall include this field and set it to the correction factor to be used by mobile stations in setting the power of a code channel, expressed as a two’s complement value in units of 0.125 dB (see 2.1.2.3.3 of [2]); otherwise, the base station shall omit this field.

**DEFAULT_RLAG** - Default reverse link attribute gain used indicator.

If EXTRA_PARMS is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows.
If the mobile station is to use the default values for the reverse link attribute gain, as specified in [2] after completion of handoff, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**NNSCR_INCLUDED** - Non-negotiable Service Configuration Record included indicator.

The base station shall omit this field, if EXTRA_PARMS is set to ‘0’; otherwise, the base station shall include this field and set this field as described below:

The base station shall set this field to ‘1’, if the Non-negotiable Service Configuration record is included in this message; otherwise, the base station shall set this field to ‘0’.

If NNSCR_INCLUDED is included and is set to ‘1’, the base station shall include one occurrence of the following three-field record to specify the non-negotiable service configuration parameters.

**RECORD_TYPE** - Information record type.

If NNSCR_INCLUDED is included and is set to ‘1’, the base station shall include the field RECORD_TYPE and shall set this field to the record type value shown in Table 3.7.5-1 corresponding to the Non-Negotiable Service Configuration information record.

**RECORD_LEN** - Information record length.

If NNSCR_INCLUDED is included and is set to ‘1’, the base station shall include the field RECORD_LEN and shall set this field to the number of octets included in the type-specific fields of the Non-Negotiable Service Configuration information record.

**Type-specific fields** - Type-specific fields.

If NNSCR_INCLUDED is included and is set to ‘1’, the base station shall include the type specific fields and shall set these fields as specified in 3.7.5.20 for the Non-Negotiable Service Configuration information record.

**REV_FCH-_GATING_MODE** - Reverse eighth gating mode indicator.

The base station shall set this field to ‘1’ if the mobile station is allowed to perform the reverse eighth gating mode after handoff; otherwise, the base station shall set this field to ‘0’.

**REV_PWR-_CNTL_DELAY_INCL** - Reverse power control delay included indicator.

If REV_FCH_GATING_MODE is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:
The base station shall set this field to ‘1’ if REV_PWR_CNTL_DELAY is included in this message; otherwise, the base station shall set this field to ‘0’.

REV_PWR_CNTL_DELAY - The reverse power control delay.

If REV_PWR_CNTL_DELAY_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to the closed-loop reverse power control delay minus one (the closed-loop reverse power control delay is the time between the end of a gated-on reverse PCG and the beginning of the reverse PCG where the corresponding feedback is sent on the Forward Power Control Subchannel, see 2.1.2.3.2 of [2]) used by the mobile station after handoff, in units of 1.25 ms. To disable the gating on the reverse Fundamental Channel, the base station shall set this field to ‘000’.

D_SIG_ENCRYPT_MODE - Dedicated channel General encryption mode indicator.

If ENCRYPT_MODE is included and is set to ‘11’, the base station shall include this field and shall set it to the dedicated channel signaling message encryption mode, as shown in Table 3.7.4.5-1; otherwise the base station shall omit this field.

USE_NEW_KEY - Use new encryption key indication.

If ENCRYPT_MODE is included and is set to ‘10’ or ‘11’, and USE_NEW_KEY is included and is set to ‘0’, the base station shall include this field. If this field is included, the base station shall set this field to ‘0’ to indicate that the stored encryption key to be used by the mobile station. Otherwise, the base station shall set this field to ‘1’ to indicate that the new encryption key to be used by the mobile station.

ENC_KEY_SIZE - Encryption key size indication.

If ENCRYPT_MODE is included and is set to ‘10’ or ‘11’ and USE_NEW_KEY is included and is set to ‘0’, the base station shall include this field; otherwise, the base station shall omit this field and set it to the encryption key size, as shown in Table 3.7.4.5-2; otherwise, the base station shall omit this field.

KEY_SEQ - Encryption key sequence number.

If USE_NEW_KEY is included and is set to ‘0’, the base station shall include this field; otherwise, the base station shall omit this field. If this field is included, the base station shall set it to the encryption key sequence number to be used by the mobile station.

CC_INFO_INCL - Call Control information included indicator.
If the SCR_INCLUDED field is not included or is included but is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to ‘1’ if Call Control related parameters (to assign new call(s)) are included in this message; otherwise, the base station shall set this field to ‘0’.

SYNC_ID_INCL - Service Configuration synchronization identifier included indicator.

If either the SCR_INCLUDED field is included and is set to ‘1’ or the NNSCR_INCLUDED field is included and is set to ‘1’, the base station shall include this field; otherwise, the base station shall omit this field. If included, the base station shall set this field as follows:

The base station shall set this field to ‘1’ if the SYNC_ID field is included in this message; otherwise, the base station shall set this field to ‘0’.

SYNC_ID_LEN - Service Configuration synchronization identifier length.

If the SYNC_ID_INCL field is not included or is included and is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to the length (in octets) of the SYNC_ID field included in this message. The base station shall set this field to a value larger than zero.

SYNC_ID - Service Configuration synchronization identifier.

If the SYNC_ID_INCL field is not included or is included and is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to the synchronization identifier corresponding to the service configuration conveyed by this message.

NUM_CALLS_ASSIGN - Number of call assignments.

If the CC_INFO_INCL field is not included or is included but is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:
The base station shall set this field to the number of new call assignments included in this message.

The base station shall include NUM_CALLS_ASSIGN occurrences of the following variable length record (CON_REF, RESPONSE_IND, TAG, BYPASS_ALERT_ANSWER as per the following requirements).

<table>
<thead>
<tr>
<th>CON_REF</th>
<th>Connection reference.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The base station shall set this field to the connection reference of the service option connection corresponding to this call.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>RESPONSE_IND</th>
<th>Response indicator.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The base station shall set this field to ‘1’ if this call assignment is a response to an Enhanced Origination Message from the mobile station; otherwise, the base station shall set this field to ‘0’.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TAG</th>
<th>Transaction identifier.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>If the RESPONSE_IND field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BYPASS_ALERT</th>
<th>Bypass alert indicator.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>If the RESPONSE_IND field is set to ‘1’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:</td>
</tr>
</tbody>
</table>

| BYPASS_ALERT | If the mobile station is to bypass the Waiting for Order Substate and the Waiting for Mobile Station Answer Substate for this call, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’. |

<table>
<thead>
<tr>
<th>CS_SUPPORTED</th>
<th>Concurrent Services supported indicator.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>If the base station supports concurrent services, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.</td>
</tr>
</tbody>
</table>
3.7.3.3.2.32 Resource Allocation Message

MSG_TAG: RAM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE_TIME</td>
<td>1</td>
</tr>
<tr>
<td>ACTION_TIME</td>
<td>0 or 6</td>
</tr>
<tr>
<td>FPC_PRI_CHAN</td>
<td>1</td>
</tr>
</tbody>
</table>

**USE_TIME** - Use action time indicator.

This field indicates whether an explicit action time is specified in this message.

If an explicit action time is specified in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**ACTION_TIME** - Action time.

If the USE_TIME field is set to ‘1’, the base station shall set this field to the System Time, in units of 80 ms (modulo 64), at which this message is to take effect. If the USE_TIME field is set to ‘0’ the base station shall omit this field.

**FPC_PRI_CHAN** - Power Control Subchannel indicator.

The base station shall set this field to ‘0’ if the mobile station is to perform the primary inner loop estimation on the received Forward Fundamental Channel and the base station is to multiplex the Power Control Subchannel on the Forward Fundamental Channel. The base station shall set this field to ‘1’ if the mobile station is to perform the primary inner loop estimation on the received Forward Dedicated Control Channel and the base station is to multiplex the Power Control Subchannel on the Forward Dedicated Control Channel.
3.7.3.3.2.33 Resource Allocation Mini Message

MSG_TAG: RAMM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE_TIME</td>
<td>1</td>
</tr>
<tr>
<td>ACTION_TIME</td>
<td>0 or 6</td>
</tr>
<tr>
<td>FPC_PRI_CHAN</td>
<td>1</td>
</tr>
</tbody>
</table>

**USE_TIME** - Use action time indicator.

This field indicates whether an ACTION_TIME is specified in this message.

If an ACTION_TIME is specified in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**ACTION_TIME** - Action time.

If the USE_TIME field is set to ‘1’, the base station shall set this field to the System Time, in units of 80 ms (modulo 64), at which the message is to take effect. If the USE_TIME field is set to ‘0’ the base station shall omit this field.

**FPC_PRI_CHAN** - Power Control Subchannel indicator.

The base station shall set this field to ‘0’ if the mobile station is to perform the primary inner loop estimation on the received Forward Fundamental Channel and the base station is to multiplex the Power Control Subchannel on the Forward Fundamental Channel. The base station shall set this field to ‘1’ if the mobile station is to perform the primary inner loop estimation on the received Forward Dedicated Control Channel and the base station is to multiplex the Power Control Subchannel on the Forward Dedicated Control Channel.
3.7.3.3.2.34 Extended Release Message

MSG_TAG: ERM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE_TIME</td>
<td>1</td>
</tr>
<tr>
<td>ACTION_TIME</td>
<td>0 or 6</td>
</tr>
<tr>
<td>CH_IND</td>
<td>3</td>
</tr>
<tr>
<td>GATING_RATE_INCL</td>
<td>1</td>
</tr>
<tr>
<td>PILOT_GATING_RATE</td>
<td>0 or 2</td>
</tr>
</tbody>
</table>

**USE_TIME** - Use action time indicator.
This field indicates whether an explicit action time is specified in this message.
If an explicit action time is specified in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**ACTION_TIME** - Action time.
If the USE_TIME field is set to ‘1’, the base station shall set this field to the System Time, in units of 80 ms (modulo 64), at which the message is to take effect. If the USE_TIME field is set to ‘0’ the base station shall omit this field.

**CH_IND** - Channel Indicator.
The base station shall set this field as shown in Table 3.7.3.3.2.34-1, to release physical resources.
### Table 3.7.3.3.2.34-1. Channel Indicator

<table>
<thead>
<tr>
<th>CH_IND (binary)</th>
<th>Physical Resource(s) Released</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>Reserved</td>
</tr>
<tr>
<td>001</td>
<td>Fundamental Channel</td>
</tr>
<tr>
<td>010</td>
<td>Dedicated Control Channel</td>
</tr>
<tr>
<td>011</td>
<td>Reserved</td>
</tr>
<tr>
<td>100</td>
<td>Continuous Reverse Pilot Channel</td>
</tr>
<tr>
<td>101</td>
<td>Fundamental Channel and Continuous Reverse Pilot Channel</td>
</tr>
<tr>
<td>110</td>
<td>Dedicated Control Channel and Continuous Reverse Pilot Channel</td>
</tr>
<tr>
<td>111</td>
<td>Fundamental Channel, Dedicated Control Channel, and Continuous Reverse Pilot Channel</td>
</tr>
</tbody>
</table>

### GATING_RATE_INCL

- Reverse pilot gating rate included flag.

The base station shall set this field to ‘1’ if the PILOT_GATING_RATE field is included, otherwise it shall set this field to ‘0’.

### PILOT_GATING_RATE

- Actual Reverse Pilot gating Rate.

If the GATING_RATE_INCL field is set to ‘1’ then the base station shall set this field to the PILOT_GATING_RATE field shown in Table 3.7.3.3.2.34-2 corresponding to the actual gating rate on the Reverse Pilot Channel; otherwise, the base station shall omit this field.

### Table 3.7.3.3.2.34-2. Actual Reverse Pilot Gating rate

<table>
<thead>
<tr>
<th>PILOT_GATING_RATE field (binary)</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Gating rate 1</td>
</tr>
<tr>
<td>01</td>
<td>Gating rate ½</td>
</tr>
<tr>
<td>10</td>
<td>Gating rate ¼</td>
</tr>
<tr>
<td>11</td>
<td>Reserved</td>
</tr>
</tbody>
</table>
3.7.3.3.2.35 Extended Release Mini Message

**MSG_TAG: ERMM**

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE_TIME</td>
<td>1</td>
</tr>
<tr>
<td>ACTION_TIME</td>
<td>0 or 6</td>
</tr>
<tr>
<td>CH_IND</td>
<td>3</td>
</tr>
<tr>
<td>GATING_RATE_INCL</td>
<td>1</td>
</tr>
<tr>
<td>PILOT_GATING_RATE</td>
<td>0 or 2</td>
</tr>
</tbody>
</table>

**USE_TIME** - Use action time indicator.

This field indicates whether an ACTION_TIME is specified in this message.

If an ACTION_TIME is specified in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**ACTION_TIME** - Action time.

If the USE_TIME field is set to ‘1’, the base station shall set this field to the System Time, in units of 80 ms (modulo 64), at which the message is to take effect. If the USE_TIME field is set to ‘0’ the base station shall omit this field.

**CH_IND** - Channel Indicator.

The base station shall set this field as shown in Table 3.7.3.3.2.34-1, to release physical resources.

**GATING_RATE_INCL** - Reverse pilot gating rate included flag.

The base station shall set this field to ‘1’ if the PILOT_GATING_RATE field is included, otherwise it shall set this field to ‘0’.

**PILOT_GATING_RATE** - Actual Reverse Pilot gating Rate.

If the GATING_RATE_INCL field is set to ‘1’ then the base station shall set this field to the PILOT_GATING_RATE field shown in Table 3.7.3.3.2.34-2 corresponding to the actual gating rate on the Reverse Pilot Channel; otherwise, the base station shall omit this field.
### 3.7.3.3.2.36 Universal Handoff Direction Message

**MSG_TAG:** UHDM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE_TIME</td>
<td>1</td>
</tr>
<tr>
<td>ACTION_TIME</td>
<td>0 or 6</td>
</tr>
<tr>
<td>HDM_SEQ</td>
<td>2</td>
</tr>
<tr>
<td>PARMS_INCL</td>
<td>1</td>
</tr>
<tr>
<td>P_REV</td>
<td>0 or 8</td>
</tr>
<tr>
<td>SERV_NEG_TYPE</td>
<td>0 or 1</td>
</tr>
<tr>
<td>SEARCH_INCLUDED</td>
<td>1</td>
</tr>
<tr>
<td>SRCH_WIN_A</td>
<td>0 or 4</td>
</tr>
<tr>
<td>SRCH_WIN_N</td>
<td>0 or 4</td>
</tr>
<tr>
<td>SRCH_WIN_R</td>
<td>0 or 4</td>
</tr>
<tr>
<td>T_ADD</td>
<td>0 or 6</td>
</tr>
<tr>
<td>T_DROP</td>
<td>0 or 6</td>
</tr>
<tr>
<td>T_COMP</td>
<td>0 or 4</td>
</tr>
<tr>
<td>T_TDROP</td>
<td>0 or 4</td>
</tr>
<tr>
<td>SOFT_SLOPE</td>
<td>0 or 6</td>
</tr>
<tr>
<td>ADD_INTERCEPT</td>
<td>0 or 6</td>
</tr>
<tr>
<td>DROP_INTERCEPT</td>
<td>0 or 6</td>
</tr>
<tr>
<td>EXTRA_PARMS</td>
<td>1</td>
</tr>
<tr>
<td>PACKET_ZONE_ID</td>
<td>0 or 8</td>
</tr>
<tr>
<td>FRAME_OFFSET</td>
<td>0 or 4</td>
</tr>
<tr>
<td>PRIVATE_LCM</td>
<td>0 or 1</td>
</tr>
<tr>
<td>RESET_L2</td>
<td>0 or 1</td>
</tr>
<tr>
<td>RESET_FPC</td>
<td>0 or 1</td>
</tr>
</tbody>
</table>

(continues on next page)
<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENCRYPT_MODE</td>
<td>0 or 2</td>
</tr>
<tr>
<td>NOM_PWR_EXT</td>
<td>0 or 1</td>
</tr>
<tr>
<td>NOM_PWR</td>
<td>0 or 4</td>
</tr>
<tr>
<td>RLGAIN_TRAFFIC_PILOT</td>
<td>0 or 6</td>
</tr>
<tr>
<td>DEFAULT_RLAG</td>
<td>0 or 1</td>
</tr>
<tr>
<td>NUM_PREAMBLE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>BAND_CLASS</td>
<td>0 or 5</td>
</tr>
<tr>
<td>CDMA_FREQ</td>
<td>0 or 11</td>
</tr>
<tr>
<td>RETURN_IF_HANDOFF_FAIL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>COMPLETE_SEARCH</td>
<td>0 or 1</td>
</tr>
<tr>
<td>PERIODIC_SEARCH</td>
<td>0 or 1</td>
</tr>
<tr>
<td>SCR_INCLUDED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>SERV_CON_SEQ</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RECORD_TYPE</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>0 or 8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>0 or 8 x RECORD_LEN</td>
</tr>
<tr>
<td>NNSCR_INCLUDED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>RECORD_TYPE</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>0 or 8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>0 or 8 x RECORD_LEN</td>
</tr>
</tbody>
</table>

(continues on next page)
<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE_PWR_CNTL_STEP</td>
<td>1</td>
</tr>
<tr>
<td>PWR_CNTL_STEP</td>
<td>0 or 3</td>
</tr>
<tr>
<td>CLEAR_RETRY_DELAY</td>
<td>1</td>
</tr>
<tr>
<td>SCH_INCL</td>
<td>1</td>
</tr>
<tr>
<td>NUM_FOR_ASSIGN</td>
<td>0 or 2</td>
</tr>
</tbody>
</table>

The base station shall include NUM_FOR_ASSIGN occurrences of the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR_SCH_ID</td>
<td>1</td>
</tr>
<tr>
<td>FOR_SCH_DURATION</td>
<td>4</td>
</tr>
<tr>
<td>FOR_SCH_START_TIME_INCL</td>
<td>1</td>
</tr>
<tr>
<td>FOR_SCH_START_TIME</td>
<td>0 or 5</td>
</tr>
<tr>
<td>SCCL_INDEX</td>
<td>4</td>
</tr>
</tbody>
</table>

| NUM_REV_ASSIGN           | 0 or 2        |

The base station shall include NUM_REV_ASSIGN occurrences of the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REV_SCH_ID</td>
<td>1</td>
</tr>
<tr>
<td>REV_SCH_DURATION</td>
<td>4</td>
</tr>
<tr>
<td>REV_SCH_START_TIME_INCL</td>
<td>1</td>
</tr>
<tr>
<td>REV_SCH_START_TIME</td>
<td>0 or 5</td>
</tr>
<tr>
<td>REV_SCH_NUM_BITS_IDX</td>
<td>4</td>
</tr>
</tbody>
</table>

| FPC_SUBCHAN_GAIN          | 5             |
| USE_PC_TIME              | 1             |
| PC_ACTION_TIME           | 0 or 6        |

(continues on next page)
<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH_IND</td>
<td>3</td>
</tr>
<tr>
<td>ACTIVE_SET_REC_LEN</td>
<td>8</td>
</tr>
<tr>
<td>ACTIVE_SET_REC_FIELDS</td>
<td>8 x ACTIVE_SET_REC_LEN</td>
</tr>
<tr>
<td>REV_FCH_GATING_MODE</td>
<td>1</td>
</tr>
<tr>
<td>REV_PWR_CNTL_DELAY_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>REV_PWR_CNTL_DELAY</td>
<td>0 or 2</td>
</tr>
<tr>
<td>D_SIG_ENCRYPT_MODE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>USE_NEW_KEY</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ENC_KEY_SIZE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>KEY_SEQ</td>
<td>0 or 4</td>
</tr>
<tr>
<td>3XFL_1XRL_INCL</td>
<td>1</td>
</tr>
<tr>
<td>1XRL_FREQ_OFFSET</td>
<td>0 or 2</td>
</tr>
<tr>
<td>SYNC_ID_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>SYNC_ID_LEN</td>
<td>0 or 4</td>
</tr>
<tr>
<td>SYNC_ID</td>
<td>0 or (8 x SYNC_ID_LEN)</td>
</tr>
<tr>
<td>CC_INFO_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>NUM_CALLS_ASSIGN</td>
<td>0 or 8</td>
</tr>
<tr>
<td></td>
<td>NUM_CALLS_ASSIGN occurrences of the following variable length record:</td>
</tr>
<tr>
<td>CON_REF</td>
<td>8</td>
</tr>
<tr>
<td>RESPONSE_IND</td>
<td>1</td>
</tr>
<tr>
<td>TAG</td>
<td>0 or 4</td>
</tr>
<tr>
<td>BYPASS_ALERT_ANSWER</td>
<td>0 or 1</td>
</tr>
</tbody>
</table>

CS_SUPPORTED                  | 1                                |

---

1 If CH_IND = ‘101’, the ACTIVE_SET_REC_FIELDS shall be:
### NUM_FOR_SCH occurrences of the following three fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR_SCH_ID</td>
<td>1</td>
</tr>
<tr>
<td>SCCL_INDEX</td>
<td>4</td>
</tr>
<tr>
<td>FOR_SCH_NUM_BITS_IDX</td>
<td>4</td>
</tr>
</tbody>
</table>

### NUM_REV_SCH occurrences of the following three fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>REV_SCH_ID</td>
<td>1</td>
</tr>
<tr>
<td>REV_WALSH_ID</td>
<td>1</td>
</tr>
<tr>
<td>REV_SCH_NUM_BITS_IDX</td>
<td>4</td>
</tr>
</tbody>
</table>

### NUM_PILOTS occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>SRCH_OFFSET</td>
<td>0 or 3</td>
</tr>
<tr>
<td>ADD_PILOT_REC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>PILOT_REC_TYPE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>0 or 3</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>$8 \times$ RECORD_LEN</td>
</tr>
<tr>
<td>PWR_COMB_IND</td>
<td>1</td>
</tr>
<tr>
<td>CODE_CHAN_FCH</td>
<td>11</td>
</tr>
<tr>
<td>QOF_MASK_ID_FCH</td>
<td>2</td>
</tr>
<tr>
<td>NUM_SCH</td>
<td>0 or 5</td>
</tr>
</tbody>
</table>

### NUM_SCH occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR_SCH_ID</td>
<td>1</td>
</tr>
<tr>
<td>SCCL_INDEX</td>
<td>4</td>
</tr>
<tr>
<td>PILOT_INCL</td>
<td>1</td>
</tr>
</tbody>
</table>

(continues on next page)
<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CODE_CHAN_SCH</td>
<td>0 or 11</td>
</tr>
<tr>
<td>QOF_MASK_ID_SCH</td>
<td>0 or 2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>3X_FCH_INFO_INCL</td>
<td>1</td>
</tr>
</tbody>
</table>

NUM_PILOTS occurrences of the following record if 3X_FCH_INFO_INCL is set to ‘1’:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>3X_FCH_LOW_INCL</td>
<td>1</td>
</tr>
<tr>
<td>QOF_MASK_ID_FCH_LOW</td>
<td>0 or 2</td>
</tr>
<tr>
<td>CODE_CHAN_FCH_LOW</td>
<td>0 or 11</td>
</tr>
<tr>
<td>3X_FCH_HIGH_INCL</td>
<td>1</td>
</tr>
<tr>
<td>QOF_MASK_ID_FCH_HIGH</td>
<td>0 or 2</td>
</tr>
<tr>
<td>CODE_CHAN_FCH_HIGH</td>
<td>0 or 11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>3X_SCH_INFO_INCL</td>
<td>0 or 1</td>
</tr>
</tbody>
</table>

NUM_SCH occurrences of the following record if 3X_SCH_INFO_INCL is included and set to ‘1’:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR_SCH_ID</td>
<td>1</td>
</tr>
<tr>
<td>3X_SCH_LOW_INCL</td>
<td>1</td>
</tr>
<tr>
<td>QOF_MASK_ID_SCH_LOW</td>
<td>0 or 2</td>
</tr>
<tr>
<td>CODE_CHAN_SCH_LOW</td>
<td>0 or 11</td>
</tr>
<tr>
<td>3X_SCH_HIGH_INCL</td>
<td>1</td>
</tr>
<tr>
<td>QOF_MASK_ID_SCH_HIGH</td>
<td>0 or 2</td>
</tr>
<tr>
<td>CODE_CHAN_SCH_HIGH</td>
<td>0 or 11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESERVED</td>
<td>0 - 7 (as needed)</td>
</tr>
</tbody>
</table>

1

2

3 If CH_IND = ‘010’ or ‘110’, the ACTIVE_SET_REC_FIELDS shall be:

4
<table>
<thead>
<tr>
<th>Field Name</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUM_FOR_SCH</td>
<td>0 or 5</td>
</tr>
<tr>
<td>FOR_SCH_ID</td>
<td>1</td>
</tr>
<tr>
<td>SCCL_INDEX</td>
<td>4</td>
</tr>
<tr>
<td>FOR_SCH_NUM_BITS_IDX</td>
<td>4</td>
</tr>
<tr>
<td>NUM_REV_SCH</td>
<td>0 or 5</td>
</tr>
<tr>
<td>REV_SCH_ID</td>
<td>1</td>
</tr>
<tr>
<td>REV_WALSH_ID</td>
<td>1</td>
</tr>
<tr>
<td>REV_SCH_NUM_BITS_IDX</td>
<td>4</td>
</tr>
<tr>
<td>NUM_PILOTS</td>
<td>3</td>
</tr>
<tr>
<td>SRCH_OFFSET_INCL</td>
<td>1</td>
</tr>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>SRCH_OFFSET</td>
<td>0 or 3</td>
</tr>
<tr>
<td>ADD_PILOT_REC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>PILOT_REC_TYPE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>0 or 3</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>8 \times RECORD_LEN</td>
</tr>
<tr>
<td>PWR_COMB_IND</td>
<td>1</td>
</tr>
<tr>
<td>CODE_CHAN_DCCH</td>
<td>11</td>
</tr>
<tr>
<td>QOF_MASK_ID_DCCH</td>
<td>2</td>
</tr>
<tr>
<td>NUM_SCH</td>
<td>0 or 5</td>
</tr>
<tr>
<td>FOR_SCH_ID</td>
<td>1</td>
</tr>
<tr>
<td>SCCL_INDEX</td>
<td>4</td>
</tr>
<tr>
<td>PILOT_INCL</td>
<td>1</td>
</tr>
<tr>
<td>CODE_CHAN_SCH</td>
<td>0 or 11</td>
</tr>
<tr>
<td>QOF_MASK_ID_SCH</td>
<td>0 or 2</td>
</tr>
</tbody>
</table>

(continues on next page)
NUM_PILOTS occurrences of the following record if 3X_DCCH_INFO_INCL is set to ‘1’:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>3X_DCCH_LOW_INCL</td>
<td>1</td>
</tr>
<tr>
<td>QOF_MASK_ID_DCCH_LOW</td>
<td>0 or 2</td>
</tr>
<tr>
<td>CODE_CHAN_DCCH_LOW</td>
<td>0 or 11</td>
</tr>
<tr>
<td>3X_DCCH_HIGH_INCL</td>
<td>1</td>
</tr>
<tr>
<td>QOF_MASK_ID_DCCH_HIGH</td>
<td>0 or 2</td>
</tr>
<tr>
<td>CODE_CHAN_DCCH_HIGH</td>
<td>0 or 11</td>
</tr>
</tbody>
</table>

NUM_SCH occurrences of the following record if 3X_SCH_INFO_INCL is included and set to ‘1’:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR_SCH_ID</td>
<td>1</td>
</tr>
<tr>
<td>3X_SCH_LOW_INCL</td>
<td>1</td>
</tr>
<tr>
<td>QOF_MASK_ID_SCH_LOW</td>
<td>0 or 2</td>
</tr>
<tr>
<td>CODE_CHAN_SCH_LOW</td>
<td>0 or 11</td>
</tr>
<tr>
<td>3X_SCH_HIGH_INCL</td>
<td>1</td>
</tr>
<tr>
<td>QOF_MASK_ID_SCH_HIGH</td>
<td>0 or 2</td>
</tr>
<tr>
<td>CODE_CHAN_SCH_HIGH</td>
<td>0 or 11</td>
</tr>
</tbody>
</table>

RESERVED 0 - 7 (as needed)

If CH_IND = ‘111’, the ACTIVE_SET_REC_FIELDS shall be:
<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUM_FOR_SCH</td>
<td>0 or 5</td>
</tr>
<tr>
<td>FOR_SCH_ID</td>
<td>1</td>
</tr>
<tr>
<td>SCCL_INDEX</td>
<td>4</td>
</tr>
<tr>
<td>FOR_SCH_NUM_BITS_IDX</td>
<td>4</td>
</tr>
<tr>
<td>NUM_REV_SCH</td>
<td>0 or 5</td>
</tr>
<tr>
<td>REV_SCH_ID</td>
<td>1</td>
</tr>
<tr>
<td>REV_WALSH_ID</td>
<td>1</td>
</tr>
<tr>
<td>REV_SCH_NUM_BITS_IDX</td>
<td>4</td>
</tr>
<tr>
<td>NUM_PILOTS</td>
<td>3</td>
</tr>
<tr>
<td>SRCH_OFFSET_INCL</td>
<td>1</td>
</tr>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>SRCH_OFFSET</td>
<td>0 or 3</td>
</tr>
<tr>
<td>ADD_PILOT_REC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>PILOT_REC_TYPE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>0 or 3</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>$8 \times \text{RECORD_LEN}$</td>
</tr>
<tr>
<td>PWR_COMB_IND</td>
<td>1</td>
</tr>
<tr>
<td>CODE_CHAN_FCH</td>
<td>11</td>
</tr>
<tr>
<td>QOF_MASK_ID_FCH</td>
<td>2</td>
</tr>
<tr>
<td>CODE_CHAN_DCCH</td>
<td>11</td>
</tr>
<tr>
<td>QOF_MASK_ID_DCCH</td>
<td>2</td>
</tr>
<tr>
<td>NUM_SCH</td>
<td>0 or 5</td>
</tr>
<tr>
<td>FOR_SCH_ID</td>
<td>1</td>
</tr>
</tbody>
</table>

(continues on next page)
<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCCL_INDEX</td>
<td>4</td>
</tr>
<tr>
<td>PILOT_INCL</td>
<td>1</td>
</tr>
<tr>
<td>CODE_CHAN_SCH</td>
<td>0 or 11</td>
</tr>
<tr>
<td>QOF_MASK_ID_SCH</td>
<td>0 or 2</td>
</tr>
<tr>
<td>3X_FCH_INFO_INCL</td>
<td>1</td>
</tr>
<tr>
<td>3X_DCCH_INFO_INCL</td>
<td>1</td>
</tr>
</tbody>
</table>

NUM_PILOT occurrences of the following record if 3X_FCH_INFO_INCL or 3X_DCCH_INFO_INCL is set to ‘1’:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>3X_FCH_LOW_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>QOF_MASK_ID_FCH_LOW</td>
<td>0 or 2</td>
</tr>
<tr>
<td>CODE_CHAN_FCH_LOW</td>
<td>0 or 11</td>
</tr>
<tr>
<td>3X_FCH_HIGH_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>QOF_MASK_ID_FCH_HIGH</td>
<td>0 or 2</td>
</tr>
<tr>
<td>CODE_CHAN_FCH_HIGH</td>
<td>0 or 11</td>
</tr>
<tr>
<td>3X_DCCH_LOW_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>QOF_MASK_ID_DCCH_LOW</td>
<td>0 or 2</td>
</tr>
<tr>
<td>CODE_CHAN_DCCH_LOW</td>
<td>0 or 11</td>
</tr>
<tr>
<td>3X_DCCH_HIGH_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>QOF_MASK_ID_DCCH_HIGH</td>
<td>0 or 2</td>
</tr>
<tr>
<td>CODE_CHAN_DCCH_HIGH</td>
<td>0 or 11</td>
</tr>
<tr>
<td>3X_SCHINFO_INCL</td>
<td>0 or 1</td>
</tr>
</tbody>
</table>

NUM_SCH occurrences of the following record if 3X_SCH_INFO_INCL is included and set to ‘1’:

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR_SCH_ID</td>
<td>1</td>
</tr>
<tr>
<td>3X_SCH_LOW_INCL</td>
<td>1</td>
</tr>
<tr>
<td>QOF_MASK_ID_SCH_LOW</td>
<td>0 or 2</td>
</tr>
<tr>
<td>CODE_CHAN_SCH_LOW</td>
<td>0 or 11</td>
</tr>
<tr>
<td>3X_SCH_HIGH_INCL</td>
<td>1</td>
</tr>
<tr>
<td>QOF_MASK_ID_SCH_HIGH</td>
<td>0 or 2</td>
</tr>
<tr>
<td>CODE_CHAN_SCH_HIGH</td>
<td>0 or 11</td>
</tr>
</tbody>
</table>

RESERVED 0 - 7 (as needed)

1 USE_TIME - Use action time indicator.
This field indicates whether an explicit action time is specified in this message.

If an explicit action time is specified in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**ACTION_TIME** - Action time.

If the **USE_TIME** field is set to ‘1’, the base station shall set this field to the System Time, in units of 80 ms (modulo 64), at which the handoff is to take effect. If the **USE_TIME** field is set to ‘0’, the base station shall omit this field.

**HDM_SEQ** - *Universal Handoff Direction Message* sequence number.

This field is used by the mobile station in the *Power Measurement Report Message* to identify the order in which the reported pilot strengths are sent.

The base station shall set this field to the handoff message sequence number, as specified in 2.6.6.2.2.10.

**PARMS_INCL** - Parameters included indicator.

The base station shall set this field to ‘1’, if **P_REV** and **SERV_NEG_TYPE** are included; otherwise, the base station shall set this field to ‘0’.

**P_REV** - Protocol revision level.

If **PARMS_INCL** is set to ‘1’, the base station shall set this field to the base station protocol revision level that the mobile station is to use after completion of the handoff; otherwise, the base station shall omit this field.

**SERV_NEG_TYPE** - Service negotiation type.

If **PARMS_INCL** is set to ‘1’, the base station shall include the field **SERV_NEG_TYPE** and set this field as described below; otherwise, the base station shall omit this field.

If the mobile station is to use service negotiation, the base station shall set this field to ‘1’. If the mobile station is to use service option negotiation, the base station shall set this field to ‘0’.

**SEARCH_INCLUDED** - Pilot search parameters included.

If the mobile station is to change its pilot search parameters, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**SRCH_WIN_A** - Search window size for the Active Set and Candidate Set.

If **SEARCH_INCLUDED** is set to ‘1’, the base station shall include the field **SRCH_WIN_A** and set this field to the window size parameter shown in Table 2.6.6.2.1-1 corresponding to the number of PN chips that the mobile station is to search for pilots in the Active Set and the Candidate Set; otherwise, the base station shall omit this field.
SRCH_WIN_N - Search window size for the Neighbor Set.

If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field SRCH_WIN_N and set this field to the window size parameter shown in Table 2.6.6.2.1-1 corresponding to the search window size to be used by mobile stations for the Neighbor Set after completion of the handoff; otherwise, the base station shall omit this field.

SRCH_WIN_R - Search window size for the Remaining Set.

If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field SRCH_WIN_R and set this field to the window size parameter shown in Table 2.6.6.2.1-1 corresponding to the search window size to be used by mobile stations for the Remaining Set after completion of the handoff; otherwise, the base station shall omit this field.

T_ADD - Pilot detection threshold.

This value is used by the mobile station to trigger the transfer of a pilot from the Neighbor Set or Remaining Set to the Candidate Set (see 2.6.6.2.6) and to trigger the sending of the Pilot Strength Measurement Message or Extended Pilot Strength Measurement Message initiating the handoff process (see 2.6.6.2.5.2).

If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field T_ADD and set this field to the pilot detection threshold, expressed as an unsigned binary number equal to \[-2 \times 10 \times \log_{10} \frac{E_c}{I_o}\]; otherwise, the base station shall omit this field.

T_DROP - Pilot drop threshold.

This value is used by mobile stations to start a handoff drop timer for pilots in the Active Set and the Candidate Set (see 2.6.6.2.3).

If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field T_DROP and set this field to the pilot drop threshold, expressed as an unsigned binary number equal to \[-2 \times 10 \times \log_{10} \frac{E_c}{I_o}\]; otherwise, the base station shall omit this field.

T_COMP - Active Set versus Candidate Set comparison threshold.

The mobile station transmits a Pilot Strength Measurement Message or Extended Pilot Strength Measurement Message when the strength of a pilot in the Candidate Set exceeds that of a pilot in the Active Set by this margin (see 2.6.6.2.5.2).

If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field T_COMP and set this field to the threshold Candidate Set pilot to Active Set pilot ratio, in units of 0.5 dB; otherwise, the base station shall omit this field.
T_TDROP - Drop timer value.

Timer value after which an action is taken by the mobile station for a pilot that is a member of the Active Set or Candidate Set, and whose strength has not become greater than T_DROP. If the pilot is a member of the Active Set, a Pilot Strength Measurement Message or Extended Pilot Strength Measurement Message is issued. If the pilot is a member of the Candidate Set, it will be moved to the Neighbor Set.

If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field T_TDROP and set this field to the T_TDROP value shown in Table 2.6.6.2.3-1 corresponding to the drop timer value to be used by the mobile station; otherwise, the base station shall omit this field.

SOFT_SLOPE - The slope in the inequality criterion for adding a pilot to the Active Set, or dropping a pilot from the Active Set (see 2.6.6.2.3 and 2.6.6.2.5.2).

If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field SOFT_SLOPE in the additional fields and set this field as an unsigned binary number; otherwise, the base station shall omit this field.

ADD_INTERCEPT - The intercept in the inequality criterion for adding a pilot to the Active Set (see 2.6.6.2.5.2).

If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field ADD_INTERCEPT in the additional fields and set this field as a two’s complement signed binary number; otherwise, the base station shall omit this field.

DROP_INTERCEPT - The intercept in the inequality criterion for dropping a pilot from the Active Set (see 2.6.6.2.3).

If SEARCH_INCLUDED is set to ‘1’, the base station shall include the field DROP_INTERCEPT in the additional fields and set this field as a two’s complement signed binary number; otherwise, the base station shall omit this field.

EXTRA_PARMS - Extra parameters included.

If the base station includes the fields PACKET_ZONE_ID, FRAME_OFFSET, PRIVATE_LCM, RESET_L2, RESET_FPC, SERV_NEG_TYPE, ENCRYPT_MODE, NOM_PWR_EXT, NOM_PWR, RLGAIN_TRAFFIC_PILOT, DEFAULT_RLAG, NUM_PREAMBLE, BAND_CLASS, PERIODIC_SEARCH, or CDMA_FREQ in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

PACKET_ZONE_ID - Packet data services zone identifier.

If EXTRA_PARMS is set to ‘1’, the base station shall include the field PACKET_ZONE_ID and set this field as described below; otherwise, the base station shall omit this field.
If the base station supports a packet data service zone, the base station shall set this field to the non-zero packet data services zone identifier that the mobile station is to use after completion of the handoff.

If the base station does not support a packet data service zone, the base station shall set this field to '00000000'.

**FRAME_OFFSET** - Frame offset.

The Forward and Reverse Traffic Channel frames are delayed $\text{FRAME\_OFFSET} \times 1.25$ ms relative to system timing (see [2]).

If EXTRA_PARMS is set to ‘1’, the base station shall include the field FRAME_OFFSET and set this field to the Forward and Reverse Traffic Channel frame offset; otherwise, the base station shall omit this field.

**PRIVATE_LCM** - Private long code mask indicator.

This field is used to change the long code mask after a hard handoff.

If EXTRA_PARMS is set to ‘1’, the base station shall include the field PRIVATE_LCM and set this field as described below; otherwise, the base station shall omit this field.

If the private long code mask is to be used after the handoff, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**RESET_L2** - Reset acknowledgment procedures command.

This field is used to reset acknowledgment processing in the mobile station.

If EXTRA_PARMS is set to ‘1’, the base station shall include the field RESET_L2 and set this field as described below; otherwise, the base station shall omit this field.

If the field is included and the mobile station is to reset its acknowledgment procedures, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**RESET_FPC** - Reset Forward Traffic Channel power control.

This field is used to reset the Forward Traffic Channel power control counters.

If EXTRA_PARMS is set to ‘1’, the base station shall include the field RESET_FPC and set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to ‘0’ if the Forward Traffic Channel power control counters are to be maintained after completion of the handoff. If the counters are to be initialized as specified in 2.6.4.1.1.1, then the base station shall set this field to ‘1’.
ENCRIPT_MODE - Message encryption mode.

If EXTRA_PARMS is set to ‘1’, the base station shall include the field ENCRYPT_MODE and set this field to the ENCRYPT_MODE value shown in Table 3.7.2.3.2.8-2 corresponding to the encryption mode that is to be used for messages sent on the Forward and Reverse Traffic Channels, as specified in 2.3.12.2; otherwise, the base station shall omit this field.

NOM_PWR_EXT - Extended nominal transmit power.

If EXTRA_PARMS is set to ‘1’, the base station shall include this field and set this field as described below; otherwise, the base station shall omit this field.

If this field is included and the mobile station is being handed off to a base station operating in Band Class 0 or Band Class 3, the base station shall set this field to ‘0’; otherwise, the base station shall set this field to ‘1’ if the correction factor to be used by the mobile station in the open loop power estimate is between -24 dB and -9 dB inclusive; otherwise (the correction factor is in the range -8 dB to 7 dB inclusive), the base station shall set this field to ‘0’.

NOM_PWR - Nominal transmit power offset.

If EXTRA_PARMS is set to ‘1’, the base station shall include the field NOM_PWR and set this field to the correction factor to be used by the mobile station in the open loop power estimate, expressed as a two’s complement value in units of 1 dB (see [2]); otherwise, the base station shall omit this field.

RLGAIN_TRAFFIC_PILOT - Gain adjustment of the Reverse Traffic Channel relative to the Reverse Pilot Channel power for Radio configurations greater than 2.

If EXTRA_PARMS is set to ‘1’, the base station shall include this field and set it to the correction factor to be used by mobile stations in setting the power of a reverse traffic channel, expressed as a two’s complement value in units of 0.125 dB (see 2.1.2.3.3 of [2]); otherwise, the base station shall omit this field.

DEFAULT_RLAG - Default reverse link attribute gain used indicator.

If EXTRA_PARMS is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

If the mobile station is to use the default values for the reverse link attribute gain, as specified in Table 2.1.2.3.3-1 of [2] after completion of handoff, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

NUM_PREAMBLE - Number of Traffic Channel preamble.
If EXTRA_PARMS is set to ‘0’, the base station shall omit the NUM_PREAMBLE field; otherwise, the base station shall include this field and set it to the length of Traffic Channel preamble that the mobile station is to send when performing a handoff; as follows:

If, after the handoff, radio configuration 1 or radio configuration 2 is to be used, the base station shall set NUM_PREAMBLE to the Traffic Channel preamble length in 20 ms units; otherwise, the base station shall set NUM_PREAMBLE to the value shown in Table 3.7.3.3.2.17-1 corresponding to the Traffic Channel preamble length in 1.25 ms units.

| BAND_CLASS | - Band class. |
| If EXTRA_PARMS is set to ‘1’, the base station shall include the field BAND_CLASS and set this field to the CDMA band class corresponding to the CDMA frequency assignment for the CDMA Channel as specified in [30]; otherwise, the base station shall omit this field. |

| CDMA_FREQ | - Frequency assignment. |
| If EXTRA_PARMS is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows: |

If a Radio Configuration associated with Spreading Rate 1 is used, the base station shall set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA frequency assignment for the CDMA Channel as specified in [2]. If a Radio Configuration associated with Spreading Rate 3 is used, the base station shall include the field CDMA_FREQ and set this field to the CDMA Channel number, in the specified CDMA band class, corresponding to the CDMA center SR3 frequency assignment for the CDMA Channel.

| RETURN_IF_HANDOFF_FAIL | - Return on failure flag. |
| If EXTRA_PARMS is set to ‘1’, the base station shall include the field RETURN_IF_HANDOFF_FAIL and set this field as described below; otherwise, the base station shall omit this field. |

If the base station includes this field, it shall set this field to ‘1’ if the mobile station is to resume the use of the Active Set on the Serving Frequency following an unsuccessful hard handoff attempt, as specified in 2.6.6.2.8.2; otherwise, the base station shall set this field to ‘0’.

| COMPLETE_SEARCH | - Flag to complete search. |
| If RETURN_IF_HANDOFF_FAIL is included and is set to ‘1’, the base station shall include the field COMPLETE_SEARCH and set this field as described below; otherwise, the base station shall omit this field. |
If the base station includes this field, it shall set this field to ‘1’ if the mobile station is to complete the search of the Candidate Frequency Search Set before resuming the use of the Active Set on the Serving Frequency when an inter-frequency handoff attempt is unsuccessful, as specified in 2.6.6.2.8.2; otherwise, the base station shall set this field to ‘0’.

PERIODIC_SEARCH - Flag to search the Candidate Frequency periodically.

If EXTRA_PARMS is set to ‘1’, the base station shall include the field PERIODIC_SEARCH and set this field as described below; otherwise, the base station shall omit this field.

If the base station includes this field, it shall set this field to ‘1’ if the mobile station is to periodically search the Candidate Frequency, as specified in 2.6.6.2.8.3; otherwise, the base station shall set this field to ‘0’.

SCRINCLUDED - Service Configuration Record included indicator.

If EXTRA_PARMS is set to ‘1’, the base station shall include the field SCR_INCLUDED and shall set this field as described below; otherwise, the base station shall omit this field.

The base station shall set this field to ‘1’ if it includes the Service Configuration Record in the message; otherwise, the base station shall set this field to ‘0’.

SERV_CON_SEQ - Connect sequence number.

If SCR INCLUDED is included and is set to ‘1’, the base station shall include the field SERV_CON_SEQ and shall set this field to the connect sequence number pertaining to this service configuration as specified in 3.6.4.1.2.1.2.

If SCR INCLUDED is included and is set to ‘1’, the base station shall include one occurrence of the following three-field record to specify the service configuration.

RECORD_TYPE - Information record type.

If SCR INCLUDED is included and is set to ‘1’, the base station shall include the field RECORD_TYPE and shall set this field to the record type value shown in Table 3.7.5-1 corresponding to the Service Configuration information record.

RECORD_LEN - Information record length.

If SCR INCLUDED is included and is set to ‘1’, the base station shall include the field RECORD_LEN and shall set this field to the number of octets included in the type-specific fields of the Service Configuration information record.

Type-specific fields - Type-specific fields.

If SCR INCLUDED is included and is set to ‘1’, the base station shall include the type specific fields and shall set these fields as specified in 3.7.5.7 for the Service Configuration information record.
NNSCR_INCLUDED - Non-negotiable Service Configuration Record Included indicator

The base station shall omit this field, if EXTRA_PARMS is set to ‘0’; otherwise, the base station shall include this field and set this field as described below:

The base station shall set this field to ‘1’, if the Non-negotiable Service Configuration record is included in this message; otherwise, the base station shall set this field to ‘0’.

If NNSCR_INCLUDED is included and is set to ‘1’, the base station shall include one occurrence of the following three-field record to specify the non-negotiable service configuration.

RECORD_TYPE - Information record type.

If NNSCR_INCLUDED is included and is set to ‘1’, the base station shall include the field RECORD_TYPE and shall set this field to the record type value shown in Table 3.7.5-1 corresponding to the Non-Negotiable Service Configuration information record.

RECORD_LEN - Information record length.

If NNSCR_INCLUDED is included and is set to ‘1’, the base station shall include the field RECORD_LEN and shall set this field to the number of octets included in the type-specific fields of the Non-Negotiable Service Configuration information record.

Type-specific fields - Type-specific fields.

If NNSCR_INCLUDED is included and is set to ‘1’, the base station shall include the type specific fields and shall set these fields as specified in 3.7.5.20 for the Non-Negotiable Service Configuration information record.

USE_PWR_CNTL_STEP - Power control step size indicator.

The base station shall set this field to ‘1’ if the field PWR_CNTL_STEP is included in the message.

PWR_CNTL_STEP - Power control step size.

If USE_PWR_CNTL_STEP is set to ‘1’, then the base station shall include the field PWR_CNTL_STEP and set this field to the step size that the mobile station is to use for closed loop power control, according to Table 3.7.3.3.2.25-1; otherwise, the base station shall omit this field.

CLEAR_RETRY_DELAY - Clear retry delay indicator.

The base station shall set this field to ‘1’ if the mobile station is to clear any existing retry delay which it has stored (see 2.6.6.2.5.1); otherwise, the base station shall set this field to ‘0’.

SCH_INCL - SCH related parameters included indicator.
The base station shall set this field to '1' if this message include the NUM_FOR_ASSIGN, NUM_REV_ASSIGN, NUM_FOR_SCH, NUM_REV_SCH, and NUM_SCH fields. Otherwise, the base station shall set this field to '0'.

NUM_FOR_ASSIGN - Number of Forward Supplemental Channel assigned.
  If SCH_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field to the number of Forward Supplemental Channel assigned.

The base station shall include NUM_FOR_ASSIGN occurrences of the following five fields (FOR_SCH_ID, FOR_SCH_DURATION, FOR_SCH_START_TIME_INCL, FOR_SCH_START_TIME, and SCCL_INDEX).

FOR_SCH_ID - Forward Supplemental Channel identifier.
  The base station shall set this field to the Identifier of the Forward Supplemental Channel.

FOR_SCH_DURATION - Duration of Forward Supplemental Channel assignment.
  The base station shall set this field to the duration (see Table 3.7.3.3.2.37-3), starting at the start time of the message specified by FOR_START_TIME, during which the mobile station is to process the Forward Supplemental Channel.

  The base station shall set this field to '0000' to indicate that the mobile station should stop processing the Forward Supplemental Channel starting at the explicit start time of the message specified by FOR_SCH_START_TIME or at the implicit start time if FOR_SCH_START_TIME_INCL is set to '0'.

  The base station shall set this field to '1111' to indicate that the mobile station should process the Forward Supplemental Channel, starting at the start time of the message specified by FOR_SCH_START_TIME, until the start time specified by a subsequent Forward Supplemental Channel assignment corresponding to the same forward Supplemental Channel (see 2.6.6.2.5.1.1).

FOR_SCH_START_TIME_INCL - Start time included indicator.
  If FOR_SCH_DURATION is not equal to '0000', the base station shall set this field to '1'. If FOR_SCH_DURATION is equal to '0000', the base station shall set this field as follows:
The base station shall set this field to ‘1’ if FOR_SCH_START_TIME is included in this message; otherwise, the base station shall set this field to ‘0’.

