



No.0015

Event

The 2nd APG-19 meeting

APG-19 (Asia-Pacific Telecommunity Conference Preparatory Group for WRC-19) has responsibility to create the APT Common Proposal towards the World Radiocommunication Conference to be held in 2019 (WRC-19).

The 2nd meeting of APG-19 was held on July 2017. Overview and Major results of the meeting are as follows.

1. Overview of the meeting

Schedule	From 17 to 21 July 2017
Venue	Bali, Indonesia
Participants	About 460 people from 23 countries
Participants from Japan	53 people (including 4 people from ARIB) headed by Mr. Kimura (Director of International Frequency Policy Office, MIC)

2. Major results

At the meeting, APT provisional opinion document which is the basis of the APT joint proposal in each agenda of WRC-19 was deliberated based on contribution of each country, and its first edition of the draft text was completed.

Discussions were also held on how the APG and AWG (APT Wireless Group) would cooperate in relation to the WRC-19 agenda, and it was confirmed that the AWG would conduct study on both technical and operational aspects according to APG's request confirmed.

It was decided that the input from AWG to ITU - R is limited to technical or operational information, and can be submitted after approval as APT recommendation / report, and that the development progress of recommendation / report should be reported to APG by AWG.

Study Organization of APG-19

Chairman	Dr. Kyu-Jin Wee	(Korea)
Vice-chairman	Mr. Xiaoyang Gao Mr. Neil Meaney	(China) (Australia)
Chairman of editorial committee	Dr. Tommy Chee	(New Zealand)
WP1: Land mobile and fixed services	Ms. Zhu Keer	(China)
WP2: Broadband applications in the mobile service	Dr. Kyung-mee Kim	(Korea)
WP3: Satellite services	Mr. Muneo Abe	(Japan)
WP4: Science services	Dr. Atmadji Wiseso Soewito	(Indonesia)
WP5: Maritime, aeronautical and amateur services	Mr. Bui Ha Long	(Vietnam)
WP6: General issues	Mr. Taghi Shafee	(Iran)

3. The future meeting schedule

Meeting	Date	Venue	Agenda
3rd	12-16 March. 2018	Australia	Revision of the APT provisional view
4th	7-12 January 2019	Korea	Completion of the CPM19-2 proposal Revision of the APT provisional view
5th	31 July - 6 August 2019	Japan	Complete the APT joint proposal



The 2nd APG-19 Meeting

Liaison meeting on collaboration and cooperation between NICT and ARIB

Based on the agreement of the promotion of collaboration and cooperation signed between the National Institute of Information and Communications Technology (NICT) and ARIB, the 5th liaison meeting was held on 3 August 2017. This agreement was signed on 12 March 2013 to strengthen the collaboration and cooperation of the two institutions on research, development and standardization.

In the liaison meeting, the activities of both institutions were introduced, followed by a lively exchange of views on the issues in telecommunication field and further promotion of collaboration and cooperation.



The 5th liaison meeting of NICT and ARIB

* Lower left : Mr. Matsui (Secretary General of ARIB)

*Lower right : Mr. Okano (Vice President of NICT)

SET EXPO 2017 in Sao Paulo

The SET EXPO 2017, the largest conference and exhibition in Latin American broadcasting, was held by SET (Sociedade Brasileira de Engenharia de Televisão) from 21 August through 24 at the Expo Center Norte in Sao Paulo, Brazil, where seminars, sessions and exhibition of broadcast-related engineering and technology were performed.



Mr. Tominaga



Opening Ceremony

At the opening ceremony, Mr. Tominaga, Vice Minister for Policy Coordination of Internal Affairs and Communications (MIC), offered his opening greetings. The subsequent VIP tour to visit the exhibition area, including the Japan Pavilion, was headed by Mr. Gilberto Kassab, Minister for Science, Technology, Innovation and Communications.

At the Japan Pavilion set by MIC, 6 companies and institutions participated in the exhibition; from ARIB, NHK, NHK ITEC, Maspro Denkoh, Furukawa Electric and NEC. Japanese companies such as Sony, Panasonic, Hitachi Kokusai, etc. had their own exhibition booths.