FOR_SCH_START_TIME - Start time for Forward Supplemental Channel Assignment.

If FOR_SCH_START_TIME INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field to the System Time, in units of time specified by START_TIME_UNIT, (modulo 32) at which the mobile station is to start processing the Forward Supplemental Channel specified in this message. The explicit start time for processing Forward Supplemental Channels is the time for which

\[
\left\lfloor \frac{t}{(\text{START\_TIME\_UNIT}+1)} \right\rfloor - \text{FOR\_SCH\_START\_TIME} \mod 32 = 0,
\]

where \( t \) is the System Time in units of 20 ms.

SCCL_INDEX - Supplemental Channel Code list index.

The base station shall set this field to the index of the record in the Forward Supplemental Channel Code list corresponding to the FOR_SCH_ID. The base station shall include an SCCL_INDEX whose SCH Active Set is a subset of the Active Set of the Fundamental Channel, Dedicated Control Channel, or both.

NUM_REV_ASSIGN - Number of Reverse Supplemental Channel assigned.

If SCH_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field to the number of Reverse Supplemental Channel assigned.

The base station shall include NUM_REV_ASSIGN occurrences of the following five fields (REV_SCH_ID, REV_SCH_DURATION, REV_SCH_START_TIME_INCL, REV_SCH_START_TIME, and REV_SCH_NUM_BITS_IDX).

REV_SCH_ID - Reverse Supplemental Channel Identifier.

The base station shall set this field to the identifier of the Reverse Supplemental Channel.

REV_SCH_DURATION - Duration of Reverse Supplemental Channel assignment.
The base station shall set this field to '0000' to indicate that the mobile station is to stop transmitting on the Reverse Supplemental Channel specified by REV_SCH_ID at the explicit action time specified by REV_SCH_START_TIME or at the implicit start time if REV_SCH_START_TIME_INCL is set to '0'. The base station shall set this field to '1111' to indicate that the mobile station may transmit on the Reverse Supplemental Channel specified by REV_SCH_ID, starting at the explicit start time specified by REV_SCH_START_TIME in this message, until the start time specified by a subsequent Reverse Supplemental Channel assignment corresponding to the same Supplemental Channel (see 2.6.6.2.5.1.1). The base station shall set this field to the duration according to Table 3.7.3.3.2.37-3, starting at the explicit start time specified by REV_SCH_START_TIME, during which the mobile station may transmit on the Reverse Supplemental Channel specified by REV_SCH_ID.

**REV_SCH-_START_TIME_INCL** - Start time included indicator.

If REV_SCH_DURATION is not equal to '0000', the base station shall set this field to '1'. If REV_SCH_DURATION is equal to '0000', the base station shall set this field as follows:

The base station shall set this field to '1' if REV_SCH_START_TIME is included in this message; otherwise, the base station shall set this field to '0'.

**REV_SCH_START_TIME** - Start time for Reverse Supplemental Channel Assignment.

If REV_SCH_START_TIME_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field to the System Time, in units of time specified by START_TIME_UNIT, (modulo 32) at which the mobile station may start transmitting on the Reverse Supplemental Channel specified in this message. The explicit start time for transmitting on the Reverse Supplemental Channel is the time for which

\[ \lfloor \frac{t}{(\text{START\_TIME\_UNIT}s+1)} \rfloor - \text{REV\_SCH\_START\_TIME} \mod 32 = 0, \]

where \( t \) is the System Time in units of 20 ms.

**REV_SCH-_NUM_BITS_IDX** - Reverse Supplemental Channel number of bits per frame index granted by the base station.
If USE_FLEX_NUM_BITS is equal to '0' or if
USE_FLEX_NUM_BITS is equal to '1' and
RSCH_NBIT_TABLE_ID[REV_SCH_ID] is equal to '0000', then
the base station shall set this field according to Table
3.7.3.2.37-2 to indicate the Reverse Supplemental Channel
number of information bits per frame and the number of CRC
bits per frame, that the mobile station may transmit on the
reverse Supplemental Channel identified by REV_SCH_ID.

If USE_FLEX_NUM_BITS is equal to '1' and
RSCH_NBIT_TABLE_ID[REV_SCH_ID] is not equal to '0000',
then the base station shall set the REV_SCH_NUM_BITS_IDX
this field to indicate the Reverse Supplemental Channel
number of information bits per frame that the mobile station
may transmit on the Reverse Supplemental Channel identified
by REV_SCH_ID to be
NUM_BITS[RSCH_NBIT_TABLE_ID[REV_SCH_ID]]
[REV_SCH_NUM_BITS_IDX] and the Reverse Supplemental
Channel number of CRC bits per frame that the mobile station
may transmit on the Reverse Supplemental Channel identified
by REV_SCH_ID to be
CRC_LEN_IDX[RSCH_NBIT_TABLE_ID[REV_SCH_ID]]
[REV_SCH_NUM_BITS_IDX].
The REV_SCH_NUM_BITS_IDX field also specifies the number
of CRC bits per frame for the Reverse Supplemental Channel
identified by REV_SCH_ID. The number of CRC bits per frame
is specified by CRC_LEN_IDX[RSCH_NBIT_TABLE_ID[REV_SCH_ID]]
[REV_SCH_NUM_BITS_IDX] and Table 3.7.5.20-4.

FPC_SUBCHAN_GAIN - Forward power control subchannel relative gain.
The base station shall set FPC_SUBCHAN_GAIN equal to the
power level of the forward link power control subchannel
relative to that of 20 ms frames at a 9600 bps or 14400 bps
rate on the Forward Fundamental Channel or the Forward
Dedicated Control Channel that the Forward Power Control
Subchannel is punctured on. The base station shall set the
value in units of 0.25 dB.

USE_PC_TIME - Use power control action time indicator.
This field indicates whether an explicit time
[PC_ACTION_TIME] at which a new value for power control
sub-channel to traffic ratio (FPC_SUBCHAN_GAIN) takes effect
is specified in the message.
If an explicit action time is specified in this message, the base
station shall set this field to ‘1'; otherwise, the base station
shall set this field to ‘0'.

PC_ACTION_TIME - Power Control Subchannel gain action time.
If the USE_PC_TIME field is set to ‘1’, the base station shall set this field to the System Time, in units of 80 ms (modulo 64), at which FPC_SUBCHAN_GAIN specified in this message is to take effect. If the USE_PC_TIME field is set to ‘0’ the base station shall omit this field.

CH_IND - Channel Indicator.

The base station shall set this field as shown in Table 3.7.3.3.2.36-1.

**Table 3.7.3.3.2.36-1. Channel Indicator**

<table>
<thead>
<tr>
<th>CH_IND (Binary)</th>
<th>Physical Resource(s) Allocated</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>Reserved.</td>
</tr>
<tr>
<td>001</td>
<td>Reserved</td>
</tr>
<tr>
<td>010</td>
<td>Dedicated Control Channel</td>
</tr>
<tr>
<td>011</td>
<td>Reserved</td>
</tr>
<tr>
<td>100</td>
<td>Reserved</td>
</tr>
<tr>
<td>101</td>
<td>For Radio Configuration greater than 2, Fundamental Channel and Continuous Reverse Pilot Channel; For Radio Configuration 1 or 2, Fundamental Channel only.</td>
</tr>
<tr>
<td>110</td>
<td>Dedicated Control Channel and Continuous Reverse Pilot Channel</td>
</tr>
<tr>
<td>111</td>
<td>Fundamental Channel, Dedicated Control Channel and Continuous Reverse Pilot Channel</td>
</tr>
</tbody>
</table>

ACTIVE_SET_REC_LEN - Active Set record length.

The base station shall set this field to the number of octets in the ACTIVE_SET_REC_FIELDS included in this message.

ACTIVE_SET-_REC_FIELDS - Active Set record fields.

The Active Set record fields are determined by the value of CH_IND, as described below.

REV_FCH-_GATING_MODE - Reverse eighth gating mode indicator.

The base station shall set this field to ‘1’ if the mobile station is allowed to perform the reverse eighth gating mode after handoff; otherwise, the base station shall set this field to ‘0’.
REV_PWR_CNTL_DELAY_INCL - Reverse power control delay included indicator.

If REV_PWR_CNTL_DELAY_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to ‘1’ if REV_PWR_CNTL_DELAY is included in this message; otherwise, the base station shall set this field to ‘0’.

REV_PWR_CNTL_DELAY - The reverse power control delay.

If REV_PWR_CNTL_DELAY is included and is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to the closed-loop reverse power control delay minus one (the closed-loop reverse power control delay is the time between the end of a gated-on reverse PCG and the beginning of the reverse PCG where the corresponding feedback is sent on the Forward Power Control Subchannel, see 2.1.2.3.2 of [2]) used by the mobile station after handoff, in units of 1.25 ms.

D_SIG_ENCRYPT_MODE - Dedicated channel signaling General encryption mode indicator.

If ENCRYPT_MODE is included and is set to ‘11’, the base station shall include this field and shall set it to the dedicated channel signaling message encryption mode, as shown in Table 3.7.4.5-1; otherwise the base station shall omit this field.

USE_NEW_KEY - Use new encryption key indication

If ENCRYPT_MODE is included and is set to ‘10’ or ‘11’, the base station shall include this field. If this field is included, the base station shall set this field to ‘0’ to indicate that the stored encryption key to be used by the mobile station. Otherwise, the base station shall set this field to ‘1’ to indicate that the new encryption key to be used by the mobile station.

ENC_KEY_SIZE - Encryption key size indication.

If ENCRYPT_MODE is included and is set to ‘10’ or ‘11’ USE_NEW_KEY is included and is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it to the encryption key size, as shown in Table 3.7.4.5-2; otherwise, the base station shall omit this field as described below.

The base station shall set this field to the encryption key size, as shown in Table 3.7.4.5-2.

KEY_SEQ - Encryption key sequence number.
If USE_NEW_KEY is included and is set to ‘0’, the base station shall include this field; otherwise, the base station shall omit this field. If this field is included, the base station shall set it to the encryption key sequence number to be used by the mobile station.

**3XFL_1XRL_INCL** - 3X Forward Link and 1X Reverse Link indicator.

The base station shall set this field to ‘1’ if the base station is assigning 3X traffic channel on the Forward Link and 1X traffic channel on the Reverse Link; otherwise, the base station shall set this field to ‘0’.

**1XRL_FREQ_OFFSET** - 1X Reverse Link frequency offset.

If 3XFL_1XRL_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the value shown in Table 3.7.2.3.2.21-5 corresponding to the frequency offset of the 1X reverse link.
SYNC_ID_INCL - Service Configuration synchronization identifier included indicator.

If either the SCR_INCLUDED field is included and is set to ‘1’ or the NNSCR_INCLUDED field is included and is set to ‘1’, the base station shall include this field; otherwise, the base station shall omit this field. If included, the base station shall set this field as follows:

The base station shall set this field to ‘1’ if the SYNC_ID field is included in this message; otherwise, the base station shall set this field to ‘0’.

SYNC_ID_LEN - Service Configuration synchronization identifier length.

If the SYNC_ID_INCL field is not included or is included and is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to the length (in octets) of the SYNC_ID field included in this message. The base station shall set this field to a value larger than zero.

SYNC_ID - Service Configuration synchronization identifier.

If the SYNC_ID_INCL field is not included or is included and is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to the synchronization identifier corresponding to the service configuration conveyed by this message.

CC_INFO_INCL - Call Control information included indicator.

If the SCR_INCLUDED field is not included or is included but is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to ‘1’ if Call Control related parameters (to assign new call(s)) are included in this message; otherwise, the base station shall set this field to ‘0’.

NUM_CALLS_ASSIGN - Number of call assignments.

If the CC_INFO_INCL field is not included or is included but is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:
The base station shall set this field to the number of new call assignments included in this message.

The base station shall include NUM_CALLS.Assign occurrences of the following variable length record (CON_REF, RESPONSE_IND, TAG, BYPASS_ALERT_ANSWER as per the following requirements).

**CON_REF**  – Connection reference.

The base station shall set this field to the connection reference of the service option connection corresponding to this call.

**RESPONSE_IND**  – Response indicator.

The base station shall set this field to ‘1’ if this call assignment is a response to an *Enhanced Origination Message* from the mobile station; otherwise, the base station shall set this field to ‘0’.

**TAG**  – Transaction identifier.

If the RESPONSE_IND field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to the value of the TAG field received in the *Enhanced Origination Message* to which this call assignment is the response.

**BYPASS_ALERT_ANSWER**  – Bypass alert indicator.

If the RESPONSE_IND field is set to ‘1’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

If the mobile station is to bypass the *Waiting for Order Substate* and the *Waiting for Mobile Station Answer Substate* for this call, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**CS_SUPPORTED**  – Concurrent Services supported indicator.

If the base station supports concurrent services, the base station shall set this field to ‘1’; otherwise, the base station
shall set this field to ‘0’.

If the CH_IND field is set to ‘101’, the base station shall include the following fields:

- NUM_FOR_SCH - Number of Forward Supplemental Channel records.
  
  If SCH_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:
  
  The base station shall set this field to the number of the Forward Supplemental Channel records need to be updated.

- NUM_FOR_SCH - Number of Forward Supplemental Channel records.

If NUM_FOR_SCH is included and not equal to ‘0000’, the base station shall include NUM_FOR_SCH occurrence of the following three fields:

- FOR_SCH_ID - Forward Supplemental Channel identifier.
  
  The base station shall set this field to the identifier of the Forward Supplemental Channel.

- SCCL_INDEX - Supplemental Channel Code list index.

  The base station shall set this field to the index of the record in the Supplemental Channel Code list.

- FOR_SCH-_NUM_BITS_IDX - Forward Supplemental Channel number of information bits index.

  If USE_FLEX_NUM_BITS is equal to ‘0’ or if USE_FLEX_NUM_BITS is equal to ‘1’ and FSCH_NBIT_TABLE_ID for FOR_SCH_ID is equal to ‘0000’, then the base station shall set this field according to Table 3.7.3.2.37-4 to indicate the number of information bits per frame and the length of the CRC field for the Forward Supplemental Channel identified by FOR_SCH_ID corresponding to SCCL_INDEX.

  If USE_FLEX_NUM_BITS is equal to ‘1’ and FSCH_NBIT_TABLE_ID[FOR_SCH_ID] is not equal to ‘0000’, then the base station shall set the FOR_SCH_NUM_BITS_IDX this field to indicate that the number of information bits per frame for the Forward Supplemental channel identified by FOR_SCH_ID to be NUM_BITS[FSCH_NBIT_TABLE_ID[FOR_SCH_ID]][FOR_SCH_NUM_BITS_IDX] and the number of CRC bits per frame for the Forward Supplemental channel identified by FOR_SCH_ID to be CRC_LEN_IDX[FSCH_NBIT_TABLE_ID[FOR_SCH_ID]][FOR_SCH_NUM_BITS_IDX].
The FOR_SCH_NUM_BITS_IDX field also specifies the number of CRC bits per frame for the Forward Supplemental Channel identified by FOR_SCH_ID. The number of CRC bits per frame is specified by CRC_LEN_IDX [FSCH_NBIT_TABLE_ID[FOR_SCH_ID][FOR_SCH_NUM_BITS_IDX] and Table 3.7.5.20-4.

NUM_REV_SCH - Number of Reverse Supplemental Channel records. If SCH_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the number of the Reverse Supplemental Channels need to be updated.

If NUM_REV_SCH is included and not equal to ‘00000’, the base station shall include NUM_REV_SCH occurrence of the following three fields:

REV_SCH_ID - Reverse Supplemental Channel identifier. The base station shall set this field to the identifier of the Reverse Supplemental Channel.

REV_WALSH_ID - Reverse Supplemental Channel Walsh cover Identifier. The base station shall set this field according to Table 3.7.3.3.2.37-1 to indicate the Walsh cover ID that the mobile station is to use when transmitting at the rate specified by REV_SCH_NUM_BITS_IDX on the Reverse Supplemental Channel specified by REV_SCH_ID. If only one reverse supplemental channel is assigned, the base station should set this field to the default value for the REV_WALSH_ID as specified in 2.6.4.2.

REV_SCH_NUM_BITS_IDX - Reverse Supplemental Channel number of bits per frame index. If USE_FLEX_NUM_BITS is equal to ‘0’ or if USE_FLEX_NUM_BITS is equal to ‘1’ and RSCH_NBIT_TABLE_ID[REV_SCH_ID] is equal to ‘0000’, then the base station shall set this field according to Table 3.7.3.3.2.37-2 to indicate the Reverse Supplemental Channel number of information bits per frame and the CRC bits per frame, corresponding to REV_WALSH_ID field.

If USE_FLEX_NUM_BITS is equal to ‘1’ and RSCH_NBIT_TABLE_ID[REV_SCH_ID] is not equal to ‘0000’, then the base station shall set this field to indicate the Reverse Supplemental Channel number of information bits per frame, corresponding to REV_WALSH_ID field to be NUM_BITS[RSCH_NBIT_TABLE_ID[REV_SCH_ID]] [REV_SCH_NUM_BITS_IDX] and the Reverse Supplemental Channel number of CRC bits per frame corresponding to REV_WALSH_ID field to be...
CRC_LEN_IDX | RSCH_NBIT_TABLE_ID | REV_SCH_ID | REV_SCH_NUM_BITS_IDX

NUM_PILOTS - Number of pilots included in the message.
The base station shall set this field to the number of pilots included in the message. The base station shall set this field to an integer that is equal to or greater than 1.

SRCH_OFFSET_INCL - Target pilot channel search window offset included.
If the SRCH_OFFSET field is included in the following records, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

The base station shall include one occurrence of the following record for each of the NUM_PILOTS pilots included in the message:

PILOT_PN - Pilot PN sequence offset index.
The base station shall set this field to the pilot PN sequence offset for this pilot in units of 64 PN chips.

SRCH_OFFSET - Target pilot channel search window offset.
If SRCH_OFFSET_INCL equals to ‘1’, then the base station shall set this field to the value shown in Table 2.6.6.2.1-2 corresponding to the search window offset to be used by the mobile station for this target pilot. Otherwise, the base station shall omit this field.

ADD_PILOT_REC_INCL - Additional pilot information included indicator.
The base station shall set this field to ‘1’ if additional pilot information listed in PILOT_REC_TYPE and RECORD_LEN fields are included. The base station shall set this field to ‘0’ if the corresponding pilot is the common pilot and there is no additional pilot information included.

PILOT_REC_TYPE - Pilot record type.
If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall set this field to the PILOT_REC_TYPE value shown in Table 3.7.2.3.2.21-6 corresponding to the type of Pilot Record specified by this record.
If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

RECORD_LEN - Pilot record length.
If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall set this field to the number of octets in the type-specific fields of this pilot record.
If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

Type-specific fields - Pilot record type-specific fields.
If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall include type-specific fields based on the PILOT_REC_TYPE of this pilot record as described in 3.7.6.1.

If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

PWR_COMB_IND - Power control symbol combining indicator.

If the Forward Traffic Channel associated with this pilot will carry the same closed-loop power control subchannel bits as that of the previous pilot in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’. The base station shall set this field to ‘0’ in the first record in the pilot list.

CODE_CHAN_FCH - Code channel on the Fundamental Channel.

If a Radio Configuration associated with Spreading Rate 1 is used, the base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the Fundamental Channel of the Forward Traffic Channel. If a Radio Configuration associated with Spreading Rate 3 is used, the base station shall set this field to the code channel index that the mobile station is to use for the Fundamental Channel on the center SR3 frequency.

If Radio Configuration 1, 2, 3, or 5 (see 3.1.3.1.2 of [2]) is used, the base station shall set this field in the range 1 to 63 inclusive. If Radio Configuration 4, 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

QOF_MASK_ID_FCH - Quasi-orthogonal function index on the Fundamental Channel.

If a Radio Configuration associated with Spreading Rate 1 is used, the base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]). If a Radio Configuration associated with Spreading Rate 3 is used, the base station shall set this field to the index of the Quasi-orthogonal function on the center SR3 frequency.

NUM_SCH - Number of Supplemental Channel records.

If SCH_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the number of the Supplemental Channel records need to be updated.

If NUM_SCH is included and not equal to ‘00000’, the base station shall include NUM_SCH occurrence of the following five fields:

FOR_SCH_ID - Forward Supplemental Channel identifier.
The base station shall set this field the identifier of the
Forward Supplemental Channel pertaining to this record.

SCCL_INDEX - Supplemental Channel Code list index.

The base station shall set this field to the index of the record
in the Supplemental Channel Code list.

PILOT_INCL - The corresponding pilot included in Supplemental Channel
Active Set indicator.

The base station shall set this field to ‘1’ if the corresponding
pilot is included in the Active Set of Supplemental Channel;
otherwise, the base station shall set this field to ‘0’.

CODE_CHAN_SCH - Code channel on the Supplemental Channel.

If PILOT_INCL is included and set to ‘1’, the base station shall
set this field as follows; otherwise, the base station shall omit
this field.

The base station shall set this field to the code channel index
(see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is
to use on the Supplemental Channel of the Forward Traffic
Channel indexed by SCCL_INDEX.

QOF_MASK_ID_SCH - Quasi-orthogonal function index on the Supplemental
Channel.

If PILOT_INCL is included and set to ‘1’, the base station shall
set this field as follows; otherwise, the base station shall omit
this field.

The base station shall set this field to the index of the Quasi-
orthogonal function (see Table 3.1.3.1.12-2 of [2]).

3X_FCH_INFO_INCL - 3X FCH information included indicator.

If the 3X Fundamental Channel information is included, the
base station shall set this field to ‘1’; otherwise, the base
station shall set this field to ‘0’.

The base station shall include NUM_PILOTS occurrences of the following record if
3X_FCH_INFO_INCL is set to ‘1’. The base station shall use the same order for the following
fields as is used for the PILOT_PN fields listed in this message.

3X_FCH_LOW_INCL - FCH code channel on the lowest SR3 frequency included
indicator.

If the FCH on the lowest SR3 frequencies has a different code
channel than the FCH on the center SR3 frequency, the base
station shall set this field to ‘1’; otherwise, the base station
shall set this field to ‘0’.

QOF_MASK_ID-
_FCH_LOW - QOF index for the FCH on the lowest SR3 frequency.

If 3X_FCH_LOW_INCL is set to ‘0’, the base station shall omit
this field; otherwise, the base station shall set this field as
follows:
The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) corresponding to the QOF index for the FCH on the lowest SR3 frequency.

**CODE_CHAN-_FCH_LOW** - Code channel for the FCH on the lowest SR3 frequency.

If 3X_FCH_LOW_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the FCH on the lowest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

**3X_FCH_HIGH_INCL** - FCH code channel on the highest SR3 frequency included indicator.

If the FCH on the highest SR3 frequencies has a different code channel than the FCH on the center SR3 frequency, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**QOF_MASK_ID-_FCH_HIGH** - QOF index for the FCH on the highest SR3 frequency.

If 3X_FCH_HIGH_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) corresponding to the QOF index for the FCH on the highest SR3 frequency.

**CODE_CHAN-_FCH_HIGH** - Code channel for the FCH on the highest SR3 frequency.

If 3X_FCH_HIGH_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the FCH on the highest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

**3X_SCH_INFO_INCL** - 3X SCH information included indicator.

If SCH_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:
If the 3X Supplemental Channel information is included, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

The base station shall include NUM_SCH occurrences of the following seven fields record if 3X_SCH_INFO_INCL is included and set to ‘1’.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR_SCH_ID</td>
<td>Forward Supplemental Channel identifier.</td>
</tr>
<tr>
<td></td>
<td>The base station shall set this field the identifier of the Forward Supplemental Channel pertaining to this record.</td>
</tr>
<tr>
<td>3X_SCH_LOW_INCL</td>
<td>SCH code channel on the lowest SR3 frequency included indicator.</td>
</tr>
<tr>
<td></td>
<td>If the SCH on the lowest SR3 frequencies has a different code channel than the SCH on the center SR3 frequency, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.</td>
</tr>
<tr>
<td>QOF_MASK_ID-_SCH_LOW</td>
<td>QOF index for the SCH on the lowest SR3 frequency.</td>
</tr>
<tr>
<td></td>
<td>If 3X_SCH_LOW_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:</td>
</tr>
<tr>
<td></td>
<td>The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) corresponding to the QOF index for the SCH on the lowest SR3 frequency.</td>
</tr>
<tr>
<td>CODE_CHAN-_SCH_LOW</td>
<td>Code channel for the SCH on the lowest SR3 frequency.</td>
</tr>
<tr>
<td></td>
<td>If 3X_SCH_LOW_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:</td>
</tr>
<tr>
<td></td>
<td>The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the SCH on the lowest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.</td>
</tr>
<tr>
<td>3X_SCH_HIGH_INCL</td>
<td>SCH code channel on the highest SR3 frequency included indicator.</td>
</tr>
<tr>
<td></td>
<td>If the SCH on the highest SR3 frequencies has a different code channel than the SCH on the center SR3 frequency, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.</td>
</tr>
<tr>
<td>QOF_MASK_ID-_SCH_HIGH</td>
<td>QOF index for the SCH on the highest SR3 frequency.</td>
</tr>
</tbody>
</table>
If 3X_SCH_HIGH_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.12-2 of [2] corresponding to the QOF index for the SCH on the highest SR3 frequency.

CODE_CHAN_SCH_HIGH – Code channel for the SCH on the highest SR3 frequency.

If 3X_SCH_HIGH_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the SCH on the highest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

If the CH_IND field is set to '010' or '110', the base station shall include the following fields:

NUM_FOR_SCH – Number of Forward Supplemental Channel records.

If SCH_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the number of the Forward Supplemental Channel records need to be updated.

If NUM_FOR_SCH is included and not equal to '00000', the base station shall include NUM_FOR_SCH occurrence of the following three fields:

FOR_SCH_ID – Forward Supplemental Channel identifier.

The base station shall set this field to identifier of the Forward Supplemental Channel.

SCCL_INDEX – Supplemental Channel Code list index.

The base station shall set this field to the index of the record in the Supplemental Channel Code list.

FOR_SCH_NUM_BITS_IDX – Forward Supplemental Channel number of information bits index.
If USE_FLEX_NUM_BITS is equal to '0' or if
USE_FLEX_NUM_BITS is equal to '1' and
FSCH_NBIT_TABLE_ID for FOR_SCH_ID is equal to '0000',
then the base station shall set this field according to Table
3.7.3.3.2.37-4 to indicate the number of information bits per
frame and the length of the CRC field for the Forward
Supplemental Channel identified by FOR_SCH_ID
corresponding to SCCL_INDEX.

If USE_FLEX_NUM_BITS is equal to '1' and
FSCH_NBIT_TABLE_ID[FOR_SCH_ID] is not equal to '0000',
then the base station shall set the FOR_SCH_NUM_BITS_IDX
this field to indicate that the number of information bits per
frame for the Forward Supplemental channel identified by
FOR_SCH_ID to be NUM_BITS[FSCH_NBIT_TABLE_ID[FOR_SCH_ID]][FOR_SCH_NUM_BITS_IDX] and the number of CRC bits per frame for the
Forward Supplemental channel identified by FOR_SCH_ID to be
CRC_LEN_IDX[FSCH_NBIT_TABLE_ID[FOR_SCH_ID]][FOR_SCH_NUM_BITS_IDX].
The FOR_SCH_NUM_BITS_IDX field also specifies the number
of CRC bits per frame for the Forward Supplemental Channel
identified by FOR_SCH_ID. The number of CRC bits per frame
is specified by CRC_LEN_IDX[FSCH_NBIT_TABLE_ID[FOR_SCH_ID]][FOR_SCH_NUM_BITS_IDX] and Table 3.7.5.20-4.

NUM_REV_SCH - Number of Reverse Supplemental Channel records.

If SCH_INCL is set to '0', the base station shall omit this field;
otherwise, the base station shall set this field as follows:
The base station shall set this field to the number of the
Reverse Supplemental Channels need to be updated.

If NUM_REV_SCH is included and not equal to '00000', the base station shall include
NUM_REV_SCH occurrence of the following three fields:

REV_SCH_ID - Reverse Supplemental Channel identifier.
The base station shall set this field to the identifier of the
Reverse Supplemental Channel.

REV_WALSH_ID - Reverse Supplemental Channel Walsh cover Identifier.
The base station shall set this field according to Table 3.7.3.3.2.37-1 to indicate the Walsh cover ID that the mobile station is to use when transmitting at the rate specified by REV_SCH_NUM_BITS_IDX on the Reverse Supplemental Channel specified by REV_SCH_ID. If only one reverse supplemental channel is assigned, the base station should set this field to the default value for the REV_WALSH_ID as specified in 2.6.4.2.

**REV_SCH_NUM_BITS_IDX** - Reverse Supplemental Channel number of bits per frame index.

If USE_FLEX_NUM_BITS is equal to '0' or if USE_FLEX_NUM_BITS is equal to '1' and RSCH_NBIT_TABLE_ID[REV_SCH_ID] is equal to '0000', then the base station shall set this field according to Table 3.7.3.3.2.37-2 to indicate the Reverse Supplemental Channel number of information bits per frame and the number of CRC bits per frame, corresponding to REV_WALSH_ID field.

If USE_FLEX_NUM_BITS is equal to '1' and RSCH_NBIT_TABLE_ID[REV_SCH_ID] is not equal to '0000', then the base station shall set the REV_SCH_NUM_BITS_IDX field to indicate the Reverse Supplemental Channel number of information bits per frame, corresponding to REV_WALSH_ID field to be NUM_BITS[RSCH_NBIT_TABLE_ID[REV_SCH_ID]] [REV_SCH_NUM_BITS_IDX] and the Reverse Supplemental Channel number of CRC bits per frame, corresponding to REV_WALSH_ID field to be CRC_LEN_IDX[RSCH_NBIT_TABLE_ID[REV_SCH_ID]] [REV_SCH_NUM_BITS_IDX].

**NUM_PILOTS** - Number of pilots included in the message.

The base station shall set this field to the number of pilots included in the message. The base station shall set this field to an integer that is equal to or greater than 1.

**SRCH_OFFSET_INCL** - Target pilot channel search window offset included.

If the SRCH_OFFSET field is included in the following records, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

The base station shall include one occurrence of the following record for each of the NUM_PILOTS pilots included in the message:

**PILOT PN** - Pilot PN sequence offset index.

The base station shall set this field to the pilot PN sequence offset for this pilot in units of 64 PN chips.
SRCH_OFFSET - Target pilot channel search window offset.
If SRCH_OFFSET_INCL equals to ‘1’, then the base station shall set this field to the value shown in Table 2.6.6.2.1-2 corresponding to the search window offset to be used by the mobile station for this target pilot. Otherwise, the base station shall omit this field.

ADD_PILOT_REC_INCL - Additional pilot information included indicator.
The base station shall set this field to ‘1’ if additional pilot information listed in PILOT_REC_TYPE and RECORD_LEN fields are included. The base station shall set this field to ‘0’ if the corresponding pilot is the common pilot and there is no additional pilot information included.

PILOT_REC_TYPE - Pilot record type.
If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall set this field to the PILOT_REC_TYPE value shown in Table 3.7.2.3.2.21-6 corresponding to the type of Pilot Record specified by this record.
If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

RECORD_LEN - Pilot record length.
If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall set this field to the number of octets in the type-specific fields of this pilot record.
If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

Type-specific fields - Pilot record type-specific fields.
If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall include type-specific fields based on the PILOT_REC_TYPE of this pilot record as described in 3.7.6.1.
If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

PWR_COMB_IND - Power control symbol combining indicator.
If the Forward Traffic Channel associated with this pilot will carry the same closed-loop power control subchannel bits as that of the previous pilot in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’. The base station shall set this field to ‘0’ in the first record in the pilot list.
CODE_CHAN_DCCH - Code channel on the Dedicated Control Channel.

If a Radio Configuration associated with Spreading Rate 1 is used, the base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the Dedicated Control Channel of the Forward Traffic Channel. If a Radio Configuration associated with Spreading Rate 3, the base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use for the Dedicated Control Channel on the center SR3 frequency.

If Radio Configuration 1, 2, 3, or 5 (see 3.1.3.1.2 of [2]) is used, the base station shall set this field in the range 1 to 63 inclusive. If Radio Configuration 4, 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

QOF_MASK_ID_DCCH - Quasi-orthogonal function index on the Dedicated Control Channel.

If a Radio Configuration associated with Spreading Rate 1 is used, the base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]). If a Radio Configuration associated with Spreading Rate 3 is used, the base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]).

NUM_SCH - Number of Supplemental Channel records.

If SCH_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the number of the Supplemental Channel records need to be updated.

If NUM_SCH is included and not equal to ‘00000’, the base station shall include NUM_SCH occurrence of the following five fields:

FOR_SCH_ID - Forward Supplemental Channel identifier

The base station shall set this field to the identifier of the Forward Supplemental Channel pertaining to this record.

SCCL_INDEX - Supplemental Channel Code list index.

The base station shall set this field to the index of the record in the Supplemental Channel Code list.

PILOT_INCL - The corresponding pilot included in Supplemental Channel Active Set indicator.

The base station shall set this field to ‘1’ if the corresponding pilot is included in the Active Set of Supplemental Channel; otherwise, the base station shall set this field to ‘0’.
CODE_CHAN_SCH - Code channel on the Supplemental Channel.

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the Supplemental Channel of the Forward Traffic Channel indexed by SCCL_INDEX.

QOF_MASK_ID_SCH - Quasi-orthogonal function index on the Supplemental Channel.

If SCH_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]).

3X_DCCH_INFO_INCL – 3X DCCH information included indicator.

If the 3X Dedicated Control Channel information is included, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

The base station shall include NUM_PILOTS occurrences of the following record if 3X_DCCH_INFO_INCL is set to ‘1’. The base station shall use the same order for the following fields as is used for the PILOT_PN fields listed in this message.

3X_DCCH_LOW_INCL – DCCH code channel on the lowest SR3 frequency included indicator.

If the DCCH on the lowest SR3 frequencies has a different code channel than the DCCH on the center SR3 frequency, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

QOF_MASK_ID_DCCH_LOW – QOF index for the DCCH on the lowest SR3 frequency.

If 3X_DCCH_LOW_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) corresponding to the QOF index for the DCCH on the lowest SR3 frequency.

CODE_CHAN_DCCH_LOW - Code channel for the DCCH on the lowest SR3 frequency.

If 3X_DCCH_LOW_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the DCCH on the lowest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.
3X_DCCH_HIGH_INCL – DCCH code channel on the highest SR3 frequency included indicator.

If the DCCH on the highest SR3 frequencies has a different code channel than the DCCH on the center SR3 frequency, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

QOF_MASK_ID-_DCCH_HIGH – QOF index for the DCCH on the highest SR3 frequency.

If 3X_DCCH_HIGH_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2] corresponding to the QOF index for the DCCH on the highest SR3 frequency.

CODE_CHAN-_DCCH_HIGH – Code channel for the DCCH on the highest SR3 frequency.

If 3X_DCCH_HIGH_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the DCCH on the highest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

3X_SCH_INFO_INCL – 3X SCH information included indicator.

If SCH_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

If the 3X Supplemental Channel information is included, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

The base station shall include NUM_SCH occurrences of the following seven fields record if 3X_SCH_INFO_INCL is included and set to ‘1’.

FOR_SCH_ID - Forward Supplemental Channel identifier.

The base station shall set this field the identifier of the Forward Supplemental Channel pertaining to this record.

3X_SCH_LOW_INCL – SCH code channel on the lowest SR3 frequency included indicator.

If the SCH on the lowest SR3 frequencies has a different code channel than the SCH on the center SR3 frequency, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.
_SCH_LOW  - QOF index for the SCH on the lowest SR3 frequency.

If 3X_SCH_LOW_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) corresponding to the QOF index for the SCH on the lowest SR3 frequency.

CODE_CHAN-_SCH_LOW  - Code channel for the SCH on the lowest SR3 frequency.

If 3X_SCH_LOW_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the SCH on the lowest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

3X_SCH_HIGH_INCL  - SCH code channel on the highest SR3 frequency included indicator.

If the SCH on the highest SR3 frequencies has a different code channel than the SCH on the center SR3 frequency, the base station shall set this field to '1'; otherwise, the base station shall set this field to '0'.

QOF_MASK_ID-_SCH_HIGH  - QOF index for the SCH on the highest SR3 frequency.

If 3X_SCH_HIGH_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) corresponding to the QOF index for the SCH on the highest SR3 frequency.

CODE_CHAN-_SCH_HIGH  - Code channel for the SCH on the highest SR3 frequency.

If 3X_SCH_HIGH_INCL is set to '0', the base station shall omit this field; otherwise, the base station shall set this field as follows:
The base station shall set this field to the code channel index
(see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is
to use on the SCH on the highest SR3 frequency. If Radio
Configuration 6 or 8 is used, the base station shall set this
field in the range 1 to 127 inclusive. If Radio Configuration 7
or 9 is used, the base station shall set this field in the range 1
to 255 inclusive.

If the CH_IND field is set to ‘111’, the base station shall include the following fields:

- **NUM_FOR_SCH** - Number of Forward Supplemental Channel records.

  If SCH_INCL is set to ‘0’, the base station shall omit this field;
  otherwise, the base station shall set this field as follows:

  The base station shall set this field to the number of the
  Forward Supplemental Channel records need to be updated.

If NUM_FOR_SCH is included and not equal to ‘00000’, the base station shall include
NUM_FOR_SCH occurrence of the following three fields:

- **FOR_SCH_ID** - Forward Supplemental Channel identifier.

  The base station shall set this field to the identifier of the
  Forward Supplemental Channel.

- **SCCL_INDEX** - Supplemental Channel Code list index.

  The base station shall set this field to the index of the record
  in the Supplemental Channel Code list.

- **FOR_SCH-_NUM_BITS_IDX** - Forward Supplemental Channel number of information bits
  index.

  If USE_FLEX_NUM_BITS is equal to '0' or if
  USE_FLEX_NUM_BITS is equal to '1' and
  FSCH_NBIT_TABLE_ID for FOR_SCH_ID is equal to '0000',
  then the base station shall set this field according to Table
  3.7.3.2.37-4 to indicate the number of information bits per
  frame and the length of the CRC field for the Forward
  Supplemental Channel identified by FOR_SCH_ID
  corresponding to SCCL_INDEX.

  If USE_FLEX_NUM_BITS is equal to '1' and
  FSCH_NBIT_TABLE_ID[FOR_SCH_ID] is not equal to '0000',
  then the base station shall set the FOR_SCH_NUM_BITS_IDX
  this field to indicate that the number of information bits per
  frame for the Forward Supplemental channel identified by
  FOR_SCH_ID to be
  NUM_BITS[FSCH_NBIT_TABLE_ID[FOR_SCH_ID]][FOR_SCH_N
  UM_BITS_IDX] and the number of CRC bits per frame for the
  Forward Supplemental channel identified by FOR_SCH_ID to be
  CRC_LEN_IDX[FSCH_NBIT_TABLE_ID[FOR_SCH_ID]][FOR_SC
The FOR_SCH_NUM_BITS_IDX field also specifies the number of CRC bits per frame for the Forward Supplemental Channel identified by FOR_SCH_ID. The number of CRC bits per frame is specified by CRC_LEN_IDX[FSCH_NBIT_TABLE_IDX|FOR_SCH_ID||FOR_SCH_NUM_BITS_IDX] and Table 3.7.5.20-4.

NUM_REV_SCH  - Number of Reverse Supplemental Channel records.

If SCH_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the number of the Reverse Supplemental Channels need to be updated.

If NUM_REV_SCH is included and not equal to ‘0000’, the base station shall include NUM_REV_SCH occurrence of the following three fields:

REV_SCH_ID  - Reverse Supplemental Channel identifier.

The base station shall set this field to the identifier of the Reverse Supplemental Channel.

REV_WALSH_ID  - Reverse Supplemental Channel Walsh cover Identifier.

The base station shall set this field according to Table 3.7.3.3.2.37-1 to indicate the Walsh cover ID that the mobile station is to use when transmitting at the rate specified by REV_SCH_NUM_BITS_IDX on the Reverse Supplemental Channel specified by REV_SCH_ID. If only one reverse supplemental channel is assigned, the base station should set this field to the default value for the REV_WALSH_ID as specified in 2.6.4.2.

REV_SCH_NUM_BITS_IDX  - Reverse Supplemental Channel number of bits per frame index.

If USE_FLEX_NUM_BITS is equal to '0' or if USE_FLEX_NUM_BITS is equal to '1' and RSCH_NBIT_TABLE_ID[REV_SCH_ID] is equal to '0000', then the base station shall set this field according to Table 3.7.3.3.2.37-2 to indicate the Reverse Supplemental Channel number of information bits per frame and the number of CRC bits per frame, corresponding to REV_WALSH_ID field.

If USE_FLEX_NUM_BITS is equal to '1' and RSCH_NBIT_TABLE_ID[REV_SCH_ID] is not equal to '0000', then the base station shall set the REV_SCH_NUM_BITS_IDX field to indicate the Reverse Supplemental Channel number of information bits per frame, corresponding to REV_WALSH_ID field to be NUM_BITS[RSCH_NBIT_TABLE_ID[REV_SCH_ID]] [REV_SCH_NUM_BITS_IDX] and the Reverse Supplemental Channel number of information bits per frame, corresponding
**NUM_PILOTS** — Number of pilots included in the message.

- The base station shall set this field to the number of pilots included in the message. The base station shall set this field to an integer that is equal to or greater than 1.

**SRCH_OFFSET_INCL** — Target pilot channel search window offset included.

- If the SRCH_OFFSET field is included in the following records, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

The base station shall include one occurrence of the following record for each of the NUM_PILOTS pilots included in the message:

- **PILOT_PN** — Pilot PN sequence offset index.
  - The base station shall set this field to the pilot PN sequence offset for this pilot in units of 64 PN chips.

- **SRCH_OFFSET** — Target pilot channel search window offset.
  - If SRCH_OFFSET_INCL equals to ‘1’, then the base station shall set this field to the value shown in Table 2.6.6.2.1-2 corresponding to the search window offset to be used by the mobile station for this target pilot. Otherwise, the base station shall omit this field.

- **ADD_PILOT_REC_INCL** — Additional pilot information included indicator.
  - The base station shall set this field to ‘1’ if additional pilot information listed in PILOT_REC_TYPE and RECORD_LEN fields are included. The base station shall set this field to ‘0’ if the corresponding pilot is the common pilot and there is no additional pilot information included.

- **PILOT_REC_TYPE** — Pilot record type.
  - If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall set this field to the PILOT_REC_TYPE value shown in Table 3.7.2.3.2.21-6 corresponding to the type of Pilot Record specified by this record.
  - If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

- **RECORD_LEN** — Pilot record length.
  - If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall set this field to the number of octets in the type-specific fields of this pilot record.
  - If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

**Type-specific fields** — Pilot record type-specific fields.
If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall include type-specific fields based on the PILOT_REC_TYPE of this pilot record as described in 3.7.6.1.

If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

<table>
<thead>
<tr>
<th>PWR_COMB_IND</th>
<th>Power control symbol combining indicator.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>If the Forward Traffic Channel associated with this pilot will carry the same closed-loop power control subchannel bits as that of the previous pilot in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’. The base station shall set this field to ‘0’ in the first record in the pilot list.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CODE_CHAN_FCH</th>
<th>Code Channel on the Fundamental Channel.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>If a Radio Configuration associated with Spreading Rate 1 is used, the base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the Fundamental Channel of the Forward Traffic Channel. If a Radio Configuration associated with Spreading Rate 3 is used, the base station shall set this field to the code channel index that the mobile station is to use for the Fundamental Channel on the center SR3 frequency.</td>
</tr>
<tr>
<td></td>
<td>If Radio Configuration 1, 2, 3, or 5 (see 3.1.3.1.2 of [2]) is used, the base station shall set this field in the range 1 to 63 inclusive. If Radio Configuration 4, 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>QOF_MASK_ID_FCH</th>
<th>Quasi-orthogonal function index on the Fundamental Channel.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>If a Radio Configuration associated with Spreading Rate 1 is used, the base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]). If a Radio Configuration associated with Spreading Rate 3 is used, the base station shall set this field to the index of the Quasi-orthogonal function on the center SR3 frequency.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CODE_CHAN_DCCH</th>
<th>Code channel on the DCCH.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>If a Radio Configuration associated with Spreading Rate 1 is used, the base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the Dedicated Control Channel of the Forward Traffic Channel. If a Radio Configuration associated with Spreading Rate 3 is used, the base station shall set this field to the code channel index that the mobile station is to use for the Dedicated Control Channel on the center SR3 frequency.</td>
</tr>
</tbody>
</table>
If Radio Configuration 1, 2, 3, or 5 (see 3.1.3.1.2 of [2]) is used, the base station shall set this field in the range 1 to 63 inclusive. If Radio Configuration 4, 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

QOF_MASK_ID_DCCH - Quasi-orthogonal function index on the DCCH.

If a Radio Configuration associated with Spreading Rate 1 is used, the base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]). If a Radio Configuration associated with Spreading Rate 1 is used, the base station shall set this field to the index of the Quasi-orthogonal function on the center SR3 frequency.

NUM_SCH - Number of Supplemental Channel records.

The base station shall set this field to the number of the Supplemental Channel records need to be updated.

If NUM_SCH is included and not equal to ‘00000’, the base station shall include NUM_SCH occurrence of the following fields:

FOR_SCH_ID - Forward Supplemental Channel identifier.

The base station shall set this field to the identifier of the Forward Supplemental Channel pertaining to this record.

SCCL_INDEX - Supplemental Channel Code list index.

The base station shall set this field to the index of the record in the Supplemental Channel Code List Table.

PILOT_INCL - The corresponding pilot included in Supplemental Channel Active Set indicator.

The base station shall set this field to ‘1’ if the corresponding pilot is included in the Active Set of Supplemental Channel; otherwise, the base station shall set this field to ‘0’.

CODE_CHAN_SCH - Code Channel on the Supplemental Channel.

If SCH_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the Supplemental Channel of the Forward Traffic Channel indexed by SCCL_INDEX.

QOF_MASK_ID_SCH - Quasi-orthogonal function index on the Supplemental Channel.

If SCH_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]).

3X_FCH_INFO_INCL – 3X FCH information included indicator.
If the 3X Fundamental Channel information is included, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

3X_DCCH_INFO_INCL – 3X DCCH information included indicator.

If the 3X Dedicated Control Channel information is included, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

The base station shall include NUM_PILOTS occurrences of the following record if 3X_FCH_INFO_INCL or 3X_FCH_INFO_INCL is set to ‘1’. The base station shall use the same order for the following fields as is used for the PILOT_PN fields listed in this message.

3X_FCH_LOW_INCL – FCH code channel on the lowest SR3 frequency included indicator.

If 3X_FCH_INFO_INCL is set to ‘0’, the base station shall set omit this field; otherwise, the base station shall set this field as follows:

If the FCH on the lowest SR3 frequencies has a different code channel than the FCH on the center SR3 frequency, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

QOF_MASK_ID-_FCH_LOW – QOF index for the FCH on the lowest SR3 frequency.

If 3X_FCH_LOW_INCL is included and set to ‘1’, the base station shall set this field as follows; otherwise, the base station shall omit this field:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) corresponding to the QOF index for the FCH on the lowest SR3 frequency.

CODE_CHAN-_FCH_LOW – Code channel for the FCH on the lowest SR3 frequency.

If 3X_FCH_LOW_INCL is included and set to ‘1’, the base station shall set this field as follows; otherwise, the base station shall omit this field:

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the FCH on the lowest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

3X_FCH_HIGH_INCL – FCH code channel on the highest SR3 frequency included indicator.

If 3X_FCH_INFO_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:
If the FCH on the highest SR3 frequencies has a different code channel than the FCH on the center SR3 frequency, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**QOF_MASK_ID-_FCH_HIGH** – QOF index for the FCH on the highest SR3 frequency.

If 3X_FCH_HIGH_INCL is included and set to ‘1’, the base station shall set this field as follows; otherwise, the base station shall omit this field:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) corresponding to the QOF index for the FCH on the highest SR3 frequency.

**CODE_CHAN-_FCH_HIGH** – Code channel for the FCH on the highest SR3 frequency.

If 3X_FCH_HIGH_INCL is included and set to ‘1’, the base station shall set this field as follows; otherwise, the base station shall omit this field:

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the FCH on the highest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

**3X_DCCH_LOW_INCL** – DCCH code channel on the lowest SR3 frequency included indicator.

If 3X_DCCH_INFO_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

If the DCCH on the lowest SR3 frequencies has a different code channel than the DCCH on the center SR3 frequency, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**QOF_MASK_ID-_DCCH_LOW** – QOF index for the DCCH on the lowest SR3 frequency.

If 3X_DCCH_LOW_INCL is included and set to ‘1’, the base station shall set this field as follows; otherwise, the base station shall omit this field:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) corresponding to the QOF index for the DCCH on the lowest SR3 frequency.
CODE_CHAN_DCCH_LOW - Code channel for the DCCH on the lowest SR3 frequency.

If 3X_DCCH_LOW_INCL is included and set to ‘1’, the base station shall set this field as follows; otherwise, the base station shall omit this field:

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the DCCH on the lowest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

3X_DCCH_HIGH_INCL - DCCH code channel on the highest SR3 frequency included indicator.

If 3X_DCCH_INFO_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

If the DCCH on the highest SR3 frequencies has a different code channel than the DCCH on the center SR3 frequency, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

QOF_MASK_ID_DCCH_HIGH - QOF index for the DCCH on the highest SR3 frequency.

If 3X_DCCH_HIGH_INCL is included and set to ‘1’, the base station shall set this field as follows; otherwise, the base station shall omit this field:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2] corresponding to the QOF index for the DCCH on the highest SR3 frequency.

CODE_CHAN_DCCH_HIGH - Code channel for the DCCH on the highest SR3 frequency.

If 3X_DCCH_HIGH_INCL is included and set to ‘1’, the base station shall set this field as follows; otherwise, the base station shall omit this field:

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the DCCH on the highest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

3X_SCH_INFO_INCL - 3X SCH information included indicator.

If SCH_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

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If the 3X Supplemental Channel information is included, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

The base station shall include NUM_SCH occurrences of the following seven fields record if 3X_SCH_INFO_INCL is included and set to ‘1’.

- **FOR_SCH_ID** - Forward Supplemental Channel identifier.
  
  The base station shall set this field the identifier of the Forward Supplemental Channel pertaining to this record.

- **3X_SCH_LOW_INCL** - SCH code channel on the lowest SR3 frequency included indicator.
  
  If the SCH on the lowest SR3 frequencies has a different code channel than the SCH on the center SR3 frequency, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

- **QOF_MASK_ID-_SCH_LOW** - QOF index for the SCH on the lowest SR3 frequency.
  
  If 3X_SCH_LOW_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

  The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2] corresponding to the QOF index for the SCH on the lowest SR3 frequency.

- **CODE_CHAN-_SCH_LOW** - Code channel for the SCH on the lowest SR3 frequency.
  
  If 3X_SCH_LOW_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

  The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the SCH on the lowest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.

- **3X_SCH_HIGH_INCL** - SCH code channel on the highest SR3 frequency included indicator.
  
  If the SCH on the highest SR3 frequencies has a different code channel than the SCH on the center SR3 frequency, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

- **QOF_MASK_ID-_SCH_HIGH** - QOF index for the SCH on the highest SR3 frequency.
If 3X_SCH_HIGH_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2] corresponding to the QOF index for the SCH on the highest SR3 frequency.

**CODE_CHAN-SCH_HIGH** – Code channel for the SCH on the highest SR3 frequency.

If 3X_SCH_HIGH_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the SCH on the highest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.
3.7.3.3.2.37 Extended Supplemental Channel Assignment Message

MSG_TAG: ESCAM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>START_TIME_UNIT</td>
<td>3</td>
</tr>
<tr>
<td>REV_SCH_DTX_DURATION</td>
<td>4</td>
</tr>
<tr>
<td>USE_T_ADD_ABORT</td>
<td>1</td>
</tr>
<tr>
<td>USE_SCRM_SEQ_NUM</td>
<td>1</td>
</tr>
<tr>
<td>SCRM_SEQ_NUM</td>
<td>0 or 4</td>
</tr>
<tr>
<td>ADD_INFO_INCL</td>
<td>1</td>
</tr>
<tr>
<td>FPC_PRI_CHAN</td>
<td>0 or 1</td>
</tr>
</tbody>
</table>

REV_CFG_INCLUDED  1

The base station shall include the following field if REV_CFG_INCLUDED is set to ‘1’

| NUM_REV_CFG_RECS     | 5             |

The base station shall include (NUM_REV_CFG_RECS +1) occurrences of the following three fields if REV_CFG_INCLUDED is set to ‘1’

| REV_SCH_ID            | 1             |
| REV_WALSH_ID          | 1             |
| REV_SCH_NUM_BITS_IDX  | 4             |

NUM_REV_SCH  2

The base station shall include NUM_REV_SCH occurrences of the following fields

| REV_SCH_ID            | 1             |
| REV_SCH_DURATION      | 4             |
| REV_SCH_START_TIME_INCL| 1             |
| REV_SCH_START_TIME    | 0 or 5        |
| REV_SCH_NUM_BITS_IDX  | 4             |

(continues on next page)
<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR_CFG_INCLUDED</td>
<td>1</td>
</tr>
<tr>
<td>FOR_SCH_FER_REP</td>
<td>0 or 1</td>
</tr>
</tbody>
</table>

The base station shall include the following field if FOR_CFG_INCLUDED is set to '1'

| NUM_FOR_CFG_RECS         | 5             |

The base station shall include (NUM_FOR_CFG_RECS +1) occurrences of the following fields if FOR_CFG_INCLUDED is set to '1'

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR_SCH_ID</td>
<td>1</td>
</tr>
<tr>
<td>SCCL_INDEX</td>
<td>4</td>
</tr>
<tr>
<td>FOR_SCH_NUM_BITS_IDX</td>
<td>4</td>
</tr>
<tr>
<td>NUM_SUP_SHO</td>
<td>3</td>
</tr>
</tbody>
</table>

NUM_SUP_SHO+1 occurrences of the following fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>ADD_PILOT_REC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>ACTIVE_PILOT_REC_TYPE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>0 or 3</td>
</tr>
</tbody>
</table>

Type-specific fields 0 or 8 x RECORD_LEN

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CODE_CHAN_SCH</td>
<td>11</td>
</tr>
<tr>
<td>QOF_MASK_ID_SCH</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUM_FOR_SCH</td>
<td>2</td>
</tr>
</tbody>
</table>

The base station shall include NUM_FOR_SCH occurrences of the following fields

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR_SCH_ID</td>
<td>1</td>
</tr>
<tr>
<td>FOR_SCH_DURATION</td>
<td>4</td>
</tr>
<tr>
<td>FOR_SCH_START_TIME_INCL</td>
<td>1</td>
</tr>
<tr>
<td>FOR_SCH_START_TIME</td>
<td>0 or 5</td>
</tr>
<tr>
<td>SCCL_INDEX</td>
<td>4</td>
</tr>
</tbody>
</table>

(continues on next page)
<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FPC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>FPC_MODE_SCH</td>
<td>0 or 3</td>
</tr>
<tr>
<td>FPC_SCH_INIT_SETPT_OP</td>
<td>0 or 1</td>
</tr>
<tr>
<td>FPC_SEC_CHAN</td>
<td>0 or 1</td>
</tr>
<tr>
<td>NUM_SUP</td>
<td>0 or 2</td>
</tr>
</tbody>
</table>

Include NUM_SUP occurrences of the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCH_ID</td>
<td>1</td>
</tr>
<tr>
<td>FPC_SCH_FER</td>
<td>5</td>
</tr>
<tr>
<td>FPC_SCH_INIT_SETPT</td>
<td>8</td>
</tr>
<tr>
<td>FPC_SCH_MIN_SETPT</td>
<td>8</td>
</tr>
<tr>
<td>FPC_SCH_MAX_SETPT</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FPC_THRESH_SCH_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>FPC_SETPT_THRESH_SCH</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RPC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>RPC_NUM_SUP</td>
<td>0 or 1</td>
</tr>
</tbody>
</table>

Include RPC_NUM_SUP +1 occurrences of the following two fields record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCH_ID</td>
<td>1</td>
</tr>
<tr>
<td>RLGAIN_SCH_PILOT</td>
<td>6</td>
</tr>
</tbody>
</table>

(continues on next page)
Field | Length (bits)
---|---
3X_SCH_INFO_INCL | 1
NUM_3X_CFG | 0 or 2

NUM_3X_CFG occurrences of the following record if 3X_SCH_INFO_INCL is included and set to ‘1’:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR_SCH_ID</td>
<td>1</td>
</tr>
<tr>
<td>NUM_3X_REC</td>
<td>5</td>
</tr>
</tbody>
</table>

(NUM_3X_REC + 1) occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCCL_INDEX</td>
<td>4</td>
</tr>
</tbody>
</table>

(NUM_SUP_SHO + 1) occurrences of the following record for each corresponding SCCL_INDEX field:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3X_SCH_LOW_INCL</td>
<td>1</td>
</tr>
<tr>
<td>QOF_MASK_ID_SCH_LOW</td>
<td>0 or 2</td>
</tr>
<tr>
<td>CODE_CHAN_SCH_LOW</td>
<td>0 or 11</td>
</tr>
<tr>
<td>3X_SCH_HIGH_INCL</td>
<td>1</td>
</tr>
<tr>
<td>QOF_MASK_ID_SCH_HIGH</td>
<td>0 or 2</td>
</tr>
<tr>
<td>CODE_CHAN_SCH_HIGH</td>
<td>0 or 11</td>
</tr>
</tbody>
</table>
START_TIME_UNIT - Unit for start time. The base station shall set this field to indicate the units of start time included in Extended Supplemental Channel Assignment Message, Forward Supplemental Channel Assignment Mini Message, Reverse Supplemental Channel Assignment Mini Message, and Universal Handoff Direction Message. The base station shall set this field to one less than the number of 20 ms frames that determines the START_TIME_UNIT.

REV_SCH_DTX_DURATION - Discontinuous Transmission on Reverse Supplemental Channel. The base station shall set this field to the maximum duration of time in units of 20 ms that the mobile station is allowed to stop transmission on a Reverse Supplemental Channel within the reverse assignment duration. The base station shall set this field to ‘0000’ if the mobile station is to stop using a Reverse Supplemental Channel once it has stopped transmitting on that Reverse Supplemental Channel. The base station shall set this field to ‘1111’ if the mobile station is allowed to resume transmission on a Reverse Supplemental Channel at any time within the reverse assignment duration.

USE_T_ADD_ABORT - Reverse use T_ADD abort indicator. The base station shall set this field to ‘1’ to indicate that the mobile station is to utilize the T_ADD Reverse Supplemental Channel abort feature for this reverse assignment; otherwise, the base station shall set this field to ‘0’.

USE_SCRM_SEQ_NUM - Use Supplemental Channel Request Message sequence number indicator. The base station shall set this field to ‘1’ if the SCRM_SEQ_NUM field is included in this message; otherwise, the base station shall set this field to ‘0’.

SCRM_SEQ_NUM - Supplemental Channel Request Message sequence number. If USE_SCRM_SEQ_NUM is set to ‘1’, the base station shall set this field to the sequence number corresponding to the SCRM_SEQ_NUM field in a Supplemental Channel Request Message to which the mobile station is to match this message; otherwise, the base station shall omit this field.

ADD_INFO_INCL - Additional information included indicator. If the message is to contain the FPC_PRI_CHAN field, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.
The base station shall set this field to ‘0’ if any of the following conditions holds:

- The message does not contain any Supplemental Channel assignment.
- The mobile station is currently in the Control Hold-Active mode.

**FPC_PRI_CHAN -** Power Control Subchannel Indicator.

If the ADD_INFO_INCL field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to ‘0’ if the mobile station is to perform the primary inner loop estimation on the received Forward Fundamental Channel and the base station is to multiplex the Power Control Subchannel on the Forward Fundamental Channel. The base station shall set this field to ‘1’ if the mobile station is to perform the primary inner loop estimation on the received Forward Dedicated Control Channel and the base station is to multiplex the Power Control Subchannel on the Forward Dedicated Control Channel.

**REV_CFG_INCLUDED -** Reverse Supplemental Channel configuration included.

The base station shall set this field to ‘1’ if this message contains a Reverse Supplemental Channel configuration. Otherwise, the base station shall set this field to ‘0’.

**NUM_REV_CFG_RECS -** Number of the Reverse Supplemental Channel configuration Records.

If the REV_CFG_INCLUDED field is set to ‘1’, the base station shall set this field to one less than the number of reverse supplemental channel configuration records consisting of the following three fields that are included in this message; otherwise, the base station shall omit this field.

The base station shall include NUM_REV_CFG_RECS+1 occurrences of the following three fields only if the REV_CFG_INCLUDED field is set to ‘1’.

**REV_SCH_ID -** Reverse Supplemental Channel Identifier.

The base station shall set this field to the identifier of the Reverse Supplemental Channel.

**REV_WALSH_ID -** Reverse Supplemental Channel Walsh cover Identifier.

The base station shall set this field according to Table 3.7.3.2.3.37-1 to indicate the Walsh cover ID that the mobile station is to use when transmitting number of bits per frame specified by REV_NUM_BITSIDX on the Reverse Supplemental Channel specified by REV_SCH_ID. If only one reverse supplemental channel is assigned, the base station should set this field to the default value for the REV_WALSH_ID as specified in 2.6.4.2.
Table 3.7.3.3.2.37-1. REV_WALSH_ID Field

<table>
<thead>
<tr>
<th>REV_WALSH_ID (binary)</th>
<th>Walsh Cover</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCH_ID = '0'</td>
<td>SCH_ID = '1'</td>
</tr>
<tr>
<td>0</td>
<td>++--</td>
</tr>
<tr>
<td>1</td>
<td>+--</td>
</tr>
</tbody>
</table>

REV_SCH-_NUM_BITS_IDX - Reverse Supplemental Channel number of bits per frame index.

- If USE_FLEX_NUM_BITS is equal to '0' or if USE_FLEX_NUM_BITS is equal to '1' and RSCH_NBIT_TABLE_ID[REV_SCH_ID] is equal to '0000', then the base station shall set this field according to Table 3.7.3.3.2.37-2 to indicate the Reverse Supplemental Channel number of information bits per frame and the number of CRC bits per frame, corresponding to REV_WALSH_ID field.

- If USE_FLEX_NUM_BITS is equal to '1' and RSCH_NBIT_TABLE_ID[REV_SCH_ID] is not equal to '0000', then the base station shall set the REV_SCH_NUM_BITS_IDX field to indicate the Reverse Supplemental Channel number of information bits per frame, corresponding to REV_WALSH_ID field, and the Reverse Supplemental Channel number of CRC bits per frame, corresponding to CRC_LEN_IDX[RSCH_NBIT_TABLE_ID[REV_SCH_ID]] [REV_SCH_NUM_BITS_IDX].

Table 3.7.3.2.37-2. R-SCH Number of Information Bits per Frame

<table>
<thead>
<tr>
<th>REV_SCH_NUM_BITS_IDX (binary)</th>
<th>Number of information bits per frame</th>
<th>Number of CRC bits per frame</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RC 3, 5</td>
<td>RC 4, 6</td>
</tr>
<tr>
<td>0000</td>
<td>172</td>
<td>267</td>
</tr>
<tr>
<td>0001</td>
<td>360</td>
<td>552</td>
</tr>
<tr>
<td>0010</td>
<td>744</td>
<td>1,128</td>
</tr>
<tr>
<td>0011</td>
<td>1,512</td>
<td>2,280</td>
</tr>
<tr>
<td>0100</td>
<td>3,048</td>
<td>4,584</td>
</tr>
</tbody>
</table>
### Table 3.7.3.3.2.37-3. FOR_SCH_DURATION and REV_SCH_DURATION Fields

<table>
<thead>
<tr>
<th>FOR_SCH_DURATION</th>
<th>REV_SCH_DURATION</th>
<th>Duration in 20 ms</th>
</tr>
</thead>
<tbody>
<tr>
<td>(binary)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### NUM_REV_SCH - Number of Reverse Supplemental Channels assigned.

The base station shall set this field to the number of Reverse Supplemental Channel assigned. The base station shall set this field to ‘00’ if the assignment of Supplemental Channel is not included.

The base station shall include NUM_REV_SCH occurrences of the following five fields (REV_SCH_ID, REV_SCH_DURATION, REV_SCH_START_TIME_INCL, REV_SCH_START_TIME, and REV_SCH_NUM_BITS_IDX).

#### REV_SCH_ID - Reverse Supplemental Channel Identifier.

The base station shall set this field to the identifier of the Reverse Supplemental Channel.

#### REV_SCH_DURATION - Duration of Reverse Supplemental Channel assignment

The base station shall set this field to ‘0000’ to indicate that the mobile station is to stop transmitting on the Reverse Supplemental Channel specified by REV_SCH_ID at the explicit start time specified by REV_SCH_START_TIME or at the implicit start time if REV_SCH_START_TIME_INCL is set to ‘0’. The base station shall set this field to ‘1111’ to indicate that the mobile station may transmit on the Reverse Supplemental Channel specified by REV_SCH_ID, starting at the explicit start time specified by REV_SCH_START_TIME in this message, until the start time specified by a subsequent Reverse Supplemental Channel assignment corresponding to the same Supplemental Channel (see 2.6.6.2.5.1.1). The base station shall set this field to the duration according to Table 3.7.3.3.2.37-3, starting at the start time specified by REV_SCH_START_TIME, during which the mobile station may transmit on the Reverse Supplemental Channel specified by REV_SCH_ID.

<table>
<thead>
<tr>
<th>Number of information bits per frame</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0101</td>
<td>6,120</td>
<td>5,178</td>
</tr>
<tr>
<td>0110</td>
<td>12,264</td>
<td>9,192</td>
</tr>
<tr>
<td>0111</td>
<td>Reserved</td>
<td>10,356</td>
</tr>
<tr>
<td>1000</td>
<td>Reserved</td>
<td>20,712</td>
</tr>
<tr>
<td>RESERVED</td>
<td>All other values are reserved</td>
<td></td>
</tr>
</tbody>
</table>
REV_SCH-_START_TIME_INCL - Start time included indicator.

If REV_SCH_DURATIONS is not equal to ‘0000’, the base station shall set this field to ‘1’. If REV_SCH_DURATIONS is equal to ‘0000’, the base station shall set this field as follows:

The base station shall set this field to ‘1’ if REV_SCH_START_TIME is included in this message; otherwise, the base station shall set this field to ‘0’.

REV_SCH-_START_TIME - Start time for Reverse Supplemental Channel assignment.

If REV_SCH_START_TIME_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field to the System Time, in units of time specified by START_TIME_UNIT, (modulo 32) at which the mobile station may start transmitting on the Reverse Supplemental Channel specified in this message. The explicit start time for transmitting on the Reverse Supplemental Channel is the time for which

\[ \lfloor \frac{t}{\text{START_TIME_UNIT} + 1} \rfloor - \text{REV_SCH_START_TIME} \mod 32 = 0, \]

where t is the System Time in units of 20 ms.
NUM_BITS_IDX - Reverse Supplemental Channel number of bits per frame index.

If USE_FLEX_NUM_BITS is equal to '0' or if
USE_FLEX_NUM_BITS is equal to '1' and
RSCH_NBIT_TABLE_ID[REV_SCH_ID] is equal to '0000', then
the base station shall set this field according to Table
3.7.3.3.2.37-2 to indicate the Reverse Supplemental Channel
number of information bits per frame and the number of CRC
bits per frame, corresponding to REV_WALSH_ID field.

If USE_FLEX_NUM_BITS is equal to '1' and
RSCH_NBIT_TABLE_ID[REV_SCH_ID] is not equal to '0000',
then the base station shall set this field to indicate the Reverse Supplemental Channel
number of information bits per frame, corresponding to
REV_WALSH_ID field to be
NUM_BITS[RSCH_NBIT_TABLE_ID[REV_SCH_ID]]
[REV_SCH_NUM_BITS_IDX] and the Reverse Supplemental
Channel number of CRC bits per frame, corresponding to
REV_WALSH_ID field to be
CRC_LEN_IDX[RSCH_NBIT_TABLE_ID[REV_SCH_ID]]
[REV_SCH_NUM_BITS_IDX].

FOR_CFG_INCLUDED - Forward Supplemental Channel configuration included.

The base station shall set this field to '1' if this message
contains a Forward Supplemental Channel configuration.
Otherwise, the base station shall set this field to '0'.

FOR_SCH_FER_REP - Forward Supplemental Channel FER report indicator.

If FOR_CFG_INCLUDED is set to '0', the base station shall
omit this field, otherwise, the base station shall include this
field and set it as follows:

The base station shall set this field to '1' if the mobile station
is to report the Supplemental Channel frame counts (see
2.6.4.1.1); otherwise, the base station shall set this field to '0'.

NUM_FOR_CFG_RECS - Number of the Forward Supplemental Channel configuration
Records.

If REVFOR_CFG_INCLUDED is set to ‘1’, the base station
shall set this field to one less than the number of forward
supplemental channel configuration records consisting of the
following three fields that are included in this message;
otherwise, the base station shall omit this field.

The base station shall include NUM_FOR_CFG_RECS+1 occurrences of the following fields
only if the FOR_CFG_INCLUDED field is set to ‘1’.

FOR_SCH_ID - Forward Supplemental Channel identifier

The base station shall set this field to the identifier of the
Forward Supplemental Channel.
SCCL_INDEX - Supplemental Channel Code list index.
The base station shall set this field to the index of the record in the Supplemental Channel Code list.

FOR_SCH_NUM_BITS_IDX - Forward Supplemental Channel number of information bits index.
If USE_FLEX_NUM_BITS is equal to '0' or if USE_FLEX_NUM_BITS is equal to '1' and FSCH_NBIT_TABLE_ID for FOR_SCH_ID is equal to '0000', then the base station shall set this field according to Table 3.7.3.3.2.37-4 to indicate the number of information bits per frame and the length of the CRC field for the Forward Supplemental Channel identified by FOR_SCH_ID corresponding to SCCL_INDEX.

<table>
<thead>
<tr>
<th>FOR_SCH_NUM_BITS_IDX (binary)</th>
<th>Number of information bits per frame</th>
<th>Number of CRC bits per frame</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RC 3, 4, 6, 7</td>
<td>RC 5, 8, 9</td>
</tr>
<tr>
<td>0000</td>
<td>172</td>
<td>267</td>
</tr>
<tr>
<td>0001</td>
<td>360</td>
<td>552</td>
</tr>
<tr>
<td>0010</td>
<td>744</td>
<td>1,128</td>
</tr>
<tr>
<td>0011</td>
<td>1,512</td>
<td>2,280</td>
</tr>
<tr>
<td>0100</td>
<td>3,048</td>
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<td>Reserved</td>
<td>10,356</td>
</tr>
<tr>
<td>1000</td>
<td>Reserved</td>
<td>20,712</td>
</tr>
<tr>
<td>RESERVED</td>
<td>All other values are reserved</td>
<td></td>
</tr>
</tbody>
</table>

If USE_FLEX_NUM_BITS is equal to '1' and FSCH_NBIT_TABLE_ID[FOR_SCH_ID] is not equal to '0000', then the base station shall set the FOR_SCH_NUM_BITS_IDX field to indicate that the number of information bits per frame for the Forward Supplemental channel identified by FOR_SCH_ID to be NUM_BITS[FSCH_NBIT_TABLE_ID[FOR_SCH_ID]][FOR_SCH_NUM_BITS_IDX] that the number of CRC bits per frame for the Forward Supplemental channel identified by FOR_SCH_ID to be.
The FOR_SCH_NUM_BITS_IDX field also specifies the number of CRC bits per frame for the Forward Supplemental Channel identified by FOR_SCH_ID. The number of CRC bits per frame is specified by CRC_LENIDX[FSCH_NBIT_TABLE_ID[FOR_SCH_ID]||FOR_SC_H_NUM_BITS_IDX] and Table 3.7.5.20-4.

**NUM_SUP_SHO** - Number of Forward Supplemental Channels in Soft Handoff

The base station shall set this field to the size of the Forward Supplemental Channel Active Set minus one.

The base station shall include NUM_SUP_SHO+1 occurrences of the following fields for each Forward Supplemental channel corresponding to the FOR_SCH_ID and the SCCL_INDEX whose frames may be soft-combined by the mobile station:

**PILOT_PN** - Pilot PN sequence offset index.

The base station shall set this field to the pilot PN sequence offset for this pilot in units of 64 PN chips.

**ADD_PILOT_REC_INCL** - Additional pilot information included indicator.

The base station shall set this field to ‘1’ if additional pilot information listed in PILOT_REC_TYPE and RECORD_LEN fields are included. The base station shall set this field to ‘0’ if the corresponding pilot is the common pilot and there is no additional pilot information included.

**PILOT_REC_TYPE** - Pilot record type

If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall set this field to the PILOT_REC_TYPE value shown in Table 3.7.2.3.2.21-6 corresponding to the type of Pilot Record specified by this record.

If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

**RECORD_LEN** - Pilot record length.

If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall set this field to the number of octets in the type-specific fields of this pilot record.

If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

**Type-specific fields** - Pilot record type-specific fields.

If ADD_PILOT_REC_INCL is set to ‘1’, the base station shall include type-specific fields based on the ACTIVE_PILOT_REC_TYPE of this pilot record as described in 3.7.6.1.
If ADD_PILOT_REC_INCL is set to ‘0’, the base station shall omit this field.

**CODE_CHAN_SCH** - Code channel on the Supplemental Channel.

The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the Supplemental Channel of the Forward Traffic Channel indexed by SCCL_INDEX.

**QOF_MASK_ID_SCH** - Quasi-orthogonal function index on the Supplemental Channel.

The base station shall set this field to the index of the Quasi-orthogonal function (see 3.1.3.1.13 of [2]).

**NUM_FOR_SCH** - Number of Forward Supplemental Channels assigned.

The base station shall set this field to the number of forward Supplemental Channel assigned. The base station shall set this field to ‘00’ if the assignment of Supplemental Channel is not included.

The base station shall include NUM_FOR_SCH occurrences of the following five fields (FOR_SCH_ID, FOR_SCH_DURATION, FOR_SCH_START_TIME_INCL, FOR_SCH_START_TIME, and SCCL_INDEX).

**FOR_SCH_ID** - Forward Supplemental Channel identifier.

The base station shall set this field to the identifier of the Forward Supplemental Channel pertaining to this record.

**FOR_SCH_DURATION** - Duration of Forward Supplemental Channel assignment.

The base station shall set this field to the duration (see Table 3.7.3.3.2.37-3), starting at the start time of the message specified by FOR_SCH_START_TIME, during which the mobile station is to process the Forward Supplemental Channel.

The base station shall set this field to ‘0000’ to indicate that the mobile station should stop processing the Forward Supplemental Channel starting at the explicit start time of the message specified by FOR_SCH_START_TIME or at the implicit start time if FOR_SCH_START_TIME_INCL is set to ‘0’.

The base station shall set this field to ‘1111’ to indicate that the mobile station should process the Forward Supplemental Channel, starting at the start time of the message specified by FOR_SCH_START_TIME, until the start time specified by a subsequent Forward Supplemental Channel assignment corresponding to the same Supplemental Channel (see 2.6.6.2.5.1.1).
FOR_SCH-_START_TIME_INCL  - Start time included indicator.

If FOR_SCH_DURATION is not equal to '0000', the base station shall set this field to ‘1’. If FOR_SCH_DURATION is equal to ‘0000’, the base station shall set this field as follows:

The base station shall set this field to ‘1’ if FOR_SCH_START_TIME is included in this message; otherwise, the base station shall set this field to ‘0’.

FOR_SCH-_START_TIME  - Start time for Forward Supplemental Channel assignment.

If FOR_SCH_START_TIME_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field to the System Time, in units of time specified by START_TIME_UNIT, (modulo 32) at which the mobile station is to start processing the Forward Supplemental Channel specified in this message. The start time for processing Forward Supplemental Channels is the time for which

\[
\left\lfloor \frac{t}{(\text{START_TIME_UNIT}+1)} \right\rfloor - \text{FOR_SCH_START_TIME} \mod 32 = 0,
\]

where \( t \) is the System Time in units of 20 ms.

SCCL_INDEX  - Supplemental Channel Code list index.

The base station shall set this field to the index of the record in the Forward Supplemental Channel Code list corresponding to the FOR_SCH_ID. The base station shall include an SCCL_INDEX whose SCH Active Set is a subset of the Active Set of the Fundamental Channel, Dedicated Control Channel, or both.

FPC_INCL  - Forward Link Power Control parameter included indicator.

If the forward power control related information is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

FPC_MODE_SCH  - Forward Power Control operational mode indicator used during forward Supplemental Channel assignment interval.

If FPC_INCL is set to ‘1’, the base station shall set the value to the forward power control operation mode (see [2]); otherwise, the base station shall omit this field.

FPC_SCH-_INIT_SETPT_OP  - Initial Supplemental Channel Outer Loop Eb/Nt setpoint option.

If FPC_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:
The base station shall set this field to '0' to indicate that
FPC_SCH_INIT_SETPT contains the absolute value of the
initial F-SCH Eb/Nt setpoint. The base station shall set this
field to '1' to indicate that FPC_SCH_INIT_SETPT contains the
offset value of the initial F-SCH Eb/Nt setpoint relative to the
current value used in the mobile station for the channel
carrying the Forward Power Control Subchannel.

FPC_SEC_CHAN - Master Supplemental channel index.
If FPC_INCL is set to ‘1’ and FPC_MODE_SCH is set to ‘001’,
‘010’, ‘101’, or ‘110’, the base station shall set this field to the
master Supplemental Channel index; otherwise, the base
station shall omit this field.

NUM_SUP - Number of Supplemental Channels.
If FPC_INCL is set to ‘0’ the base station shall omit this field;
otherwise, the base station shall set this field to the total
number of the Supplemental Channels.

The base station shall include NUM_SUP occurrences of the following record:

SCH_ID - Supplemental channel index.
The base station shall set this field to the Supplemental
Channel index.

FPC_SCH_FER - Supplemental channel target Frame Error Rate.
The base station shall set this field to the target Frame Error
Rate on the Supplemental Channel, as specified in Table
3.7.3.3.2.25-2.

FPC_SCH_INIT_SETPT - Initial Supplemental Channel Output Loop Eb/Nt setpoint
The base station shall set this field to initial Supplemental
Channel Outer Loop Eb/Nt setpoint (absolute value or offset
value as indicated by FPC_SCH_INIT_SETPT_OP) as follows:

- If FPC_SCH_INIT_SETPT_OP is set to '0', the unit is 0.125
dB;
- If FPC_SCH_INIT_SETPT_OP is set to '1', the unit is 0.125
dB and the offset is expressed as two’s complement signed
number.

FPC_SCH_MIN_SETPT - Minimum Supplemental Channel outer loop Eb/Nt setpoint.
The base station shall set this field to minimum Supplemental
Channel Outer Loop Eb/Nt setpoint, in units of 0.125 dB.

FPC_SCH_MAX_SETPT - Maximum Supplemental Channel outer loop Eb/Nt setpoint.
The base station shall set this field to maximum Supplemental
Channel Outer Loop Eb/Nt setpoint, in units of 0.125 dB.

FPC_THRESH_SCH_INCL - SCH Setpoint Report Threshold Included Indicator.
If FPC_INCL is set to '0', the base station shall omit this field;
otherwise, the base station shall set this field as follows:
If SCH setpoint report threshold is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

FPC_SETPT-_THRESH_SCH - SCH Setpoint Report Threshold.

If FPC_THRESH_SCH_INCL is set to ‘1’, the base station shall set this field to the value of SETPT_THRESH_SCH, the Supplemental Channel setpoint threshold (in units of 0.125 dB) above which the outer loop report message will be sent by the mobile station; otherwise, the base station shall omit this field.

RPC_INCL - Reverse Power Control parameter included indicator.

The base station shall set this field to ‘1’ if RPC_NUM_SUP is included in this message; otherwise, the base station shall set this field to ‘0’.

RPC_NUM_SUP - Number of Supplemental Channels.

If RPC_INCL is set to ‘1’, the base station shall set this field to the total number of the Supplemental Channels minus one; otherwise, the base station shall omit this field.

The base station shall include RPC_NUM_SUP +1 occurrences of the following two fields record:

SCH_ID - Supplemental channel index.

The base station shall set this field to the Supplemental Channel index.

RLGAIN_SCH_PILOT - Supplemental channel power offset adjustment relative to Reverse Pilot Channel power for radio configurations greater than 2.

The base station shall set this field to the correction factor to be used by mobile stations setting the power of a supplemental channel, expressed as a two’s complement value in units of 0.125 dB.

3X_SCH_INFO_INCL - 3X SCH information included indicator.

If the 3X Supplemental Channel information is included, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

If FOR_CFG_INCLUDED is set to ‘0’, the base station shall set this field to ‘0’.

NUM_3X_CFG - Number of 3X Supplemental Channels to be configured

If 3X_SCH_INFO_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

The base station shall set this field to the number of 3X Forward Supplemental Channels to be configured. The base station shall set this field to ‘00’ if the configuration of Supplemental Channel is not included.
The base station shall include NUM_3X_CFG occurrences of the following record if
3X_SCH_INFO_INCL is included and set to ‘1’.

FOR_SCH_ID - Forward Supplemental Channel identifier.

The base station shall set this field the identifier of the
Forward Supplemental Channel pertaining to this record.

NUM_3X_REC - Number of 3X records

The base station shall set this field to the number of instances
of the following record minus one included in this message.

The base station shall include NUM_3X_REC+1 occurrences of the following variable-length
record.

SCCL_INDEX - Supplemental Channel Code list index.

The base station shall set this field to the index of the record
in the Supplemental Channel Code list.

The base station shall include NUM_SUP_SHO+1 occurrences of the following fields for each
Forward Supplemental channel corresponding to the FOR_SCH_ID and the SCCL_INDEX
whose frames may be soft-combined by the mobile station:

3X_SCH_LOW_INCL – SCH code channel on the lowest SR3 frequency included
indicator.

If the SCH on the lowest SR3 frequencies has a different code
channel than the SCH on the center SR3 frequency, the base
station shall set this field to ‘1’; otherwise, the base station
shall set this field to ‘0’.

QOF_MASK_ID-_SCH_LOW – QOF index for the SCH on the lowest SR3 frequency.

If 3X_SCH_LOW_INCL is set to ‘0’, the base station shall omit
this field; otherwise, the base station shall set this field as
follows:

The base station shall set this field to the index of the Quasi-
orthogonal function (see Table 3.1.3.1.12-2 of [2])
corresponding to the QOF index for the SCH on the lowest
SR3 frequency.

CODE_CHAN-_SCH_LOW - Code channel for the SCH on the lowest SR3 frequency.

If 3X_SCH_LOW_INCL is set to ‘0’, the base station shall omit
this field; otherwise, the base station shall set this field as
follows:

The base station shall set this field to the code channel index
(see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is
to use on the SCH on the lowest SR3 frequency. If Radio
Configuration 6 or 8 is used, the base station shall set this
field in the range 1 to 127 inclusive. If Radio Configuration 7
or 9 is used, the base station shall set this field in the range 1
to 255 inclusive.
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3X_SCH_HIGH_INCL - SCH code channel on the highest SR3 frequency included indicator.

If the SCH on the highest SR3 frequencies has a different code channel than the SCH on the center SR3 frequency, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

QOF_MASK_ID-_SCH_HIGH - QOF index for the SCH on the highest SR3 frequency.

If 3X_SCH_HIGH_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

   The base station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2] corresponding to the QOF index for the SCH on the highest SR3 frequency.

CODE_CHAN-_SCH_HIGH - Code channel for the SCH on the highest SR3 frequency.

If 3X_SCH_HIGH_INCL is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows:

   The base station shall set this field to the code channel index (see 2.1.3.1.9 and 3.1.3.1.13 of [2]) that the mobile station is to use on the SCH on the highest SR3 frequency. If Radio Configuration 6 or 8 is used, the base station shall set this field in the range 1 to 127 inclusive. If Radio Configuration 7 or 9 is used, the base station shall set this field in the range 1 to 255 inclusive.
3.7.3.3.2.38 Forward Supplemental Channel Assignment Mini Message

MSG_TAG: FSCAMM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR_SCH_ID</td>
<td>1</td>
</tr>
<tr>
<td>FOR_SCH_DURATION</td>
<td>4</td>
</tr>
<tr>
<td>FOR_SCH_START_TIME</td>
<td>5</td>
</tr>
<tr>
<td>SCCL_INDEX</td>
<td>4</td>
</tr>
</tbody>
</table>
FOR_SCH_ID - Forward Supplemental Channel identifier.

The base station shall set this field to the identifier of the Forward Supplemental Channel.

FOR_SCH_DURATION - Duration of Forward Supplemental Channel assignment.

The base station shall set this field to the duration (see Table 3.7.3.3.2.37-3), starting at the start time of the message specified by FOR_SCH_START_TIME, during which the mobile station is to process the Forward Supplemental Channel.

The base station shall set this field to ‘0000’ to indicate that the mobile station should stop processing the Forward Supplemental Channel starting at the start time of the message specified by FOR_SCH_START_TIME.

The base station shall set this field to ‘1111’ to indicate that the mobile station should process the Forward Supplemental Channel, starting at the explicit start time of the message specified by FOR_SCH_START_TIME, until the start time of a subsequent Forward Supplemental Channel assignment corresponding to the same Forward Supplemental Channel (see 2.6.6.2.5.1.1).

FOR_SCH-_START_TIME - Start time for Forward Supplemental Channel assignment.

The base station shall set this field to the System Time, in units of time specified by START_TIME_UNIT, (modulo 32) at which the mobile station is to start processing the Forward Supplemental Channel specified in this message. The start time for processing Forward Supplemental Channels is the time for which

\[
\left\lfloor \frac{t}{(\text{START_TIME_UNIT}+1)} \right\rfloor - \text{FOR_SCH_START_TIME} \mod 32 = 0,
\]

where \( t \) is the System Time in units of 20 ms.

SCCL_INDEX - Supplemental Channel Code list index.

The base station shall set this field to the index of the record in the Forward Supplemental Channel Code list corresponding to the FOR_SCH_ID. The base station shall include an SCCL_INDEX whose SCH Active Set is a subset of the Active Set of the Fundamental Channel, Dedicated Control Channel, or both.
3.7.3.3.2.39 Reverse Supplemental Channel Assignment Mini Message

MSG_TAG: RSCAMM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REV_SCH_ID</td>
<td>1</td>
</tr>
<tr>
<td>REV_SCH_DURATION</td>
<td>4</td>
</tr>
<tr>
<td>REV_SCH_START_TIME</td>
<td>5</td>
</tr>
<tr>
<td>REV_SCH_NUM_BITS_IDX</td>
<td>4</td>
</tr>
</tbody>
</table>
REV_SCH_ID - Reverse Supplemental Channel identifier.

The base station shall set this field to the identifier of the Reverse Supplemental Channel.

REV_SCH_DURATION - Duration of Reverse Supplemental Channel assignment.

The base station shall set this field to '0000' to indicate that the mobile station is to stop transmitting on the Reverse Supplemental Channel specified by REV_SCH_ID at the start time specified by START_TIME. The base station shall set this field to '1111' to indicate that the mobile station may transmit on the Reverse Supplemental Channel specified by REV_SCH_ID, starting at the start time specified by REV_SCH_START_TIME in this message, until the start time specified by a subsequent Reverse Supplemental Channel assignment corresponding to the same Supplemental Channel (see 2.6.6.2.5.1.1). The base station shall set this field to the duration according to Table 3.7.3.3.2.37-3, starting at the explicit start time specified by REV_SCH_START_TIME, during which the mobile station may transmit on the Reverse Supplemental Channel specified by REV_SCH_ID.

REV_SCH_START_TIME - Start time for Reverse Supplemental Channel Assignment Mini Message.

The base station shall set this field to the System Time, in units of time specified by START_TIME_UNIT, (modulo 32) at which the mobile station may start transmitting on the Reverse Supplemental Channel specified in this message. The explicit start time for transmitting on the Reverse Supplemental Channel is the time for which

$$\left\lfloor \frac{t}{(START\_TIME\_UNIT+1)} \right\rfloor - REV\_SCH\_START\_TIME \mod 32 = 0,$$

where t is the System Time in units of 20 ms.

REV_SCH_NUM_BITS_IDX - Reverse Supplemental Channel number of information bits per frame index.

If USE_FLEX_NUM_BITS is equal to '0' or if USE_FLEX_NUM_BITS is equal to '1' and RSCH_NBIT_TABLE_ID[REV_SCH_ID] is equal to '0000', then the base station shall set this field according to Table 3.7.3.3.2.37-2 to indicate the Reverse Supplemental Channel number of information bits per frame and the number of CRC bits per frame, that the mobile station may transmit on the reverse Supplemental Channel identified by REV_SCH_ID.

If USE_FLEX_NUM_BITS is equal to '1' and
RSCH_NBIT_TABLE_ID[REV_SCH_ID] is not equal to ‘0000’, then the base station shall set the REV_SCH_NUM_BITS_IDX field to indicate the Reverse Supplemental Channel number of information bits per frame that the mobile station may transmit on the Reverse Supplemental Channel identified by REV_SCH_ID to be NUM_BITS[RSCH_NBIT_TABLE_ID[REV_SCH_ID]] [REV_SCH_NUM_BITS_IDX] and the Reverse Supplemental Channel number of CRC bits per frame that the mobile station may transmit on the Reverse Supplemental Channel identified by CRC_LEN_IDX[RSCH_NBIT_TABLE_ID[REV_SCH_ID]] [REV_SCH_NUM_BITS_IDX]. The REV_SCH_NUM_BITS_IDX field also specifies the number of CRC bits per frame for the Reverse Supplemental Channel identified by CRC_LEN_IDX[RSCH_NBIT_TABLE_ID[REV_SCH_ID]][REV_SCH_NUM_BITS_IDX] and Table 3.7.5.20-4.
3.7.3.3.2.40 Mobile Assisted Burst Operation Parameters Message

MSG_TAG: MABOPM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORDER_FLAG</td>
<td>1</td>
</tr>
</tbody>
</table>

If ORDER_FLAG is set to ‘1’, the base station shall include the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS_MIN_DELTA</td>
<td>3</td>
</tr>
<tr>
<td>ORDER_INTERVAL</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERIODIC_FLAG</td>
<td>1</td>
</tr>
</tbody>
</table>

If PERIODIC_FLAG is set to ‘1’, the base station shall include the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUM_PILOTS</td>
<td>3</td>
</tr>
<tr>
<td>PERIODIC_INTERVAL</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>THRESHOLD_FLAG</td>
<td>1</td>
</tr>
</tbody>
</table>

If THRESHOLD_FLAG is set to ‘1’, the base station shall include the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS_FLOOR_HIGH</td>
<td>6</td>
</tr>
<tr>
<td>PS_FLOOR_LOW</td>
<td>6</td>
</tr>
<tr>
<td>PS_CEILING_HIGH</td>
<td>6</td>
</tr>
<tr>
<td>PS_CEILING_LOW</td>
<td>6</td>
</tr>
<tr>
<td>THRESHOLD_INTERVAL</td>
<td>6</td>
</tr>
</tbody>
</table>
ORDER_FLAG - Order change reporting flag.

The base station shall set this field to ‘1’ to indicate that the mobile station is to send a Pilot Strength Measurement Mini Message to the base station whenever a received pilot strength measurement changes its relative order with respect to all other reported pilot strength measurements during supplemental channel burst operations; otherwise, the base station shall set this field to ‘0’.

If ORDER_FLAG is set to ‘1’, the base station shall include the following two-field record:

PS_MIN_DELTA - Minimum power strength delta.

The base station shall set this field to one less than the minimum pilot strength measurement difference between two pilots (in units of 0.5 dB) that must be measured in order for the mobile station to send a Pilot Strength Measurement Mini Messages when the rank order mode is enabled. A difference in pilot strength of at least (PS_MIN_DELTA + 1), in units of 0.5 dB, must be measured for ORDER_INTERVAL successive 20 ms intervals before a rank order based Pilot Strength Measurement Mini Message is generated.

ORDER_INTERVAL - Order interval.

The base station shall set this field to the minimum interval (in 20 ms units) during which the indicated pilot strength measurement difference greater than or equal to (PS_MIN_DELTA + 1), in units of 0.5 dB, must be measured by the mobile station in order for the mobile station to send a Pilot Strength Measurement Mini Messages when the rank order mode is enabled.

PERIODIC_FLAG - Periodic report flag.

The base station shall set this field to ‘1’ to indicate that the mobile station is to send Pilot Strength Measurement Mini Messages periodically during supplemental channel burst operations; otherwise the base station shall set this field to ‘0’.

If PERIODIC_FLAG is set to ‘1’, the base station shall include the following two-field record:

NUM_PILOTS - Number of pilots.

The base station shall set this field to the number of pilots for which the mobile station is to send Pilot Strength Measurement Mini Messages when the periodic mode is enabled.

PERIODIC_INTERVAL - Periodic interval.

The base station shall set this field to the interval (in 20 ms units) between Pilot Strength Measurement Mini Messages when the periodic mode is enabled.

THRESHOLD_FLAG - Threshold reporting flag.
The base station shall set this field to ‘1’ to indicate that the mobile station is to send *Pilot Strength Measurement Mini Messages* whenever a measured pilot crosses below a lower bound or exceeds an upper bound during Supplemental channel burst operations; otherwise the base station shall set this field to ‘0’.

If THRESHOLD_FLAG is set to ‘1’, the base station shall include the following five-field record:

- **PS_FLOOR_HIGH** - Lower bound reporting high water mark.
  - The base station shall set this field to the high water mark for the lower bound below which the mobile station is to send *Pilot Strength Measurement Mini Messages* when the threshold mode is enabled.
  - The base station shall set this field as an unsigned binary number equal to \([- 2 \times 10 \times \log_{10} \frac{E_c}{I_o}\)].

- **PS_FLOOR_LOW** - Lower bound reporting low water mark.
  - The base station shall set this field to the low water mark for the lower bound below which the mobile station is to send *Pilot Strength Measurement Mini Messages* when the threshold mode is enabled.
  - The base station shall set this field as an unsigned binary number equal to \([- 2 \times 10 \times \log_{10} \frac{E_c}{I_o}\)].

- **PS_CEILING_HIGH** - Upper bound reporting high water mark.
  - The base station shall set this field to the high water mark for the upper bound above which the mobile station is to send *Pilot Strength Measurement Mini Messages* when the threshold mode is enabled.
  - The base station shall set this field as an unsigned binary number equal to \([- 2 \times 10 \times \log_{10} \frac{E_c}{I_o}\)].

- **PS_CEILING_LOW** - Upper bound reporting low water mark.
  - The base station shall set this field to the low water mark for the upper bound above which the mobile station is to send *Pilot Strength Measurement Mini Messages* when the threshold mode is enabled.
  - The base station shall set this field as an unsigned binary number equal to \([- 2 \times 10 \times \log_{10} \frac{E_c}{I_o}\)].

- **THRESHOLD_INTERVAL** - Threshold reporting interval.
  - The base station shall set this field to the interval (in 20 ms units) between *Pilot Strength Measurement Mini Messages* when the threshold reporting mode is enabled.
3.7.3.3.2.41 User Zone Reject Message

MSG_TAG: UZRM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REJECT_UZID</td>
<td>16</td>
</tr>
<tr>
<td>REJECT_ACTION_INDI</td>
<td>3</td>
</tr>
<tr>
<td>UZID_ASSIGN_INCL</td>
<td>1</td>
</tr>
<tr>
<td>ASSIGN_UZID</td>
<td>0 or 16</td>
</tr>
</tbody>
</table>

**REJECT_UZID** - Rejected User Zone identifier.

The base station shall set this field to the User Zone identifier of the User Zone rejected by the base station.

**REJECT_ACTION_INDI** - Rejection action indicator.

The base station shall set this field to the value shown in Table 3.7.2.3.2.29-1 corresponding to the User Zone rejection action field to identify the mobile station action.

**UZID_ASSIGN_INCL** - User Zone identifier assignment included indicator.

If assigned UZID information is included, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**ASSIGN_UZID** - Assigned User Zone identifiers.

The base station shall set this field to the User Zone identifier of the User Zone assigned to the mobile station.
3.7.3.3.2.42 User Zone Update Message

MSG_TAG: UZUM

<table>
<thead>
<tr>
<th>Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UZID</td>
<td>16</td>
</tr>
</tbody>
</table>

UZID - User Zone identifier.

The base station shall set this field to the User Zone identifier supported by the base station.
3.7.3.3.2.43 Call Assignment Message

MSG_TAG: CLAM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESPONSE_IND</td>
<td>1</td>
</tr>
<tr>
<td>TAG</td>
<td>0 or 4</td>
</tr>
<tr>
<td>ACCEPT_IND</td>
<td>0 or 1</td>
</tr>
<tr>
<td>REJECT_PKTDATA_IND</td>
<td>0 or 1</td>
</tr>
<tr>
<td>BYPASS_ALERT_ANSWER</td>
<td>0 or 1</td>
</tr>
<tr>
<td>SO_INCL</td>
<td>1</td>
</tr>
<tr>
<td>SO</td>
<td>0 or 16</td>
</tr>
<tr>
<td>CON_REF_INCL</td>
<td>1</td>
</tr>
<tr>
<td>CON_REF</td>
<td>0 or 8</td>
</tr>
</tbody>
</table>

RESPONSE_IND – Response indicator.

The base station shall set this field to ‘1’ if this message is a response to an Enhanced Origination Message from the mobile station; otherwise, the base station shall set this field to ‘0’.

TAG – Transaction identifier.

If the RESPONSE_IND field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to the value of the TAG field of the Enhanced Origination Message to which this message is the response.

ACCEPT_IND – Accepted indicator.

If the RESPONSE_IND field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and shall set it as follows:
If the base station accepts the call request from the mobile station, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

REJECT_PKTDATA_IND – Packet data service option rejection indicator.

If the ACCEPT_IND field is not included or is included and is set to ‘1’, the base station shall omit this field; otherwise, the base station shall include this field and shall set it as follows:

The base station shall set this field to ‘1’ to indicate rejection of the packet data service option requested by the mobile station; otherwise, the base station shall set this field to ‘0’.

BYPASS_ALERT-_ANSWER – Bypass alert indicator.

If the RESPONSE_IND field is set to ‘1’, the base station shall omit this field; otherwise, the base station shall include this field and shall set it as follows:

If the mobile station is to bypass the Waiting for Order Substate and the Waiting for Mobile Station Answer Substate for this call, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

SO_INCL – Service option included indicator.

The base station shall set this field to ‘1’ if the service option field is included in this message; otherwise, it the base station shall set this field to ‘0’.

SO – Service option.

If the SO_INCL field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and shall set it to the value of the service option number (as specified in [30]) that the base station proposes for this call.

CON_REF_INCL – Connection reference included indicator.

If the ACCEPT_IND field is not included or is included but is set to ‘1’, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

CON_REF – Connection reference.
If the CON_REF_INCL field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and shall set it to the value of the connection reference that was/will be assigned to the service option connection corresponding to this call.
3.7.3.3.2.44 Extended Alert With Information Message

MSG_TAG: EAWIM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON_REF_INCL</td>
<td>1</td>
</tr>
<tr>
<td>CON_REF</td>
<td>0 or 8</td>
</tr>
<tr>
<td>NUM_REC</td>
<td>4</td>
</tr>
</tbody>
</table>

NUM_REC occurrences of the following three-field record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>$8 \times \text{RECORD_LEN}$</td>
</tr>
</tbody>
</table>

CON_REF_INCL – Connection reference included indicator.

The base station shall set this field to ‘1’ if the connection reference field is included in this message; otherwise, it shall set this field to ‘0’.

CON_REF – Connection reference.

If the CON_REF_INCL field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and shall set it to the value of the connection reference assigned to the service option connection of the call, to which this message corresponds.

NUM_REC – Number of records.

The base station shall set this field to the number of information records included with this message.

The base station shall include NUM_REC occurrences of the following three-field record as specified in 3.7.5.

RECORD_TYPE – Information record type.

The base station shall set this field as specified in 3.7.5.
RECORD_LEN - Information record length.