Minister Kassab visiting Japan Pavilion

At the Japan Pavilion, ARIB/DiBEG showed some panels introducing its international promotion activities on ISDB-T with some hand-outs, and also exhibited a new information display based on EWBS (Emergency Warning Broadcast System), as well as the actual ISDB-T receiving demonstration with a compact-size indoor antenna.

At the conference sessions, Mr. Ogawa of MIC, Dr. Sugawara of DiBEG and Mr. Murayama, Chairman of the DiBEG Task Force for Japan–Brazil Joint Working for Next Generation Broadcasting, respectively made a presentation.



Demonstration of EWBS



Demonstration of antenna

The Technical Harmonization Meeting was held in Sao Paulo on 21 August at the Expo Center Norte among the members of ISDB-T International Forum, in parallel with the SET EXPO 2017, to discuss ISDB-T implementation.

6 member country representatives participated in the meeting; from Japan (MIC, two JICA experts from Peru and Costa Rica, and ARIB/DiBEG member company representatives and secretariat), Brazil, Paraguay, Argentine, Ecuador, and El Salvador.

Each country representative explained the latest progress of ISDB-T implementation, ASO (Analog Switch-Off), etc.



Technical Harmonization Meeting in Sao Paulo

The 16th CJK IT Standards Meeting

CJK Meeting on Information and Telecommunication Standards started on June 2002 with an initiative of ARIB of Japan, CCSA* of China, TTA* of South Korea, and the TTC* of Japan to promote mutual cooperation among the standards development organization of Japan, China and South Korea more actively.

The 16th CJK IT Standards Meeting was held from 29 to 31 August 2017, hosted by TTA at Jeju, Korea. A total of about 33 people (6 people from ARIB led by Dr. Kohei Satoh, Executive Manager on Standardization) participated in the meeting.

This year, the 14th WPT (Wireless Power Transmission) WG had been held just before the Plenary Meeting at the same venue.

The plenary meeting was composed of three parts; (1) Report from each SDO, (2) Report from each WG, and (3) Strategic Session.

In the session of (1) Report from SDO, the latest status (priorities, issues, strategic initiatives, etc.) were presented from each SDO.

In the next session (2) Report from each WG, following activities were reported from IMT WG.

- Joint contribution to the 26th and the 27th, WP5D meeting
- Contribution to the completion of Report M[IMT-2020.EVAL] and M[IMT-2020. SUBMISSION]

- Plan to cooperate in standardization toward TG5/1 and AWG

WPT WG reported the activities below.

- Admission of the report at AWG-21 related to application, technologies, standardization
- Plan to input the technical report
- Plan to cooperation toward ITU-R WP1A/B and AWG
- Plan to extend working area, such as frequency sharing, EMC, effect to human body

In the (3) Strategic Session, presentations from each SDO were delivered, followed by the panel discussion as to what fields to advance into and approaches.

Next CJK-17 meeting was announced to be held in Matsue, Japan hosted by ARIB and TTC at the closing of the meeting.



The Plenary of the 16th CJK IT Standards Meeting

The 50th CJK IMT Working Group Meeting

CJK IMT Working Group Meeting is aiming to exchange information and views about the activities of international IMT standardizations in ITU-R, APT, 3GPPs, and so on, among members of SDOs in China, Japan and Korea.

The 50th CJK IMT Working Group Meeting was held in Suzhou, China on 4 to 5 September. 5 people from ARIB, 10 people from CCSA (China) and 7 people from TTA (Korea) participated in the Meeting.

In the Meeting, following actions were carried out.

- (1) The results of the 2nd ITU-R TG5/1, the 2nd APG-19 (ASIA- PACIFIC TELECOMMUNITY Conference Preparatory Group for WRC-19) , the 27th ITU-R SG5 WP5D were confirmed. And also, report of each SDO's activities and the discussion at 3 GPP were shared.
- (2) Information was shared regarding the schedule of IMT-2020 technical proposals to ITU-R in each country, and the activities of the external evaluation group.
- (3) Information was shared on the preparation progress of each country for the 3rd TG 5/1 meeting to be held from September 19.
- (4) Information was shared on preparation progress of each country for the 28th WP 5D meeting scheduled to be held from 3rd October, and based on the activities of the two Special Interest Groups (SIG - Spectrum, SIG - Evaluation), and it was decided that China and Korea and Japan would draft a co-contribution document.
- (5) SIG-Requirement was decided to be closed because study of the issue had completed, and to set up a new SIG in case of arising of issues to study in the future.

The next CJK IMT Working Group Meeting will be scheduled on 12 and 13 December 2017 in Okinawa Japan.



The 50th CJK IMT meeting

3GPP TSG Meeting in Sapporo

The 77th Meeting of the 3GPP's Technical Specification Group (TSG), was held as follows.

1 Schedule: 11(Mon) to 15(Fri) September, 2017

2 Venue: Hotel Emisia Sapporo (Sapporo, Japan)

3 Organizer: ARIB (Association of Radio Industries and Businesses),
TTC (Information and Communication Technical Committee)

4 Number of participants:

TSG RAN meeting: about 270, TSG SA meeting: about 150, TSG CT meeting: about 110

5 Summary:

The TSG meeting was held four times a year, and the 77th meeting was held in Japan, co-hosted by ARIB and TTC, both of which participate 3GPP as a major standardization organization from Japan. TSG deliberates technical studies and formulation of specifications in 3GPP, and it is composed of three review groups: TSG RAN (Radio Access Network), TSG SA (Service and system Aspects), and TSG CT (Core Network & Terminal).

In 3GPP, studies are underway focusing on new specification formulation of "5G NR (New Radio)" which is the radio system of 5G (The 5th generation mobile communication system), and active deliberations were held at the TSG meeting (Number of documents at this meeting - RAN: about 600, SA: about 220, CT: about 160).

Regarding the specification for 5G, Release 15 is formulated as Phase 1 as shown below. And the specifications of detailed protocols to be concentrated for the time being in RAN, and parameters that should be discussed were confirmed. A concrete proposal schedule of 3GPP RAN specification of IMT-2020 radio interface for ITU-R WP5D was also agreed.



Conference hall and Welcome address by Mr. Nishioka





The 10th Study Group Meeting on Private wireless communication

The Study Group on Private wireless communication was established on April 2015 in order to provide a place to investigate technologies and usage trends of the private wireless communication both domestically and internationally, and study the enhancement of Private wireless communication.

The 10th study group meeting was held on 12 September 2017 with 72 participants.

In the meeting, 4 presentations (speakers and titles are described below) and exchange of ideas were carried out under the themes of "the latest policy trend", "current status of private wireless communication and advanced wireless communication technology".

■Speaker and Title of each presentation

	Speaker		Title
(1)		Mr. Toru Fukatsu Deputy Director of MIC	Extension of period related to calibration etc. of measuring instruments
(2)		Mr. Naoki Fujimoto Nihon Dengyo Kosaku Co., Ltd.	Current status of wireless communication utilization in long distance wireless LAN communication system
(3)		Mr. Tomoyuki Sone Fujitsu Limited	Current status of wireless communication utilization in 920 MHz low power wireless communication system
(4)		Mr. Yoshio Honda Ericsson Japan	Application examples and trends of PS-LTE and LTE



The 10th Study Group Meeting on Private wireless communication

ARIB - DVB Regular Meeting

The annual meeting between DVB (Digital Video Broadcasting), the standardization organization for digital television in Europe, and ARIB was held at the opportunity of the IBC (International Broadcasting Convention), the largest exhibition of broadcasting equipment in Europe (14 - 19 September 2017). The meeting has been held annually, based on the agreement of exchanging information at “the regular meeting between Japan and EC” in 1994. The information about activities and liaison has been shared, and views on the hot topics have been exchanged at the meetings.

1. Outline of the meeting

Schedule	18 September 2017
Venue	RAI Exhibition Center (Amsterdam, Netherlands)
Participants	<p>(DVB) Mr. Peter MacAvock (Chairman, DVB Project; EBU) Mr. Peter Siebert (Executive Director, DVB Project)</p> <p>(ARIB) Mr. Masayuki Sugawara (Chairman DiBEG) Mr. Tomohiro Saitou (NHK), Mr. Kenichi Murayama (NHK), Mr. Ryoichi Nakai (Broadcasting Group, ARIB), Mr. Kiyoshi Igarashi (Development Center, ARIB)</p>

2. Main results

(1) Report of the latest activities

ARIB gave the following explanations.