The base station shall set this field to the number of octets in the type-specific fields included in this record.

Type-specific fields - Type-specific fields.

The base station shall include type-specific fields as specified in 3.7.5.
3.7.3.3.2.45 Extended Flash With Information Message

MSG_TAG: EFWIM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON_REF_INCL</td>
<td>1</td>
</tr>
<tr>
<td>CON_REF</td>
<td>0 or 8</td>
</tr>
<tr>
<td>NUM_REC</td>
<td>4</td>
</tr>
</tbody>
</table>

NUM_REC occurrences of the following three-field record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>RECORD_LEN</td>
<td>8</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>8 × RECORD_LEN</td>
</tr>
</tbody>
</table>

CON_REF_INCL – Connection reference included indicator.

The base station shall set this field to ‘1’ if the connection reference field is included in this message; otherwise, it shall set this field to ‘0’.

CON_REF – Connection reference.

If the CON_REF_INCL field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and shall set it to the value of the connection reference assigned to the service option connection of the call, to which this message corresponds.

NUM_REC – Number of records.

The base station shall set this field to the number of information records included with this message.

The base station shall include NUM_REC occurrences of the following three-field record as specified in 3.7.5.

RECORD_TYPE – Information record type.

The base station shall set this field as specified in 3.7.5.
<table>
<thead>
<tr>
<th>RECORD_LEN</th>
<th>Information record length.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>The base station shall set this field to the number of octets in the type-specific fields included in this record.</td>
</tr>
<tr>
<td>Type-specific fields</td>
<td>Type-specific fields.</td>
</tr>
<tr>
<td>5</td>
<td>The base station shall include type-specific fields as specified in 3.7.5.</td>
</tr>
</tbody>
</table>
3.7.3.3.2.46 Security Mode Command Message

MSG_TAG: SMCM

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE_TIME</td>
<td>1</td>
</tr>
<tr>
<td>ACTION_TIME</td>
<td>0 or 6</td>
</tr>
<tr>
<td>D_SIG_ENCRYPT_MODE</td>
<td>3</td>
</tr>
<tr>
<td>NUM_RECS</td>
<td>3</td>
</tr>
</tbody>
</table>

NUM_RECS occurrences of the following two-field record

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CON_REF</td>
<td>8</td>
</tr>
<tr>
<td>UI_ENCRYPT_MODE</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE_NEW_KEY</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ENC_KEY_SIZE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>KEY_SEQ</td>
<td>0 or 4</td>
</tr>
<tr>
<td>C_SIG_ENCRYPT_MODE_INCL</td>
<td>1</td>
</tr>
<tr>
<td>C_SIG_ENCRYPT_MODE</td>
<td>0 or 3</td>
</tr>
</tbody>
</table>

**USE_TIME** - Use action time indicator.

This field indicates whether an ACTION_TIME is specified in this message.

If an ACTION_TIME is specified in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**ACTION_TIME** - Action time.

If the USE_TIME field is set to ‘1’, the base station shall set this field to the System Time, in units of 80 ms (modulo 64), at which the message is to take effect. If the USE_TIME field is set to ‘0’ the base station shall omit this field.

**D_SIG_ENCRYPT_MODE** - Dedicated channel Common Channel encryption mode indicator.

The base station shall set it to signaling message encryption mode, as shown in Table 3.7.4.5-1.

**NUM_RECS** - Number of user information encryption records.

The base station shall set this field to the number of user information encryption records included in this message.

The base station shall include NUM_RECS occurrences of the following two-field record

**CON_REF** - Connection reference corresponding to the service option connection requesting for encryption.
If this field is included, the base station shall set this field to the connection reference of the service option connection corresponding to this user information encryption.

**UI_ENCRYPT_MODE** - Encryption mode indicator for user information privacy.

The base station shall set this field to user information encryption mode for the service option connection identified by CON_REF as shown in Table 3.7.5.7-3.

**USE_NEW_KEY** - Use new encryption key indication.

If both of **UI_ENCRYPT_MODE** and **SIG_ENCRYPT_MODE** are equal to '000' or any reserved value, the base station shall omit this field; otherwise, the base station shall include this field. If included, the base station shall set this field to '0' to indicate that the stored encryption key is to be used by the mobile station and to '1' to indicate that the new encryption key is to be used by the mobile station.

**ENC_KEY_SIZE** - Key Size used for user information and signaling encryption

If **D_SIG_ENCRYPT_MODE** is equal to '001' and **USE_NEW_KEY** is included and is set to '0', the base station shall omit this field; otherwise, the base station shall include this field and set this field to the encryption key size for user information encryption and signaling encryption according to as shown in Table 3.7.4.5-2; otherwise, the base station shall omit this field.

**KEY_SEQ** - Encryption key sequence number.

If **USE_NEW_KEY** is not included, or if **USE_NEW_KEY** is included and is set to '0', the base station shall include this field; otherwise, the base station shall omit this field. If this field is included, the base station shall set it to the encryption key sequence number to be used by the mobile station.

**C_SIG_ENCRYPT_MODE_INCL** - Common channel signaling encryption mode included indicator.

If **C_SIG_ENCRYPT_MODE** is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

**C_SIG_ENCRYPT_MODE** - Common channel signaling encryption mode indicator.

If **C_SIG_ENCRYPT_MODE** INCL is set to ‘1’, the base station shall include this field and shall set it to the common channel signaling encryption mode, as shown in Table 3.7.4.5-1; otherwise, the base station shall omit this field.
3.7.3.3.2.47 Base Station Status Response Message

**MSG_TAG: BSSRSPM**

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QUAL_INFO_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>QUAL_INFO_LEN</td>
<td>3</td>
</tr>
<tr>
<td>Type-specific fields.</td>
<td>$8 \times \text{QUAL_INFO_LEN}$</td>
</tr>
<tr>
<td>NUM_RECORDS</td>
<td>4</td>
</tr>
</tbody>
</table>

**NUM_RECORD** occurrences of the following variable length record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_TYPE</td>
<td>8</td>
</tr>
<tr>
<td>RECORD_LENGTH</td>
<td>8</td>
</tr>
<tr>
<td>Record type specific fields</td>
<td>variable</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0-7 (as required)</td>
</tr>
</tbody>
</table>

**QUAL_INFO_TYPE** – Qualification information type.

The base station shall set this field to the QUAL_INFO_TYPE field in the corresponding Base Station Status Request Message.

**QUAL_INFO_LEN** – Qualification information length.

The base station shall set this field to the QUAL_INFO_LEN field in the corresponding Base Station Status Request Message.

**Type-specific fields** – Type-specific fields.

The base station shall set these fields to the qualification information in the corresponding Base Station Status Request Message.

**NUM_RECORD** - Number of records included in this message.

The base station shall set this field to the number of occurrences of RECORD_TYPE field in this message.

The base station shall include one occurrence of the following variable-length record for each information record that is included:

**RECORD_TYPE** - Information record type.

The base station shall set this field to the record type value shown in Table 3.7.3.3.3.47-1 corresponding to the information record included.
Table 3.7.3.3.47-1. Base Station Status Response Information Record

<table>
<thead>
<tr>
<th>Information Record Requested</th>
<th>Record Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pilot Information</td>
<td>00000000</td>
</tr>
<tr>
<td>Reserved</td>
<td>00000001-</td>
</tr>
<tr>
<td></td>
<td>11111111</td>
</tr>
</tbody>
</table>

**RECORD_LENGTH** - Information record length.

The base station shall set this field to the length, in octets, of the record type specific fields included in this record.

**Record type specific fields** - Record type specific fields

The base station shall set this field to the type specific fields corresponding to this record type.

If the RECORD_TYPE field is set to ‘00000000’, the base station shall set the record type specific field as follows:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUM_PILOTS</td>
<td>4</td>
</tr>
<tr>
<td>SID_NID_IND</td>
<td>1</td>
</tr>
</tbody>
</table>

NUM_PILOTS occurrences of the following variable-length record

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_LEN</td>
<td>4</td>
</tr>
<tr>
<td>PILOT_PN</td>
<td>9</td>
</tr>
<tr>
<td>BASE_ID</td>
<td>16</td>
</tr>
<tr>
<td>SID_NID_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>SID</td>
<td>0 or 15</td>
</tr>
<tr>
<td>NID</td>
<td>0 or 16</td>
</tr>
<tr>
<td>RESERVED_1</td>
<td>0–7 (as required)</td>
</tr>
</tbody>
</table>

NUM_PILOTS - Number of Pilots reported.
The base station shall set this field to the number of pilots whose information is reported in this message.

The base station shall set this field to a number equal or greater than one.

**SID_NID_IND** - SID, NID included indicator.

The base station shall set this field to ‘1’ if SID, NID information is included in this message; otherwise, it shall set this field to ‘0’.

The base station shall include **NUM_PILOTS** occurrences of the following variable length record:

**RECORD_LEN** - Record Length

The base station shall set this field to the length in octets of this record.

**PILOT_PN** - Pilot PN sequence offset index.

The base station shall set this field to the pilot PN sequence offset for this base station, in units of 64 PN chips.

**BASE_ID** - Base station identification.

The base station shall set this field to the Base Station identification number corresponding to this pilot.

**SID_NID_INCL** - SID, NID included indicator.

If the **SID_NID_IND** field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

If this is the first pilot included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field as follows:

If the SID and NID of this pilot are same as the SID and NID of the previous pilot, the base station shall set this field to ‘0’; otherwise, the base station shall set this field to ‘1’.

**SID** - System identification.
If the SID_NID_INCL field is not included or is included and is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to the system identification number of the system corresponding to this pilot (see 2.6.5.2).

NID - Network identification.

If the SID_NID_INCL field is not included or is included and is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to the network identification number of the network corresponding to this pilot (see 2.6.5.2).

RESERVED_1 - Reserved bits.

The base station shall add reserved bits as needed in order to make the length of the pilot specific record equal to an integer number of octets. The base station shall set these bits to ‘0’.

RESERVED - Reserved bits.

The base station shall add reserved bits as needed in order to make the length of the record equal to an integer number of octets. The base station shall set these bits to ‘0’.
3.7.4 Orders

*Order Messages* are sent by the base station on the f-csch and the f-dsch. The general PDU format used on the f-csch is defined in 3.7.2.3.2.7, and the general PDU format used on the f-dsch is defined in 3.7.3.3.2.1. There are many specific types of *Order Messages*, as shown in Table 3.7.4-1.

The base station may send on the f-csch any type of order shown in Table 3.7.4-1 with a ‘Y’ in the first column, but shall not send on the f-csch any type of order with an ‘N’ in the first column. The base station may send on the f-dsch any type of order shown in Table 3.7.4-1 with a ‘Y’ in the second column, but shall not send on the f-dsch any type of order with an ‘N’ in the second column.

An order consists of a 6-bit order code and zero or more order-specific fields. The base station shall set the ORDER field in the *Order Message* to the order code shown in Table 3.7.4-1 corresponding to the type of order being sent.

If the order qualification code in the fourth column of Table 3.7.4-1 is ‘00000000’ and there are no other additional fields as shown by an ‘N’ in the sixth column, the base station shall include no order qualification code or other order-specific fields in the *Order Message*. The order qualification code of such a message is implicitly ‘00000000’.

If the order qualification code is not ‘00000000’ and there are no other additional fields as shown in Table 3.7.4-1 by an ‘N’ in the sixth column, the base station shall include the order qualification code as the only order specific field in the *Order Message*.

If there are other additional fields as shown in Table 3.7.4-1 by a ‘Y’ in the sixth column, the base station shall include order-specific fields as specified in the corresponding subsection of this section.
<table>
<thead>
<tr>
<th>f-csch Order</th>
<th>f-dsch Order</th>
<th>Order Code, ORDER (binary)</th>
<th>Order Qualification Code, ORDQ (binary)</th>
<th>ACTION TIME can be specified</th>
<th>Additional Fields other than ORDQ</th>
<th>Name/Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>N</td>
<td>000001</td>
<td>00000000</td>
<td>N</td>
<td>N</td>
<td>Abbreviated Alert Order</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>000010</td>
<td>00000000</td>
<td>N</td>
<td>Y</td>
<td>Base Station Challenge Confirmation Order (see 3.7.4.1)</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>000011</td>
<td>00000nnn</td>
<td>Y</td>
<td>N</td>
<td>Message Encryption Mode Order (where nn is the mode per Table 3.7.2.3.2.8-2)</td>
</tr>
<tr>
<td>Y</td>
<td>N</td>
<td>000100</td>
<td>00000000</td>
<td>N</td>
<td>N</td>
<td>Reorder Order</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>000101</td>
<td>000nnnn</td>
<td>N</td>
<td>N</td>
<td>Parameter Update Order (where ‘nnnn’ is the Request Number)</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>000110</td>
<td>00000000</td>
<td>N</td>
<td>N</td>
<td>Audit Order</td>
</tr>
<tr>
<td>Y</td>
<td>N</td>
<td>001001</td>
<td>00000000</td>
<td>N</td>
<td>N</td>
<td>Intercept Order</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>001010</td>
<td>00000000</td>
<td>N</td>
<td>N</td>
<td>Maintenance Order</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>010000</td>
<td>00000000</td>
<td>N</td>
<td>N</td>
<td>Base Station Acknowledgment Order (see [4])</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>010001</td>
<td>00000000</td>
<td>N</td>
<td>N</td>
<td>Pilot Measurement Request Order</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>010001</td>
<td>Nnnnnnnn (in the range of 00000001 to 11111111)</td>
<td>N</td>
<td>Y</td>
<td>Periodic Pilot Measurement Request Order (see 3.7.4.6)</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>010010</td>
<td>0001nnnn</td>
<td>N</td>
<td>N</td>
<td>Lock Until Power-Cycled Order (where nnnn is the lock reason)</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>010010</td>
<td>0010nnnn</td>
<td>N</td>
<td>N</td>
<td>Maintenance Required Order (where nnnn is the maintenance reason)</td>
</tr>
<tr>
<td>Y</td>
<td>N</td>
<td>010010</td>
<td>11111111</td>
<td>N</td>
<td>N</td>
<td>Unlock Order</td>
</tr>
</tbody>
</table>
### Table 3.7.4-1. Order and Order Qualification Codes Used on the f-csch and the f-dsch (Part 2 of 4)

<table>
<thead>
<tr>
<th>f-csch Order</th>
<th>f-dsch Order</th>
<th>ORDER Code, ORDER (binary)</th>
<th>ORDQ Code, ORDQ (binary)</th>
<th>ACTION TIME can be specified</th>
<th>Additional Fields other than ORDQ</th>
<th>Name/Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Y</td>
<td>010011</td>
<td>00000000</td>
<td>Y</td>
<td>Y</td>
<td>Service Option Request Order (Band Class 0 only) (see 3.7.4.2)</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>010100</td>
<td>00000000</td>
<td>Y</td>
<td>Y</td>
<td>Service Option Response Order (Band Class 0 only; see 3.7.4.3)</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>010101</td>
<td>00000000</td>
<td>N</td>
<td>N</td>
<td>Release Order (no reason given)</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>010101</td>
<td>00000010</td>
<td>N</td>
<td>N</td>
<td>Release Order (indicates that requested service option is rejected)</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>010110</td>
<td>00000000</td>
<td>N</td>
<td>N</td>
<td>Outer Loop Report Request Order</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>010111</td>
<td>00000000</td>
<td>Y</td>
<td>N</td>
<td>Long Code Transition Request Order (request public)</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>010111</td>
<td>00000001</td>
<td>Y</td>
<td>N</td>
<td>Long Code Transition Request Order (request private)</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>011001</td>
<td>0000nnnn</td>
<td>N</td>
<td>N</td>
<td>Continuous DTMF Tone Order (where the tone is designated by 'nnnn' as defined in Table 2.7.1.3.2.4-4)</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>011001</td>
<td>11111111</td>
<td>N</td>
<td>N</td>
<td>Continuous DTMF Tone Order (stop continuous DTMF tone)</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>011010</td>
<td>nnnnnnnn</td>
<td>N</td>
<td>N</td>
<td>Status Request Order (see 3.7.4.4)</td>
</tr>
<tr>
<td>Y</td>
<td>N</td>
<td>011011</td>
<td>00000000</td>
<td>N</td>
<td>N</td>
<td>Registration Accepted Order (ROAM_INDI not included; see 3.7.4.5)</td>
</tr>
</tbody>
</table>
Table 3.7.4-1. Order and Order Qualification Codes Used on the f-csch and the f-dsch (Part 3 of 4)

<table>
<thead>
<tr>
<th>f-csch Order</th>
<th>f-dsch Order</th>
<th>Order Code, ORDER (binary)</th>
<th>Order Qualification Code, ORDQ (binary)</th>
<th>ACTION_TIME can be specified</th>
<th>Additional Fields other than ORDQ</th>
<th>Name/Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>N</td>
<td>011011</td>
<td>00000001</td>
<td>N</td>
<td>N</td>
<td>Registration Request Order</td>
</tr>
<tr>
<td>Y</td>
<td>N</td>
<td>011011</td>
<td>00000010</td>
<td>N</td>
<td>N</td>
<td>Registration Rejected Order</td>
</tr>
<tr>
<td>Y</td>
<td>N</td>
<td>011011</td>
<td>00000100</td>
<td>N</td>
<td>N</td>
<td>Registration Rejected Order (delete TMSI)</td>
</tr>
<tr>
<td>Y</td>
<td>N</td>
<td>011011</td>
<td>00000101</td>
<td>N</td>
<td>Y</td>
<td>Registration Accepted Order (ROAM_INDI included but the signaling encryption related fields are not included; see 3.7.4.5)</td>
</tr>
<tr>
<td>Y</td>
<td>N</td>
<td>011011</td>
<td>00000111_0</td>
<td>N</td>
<td>Y</td>
<td>Registration Accepted Order (ROAM_INDI, and the signaling encryption related fields EXT_ENC_MSB, SIG_ENCRYPT_MODE, and KEY_SIZE are included; see 3.7.4.5)</td>
</tr>
<tr>
<td>N</td>
<td>Y</td>
<td>011101</td>
<td>nnnnnnnn</td>
<td>Y</td>
<td>N</td>
<td>Service Option Control Order (Band Class 0 only) (the specific control is designated by 'nnnnnnnn' as determined by each service option)</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>011110</td>
<td>nnnnnnnn</td>
<td>N</td>
<td>N</td>
<td>Local Control Order (the specific order is designated by 'nnnnnnnn' as determined by each system)</td>
</tr>
<tr>
<td>Y</td>
<td>N</td>
<td>011111</td>
<td>00000000</td>
<td>N</td>
<td>N</td>
<td><strong>Slotted Mode Order</strong> (transition to the slotted mode operation.)</td>
</tr>
</tbody>
</table>
Table 3.7.4-1. Order and Order Qualification Codes Used on the f-csch and the f-dsch
(Part 4 of 4)

<table>
<thead>
<tr>
<th>f-csch Order</th>
<th>f-dsch Order</th>
<th>Order Code, ORDER (binary)</th>
<th>Order Qualification Code, ORDQ (binary)</th>
<th>ACTION TIME can be specified</th>
<th>Additional Fields other than ORDQ</th>
<th>Name/Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>Y</td>
<td>100000</td>
<td>00000000</td>
<td>N</td>
<td>Y</td>
<td>Retry Order (indicates that the requested operation is rejected and retry delay is included, see 3.7.4.7)</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>100001</td>
<td>00000000</td>
<td>Y</td>
<td>N</td>
<td>Base Station Reject Order (indicates that the base station can not decrypt an Origination Message from the mobile station)</td>
</tr>
<tr>
<td>Y</td>
<td>Y</td>
<td>100001</td>
<td>00000001</td>
<td>Y</td>
<td>N</td>
<td>Base Station Reject Order (indicates that the base station can not decrypt any message (other than an Origination Message) from the mobile station)</td>
</tr>
</tbody>
</table>

All other codes are reserved.
3.7.4.1 Base Station Challenge Confirmation Order

The *Base Station Challenge Confirmation Order* can be sent on either the f-csch or on the f-dsch.

<table>
<thead>
<tr>
<th>Order Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORDQ</td>
<td>8</td>
</tr>
<tr>
<td>AUTHBS</td>
<td>18</td>
</tr>
<tr>
<td>RESERVED</td>
<td>6</td>
</tr>
</tbody>
</table>

- **ORDQ** - Order qualification code. The base station shall set this field to ‘00000000’.
- **AUTHBS** - Challenge response. The base station shall set this field as specified in 2.3.12.1.5.
- **RESERVED** - Reserved bits. The base station shall set this field to ‘000000’.
3.7.4.2 Service Option Request Order

The *Service Option Request Order* can be sent only on the f-dsch.

<table>
<thead>
<tr>
<th>Order Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORDQ</td>
<td>8</td>
</tr>
<tr>
<td>SERVICE_OPTION</td>
<td>16</td>
</tr>
</tbody>
</table>

**ORDQ** - Order qualification code.

The base station shall set this field to ‘00000000’.

**SERVICE_OPTION** - Service option.

The base station shall set this field to the service option code shown in [30], corresponding to the requested or alternative service option.
3.7.4.3 Service Option Response Order

The *Service Option Response Order* can be sent only on the f-dsch.

<table>
<thead>
<tr>
<th>Order Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORDQ</td>
<td>8</td>
</tr>
<tr>
<td>SERVICE_OPTION</td>
<td>16</td>
</tr>
</tbody>
</table>

 ORDQ - Order qualification code.

The base station shall set this field to ‘00000000’.

SERVICE_OPTION - Service option.

The base station shall set this field to the service option code shown in [30], corresponding to the accepted service option, or to ‘0000000000000000’ to reject the last service option requested by the mobile station.
3.7.4.4 Status Request Order

The Status Request Order can be sent only on the f-dsch. The ORDQ field of the Status Request Order specifies the information record to be returned by the mobile station in the Status Message.

<table>
<thead>
<tr>
<th>Order Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORDQ</td>
<td>8</td>
</tr>
</tbody>
</table>

ORDQ - Order qualification code.

The base station shall set this field to the order qualification code corresponding to the information record type to be returned by the mobile station in the Status Message, as shown in Table 3.7.4.4-1.

If MOB_P_REV is equal to or greater than seven, the base station shall not request the Call Mode information record (record type ‘00000111’ in Table 3.7.2.3.2.15-2).

<table>
<thead>
<tr>
<th>Information Record Requested</th>
<th>ORDQ (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reserved</td>
<td>00000110</td>
</tr>
<tr>
<td>Call Mode</td>
<td>00000111</td>
</tr>
<tr>
<td>Terminal Information</td>
<td>00001000</td>
</tr>
<tr>
<td>Roaming Information</td>
<td>00001001</td>
</tr>
<tr>
<td>Security Status</td>
<td>00001010</td>
</tr>
<tr>
<td>IMSI</td>
<td>00001100</td>
</tr>
<tr>
<td>ESN</td>
<td>00001101</td>
</tr>
<tr>
<td>IMSI_M</td>
<td>00001110</td>
</tr>
<tr>
<td>IMSI_T</td>
<td>00001111</td>
</tr>
</tbody>
</table>

All other ORDQ values are reserved.
3.7.4.5 Registration Accepted Order

The *Registration Accepted Order* can be sent only on the f-csch.

<table>
<thead>
<tr>
<th>Order Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORDQ</td>
<td>8</td>
</tr>
<tr>
<td>ROAM_INDI</td>
<td>0 or 8</td>
</tr>
<tr>
<td>C_SIG_ENCRYPT_MODE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>USE_NEW_KEY</td>
<td>0 or 1</td>
</tr>
<tr>
<td>ENC_KEY_SIZE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>KEY_SEQ</td>
<td>0 or 4</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 – 7 (as needed)</td>
</tr>
</tbody>
</table>

**ORDQ** - Order qualification code.

If only ORDQ is included in the order, the base station shall set this field to ‘00000000’. If only ORDQ and ROAM_INDI are included in the order, the base station shall set this field to ‘00000101’. If ORDQ, ROAM_INDI, and the signaling encryption related fields are included in the order, the base station shall set this field to ‘00000111’.

**ROAM_INDI** - Roaming display indication.

If ORDQ is set to ‘00000000’, the base station shall omit this field. If ORDQ is set to ‘00000101’ or ‘00000111’, the base station shall include this field and shall set it to the appropriate ROAM_INDI code corresponding to the MS roaming condition. These values are defined in [30].

**C_SIG_ENCRYPT_MODE** - Common channel signaling encryption mode indicator.

If ORDQ is set to ‘00000111’, the base station shall include this field and shall set it to the common channel signaling message encryption mode, as shown in Table 3.7.4.5-1; otherwise the base station shall omit this field.
### Table 3.7.4.5-1. (Part 1 of 2) Signaling Message Encryption Modes

<table>
<thead>
<tr>
<th><strong>C_SIG_ENCRYPT_MODE Field (binary)</strong></th>
<th><strong>Encryption Mode Used</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>Common Channel Signaling Encryption disabled</td>
</tr>
<tr>
<td>001</td>
<td>Enhanced Cellular Message Encryption Algorithm enabled</td>
</tr>
<tr>
<td>010</td>
<td>Rijndael Encryption Algorithm enabled</td>
</tr>
<tr>
<td>0101010111</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

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Table 3.7.4.5-1 (Part 2 of 2). Signaling Message Encryption Modes

<table>
<thead>
<tr>
<th>D_SIG_ENCRYPT_MODE Field(^6) (binary)</th>
<th>Encryption Mode Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>If D_SIG_ENCRYPT_MODE is included and is set to '000' in a Channel Assignment Message or Extended Channel Assignment Message, the mobile station is to continue to use the current common channel encryption mode and algorithm for the dedicated channel. If D_SIG_ENCRYPT_MODE is included and is set to '000' in a Security Mode Command Message, General Handoff Direction Message or Universal Handoff Direction Message, the mobile station is to disable dedicated channel Signaling encryption.</td>
</tr>
<tr>
<td>001</td>
<td>Enhanced Cellular Message Encryption Algorithm enabled</td>
</tr>
<tr>
<td>010</td>
<td>Rijndael Encryption Algorithm enabled</td>
</tr>
<tr>
<td>011010 - 111</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

\(^6\) D_SIG_ENCRYPT_MODE = '000' is used to indicate to the mobile station that the current common channel encryption mode (and encryption algorithm, if encryption is turned on) shall be used for dedicated channel encryption. D_SIG_ENCRYPT_MODE = '000' means that no dedicated channel extended encryption shall be performed in the mobile station.
If C_SIG_ENCRYPT_MODE is set to ‘001’ or USE_NEW_KEY is not included, or if USE_NEW_KEY is included and is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set this field to the encryption key-size used for encryption according to as shown in Table 3.7.4.5-2; otherwise, the base station shall omit this field.

<table>
<thead>
<tr>
<th>ENC_KEY_SIZE (binary)</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>40-bits Reserved</td>
</tr>
<tr>
<td>001</td>
<td>64 bits</td>
</tr>
<tr>
<td>010</td>
<td>128 bits</td>
</tr>
<tr>
<td>011-111</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

KEY_SEQ — Encryption key sequence number.

If USE_NEW_KEY is included and is set to ‘0’, the base station shall include this field; otherwise, the base station shall omit this field. If this field is included, the base station shall set it to the encryption key sequence number to be used by the mobile station.

RESERVED - Reserved bits.

The base station shall add reserved bits as needed in order to make the total length of the fields included in this order equal to an integer number of octets. The base station shall set these bits to ‘0’.
3.7.4.6 Periodic Pilot Measurement Request Order

The Periodic Pilot Measurement Request Order can be sent only on the f-dsch.

<table>
<thead>
<tr>
<th>Order Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORDQ</td>
<td>8</td>
</tr>
<tr>
<td>MIN_PILOT_PWR_THRESH</td>
<td>5</td>
</tr>
<tr>
<td>MIN_PILOT_EC_IO_THRESH</td>
<td>5</td>
</tr>
<tr>
<td>INCL_SETPT</td>
<td>1</td>
</tr>
<tr>
<td>RESERVED</td>
<td>65</td>
</tr>
</tbody>
</table>

ORDQ - Order qualification code.

If INCL_SETPT equals '0', the base station shall set this field to a report period, in units of 0.08 seconds, in the range of ‘00001010’ to ‘11111110’ inclusive; otherwise, the base station shall set this field to a report period, in units of 0.08 seconds, in the range of '00000001' to '11111110' inclusive. The base station shall set this field to '11111111' to request a one time Periodic Pilot Strength Measurement Message.

MIN_PILOT_PWR-THRESH - The threshold of the total received E_c of the pilots in the Active Set.

If the mobile station is to report pilot strength measurements periodically to the base station irrespective of the pilot power of the Active Set, the base station shall set this field to '11111'; otherwise, the base station shall set this field to the total E_c threshold, expressed as an unsigned binary number equal to:

\[ \left\lfloor \frac{10 \times \log_{10}(\text{pilot\_ec\_thresh}) + 120}{2} \right\rfloor \]

where \( \text{pilot\_ec\_thresh} \) is the threshold of the mobile station received total E_c (in mW) of the pilots in the Active Set below which the mobile station is to send the pilot strength measurements periodically to the base station.

MIN_PILOT_EC_IO_THRESH - Pilot Strength Threshold of Serving Frequency.

If the mobile station is to ignore this threshold, the base station shall set this field to '11111'; otherwise, the base station shall set this field to the total E_c/I_o threshold, expressed as an unsigned binary number equal to:

\[ \left\lfloor -20 \times \log_{10} \text{pilot\_streng\_thresh} \right\rfloor. \]
where $pilot\_streng\_thresh$ is the threshold of the total received $E_{c}/I_{0}$ of the pilots in Active Set (see 2.6.6.2.2) below which the mobile station is to send the pilot strength measurements periodically to the base station.

**INCL_SETPT** - Include Setpoint information indicator.

The base station shall set this field to ‘1’ to indicate that the mobile station shall include outer loop $E_{b}/N_{t}$ setpoint information in the *Periodic Pilot Strength Measurement Message*; otherwise, the base station shall set this field to ‘0’.

**RESERVED** - Reserved bits.

The base station shall set this field to ‘000000’.
3.7.4.7 Retry Order

The **Retry Order** can be sent on either the f-csch or on the f-dsch to indicate the requested service is rejected and specify the retry delay.

<table>
<thead>
<tr>
<th>Order Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORDQ</td>
<td>8</td>
</tr>
<tr>
<td>RETRY_TYPE</td>
<td>3</td>
</tr>
<tr>
<td>RETRY_DELAY</td>
<td>0 or 8</td>
</tr>
<tr>
<td>RESERVED</td>
<td>5</td>
</tr>
</tbody>
</table>

**ORDQ** - Order qualification code.

The base station shall set this field to ‘00000000’.

**RETRY_TYPE** - Retry delay type.

The base station shall set this field specified as in Table 3.7.4.7-1.

**Table 3.7.4.7-1 Retry Delay Type**

<table>
<thead>
<tr>
<th>Value (binary)</th>
<th>Retry Type</th>
<th>Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>Clear all</td>
<td>The <strong>Retry Order</strong> is used to clear any existent retry delay</td>
</tr>
<tr>
<td>001</td>
<td>Origination</td>
<td>The <strong>Retry Order</strong> specifies the RETRY_DELAY for a Packet Data <strong>Origination Message</strong> or Enhanced <strong>Origination Message</strong></td>
</tr>
<tr>
<td>010</td>
<td>Resource Request</td>
<td>The <strong>Retry Order</strong> specifies the RETRY_DELAY for a <strong>Resource Request Message</strong> or <strong>Resource Request Mini Message</strong></td>
</tr>
<tr>
<td>011</td>
<td>Supplemental Channel Request</td>
<td>The <strong>Retry Order</strong> specifies the RETRY_DELAY for a <strong>Supplemental Channel Request Message</strong> or <strong>Supplemental Channel Request Mini Message</strong></td>
</tr>
<tr>
<td>100-111</td>
<td>Reserved</td>
<td></td>
</tr>
</tbody>
</table>

**RETRY_DELAY** - Retry delay.
If RETRY_TYPE is set to ‘000’ the base station shall omit this field. Otherwise the base station shall include this field and set it as follows:

If RETRY_TYPE is set to ‘001’, the base station shall set this field to the duration of the delay interval, as shown in Table 3.7.4.7-2, during which the mobile station is not permitted to send an *Origination Message* or an *Enhanced Origination Message* with the same Packet Data Service Option. The base station shall set this field to ‘00000000’ to indicate that there is no retry delay or to clear a previously set retry delay.

### Table 3.7.4.7-2 Retry Delay for RETRY_TYPE ‘001’

<table>
<thead>
<tr>
<th>Bits (MSB)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>Unit for the Retry Delay</td>
</tr>
<tr>
<td></td>
<td>‘0’ – unit is 1s</td>
</tr>
<tr>
<td></td>
<td>‘1’ – unit is 1 min</td>
</tr>
<tr>
<td>6 to 0</td>
<td>Retry Delay interval</td>
</tr>
</tbody>
</table>

If RETRY_TYPE is set to ‘010’ or ‘011’, the base station shall set this field to the duration of the delay interval in units of 320 ms during which the mobile station is not permitted to send another *Supplemental Channel Request (Mini) Message* or *Resource Request (Mini) Message*. The base station shall set RETRY_DELAY to ‘00000000’ to indicate that there is no retry delay or to clear a previously set retry delay. The base station shall set RETRY_DELAY to ‘11111111’ to indicate that the mobile station is to refrain from sending the request indefinitely.

**RESERVED** - Reserved bits.

The base station shall set this field to ‘0000’.
3.7.5 Information Records

On the f-csch, information records may be included in the Feature Notification Message. On the f-dsch, information records may be included in the Alert with Information Message, the Flash with Information Message, the Extended Alert with Information Message, and the Extended Flash with Information Message, the Service Request Message, the Service Response Message, the Service Connect Message, the General Handoff Direction Message, and the Universal Handoff Direction Message. Table 3.7.5-1 lists the information record type values that may be used with each message type. The following sections describe the contents of each of the record types in detail.
Table 3.7.5-1. Information Record Types (Part 1 of 3)

<table>
<thead>
<tr>
<th>Information Record</th>
<th>Record Type (binary)</th>
<th>Message Type</th>
<th>f-csch</th>
<th>f-dsch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display</td>
<td>00000001</td>
<td>FNM</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Called Party Number</td>
<td>00000010</td>
<td>FNM</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Calling Party Number</td>
<td>00000011</td>
<td>FNM</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Connected Number</td>
<td>00000100</td>
<td>FWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Signal</td>
<td>00000101</td>
<td>FNM</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Message Waiting</td>
<td>00000110</td>
<td>FNM</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Service Configuration</td>
<td>00000111</td>
<td>SRQM</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SRPM</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SCM</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GHDM</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>UHDM</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Called Party Subaddress</td>
<td>00001000</td>
<td>FNM</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Information Record</td>
<td>Record Type (binary)</td>
<td>Message Type</td>
<td>f-csch</td>
<td>f-dsch</td>
</tr>
<tr>
<td>---------------------------</td>
<td>----------------------</td>
<td>--------------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>Calling Party Subaddress</td>
<td>00001001</td>
<td>FNM</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Connected Subaddress</td>
<td>00001010</td>
<td>FWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Redirecting Number</td>
<td>00001011</td>
<td>FNM</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Redirecting Subaddress</td>
<td>00001100</td>
<td>FNM</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Meter Pulses</td>
<td>00001101</td>
<td>AWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Parametric Alerting</td>
<td>00001110</td>
<td>FNM</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Line Control</td>
<td>00001111</td>
<td>AWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Extended Display</td>
<td>00010000</td>
<td>FNM</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FWI</td>
<td>N</td>
<td>Y</td>
</tr>
</tbody>
</table>
### Table 3.7.5-1. Information Record Types (Part 3 of 3)

<table>
<thead>
<tr>
<th>Information Record</th>
<th>Record Type (binary)</th>
<th>Message Type</th>
<th>f-csch</th>
<th>f-dsch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Negotiable Service Configuration</td>
<td>00010011</td>
<td>SCM</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GHDM</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>UHDM</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Multiple Character Extended Display</td>
<td>00010100</td>
<td>FNM</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Call Waiting Indicator</td>
<td>00010101</td>
<td>AWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FWI</td>
<td>N</td>
<td>Y</td>
</tr>
<tr>
<td>Extended Record Type - International</td>
<td>11111110</td>
<td>Country-Specific</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

All other record type values are reserved.

“AWI” refers to either the *Alert With Information Message* or the *Extended Alert With Information Message*.

“FWI” refers to either the *Flash With Information Message* or the *Extended Flash With Information Message*.
3.7.5.1 Display

This information record allows the network to supply display information that may be displayed by the mobile station.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHARi</td>
<td>8</td>
</tr>
</tbody>
</table>

CHARi - Character.

The base station shall include one occurrence of this field for each character to be displayed. The base station shall set each occurrence of this field to the ASCII representation corresponding to the character entered, as specified in [9], with the most significant bit set to ‘0’.
3.7.5.2 Called Party Number

This information record identifies the called party’s number.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER_TYPE</td>
<td>3</td>
</tr>
<tr>
<td>NUMBER_PLAN</td>
<td>4</td>
</tr>
</tbody>
</table>

Zero or more occurrences of the following field:

| CHARi | 8 |

| RESERVED | 1 |

NUMBER_TYPE - Type of number.

The base station shall set this field to the NUMBER_TYPE value shown in Table 2.7.1.3.2.4-2 corresponding to the type of the called number, as defined in [7], Section 4.5.9.

NUMBER_PLAN - Numbering plan.

The base station shall set this field to the NUMBER_PLAN value shown in Table 2.7.1.3.2.4-3 corresponding to the numbering plan used for the called number, as defined in [7], Section 4.5.9.

CHARi - Character.

The base station shall include one occurrence of this field for each character in the called number. The base station shall set each occurrence of this field to the ASCII representation corresponding to the character, as specified in [9], with the most significant bit set to ‘0’.

RESERVED - Reserved bits.

The base station shall set this field to ‘0’.
3.7.5.3 Calling Party Number

This information record identifies the calling party's number.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER_TYPE</td>
<td>3</td>
</tr>
<tr>
<td>NUMBER_PLAN</td>
<td>4</td>
</tr>
<tr>
<td>PI</td>
<td>2</td>
</tr>
<tr>
<td>SI</td>
<td>2</td>
</tr>
<tr>
<td>CHARi</td>
<td>8</td>
</tr>
<tr>
<td>RESERVED</td>
<td>5</td>
</tr>
</tbody>
</table>

Zero or more occurrences of the following field:

- NUMBER_TYPE - Type of number.
  The base station shall set this field to the NUMBER_TYPE value shown in Table 2.7.1.3.2.4-2 corresponding to the type of the calling number, as defined in [7], Section 4.5.9.

- NUMBER_PLAN - Numbering plan.
  The base station shall set this field to the NUMBER_PLAN value shown in Table 2.7.1.3.2.4-3 corresponding to the numbering plan used for the calling number, as defined in [7], Section 4.5.9.

- PI - Presentation indicator.
  This field indicates whether or not the calling number should be displayed.
  The base station shall set this field to the PI value shown in Table 2.7.4.4-1 corresponding to the presentation indicator, as defined in [7], Section 4.5.9.

- SI - Screening indicator.
  This field indicates how the calling number was screened.
  The base station shall set this field to the SI value shown in Table 2.7.4.4-2 corresponding to the screening indicator value, as defined in [7], Section 4.5.9.

- CHARi - Character.
  The base stations shall include one occurrence of this field for each character in the calling number. The base station shall set each occurrence of this field to the ASCII representation corresponding to the character, as specified in [9], with the most significant bit set to '0'.
1  RESERVED  - Reserved bits.
2  The base station shall set this field to ‘00000’.
3.7.5.4 Connected Number

This information record identifies the responding party to a call.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUMBER_TYPE</td>
<td>3</td>
</tr>
<tr>
<td>NUMBER_PLAN</td>
<td>4</td>
</tr>
<tr>
<td>PI</td>
<td>2</td>
</tr>
<tr>
<td>SI</td>
<td>2</td>
</tr>
</tbody>
</table>

Zero or more occurrences of the following field:

| CHARi               | 8             |

| RESERVED            | 5             |

NUMBER_TYPE - Type of number.

The base station shall set this field to the NUMBER_TYPE value shown in Table 2.7.1.3.2.4-2 corresponding to the type of the connected number, as defined in [7], Section 4.5.9.

NUMBER_PLAN - Numbering plan.

The base station shall set this field to the NUMBER_PLAN value shown in Table 2.7.1.3.2.4-3 corresponding to the numbering plan used for the connected number, as defined in [7], Section 4.5.9.

PI - Presentation indicator.

This field indicates whether or not the connected number should be displayed.

The base station shall set this field to the PI value shown in Table 2.7.4.4-1 corresponding to the presentation indicator, as defined in [7], Section 4.5.9.

SI - Screening indicator.

This field indicates how the connected number was screened.

The base station shall set this field to the SI value shown in Table 2.7.4.4-2 corresponding to the screening indicator value, as defined in [7], Section 4.5.9.

CHARi - Character.

The base station shall include one occurrence of this field for each character in the connected number. The base station shall set each occurrence of this field to the ASCII representation corresponding to the character, as specified in [9], with the most significant bit set to ‘0’.
1 RESERVED - Reserved bits.
2 The base station shall set this field to ‘00000’. 
3.7.5.5 Signal

This information record allows the network to convey information to a user by means of tones and other alerting signals.

The Standard Alert is defined as SIGNAL_TYPE = ‘10’, ALERT_PITCH = ‘00’ and SIGNAL = ‘000001’.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIGNAL_TYPE</td>
<td>2</td>
</tr>
<tr>
<td>ALERT_PITCH</td>
<td>2</td>
</tr>
<tr>
<td>SIGNAL</td>
<td>6</td>
</tr>
<tr>
<td>RESERVED</td>
<td>6</td>
</tr>
</tbody>
</table>

SIGNAL_TYPE - Signal type.

The base station shall set this field to the signal type value shown in Table 3.7.5.5-1.

**Table 3.7.5.5-1. Signal Type**

<table>
<thead>
<tr>
<th>Description</th>
<th>SIGNAL_TYPE (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tone signal</td>
<td>00</td>
</tr>
<tr>
<td>ISDN Alerting</td>
<td>01</td>
</tr>
<tr>
<td>IS-54B Alerting</td>
<td>10</td>
</tr>
<tr>
<td>Reserved</td>
<td>11</td>
</tr>
</tbody>
</table>

ALERT_PITCH - Pitch of the alerting signal.

This field is ignored unless SIGNAL_TYPE is ‘10’, IS-54B Alerting.

If SIGNAL_TYPE is ‘10’, the base station shall set this field to the alert pitch shown in Table 3.7.5.5-2; otherwise, the base station shall set this field to ‘00’.
Table 3.7.5.5-2. Alert Pitch

<table>
<thead>
<tr>
<th>Description</th>
<th>ALERT_PITCH (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium pitch (standard alert)</td>
<td>00</td>
</tr>
<tr>
<td>High pitch</td>
<td>01</td>
</tr>
<tr>
<td>Low pitch</td>
<td>10</td>
</tr>
<tr>
<td>Reserved</td>
<td>11</td>
</tr>
</tbody>
</table>

SIGNAL - Signal code.

The base station shall set this field to the specific signal desired. If SIGNAL_TYPE is ‘00’, the base station shall set this field as described in Table 3.7.5.5-3. If SIGNAL_TYPE is ‘01’, the base station shall set this field as described in Table 3.7.5.5-4. If SIGNAL_TYPE is ‘10’, the base station shall set this field as described in Table 3.7.5.5-5.
Table 3.7.5.5-3. Tone Signals (SIGNAL_TYPE = ‘00’)

<table>
<thead>
<tr>
<th>Description</th>
<th>SIGNAL (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dial tone on: a continuous 350 Hz tone added to a 440 Hz tone.</td>
<td>000000</td>
</tr>
<tr>
<td>Ring back tone on: a 440 Hz tone added to a 480 Hz tone repeated in a 2 s on, 4 s off pattern.</td>
<td>000001</td>
</tr>
<tr>
<td>Intercept tone on: alternating 440 Hz and 620 Hz tones, each on for 250 ms.</td>
<td>000010</td>
</tr>
<tr>
<td>Abbreviated intercept: alternating 440 Hz and 620 Hz tones, each on for 250 ms, repeated for four seconds.</td>
<td>000011</td>
</tr>
<tr>
<td>Network congestion (reorder) tone on: a 480 Hz tone added to a 620 Hz tone repeated in a 250 ms on, 250 ms off cycle.</td>
<td>000100</td>
</tr>
<tr>
<td>Abbreviated network congestion (reorder): a 480 Hz tone added to a 620 Hz tone repeated in a 250 ms on, 250 ms off cycle for four seconds.</td>
<td>000101</td>
</tr>
<tr>
<td>Busy tone on: a 480 Hz tone added to a 620 Hz tone repeated in a 500 ms on, 500 ms off cycle.</td>
<td>000110</td>
</tr>
<tr>
<td>Confirm tone on: a 350 Hz tone added to a 440 Hz tone repeated 3 times in a 100 ms on, 100 ms off cycle.</td>
<td>000111</td>
</tr>
<tr>
<td>Answer tone on: answer tone is not presently used in North American networks.</td>
<td>001000</td>
</tr>
<tr>
<td>Call waiting tone on: a 300 ms burst of 440 Hz tone.</td>
<td>001001</td>
</tr>
<tr>
<td>Pip tone on: four bursts of 480 Hz tone (0.1 s on, 0.1 s off).</td>
<td>001010</td>
</tr>
<tr>
<td>Tones off</td>
<td>111111</td>
</tr>
</tbody>
</table>

All other SIGNAL values are reserved
Table 3.7.5.5-4. ISDN Alerting (SIGNAL_TYPE = ‘01’)

<table>
<thead>
<tr>
<th>Description</th>
<th>SIGNAL (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal Alerting: 2.0 s on, 4.0 s off, repeating</td>
<td>000000</td>
</tr>
<tr>
<td>Intergroup Alerting: 0.8 s on, 0.4 s off, 0.8 s on, 4.0 s off, repeating</td>
<td>000001</td>
</tr>
<tr>
<td>Special/Priority Alerting: 0.4 s on, 0.2 s off, 0.4 s on, 0.2 s off, 0.8 s on, 4.0 s off, repeating</td>
<td>000010</td>
</tr>
<tr>
<td>Reserved (ISDN Alerting pattern 3)</td>
<td>000011</td>
</tr>
<tr>
<td>“Ping ring”: single burst of 500 ms</td>
<td>000100</td>
</tr>
<tr>
<td>Reserved (ISDN Alerting pattern 5)</td>
<td>000101</td>
</tr>
<tr>
<td>Reserved (ISDN Alerting pattern 6)</td>
<td>000110</td>
</tr>
<tr>
<td>Reserved (ISDN Alerting pattern 7)</td>
<td>000111</td>
</tr>
<tr>
<td>Alerting off</td>
<td>001111</td>
</tr>
</tbody>
</table>

All other SIGNAL values are reserved
Table 3.7.5.5-5. IS-54B Alerting (SIGNAL_TYPE = ‘10’)

<table>
<thead>
<tr>
<th>Description</th>
<th>SIGNAL (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Tone: Off</td>
<td>000000</td>
</tr>
<tr>
<td>Long: 2.0 s on, 4.0 s off, repeating (standard alert)</td>
<td>000001</td>
</tr>
<tr>
<td>Short-Short: 0.8 s on, 0.4 s off, 0.8 s on, 4.0 s off, repeating</td>
<td>000010</td>
</tr>
<tr>
<td>Short-Short-Long: 0.4 s on, 0.2 s off, 0.4 s on, 0.2 s off, 0.8 s on, 4.0 s off, repeating</td>
<td>000011</td>
</tr>
<tr>
<td>Short-Short-2: 1.0 s on, 1.0 s off, 1.0 s on, 3.0 s off, repeating</td>
<td>000100</td>
</tr>
<tr>
<td>Short-Long-Short: 0.5 s on, 0.5 s off, 1.0 s on, 0.5 s off, 0.5 s on, 3.0 s off, repeating</td>
<td>000101</td>
</tr>
<tr>
<td>Short-Short-Short-Short: 0.5 s on, 0.5 s off, 0.5 s on, 0.5 s off, 0.5 s on, 2.5 s off, repeating</td>
<td>000110</td>
</tr>
<tr>
<td>PBX Long: 1.0 s on, 2.0 s off, repeating</td>
<td>000111</td>
</tr>
<tr>
<td>PBX Short-Short: 0.4 s on, 0.2 s off, 0.4 s on, 2.0 s off, repeating</td>
<td>001000</td>
</tr>
<tr>
<td>PBX Short-Short-Long: 0.4 s on, 0.2 s off, 0.4 s on, 0.2 s off, 0.8 s on, 1.0 s off, repeating</td>
<td>001001</td>
</tr>
<tr>
<td>PBX Short-Long-Short: 0.4 s on, 0.2 s off, 0.8 s on, 0.2 s off, 0.4 s on, 1.0 s off, repeating</td>
<td>001010</td>
</tr>
<tr>
<td>PBX Short-Short-Short-Short: 0.4 s on, 0.2 s off, 0.4 s on, 0.2 s off, 0.4 s on, 0.2 s off, 0.8 s off, repeating</td>
<td>001011</td>
</tr>
<tr>
<td>Pip-Pip-Pip-Pip: 0.1 s on, 0.1 s off, 0.1 s on, 0.1 s off, 0.1 s on, 0.1 s on</td>
<td>001100</td>
</tr>
</tbody>
</table>

All other SIGNAL values are reserved

---

2. RESERVED - Reserved bits.

3. The base station shall set this field to ‘000000’.
3.7.5.6 Message Waiting

This information record conveys to the user the number of messages waiting.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSG_COUNT</td>
<td>8</td>
</tr>
</tbody>
</table>

MSG_COUNT - Number of waiting messages.

The base station shall set this field to the number of messages waiting.
3.7.5.7 Service Configuration

For the mobile station, this record is included in a Status Response Message to return the current service configuration, and in a Service Request Message and a Service Response Message to propose a service configuration.