- Status of 4K / 8K broadcasting in Japan

- Research topics of terrestrial 4K / 8K broadcasting in Japan
- Activity status of ARIB over the past year (including international dissemination activities by DiBEG)

DVB had the following explanations.

- Achievements over the last year
- Finalized Study Mission Group (SMG)
- Ongoing Specification Activities
- Ongoing Study Mission Group (SMG)

(2) Liaison

ARIB and DVB reviewed and renewed the contact person.



DVB exhibition area

The 3rd meeting of the ITU-R TG5/1

The 3rd meeting of the ITU-R TG5/1 was held at the Yas Marina Circuit - Event Centre (Abu Dhabi, United Arab Emirates) from 19 to 28 September 2017.

TG 5/1 is responsible for the development of draft CPM text under WRC-19 Agenda item 1.13 (Addition of mobile service in the 24.25-86 GHz band for future IMT development), and frequency sharing between radiosystems is studied there.

1. Outline of the Meeting

Schedule : From 19 to 28 September 2017

Venue : Yas Marina Circuit - Event Centre (Abu Dhabi, United Arab Emirates)

Participants :

About 250 people from each country's Administration, Operator, Vendor, etc.

As the Japanese delegation, 9 people headed by Mr. Kobashi of MIC participated. Mr. Kato participated from ARIB.

2. Main results

About 80 contributions were input (including liaison documents from WP etc) to the meeting. Since preparation of working documents of study for frequency shairing had begun at the last meeting, creation and update of working documents based on contribution from each country was conducted.

(1) Deliberation structure

- WGs were set up according to frequency band, and subsidiary organizations (SWG: Sub-Working Group, DG: Drafting Group) were set up according to frequency / work, and deliberation was started. As well as the previous meeting, ad-hoc group to clarify the parameters provided by related WP for study of frequency sharing was established under the plenary.

- (2) Study of possibility of frequency sharing with existing applications in each band
- Working documents (10 cases) which described study results for each frequency band or application were created. The target frequencies and applications on which working documents have been created are as follows.
 - 24.25 - 27.5 GHz EESS / SRS, ISS, EESS (passive), RAS, FSS, FS
 - 31-33.4 GHz: RNS, SRS, EESS (passive), RAS
 - 37-43.5 GHz EESS / SRS (passive), FS, RAS, FSS (Earth to space)
 - 42.5 - 43.5 GHz FSS (Earth to space)
 - 45.5 - 47 GHz AMS
 - 47-47.2 GHz Target TBD
 - 47.2 - 50.2 GHz EESS (passive)
 - 50.4 - 52.6 GHz EESS (passive)
 - 71-76 GHz FS
 - 81-86 GHz EESS (passive), FS
 - Liaison documents (2 cases) requesting further information on parameters provided by WP 5D were agreed on.



ITU-R TG5/1 3rd meeting

3. Future meeting schedule

- The 4th : 17-26 January 2018 @ Geneva, Switzerland
Study of frequency sharing, Drafting CPM text
- The 5th : 2-11 May 2018 @ Geneva, Switzerland
Completion of frequency sharing study, Drafting CPM text
- The 6th : 3-12 September 2018 @ Geneva, Switzerland
Completion of CPM text

The 22nd Meeting of APT Wireless Group (AWG-22)

The 22nd Meeting of APT Wireless Group (AWG-22) was held as follows.

1. About the APT Wireless Group (AWG)

APT (Asia-Pacific Telecommunity) Wireless Group is a meeting to study the harmonization and standardization of the frequency and technical matters of wireless communication systems in the Asia-Pacific region for the purpose of advancement, dissemination and promotion of wireless communication systems. It has been held usually about twice a year, and the experts of the wireless technology of each country in this region joins the meeting. The group is chaired by Mr. Kohei Sato (ARIB) , with two vice chair Mr. K. Zhu (China) and LV Tuan (Vietnam) .

2. Outline of the Meeting

Schedule	From 25 to 29 September 2017
Venue	Haeundae • Gr and Hotel (Busan, Korea)
Participants	<p>About 210 people from administrations, private organizations and international organizations in the Asia-Pacific region took part in the meeting.</p> <p>As the Japanese delegation, 41 people headed by Ms. Amino, Deputy Director of the international frequency Policy Office of MIC participated.</p>

3. Main results

In the APT Wireless Group, 3 working groups (WG) (frequency, technology and service / application) had been set. In each WG, sub working group or task group had been established for each issue, and deliberation was carried out.

The main results of the meeting were as follows.

(1) IMT: The fifth generation mobile communication systems, etc.

- Worked on improving the APT report of the use situation survey of each country concerning the 24.25 - 86 GHz band which is WRC-19 agenda item 1.13, and issue a liaison document telling the progress situation to the 3rd APG meeting
- Decided to issue a questionnaire to gather information on regulations on the IMT network
- Completed and approved new report on frequency allocation of IMT in 470 MHz band

(2) Intelligent Transport Systems (ITS)

- Agreed to include further information in the revised report on the use of ITS in the APT region (Revision 2)

(3) Wireless Power Transmission system (WPT)

- Agreed to adopt the new recommendation proposal on the frequency range of the mobile WPT (6.78 MHz band) and to proceed with the approval process

- Completed and approved the new report draft on the frequency range of Non-BEAM WPT for powering electric vehicles

(4) Railway wireless system

- Completed and approved a new APT report on RSTT (Railway radiocommunication System between Train and Trackside) which is WRC-19 agenda item 1.11
- Sent a liaison document on work progress on RSTT to APG and WP 5 A

4. Next meeting schedule

The next AWG-23 meeting will be held from 9 to 13 April 2018 in Vietnam.



Chairman, Vice Chairman of AWG and Executives of APT

The 21st Global Standards Collaboration (GSC-21) meeting

Global Standards Collaboration (GSC) meeting has been held once a year in order to exchange information about the standardization activities related to ICT among the representatives and experts of the telecommunication standardization institutions around the world, to avoid duplication of consideration by the SDOs (Standards Development Organizations) and to develop the strategy of cooperation and collaboration between the SDOs to promote the global standardization.

The 21st GSC meeting was held on September 2017, hosted by IEEE-SA. The outline of this meeting was as follows.

- Schedule : 26- 27 September 2017
- Venue : IEEE European office (Vienna, Austria)
* Austrian Standards Institute Meeting Center
- Participating Organizations : 12 GSC member organizations (*1)
- Participants : 86 participants, including 10 guests
(5 participants from ARIB)
- Summary of the meeting :
At first, the latest status reports (priorities, strategic initiatives, etc.) from each SDO were presented. Mr. Nishioka from ARIB explained the latest situation and priority

issues: (a) 5G, (b) UHD TV, (c) ITS efforts and progress situation.

After that, two strategic topics selected in teleconference which had been held prior to the meeting: (1) Communication Technologies and Artificial Intelligence in Autonomous Systems, (2) Smart Cities, and as a special topic proposed by ARIB, (3) Global or Regional harmonized frequency bands for Intelligent Transport Systems (WRC-19 Agenda Item 1.12) were discussed by GSC members following the initial presentations.

In the session of Strategic Topic (1), advances in the AI field in autonomous vehicles, cognitive computing, collaborative robotics etc., public policy and technical issues were presented. Then, it was recognized that it was important to address current and new standards which affect applications such as agriculture, communication, energy, environment, health care, transportation, in order to address these issues.

In the Strategic Topic (2) session, it was concluded that the differences in conditions such as different population density, geography, culture and the like become issues as smart city solutions move to large-scale implementation, and that efforts of the company to establish a world standard effective for urban / community service interoperability were important.

In the special session (3) on WRC-19 AI 1.12, presentations of ITU-R, TTA, TTA, TSDSI, ARIB were delivered, and ITS TF explained the future activity plan. In the subsequent discussions, the importance of WRC-19 AI 1.12 and efforts to address new issues related to LTE V2X was recognized and the continuation of ITS TF was approved.



Keynote by IEEE (Host)



ITS session

- Communiqué

As a result of the meeting, a communiqué incorporating the outline of the content of the discussion was created and released.