For a base station, this record is included in a Service Request Message and a Service Response Message to propose a service configuration. It is included in a Service Connect Message to specify an actual service configuration to be used. It can be included in a General Handoff Direction Message and Universal Handoff Direction Message to specify an actual service configuration to be used.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR_MUX_OPTION</td>
<td>16</td>
</tr>
<tr>
<td>REV_MUX_OPTION</td>
<td>16</td>
</tr>
<tr>
<td>FOR_NUM_BITS</td>
<td>8</td>
</tr>
<tr>
<td>REV_NUM_BITS</td>
<td>8</td>
</tr>
<tr>
<td>NUM_CON_REC</td>
<td>8</td>
</tr>
</tbody>
</table>

NUM_CON_REC occurrences of the following variable-length record:
<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_LEN</td>
<td>8</td>
</tr>
<tr>
<td>CON_REF</td>
<td>8</td>
</tr>
<tr>
<td>SERVICE_OPTION</td>
<td>16</td>
</tr>
<tr>
<td>FOR_TRAFFIC</td>
<td>4</td>
</tr>
<tr>
<td>REV_TRAFFIC</td>
<td>4</td>
</tr>
<tr>
<td>UI_ENCRYPT_MODE</td>
<td>3</td>
</tr>
<tr>
<td>SR_ID</td>
<td>3</td>
</tr>
<tr>
<td>RLP_INFO_INCL</td>
<td>1</td>
</tr>
<tr>
<td>RLP_BLOB_LEN</td>
<td>0 or 4</td>
</tr>
<tr>
<td>RLP_BLOB</td>
<td>0 or $(8 \times \text{RLP_BLOB_LEN})$</td>
</tr>
<tr>
<td>QOS_PARMS_INCL</td>
<td>1</td>
</tr>
<tr>
<td>QOS_PARMS_LEN</td>
<td>0 or 5</td>
</tr>
<tr>
<td>QOS_PARMS</td>
<td>0 or variable</td>
</tr>
<tr>
<td>QOS_RESERVED</td>
<td>0-7</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0-7 (as needed)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>FCH_CC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>FCH_FRAME_SIZE</td>
<td>0 or 1</td>
</tr>
<tr>
<td>FOR_FCH_RC</td>
<td>0 or 5</td>
</tr>
<tr>
<td>REV_FCH_RC</td>
<td>0 or 5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCCH_CC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>DCCH_FRAME_SIZE</td>
<td>0 or 2</td>
</tr>
<tr>
<td>FOR_DCCH_RC</td>
<td>0 or 5</td>
</tr>
<tr>
<td>REV_DCCH_RC</td>
<td>0 or 5</td>
</tr>
</tbody>
</table>

(continues on next page)
<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR_SCH_CC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>NUM_FOR_SCH</td>
<td>0 or 2</td>
</tr>
</tbody>
</table>

NUM_FOR_SCH occurrences of the following three-field record

<table>
<thead>
<tr>
<th></th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR_SCH_ID</td>
<td>2</td>
</tr>
<tr>
<td>FOR_SCH_MUX</td>
<td>16</td>
</tr>
<tr>
<td>SCH_CC_Type-specific field</td>
<td>Variable (see 3.7.5.7.1)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOR_MUX_OPTION -</td>
<td>Forward Fundamental and Dedicated Control Channel multiplex option.</td>
</tr>
</tbody>
</table>

The mobile station shall set this field as follows:

For a Status Response Message, the mobile station shall set this field to the number of the multiplex option for the Forward Fundamental Channel, Forward Dedicated Control Channel, or both, if both present (e.g., 1 corresponds to Multiplex Option 1).

For a Service Request Message and a Service Response Message, the mobile station shall set this field to the number of the multiplex option for the Forward Fundamental Channel, Forward Dedicated Control Channel, or both, if both present.

The base station shall set this field as follows:
For a Service Request Message and a Service Response Message, the base station shall set this field to the number of the multiplex option for the Forward Fundamental Channel, Forward Dedicated Control Channel, or both, if both present.

For a Service Connect Message, General Handoff Direction Message, and a Universal Handoff Direction Message, the base station shall set this field to the number of multiplex option for the Forward Fundamental Channel, Forward Dedicated Control Channel, or both, if both present.

REV_MUX_OPTION - Reverse Fundamental and Dedicated Control Channel multiplex option.

The mobile station shall set this field as follows:

For a Status Response Message, the mobile station shall set this field to the number of the multiplex option for the Reverse Fundamental Channel, Reverse Dedicated Control Channel, or both, if both present (e.g., 1 corresponds to Multiplex Option 1).

For a Service Request Message and a Service Response Message, the mobile station shall set this field to the number of the multiplex option for the Reverse Fundamental Channel, Reverse Dedicated Control Channel, or both, if both present.

The base station shall set this field as follows:

For a Service Request Message and a Service Response Message, the base station shall set this field to the number of the multiplex option for the Reverse Fundamental Channel, Reverse Dedicated Control Channel, or both, if both present.

For a Service Connect Message, General Handoff Direction Message, and a Universal Handoff Direction Message, the base station shall set this field to the number of the multiplex option for the Reverse Fundamental Channel, Reverse Dedicated Control Channel, or both, if both present.

FOR_NUM_BITS - Set of number of bits per frame of the Forward Fundamental Channel.

The mobile station shall set this field as follows:

The mobile station shall use the Forward Fundamental Channel transmission set of number of bits per frame specified in 2.7.4.28 for the specified Forward Traffic Channel multiplex option.
For a **Status Response Message**, the mobile station shall set the subfields corresponding to the Forward Traffic Channel transmission set of number of bits per frame of the current service configuration to ‘1’, and shall set the remaining subfields to ‘0’. If FOR_MUX_OPTION is equal to 1 or 2, the mobile station shall set RESERVED to ‘0000’.

For a **Service Request Message** and a **Service Response Message**, the mobile station shall set the subfields corresponding to the Forward Traffic Channel transmission set of number of bits per frame of the proposed service configuration to ‘1’, and shall set the remaining subfields to ‘0’. If FOR_MUX_OPTION is equal to 1 or 2, the mobile station shall set RESERVED to ‘0000’.

The base station shall set this field as follows:

The base station shall set this field to the Forward Fundamental Channel transmission set of number of bits per frame specified in 2.7.4.28 for the specified Forward Traffic Channel multiplex option.

For a **Service Request Message** or a **Service Response Message**, the base station shall set the subfields corresponding to the Forward Fundamental Channel transmission set of number of bits per frame of the proposed service configuration to ‘1’, and shall set the remaining subfields to ‘0’. If FOR_MUX_OPTION is equal to 1 or 2, the base station shall set RESERVED to ‘0000’.

For a **Service Connect Message**, **General Handoff Direction Message**, and a **Universal Handoff Direction Message**, the base station shall set the subfields corresponding to the Forward Fundamental Channel transmission set of number of bits per frame of the actual service configuration to be used to ‘1’, and shall set the remaining subfields to ‘0’. If FOR_MUX_OPTION is equal to 1 or 2, the base station shall set RESERVED to ‘0000’.

**REV_NUM_BITS** - Set of number of bits per frame of the Reverse Fundamental Channel.

The mobile station shall set this field as follows:

The mobile station shall use the Reverse Fundamental Channel transmission set of number of bits per frame specified in 2.7.4.28 for the specified Reverse Traffic Channel multiplex option.
For a Status Response Message, the mobile station shall set the subfields corresponding to the Reverse Traffic Channel transmission set of number of bits per frame of the current service configuration to ‘1’, and shall set the remaining subfields to ‘0’. If REV_MUX_OPTION is equal to 1 or 2, the mobile station shall set RESERVED to ‘0000’.

For a Service Request Message and a Service Response Message, the mobile station shall set the subfields corresponding to the Reverse Traffic Channel transmission set of number of bits per frame of the proposed service configuration to ‘1’, and shall set the remaining subfields to ‘0’. If REV_MUX_OPTION is equal to 1 or 2, the mobile station shall set RESERVED to ‘0000’.

The base station shall set this field as follows:

The base station shall set this field to the Reverse Fundamental Channel transmission set of number of bits per frame specified in 2.7.4.28 for the specified Reverse Traffic Channel multiplex option.

For a Service Request Message or a Service Response Message, the base station shall set the subfields corresponding to the Reverse Fundamental Channel transmission set of number of bits per frame of the proposed service configuration to ‘1’, and shall set the remaining subfields to ‘0’. If REV_MUX_OPTION is equal to 1 or 2, the base station shall set RESERVED to ‘0000’.

For a Service Connect Message, General Handoff Direction Message, and a Universal Handoff Direction Message, the base station shall set the subfields corresponding to the Reverse Fundamental Channel transmission set of number of bits per frame of the actual service configuration to be used to ‘1’, and shall set the remaining subfields to ‘0’. If REV_MUX_OPTION is equal to 1 or 2, the base station shall set RESERVED to ‘0000’.

NUM_CON_REC - Number of service option connection records.

The mobile station shall set this field as follows:

The mobile station shall set this field to the number of service option connection records included in the message.

The base station shall set this field as follows:

The base station shall set this field to the number of service option connection records included in the message.

For a Status Response Message, the mobile station shall include one occurrence of the following variable-length record for each service option connection of the current service configuration. For a Service Request Message and a Service Response Message, the mobile
station shall include one occurrence of the following variable-length record for each service option connection of the proposed service configuration.

For a Service Request Message or a Service Response Message, the base station shall include one occurrence of the following variable-length record for each service option connection of the proposed service configuration.

For a Service Connect Message, a General Handoff Direction Message, or a Universal Handoff Direction Message, the base station shall include one occurrence of the following variable-length record for each service option connection of the actual service configuration to be used.

- RECORD_LEN - Service option connection record length.
  The mobile station shall set this field as follows:
  
  The mobile station shall set this field to the number of octets included in this service option connection record including this field.
  
  The base station shall set this field as follows:
  
  The base station shall set this field to the number of octets included in this service option connection record including this field.

- CON_REF - Service option connection reference.
  The mobile station shall set this field as follows:
  
  For a Status Response Message, the mobile station shall set this field to the service option connection reference.
  
  For a Service Request Message and a Service Response Message, if the service option connection is part of the current service configuration, the mobile station shall set this field to the service option connection reference; otherwise, the mobile station shall set this field to ‘00000000’.
  
  The base station shall set this field as follows:
  
  For a Service Request Message or a Service Response Message: if the service option connection is part of the current service configuration, the base station shall set this field to the service option connection reference; otherwise, the base station shall set this field to ‘00000000’.

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For a Service Connect Message, General Handoff Direction Message, and a Universal Handoff Direction Message, the base station shall set this field to the service option connection reference assigned to the service option connection.

**SERVICE_OPTION** - Service option.

The mobile station shall set this field as follows:

For a Status Response Message, the mobile station shall set this field to the service option in use with the service option connection.

For a Service Request Message and a Service Response Message, the mobile station shall set this field to the service option to be used with the service option connection.

The base station shall set this field as follows:

The base station shall set this field to the service option to be used with the service option connection.

**FOR_TRAFFIC** - Forward Traffic Channel traffic type.

The mobile station shall set this field as follows:

For a Status Response Message, the mobile station shall set this field to the FOR_TRAFFIC code shown in Table 3.7.5.7-1 corresponding to the Forward Traffic Channel traffic type in use with the service option connection.

For a Service Request Message and a Service Response Message, the mobile station shall set this field to the FOR_TRAFFIC code shown in Table 3.7.5.7-1 corresponding to the Forward Traffic Channel traffic type to be used with the service option connection.

The base station shall set this field as follows:

The base station shall set this field to the FOR_TRAFFIC code shown in Table 3.7.5.7-1 corresponding to the Forward Traffic Channel traffic type to be used with the service option connection.
Table 3.7.5.7-1. FOR_TRAFFIC Codes

<table>
<thead>
<tr>
<th>FOR_TRAFFIC (binary)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000</td>
<td>The service option connection does not use Forward Traffic Channel traffic.</td>
</tr>
<tr>
<td>0001</td>
<td>The service option connection uses primary traffic on the Forward Traffic Channel.</td>
</tr>
<tr>
<td>0010</td>
<td>The service option connection uses secondary traffic on the Forward Traffic Channel.</td>
</tr>
<tr>
<td></td>
<td>All other FOR_TRAFFIC codes are reserved.</td>
</tr>
</tbody>
</table>

REV_TRAFFIC - Reverse Traffic Channel traffic type.

The mobile station shall set this field as follows:

For a Status Response Message, the mobile station shall set this field to the REV_TRAFFIC code shown in Table 3.7.5.7-2 corresponding to the Reverse Traffic Channel traffic type in use with the service option connection.

For a Service Request Message and a Service Response Message, the mobile station shall set this field to the REV_TRAFFIC code shown in Table 3.7.5.7-2 corresponding to the Reverse Traffic Channel traffic type to be used with the service option connection.

The base station shall set this field as follows:

The base station shall set this field to the REV_TRAFFIC code shown in Table 3.7.5.7-2 corresponding to the Reverse Traffic Channel traffic type to be used with the service option connection.
Table 3.7.5.7-2. REV_TRAFFIC Codes

<table>
<thead>
<tr>
<th>REV_TRAFFIC (binary)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000</td>
<td>The service option connection does not use Reverse Traffic Channel traffic.</td>
</tr>
<tr>
<td>0001</td>
<td>The service option connection uses primary traffic on the Reverse Traffic Channel.</td>
</tr>
<tr>
<td>0010</td>
<td>The service option connection uses secondary traffic on the Reverse Traffic Channel.</td>
</tr>
</tbody>
</table>

All other REV_TRAFFIC codes are reserved.

UI_ENCRYPT_MODE - Encryption mode indicator for user information privacy.

The mobile station shall set this field as follows:

For a Status Response Message, the mobile station shall set this field to indicate the current user information encryption mode as shown in Table 3.7.5.7-3.

For a Service Request Message and a Service Response Message, the mobile station shall set this field to indicate the proposed user information encryption mode as shown in Table 3.7.5.7-3.

The base station shall set this field as follows:

For a Service Request Message or a Service Response Message: the base station shall set this field to the proposed user information encryption mode, as shown in Table 3.7.5.7-3.

For a Service Connect Message, General Handoff Direction Message, and a Universal Handoff Direction Message, the base station shall set this field to the assigned user information encryption mode, as shown in Table 3.7.5.7-3.
Table 3.7.5.7-3. User information Encryption Modes

<table>
<thead>
<tr>
<th>UI_ENCRYPT_MODE Field (binary)</th>
<th>Encryption Mode Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>User information Encryption disabled</td>
</tr>
<tr>
<td>001</td>
<td>User information Encryption with ORYX encryption algorithm enabled (not applicable to voice service option). Encryption procedures specified in the service option standard shall be performed.</td>
</tr>
<tr>
<td>010</td>
<td>User information Encryption using the Rijndael encryption algorithm. Encryption procedures defined in 2.3.12.4.2.1 shall be performed.</td>
</tr>
<tr>
<td>010011-111</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

SR_ID – Service reference identifier.

The mobile station shall set this field as follows:

For a Status Response Message, the mobile station shall set this field to the service reference identifier in use.

For a Service Request Message and a Service Response Message, the mobile station shall set this field as follows:

If the service option connection is a part of the current service configuration, the mobile station shall set this field to the service reference identifier in use.

If the service option connection is not a part of the current service configuration, the mobile station shall perform the following:

- If this service option connection request is initiated by the base station, the mobile station shall set this field to the value sent by the base station.
If this service option connection request is initiated by the mobile station, the mobile station shall perform the following: if the service instance provides a service reference identifier, the mobile station shall set this field to the service reference identifier specified by the service instance; otherwise, the mobile station shall set this field to the smallest unused service reference identifier number value between 1- and 6 inclusive.

The base station shall set this field as follows:

For a Service Request Message, or a Service Response Message, a Service Connect Message, a General Handoff Direction Message, or a Universal Handoff Direction Message, the base station shall set this field as follows:

- If the service option connection is a part of the current service configuration, the base station shall set this field to the service reference identifier in use.
- If the service option connection is not a part of the current service configuration, the base station shall perform the following:
  - If this service option connection request is initiated by the mobile station, the base station shall set this field to the value sent by the mobile station.
  - If this service option connection request is initiated by the base station, the base station shall perform the following: if the service instance provides a service reference identifier, the base station shall set this field to the service reference identifier specified by the service instance; otherwise, the base station shall set this field to the highest unused service reference identifier number value between 1- and 6 inclusive.

For a Service Connect Message, General Handoff Direction Message, and a Universal Handoff Direction Message, the base station shall set this field to the service reference identifier to be used for the service instance corresponding to this record.

RLP_INFO_INCL - RLP information included indicator.

The mobile station shall set this field as follows:

The mobile station shall set this field to ‘1’ if the RLP_BLOB field is included in this record; otherwise, it shall set this field to ‘0’.

The base station shall set this field as follows:
The base station shall set this field to ‘1’ if the RLP_BLOB field is included in this record; otherwise, it shall set this field to ‘0’.

**RLP_BLOB_LEN** - RLP information block of bits length.

The mobile station shall set this field as follows:

If the RLP_INFO_INCL field is set to ‘0’, the mobile station shall omit this field; otherwise, it shall include this field and set it as follows:

The mobile station shall set this field to the size of the RLP_BLOB field in integer number of octets.

The base station shall set this field as follows:

If the RLP_INFO_INCL field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to the size of the RLP_BLOB field in integer number of octets.


The mobile station shall set this field as follows:

If the RLP_INFO_INCL field is set to ‘0’, the mobile station shall omit this field; otherwise, the mobile station shall include this field and set it as follows:

For a *Status Response Message*, the mobile station shall set this field to the Radio Link Protocol block of bits for this service option connection.

For a *Service Request Message* or *Service Response Message*, the mobile station shall set this field to the proposed Radio Link Protocol block of bits for this service option connection, and shall add ‘0’ bits to the end of the field as needed in order to make the length of this field equal to an integer number of octets.

The base station shall set this field as follows:

If the RLP_INFO_INCL field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:
The base station shall set this field to the Radio Link Protocol block of bits for this service option connection, and shall add ‘0’ bits to the end of the field as needed in order to make the length of this field equal to an integer number of octets.

**QOS_PARMS_INCL** - Presence indicator for the QoS parameters.

The mobile station shall set this field as follows:

The mobile station shall set this field to ‘1’, if QOS_PARMS field is included in the record; otherwise the base station shall set this field to ‘0’.

The base station shall set this field as follows:

The base station shall set this field to ‘1’, if QOS_PARMS field is included in the record; otherwise, the base station shall set this field to ‘0’.

**QOS_PARMS_LEN** - Length of the block of QoS parameters.

The mobile station shall set this field as follows:

If QOS_PARMS_INCL is set to ‘1’, the mobile station shall set this field to the combined length in octets, of the QOS_PARMS field and the immediately following QOS_RESERVED field; otherwise, the mobile station shall omit this field.

The base station shall set this field as follows:

If QOS_PARMS_INCL is set to ‘1’, the base station shall set this field to the combined length in octets, of the QOS_PARMS field and the immediately following QOS_RESERVED field; otherwise, the base station shall omit this field.

**QOS_PARMS** - QoS parameters block.

The mobile station shall set this field as follows:

If QOS_PARMS_INCL is set to ‘1’, the mobile station shall include this field in the record as follows:

For a **Status Response Message**, the mobile station shall set this field to the set of QoS parameters configured for this service option connection.

For a **Service Request Message** or **Service Response Message**, the mobile station shall set this field and set it to the set of QoS parameters requested for the respective connection.
The base station shall set this field as follows:

If QOS_PARMS_INCL is set to ‘1’, the base station shall include this field in the record and set it to the set of QoS parameters requested or required for the respective connection.

QOS_RESERVED - Padding bits.

The mobile station shall set this field as follows:

If QOS_PARMS_INCL is set to ‘1’, the mobile station shall include the minimum number of ‘0’ bits necessary to ensure that the combined length of the QOS_PARMS field and of this field is an integer number of octets; otherwise, the mobile station shall omit this field.

The base station shall set this field as follows:

If QOS_PARMS_INCL is set to ‘1’, the base station shall include the minimum number of ‘0’ bits necessary to ensure that the combined length of the QOS_PARMS field and of this field is an integer number of octets; otherwise, the base station shall omit this field.

RESERVED - Reserved bits.

The mobile station shall set this field as follows:

The mobile station shall add reserved bits as needed in order to make the length of the entire record equal to an integer number of octets. The mobile station shall set these bits to ‘0’.

The base station shall set this field as follows:

The base station shall add reserved bits as needed in order to make the length of this record equal to an integer number of octets. The base station shall set these bits to ‘0’.

FCH_CC_INCL - Channel configuration for the Fundamental Channel included indicator.

The mobile station shall set this field as follows:

The mobile station shall set this field to ‘1’, if Fundamental Channel Configuration information is included in the record; otherwise, the mobile station shall set this field to ‘0’.
The base station shall set this field as follows:

The base station shall set this field to ‘1’, if the channel configuration information for the Fundamental Channel is included in this Service Configuration Record; otherwise, the base station shall set this field to ‘0’.

**FCH_FRAME_SIZE** - Fundamental Channel frame size supported indicator.

The mobile station shall set this field as follows:

If **FCH_CC_INCL** field is set to ‘1’, the mobile station shall include this field and set it as described below; otherwise, the mobile station shall omit this field.

For a *Status Response Message*, the mobile station shall set this field to ‘1’, if the 5ms frame size is used in the Forward and Reverse Fundamental Channel, in addition to 20ms frame, for the current service configuration; otherwise, the mobile station shall set this field to ‘0’.

For a *Service Request Message* or a *Service Response Message*, the mobile station shall set this field to ‘1’ to propose that the 5 ms frame size in addition to the 20 ms frame size is used for the proposed service configuration; otherwise the mobile station shall set this field to ‘0’.

The base station shall set this field as follows:

If the **FCH_CC_INCL** field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to ‘1’ if the service configuration includes the use of 5 ms frame size in addition to 20ms frame size for the Forward and Reverse Fundamental Channel; otherwise, the base station shall set this field to ‘0’.

**FOR_FCH RC** - Forward Fundamental Channel Radio Configuration.

The mobile station shall set this field as follows:

If **FCH_CC_INCL** field is set to ‘1’, the mobile station shall include this field and set it as described below; otherwise, the mobile station shall omit this field.

For a *Status Response Message*, the mobile station shall set this field to the Forward Fundamental Channel Radio Configuration for the current service configuration.

For a *Service Request Message* or *Service Response Message*, the mobile station shall set this field to the Forward Fundamental Channel Radio Configuration for the proposed service configuration.

(see [2] Table 3.1.3.1-1)
The base station shall set this field as follows:

If the FCH_CC_INCL field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

For a Service Request Message or a Service Response Message, the base station shall set this field to the Forward Fundamental Channel Radio Configuration (see Table 3.1.3.1-1 of [2]) in the proposed service configuration.

For a Service Connect Message, a General Handoff Direction Message, or a Universal Handoff Direction Message, the base station shall set this field to the actual Forward Fundamental Channel Radio Configuration to be used.

REV_FCH_RC - Reverse Fundamental Channel Radio Configuration.

The mobile station shall set this field as follows:

If FCH_CC_INCL field is set to ‘1’, the mobile station shall include this field and set it as described below; otherwise, the mobile station shall omit this field.

For a Status Response Message, the mobile station shall set field to the Reverse Fundamental Channel Radio Configuration for the current service configuration.

For a Service Request Message or a Service Response Message, the mobile station shall set this field to the Reverse Fundamental Channel Radio Configuration for the proposed service configuration.

(see [2] Table 2.1.3.1-1)

The base station shall set this field as follows:

If the FCH_CC_INCL field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

For a Service Request Message or a Service Response Message, the base station shall set this field to the Reverse Fundamental Channel Radio Configuration (see Table 2.1.3.1-1 of [2]) in the proposed service configuration.

For a Service Connect Message, a General Handoff Direction Message, or a Universal Handoff Direction Message, the base station shall set this field to the actual Reverse Fundamental Channel Radio Configuration to be used.

DCCH_CC_INCL - Channel configuration for the Dedicated Control Channel included indicator.
The mobile station shall set this field as follows:

The mobile station shall set this field to ‘1’, if DCCH channel configuration information is included in this record; otherwise, the mobile station shall set this field to ‘0’.

The base station shall set this field as follows:

The base station shall set this field to ‘1’, if channel configuration information for the Dedicated Control Channel is included in this Service Configuration Record; otherwise, the base station shall set this field to ‘0’.

**DCCH_FRAME_SIZE** - Dedicated Control Channel frame size.

The mobile station shall set this field as follows:

If DCCH_CC_INCL field is set to ‘1’, the mobile station shall include this field and set it as described below; otherwise, the mobile station shall omit this field.

For a *Status Response Message*, the mobile station shall set this field to the frame size, as defined in Table 3.7.5.7-4, for the current service configuration.

For a *Service Request Message* or a *Service Response Message*, the mobile station shall set this field to the frame size, as defined in Table 3.7.5.7-4, for the proposed service configuration.

The base station shall set this field as follows:

If the DCCH_CC_INCL field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it according to the Table 3.7.5.7-4 as follows:

For a *Service Connect Message*, a *General Handoff Direction Message*, or a *Universal Handoff Direction Message*, the base station shall set this field to the actual Dedicated Control Channel frame size(s) to be used in the service configuration.

For a *Service Request Message* or a *Service Response Message*, the base station shall set this field to the Dedicated Control Channel frame size for the proposed service configuration message.
Table 3.7.5.7-4. DCCH Frame Size

<table>
<thead>
<tr>
<th>DCCH_FRAME_SIZE (binary)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Reserved</td>
</tr>
<tr>
<td>01</td>
<td>20 ms frame size only</td>
</tr>
<tr>
<td>10</td>
<td>5 ms frame size only</td>
</tr>
<tr>
<td>11</td>
<td>Both 5 ms and 20 ms frame sizes</td>
</tr>
</tbody>
</table>

FOR_DCCH_RC - Forward Dedicated Control Channel Radio Configuration.

The mobile station shall set this field as follows:

If DCCH_CC_INCL field is set to ‘1’, the mobile station shall include this field and set it as described below; otherwise, the mobile station shall omit this field.

For a Status Response Message, the mobile station shall set this field to the Forward Dedicated Control Channel Radio Configuration for the current service configuration.

For a Service Request Message or a Service Response Message, the mobile station shall set this field to the forward Dedicated Control Channel Radio Configuration (see [2] Table 3.1.3.1-1) for the proposed service configuration.

The base station shall set this field as follows:

If the DCCH_CC_INCL field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

For a Service Connect Message, a General Handoff Direction Message, or a Universal Handoff Direction Message, the base station shall set this field to the actual Forward Dedicated Control Channel Radio Configuration to be used (see Table 3.1.3.1-1 of [2]).

For a Service Request Message or a Service Response Message, the base station shall set this field to the Forward Dedicated Control Channel Radio Configuration for the proposed service configuration.

REV_DCCH_RC - Reverse Dedicated Control Channel Radio Configuration.

The mobile station shall set this field as follows:

If DCCH_CC_INCL field is set to ‘1’, the mobile station shall include this field and set it as described below; otherwise, the mobile station shall omit this field.
For a *Status Response Message*, the mobile station shall set this field to the Reverse Dedicated Control Channel Radio Configuration (see Table 2.1.3.1-1 of [2]) for the current service configuration.

For a *Service Request Message* or a *Service Response Message*, the mobile station shall set this field to the Reverse Dedicated Control Channel Radio Configuration for the proposed service configuration.

The base station shall set this field as follows:

- If the DCCH_CC_INCL field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:
  
  For a *Service Connect Message*, a *General Handoff Direction Message*, or a *Universal Handoff Direction Message*, the base station shall set this field to the actual Reverse Dedicated Control Channel Radio Configuration to be used (see Table 2.1.3.1-1 of [2]).

  For a *Service Request Message* or a *Service Response Message*, the base station shall set this field to the reverse Dedicated Control Channel Radio Configuration for the proposed service configuration.

---

**FOR_SCH-CC_INCL** - Channel configuration for the Forward Supplemental Channel included indicator.

The mobile station shall set this field as follows:

- If the FOR_SCH_CC_INCL field is set to ‘1’, the mobile station shall include this field and set it as describe below; otherwise, the mobile station shall omit this field.

The base station shall set this field as follows:

- The base station shall set this field to ‘1’, if the channel configuration information for the forward Supplemental Channel is included in this Service Configuration Record; otherwise, the base station shall set this field to ‘0’.

**NUM_FOR_SCH** - Number of Forward Supplemental Channels.

The mobile station shall set this field as follows:

- If FOR_SCH_CC_INCL field is set to ‘1’, the mobile station shall include this field and set it as describe below; otherwise, the mobile station shall omit this field.
For a *Status Response Message*, the mobile station shall set this field to the number of Forward Supplemental Channels for the current service configuration and include one occurrence of the following three-field SCH record for each Supplemental Channel Configuration.

For a *Service Request Message* or a *Service Response Message*, the mobile station shall set this field to the number of Forward Supplemental Channels for the proposed service configuration and include one occurrence of the following three-field SCH record for each Supplemental Channel Configuration.

The base station shall set this field as follows:

If the FOR_SCH_CC_INCL field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field to the number of Forward Supplemental Channels associated with this service configuration.

If the NUM_FOR_SCH field is present and is set to any value other than ‘00’, the base station shall include one occurrence of the following three-field record for each Forward Supplemental Channel included in this record:

- **FOR_SCH_ID** - Forward Supplemental Channel Identification

The mobile station shall set this field as follows:

The mobile station shall set this field to the identification of the Supplemental Channel included in this Forward Supplemental Channel Configuration record.

The mobile station shall set this field to the Supplemental Channel identifier, shown in Table 3.7.5.7-5.

### Table 3.7.5.7-5. SCH Identifier

<table>
<thead>
<tr>
<th>FOR_SCH_ID</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>REV_SCH_ID</td>
<td>(binary)</td>
</tr>
<tr>
<td>00</td>
<td>Supplemental Channel 0</td>
</tr>
<tr>
<td>01</td>
<td>Supplemental Channel 1</td>
</tr>
<tr>
<td>10-11</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

The base station shall set this field as follows:

The base station shall set this field to the identifier of the Forward Supplemental Channel pertaining to this record.

The base station shall set this field to the Supplemental Channel identifier, shown in Table 3.7.5.7-5.

- **FOR_SCH_MUX** - Forward Supplemental Channel Multiplex Option.
The mobile station shall set this field as follows:

The mobile station shall set this field to the Multiplex Option associated with the maximum data rate for this Forward Supplemental Channel (see [3]).

The base station shall set this field as follows:

The base station shall set this field to the Multiplex Option associated with the maximum data rate for this Forward Supplemental Channel (see [3]).

SCH_CC- Type-specific field - Supplemental Channel Configuration Information.

The mobile station shall set this field as follows:

The mobile station shall set this field to the subfields of the Channel Configuration record defined in 3.7.5.7.1, for this Forward Supplemental Channel included in the service configuration.

The base station shall set this field as follows:

The base station shall set this field as defined in 3.7.5.7.1 for this Forward Supplemental Channel.

REV_SCH_CC_INCL - Channel configuration for the Reverse Supplemental Channel included indicator.

The mobile station shall set this field as follows:

The mobile station shall set this field to ‘1’, if the Reverse Supplemental Channel Configuration information is included; otherwise, the mobile station shall set this field to ‘0’.

The base station shall set this field as follows:

The base station shall set this field to ‘1’ if the channel configuration information for the Reverse Supplemental Channel is included in this service configuration record; otherwise, the base station shall set this field to ‘0’.

NUM_REV_SCH - Number of Reverse Supplemental Channels.

The mobile station shall set this field as follows:

If REV_SCH_CC_INCL field is set to ‘1’, the mobile station shall include this field and set it as described below; otherwise, the mobile station shall omit this field.
For a *Status Response Message*, the mobile station shall set this field to the number of Reverse Supplemental Channels for the current service configuration and include one occurrence of the following three-field record for each reverse Supplemental Channel Configuration.

For a *Service Request Message* or a *Service Response Message*, the mobile station shall set this field to the number of Reverse Supplemental Channels for the proposed service configuration and include one occurrence of the following three-field record for each reverse Supplemental Channel Configuration.

The base station shall set this field as follows:

If the REV_SCH_CC_INCL field is set to '0', the base station shall omit this field; otherwise, the base station shall set this field to the number of Reverse Supplemental Channels associated with this service configuration.

If the NUM_REV_SCH field is present and is set to any value other than ‘00’, the base station shall include one occurrence of the following three-field record for each Reverse Supplemental Channel included in this record:

- **REV_SCH_ID** - Reverse Supplemental Channel Identification

  The mobile station shall set this field as follows:

  The mobile station shall set this field to the identifier of the Supplemental Channel included in this Reverse Supplemental Channel Configuration record.

  The mobile station shall set this field to the Supplemental Channel identifier, shown in Table 3.7.5.7-5.

  The base station shall set this field as follows:

  The base station shall set this field to the identifier of the Reverse Supplemental Channel pertaining to this record.

  The base station shall set this field to the Supplemental Channel identifier, shown in Table 3.7.5.7-5.

- **REV_SCH_MUX** - Reverse Supplemental Channel Multiplex Option

  The mobile station shall set this field as follows:

  The mobile station shall set this field to the Multiplex Option associated with the maximum data rate for this Reverse SCH (see [3]).

  The base station shall set this field as follows:
The base station shall set this field to the Multiplex Option associated with the maximum data rate for this Reverse Supplemental Channel (see [3]).

SCH_CC-
_Type-specific field - Supplemental Channel Configuration Information.

The mobile station shall set this field as follows:

The mobile station shall set this field to the subfields of the Channel Configuration record defined in 3.7.5.7.1, for this Reverse Supplemental Channel included in the service configuration.

The base station shall set this field as follows:

The base station shall set this field as defined in 3.7.5.7.1 for this Reverse Supplemental Channel.

RESERVED - Reserved bits.

The mobile station shall set this field as follows:

The mobile station shall add reserved bits as needed in order to make the length of the entire information record equal to an integer number of octets. The mobile station shall set these bits to ‘0’.

The base station shall set this field as follows:

The base station shall add reserved bits as needed in order to make the length of the entire message equal to an integer number of octets. The base station shall set these bits to ‘0’.
3.7.5.7.1 Channel Configuration for the Supplemental Channel

The channel configuration information for the Supplemental Channel consists of the following subfields:

<table>
<thead>
<tr>
<th>Subfields</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCH_REC_LEN</td>
<td>4</td>
</tr>
<tr>
<td>SCH_RC</td>
<td>5</td>
</tr>
<tr>
<td>CODING</td>
<td>1</td>
</tr>
<tr>
<td>FRAME_40_USED</td>
<td>1</td>
</tr>
<tr>
<td>FRAME_80_USED</td>
<td>1</td>
</tr>
<tr>
<td>MAX_RATE</td>
<td>4</td>
</tr>
</tbody>
</table>

SCH_REC_LEN - Supplemental Channel channel configuration record length. The mobile station or base station shall set this field to the number of octets included in this Supplemental Channel channel configuration record including this SCH_REC_LEN field.

SCH_RC - Supplemental Channel Radio Configuration. The mobile station or base station shall set this field to the Radio Configuration for this Supplemental Channel. Radio Configurations are defined Table 3.1.3.1-1 of [2] for the Forward Supplemental Channel and Table 2.1.3.1-1 of [2] for the Reverse Supplemental Channel.

CODING - Coding type. The mobile station or base station shall set this field to ‘1’ if the mobile station or the base station is to use Convolutional Coding when the number of channel bits per frame is less than 360 and Turbo Coding when the number of channel bits per frame is equal to or greater than 360. The mobile station or base station shall set this field to ‘0’ if the mobile station or the base station uses Convolution Coding for all block sizes.

FRAME_40_USED - 40ms frame used indicator

The mobile station or base station shall set this field to ‘1’ if a f-dtch logical channel corresponding to the same sr_id is mapped to both forward Supplemental Channels 0 and 1, then the mobile station or base station shall specify the same frame length for both forward Supplemental Channels 0 and 1.
If a r-dtch logical channel corresponding to the same sr_id is mapped to both reverse Supplemental Channels 0 and 1, then the mobile station or base station shall specify the same frame length for both forward Supplemental Channels 0 and 1.

The base station shall not set both FRAME_40_USED and FRAME_80_USED fields set to ‘1’.

**FRAME_80_USED** - 80ms frame used indicator.

The mobile station or base station shall set this field to ‘1’ if 80ms frame is to be used; otherwise, the mobile station or base station shall set this field to ‘0’.

If a f-dtch logical channel corresponding to the same sr_id is mapped to both forward Supplemental Channels 0 and 1, then the mobile station or base station shall specify the same frame length for both forward Supplemental Channels 0 and 1.

If a r-dtch logical channel corresponding to the same sr_id is mapped to both reverse Supplemental Channels 0 and 1, then the mobile station or base station shall specify the same frame length for both reverse Supplemental Channels 0 and 1.

Then the base station shall not set both FRAME_40_USED and FRAME_80_USED fields set to ‘1’.

**MAX_RATE** - Maximum supplemental channel rate

The mobile station or base station shall set this field according to Table 2.7.4.27.3-2 to indicate the maximum forward or reverse supplemental channel data rate supported.
3.7.5.8 Called Party Subaddress

This information record identifies the called party subaddress.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTENSION_BIT</td>
<td>1</td>
</tr>
<tr>
<td>SUBADDRESS_TYPE</td>
<td>3</td>
</tr>
<tr>
<td>ODD/EVEN_INDICATOR</td>
<td>1</td>
</tr>
<tr>
<td>RESERVED</td>
<td>3</td>
</tr>
</tbody>
</table>

Zero or more occurrences of the following field:

| CHARi                               | 8             |

- **EXTENSION_BIT** - The extension bit.
  - The base station shall set this field to ‘1’.

- **SUBADDRESS_TYPE** - Type of subaddress.
  - The base station shall set this field to the SUBADDRESS_TYPE value shown in Table 2.7.4.19-1 corresponding to the type of the subaddress, as defined in [7], Section 4.5.8.

- **ODD/EVEN_INDICATOR** - The indicator of odd/even bits.
  - The base station shall set this field to the ODD/EVEN_INDICATOR value shown in Table 2.7.4.19-2 corresponding to the indicator of even/odd bits, as defined in [7], Section 4.5.8. It is only used when the type of subaddress is “User specified” and the coding is BCD.

- **RESERVED** - Reserved bits.
  - The base station shall set this field to ‘000’.

- **CHARi** - Character.
  - The base station shall include one occurrence of this field for each character in the called party subaddress.

  When the SUBADDRESS_TYPE field is equal to ‘000’, the NSAP address shall be encoded using the preferred binary encoding specified in CCITT Recommendation X.213 or ISO 8348.AD2 [35].

  When the SUBADDRESS_TYPE field is set to ‘010’, user-specified subaddress field is encoded according to the user specification, subject to a maximum length of 20 octets.

  When interworking with CCITT Recommendation X.25[36] networks, BCD coding should be applied.
3.7.5.9 Calling Party Subaddress

This information record identifies the calling party subaddress.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTENSION_BIT</td>
<td>1</td>
</tr>
<tr>
<td>SUBADDRESS_TYPE</td>
<td>3</td>
</tr>
<tr>
<td>ODD/EVEN_INDICATOR</td>
<td>1</td>
</tr>
<tr>
<td>RESERVED</td>
<td>3</td>
</tr>
</tbody>
</table>

Zero or more occurrences of the following field:

| CHARi                   | 8             |

EXTENSION_BIT - The extension bit.
The base station shall set this field to ‘1’.

SUBADDRESS_TYPE - Type of subaddress.
The base station shall set this field to the SUBADDRESS_TYPE value shown in Table 2.7.4.19-1 corresponding to the type of the subaddress, as defined in [7], Section 4.5.10.

ODD/EVEN_INDICATOR - The indicator of odd/even bits.
The base station shall set this field to the ODD/EVEN_INDICATOR value shown in Table 2.7.4.19-2 corresponding to the indicator of even/odd bits, as defined in [7], Section 4.5.10. It is only used when the type of subaddress is “User specified” and the coding is BCD.

RESERVED - Reserved bits.
The base station shall set this field to ‘000’.

CHARi - Character.
The base station shall include one occurrence of this field for each character in the calling party subaddress.

When the SUBADDRESS_TYPE field is equal to ‘000’, the NSAP address shall be encoded using the preferred binary encoding specified in CCITT Recommendation X.213 or ISO 8348 AD2 [35].

When the SUBADDRESS_TYPE field is set to ‘010’, user-specified subaddress field is encoded according to the user specification, subject to a maximum length of 20 octets. When interworking with CCITT Recommendation X.25[36] networks, BCD coding should be applied.
3.7.5.10 Connected Subaddress

This information record identifies the subaddress of the responding party.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTENSION_BIT</td>
<td>1</td>
</tr>
<tr>
<td>SUBADDRESS_TYPE</td>
<td>3</td>
</tr>
<tr>
<td>ODD/EVEN_INDICATOR</td>
<td>1</td>
</tr>
<tr>
<td>RESERVED</td>
<td>3</td>
</tr>
</tbody>
</table>

Zero or more occurrences of the following field:

| CHARi | 8 |

EXTENSION_BIT - The extension bit. The base station shall set this field to ‘1’.

SUBADDRESS_TYPE - Type of subaddress. The base station shall set this field to the SUBADDRESS_TYPE value shown in Table 2.7.4.19-1 corresponding to the type of the subaddress, as defined in [7], Section 4.5.14.

ODD/EVEN INDICATOR - The indicator of odd/even bits. The base station shall set this field to the ODD/EVEN_INDICATOR value shown in Table 2.7.4.19-2 corresponding to the indicator of even/odd bits, as defined in [7], Section 4.5.14. It is only used when the type of subaddress is “User specified” and the coding is BCD.

RESERVED - Reserved bits. The base station shall set this field to ‘000’.

CHARi - Character. The base station shall include one occurrence of this field for each character in the connected subaddress.

When the SUBADDRESS_TYPE field is equal to ‘000’, the NSAP address shall be encoded using the preferred binary encoding specified in CCITT Recommendation X.213 or ISO 8348-AD2 [35].

When the SUBADDRESS_TYPE field is set to ‘010’, user-specified subaddress field is encoded according to the user specification, subject to a maximum length of 20 octets. When interworking with CCITT Recommendation X.25[36] networks, BCD coding should be applied.
3.7.5.11 Redirecting Number

This information record identifies the Redirecting Number.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTENSION_BIT_1</td>
<td>1</td>
</tr>
<tr>
<td>NUMBER_TYPE</td>
<td>3</td>
</tr>
<tr>
<td>NUMBER_PLAN</td>
<td>4</td>
</tr>
<tr>
<td>EXTENSION_BIT_2</td>
<td>0 or 1</td>
</tr>
<tr>
<td>PI</td>
<td>0 or 2</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 or 3</td>
</tr>
<tr>
<td>SI</td>
<td>0 or 2</td>
</tr>
<tr>
<td>EXTENSION_BIT_3</td>
<td>0 or 1</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 or 3</td>
</tr>
<tr>
<td>REDIRECTION_REASON</td>
<td>0 or 4</td>
</tr>
</tbody>
</table>

Zero or more occurrences of the following field:

| CHARI                     | 8             |

EXTENSION_BIT_1 - The extension bit.

If the PI and SI are included in this record, the base station shall set this field to ‘0’; otherwise, the base station shall set this field to ‘1’.

NUMBER_TYPE - Type of number.

The base station shall set this field to the NUMBER_TYPE value shown in Table 2.7.1.3.2.4-2 corresponding to the type of the redirecting number, as defined in ANSI T1.625 §6.1.3.7.[34].

NUMBER_PLAN - Numbering plan.

The base station shall set this field to the NUMBER_PLAN value shown in Table 2.7.1.3.2.4-3 corresponding to the numbering plan used for the redirecting number, as defined in ANSI T1.625 §6.1.3.7.[34].

EXTENSION_BIT_2 - The extension bit.

If the EXTENSION_BIT_1 is set to ‘0’ and REDIRECTION_REASON is included in this record, the base station shall set this field to ‘0’. If the EXTENSION_BIT_1 is set to ‘0’ and REDIRECTION_REASON is not included in this record, the base station shall set this field to ‘1’. If the EXTENSION_BIT_1 is set to ‘1’, the base station shall omit this field.
PI - Presentation indicator.

This field indicates whether or not the redirecting number should be displayed.

If the EXTENSION_BIT_1 is set to ‘0’, the base station shall set this field to the PI value shown in Table 2.7.4.4-1 corresponding to the presentation indicator, as defined in ANSI T1.625 §6.1.3.7[34]; otherwise, the base station shall omit this field.

RESERVED - Reserved bits.

If the EXTENSION_BIT_1 is set to ‘0’, the base station shall set this field to ‘000’; otherwise, the base station shall omit this field.

SI - Screening indicator.

This field indicates how the redirecting number was screened.

If the EXTENSION_BIT_1 is set to ‘0’, the base station shall set this field to the SI value shown in Table 2.7.4.4-2 corresponding to the screening indicator value, as defined in ANSI T1.625 §6.1.3.7[34]; otherwise, the base station shall omit this field.

EXTENSION_BIT_3 - The extension bit.

If the EXTENSION_BIT_2 is set to ‘0’, the base station shall set this field to ‘1’; otherwise, the base station shall omit this field.

RESERVED - Reserved bits.

If the EXTENSION_BIT_2 is set to ‘0’, the base station shall set this field to ‘000’; otherwise, the base station shall omit this field.

REDIRECTION_REASON - The reason for redirection.

If the EXTENSION_BIT_2 is set to ‘0’, the base station shall set this field to the REDIRECTION_REASON value shown in Table 3.7.5.5.11-1 corresponding to the redirection reason, as defined in ANSI T1.625 §6.1.3.7[34]; otherwise, the base station shall omit this field.
### Table 3.7.5.11-1. Redirection Reason

<table>
<thead>
<tr>
<th>Description</th>
<th>REDIRECTION-REASON (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unknown</td>
<td>0000</td>
</tr>
<tr>
<td>Call forwarding busy or called DTE busy</td>
<td>0001</td>
</tr>
<tr>
<td>Call forwarding no reply (circuit-mode only)</td>
<td>0010</td>
</tr>
<tr>
<td>Called DTE out of order (packet-mode only)</td>
<td>1001</td>
</tr>
<tr>
<td>Call forwarding by the called DTE (packet-mode only)</td>
<td>1010</td>
</tr>
<tr>
<td>Call forwarding unconditional or Systematic call redirection</td>
<td>1111</td>
</tr>
<tr>
<td>Reserved</td>
<td>others</td>
</tr>
</tbody>
</table>

**CHARi** - Character.

The base stations shall include one occurrence of this field for each character in the Redirecting Number. The base station shall set each occurrence of this field to the ASCII representation corresponding to the character, as specified in [9], with the most significant bit set to ‘0’.
3.7.5.12 Redirecting Subaddress

This information record identifies the subaddress of the responding party.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXTENSION_BIT</td>
<td>1</td>
</tr>
<tr>
<td>SUBADDRESS_TYPE</td>
<td>3</td>
</tr>
<tr>
<td>ODD/EVEN_INDICATOR</td>
<td>1</td>
</tr>
<tr>
<td>RESERVED</td>
<td>3</td>
</tr>
</tbody>
</table>

Zero or more occurrences of the following field:

<table>
<thead>
<tr>
<th>CHARi</th>
<th>8</th>
</tr>
</thead>
</table>

EXTENSION_BIT - The extension bit.

The base station shall set this field to ‘1’.

SUBADDRESS_TYPE - Type of subaddress.

The base station shall set this field to the SUBADDRESS_TYPE value shown in Table 2.7.4.19-1 corresponding to the type of the subaddress, as defined in ANSI T1.625 §6.1.3.8[34].

ODD/EVEN_INDICATOR - The indicator of odd/even bits.

The base station shall set this field to the ODD/EVEN_INDICATOR value shown in Table 2.7.4.19-2 corresponding to the indicator of even/odd bits, as defined in ANSI T1.625 §6.1.3.8[34]. It is only used when the type of subaddress is “User specified” and the coding is BCD.

RESERVED - Reserved bits.

The base station shall set this field to ‘000’.

CHARi - Character.

The base station shall include one occurrence of this field for each character in the redirecting subaddress.

When the SUBADDRESS_TYPE field is equal to ‘000’, the NSAP address shall be encoded using the preferred binary encoding specified in CCITT Recommendation X.213 or ISO 8348-AD2[35].

When the SUBADDRESS_TYPE field is set to ‘010’, user-specified subaddress field is encoded according to the user specification, subject to a maximum length of 20 octets.

When interworking with CCITT Recommendation X.25[36] networks, BCD coding should be applied.
3.7.5.13 Meter Pulses

This information record identifies the number of meter pulses and frequency of the alert tone.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PULSE_FREQUENCY</td>
<td>11</td>
</tr>
<tr>
<td>PULSE_ON_TIME</td>
<td>8</td>
</tr>
<tr>
<td>PULSE_OFF_TIME</td>
<td>8</td>
</tr>
<tr>
<td>PULSE_COUNT</td>
<td>4</td>
</tr>
<tr>
<td>RESERVED</td>
<td>1</td>
</tr>
</tbody>
</table>

**PULSE_FREQUENCY** - Pulse frequency.

The base station shall set this field to the frequency of the alert signals in units of 10 Hz or to zero to indicate that line polarity control is to be used. If this field is set to zero, the **PULSE_ON_TIME** and **PULSE_OFF_TIME** shall be the period of line polarity reversal and normal line polarity, respectively.

**PULSE_ON_TIME** - Pulse on time.

The base station shall set this field to the period of the meter pulses in units of 5 ms.

**PULSE_OFF_TIME** - Pulse off time.

The base station shall set this field to the period of the inter-pulse spacing in units of 5 ms.

**PULSE_COUNT** - Pulse count.

The base station shall set this field to the number of meter pulses.

**RESERVED** - Reserved bits.

The base station shall set this field to ‘0’.
3.7.5.14 Parametric Alerting

This information record allows the network to convey information to a user by means of programmable alerting signals.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CADENCE_COUNT</td>
<td>8</td>
</tr>
<tr>
<td>NUM_GROUPS</td>
<td>4</td>
</tr>
</tbody>
</table>

NUM_GROUPS occurrences of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMPLITUDE</td>
<td>8</td>
</tr>
<tr>
<td>FREQ_1</td>
<td>10</td>
</tr>
<tr>
<td>FREQ_2</td>
<td>10</td>
</tr>
<tr>
<td>ON_TIME</td>
<td>8</td>
</tr>
<tr>
<td>OFF_TIME</td>
<td>8</td>
</tr>
<tr>
<td>REPEAT</td>
<td>4</td>
</tr>
<tr>
<td>DELAY</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CADENCE_TYPE</td>
<td>2</td>
</tr>
<tr>
<td>RESERVED</td>
<td>2</td>
</tr>
</tbody>
</table>

CADENCE_COUNT - Cadence count.

The base station shall set this field to the number of times the cadence of tone groups will be generated between 0x01 and 0xFE. The base station shall set this field to 0x00 to indicate that the mobile station should end alert tone generation. The base station shall set this field to 0xFF to indicate that the cadence will repeat indefinitely.

NUM_GROUPS - Number of groups.

The base station shall set this field to the number of groups.

AMPLITUDE - Amplitude.

The base station shall set this field to the amplitude level of the tone group in units of -1 dBm.

FREQ_1 - Tone frequency 1.

The base station shall set this field to the first frequency of the tone group in units of 5 Hz.

FREQ_2 - Tone frequency 2.
The base station shall set this field to the second frequency of the tone group in units of 5 Hz. Setting this field to zero creates a single frequency tone.

**ON_TIME** - On time.

The base station shall set this field to the duration of the tone group in units of 50 ms.

**OFF_TIME** - Off time.

The base station shall set this field to the duration of the spacing between tones in units of 50 ms.

**REPEAT** - Repeat.

The base station shall set this field to the number of times the tone group should repeat. The base station shall set this field to 0xFF to indicate that the tone group will repeat indefinitely.

**DELAY** - Delay.

The base station shall set this field to the length of time before the next tone group begins in units of 50 ms.

**CADENCE_TYPE** - Parametric Alerting cadence type.

The base station shall set this field to indicate that the alert should be conveyed to the user as specified in Table 3.7.5.14.

<table>
<thead>
<tr>
<th>CADENCE_TYPE</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Not specified</td>
</tr>
<tr>
<td>01</td>
<td>Acoustic earpiece or similar device</td>
</tr>
<tr>
<td>10</td>
<td>Device other than acoustic earpiece or similar device (Eg. Ringer)</td>
</tr>
<tr>
<td>11</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

**RESERVED** - Reserved bits.

The base station shall set this field to ‘00’.
3.7.5.15 Line Control

This information record allows the network to convey line control information.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLARITY_INCLUDED</td>
<td>1</td>
</tr>
<tr>
<td>TOGGLE_MODE</td>
<td>0 or 1</td>
</tr>
<tr>
<td>REVERSE_POLARITY</td>
<td>0 or 1</td>
</tr>
<tr>
<td>POWER_DENIAL_TIME</td>
<td>8</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 - 7 (as needed)</td>
</tr>
</tbody>
</table>

POLARITY_INCLUDED - Polarity parameter included.

If the mobile station is to change the line polarity, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

TOGGLE_MODE - If POLARITY_INCLUDED is set to ‘1’, the base station shall include this field and set it to ‘1’ to toggle the line polarity or to ‘0’ to set the polarity to the absolute value indicated in the REVERSE_POLARITY field.

REVERSE_POLARITY - Reverse polarity.

If POLARITY_INCLUDED is set to ‘1’ and TOGGLE_MODE is equal to ‘0’, the base station shall include this field and set it to ‘1’ to reverse the tip and ring polarity or to ‘0’ to use normal polarity. If POLARITY_INCLUDED is set to ‘1’ and TOGGLE_MODE is set to ‘1’, the base station shall include this field and set it to ‘0’; otherwise, the base station shall omit this field.

POWER_DENIAL_TIME - Power denial timeout.

The base station shall include this field and set it to the duration of the power denial in increments of 5 ms.

RESERVED - Reserved bits.

The base station shall add reserved bits as needed in order to make the length of the entire message equal to an integer number of octets. The base station shall set these bits to ‘0’.
3.7.5.16 Extended Display

This information record allows the network to supply supplementary service display information that may be displayed by the mobile station.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXT_DISPLAY_IND</td>
<td>1</td>
</tr>
<tr>
<td>DISPLAY_TYPE</td>
<td>7</td>
</tr>
</tbody>
</table>

One or more occurrences of the following record:

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISPLAY_TAG</td>
<td>8</td>
</tr>
<tr>
<td>DISPLAY_LEN</td>
<td>8</td>
</tr>
</tbody>
</table>

DISPLAY_LEN occurrences of the following field if the DISPLAY_TAG field is not equal to ‘10000000’ or ‘10000001’:

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHARi</td>
<td>8</td>
</tr>
</tbody>
</table>

EXT_DISPLAY_IND - The indicator of Extended Display Information record. The base station shall set this field to ‘1’.

DISPLAY_TYPE - The type of display. The base station shall set this field to the DISPLAY_TYPE value shown in Table 3.7.5.16-1 corresponding to the type of display, as defined in [8] Annex D.

<table>
<thead>
<tr>
<th>Description</th>
<th>DISPLAY_TYPE (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normal</td>
<td>0000000</td>
</tr>
</tbody>
</table>

All other DISPLAY_TYPE values are reserved.

DISPLAY_TAG - The indicator of the display information. There are three types of display tags: mandatory control tags (Blank and Skip), display text tags, and optional control tags, see [8] Annex D. The base station shall set this field to the DISPLAY_TAG value shown in Table 3.7.5.16-2 corresponding to the type of information contained in the following CHARi field, as defined in [8] Annex D.
Table 3.7.5.16-2. Mandatory Control Tags and Display Text Tags

<table>
<thead>
<tr>
<th>Description</th>
<th>DISPLAY_TAG (binary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blank</td>
<td>10000000</td>
</tr>
<tr>
<td>Skip</td>
<td>10000001</td>
</tr>
<tr>
<td>Continuation</td>
<td>10000010</td>
</tr>
<tr>
<td>Called Address</td>
<td>10000011</td>
</tr>
<tr>
<td>Cause</td>
<td>10000100</td>
</tr>
<tr>
<td>Progress Indicator</td>
<td>10000101</td>
</tr>
<tr>
<td>Notification Indicator</td>
<td>10000110</td>
</tr>
<tr>
<td>Prompt</td>
<td>10000111</td>
</tr>
<tr>
<td>Accumulated Digits</td>
<td>10001000</td>
</tr>
<tr>
<td>Status</td>
<td>10001001</td>
</tr>
<tr>
<td>Inband</td>
<td>10001010</td>
</tr>
<tr>
<td>Calling Address</td>
<td>10001011</td>
</tr>
<tr>
<td>Reason</td>
<td>10001100</td>
</tr>
<tr>
<td>Calling Party Name</td>
<td>10001101</td>
</tr>
<tr>
<td>Called Party Name</td>
<td>10001110</td>
</tr>
<tr>
<td>Original Called Name</td>
<td>10001111</td>
</tr>
<tr>
<td>Redirecting Name</td>
<td>10010000</td>
</tr>
<tr>
<td>Connected Name</td>
<td>10010001</td>
</tr>
<tr>
<td>Originating Restrictions</td>
<td>10010010</td>
</tr>
<tr>
<td>Date &amp; Time of Day</td>
<td>10010011</td>
</tr>
<tr>
<td>Call Appearance ID</td>
<td>10010100</td>
</tr>
<tr>
<td>Feature Address</td>
<td>10010101</td>
</tr>
<tr>
<td>Redirection Name</td>
<td>10010110</td>
</tr>
<tr>
<td>Redirection Number</td>
<td>10010111</td>
</tr>
<tr>
<td>Redirecting Number</td>
<td>10011000</td>
</tr>
<tr>
<td>Original Called Number</td>
<td>10011001</td>
</tr>
<tr>
<td>Connected Number</td>
<td>10011010</td>
</tr>
<tr>
<td>Text (e.g., ASCII)</td>
<td>10011110</td>
</tr>
</tbody>
</table>
DISPLAY_LEN - The display length.

The base station shall set this field to the number of octets of display text. See [8] Annex D.

CHARi - Character.

The base station shall include DISPLAY_LEN occurrences of this field, one for each character to be displayed, except for blank and skip. The base station shall set each occurrence of this field to the ASCII representation corresponding to the character entered, as specified in [9], with the most significant bit set to ‘0’.
3.7.5.17 Extended Record Type - International

The use of this record type is country-specific. The first ten bits of the type-specific fields shall include the Mobile Country Code (MCC) associated with the national standards organization administering the use of the record type. Encoding of the MCC shall be as specified in 2.3.1.3. The remaining six bits of the first two octets of the type-specific fields shall be used to specify the country-specific record type.
1 3.7.5.18 Reserved
3.7.5.19 Reserved
3.7.5.20 Non-Negotiable Service Configuration

This record is included in a *Service Connect Message* to specify the non-negotiable service configuration parameters to be used by the mobile station. This record can be included in a *General Handoff Direction Message* or a *Universal Handoff Direction Message* to specify the non-negotiable service configuration parameters to be used by the mobile station.

<table>
<thead>
<tr>
<th>Type Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FPC_INCL</td>
<td>1</td>
</tr>
<tr>
<td>FPC_PRI_CHAN</td>
<td>0 or 1</td>
</tr>
<tr>
<td>FPC_MODE</td>
<td>0 or 3</td>
</tr>
<tr>
<td>FPC_O LPC_FCH_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>FPC_FCH_FER</td>
<td>0 or 5</td>
</tr>
<tr>
<td>FPC_FCH_MIN_SETPT</td>
<td>0 or 8</td>
</tr>
<tr>
<td>FPC_FCH_MAX_SETPT</td>
<td>0 or 8</td>
</tr>
<tr>
<td>FPC_O LPC_DCCH_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>FPC_DCCH_FER</td>
<td>0 or 5</td>
</tr>
<tr>
<td>FPC_DCCH_MIN_SETPT</td>
<td>0 or 8</td>
</tr>
<tr>
<td>FPC_DCCH_MAX_SETPT</td>
<td>0 or 8</td>
</tr>
<tr>
<td>GATING_RATE_INCL</td>
<td>1</td>
</tr>
<tr>
<td>PILOT_GATING_RATE</td>
<td>0 or 2</td>
</tr>
</tbody>
</table>

| FOR_SCH_INCL             | 1             |
| NUM_FOR_SCH             | 0 or 2        |

If FOR_SCH_INCL = ‘1’, include NUM_FOR_SCH occurrences of the following two-field record

| FOR_SCH_ID               | 2             |
| FOR_SCH_FRAME_OFFSET     | 2             |

(continues on next page)
<table>
<thead>
<tr>
<th>Type Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REV_SCH_INCL</td>
<td>1</td>
</tr>
<tr>
<td>NUM_REV_SCH</td>
<td>0 or 2</td>
</tr>
</tbody>
</table>

If REV_SCH_INCL = ‘1’, include NUM_REV_SCH occurrences of the following two-field record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>REV_SCH_ID</td>
<td>2</td>
</tr>
<tr>
<td>REV_SCH_FRAME_OFFSET</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LPM_IND</td>
<td>2</td>
</tr>
<tr>
<td>NUM_LPM_ENTRIES</td>
<td>0 or 4</td>
</tr>
</tbody>
</table>

If LPM_IND = ‘01’, include NUM_LPM_ENTRIES occurrences of the following six-field record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR_ID</td>
<td>3</td>
</tr>
<tr>
<td>LOGICAL_RESOURCE</td>
<td>4</td>
</tr>
<tr>
<td>PHYSICAL_RESOURCE</td>
<td>4</td>
</tr>
<tr>
<td>FORWARD_FLAG</td>
<td>1</td>
</tr>
<tr>
<td>REVERSE_FLAG</td>
<td>1</td>
</tr>
<tr>
<td>PRIORITY</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUM_REC</td>
<td>3</td>
</tr>
</tbody>
</table>

NUM_REC occurrences of the following variable-length record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECORD_LEN</td>
<td>8</td>
</tr>
<tr>
<td>SR_ID</td>
<td>3</td>
</tr>
<tr>
<td>SDB_SO_OMIT</td>
<td>1</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0-7 (as needed)</td>
</tr>
</tbody>
</table>

(continues on next page)
<table>
<thead>
<tr>
<th>Type Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE_FLEX_NUM_BITS</td>
<td>1</td>
</tr>
<tr>
<td>USE_OLD_FLEX_NUM_BITS_TABLES_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>NUM_BITS_TABLES_COUNT</td>
<td>0 or 3</td>
</tr>
</tbody>
</table>

If USE_FLEX_NUM_BITS is equal to ‘1’ and NUM_BITS_TABLES_INCL is equal to ‘1’, then include NUM_BITS_TABLES_COUNT+1 occurrences of the following record:

| NUM_BITS_TABLE_ID | 4          |
| NUM_RECS         | 4          |

If USE_FLEX_NUM_BITS is equal to ‘1’, then NUM_RECS +1 occurrences of the following record:

| NUM_BITS_IDX     | 4          |
| NUM_BITS         | 16         |
| CRC_LEN_IDX      | 3          |

| USE_VAR_RATE     | 1          |
| USE_OLD_VAR_TABLES_INCL | 0 or 1     |
| VAR_RATE_TABLES_COUNT | 0 or 3 |

If USE_VAR_RATE is equal to ‘1’ and VAR_TABLES_INCL is equal to ‘1’, then include VAR_RATE_TABLES_COUNT+1 occurrences of the following record:

| VAR_RATE_TABLE_ID | 3          |
| NUM_RECS         | 4          |

For each of the above record, if USE_VAR_RATE_NUM_BITS is equal to ‘1’, then include NUM_RECS +1 occurrences of the following record:

| NUM_BITS_IDX     | 4          |
| MASK              | NUM_BITS_IDX |

If USE_FLEX_NUM_BITS is equal to ‘1’, include the following fields:

<p>| USE_OLD_FLEX_MAPPING | 1          |
| FSCH0_NBIT_TABLE_ID  | 0 or 4     |</p>
<table>
<thead>
<tr>
<th>Type Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSCH0_NBIT_TABLE_ID</td>
<td>0 or 4</td>
</tr>
<tr>
<td>FSCH1_NBIT_TABLE_ID</td>
<td>0 or 4</td>
</tr>
<tr>
<td>RSCH1_NBIT_TABLE_ID</td>
<td>0 or 4</td>
</tr>
<tr>
<td>FFCH_NBIT_TABLE_ID</td>
<td>0 or 4</td>
</tr>
<tr>
<td>RFCH_NBIT_TABLE_ID</td>
<td>0 or 4</td>
</tr>
<tr>
<td>FDCCH_NBIT_TABLE_ID</td>
<td>0 or 4</td>
</tr>
<tr>
<td>FDCCH_NBITS_IDX</td>
<td>0 or 4</td>
</tr>
<tr>
<td>RDCCH_NBIT_TABLE_ID</td>
<td>0 or 4</td>
</tr>
<tr>
<td>RDCCH_NBITS_IDX</td>
<td>0 or 4</td>
</tr>
</tbody>
</table>

If USE_VAR_RATE is equal to ‘1’, include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE_OLD_VAR_MAPPING</td>
<td>1</td>
</tr>
<tr>
<td>FSCH0_VAR_TABLE_ID</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RSCH0_VAR_TABLE_ID</td>
<td>0 or 3</td>
</tr>
<tr>
<td>FSCH1_VAR_TABLE_ID</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RSCH1_VAR_TABLE_ID</td>
<td>0 or 3</td>
</tr>
<tr>
<td>R_INC_RATE_ALLOWED</td>
<td>0 or 1</td>
</tr>
<tr>
<td>F_INC_RATE_ALLOWED</td>
<td>0 or 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTU_INFO_INCL</td>
<td>1</td>
</tr>
<tr>
<td>USE_OLD_LTU_TABLES_INCL</td>
<td>0 or 1</td>
</tr>
</tbody>
</table>

If LTU_INFO_INCL is equal to ‘1’ and USE_OLD_LTU_TABLES_INCL is equal to ‘1’, then include the following fields related to the LTU Size Table shall be included:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUM_LTU_TABLES</td>
<td>0 or 2</td>
</tr>
</tbody>
</table>

Include NUM_LTU_TABLES + 1 instances occurrences of the following records:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTU_TABLE_ID</td>
<td>3</td>
</tr>
</tbody>
</table>

(continues on next page)
<table>
<thead>
<tr>
<th>Type Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUM_ROWS</td>
<td>4</td>
</tr>
</tbody>
</table>

For each occurrence of the above record, include NUM_ROWS + 1 instances of the following records:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NBITS_IDX</td>
<td>4</td>
</tr>
<tr>
<td>NUM_LTUS_LEN</td>
<td>164</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE_OLD_LTU_MAPPING</td>
<td>0 or 1</td>
</tr>
<tr>
<td>FSCH0_LTU_TAB_ID</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RSCH0_LTU_TAB_ID</td>
<td>0 or 3</td>
</tr>
<tr>
<td>FSCH1_LTU_TAB_ID</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RSCH1_LTU_TAB_ID</td>
<td>0 or 3</td>
</tr>
</tbody>
</table>

If USE_FLEX_NUM_BITS is equal to ‘1’ and at least one of FFCH_NBIT_TABLE_ID, RFCH_NBIT_TABLE_ID, FDCCH_NBIT_TABLE_ID, or RDCCH_NBIT_TABLE_ID is not equal to ‘0000’, then include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PARTITION_TABLES_INFO_INCL</td>
<td>0 or 1</td>
</tr>
<tr>
<td>USE_OLD_PARTITION_TABLES_INCL</td>
<td>0 or 1</td>
</tr>
</tbody>
</table>

Include NUM_PARTITION_TABLES + 1 instances of the following records:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PARTITION_TABLE_ID</td>
<td>3</td>
</tr>
<tr>
<td>NUM_ROWS</td>
<td>5</td>
</tr>
</tbody>
</table>

For each occurrence of the above record, include NUM_ROWS + 1 instances of the following records:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CATEGORY</td>
<td>5</td>
</tr>
<tr>
<td>MUX_HEADER_LEN</td>
<td>3</td>
</tr>
<tr>
<td>MUX_HEADER</td>
<td>MUX_HEADER_LEN</td>
</tr>
</tbody>
</table>
### Type Specific Field

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUM_PARTITIONS</td>
<td>3</td>
</tr>
</tbody>
</table>

Include NUM_PARTITIONS + 1 instances of the following record:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR_ID</td>
<td>3</td>
</tr>
<tr>
<td>SRV_NUM_BITS</td>
<td>9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USE_OLD_PART_MAPPING</td>
<td>0 or 1</td>
</tr>
<tr>
<td>FFCH_PART_TAB_ID</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RFCH_PART_TAB_ID</td>
<td>0 or 3</td>
</tr>
<tr>
<td>FDCCH_PART_TAB_ID</td>
<td>0 or 3</td>
</tr>
<tr>
<td>RDCCH_PART_TAB_ID</td>
<td>0 or 3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESERVED</td>
<td>0-7 (as needed)</td>
</tr>
</tbody>
</table>

#### FPC_INCL
- Forward power control information included indicator.

The base station shall set this field to ‘1’ if the forward power control information parameters are included in this record; otherwise, it shall set this field to ‘0’.

#### FPC_PRI_CHAN
- Power Control Subchannel indicator.

If the FPC_INCL field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to ‘0’ if the mobile station is to perform the primary inner loop estimation on the received Forward Fundamental Channel and the base station is to multiplex the Power Control Subchannel on Forward Fundamental Channel; the base station shall set this field to ‘1’ if the mobile station is to perform the primary inner loop estimation on the received Forward Dedicated Control Channel and the base station is to multiplex the Power Control Subchannel on Forward Dedicated Control Channel.

If only Fundamental Channel is assigned, the base station shall set this field to ‘0’. If only the Dedicated Control Channel is assigned, the base station shall set this field to ‘1’.

#### FPC_MODE
- Forward Power Control operation mode indicator.
If the FPC_INCL field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

The base station shall set this field to the value of the forward power control operation mode (see [2]).

FPC_OLPC_FCH_INCL - Fundamental Channel Outer Loop Power Control parameter included indicator.

If the FPC_INCL field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

If the forward link Fundamental Channel outer loop power control parameters are included in this record, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

FPC_FCH_FER - Fundamental Channel target Frame Error Rate.

If FPC_OLPC_FCH_INCL is included and set to ‘1’, the base station shall set this field to the target Frame Error Rate on the Forward Fundamental Channel, as specified in Table 3.7.3.3.2.25-2; otherwise, the base station shall omit this field.

FPC_ FCH_MIN_SETPT - Minimum Fundamental Channel Outer Loop Eb/Nt setpoint.

If FPC_OLPC_FCH_INCL is included and set to ‘1’, the base station shall set this field to minimum Fundamental Channel Outer Loop Eb/Nt setpoint, in units of 0.125dB; otherwise, the base station shall omit this field.

FPC_ FCH_MAX_SETPT - Maximum Fundamental Channel Outer Loop Eb/Nt setpoint.

If FPC_OLPC_FCH_INCL is set to ‘1’, the base station shall set this field to maximum Fundamental Channel Outer Loop Eb/Nt setpoint, in units of 0.125dB; otherwise, the base station shall omit this field.

FPC_OLPC_DCCH_INCL - Dedicated Control Channel Outer Loop Power Control parameter included indicator.

If the FPC_INCL field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set it as follows:

If the forward link Dedicated Control Channel outer loop power control parameters are included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

FPC_DCCH_FER - Dedicated Control Channel target Frame Error Rate.

If FPC_OLPC_DCCH_INCL is included and set to ‘1’, the base station shall set this field to the target Frame Error Rate on the Forward Dedicated Control Channel, as specified in Table 3.7.3.3.2.25-2; otherwise, the base station shall omit this field.
FPC_DCCH_MIN_SETPT - Minimum Dedicated Control Channel Outer Loop Eb/Nt setpoint.

If FPC_OLPC_DCCH_INCL is included and set to '1', the base station shall set this field to minimum Dedicated Control Channel Outer Loop Eb/Nt setpoint, in units of 0.125dB; otherwise, the base station shall omit this field.

FPC_DCCH_MAX_SETPT - Maximum Dedicated Control Channel Outer Loop Eb/Nt setpoint.

If FPC_OLPC_DCCH_INCL is included and set to '1', the base station shall set this field to maximum Dedicated Control Channel Outer Loop Eb/Nt setpoint, in units of 0.125dB; otherwise, the base station shall omit this field.

GATING_RATE_INCL - Reverse Pilot Channel Gating rate included flag.

The base station shall set this field to ‘1’ if the PILOT_GATING_RATE field is included; otherwise, it shall set this field to ‘0’.

PILOT_GATING_RATE - Reverse Pilot Channel Gating rate.

If the GATING_RATE_INCL field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field as follows: The base station shall set this field to the PILOT_GATING_RATE field shown in Table 3.7.5.20-1 corresponding to the gating rate on the Reverse Pilot Channel.

<table>
<thead>
<tr>
<th>PILOT_GATING_RATE field (binary)</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Gating rate 1</td>
</tr>
<tr>
<td>01</td>
<td>Gating rate ½</td>
</tr>
<tr>
<td>10</td>
<td>Gating rate ¼</td>
</tr>
<tr>
<td>11</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

FOR_SCH_INCL - Forward Supplemental Channel information included indicator.

The base station shall set this field to ‘1’, if the forward Supplemental Channel information is included; otherwise, the base station shall set this field to ‘0’.

NUM_FOR_SCH - Number of Forward Supplemental Channels.

If the FOR_SCH_INCL field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field to the number of Forward Supplemental Channels associated with this service configuration.

If the NUM_FOR_SCH field is present and is set to any value other than ‘00’, the base station shall include one occurrence of the following two field record for each Forward Supplemental Channel included in this record:
FOR_SCH_ID  -  Forward Supplemental Channel Identification.

The base station shall set this field to the identifier of the Forward Supplemental Channel pertaining to this record.

FOR_SCH_FRAME_OFFSET  -  Forward Supplemental Channel multiple frame offset.

The base station shall set this field to the multiple frame offset of this Forward Supplemental Channel. The frames of this Forward Supplemental Channel are delayed by (FRAME_OFFSET × 1.25 + FOR_SCH_FRAME_OFFSET × 20) ms relative to system timing (see [2]).

REV_SCH_INCL  -  Reverse Supplemental Channel information included indicator.

The base station shall set this field to ‘1’ if the reverse Supplemental Channel information is included; otherwise, the base station shall set this field to ‘0’.

NUM_REV_SCH  -  Number of Reverse Supplemental Channels.

If the REV_SCH_INCL field is set to ‘0’, the base station shall omit this field; otherwise, the base station shall set this field to the number of Reverse Supplemental Channels associated with this service configuration.

If the NUM_REV_SCH field is present and is set to any value other than ‘00’, the base station shall include one occurrence of the following four field record for each Reverse Supplemental Channel included in this record:

REV_SCH_ID  -  Reverse Supplemental Channel Identification.

The base station shall set this field to the identifier of the Reverse Supplemental Channel pertaining to this record.

REV_SCH_FRAME_OFFSET  -  Reverse Supplemental Channel multiple frame offset.

The base station shall set this field to the multiple frame offset with this Reverse Supplemental Channel. The frames of this Reverse Supplemental Channel are delayed by (FRAME_OFFSET × 1.25 + REV_SCH_FRAME_OFFSET × 20) ms relative to system timing (see [2]).

LPM_IND  -  Logical to Physical Mapping indicator.

The base station shall set this field to the LPM_IND field value shown in Table 3.7.5.20-2 corresponding to the Logical to Physical Mapping indicator.

The base station shall not set this field to ‘00’ if there is more than one service option connection in the current Service Configuration information record.
Table 3.7.5.20-2. Logical to Physical Mapping indicator

<table>
<thead>
<tr>
<th>LPM_IND Field (binary)</th>
<th>Logical-to-Physical Mapping indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>Use the default Logic-to-Physical Mapping</td>
</tr>
<tr>
<td>01</td>
<td>Use the Logic-to-Physical Mapping included in this record</td>
</tr>
<tr>
<td>10</td>
<td>Use the previous stored Logic-to-Physical Mapping</td>
</tr>
<tr>
<td>11</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

NUM_LPM_ENTRIES - Number of Logical-to-Physical Mapping entries.

If the LPM_IND field is set to ‘01’, the base station shall include this field and set it as follows; otherwise, the base station shall omit this field:

The base station shall set this field to the number of Logical-to-Physical Mapping entries that are included in this record.

If the NUM_LPM_ENTRIES field is included and is not equal to ‘0000’, the base station shall include NUM_LPM_ENTRIES occurrences of the following six-field record for each Logical-to-Physical Mapping entry:

SR_ID - Service reference identifier.

The base station shall set this field to the identifier of the service reference to which this Logical to Physical Mapping entry applies.

LOGICAL_RESOURCE - Logical resource identifier.

The base station shall set this field to the logical resource identifier shown in Table 3.7.5.20-3 which is to be mapped by this Logical to Physical Mapping entry.

Table 3.7.5.20-3. Logical Resource Identifier.

<table>
<thead>
<tr>
<th>LOGICAL_RESOURCE (binary)</th>
<th>Logical Resource</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000</td>
<td>dtch</td>
</tr>
<tr>
<td>0001</td>
<td>dsch</td>
</tr>
<tr>
<td>0010 – 1111</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

PHYSICAL_RESOURCE - Physical resource identifier.
The base station shall set this field to the physical resource identifier shown in Table 3.7.5.20-4 to which the logical channel specified in this Logical to Physical Mapping entry is to be mapped.

**Table 3.7.5.20-4. Physical Resource Identifier.**

<table>
<thead>
<tr>
<th>PHYSICAL_RESOURCE (binary)</th>
<th>Physical Resource</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000</td>
<td>FCH</td>
</tr>
<tr>
<td>0001</td>
<td>DCCH</td>
</tr>
<tr>
<td>0010</td>
<td>SCH0</td>
</tr>
<tr>
<td>0011</td>
<td>SCH1</td>
</tr>
<tr>
<td>0100 – 1111</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

FORWARD_FLAG - Forward mapping indicator.

The base station shall set this field to ‘1’ if the logical to physical channel mapping specified in this record applies to forward logical channels; otherwise, the base station shall set this field to ‘0’.

REVERSE_FLAG - Reverse mapping indicator.

The base station shall set this field to ‘1’ if the logical to physical channel mapping specified in this record applies to reverse logical channels; otherwise, the base station shall set this field to ‘0’.

PRIORITY - Multiplexing priority.

The base station shall set this field to ‘0000’.

NUM_REC - Number of service-specific records.

The base station shall set this field to the number of the following variable-length records included in the message.

The base station shall include one occurrence of the following variable-length record for each service option connection for which this record needs to be specified.

RECORD_LEN - Record length.

The base station shall set this field to the number of octets included in this variable-length record including this field.

SR_ID - Service reference identifier.

The base station shall set this field to the identifier of the service reference associated with this service-specific record.

SDB_SO_OMIT - Short Data Burst service option number omitted indicator.
The base station shall set this field to ‘1’ if the mobile station is required to omit the service option number when sending Short Data Burst (see IS-707-A-2) for this service option connection; otherwise, the base station shall set this field to ‘0’.

RESERVED - Reserved bits.

The base station shall add reserved bits as needed in order to make the length of this record equal to an integer number of octets. The base station shall set these bits to ‘0’.

USE_FLEX_NUM_BITS - Use flexible (non-default) number of bits per frame indicator.

The base station shall set this field to ‘0’ to indicate that the mapping between the number of information bits per frame \([NUM_BITS]\), and a four-bit index field \([NUMBITS_IDX]\), shall follow the default mapping identified in Table 3.7.3.3.2.37-2 and Table 3.7.3.3.2.37-4.

The base station shall set this field to ‘1’ to indicate a non-default mapping between the number of information bits per frame, \([NUMBITS]\), and a four-bit index field \([NUMBITS_IDX]\) is specified in this message used for at least a forward or reverse traffic channel.

USE_OLD_FLEXNUM_BITS TABLES_INCL - Use the previously downloaded Flexible Rate Tables included indicator.

If the USE_FLEX_NUM_BITS field is equal to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set this field as follows:

The base station shall include this field only if USE_FLEX_NUM_BITS is equal to ‘1’. If this field is included, the base station shall set this field to ‘1’ to indicate that the mobile station is to use the previously downloaded Flexible Rate Table. The base station shall set this field to ‘0’ if the fields related to downloading the Flexible Rate Table are included in this message. If the Flexible Rate Table are included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

NUM_BITS-_TABLES_COUNT - Number of instances of the Flexible Rate Table included in this message.
If the NUM_BITS_TABLES_INCL field is included and is equal to '1', the base station shall include this field only if the USE_OLD_FLEX_TABLE field is included and is set to '0'. If this field is included, the base station shall and set this field to one less than the number of instances of the Flexible Rate Table included in this message; otherwise, the base station shall omit this field.

If USE_OLD_FLEXNUM_TABLES_INCL is included and is equal to '01', the base station shall include NUM_BITS_TABLES_COUNT+1 instances of the Flexible Rate Table

**NUM_BITS_TABLE_ID** - Flexible Rate Table ID.

The base station shall set this field to the ID of the Flexible Rate Table that follows. The value of '0000' is reserved to indicate the default table. The base station shall not set this field to '0000'.

**NUM_RECS** - Number of records in the Flexible Rate Table.

The base station shall set this field to one less than the number of three-field records that follows.

The base station shall include NUM_RECS+1 instances of the following three-fields record:

**NUM_BITS_IDX** - Index to the number of bits array.

The base station shall set this field to the index to the array that identifies the number of bits per frame.

**NUM_BITS** - Number of bits array.

The base station shall set this field to the number of information bits per frame corresponding to the index specified by NUM_BITS_IDX. The base station shall set the number of information bits per frame in accordance with the number of information bits per frame specified by the service option numbers included in the service configuration record.

**CRC_LEN_IDX** - Array of Number of CRC bits.

The base station shall set this field to specify the number of CRC bits per frame corresponding to the index specified by NUM_BITS_IDX according to Table 3.7.5.20-4. The base station shall not specify more than one value of the CRC length for the same number of bits per frame for a specific channel (i.e., for a given channel, the number of information bits per frame uniquely specifies the length of the CRC field).
Table 3.7.5.20-4. CRC_LEN_IDX

<table>
<thead>
<tr>
<th>CRC_LEN_IDX (binary)</th>
<th>Number of CRC bits per frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>0</td>
</tr>
<tr>
<td>001</td>
<td>6</td>
</tr>
<tr>
<td>010</td>
<td>8</td>
</tr>
<tr>
<td>011</td>
<td>10</td>
</tr>
<tr>
<td>100</td>
<td>12</td>
</tr>
<tr>
<td>101</td>
<td>16</td>
</tr>
<tr>
<td>110-111</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

USE_VAR_RATE - Use variable rate on supplemental channels indicator.

The base station shall set this field to '1' to indicate that at least one of the forward or reverse supplemental channels is to operate in the variable rate mode (i.e., the rate of the supplemental channel can be picked from a pre-determined set of rates autonomously).

The base station shall set this bit to '0' to indicate that variable rate on supplemental channels are not allowed.

USE_OLD_VAR_TABLES_INCL - Use the previously downloaded Variable Rate Tables included indicator.

If the USE_VAR_RATE field is equal to '0', the base station shall omit this field; otherwise, the base station shall include this field and set this field as follows:

The base station shall include this field only if USE_VAR_RATE is equal to ‘1’. If this field is included, the base station shall set this field to ‘1’ to indicate that the mobile station is to use the previously downloaded Variable Rate Mask Table. The base station shall set this field to ‘0’ if the fields related to downloading the Variable Rate Mask Table are included in this message. If the Variable Rate Tables are included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

VAR_RATE_TABLES_COUNT - Number of instances of the Variable Rate Mask Table included in this message.
If VAR_TABLES_INCL is included and is equal to ‘1’, the base station shall include this field and set this field to one less than the number of instances of the Variable Rate Mask table included in this message as follows; otherwise, the base station shall omit this field:

The base station shall include this field only if USE_OLD_VAR_TABLE field is included and is set to ‘0’. If this field is included, the base station shall set this field to one less than the number of instances of the Variable Rate Mask table included in this message as follows.

If USE_OLD_VAR_TABLES_INCL is included and is equal to ‘1’, the base station shall include VAR_RATE_TABLES_COUNT +1 instances of the Variable Rate Mask table

VAR_RATE_TABLE_ID  - Variable Rate Mask table ID.

The base station shall set this field to the ID of the Variable Rate Mask table that follows. The value of ‘000’ is reserved to indicate no variable rate operation. The base station shall not set this field to ‘000’.

NUM_RECS  - Number of records in the Variable Rate Mask table.

The base station shall set this field to one less than the number of two-field records that follows

The base station shall include NUM_RECS+1 instances of the following two fields:

NUM_BITS_IDX  - Index to the number of bits array.

The base station shall set this field to the index to the array that identifies the number of bits per supplemental channel frame.

MASK  - Number of bits array.

The base station shall set this field to a mask that identifies the other members of the Variable Rate Set. The base station shall set the $i^{th}$ LSB bit ($i=1, ..., NUM_BITS_IDX$) of this field to ‘1’ to indicates that the number of bits per frame specified by the index NUM_BITS_IDX-$i$ is to be included in the Supplemental Variable Rate Set.

USE_OLD-_FLEX_MAPPING  - Use the previously downloaded mapping between the channels and Flexible Rate Tables.

If the USE_FLEX_NUM_BITS field is equal to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set this field as follows:
The base station shall include this field only if USE_FLEX_NUM_BITS field is set to '1'. If this field is included, the base station shall set this field to '1' to indicate that the mobile station is to use the previously downloaded mapping between the channels and Flexible Rate Tables. The base station shall set this field to '0', if the following eight fields are included in this message.

**FSCH0_NBIT_TABLE_ID** - Forward Supplemental Channel 0 Flexible Rate Table ID.

If the USE_OLD_FLEX_MAPPING field is included and is equal to '0', the base station shall include this field and set this field as follows; otherwise, the base station shall omit this field:

The base station shall include this field only if USE_OLD_FLEX_MAPPING field is included and is set to '0'. If this field is included, the base station shall set this field to the ID of the Flexible Rate Table corresponding to Forward Supplemental Channel 0. The base station shall set this field to '0000' to indicate that the Flexible Rate feature is not used for Forward Supplemental 0 and the default table specified in 3.7.3.3.2.37-4 shall be used.

**RSCH0_NBIT_TABLE_ID** - Reverse Supplemental Channel 0 Flexible Rate Table ID.

If the USE_OLD_FLEX_MAPPING field is included and is equal to '0', the base station shall include this field and set this field as follows; otherwise, the base station shall omit this field:

The base station shall include this field only if USE_OLD_FLEX_MAPPING field is included and is set to '0'. If this field is included, the base station shall set this field to the ID of the Flexible Rate Table corresponding to Reverse Supplemental Channel 0. The base station shall set this field to '0000' to indicate that the Flexible Rate feature is not used for Reverse Supplemental 0 and the default table specified in 3.7.3.3.2.37-2 shall be used.

**FSCH1_NBIT_TABLE_ID** - Forward Supplemental Channel 1 Flexible Rate Table ID.

If the USE_OLD_FLEX_MAPPING field is included and is equal to '0', the base station shall include this field and set this field as follows; otherwise, the base station shall omit this field:

The base station shall include this field only if USE_OLD_FLEX_MAPPING field is included and is set to '0'. If this field is included, the base station shall set this field to the ID of the Flexible Rate Table corresponding to Forward Supplemental Channel 1. The base station shall set this field to '0000' to indicate that the Flexible Rate feature is not used for Forward Supplemental 1 and the default table specified in 3.7.3.3.2.37-4 shall be used.

**RSCH1_NBIT_TABLE_ID** - Reverse Supplemental Channel 1 Flexible Rate Table ID.
If the USE_OLD_FLEX_MAPPING field is included and is equal to '0', the base station shall include this field and set this field as follows; otherwise, the base station shall omit this field:

The base station shall include this field only if USE_OLD_FLEX_MAPPING field is included and is set to '0'. If this field is included, the base station shall set this field to the ID of the Flexible Rate Table corresponding to Reverse Supplemental Channel 1. The base station shall set this field to '0000' to indicate that the Flexible Rate feature is not used for Reverse Supplemental 1 and the default table specified in 3.7.3.3.2.37-2 shall be used.

FFCH_NBIT_TABLE_ID - Forward Fundamental Channel Flexible Rate Table ID.

If the USE_OLD_FLEX_MAPPING field is included and is equal to '0', the base station shall include this field and set this field as follows; otherwise, the base station shall omit this field:

The base station shall include this field only if USE_OLD_FLEX_MAPPING field is included and is set to '0'. If this field is included, the base station shall set this field to the ID of the Flexible Rate Table corresponding to the Forward Fundamental Channel. The base station shall set this field to '0000' to indicate that the Flexible Rate feature is not used for the Forward Fundamental Channel.

RFCH_NBIT_TABLE_ID - Reverse Fundamental Channel Flexible Rate Table ID.

If the USE_OLD_FLEX_MAPPING field is included and is equal to '0', the base station shall include this field and set this field as follows; otherwise, the base station shall omit this field:

The base station shall include this field only if USE_OLD_FLEX_MAPPING field is included and is set to '0'. If this field is included, the base station shall set this field to the ID of the Flexible Rate Table corresponding to the Reverse Fundamental Channel. The base station shall set this field to '0000' to indicate that the Flexible Rate feature is not used for the Reverse Fundamental Channel.

FDCCH_NBIT_TABLE_ID - Forward Dedicated Control Channel Flexible Rate Table ID.

If the USE_OLD_FLEX_MAPPING field is included and is equal to '0', the base station shall include this field and set this field as follows; otherwise, the base station shall omit this field:

The base station shall include this field only if USE_OLD_FLEX_MAPPING field is included and is set to '0'. If this field is included, the base station shall set this field to the ID of the Flexible Rate Table corresponding to the Forward Dedicated Control Channel. The base station shall set this field to '0000' to indicate that the Flexible Rate feature is not used for the Forward Dedicated Control Channel.
**FDCC_NBITS_IDX** - Forward Dedicated Control Channel number of information bits per frame index.

*If the FDCCH_NBIT_TABLE_ID field is included and is not equal to '0000',*

The base station shall include this field only if the FDCCH_NBITS_TABLE_ID field is included and is not equal to '0000'. If included, the base station shall include this field and set this field to indicate the number of information bits per Forward Dedicated Control Channel frame; otherwise, the base station shall omit this field.

The number of information bits per frame is specified by the Flexible Rate Table associated with Forward Dedicated Control Channel and FDCCH_NBITS_IDX as the index to the table (i.e., NUM_BITSs[FDCCH_NBITS_TABLE_IDr][FDCCH_NBITS_IDX]).

**RDCCH_NBIT_TABLE_ID** - Reverse Dedicated Control Channel Flexible Rate Table ID.

*If the USE_OLD_FLEX_MAPPING field is included and is equal to '0', the base station shall include this field and set this field as follows; otherwise, the base station shall omit this field:*

The base station shall include this field only if USE_OLD_FLEX_MAPPING field is included and is set to '0'. If this field is included, the base station shall set this field to the ID of the Flexible Rate Table corresponding to the Reverse Dedicated Control Channel. The base station shall set this field to '0000' to indicate that the Flexible Rate feature is not used for the Reverse Dedicated Control Channel.

**RDCCH_NBITS_IDX** - Reverse Dedicated Control Channel number of information bits per frame index.

*If the RDCCH_NBIT_TABLE_ID field is included and is not equal to '0000',*

The base station shall include this field only if the RDCCH_NBITS_TABLE_ID field is included and is not equal to '0000'. If included, the base station shall include this field and set this field to indicate the number of information bits per Reverse Dedicated Control Channel frame; otherwise, the base station shall omit this field.

The number of information bits per frame is specified by the Flexible Rate Table associated with Reverse Dedicated Control Channel and RDCCH_NBITS_IDX as the index to the table (i.e., NUM_BITSs[RDCCH_NBITS_TABLE_IDr][RDCCH_NBITS_IDX]).

**USE_OLD_VAR_MAPPING** - Use the previously downloaded mapping between the channels and Variable Rate Mask Tables.
If the USE_VAR_RATE field is equal to '0', the base station shall omit this field; otherwise, the base station shall include this field and set this field as follows: only if USE_VAR_RATE field is set to '1'. If this field is included, the base station shall set this field to '1' to indicate that the mobile station is to use the previously downloaded mapping between the channels and Variable Rate Mask Tables. The base station shall set this field to '0', if the following four fields are included in this message.

FSCH0_VAR_TABLE_ID - Forward Supplemental Channel 0 Variable Rate Mask Table ID.

If the USE_OLD_VAR_MAPPING field is included and is equal to '0', the base station shall include this field and set this field as follows; otherwise, the base station shall omit this field:

The base station shall include this field only if USE_OLD_VAR_MAPPING field is included and is set to '1'. If this field is included, the base station shall set this field to the ID of the Variable Rate Mask Table corresponding to Forward Supplemental Channel 0. The base station shall set this field to '000' to indicate that no variable rate operation is performed on the F-SCH0.

RSCH0_VAR_TABLE_ID - Reverse Supplemental Channel 0 Variable Rate Mask Table ID.

If the USE_OLD_VAR_MAPPING field is included and is equal to '0', the base station shall include this field and set this field as follows; otherwise, the base station shall omit this field:

The base station shall include this field only if USE_OLD_VAR_MAPPING field is included and is set to '1'. If this field is included, the base station shall set this field to the ID of the Variable Rate Mask Table corresponding to Reverse Supplemental Channel 0. The base station shall set this field to '000' to indicate that the mobile station is not to autonomously change the rate of the R-SCH0.

FSCH1_VAR_TABLE_ID - Forward Supplemental Channel 1 Variable Rate Mask Table ID.

If the USE_OLD_VAR_MAPPING field is included and is equal to '0', the base station shall include this field and set this field as follows; otherwise, the base station shall omit this field:
The base station shall include this field only if the USE_OLD_VAR_MAPPING field is included and is set to ‘1’. If this field is included, the base station shall set this field to the ID of the Variable Rate Mask Table corresponding to Forward Supplemental Channel 1. The base station shall set this field to ‘000’ to indicate that no variable rate operation is performed on the F-SCH1.

RSCH1_VAR_TABLE_ID - Reverse Supplemental Channel 1 Variable Rate Mask Table ID.
If the USE_OLD_VAR_MAPPING field is included and is equal to ‘0’, the base station shall include this field and set this field as follows; otherwise, the base station shall omit this field:

The base station shall include this field only if the USE_OLD_VAR_MAPPING field is included and is set to ‘1’. If this field is included, the base station shall set this field to the ID of the Variable Rate Mask Table corresponding to Reverse Supplemental Channel 1. The base station shall set this field to ‘000’ to indicate that the mobile station is not to autonomously change the rate of the R-SCH1.

R_INC_RATE_ALLOWED - Reverse increase rate within Variable Rate Set Allowed indicator.
If the USE_VAR_RATE field is included and is equal to ‘1’, the base station shall include this field and set this field as follows; otherwise, the base station shall omit this field:

The base station shall include this field only if the USE_VAR_RATE field is included and is set to ‘1’. If this field is included, the base station shall set this field to ‘1’ to indicate that the mobile station is allowed to switch between any of the rates (i.e., number of bits per frame) in the Variable Rate Set for the Reverse Supplemental channels. The base station shall set this field to ‘0’ to indicate that only a downward transition in rate within the rates (i.e., number of bits per frame) in the Variable Rate Set for the Reverse Supplemental channels is allowed.

F_INC_RATE_ALLOWED - Forward increase rate within Variable Rate Set Allowed indicator.
If the USE_VAR_RATE field is included and is equal to ‘1’, the base station shall include this field and set this field as follows; otherwise, the base station shall omit this field:
The base station shall include this field only if USE_VAR_RATE field is included and is set to ‘1’. If this field is included, the base station shall set this field to ‘1’ to indicate that the base station is allowed to switch between any of the rates (i.e., number of bits per frame) in the Variable Rate Set for the Forward Supplemental channels. The base station shall set this field to ‘0’ to indicate that only a downward transition in rate within the rates (i.e., number of bits per frame) in the Variable Rate Set for the Forward Supplemental channels is possible.

**LTU_INFO_INC** - LTU Size Tables included indicator.

The base station shall set this field to ‘1’ if the base station includes LTU Size Table information in this message; otherwise, the base station shall set this field to ‘0’. The base station shall include at least one LTU Size Table if USE_FLEX_NUM_BITS is equal to ‘1’ and at least one of FSCH0_NBIT_TABLE_ID, FSCH1_NBIT_TABLE_ID, RSCH0_NBIT_TABLE_ID, or RSCH1_NBIT_TABLE_ID is not equal to ‘0000’ (i.e., the base station is to specify the LTU size table for the supplemental channels that are using the flexible rate feature).

The base station shall set this field to ‘0’ if the mobile station indicates that it does not support downloadable LTU Table in the capability information (i.e., the F_SCH_LTU_TAB_SUPPORTED and R_SCH_LTU_TAB_SUPPORTED fields in the capability information are equal to ‘0’).

**USE_OLD_LTU_TABLES_INCL** - Use the previously downloaded LTU Tables included indicator.

If the LTU_INFO_INC field is equal to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set this field as follows:

The base station shall include this field only if USE_FLEX_NUM_BITS is equal to ‘1’ and LTU_INFO_INC is equal to ‘1’. If this field is included, the base station shall set this field to ‘1’ to indicate that the mobile station is to use the previously downloaded LTU Table. The base station shall set this field to ‘0’ if the fields related to downloading the LTU Table are included in this message. If the LTU Tables are included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.
If `USE_OLD_LTU_TABLES_INCL` is included and is equal to '01', the base station shall include the following fields related to the LTU Size Table information:

- **NUM_LTU_TABLES** - Number of LTU tables included.
  
  If `USE_OLD_LTU_TABLE` is equal to '0', the base station shall include this field. If this field is included, the base station shall set this field to the number of LTU Tables minus one included in this message.

If `USE_OLD_LTU_TABLES_INCL` is included and is equal to '01', then the base station shall include **NUM_LTU_TABLES + 1** occurrences of the following fields:

- **LTU_TABLE_ID** - LTU Table ID.
  
  The base station shall set this field to the ID of the LTU Table that follows. The base station shall not set this field to '000'.

- **NUM_ROWS** - Number of configurations associated with the LTU Table identified by LTU_TABLE_ID.
  
  The base station shall set this field to one less than the number of rows of the LTU Table identified by LTU_TABLE_ID.

If `USE_OLD_LTU_TABLES_INCL` is included and is equal to '01', then the base station shall include the **NUM_ROWS + 1** occurrences of the following fields:

- **NBITS_IDX** - Number of bits per frame index.
  
  The base station shall set this field to the 4-bit index that specified the number of information bits per supplemental channel frame.

- **NUM_LTUS_LEN** - Length Number of the LTUs per physical layer supplemental channel frame.
  
  The base station shall set this field to the length specify the number of LTUs per physical layer supplemental channel frame (in units of bits) corresponding to the number of information bits per supplemental channel frame specified by `NBITS_IDX` according to Table 3.7.5.20-5. The base station shall set this field to '0000' to indicate that no LTUs are supported for the number of information bits per frame specified by `NBITS_IDX`. 
Table 3.7.5.20-5. NUM_LTUS

<table>
<thead>
<tr>
<th>NUM_LTUS (binary)</th>
<th>Number of LTUS per supplemental channel frame</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000</td>
<td>0</td>
</tr>
<tr>
<td>0001</td>
<td>2</td>
</tr>
<tr>
<td>0010</td>
<td>3</td>
</tr>
<tr>
<td>0011</td>
<td>4</td>
</tr>
<tr>
<td>0100</td>
<td>5</td>
</tr>
<tr>
<td>0101</td>
<td>6</td>
</tr>
<tr>
<td>0110</td>
<td>7</td>
</tr>
<tr>
<td>0111</td>
<td>8</td>
</tr>
<tr>
<td>1000-1111</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

USE_OLD_LTU_MAPPING - Use the previously downloaded mapping between the channels and LTU Tables.