- Next meeting

Next time, the 22nd meeting will be held in Switzerland, hosted by ISO/IEC in early March 2019. (It is planned that the 25th meeting will be held in Japan hosted by ARIB and TTC in the second half of 2023 or the first half of 2024.)

*1 : GSC member organizations

ARIB (Association of Radio Industries and Businesses)	Japan
ATIS (Alliance for Telecommunications Industry Solutions)	USA

CCSA (China Communication Standards Association)	China
ETSI (European Telecommunications Standards Institute)	Europe
IEEE-SA (IEEE- Standards Association)	
IEC (The International Electrotechnical Commission)	
ISO (International Organization for Standardization)	
ITU (International Telecommunication Union)	
TIA (Telecommunications Industry Association)	USA
TSDSI (Telecom Standards Development Society, India)	India
TTA (Telecommunications Technology Association)	Korea
TTC (The Telecommunication Technology Committee)	Japan

<p align="center">Monthly seminars on radio wave use</p>

No.151	2 August 2017
Title	Revision of IoT comprehensive strategy - Outline of the 4th interim report of the Information and Communications Council -
Speaker	Mr. Yosuke Kishi Deputy Director of the ICT Strategy Policy Division, Global ICT Strategy Bureau, MIC
Summary	The contents of the "Revised IoT comprehensive strategy" published in July and the future policies were explained, based on the "IoT comprehensive strategy" published in January this year and subsequent progress in its realization.
No.152	31 August 2017
Title	Activities of UTMS Society of Japan - 700 MHz band Cooperative Intelligent Transportation System etc. -
Speaker	Mr. Shunichi Kawabe Managing Director of UTMS Society of Japan Mr. Masafumi Kobayashi Chairman of the Infrastructure - Vehicle cooperation system WG, UTMS Society of Japan
Summary	First, the summary of activities of UTMS Society of Japan was presented by Mr. Kawabe, followed by the clear explanation of concrete application example of 700 MHz band ITS from Mr. Kobayashi.

1. Newly established Standards at Standard Assembly on 27 July 2017

DATA CONTENTS EXCHANGE SPECIFICATION FOR DIGITAL BROADCASTING (SECOND GENERATION) (STD-B70 Ver.1.0)

This standard specifies the data content exchange method developed based on the multimedia encoding method (2nd generation) in digital broadcasting.

2. Revised or abolished Standards at Standard Assembly on 27 July 2017

(1) Telecommunications field

STD Number	Standard Name	Version
STD-T63	IMT-2000 DS-CDMA and TDD-CDMA System	Ver.12.40
STD-T94	OFDMA Broadband Mobile Wireless Access System (WiMAX applied in Japan)	Ver.3.5
STD-T97	Mobile Broadband Wireless Access Systems (IEEE 802.20 TDD Wideband and 625k-MC Modes Application in Japan)	abolished
STD-T99	150 MHz-Band Person/Animal Detection Report System Equipment for Specified Low-Power Radio Station	Ver.3.0
STD-T104	LTE-Advanced System	Ver.4.40
STD-T109	700 MHz BAND INTELLIGENT TRANSPORT SYSTEMS	Ver.1.3

(2) Broadcasting field

STD Number	Standard Name	Version
STD-B10	SERVICE INFORMATION FOR DIGITAL BROADCASTING SYSTEM	Ver.5.11
STD-B24	DATA CODING AND TRANSMISSION SPECIFICATION FOR DIGITAL BROADCASTING	Ver.6.4
STD-B26	HDTV DIGITAL SNG TRANSMISSION SYSTEM	Ver.3.0
STD-B37	STRUCTURE AND OPERATION OF CLOSED CAPTION DATA CONVEYED BY ANCILLARY DATA PACKETS	Ver.2.6
STD-B39	STRUCTURE OF INTER-STATIONARY CONTROL DATA CONVEYED BY ANCILLARY DATA PACKETS	Ver.1.3
STD-B60	MMT-BASED MEDIA TRANSPORT SCHEME IN DIGITAL BROADCASTING SYSTEMS	Ver.1.10
STD-B62	MULTIMEDIA CODING SPECIFICATION FOR DIGITAL BROADCASTING (SECOND GENERATION)	Ver.1.7
STD-B68	Time Code Format in the Interface for UHDTV Production Systems	Ver.2.0