If the LTU_INFO_INCL field is equal to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set this field as follows:

The base station shall include this field only if USE_FLEX_NUM_BITS is equal to ‘1’ and at least one of FSCH0_NBIT_TABLE_ID, FSCH1_NBIT_TABLE_ID, RSCH0_NBIT_TABLE_ID, or RSCH1_NBIT_TABLE_ID is not equal to ‘0000’ (i.e., the base station is to specify the LTU size table for the supplemental channels that are using the flexible rate feature). If this field is included, the base station shall set this field to ‘1’ to indicate that the mobile station is to use the previously downloaded mapping between the channels and LTU Tables. The base station shall set this field to ‘0’ if the following four fields are included in this message.

FSCH0_LTU_TAB_ID - Forward Supplemental Channel LTU Size Table ID.
If USE_OLD_LTU_MAPPING is included and is equal to ‘0’, the base station shall include this field and set this field as follows: otherwise, the base station shall omit this field. If this field is included, the base station shall set this field to the LTU Table ID to be used for the Forward Supplemental Channel 0. The base station shall set this field to ‘000’ to indicate that the default number of LTU sizes are to be used [see [3]] (The default LTU size is not applicable to supplemental channels with multiplex options that use MuxPDU Type 5; see [3]). The base station shall set this field to ‘000’ if MuxPDU Type 5 is not used on this channel [see [3]].

RSCH0_LTU_TAB_ID - Reverse Supplemental Channel LTU Size Table ID.

If USE_OLD_LTU_MAPPING is included and is equal to ‘0’, the base station shall include this field and set this field as follows: otherwise, the base station shall omit this field. If this field is included, the base station shall set this field to the LTU Table ID to be used for the Reverse Supplemental Channel 0. The base station shall set this field to ‘000’ to indicate that the default number of LTU sizes are to be used [see [3]] (The default LTU size is not applicable to supplemental channels with multiplex options that use MuxPDU Type 5; see [3]). The base station shall set this field to ‘000’ if MuxPDU Type 5 is not used on this channel [see [3]].

FSCH1_LTU_TAB_ID - Forward Supplemental Channel LTU Size Table ID.

If USE_OLD_LTU_MAPPING is included and is equal to ‘0’, the base station shall include this field and set this field as follows: otherwise, the base station shall omit this field. If this field is included, the base station shall set this field to the LTU Table ID to be used for the Forward Supplemental Channel 1. The base station shall set this field to ‘000’ to indicate that the default number of LTU sizes are to be used [see [3]] (The default LTU size is not applicable to supplemental channels with multiplex options that use MuxPDU Type 5; see [3]). The base station shall set this field to ‘000’ if MuxPDU Type 5 is not used on this channel [see [3]].

RSCH1_LTU_TAB_ID - Reverse Supplemental Channel LTU Size Table ID.
If USE_OLD_LTU_MAPPING is included and is equal to ‘0’, the base station shall include this field and set this field as follows; otherwise, the base station shall omit this field:

If this field is included, the base station shall set this field to the LTU Table ID to be used for the Reverse Supplemental Channel 1. The base station shall set this field to ‘000’ to indicate that the default number of LTUs sizes are to be used (see [3]). The default LTU size is not applicable to supplemental channels with multiplex options that use MuxPDU Type 5; see [3]). The base station shall set this field to ‘000’ if MuxPDU Type 5 is not used on this channel (see [3]).

USE_OLD-

PARTITION_TABLES_INFO_INCL - Use the previously downloaded Partition Tables information included indicator.

If USE_FLEX_NUM_BITS is equal to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set this field as follows:

If Partition Tables information is included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

The base station shall include this field only if USE_FLEX_NUM_BITS is equal to ‘1’ and at least one of FFCH_NBIT_TABLE_ID, RFCH_NBIT_TABLE_ID, FDCCH_NBIT_TABLE_ID, or RDCCH_NBIT_TABLE_ID is not equal to ‘0000’. If this field is included, the base station shall set this field to ‘1’ to indicate that the mobile station is to use the previously downloaded Partition Table. The base station shall set this field to ‘0’ if the fields related to downloading the Partition Table are included in this message.

PARTITION_TABLES_INCL - Partition Tables included indicator.

If PARTITION_TABLES_INFO_INCL is equal to ‘0’, the base station shall omit this field; otherwise, the base station shall include this field and set this field as follows:

If the Partition Tables are included in this message, the base station shall set this field to ‘1’; otherwise, the base station shall set this field to ‘0’.

If USE_OLD-PARTITION_TABLES_INCL is included and is equal to ‘01’, then the base station shall include the following fields

NUM-

_PARTITION_TABLES - Number of partition tables.
If `USE_OLD_PARTITION_TABLE` is equal to ‘0’, then the base station shall include this field. If this field is included, the base station shall set this field to one less than the number of Partition Tables corresponding to an FCH or DCCH included in this message.

If `USE_OLD_PARTITION_TABLES_INCL` is included and is equal to ‘0’, then the base station shall include the `NUM_PARTITION_TABLES` + 1 occurrences of the following fields:

- **PARTITION_TABLE_ID** - Partition Table ID.
  - The base station shall set this field to the ID of the Partition Table that follows. The base station shall not set this field to ‘000’.

- **NUM_ROWS** - Number of configurations associated with the Partition Table identified by `PARTITION_TABLE_ID`.
  - The base station shall set this field to one less than the number of rows of the Partition Table identified by `PARTITION_TABLE_ID`.

If `USE_OLD_PARTITION_TABLES_INCL` is included and is equal to ‘0’, then the base station shall include `NUM_ROWS` + 1 occurrences of the following fields:

- **CATEGORY** - Category number.
  - The base station shall set this field to the category number of the entry of the Partition Table identified by number of bits per each service as specified below. The base station shall not set this field to ‘00001’ or ‘00010’. The base station shall place rows of the Partition Table corresponding to the same number of total information bits per frame consecutively. See [3].

- **MUX_HEADER_LEN** - Multiplex Sublayer Header Length.
  - The base station shall set this field to the length of the multiplex sublayer header corresponding to the entry of the Partition Table identified by number of bits per each service as specified below.

- **MUX_HEADER** - Multiplex Sublayer Header.
  - The base station shall set this field to the multiplex sublayer header corresponding to the entry of the Partition Table identified by number of bits per each service as specified below.²

---

² The values of the MUX HEADER corresponding to a specific number of bits per frame, shall be encoded using prefix-free codes. Prefix-free code is defined to be a code constructed so that any partial code word, beginning at the start of a code word but terminating prior to the end of that code word, is not a valid code word.
NUM_PARTITIONS - Number of partitions.

The base station shall set this field to one less than the number of partitions corresponding to each service (including signaling) included in the entry of the Partition Table identified by CATEGORY.

If USE_OLD_PARTITION_TABLES_INCL is included and is equal to ‘10’, then the base station shall include NUM_PARTITIONS + 1 occurrences of the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR_ID</td>
<td>Service Reference ID.</td>
</tr>
<tr>
<td>SRV_NUM_BITS</td>
<td>Number of bits allocated to the service.</td>
</tr>
</tbody>
</table>

The base station shall set this field to the sr_id of the service (sr_id = ‘000’ for signaling) present in this category.

USE_OLD_PART_MAPPING - Use the previously downloaded mapping between the channels and Partition Tables.

The base station shall include this field only if USE_FLEX_NUM_BITS is equal to ‘1’ PARTITION_TABLES_INFO_INCL is equal to ‘1’ and the base station shall set this field as follows; otherwise, the base station shall omit this field.

and at least one of FFCH_NBIT_TABLE_ID, RFCH_NBIT_TABLE_ID, FDCCH_NBIT_TABLE_ID, or RDCCH_NBIT_TABLE_ID is not equal to ‘0000’. If this field is included, the base station shall set this field to ‘1’ to indicate that the mobile station is to use the previously downloaded mapping between the channels and Partition Tables. The base station shall set this field to ‘0’, if the following four fields are included in this message.

<table>
<thead>
<tr>
<th>Field</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FFCH_PART_TAB_ID</td>
<td>Forward Fundamental Channel Partition Table ID.</td>
</tr>
</tbody>
</table>

If USE_OLD_PART_MAPPING is included and is equal to ‘0’, the base station shall include this field and set this field as follows; otherwise, the base station shall omit this field:

--If this field is included, the base station shall set this field to the Partition Table ID to be used for the Forward Fundamental Channel. The base station shall set this field to ‘000’ to indicate that the default number of bits per service is
RFCH_PART_TAB_ID - Reverse Fundamental Channel Partition Table ID.

If USE_OLD_PART_MAPPING is included and is equal to ‘0’, the base station shall include this field and set this field as follows; otherwise, the base station shall omit this field:

- If this field is included, the base station shall set this field to the Partition Table ID to be used for the Reverse Fundamental Channel. The base station shall set this field to ‘000’ to indicate that the default number of bits per service is to be used (see MuxPDU Type 1 and 2 Categories and Formats for the FCH and DCCH in [3]). The base station shall set this field to a value other than ‘000’ if the RFCH_NBIT_TABLE_ID field is included in this message and is not set to ‘0000’.

FDCCH_PART_TAB_ID - Forward Dedicated Control Channel Partition Table ID.

If USE_OLD_PART_MAPPING is included and is equal to ‘0’, the base station shall include this field and set this field as follows; otherwise, the base station shall omit this field:

- If this field is included, the base station shall set this field to the Partition Table ID to be used for the Forward Dedicated Control Channel. The base station shall set this field to ‘000’ to indicate that the default number of bits per service is to be used (see MuxPDU Type 1 and 2 Categories and Formats for the FCH and DCCH in [3]). The base station shall set this field to a value other than ‘000’ if the FDCCH_NBIT_TABLE_ID field is included in this message and is not set to ‘0000’.

RDCCH_PART_TAB_ID - Reverse Dedicated Control Channel Partition Table ID.

If USE_OLD_PART_MAPPING is included and is equal to ‘0’, the base station shall include this field and set this field as follows; otherwise, the base station shall omit this field:

- If this field is included, the base station shall set this field to the Partition Table ID to be used for the Reverse Dedicated Control Channel. The base station shall set this field to ‘000’ to indicate that the default number of bits per service is to be used (see MuxPDU Type 1 and 2 Categories and Formats for the FCH and DCCH in [3]). The base station shall set this field to a value other than ‘000’ if the RDCCH_NBIT_TABLE_ID field is included in this message and
is not set to ‘0000’.

- RESERVED - Reserved bits.

The base station shall add reserved bits as needed in order to make the length of the entire record equal to an integer number of octets. The base station shall set these bits to ‘0’.
3.7.5.21 Multiple Character Extended Display

This information record allows the network to supply supplementary service multiple character display information that may be displayed by the mobile station.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC_EXT_DISPLAY_IND</td>
<td>1</td>
</tr>
<tr>
<td>DISPLAY_TYPE</td>
<td>7</td>
</tr>
</tbody>
</table>

One or more occurrences of the following record:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DISPLAY_TAG</td>
<td>8</td>
</tr>
<tr>
<td>NUM_RECORD</td>
<td>8</td>
</tr>
</tbody>
</table>

NUM_RECORD occurrences of the following record if the DISPLAY_TAG field is not equal to ‘10000000’ or ‘10000001’:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DISPLAY_ENCODING</td>
<td>8</td>
</tr>
<tr>
<td>NUM_FIELDS</td>
<td>8</td>
</tr>
</tbody>
</table>

NUM_FIELDS occurrences of the following field:

| CHARi         | Variable  |

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>RESERVED</td>
<td>0 - 7</td>
</tr>
</tbody>
</table>

- **MC_EXT_DISPLAY_IND** - The indicator of Multiple Character Extended Display information record. The base station shall set this field to ‘1’.
- **DISPLAY_TYPE** - The type of display. The base station shall set this field to the DISPLAY_TYPE value shown in Table 3.7.5.16-1 corresponding to the type of display, as defined in [8] Annex D.
- **DISPLAY_TAG** - The indicator of the display information. There are three types of display tags: mandatory control tags (Blank and Skip), display text tags, and optional control tags, see [8] Annex D. The base station shall set this field to the DISPLAY_TAG value shown in Table 3.7.5.16-2 corresponding to the type of information contained in the following CHARi field, as defined in [8] Annex D.
- **NUM_RECORD** - The number of records displaying. The base station shall set this field to the number of records of display text.
DISPLAY_ENCODING - Display encoding.

See [30].

Support of an encoding method does not imply that the entire encodable character set must be supported. In general, once the supported character set is determined, various subsets of the character set can be supported. If a message is comprised entirely of characters from a supported subset of a character set, it can be displayed. If a message contains an unsupported character of a character set, it can be discarded.

NUM_FIELDS - Number of occurrences of the CHARi field.

The base station shall set this field to the number of characters included in this record.

CHARi - Character.

The base station shall include NUM_FIELDS occurrences of this field, one for each character to be displayed, except for blank and skip.

RESERVED - Reserved bits.

The base station shall add reserved bits as needed in order to make the length of the entire record equal to an integer number of octets. The base station shall set these bits to '0'.

3-708
3.7.5.22 Call Waiting Indicator

This information record allows the base station to inform the mobile station that a call waiting call is available. This indicator may be used to suppress the generation of the local dial tone in mobile stations that provide locally generated dial tone.

<table>
<thead>
<tr>
<th>Type-Specific Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CALL_WAITING_INDICATOR</td>
<td>1</td>
</tr>
<tr>
<td>RESERVED</td>
<td>7</td>
</tr>
</tbody>
</table>

CALL_WAITING_INDICATOR - Call waiting indicator.

The base station shall set this field to a ‘1’ to indicate to the mobile station that a call is waiting. The base station shall set this field to a ‘0’ if the call waiting call is not answered by the mobile station and the call waiting call goes away.

RESERVED - Reserved bits.

The base station shall set this field to ‘0000000’.
3.7.6 Information Elements

3.7.6.1 Pilot Record Type Specific Fields

If PILOT_REC_TYPE is equal to '000', the Pilot Record Type Specific fields include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TD_POWER_LEVEL</td>
<td>2</td>
</tr>
<tr>
<td>TD_MODE</td>
<td>2</td>
</tr>
<tr>
<td>RESERVED</td>
<td>4</td>
</tr>
</tbody>
</table>

**TD_POWER_LEVEL** - TD transmit power level.

The base station or mobile station shall set this field to the TD transmit power level relative to that of the Forward Pilot Channel, as specified in Table 3.7.6.1-1.

**Table 3.7.6.1-1. TD Transmit Power Level**

<table>
<thead>
<tr>
<th>TD_POWER_LEVEL</th>
<th>Transmit Power Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>9 dB below the Forward Pilot Channel transmit power</td>
</tr>
<tr>
<td>01</td>
<td>6 dB below the Forward Pilot Channel transmit power</td>
</tr>
<tr>
<td>10</td>
<td>3 dB below the Forward Pilot Channel transmit power</td>
</tr>
<tr>
<td>11</td>
<td>Same as the Forward Pilot Channel transmit power</td>
</tr>
</tbody>
</table>

**TD_MODE** - Transmit Diversity mode.

The base station or mobile station shall set this field to the Transmit Diversity mode, as specified in Table 3.7.6.1-2.
Table 3.7.6.1-2. TD Mode

<table>
<thead>
<tr>
<th>TD_MODE</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>OTD (Orthogonal Transmit Diversity) mode</td>
</tr>
<tr>
<td>01</td>
<td>STS (Space Time Spreading) mode</td>
</tr>
<tr>
<td>10-11</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

RESERVED - Reserved bits.
The base station or mobile station shall set this field to ‘000000’.

If PILOT_REC_TYPE is equal to ‘001’, the base station or mobile station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QOF</td>
<td>2</td>
</tr>
<tr>
<td>WALSH_LENGTH</td>
<td>3</td>
</tr>
<tr>
<td>AUX_PILOT_WALSH</td>
<td>WALSH_LENGTH+6</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 to 7 (as needed)</td>
</tr>
</tbody>
</table>

QOF - Quasi-orthogonal function index.
The base station or mobile station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]).

WALSH_LENGTH - Length of the Walsh Code.
The base station or mobile station shall set this field to the WALSH_LENGTH value shown in Table 3.7.6.1-3 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot.
Table 3.7.6.1-3. Walsh Code Length

<table>
<thead>
<tr>
<th>WALSH_LENGTH (binary)</th>
<th>Length of the Walsh Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘000’</td>
<td>64</td>
</tr>
<tr>
<td>‘001’</td>
<td>128</td>
</tr>
<tr>
<td>‘010’</td>
<td>256</td>
</tr>
<tr>
<td>‘011’</td>
<td>512</td>
</tr>
<tr>
<td>‘100’ – ‘111’</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

AUX_PILOT_WALSH - Walsh Code for the Auxiliary Pilot.

The base station or mobile station shall set this field to the Walsh code corresponding to the Auxiliary pilot.

RESERVED - Reserved bits.

The base station or mobile station shall set all the bits of this field to ‘0’ to make the entire record octet-aligned.

If PILOT_REC_TYPE is equal to ‘010’, the base station or mobile station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QOF</td>
<td>2</td>
</tr>
<tr>
<td>WALSH_LENGTH</td>
<td>3</td>
</tr>
<tr>
<td>AUX_WALSH</td>
<td>WALSH_LENGTH+6</td>
</tr>
<tr>
<td>AUX_TD_POWER_LEVEL</td>
<td>2</td>
</tr>
<tr>
<td>TD_MODE</td>
<td>2</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 to 7 (as needed)</td>
</tr>
</tbody>
</table>

QOF - Quasi-orthogonal function index for the Auxiliary Transmit Diversity Pilot.

The base station or mobile station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]).

WALSH_LENGTH - Length of the Walsh code.

The base station or mobile station shall set this field to the WALSH_LENGTH value shown in 3.7.6.1-3 corresponding to the length of the Walsh code for the pilots that are used as Auxiliary pilot in the transmit diversity mode.

AUX_WALSH - Walsh Code for the Auxiliary Pilot.
The base station or mobile station shall set this field to the Walsh code corresponding to the Auxiliary Pilot.

**AUX_TD_Power_Level** - Auxiliary Transmit Diversity Pilot Power Level.

The base station or mobile station shall set this field to the Auxiliary Transmit Diversity Pilot transmit power level relative to that of the Auxiliary Pilot as specified in Table 3.7.6.1-4.

<table>
<thead>
<tr>
<th>AUX_TD_POWER_LEVEL</th>
<th>Transmit Power Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>9 dB below the Auxiliary Pilot Channel transmit power</td>
</tr>
<tr>
<td>01</td>
<td>6 dB below the Auxiliary Pilot Channel transmit power</td>
</tr>
<tr>
<td>10</td>
<td>3 dB below the Auxiliary Pilot Channel transmit power</td>
</tr>
<tr>
<td>11</td>
<td>Same as the Auxiliary Pilot Channel transmit power</td>
</tr>
</tbody>
</table>

**TD_MODE** - Transmit Diversity mode.

The base station or mobile station shall set this field to the Transmit Diversity mode, as specified in Table 3.7.6.1-2.

**RESERVED** - Reserved bits.

The base station or mobile station shall set all the bits of this field to ‘0’ to make the entire record octet-aligned.

If PILOT_REC_TYPE is equal to ‘011’, the base station or mobile station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR3_PRIMARY_PILOT</td>
<td>2</td>
</tr>
<tr>
<td>SR3_PILOT_POWER1</td>
<td>3</td>
</tr>
<tr>
<td>SR3_PILOT_POWER2</td>
<td>3</td>
</tr>
</tbody>
</table>

**SR3_PRIMARY_PILOT** - Primary SR3 pilot.

The base station or mobile station shall set this field to the value shown in Table 3.7.6.1-5 corresponding to the position of the primary SR3 pilot.
Table 3.7.6.1-5. The Position of the Primary SR3 Pilot

<table>
<thead>
<tr>
<th>SR3_PRIMARY_PILOT (Binary)</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>00</td>
<td>The primary pilot is on the lowest SR3 frequency</td>
</tr>
<tr>
<td>01</td>
<td>The primary pilot is on the center SR3 frequency</td>
</tr>
<tr>
<td>10</td>
<td>The primary pilot is on the highest SR3 frequency</td>
</tr>
<tr>
<td>11</td>
<td>Reserved</td>
</tr>
</tbody>
</table>

SR3_PILOT_POWER1 – The primary SR3 pilot power level relative to that of the pilot on the lower frequency of the two remaining SR3 frequencies.

The base station or mobile station shall set this field to the value shown in Table 3.7.6.1-6 corresponding to the power level of the primary pilot with respect to the pilot on the lower frequency of the two remaining SR3 frequencies.

Table 3.7.6.1-6. Pilot Transmission Power

<table>
<thead>
<tr>
<th>SR3_PILOT_POWER1, SR3_PILOT_POWER2 (Binary)</th>
<th>Relative Transmission Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>000</td>
<td>0dB</td>
</tr>
<tr>
<td>001</td>
<td>1dB</td>
</tr>
<tr>
<td>010</td>
<td>2dB</td>
</tr>
<tr>
<td>011</td>
<td>3dB</td>
</tr>
<tr>
<td>100</td>
<td>4dB</td>
</tr>
<tr>
<td>101</td>
<td>5dB</td>
</tr>
<tr>
<td>110</td>
<td>6dB</td>
</tr>
<tr>
<td>111</td>
<td>7dB</td>
</tr>
</tbody>
</table>

SR3_PILOT_POWER2 – The primary SR3 pilot power level relative to that of the pilot on the higher frequency of the two remaining SR3 frequencies.

The base station or mobile station shall set this field to the value shown in Table 3.7.6.1-6 corresponding to the power level of the primary pilot with respect to the pilot on the higher frequency of the two remaining SR3 frequencies.
If PILOT_REC_TYPE is equal to ‘100’, the base station or mobile station shall include the following fields:

<table>
<thead>
<tr>
<th>Field</th>
<th>Length (bits)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR3_PRIMARY_PILOT</td>
<td>2</td>
</tr>
<tr>
<td>SR3_PILOT_POWER1</td>
<td>3</td>
</tr>
<tr>
<td>SR3_PILOT_POWER2</td>
<td>3</td>
</tr>
<tr>
<td>QOF</td>
<td>2</td>
</tr>
<tr>
<td>WALSH_LENGTH</td>
<td>3</td>
</tr>
<tr>
<td>AUX_PILOT_WALSH</td>
<td>WALSH_LENGTH+6</td>
</tr>
<tr>
<td>ADD_INFO_INCL1</td>
<td>1</td>
</tr>
<tr>
<td>QOF1</td>
<td>0 or 2</td>
</tr>
<tr>
<td>WALSH_LENGTH1</td>
<td>0 or 3</td>
</tr>
<tr>
<td>AUX_PILOT_WALSH1</td>
<td>0 or WALSH_LENGTH1+6</td>
</tr>
<tr>
<td>ADD_INFO_INCL2</td>
<td>1</td>
</tr>
<tr>
<td>QOF2</td>
<td>0 or 2</td>
</tr>
<tr>
<td>WALSH_LENGTH2</td>
<td>0 or 3</td>
</tr>
<tr>
<td>AUX_PILOT_WALSH2</td>
<td>0 or WALSH_LENGTH2+6</td>
</tr>
<tr>
<td>RESERVED</td>
<td>0 – 7 (as needed)</td>
</tr>
</tbody>
</table>

SR3_PRIMARY_PILOT – Primary SR3 pilot.

The base station or mobile station shall set this field to the value shown in Table 3.7.6.1-5 corresponding to the position of the primary SR3 pilot.

SR3_PILOT_POWER1 – The primary SR3 pilot power level relative to that of the pilot on the lower frequency of the two remaining SR3 frequencies.

The base station or mobile station shall set this field to the value shown in Table 3.7.6.1-6 corresponding to the power level of the primary pilot with respect to the pilot on the lower frequency of the two remaining SR3 frequencies.

SR3_PILOT_POWER2 – The primary SR3 pilot power level relative to that of the pilot on the higher frequency of the two remaining SR3 frequencies.

The base station or mobile station shall set this field to the value shown in Table 3.7.6.1-6 corresponding to the power level of the primary pilot with respect to the pilot on the higher frequency of the two remaining SR3 frequencies.
QOF – Quasi-orthogonal function index.

The base station or mobile station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the frequency of the primary pilot.

WALSH_LENGTH – Length of the Walsh Code.

The base station or mobile station shall set this field to the WALSH_LENGTH value shown in Table 3.7.6.1-3 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot on the frequency of the primary pilot.

AUX_PILOT_WALSH – Walsh Code for the Auxiliary Pilot.

The base station or mobile station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the frequency of the primary pilot.

ADD_INFO_INCL1 – Additional information included for the pilot on the lower frequency of the two remaining SR3 frequencies.

If the additional information for the pilot on the lower frequencies of the two remaining SR3 frequencies is the same as pilot on the primary frequency, the base station or mobile station shall set this field to '0'; otherwise, the base station or mobile station shall set this field to ‘1’.

QOF1 – Quasi-orthogonal function index for the pilot on the lower frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL1 is set to ‘0’, the base station or mobile station shall omit this field; otherwise, the base station or mobile station shall set this field as follows:

The base station or mobile station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the lower frequency of the two remaining SR3 frequencies.

WALSH_LENGTH1 - Length of the Walsh Code for the pilot on the lower frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL1 is set to ‘0’, the base station or mobile station shall omit this field; otherwise, the base station or mobile station shall set this field as follows:

The base station or mobile station shall set this field to the WALSH_LENGTH value shown in Table 3.7.6.1-3 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot on the lower frequency of the two remaining SR3 frequencies.

AUX_PILOT_WALSH1 - Walsh Code for the Auxiliary Pilot on the lower frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL1 is set to ‘0’, the base station or mobile station shall omit this field; otherwise, the base station or mobile station shall set this field as follows:
The base station or mobile station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the lower frequency of the two remaining SR3 frequencies.

**ADD_INFO_INCL2** - Additional information included for the pilot on the higher frequency of the two remaining SR3 frequencies.

If the additional information for the pilot on the higher frequencies of the two remaining SR3 frequencies is the same as pilot on the primary frequency, the base station or mobile station shall set this field to ‘0’; otherwise, the base station or mobile station shall set this field to ‘1’.

**QOF2** - Quasi-orthogonal function index for the pilot on the higher frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL2 is set to ‘0’, the base station or mobile station shall omit this field; otherwise, the base station or mobile station shall set this field as follows:

The base station or mobile station shall set this field to the index of the Quasi-orthogonal function (see Table 3.1.3.1.12-2 of [2]) on the higher frequency of the two remaining SR3 frequencies.

**WALSH_LENGTH2** - Length of the Walsh Code for the pilot on the higher frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL2 is set to ‘0’, the base station or mobile station shall omit this field; otherwise, the base station or mobile station shall set this field as follows:

The base station or mobile station shall set this field to the WALSH_LENGTH value shown in Table 3.7.6.1-3 corresponding to the length of the Walsh code for the pilot that is used as the Auxiliary pilot on the higher frequency of the two remaining SR3 frequencies.

**AUX_PILOT_WALSH2** - Walsh Code for the Auxiliary Pilot on the higher frequency of the two remaining SR3 frequencies.

If ADD_INFO_INCL2 is set to ‘0’, the base station or mobile station shall omit this field; otherwise, the base station or mobile station shall set this field as follows:

The base station or mobile station shall set this field to the Walsh code corresponding to the Auxiliary pilot on the higher frequency of the two remaining SR3 frequencies.

**RESERVED** - Reserved bits.

The base station or mobile station shall set all the bits of this field to ‘0’ to make the entire record octet-aligned.
No text.
ANNEX A RESERVED
No text.
ANNEX B CDMA CALL FLOW EXAMPLES

This is an informative annex which contains examples of call flow. The diagrams follow these conventions:

- All messages are received without error
- Receipt of messages is not shown except in the handoff examples
- Acknowledgments are not shown
- Optional authentication procedures are not shown
- Optional private long code transitions are not shown

For the call flow diagrams B-22 through B-31, the following conventions hold:

- The following message acronyms are defined:
  
  **ERRM**: Extended Release Response Message
  
  **ERRMM**: Extended Release Response Mini Message
  
  **RRM**: Resource Request Message
  
  **RRMM**: Resource Request Mini Message
  
  **RRRM**: Resource Release Request Message
  
  **RRRMM**: Resource Release Request Mini Message
  
  **SreqM**: Service Request Message
  
  **SCRM**: Supplemental Channel Request Message
  
  **SCRMM**: Supplemental Channel Request Mini Message
  
  **ERM**: Extended Release Message
  
  **ERMM**: Extended Release Mini Message
  
  **RAM**: Resource Allocation Message
  
  **RAMM**: Resource Allocation Mini Message
  
  **SCM**: Service Connect Message
  
  **GHDM**: General Handoff Direction Message
  
  **UHDM**: Universal Handoff Direction Message
  
  **ESCAM**: Extended Supplemental Channel Assignment Message
  
  **FSCAMM**: Forward Supplemental Channel Assignment Mini Message
RSCAMM: Reverse Supplemental Channel Assignment Mini Message
HCM: (Extended) Handoff Complete Message

<table>
<thead>
<tr>
<th>Mobile Station</th>
<th>Base Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detects user-initiated call.</td>
<td>Sets up Traffic Channel.</td>
</tr>
<tr>
<td>Sends Origination Message.</td>
<td>Begins sending null Traffic Channel data.</td>
</tr>
<tr>
<td>Sets up Traffic Channel.</td>
<td>Sends Channel Assignment Message.</td>
</tr>
<tr>
<td>Receives N5m consecutive valid frames.</td>
<td>Acquires the Reverse Traffic Channel.</td>
</tr>
<tr>
<td>Begins sending the Traffic Channel preamble.</td>
<td>Sends Base Station Acknowledgment Order.</td>
</tr>
<tr>
<td>Begins transmitting null Traffic Channel data.</td>
<td>Sends Service Option Response Order.</td>
</tr>
<tr>
<td>Begins processing primary traffic in accordance with Service Option 1.</td>
<td>Optional</td>
</tr>
<tr>
<td></td>
<td>Optional</td>
</tr>
<tr>
<td>Sends Origination Continuation Message.</td>
<td>Sends Alert With Information Message (tones off).</td>
</tr>
<tr>
<td>Optional</td>
<td>Optional</td>
</tr>
<tr>
<td>Applies ring back in audio path.</td>
<td>Sends Alert With Information Message (ring back tone).</td>
</tr>
<tr>
<td>Optional</td>
<td></td>
</tr>
<tr>
<td>Removes ring back from audio path.</td>
<td></td>
</tr>
</tbody>
</table>

(User conversation)

Figure B-1A. Simple Call Flow, Mobile Station Origination Example Using Service Option Negotiation with Service Option 1
<table>
<thead>
<tr>
<th>Mobile Station</th>
<th>Base Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Detects user-initiated call.</td>
<td>• Sets up Traffic Channel.</td>
</tr>
<tr>
<td>• Sends <em>Origination Message</em>.</td>
<td>• Begins sending null Traffic Channel data.</td>
</tr>
<tr>
<td>• Sets up Traffic Channel.</td>
<td>• Sends <em>Channel Assignment Message</em>.</td>
</tr>
<tr>
<td>• Receives N_{5m} consecutive valid frames.</td>
<td>• Acquires the Reverse Traffic Channel.</td>
</tr>
<tr>
<td>• Begins sending the Traffic Channel preamble.</td>
<td>• Sends <em>Base Station Acknowledgment Order</em>.</td>
</tr>
<tr>
<td>• Begins transmitting null Traffic Channel data.</td>
<td>• Sends <em>Service Connect Message</em>.</td>
</tr>
<tr>
<td>• Begins processing primary traffic in accordance with Service Option 1.</td>
<td></td>
</tr>
<tr>
<td>• Sends <em>Service Connect Completion Message</em>.</td>
<td>Optional</td>
</tr>
<tr>
<td>Optional</td>
<td>• Sends <em>Alert With Information Message</em> (tones off).</td>
</tr>
<tr>
<td>• Sends <em>Origination Continuation Message</em>.</td>
<td>Optional</td>
</tr>
<tr>
<td>Optional</td>
<td>• Sends <em>Alert With Information Message</em> (ring back tone).</td>
</tr>
<tr>
<td>Optional</td>
<td></td>
</tr>
<tr>
<td>• Applies ring back in audio path.</td>
<td></td>
</tr>
<tr>
<td>Optional</td>
<td></td>
</tr>
<tr>
<td>• Removes ring back from audio path.</td>
<td></td>
</tr>
<tr>
<td><em>(User conversation)</em></td>
<td></td>
</tr>
</tbody>
</table>

**Figure B-1B. Simple Call Flow, Mobile Station Origination Example Using Service Negotiation with Service Option 1**
### Mobile Station

- Sends *Page Response Message*.
- Sets up Traffic Channel.
- Receives $N_5m$ consecutive valid frames.
- Begins sending the Traffic Channel preamble.
- Begins transmitting null Traffic Channel data.
- Begins processing primary traffic in accordance with Service Option 1.
- Starts ringing.
- User answers call.
- Stops ringing.
- Sends *Connect Order*.
- Begins sending primary traffic packets from the Service Option 1 application.

(User conversation)

### Base Station

- Sends *General Page Message*.
- Sets up Traffic Channel.
- Begins sending null Traffic Channel data.
- Sends *Channel Assignment Message*.
- Acquires the Reverse Traffic Channel.
- Sends *Base Station Acknowledgment Order*.
- Sends *Service Option Response Order*.
- Sends *Alert With Information Message* (ring).

(User conversation)

---

**Figure B-2A. Simple Call Flow, Mobile Station Termination Example Using Service Option Negotiation with Service Option 1**
### Mobile Station

<table>
<thead>
<tr>
<th>Mobile Station</th>
<th>Base Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Sends <em>Page Response Message</em>.</td>
<td>• Sends <em>General Page Message</em>.</td>
</tr>
<tr>
<td>• Sets up Traffic Channel.</td>
<td>• Sets up Traffic Channel.</td>
</tr>
<tr>
<td>• Receives $N_{5m}$ consecutive valid frames.</td>
<td>• Begins sending null Traffic Channel data.</td>
</tr>
<tr>
<td>• Begins sending the Traffic Channel preamble.</td>
<td>• Sends <em>Channel Assignment Message</em>.</td>
</tr>
<tr>
<td>• Begins transmitting null Traffic Channel data.</td>
<td>• Acquires the Reverse Traffic Channel.</td>
</tr>
<tr>
<td>• Begins processing primary traffic in accordance with Service Option 1.</td>
<td>• Sends <em>Base Station Acknowledgment Order</em>.</td>
</tr>
<tr>
<td>• Sends <em>Service Connect Completion Message</em>.</td>
<td>• Sends <em>Service Connect Message</em>.</td>
</tr>
<tr>
<td>• Starts ringing.</td>
<td>• Sends <em>Alert With Information Message</em> (ring).</td>
</tr>
<tr>
<td>• User answers call.</td>
<td></td>
</tr>
<tr>
<td>• Stops ringing.</td>
<td></td>
</tr>
<tr>
<td>• Sends <em>Connect Order</em>.</td>
<td></td>
</tr>
<tr>
<td>• Begins sending primary traffic packets from the Service Option 1 application.</td>
<td></td>
</tr>
<tr>
<td><em>(User conversation)</em></td>
<td><em>(User conversation)</em></td>
</tr>
</tbody>
</table>

*(User conversation)*

---

**Figure B-2B. Simple Call Flow, Mobile Station Termination Example Using Service Negotiation with Service Option 1**
Mobile Station

- Detects user-initiated disconnect.
- Sends Release Order.
- Enters the System Determination Substate of the Mobile Station Initialization State.

Base Station

> Reverse Traffic Channel
< Forward Traffic Channel

Figure B-3. Simple Call Flow, Mobile Station Initiated Call Disconnect Example

Mobile Station

- Sends Release Order.
- Enters the System Determination Substate of the Mobile Station Initialization State.

Base Station

< Forward Traffic Channel <
> Reverse Traffic Channel

> Reverse Traffic Channel
< Forward Traffic Channel

• Sends Release Order.

Figure B-4. Simple Call Flow, Base Station Initiated Call Disconnect Example
### Mobile Station

**User conversation**
- Detects request for third party to be added to conversation.
- Sends *Flash With Information Message* (dialed digits).

**Optional**
- Applies ring back in audio path.

**Optional**
- Removes ring back tone from audio path.

*(Two-way conversation with added party; original party held)*
- Detects user request to establish three-way conversation.
- Sends *Flash With Information Message*.

*(Three-way conversation)*

### Base Station

**User conversation**
- MSC mutes speech.

**Optional**
- Sends *Alert With Information Message* (ring back tone).

*(Called party answers)*

**Optional**
- Sends *Alert With Information Message* (tones off).
- MSC unmutes speech from added party.

*(Two-way conversation with added party; original party held)*
- MSC reconnects original party.

*(Three-way conversation)*

#### Figure B-5. Simple Call Flow, Three-Party Calling Example
<table>
<thead>
<tr>
<th>Mobile Station</th>
<th>Base Station</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>(User conversation with first party)</em></td>
<td><em>(User conversation with first party)</em></td>
</tr>
<tr>
<td>Optional</td>
<td>Optional</td>
</tr>
<tr>
<td>• Applies call waiting tone in audio path.</td>
<td>• Sends <em>Alert or Flash With Information Message</em> (call waiting tone).</td>
</tr>
<tr>
<td>• Detects user request to change parties.</td>
<td>• MSC mutes speech path to first party, connects second party.</td>
</tr>
<tr>
<td>• Sends <em>Flash With Information Message</em>.</td>
<td><em>(User conversation with second party; first party held)</em></td>
</tr>
<tr>
<td><em>(User conversation with second party; first party held)</em></td>
<td><em>(User conversation with second party; first party held)</em></td>
</tr>
<tr>
<td>• Detects user request to change parties.</td>
<td>• MSC mutes speech path to second party, connects first party.</td>
</tr>
<tr>
<td>• Sends <em>Flash With Information Message</em>.</td>
<td><em>(User conversation with first party; second party held)</em></td>
</tr>
<tr>
<td><em>(User conversation with first party; second party held)</em></td>
<td><em>(User conversation with first party; second party held)</em></td>
</tr>
</tbody>
</table>

**Figure B-6. Simple Call Flow, Call-Waiting Example**

Figure B-7 illustrates call processing operations during a soft handoff from base station A to base station B. Figure B-8 illustrates call processing operations during a sequential soft handoff in which the mobile station is transferred from a pair of base stations A and B through a pair of base stations B and C to base station C.
### Mobile Station

(User conversation using A)
- Pilot B strength exceeds T_ADD.
- Sends *Pilot Strength Measurement Message*.
- Receives *Extended Handoff Direction Message*.
- Acquires B; begins using Active Set \{A,B\}.
- Sends *Handoff Completion Message*.
- Handoff drop timer of pilot A expires.
- Sends *Pilot Strength Measurement Message*.
- Receives *Extended Handoff Direction Message*.
- Stops diversity combining; begins using Active Set \{B\}.
- Sends *Handoff Completion Message*.

(User conversation using B)

### Base Station

(User conversation using A)
- A receives *Pilot Strength Measurement Message*.
- B begins transmitting traffic on the Forward Traffic Channel and acquires the Reverse Traffic Channel.
- A and B send *Extended Handoff Direction Message* to use A and B.
- A and B receive *Handoff Completion Message*.
- A and B receive *Pilot Strength Measurement Message*.
- A and B send *Extended Handoff Direction Message* to use B only.
- A and B receive *Handoff Completion Message*.
- A stops transmitting on the Forward Traffic Channel and receiving on the Reverse Traffic Channel.

(User conversation using B)

---

**Figure B-7. Call Processing During Soft Handoff**
**Mobile Station**

(Continued on next page)

- Handoff drop timer of pilot A expires and pilot C strength exceeds T\_ADD.
- Sends *Pilot Strength Measurement Message*.
- Receives *Extended Handoff Direction Message*.
- Stops diversity combining A and B; starts diversity combining B and C.
- Sends *Handoff Completion Message*.
- Handoff drop timer of pilot B expires.
- Sends *Pilot Strength Measurement Message*.

<table>
<thead>
<tr>
<th>Mobile Station</th>
<th>Base Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Continued on next page)</td>
<td>(User conversation using A and B)</td>
</tr>
<tr>
<td>&gt; Reverse Traffic Channel</td>
<td>&gt; Reverse Traffic Channel</td>
</tr>
<tr>
<td>&lt; Forward Traffic Channel</td>
<td>&lt; Forward Traffic Channel</td>
</tr>
<tr>
<td>&gt; Reverse Traffic Channel</td>
<td>&gt; Reverse Traffic Channel</td>
</tr>
<tr>
<td>&gt; Reverse Traffic Channel</td>
<td>&gt; Reverse Traffic Channel</td>
</tr>
</tbody>
</table>

(Continued on next page)

**Figure B-8. Call Processing During Sequential Soft Handoff (Part 1 of 2)**
Mobile Station

(Continued from previous page)

- Receives Extended Handoff Direction Message.
- Stops diversity combining; begins using Active Set {C}.
- Sends Handoff Completion Message.

(User conversation using C)

<table>
<thead>
<tr>
<th>Mobile Station</th>
<th>Base Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Continued from previous page)</td>
<td>(Continued from previous page)</td>
</tr>
<tr>
<td>- Receives Extended Handoff Direction Message.</td>
<td>- B and C send Extended Handoff Direction Message to use C only.</td>
</tr>
<tr>
<td>- Stops diversity combining; begins using Active Set {C}.</td>
<td>- B and C receive Handoff Completion Message.</td>
</tr>
<tr>
<td>- Sends Handoff Completion Message.</td>
<td>- B stops transmitting on the Forward Traffic Channel and receiving on the Reverse Traffic Channel.</td>
</tr>
<tr>
<td>(User conversation using C)</td>
<td>(User conversation using C)</td>
</tr>
</tbody>
</table>

Figure B-8. Call Processing During Sequential Soft Handoff (Part 2 of 2)
### Mobile Station
- User initiates priority call.
- Sends *Origination Message*.
- Indicates to user that priority call has been queued as a PACA call, and indicates queue position.
  Uses non-slotted mode operation while waiting for channel assignment.
- Indicates updated queue position to user.
- Sends *Origination Message* again.
- Indicates to user that PACA call is proceeding, sets up Traffic Channel.
- Receives $N_{5m}$ consecutive valid frames.
- Begins sending Traffic Channel preamble.
- Begins transmitting null Traffic Channel data.
- Begins processing primary traffic in accordance with Service Option 1.
- Sends *Service Connect Completion Message*.

### Base Station
- Determines that no Traffic Channels are available and that call is a priority call.
- Sends *PACA Message* to inform user that priority call has been queued as a PACA call, and to indicate queue position.
- Sends *PACA Message* periodically to update PACA call queue position.
- Sends *PACA Message* to instruct mobile station to re-originate PACA call.
- Sets up Traffic Channel.
- Sends *Channel Assignment Message*.
- Acquires the Reverse Traffic Channel.
- Sends *Base Station Acknowledgment Order*.
- Sends *Service Connect Message*.

(Continued on next page)

---

**Figure B-9. PACA Call Processing (Part 1 of 2)**
### Mobile Station

(Continued from previous page)

<table>
<thead>
<tr>
<th>Optional</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Sends <em>Origination Continuation Message</em>.</td>
</tr>
<tr>
<td>• Alerts user with distinct PACA alert.</td>
</tr>
<tr>
<td>• User answers call.</td>
</tr>
<tr>
<td>• Stops alerting.</td>
</tr>
<tr>
<td>• Sends <em>Connect Order</em>.</td>
</tr>
</tbody>
</table>

(Continued from previous page)

<table>
<thead>
<tr>
<th>Base Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optional</td>
</tr>
<tr>
<td>• Sends <em>Alert With Information Message</em> (distinct PACA alert).</td>
</tr>
<tr>
<td>• Sends <em>Alert With Information Message</em> (ring back tone).</td>
</tr>
<tr>
<td>• Sends <em>Alert With Information Message</em> (tones off).</td>
</tr>
</tbody>
</table>

**Figure B-9. PACA Call Processing (Part 2 of 2)**

Figure B-10 illustrates call processing operations for failure recovery for hard handoff on the same frequency. Figure B-11 illustrates call flow for failure recovery for inter-frequency handoff when the mobile station does not search the Candidate Frequency. Figures B-12 and B-13 show the call flow for mobile-assisted inter-frequency handoff (handoff preceded by searching of the Candidate Frequency Search Set by the mobile station), where the search is started by using the *Candidate Frequency Search Control Message*. Figures B-14 and B-15 illustrate call flow for inter-frequency handoff when failure recovery also includes searching the Candidate Frequency Search Set. In the periodic search examples (Figures B-13 and B-15), it is assumed that the mobile station performs a search of the Candidate Frequency Search Set in a single visit to the Candidate Frequency. Figures B-16 and B-17 illustrate the interaction of inter-frequency handoff operations with an ongoing periodic search of the Candidate Frequency Search Set.
### Mobile Station

(Serving Frequency = F1)

- Receives General Handoff Direction Message. Saves current configuration. Discontinues use of serving Active Set.

- Attempts to hand off to target Active Set.  
  *(Handoff attempt fails)*

- Restores old configuration. Resumes use of serving Active Set.

- Sends Candidate Frequency Search Report Message reporting pilots in target Active Set.

(Continues communication using serving Active Set)

### Base Station

(Serving Frequency = F1)

(Decides to hand off mobile station to new Active Set)

(Starts transmitting on Forward Traffic Channel corresponding to target Active Set)

- Sends General Handoff Direction Message  
  (target Active Set disjoint from serving Active Set; RETURN_IF_HO_FAIL = ‘1’; Target Frequency = F1).

(Maintains Forward and Reverse Traffic Channels corresponding to serving Active Set)

  (Discontinues use of target Active Set)

(Continues communication using serving Active Set)

---

**Figure B-10. Call Flow for Same Frequency Hard Handoff Failure Recovery**
Mobile Station

(Serving Frequency = F1)

(Candidate Frequency Search Set is empty)

- Receives General Handoff Direction Message. Saves current configuration. Discontinues use of serving Active Set.

- Tunes to F2. Attempts to hand off to target Active Set. (Handoff attempt fails)

- Re-tunes to F1. Restores old configuration. Resumes use of serving Active Set.

- Sends Candidate Frequency Search Report Message reporting pilots in target Active Set.

(Continues communication on F1)

Base Station

(Serving Frequency = F1)

(Decides to hand off mobile station to Active Set on F2)

(Starts transmitting on Forward Traffic Channel on F2)

- Sends General Handoff Direction Message (target Active Set; RETURN_IF_HO_FAIL = ‘1’; Target Frequency = F2). (Maintains Forward and Reverse Traffic Channels on F1)

- Receives Candidate Frequency Search Report Message. (Discontinues use of Active Set on F2)

(Continues communication on F1)

> Reverse Traffic Channel on F1

> Reverse Traffic Channel on F1

Figure B-11. Call Flow for Inter-Frequency Hard Handoff Failure Recovery without Search
### Mobile Station

- **(Serving Frequency = F1)**
  - Receives *Candidate Frequency Search Request Message*.
  - Computes search time for Candidate Frequency Search Set.
  - Sends *Candidate Frequency Search Response Message*.
  - Receives *Candidate Frequency Search Control Message*.
  - Saves current configuration. Discontinues use of serving Active Set.
  - Tunes to F2.
  - Searches pilots in Candidate Frequency Search Set.
  - Re-tunes to F1. Restores old configuration. Resumes use of serving Active Set.
  - Sends *Candidate Frequency Search Report Message* reporting pilots in Candidate Frequency Search Set above CF_T_ADD.

### Base Station

- **(Serving Frequency = F1)**
  - Sends *Candidate Frequency Search Request Message* (non-empty Search Set; Candidate Frequency = F2).
  - Receives *Candidate Frequency Search Response Message*.
  - (Decides to initiate single search)
  - Sends *Candidate Frequency Search Control Message* (perform single search; Candidate Frequency = F2).
  - Receives *Candidate Frequency Search Report Message*.

(Continues communication on F1)

(Continued on next page)
Mobile Station

(Continued from previous page)

- Receives General Handoff Direction Message. Saves current configuration. Discontinues use of serving Active Set.

- Tunes to F2. Attempts to hand off to target Active Set.

(Handoff attempt succeeds)

(Starts transmitting on Reverse Traffic Channel on F2)

- Sends Handoff Completion Message.

(Continues communication on F2)

Base Station

(Continued from previous page)

(Decides to hand off mobile station to Active Set on F2)

(Starts transmitting on Forward Traffic Channel on F2)

- Sends General Handoff Direction Message
  (RETURN_IF_HO_FAIL = ‘1’;
   Target Frequency = F2).

(Maintains Forward and Reverse Traffic Channels on F1)

(Starts receiving on Reverse Traffic Channel on F2)

- Receives Handoff Completion Message.

(Discontinues use of Active Set on F1)

(Continues communication on F2)

**Figure B-12. Call Flow for Inter-Frequency Handoff (Single Search Using Candidate Frequency Search Control Message) (Part 2 of 2)**
**Mobile Station**

*Serving Frequency = F1*

- Receives Candidate Frequency Search Request Message.
  - Computes search time for Candidate Frequency Search Set.
  - Sends Candidate Frequency Search Response Message.

*Periodic search timer running*

- Receives Candidate Frequency Search Control Message.
  - Initializes and enables periodic search timer.

- Performs a search of Candidate Frequency Search Set by executing the following actions before periodic search timer expires:
  - Saves current configuration.
  - Discontinues use of serving Active Set.
  - Tunes to F2.
  - Searches pilots in Candidate Frequency Search Set.

(Continued on next page)

**Base Station**

*Serving Frequency = F1*

- Sends Candidate Frequency Search Request Message (non-empty Search Set; Candidate Frequency = F2).

- Receives Candidate Frequency Search Response Message.

- Decides to initiate periodic search.

- Sends Candidate Frequency Search Control Message (start periodic search; Candidate Frequency = F2).

(Continued on next page)

---

**Figure B-13. Call Flow for Inter-Frequency Handoff (Periodic Search Using Candidate Frequency Search Control Message) (Part 1 of 3)**
Mobile Station

(Continued from previous page)

- Re-tunes to F1.
  Restores old configuration.
  Resumes use of serving Active Set.

- Sends Candidate Frequency Search Report Message reporting pilots in Candidate Frequency Search Set above CF_T_ADD.

(Continues communication on F1)

(Periodic search timer expires)

- Initializes and enables periodic search timer.

(Continues periodic search on F2 by repeating the search described above, once every search period)

(Continued on next page)

Base Station

(Continued from previous page)

> Reverse Traffic Channel on F1

> • Receives Candidate Frequency Search Report Message.

(Continues communication on F1)

(Decides to hand off mobile station to Active Set on F2)

(Starts transmitting on Forward Traffic Channel on F2)

(Continued on next page)

Figure B-13. Call Flow for Inter-Frequency Handoff (Periodic Search Using Candidate Frequency Search Control Message) (Part 2 of 3)
### Mobile Station

(Continued from previous page)

- Tunes to F2. Attempts to hand off to target Active Set.

(Handoff attempt succeeds)

(Starts transmitting on Reverse Traffic Channel on F2)

- Sends Handoff Completion Message.

(Continues communication on F2)

---

### Base Station

(Continued from previous page)

- Sends General Handoff Direction Message (RETURN_IF_HO_FAIL = ‘1’; Target Frequency = F2).

(Maintains Forward and Reverse Traffic Channels on F1)

(Starts receiving on Reverse Traffic Channel on F2)

- Receives Handoff Completion Message.

(Discontinues use of Active Set on F1)

(Continues communication on F2)

---

Figure B-13. Call Flow for Inter-Frequency Handoff (Periodic Search Using Candidate Frequency Search Control Message) (Part 3 of 3)
### Mobile Station

(Serving Frequency = F1)
- Receives Candidate Frequency Search Request Message.
- Computes search time for Candidate Frequency Search Set.
  Sends Candidate Frequency Search Response Message.
- Receives General Handoff Direction Message.
  Saves current configuration.
  Discontinues use of serving Active Set.
- Tunes to F2.
  Attempts to hand off to target Active Set.
  *(Handoff attempt fails)*
- Searches pilots in Candidate Frequency Search Set.

### Base Station

(Serving Frequency = F1)
- Sends Candidate Frequency Search Request Message (non-empty Search Set; Candidate Frequency = F2).
- Receives Candidate Frequency Search Response Message.
  *(Decides to hand off mobile station to Active Set on F2)*
  *(Starts transmitting on Forward Traffic Channel on F2)*
- Sends General Handoff Direction Message (target Active Set; RETURN_IF_HO_FAIL = ‘1’; PERIODIC_SEARCH = ‘0’; Target Frequency = F2).
  *(Maintains Forward and Reverse Traffic Channels on F1)*

(Continued on next page)
Mobile Station

(Continued from previous page)

- Re-tunes to F1.
  Restores old configuration. Resumes use of serving Active Set.

- Sends Candidate Frequency Search Report Message reporting pilots in target Active Set and pilots in Candidate Frequency Search Set above CF_T_ADD.

(Continues communication on F1)

- Saves current configuration. Discontinues use of serving Active Set.

- Tunes to F2. Attempts to hand off to target Active Set.
  (Handoff attempt succeeds)

(Continued on next page)

Base Station

(Continued from previous page)

> Reverse Traffic Channel on F1

  (Discontinues use of Active Set on F2)

(Continues communication on F1)

(Decides to hand off mobile station to new Active Set on F2)

(Starts transmitting on Forward Traffic Channel on F2)

< Forward Traffic Channel on F1

- Sends General Handoff Direction Message
  (new target Active Set; RETURN_IF_HO_FAIL = ‘1’; Target Frequency = F2).
  (Maintains Forward and Reverse Traffic Channels on F1)

(Continued on next page)

Figure B-14. Call Flow for Inter-Frequency Handoff (Single Search Using General Handoff Direction Message) (Part 2 of 3)
**Figure B-14. Call Flow for Inter-Frequency Handoff (Single Search Using General Handoff Direction Message) (Part 3 of 3)**

<table>
<thead>
<tr>
<th>Mobile Station</th>
<th>Base Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Continued from previous page)</td>
<td>(Continued from previous page)</td>
</tr>
<tr>
<td>(Starts transmitting on Reverse Traffic Channel on F2)</td>
<td>(Starts receiving on Reverse Traffic Channel on F2)</td>
</tr>
<tr>
<td>• Sends Handoff Completion Message.</td>
<td>• Receives Handoff Completion Message.</td>
</tr>
<tr>
<td>(Continues communication on F2)</td>
<td>(Discontinues use of Active Set on F1)</td>
</tr>
<tr>
<td></td>
<td>(Continues communication on F2)</td>
</tr>
</tbody>
</table>
**Mobile Station**

(Serving Frequency = F1)
- Receives Candidate Frequency Search Request Message.
- Computes search time for Candidate Frequency Search Set.
- Sends Candidate Frequency Search Response Message.
- Receives General Handoff Direction Message.
  Saves current configuration. Discontinues use of serving Active Set.
- Tunes to F2.
  Attempts to hand off to target Active Set.
  *(Handoff attempt fails)*
- Searches pilots in Candidate Frequency Search Set.
- Re-tunes to F1.
  Restores old configuration. Resumes use of serving Active Set.

*(Continued on next page)*

**Base Station**

(Serving Frequency = F1)
- Sends Candidate Frequency Search Request Message
  (non-empty Search Set; Candidate Frequency = F2).
- Receives Candidate Frequency Search Response Message.
- *Decides to hand off mobile station to Active Set on F2*
- *Starts transmitting on Forward Traffic Channel on F2*
- Sends General Handoff Direction Message
  (target Active Set; RETURN_IF_HO_FAIL = ‘1’; PERIODIC_SEARCH = ‘1’; Target Frequency = F2).
- *Maintains Forward and Reverse Traffic Channels on F1*

*(Continued on next page)*

**Figure B-15. Call Flow for Inter-Frequency Handoff (Periodic Search Using General Handoff Direction Message) (Part 1 of 4)**
Mobile Station

(Continued from previous page)

- Sends Candidate Frequency Search Report Message reporting pilots in target Active Set and pilots in Candidate Frequency Search Set above CF_T_ADD.
- Initializes and enables periodic search timer.

(Continues communication on F1)

(Periodic search timer running)

- Performs a search of Candidate Frequency Search Set by executing the following actions before periodic search timer expires:
  - Saves current configuration. Discontinues use of serving Active Set.
  - Tunes to F2.
  - Searches pilots in Candidate Frequency Search Set.
  - Re-tunes to F1. Restores old configuration. Resumes use of serving Active Set.

(Continued on next page)

Base Station

(Continued from previous page)


(Discontinues use of Active Set on F2)

(Continues communication on F1)

Figure B-15. Call Flow for Inter-Frequency Handoff (Periodic Search Using General Handoff Direction Message) (Part 2 of 4)
Mobile Station

(Continued from previous page)

- Sends Candidate Frequency Search Report Message reporting pilots in Candidate Frequency Search Set above CF_T_ADD.

(Continues communication on F1)

(Periodic search timer expires)

• Initializes and enables periodic search timer.

(Continues periodic search on F2 by repeating the search described above, once every search period)

• Receives General Handoff Direction Message.
  Disables periodic search timer.
  Saves current configuration. Discontinues use of serving Active Set.
  Tunes to F2. Attempts to hand off to target Active Set.

(Base Station)

(Continued from previous page)

> Reverse Traffic Channel on F1

• Receives Candidate Frequency Search Report Message.

(Continues communication on F1)

(Decides to hand off mobile station to new Active Set on F2)

(Starts transmitting on Forward Traffic Channel on F2)

< Forward Traffic Channel on F1

• Sends General Handoff Direction Message
  (new target Active Set; RETURN_IF_HO_FAIL = ‘1’; Target Frequency = F2).

(Maintains Forward and Reverse Traffic Channels on F1)

(Continued on next page)
Figure B-15. Call Flow for Inter-Frequency Handoff (Periodic Search Using General Handoff Direction Message) (Part 4 of 4)
<table>
<thead>
<tr>
<th>Mobile Station</th>
<th>Base Station</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>(Serving Frequency = F1)</strong></td>
<td><strong>(Serving Frequency = F1)</strong></td>
</tr>
<tr>
<td>● Receives Candidate Frequency Search Request Message.</td>
<td>● Sends Candidate Frequency Search Request Message (non-empty Search Set; Candidate Frequency = F2).</td>
</tr>
<tr>
<td>● Computes search time for Candidate Frequency Search Set. Sends Candidate Frequency Search Response Message.</td>
<td>● Receives Candidate Frequency Search Response Message. (Decides to initiate periodic search)</td>
</tr>
<tr>
<td>● Receives Candidate Frequency Search Control Message. Initializes and enables periodic search timer.</td>
<td>● Sends Candidate Frequency Search Control Message (start periodic search; Candidate Frequency = F2).</td>
</tr>
<tr>
<td><em>(Performs periodic search on F2)</em></td>
<td><em>(Continued on next page)</em></td>
</tr>
<tr>
<td><em>(Continued on next page)</em></td>
<td><em>(Continued on next page)</em></td>
</tr>
</tbody>
</table>

**Figure B-16. Call Flow for Periodic Search on F2 from F1, Failed Handoff Attempt to F3, Continued Periodic Search of F2 from F1 (Part 1 of 3)**
**Mobile Station**

(Continued from previous page)

- Receives **General Handoff Direction Message**.
  Disables periodic search timer.
  Saves current configuration.
  Discontinues use of serving Active Set.

- Tunes to F3.
  Attempts to hand off to target Active Set.

*(Handoff attempt fails)*

- Re-tunes to F1.
  Restores old configuration.
  Resumes use of serving Active Set.
  Initializes and enables periodic search timer.

*(Continued on next page)*

**Base Station**

(Continued from previous page)

- Sends **General Handoff Direction Message**
  (target Active Set;\n   RETURN_IF_HO_FAIL = ‘1’;
   PERIODIC_SEARCH = ‘1’;
   Target Frequency = F3).

*(Maintains Forward and Reverse Traffic Channels on F1)*

*(Continued on next page)*

---

**Figure B-16. Call Flow for Periodic Search on F2 from F1, Failed Handoff Attempt to F3, Continued Periodic Search of F2 from F1 (Part 2 of 3)**
**Mobile Station**

(Continued from previous page)

- Sends Candidate Frequency Search Report Message reporting pilots in target Active Set.

(Continues communication on F1)

(Performs periodic search on F2)

(Continues communication on F1)

**Base Station**

(Continued from previous page)


(Discontinues use of Active Set on F3)

(Continues communication on F1)

**Figure B-16. Call Flow for Periodic Search on F2 from F1, Failed Handoff Attempt to F3, Continued Periodic Search of F2 from F1 (Part 3 of 3)**
**Mobile Station**

- **Serving Frequency = F1**
  - Receives Candidate Frequency Search Request Message.
  - Computes search time for Candidate Frequency Search Set.
  - Sends Candidate Frequency Search Response Message.
  - Receives Candidate Frequency Search Control Message.
    - Initializes and enables periodic search timer.
    - Performs periodic search on F2.
  - Receives General Handoff Direction Message.
    - Disables periodic search timer.
    - Saves current configuration.
    - Discontinues use of serving Active Set.

**Base Station**

- **Serving Frequency = F1**
  - Sends Candidate Frequency Search Request Message (non-empty Search Set; Candidate Frequency = F2).
  - Receives Candidate Frequency Search Response Message.
    - Decides to initiate periodic search.
  - Sends Candidate Frequency Search Control Message (start periodic search; Candidate Frequency = F2).
    - Decides to hand off mobile station to Active Set on F3.
    - Starts transmitting on Forward Traffic Channel on F3.
    - Sends General Handoff Direction Message (target Active Set; RETURN_IF_HO_FAIL = ‘1’; PERIODIC_SEARCH = ‘1’; Target Frequency = F3).
    - Maintains Forward and Reverse Traffic Channels on F1.

---

**Figure B-17. Call Flow for Periodic Search on F2 from F1, Successful Handoff to F3, Continued Periodic Search on F2 from F3 (Part 1 of 2)**
Figure B-17. Call Flow for Periodic Search on F2 from F1, Successful Handoff to F3, Continued Periodic Search on F2 from F3 (Part 2 of 2)
### Mobile Station

- Packet arrives.
- Sends *Origination Message* with “High Speed Packet Service Option.”
- Sets up Traffic Channel.
- Receives $N_{5m}$ consecutive valid frames.
- Begins sending the Traffic Channel preamble.
- Begins transmitting null Traffic Channel data.
- Sends *Service Request Message* (FOR_MUX_OPTION and REV_MUX_OPTION indicates max number of Supplemental Code Channels).
- Begins processing primary traffic in accordance with Service Option n.
- Sends *Service Connect Completion Message*.
- Sends packet.

### Base Station

- Sets up Traffic Channel.
- Begins sending null Traffic Channel data.
- Sends *Channel Assignment Message* (GRANTED_MODE = '01').
- Acquires the Reverse Traffic Channel.
- Sends *Base Station Acknowledgment Order*.
- Sends *Service Connect Message*.
- Sends packet.

(Continued on next page)

---

**Figure B-18. Simple Call Flow Mobile Station Origination Example with Transmission on Forward Supplemental Code Channels (Part 1 of 2)**
<table>
<thead>
<tr>
<th><strong>Mobile Station</strong></th>
<th><strong>Base Station</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><em>(Continued from previous page)</em></td>
<td><em>(Continued from previous page)</em></td>
</tr>
<tr>
<td></td>
<td><strong>• Base station decides that it requires to change the number of Supplemental Channels (e.g., it has a “large” packet to send).</strong></td>
</tr>
<tr>
<td></td>
<td><strong>• Send Supplemental Channel Assignment Message.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>• Begin transmitting on the Supplemental Code Channels for the duration specified in Supplemental Channel Assignment Message.</strong></td>
</tr>
<tr>
<td></td>
<td><em>(User traffic)</em></td>
</tr>
<tr>
<td></td>
<td><em>(User traffic)</em></td>
</tr>
<tr>
<td><em>&lt; Forward</em></td>
<td><em>&lt; Forward</em></td>
</tr>
<tr>
<td><em>Fundamental Channel</em></td>
<td><em>Fundamental and Supplemental Code Channels</em></td>
</tr>
<tr>
<td><em>(User traffic)</em></td>
<td><em>(User traffic)</em></td>
</tr>
</tbody>
</table>

**Figure B-18. Simple Call Flow Mobile Station Origination Example with Transmission on Forward Supplemental Code Channels (Part 2 of 2)**
<table>
<thead>
<tr>
<th>Mobile Station</th>
<th>Base Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packet arrives.</td>
<td>Sets up Traffic Channel.</td>
</tr>
<tr>
<td>Sends <em>Origination Message</em> with “High Speed Packet Service Option.”</td>
<td>Begins sending null Traffic Channel data.</td>
</tr>
<tr>
<td>Sets up Traffic Channel.</td>
<td>Sends <em>Channel Assignment Message</em> (GRANTED_MODE = ’01’).</td>
</tr>
<tr>
<td>Receives $N_{5m}$ consecutive valid frames.</td>
<td>Acquires the Reverse Traffic Channel.</td>
</tr>
<tr>
<td>Begins sending the Traffic Channel preamble.</td>
<td>Sends <em>Base Station Acknowledgment Order</em>.</td>
</tr>
<tr>
<td>Begins transmitting null Traffic Channel data.</td>
<td>Sends <em>Service Connect Message</em>.</td>
</tr>
<tr>
<td>Sends <em>Service Request Message</em> (FOR_MUX_OPTION and REV_MUX_OPTION indicates max number of Supplemental Code Channels).</td>
<td>Sends packet.</td>
</tr>
<tr>
<td>Begins processing primary traffic in accordance with Service Option n.</td>
<td>Sends packet.</td>
</tr>
<tr>
<td>Sends <em>Service Connect Completion Message</em>.</td>
<td>(Continued on next page)</td>
</tr>
<tr>
<td>Sends packet.</td>
<td>(Continued on next page)</td>
</tr>
</tbody>
</table>

*(Continued on next page)*

**Figure B-19. Simple Call Flow Mobile Station Origination Example with Transmission on Reverse Supplemental Code Channels (Part 1 of 2)**
<table>
<thead>
<tr>
<th><strong>Mobile Station</strong></th>
<th><strong>Base Station</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>(Continued from previous page)</td>
<td>(Continued from previous page)</td>
</tr>
<tr>
<td>• Mobile station has a “large” packet to send.</td>
<td></td>
</tr>
<tr>
<td>• Continue transmitting on the Fundamental Channel.</td>
<td></td>
</tr>
<tr>
<td>• Sends Supplemental Channel Request Message.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>• Begins transmitting on the Reverse Supplemental Code Channels.</td>
<td></td>
</tr>
</tbody>
</table>

(User traffic)

Figure B-19. Simple Call Flow Mobile Station Origination Example with Transmission on Reverse Supplemental Code Channels (Part 2 of 2)
<table>
<thead>
<tr>
<th>Mobile Station</th>
<th>Base Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Sends Page Response Message.</td>
<td>• Packet arrives.</td>
</tr>
<tr>
<td>- Sets up Traffic Channel.</td>
<td>• Sends General Page Message with “High Speed Packet Service Option.”</td>
</tr>
<tr>
<td>- Receives $N_{5m}$ consecutive valid frames.</td>
<td>• Sets up Traffic Channel.</td>
</tr>
<tr>
<td>- Begins sending the Traffic Channel preamble.</td>
<td>• Begins sending null Traffic Channel data.</td>
</tr>
<tr>
<td>- Begins transmitting null Traffic Channel data.</td>
<td>• Sends Extended Channel Assignment Message (GRANTED_MODE = ‘00’).</td>
</tr>
<tr>
<td>- Processes Service Request Message.</td>
<td>• Acquires the Reverse Fundamental Channel.</td>
</tr>
<tr>
<td>(Continued on next page)</td>
<td>• Sends Base Station Acknowledgment Order.</td>
</tr>
<tr>
<td></td>
<td>• Sends Service Request Message (FOR_MUX_OPTION and REV_MUX_OPTION indicates the maximum number of Supplemental Forward and Reverse Code Channels).</td>
</tr>
</tbody>
</table>

(Continued on next page)

**Figure B-20. Simple Call Flow, Mobile Station Termination Example with Transmission on Forward Supplemental Code Channel(s) (Part 1 of 3)**
Mobile Station

(Continued from previous page)

- Sends Service Response Message to accept Service Option with FOR_MUX_OPTION and REV_MUX_OPTION to indicate the maximum number of Supplemental Forward and Reverse Code Channels supported by the mobile station.
- Begins processing primary traffic in accordance with Service Option and multiplex option.
- Sends Service Connect Completion Message.
- Sends packet, if any, on the Fundamental Channel.

(Continued on next page)

Base Station

(Continued from previous page)

> Reverse > Reverse
Fundamental Channel
Fundamental Channel

< Forward < Forward
Fundamental Channel
Fundamental Channel

> Reverse > Reverse
Fundamental Channel
Fundamental Channel

< Forward < Forward
Fundamental Channel
Fundamental Channel

• Sends Service Connect Message.
• Sends packet, if any, on the Fundamental Channel.

(Continued on next page)

Figure B-20. Simple Call Flow, Mobile Station Termination Example with Transmission on Forward Supplemental Code Channel(s) (Part 2 of 3)
Mobile Station

(Continued from previous page)

- Begins processing packet data received from Forward Fundamental and Supplemental Code Channel(s).

(Continued from previous page)

Base Station

• Base station decides that it requires to use Supplemental Channels to send a “large” packet.

• Sends Supplemental Channel Assignment Message.

• Begins transmitting on the Supplemental Code Channel(s) for the duration specified in Supplemental Channel Assignment Message.

(User traffic)

Figure B-20. Simple Call Flow, Mobile Station Termination Example with Transmission on Forward Supplemental Code Channel(s) (Part 3 of 3)
**Mobile Station**

- Sends *Page Response Message*.
- Sets up Traffic Channel.
- Receives $N_{5m}$ consecutive valid frames.
- Begins sending the Traffic Channel preamble.
- Begins transmitting null Traffic Channel data.
- Processes *Service Request Message*.

**Base Station**

- Packet arrives
- Sends *General Page Message* with “High Speed Packet Service Option.”
- Sets up Traffic Channel.
- Begins sending null Traffic Channel data.
- Sends *Extended Channel Assignment Message* (GRANTED_MODE = ‘00’).
- Acquires the Reverse Fundamental Channel.
- Sends *Base Station Acknowledgment Order*.
- Sends *Service Request Message* (FOR_MUX_OPTION and REV_MUX_OPTION proposes the maximum number of Supplemental Forward and Reverse Code Channels to be used).

*(Continued on next page)*
**Mobile Station**

(Continued from previous page)

- Sends *Service Response Message* to accept Service Option, with FOR_MUX_OPTION and REV_MUX_OPTION to indicate the maximum number of Supplemental Code Channels supported by the mobile station.
- Begins processing primary traffic in accordance with the service configuration.
- Sends *Service Connect Completion Message*.
- Sends packet data.
- Mobile station has a “large” packet to send, so begins transmitting packet.

(Continued on next page)

**Base Station**

(Continued from previous page)

> Reverse Fundamental Channel

< Forward Fundamental Channel

> Reverse Fundamental Channel

< Forward Fundamental Channel

> Reverse Fundamental Channel

< Forward Fundamental Channel

(Continued on next page)

- Sends *Service Connect Message* to connect corresponding SO, with FOR_MUX_OPTION and REV_MUX_OPTION to specify the maximum number of Supplemental Code Channel(s) mutually supported.

- Sends packet data.

(Continued on next page)

**Figure B-21. Simple Call Flow, Mobile Station Termination Example with Transmission on Reverse Supplemental Code Channel(s) (Part 2 of 3)**
**Mobile Station**

(Continued from previous page)

- Sends *Supplemental Channel Request Message*, and continues transmitting on the Reverse Fundamental Channel.

- Begins transmitting on the Reverse Supplemental Code Channel(s), in addition to continuing on the Reverse Fundamental Channel.

(Continued from previous page)

**Base Station**

- Send *Supplemental Channel Assignment Message*.

(User traffic)

---

**Figure B-21. Simple Call Flow, Mobile Station Termination Example with Transmission on Reverse Supplemental Code Channel(s) (Part 3 of 3)**
Figure B-22. Active/Control Hold to Idle State Transition; Release all services (BS Initiated)
Figure B-23. Active/Control Hold to Idle State Transition; Release all services (MS Initiated)
MS stops transmitting/processing on the indicated channels and starts reverse pilot gating at the action time.

CH_IND is a subset of the channels currently being processed.

Figure B-24. Active to Control Hold State Transition (BS Initiated)
MS stops transmitting/processing on the indicated channels and starts reverse pilot gating at the action time.

CH_IND is a subset of the channels currently being processed.

Figure B-25. Active to Control Hold State Transition (MS Initiated)
MS starts transmitting/processing on the indicated channels and starts continuous reverse pilot at action time.

Figure B-26. Control Hold to Active Transition (BS Initiated)
Figure B-27. Control Hold to Active Transition (MS Initiated)
Figure B-28. Connecting an Additional Service (MS Initiated)
Figure B-29. Connecting an Additional Service (BS Initiated)
Figure B-30. Releasing a Service that is not the last one connected (MS Initiated)
Figure B-31. Releasing a Service that is not the last one connected (BS Initiated)
ANNEX C RESERVED
No text.
ANNEX D CDMA CONSTANTS

Annex D is a normative annex which contains tables that give specific values for the constant identifiers. These identifiers take the forms such as $T_{20m}$ and $N_{5m}$. The subscripted numbers vary to identify the particular constant. Typically the subscripted letter “m” refers to the mobile station and the subscripted letter “b” refers to the base station. The following tables provide values for identifiers given in the text:

Table D-1. Time Limits

Table D-2. Other Constants

Table D-1. Time Limits (Part 1 of 5)

<table>
<thead>
<tr>
<th>Time Limit</th>
<th>Description</th>
<th>Value</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>$T_{5m}$</td>
<td>Limit of the Forward Traffic Channel fade timer</td>
<td>5 s</td>
<td>2.6.4.1.8</td>
</tr>
<tr>
<td>$T_{20m}$</td>
<td>Maximum time to remain in the Pilot Channel Acquisition Substate of the Mobile Station Initialization State</td>
<td>15 s</td>
<td>2.6.1.2</td>
</tr>
<tr>
<td>$T_{21m}$</td>
<td>Maximum time to receive a valid Sync Channel message</td>
<td>1 s</td>
<td>2.6.1.3</td>
</tr>
<tr>
<td>$T_{30m}$</td>
<td>Maximum time to receive a valid Paging Channel or Forward Common Control Channel/Broadcast Control Channel message</td>
<td>3 s</td>
<td>2.6.2.1.1.1</td>
</tr>
<tr>
<td>$T_{31m}$</td>
<td>Maximum time for which configuration parameters are considered valid</td>
<td>600 s</td>
<td>2.6.2.2</td>
</tr>
<tr>
<td>Time Limit</td>
<td>Description</td>
<td>Value</td>
<td>References</td>
</tr>
<tr>
<td>------------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-------</td>
<td>----------------</td>
</tr>
<tr>
<td>$T_{32m}$</td>
<td>Maximum time to enter the Update Overhead Information Substate of the System Access State to respond to an SSD Update Message, Base Station Challenge Confirmation Order, and Authentication Challenge Message</td>
<td>5 s</td>
<td>2.6.2.4, 2.6.4</td>
</tr>
<tr>
<td>$T_{33m}$</td>
<td>Maximum time to enter the Update Overhead Information Substate of the System Access State (except in response to authentication messages)</td>
<td>0.3 s</td>
<td>2.6.2, 2.6.5.5.2.3</td>
</tr>
<tr>
<td>$T_{34m}$</td>
<td>Maximum time to enter the Update Overhead Information Substate or the Mobile Station Idle State after receiving a Channel Assignment Message with ASSIGN_MODE_r equal to ‘001’ or ‘101’ or Extended Channel Assignment Message with ASSIGN_MODE_r equal to ‘001’</td>
<td>3 s</td>
<td>2.6.3.3</td>
</tr>
<tr>
<td>$T_{40m}$</td>
<td>Maximum time to receive a valid Paging Channel or Forward Common Control Channel/Broadcast Control Channel message before aborting an access attempt (see $T_{72m}$)</td>
<td>3 s</td>
<td>2.6.3.1.8</td>
</tr>
<tr>
<td>$T_{41m}$</td>
<td>Maximum time to obtain updated overhead messages arriving on the Paging Channel or Broadcast Control Channel</td>
<td>4 s</td>
<td>2.6.3.2</td>
</tr>
<tr>
<td>$T_{42m}$</td>
<td>Maximum time to receive a delayed Layer 3 response following the receipt of an acknowledgment for an access probe in the System Access State. The maximum time to receive a Layer 3 response to an Enhanced Origination Message on the Mobile Station Control on the Traffic Channel State.</td>
<td>12 s</td>
<td>2.6.3.1.1.2, 2.6.3.3, 2.6.3.5, 2.6.4</td>
</tr>
<tr>
<td>$T_{50m}$</td>
<td>Maximum time to obtain $N_{5m}$ consecutive good Forward Traffic Channel frames when in the Traffic Channel Initialization Substate of the Mobile Station Control on the Traffic Channel State</td>
<td>1 s</td>
<td>2.6.4.2</td>
</tr>
<tr>
<td>$T_{51m}$</td>
<td>Maximum time for the mobile station to receive a Base Station Acknowledgment Order after the first occurrence of receiving $N_{5m}$ consecutive good frames when in the Traffic Channel Initialization Substate of the Mobile Station Control on the Traffic Channel State</td>
<td>2 s</td>
<td>2.6.4.2</td>
</tr>
<tr>
<td>$T_{52m}$</td>
<td>Maximum time to receive a message in the <em>Waiting for Order Substate</em> of the Call Control processing that transits Call Control instance to a different substate or state</td>
<td>5 s</td>
<td>2.6.10.1.1</td>
</tr>
<tr>
<td>Time Limit</td>
<td>Description</td>
<td>Value</td>
<td>References</td>
</tr>
<tr>
<td>------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------</td>
<td>---------------------</td>
</tr>
<tr>
<td>T53m</td>
<td>Maximum time to receive a message in the <em>Waiting for Mobile Station Answer Substate</em> of Call Control processing that transits the Call Control instance to a different substate or state</td>
<td>65 s</td>
<td>2.6.10.1.2</td>
</tr>
<tr>
<td>T54m</td>
<td>Maximum time for the Call Control instance to send an <em>Origination Continuation Message</em> upon entering the <em>Conversation Substate</em></td>
<td>0.2 s</td>
<td>2.6.10.2</td>
</tr>
<tr>
<td>T55m</td>
<td>Maximum time to receive a message in the <em>Release Substate</em> of the <em>Mobile Station Control on the Traffic Channel State</em> that transits the mobile station to a different substate or state</td>
<td>2 s</td>
<td>2.6.4.5</td>
</tr>
<tr>
<td>T56m</td>
<td>Default maximum time to respond to a received message or order on the Forward Traffic Channel</td>
<td>0.2 s</td>
<td>2.6.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2.6.6</td>
</tr>
<tr>
<td>T57m</td>
<td>Limit of the power-up registration timer</td>
<td>20 s</td>
<td>2.6.5.1.1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2.6.5.5.1.3</td>
</tr>
<tr>
<td>T58m</td>
<td>Maximum time for the mobile station to respond to a service option request</td>
<td>5 s</td>
<td>2.6.4.1.2.2</td>
</tr>
<tr>
<td>T59m</td>
<td>Maximum time for the mobile station to respond to a <em>Service Request Message</em> or a <em>Service Response Message</em></td>
<td>5 s</td>
<td>2.6.4.1.2.2</td>
</tr>
<tr>
<td>T60m</td>
<td>Maximum time to execute a hard handoff without return on failure involving a new frequency assignment using the same base station</td>
<td>0.06 s</td>
<td>2.6.6.2.8.1</td>
</tr>
<tr>
<td>T61m</td>
<td>Maximum time to execute a hard handoff without return on failure involving a new frequency assignment using a different base station</td>
<td>0.08 s</td>
<td>2.6.6.2.8.1</td>
</tr>
</tbody>
</table>
### Table D-1. Time Limits (Part 4 of 5)

<table>
<thead>
<tr>
<th>Time Limit</th>
<th>Description</th>
<th>Value</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>T62m</td>
<td>Maximum time to execute a hard handoff without return on failure involving the same frequency assignment</td>
<td>0.02 s</td>
<td>2.6.6.2.8.1</td>
</tr>
<tr>
<td>T63m</td>
<td>Maximum time to execute a CDMA-to-Analog handoff</td>
<td>0.1 s</td>
<td>2.6.6.2.9</td>
</tr>
<tr>
<td>T64m</td>
<td>Maximum time to wait for a Base Station Challenge Confirmation Order</td>
<td>10 s</td>
<td>2.3.12.1.5</td>
</tr>
<tr>
<td>T65m</td>
<td>Maximum time for the mobile station to wait for a Service Connect Message while the Waiting for Service Connect Message Subfunction is active</td>
<td>5 s</td>
<td>2.6.4.1.2.2.4</td>
</tr>
<tr>
<td>T66m</td>
<td>Maximum time for the mobile station to delete the TMSI after TMSI expiration time has exceeded the System Time</td>
<td>200 s</td>
<td>2.6.2</td>
</tr>
<tr>
<td>T68m</td>
<td>Maximum time for the mobile station to wait for a Service Request Message, Service Response Message, or Service Connect Message while the Waiting for Service Request Message Subfunction or Waiting for Service Response Message Subfunction is active</td>
<td>5 s</td>
<td>2.6.4.1.2.2.2, 2.6.4.1.2.2.3</td>
</tr>
<tr>
<td>T69m</td>
<td>Fixed portion of the full-TMSI timer</td>
<td>24 s</td>
<td>2.6.3.1.6</td>
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<td>T70m</td>
<td>Maximum time between the mobile station’s obtaining a measurement and sending a Candidate Frequency Search Report Message which contains that measurement</td>
<td>0.8 s</td>
<td>2.6.6.2.8.3, 2.6.6.2.10</td>
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<tr>
<td>T71m</td>
<td>Maximum time for the mobile station to send a Candidate Frequency Search Report Message after completing a search</td>
<td>0.04 s</td>
<td>2.6.6.2.8.3</td>
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<tr>
<td>T72m</td>
<td>Maximum time to receive a valid Paging Channel or Forward Common Control Channel/Broadcast Control Channel message before aborting an access attempt, when there exists at least one access handoff candidate pilot for the access attempt (see also T40m)</td>
<td>1 s</td>
<td>2.6.3.1.8</td>
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<tr>
<td>T73m</td>
<td>Maximum time for the mobile station to send a Handoff Completion Message after the action time of a received handoff message directing the mobile station to perform a hard handoff without return on failure</td>
<td>0.3 s</td>
<td>2.6.6.2.5.2</td>
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<td>T74m</td>
<td>Default value of the slotted timer</td>
<td>0.0 s</td>
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### Table D-1. Time Limits (Part 5 of 5)

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<td>T1b</td>
<td>Maximum period between subsequent transmissions of an overhead message on the Paging Channel by the base station</td>
<td>1.28 s</td>
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<td>T2b</td>
<td>Maximum time for the base station to send a Release Order after receiving a Release Order</td>
<td>0.8 s</td>
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<td>T3b</td>
<td>Minimum time the base station continues to transmit on a code channel after sending or receiving a Release Order</td>
<td>0.3 s</td>
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<td>T4b</td>
<td>Maximum time for the base station to respond to a service option request</td>
<td>5 s</td>
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Table D-2. Other Constants

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<td>$N_{2m}$</td>
<td>The duration, of insufficient signal quality (e.g. bad frames), in units of 20ms, received on the Forward Traffic Channel before a mobile station must disable its transmitter</td>
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<td>$N_{3m}$</td>
<td>The duration, of sufficient signal quality (e.g. good frames), in units of 20ms, received on the Forward Traffic Channel before a mobile station is allowed to re-enable its transmitter after disabling its transmitter</td>
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<td>$N_{4m}$</td>
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<td>$N_{5m}$</td>
<td>The duration, of sufficient signal quality (e.g. good frames), in units of 20ms, received on the Forward Traffic Channel before a mobile station is allowed to enable its transmitter after entering the Traffic Channel Initialization Substate of the Mobile Station Control on the Traffic Channel State</td>
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<td>$N_{6m}$</td>
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<td>$N_{7m}$</td>
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<td>$N_{8m}$</td>
<td>Minimum supported Neighbor Set size</td>
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<td>$N_{9m}$</td>
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<td>SID/NID list size</td>
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<td>$N_{11m}$</td>
<td>The duration, of sufficient signal quality (e.g. good frames), in units of 20ms, received on the Forward Traffic Channel before a mobile station re-enables its transmitter after disabling its transmitter during a CDMA-to-CDMA Hard Handoff</td>
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<td>$N_{12m}$</td>
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ANNEX E CDMA RETRIEVABLE AND SETTABLE PARAMETERS

This is a normative annex which describes the parameters that can be retrieved and set in the mobile station using the Retrieve Parameters Message, the Parameters Response Message, and the Set Parameters Message.

PARAMETER_ID values from 0 through 32767 are reserved for definition by this standard and shall not be defined by mobile station manufacturers. PARAMETER_ID values from 32768 through 65535 may be defined by mobile station manufacturers.
## Table E-1. Retrievable and Settable Parameters (Part 1 of 19)

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<td>16</td>
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<td>Y</td>
<td>[4]</td>
</tr>
<tr>
<td>RCCCH_3</td>
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<td>16</td>
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<td>Y</td>
<td>[4]</td>
</tr>
<tr>
<td>RCCCH_4</td>
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<td>16</td>
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<td>Y</td>
<td>[4]</td>
</tr>
<tr>
<td>RCCCH_5</td>
<td>488</td>
<td>16</td>
<td>Y</td>
<td>Y</td>
<td>[4]</td>
</tr>
<tr>
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<td>489</td>
<td>16</td>
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<td>Y</td>
<td>[4]</td>
</tr>
<tr>
<td>RCCCH_7</td>
<td>490</td>
<td>16</td>
<td>Y</td>
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<td>[4]</td>
</tr>
<tr>
<td>RCCCH_8</td>
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<td>16</td>
<td>Y</td>
<td>Y</td>
<td>[4]</td>
</tr>
<tr>
<td>RCCCH_9</td>
<td>492</td>
<td>16</td>
<td>Y</td>
<td>Y</td>
<td>[4]</td>
</tr>
<tr>
<td>BCCH_6</td>
<td>493</td>
<td>24</td>
<td>Y</td>
<td>Y</td>
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<td>BCCH_7</td>
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<td>24</td>
<td>Y</td>
<td>Y</td>
<td>[3]</td>
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<tr>
<td>BCCH_8</td>
<td>495</td>
<td>24</td>
<td>Y</td>
<td>Y</td>
<td>[3]</td>
</tr>
<tr>
<td>BCCH_9</td>
<td>496</td>
<td>24</td>
<td>Y</td>
<td>Y</td>
<td>[3]</td>
</tr>
<tr>
<td>CACH_1</td>
<td>497</td>
<td>24</td>
<td>Y</td>
<td>Y</td>
<td>[3]</td>
</tr>
<tr>
<td>CACH_2</td>
<td>498</td>
<td>24</td>
<td>Y</td>
<td>Y</td>
<td>[3]</td>
</tr>
<tr>
<td>FCCCH_5</td>
<td>499</td>
<td>24</td>
<td>Y</td>
<td>Y</td>
<td>[3]</td>
</tr>
<tr>
<td>Parameter Identifier</td>
<td>Value of PARAMETER_ID (decimal)</td>
<td>Length (bits) (PARAMETER_LEN is Length - 1)</td>
<td>Support Required? (Y or N)</td>
<td>Settable Parameter? (Y or N)</td>
<td>Reference Section</td>
</tr>
<tr>
<td>----------------------</td>
<td>---------------------------------</td>
<td>---------------------------------------------</td>
<td>---------------------------</td>
<td>-------------------------------</td>
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<td>Y</td>
<td>[3]</td>
</tr>
<tr>
<td>FCCCH_7</td>
<td>501</td>
<td>24</td>
<td>Y</td>
<td>Y</td>
<td>[3]</td>
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<tr>
<td>FCCCH_8</td>
<td>502</td>
<td>24</td>
<td>Y</td>
<td>Y</td>
<td>[3]</td>
</tr>
<tr>
<td>FCCCH_9</td>
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<td>Y</td>
<td>Y</td>
<td>[3]</td>
</tr>
<tr>
<td>FCCCH_10</td>
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<td>24</td>
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<td>Y</td>
<td>[3]</td>
</tr>
<tr>
<td>FCCCH_11</td>
<td>505</td>
<td>24</td>
<td>Y</td>
<td>Y</td>
<td>[3]</td>
</tr>
<tr>
<td>SCH0_FOR_32X</td>
<td>506</td>
<td>24</td>
<td>Y</td>
<td>Y</td>
<td>[3]</td>
</tr>
<tr>
<td>SCH1_FOR_32X</td>
<td>507</td>
<td>24</td>
<td>Y</td>
<td>Y</td>
<td>[3]</td>
</tr>
<tr>
<td>SCH0_REV_32X</td>
<td>508</td>
<td>24</td>
<td>Y</td>
<td>Y</td>
<td>[3]</td>
</tr>
<tr>
<td>SCH1_REV_32X</td>
<td>509</td>
<td>24</td>
<td>Y</td>
<td>Y</td>
<td>[3]</td>
</tr>
</tbody>
</table>
ANNEX F MOBILE STATION DATABASE

F.1 Introduction

This is an informative annex which lists the numeric indicators that are described by this document and stored in the mobile station’s permanent or semi-permanent memory. Some of these indicators are required; other indicators are optional and are so noted.

The indicators are organized in this annex according to two categories:

- Mobile station indicators These indicators are global to the mobile station and independent of the mobile station’s NAMs.
- NAM indicators These indicators specify parameters associated with the mobile station’s NAM.

The description of each indicator below includes the indicator’s name, the number of bits it contains, and the section in this document where it is defined. Permanent indicators are denoted by the “p” subscript; semi-permanent indicators are denoted by the “s-p” subscript.
**F.2 Mobile Station Indicators**

Mobile station indicators are organized into permanent mobile station indicators and semi-permanent mobile station indicators.

**F.2.1 Permanent Mobile Station Indicators**

Permanent mobile station indicators specify physical station configuration and attributes, independent of NAM. The indicators are listed in Table F.2.1-1.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Number of Bits</th>
<th>Where Defined</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESN&lt;sub&gt;p&lt;/sub&gt;</td>
<td>32</td>
<td>2.3.2</td>
<td>See 2.3.2 for special ESN storage and protection requirements. Includes MOB_MFG_CODE&lt;sub&gt;p&lt;/sub&gt;.</td>
</tr>
<tr>
<td>SCM&lt;sub&gt;p&lt;/sub&gt;</td>
<td>8</td>
<td>2.3.3</td>
<td></td>
</tr>
<tr>
<td>SLOT_CYCLE_INDEX&lt;sub&gt;p&lt;/sub&gt;</td>
<td>3</td>
<td>2.3.11</td>
<td></td>
</tr>
<tr>
<td>MOB_FIRM_REV&lt;sub&gt;p&lt;/sub&gt;</td>
<td>16</td>
<td>2.3.14</td>
<td></td>
</tr>
<tr>
<td>MOB_MODEL&lt;sub&gt;p&lt;/sub&gt;</td>
<td>8</td>
<td>2.3.14</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>For each band class supported:</td>
</tr>
<tr>
<td>MOB_P_REV&lt;sub&gt;p&lt;/sub&gt;</td>
<td>8</td>
<td>2.3.14</td>
<td></td>
</tr>
</tbody>
</table>
F.2.2 Semi-permanent Mobile Station Indicators

Semi-permanent mobile station indicators are retained when the mobile station power is turned off. These indicators are associated with mobile station registration and lock. They are independent of the NAM in use. CDMA indicators are listed in Table F.2.2-1.

**Table F.2.2-1. CDMA Semi-permanent Mobile Station Indicators**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Number of Bits</th>
<th>Where Defined</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZONE_LIST&lt;sub&gt;s-p&lt;/sub&gt;</td>
<td>12</td>
<td>2.3.4</td>
<td></td>
</tr>
<tr>
<td>REG_ZONE&lt;sub&gt;s-p&lt;/sub&gt;</td>
<td>15</td>
<td>2.3.4</td>
<td></td>
</tr>
<tr>
<td>SID&lt;sub&gt;s-p&lt;/sub&gt;</td>
<td>16</td>
<td>2.3.4</td>
<td></td>
</tr>
<tr>
<td>NID&lt;sub&gt;s-p&lt;/sub&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SID_NID_LIST&lt;sub&gt;s-p&lt;/sub&gt;</td>
<td>15</td>
<td>2.3.4</td>
<td></td>
</tr>
<tr>
<td>SID&lt;sub&gt;s-p&lt;/sub&gt;</td>
<td>16</td>
<td>2.3.4</td>
<td></td>
</tr>
<tr>
<td>NID&lt;sub&gt;s-p&lt;/sub&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BASE_LAT_REG&lt;sub&gt;s-p&lt;/sub&gt;</td>
<td>22</td>
<td>2.3.4</td>
<td></td>
</tr>
<tr>
<td>BASE_LONG_REG&lt;sub&gt;s-p&lt;/sub&gt;</td>
<td>23</td>
<td>2.3.4</td>
<td></td>
</tr>
<tr>
<td>REG_DIST_REG&lt;sub&gt;s-p&lt;/sub&gt;</td>
<td>11</td>
<td>2.3.4</td>
<td></td>
</tr>
<tr>
<td>LCKRSN_P&lt;sub&gt;s-p&lt;/sub&gt;</td>
<td>4</td>
<td>2.3.13</td>
<td></td>
</tr>
<tr>
<td>MAINTRSN&lt;sub&gt;s-p&lt;/sub&gt;</td>
<td>4</td>
<td>2.3.13</td>
<td></td>
</tr>
</tbody>
</table>
### F.3 NAM Indicators

Each mobile station contains one or more NAMs. Table F.3-1 lists the permanent and semi-permanent values associated with each NAM.

#### Table F.3-1. NAM Indicators (Part 1 of 2)

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Number of Bits</th>
<th>Where Defined</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A_KEY</td>
<td>64</td>
<td>2.3.12.1.5</td>
<td></td>
</tr>
<tr>
<td>SSD_A_s-p</td>
<td>64</td>
<td>2.3.12.1.1</td>
<td>Shared Secret Data A</td>
</tr>
<tr>
<td>SSD_B_s-p</td>
<td>64</td>
<td>2.3.12.1.1</td>
<td>Shared Secret Data B</td>
</tr>
<tr>
<td>COUNT_s-p</td>
<td>6</td>
<td>2.3.12.1.3</td>
<td>Call History Parameter</td>
</tr>
<tr>
<td>IMSI_M_CLASS_p</td>
<td>1</td>
<td>2.3.1</td>
<td></td>
</tr>
<tr>
<td>IMSI_T_CLASS_p</td>
<td>1</td>
<td>2.3.1</td>
<td></td>
</tr>
<tr>
<td>IMSI_M_Sp</td>
<td>34</td>
<td>2.3.1.1</td>
<td>Includes IMSI_M_S1_p and IMSI_M_S2_p.</td>
</tr>
<tr>
<td>IMSI_T_Sp</td>
<td>34</td>
<td>2.3.1.1</td>
<td>Includes IMSI_T_S1_p and IMSI_T_S2_p.</td>
</tr>
<tr>
<td>IMSI_M_ADDR_NUM_p</td>
<td>3</td>
<td>2.3.1</td>
<td>Applies to IMSI_M.</td>
</tr>
<tr>
<td>IMSI_T_ADDR_NUM_p</td>
<td>3</td>
<td>2.3.1</td>
<td>Applies to IMSI_T.</td>
</tr>
<tr>
<td>IMSI_M_11_12_p</td>
<td>7</td>
<td>2.3.1.2</td>
<td></td>
</tr>
<tr>
<td>IMSI_T_11_12_p</td>
<td>7</td>
<td>2.3.1.1</td>
<td></td>
</tr>
<tr>
<td>MCC_M_p</td>
<td>10</td>
<td>2.3.1.1</td>
<td></td>
</tr>
<tr>
<td>MCC_T_p</td>
<td>10</td>
<td>2.3.1.1</td>
<td></td>
</tr>
<tr>
<td>MDN_p</td>
<td>See Notes</td>
<td>2.3.1.4</td>
<td>An MDN consists of up to 15 digits based on manufacturer specific coding.</td>
</tr>
<tr>
<td>ASSIGNING_TMSI_ZO NE_LEN_s-p</td>
<td>4</td>
<td>23.15.2</td>
<td></td>
</tr>
<tr>
<td>ASSIGNING_TMSI_- ZONE_s-p</td>
<td>64</td>
<td>2.3.15.2</td>
<td></td>
</tr>
<tr>
<td>TMSI_CODE_s-p</td>
<td>32</td>
<td>2.3.15.2</td>
<td></td>
</tr>
<tr>
<td>TMSI_EXP_TIME_s-p</td>
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<td>2.3.15.2</td>
<td></td>
</tr>
<tr>
<td>HOME_SID_p</td>
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<td>2.3.8</td>
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Table F.3-1. NAM Indicators (Part 2 of 2)

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<th>Where Defined</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>SID_p</td>
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<td>2.3.8</td>
<td></td>
</tr>
<tr>
<td>NID_p</td>
<td>16</td>
<td>2.3.8</td>
<td></td>
</tr>
<tr>
<td>MOB_TERM_HOME_p</td>
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<td>2.3.8</td>
<td></td>
</tr>
<tr>
<td>MOB_TERM_FOR_SID_p</td>
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<td>2.3.8</td>
<td></td>
</tr>
<tr>
<td>MOB_TERM_FOR_NID_p</td>
<td>1</td>
<td>2.3.8</td>
<td></td>
</tr>
</tbody>
</table>
ANNEX G CDMA EXTENDED ENCRYPTION CALL FLOW EXAMPLES

This is an informative annex, which contains examples of extended encryption call flow. The diagrams follow these conventions:

- All messages are received without error
- Acknowledgments are not shown

For all the call flow diagrams, the following conventions hold:

- The following message acronyms are defined:
  
  RGM: Registration Message
  ORM: Origination Message
  CAM: Channel Assignment Message
  ECAM: Extended Channel Assignment Message
  SMCM: Security Mode Command Message

- The following short forms are defined:
  
  enc.k1: encrypt the message with key k1
  csch_enc_req: C_SIG.ENCRYPT_REQ
  dsch_enc_req: D_SIG.ENCRYPT_REQs
  csch_enc: C_SIG.ENCRYPT_MODE
  dsch_enc: D_SIG.ENCRYPT_MODE
  A <- B: assign value B to variable A
Upon power-up:
C_SIG_ENCRYPT_MODEs <- '000'
ENC_KEY <- NULL

C_SIG_ENCRYPT_MODEs

D_SIG_ENCRYPT_MODEs
Initial value set by CAM/ECAM

Upon power-up:
C_SIG_ENCRYPT_MODEs <- '000'
ENC_KEY <- NULL

Figure G-1. Power-Up Registration, Origination, and Call Release (BS waits for the new CMEKEY before sending CAM/ECAM)
Figure G-2. Quick channel assignment (BS does not wait for the new key before sending CAM/ECAM)
**Figure G-3. MS Initiates call origination during the Registration Access Substate**
Figure G-4. Implicit registration (MS crosses a SID/NID boundary during MS Idle State. MS originates before registering)
Figure G-5. BS lost the stored key (A rare out-of-sync case)
Figure G-6. MS fails to decrypt messages (MS recovers by re-synchronizing the crypto-sync)
**Figure G-7.** MS fails to decrypt messages (MS recovers by re-registering after failing to re-synchronize the crypto-sync)
BS can not decrypt msg 1

Security Mode Request Msg (24-bit crtyo-sync, csch_enc_req/dsch_enc_req = on)

Security Mode Command Msg (csch_enc/dsch_enc = on)

Can decrypt now. Recovered

Figure G-8. BS fails to decrypt messages (BS recovers by re-synchronizing the crypto-sync)
Figure G-9. BS fails to decrypt messages (BS recovers by forcing the MS to re-register after failing to re-synchronize the crypto-sync)
No text