Preparation of the APT for WRC-19

APT Conference Preparatory Group for WRC-19 (APG-19)

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APT - Introduction

The Asia-Pacific Telecommunity (APT) was founded on the joint initiatives of the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) and the International Telecommunication Union (ITU). Established in Bangkok in July 1979, the APT is an intergovernmental organization that operates in conjunction with telecom service providers, manufacturers of communications equipment, and research and development organizations active in the field of communication, information and innovation technologies.

APT serves as the focal organization for ICT in the region. Currently, the APT has a strength of 38 Members, 4 Associate Members and 134 Affiliate Members. Through its various programmes and activities, the APT has made a significant contribution to the development and growth in the ICT sector.

Throughout the past years, the APT has been able to assist members in the preparation of Global conferences such as the ITU Plenipotentiary Conferences (PP), World Telecommunication Development Conferences (WTDC), World Radiocommunication Conferences (WRC), World Summit on the Information Society (WSIS), World Telecommunication Standardization Assemblies (WTSA) and associated ITU meetings. The APT is also involved in promoting regional harmonization of their programmes and activities in the region.

APT is one of the Regional Telecommunication Organizations, as defined in the ITU Convention No. 269B.

The principal organs of the Telecommunity are:

- (a) The General Assembly;
- (b) The Management Committee; and
- (c) The Secretariat.

The APT Radiocommunication Program

The Radiocommunication sector has been recognized as one of the major key areas of APT activities. APT community realizes the important role of Radiocommunications in assisting the development of nations and their societies. The ever-increasing requirements for mobility, for increasing bandwidth for new services, for new means of communicating, for improved availability of information and for the adoption of new approaches to public protection and safety communications is reflected in demands for spectrum, technological development and regulatory provisions within the Radiocommunication sphere. APT together with members are addressing these demands and resolving the inevitable conflicts.

APT Radiocommunication Program is composed of two major Work Programs:

APT Conference Preparatory Group for WRC (APG): APG, one of the most successful work programs in APT, has been playing a significant and successful role to harmonize the regional views to ITU World Radiocommunication Conferences (WRC).

APT Wireless Group (AWG): AWG, formerly known as APT Wireless Forum (AWF) assists the region to make the best possible use of the newly acquired knowledge in wireless technologies in telecommunication and to facilitate the efficient use of the spectrum resources by regional harmonization initiatives.

Due to the importance of subject matters the Radiocommunication activities of APT have attracted the APT members, industry and private sectors and various international organizations. A large number of delegates are participating in the Radiocommunication activities contributing to its success. Furthermore, it has enhanced APT's image to other regional and international organizations.

APT Preparatory Group for WRC-19 Management Structure

The APG structure for WRC-19 was formed at the 1st APT Conference Preparatory Group Meeting for WRC-19 held from 26 to 28 August 2016. The structure is based on the CPM-19 Report Chapters. (see https://www.apt.int/APTAPG)

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APT Preliminary Views on Al 1.11, 1.12, 1.14 and 1.15

Working Party 1: Land Mobile and Fixed Services

Al 1.11 (1/2)

◆Preliminary View

APT Members support studies towards global or regional harmonized frequency bands to support RSTT within existing mobile service allocations, in accordance with Resolution 236 (WRC-15), and are of the view that international standards and global/regional harmonized spectrum would facilitate the current and future development of RSTT.

APT Members are also of the view that:

- -The implementation of harmonized frequency arrangements of RSTT shall not impose additional constraints on other primary services to which these frequency bands are already allocated.
- -ITU-R studies on RSTT should not be restricted to, or preclude, any particular relevant technology.
- -Harmonized frequency arrangements of RSTT can support cross-border railway operations.

AI 1.11 (2/2)

- ◆Issues for consideration of next APG meeting
 - -APT Members are encouraged to consider frequency bands which could be harmonized to support railway radiocommunication systems between train and trackside within existing mobile service allocations.
 - -APT Members are also encouraged to consider the Draft CPM text on this agenda item, taking into account that CPM 19-2 meeting will be held after the APG 19-4.

DG Chair: Mr. Liu Bin (People's Republic of China)

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AI 1.12 (1/2)

♦Preliminary View

APT Members support studies under Resolution 237 (WRC-15) toward possible harmonization of frequency bands in existing mobile-service allocations for the implementation of evolving Intelligent Transport Systems (ITS).

APT Members are also of the view that:

- -Evolving ITS should not be restricted to, nor exclude, any particular evolving ITS technology including LTE based V2X and its evolution technologies.
- -The use of frequency bands by ITS should not impose additional constraints on other primary services to which these frequency bands are already allocated and should take appropriate account of the potential interference from other primary Services, including FSS earth station uplinks.

AI 1.12 (2/2)

- ◆Issues for consideration of next APG meeting
 - -APT Members are encouraged to contribute to the APG19-4 in considering Methods to satisfy the agenda item.
- -APT Members are encouraged to review the outcome of the draft CPM text and are invited to contribute on issues in the draft CPM text.
- -APT Members are encouraged to contribute to the APG19-4 in considering possible frequency bands to be harmonized for ITS.

DG Chair: Mr. Suppapol Jaroonvanichkul (Thailand)

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AI 1.14 (1/2) ◆ Preliminary View

- -APT Members support the ITU-R studies undertaken in accordance with Resolution 160 (WRC-15) on spectrum needs for High Altitude Platform Stations (HAPS), taking into account existing frequency bands that have already been identified for HAPS in the Radio Regulations, and appropriate regulatory actions.
- -APT Members also support sharing and compatibility studies between HAPS and other services to ensure protection of the services to which frequency bands are allocated and their future developments.

AI 1.14 (2/2)

- ◆Issues for consideration of next APG meeting
 - -APT Members are invited to provide their views on the draft CPM text.

-APT Members are invited to provide their views on the overlapping frequency bands between agenda item 1.14 and other agenda items.

DG Chair: Dr. Andri Qiantori (Indonesia)

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AI 1.15 (1/2)

◆Preliminary View

APT Members support the ITU-R studies to consider identification of frequency bands for use by the land-mobile and fixed service applications operating in the frequency range 275-450 GHz, provided that the protection of passive services identified in No.5.565 is ensured. If such identification is made, APT Members support a method of adding a new footnote to the relevant part of the Radio Regulations.

AI 1.15 (2/2)

- ◆Issues for consideration of next APG meeting
 - -Based on the studies in WP 1A, to consider possible frequency bands to be identified for FS/LMS applications.
 - -To consider draft CPM text developed by WP 1A.

DG Chair: Dr. Chin-Sean Sum (Japan)

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Dr. Kyung-Mee Kim (Republic of Korea) Chairman of WP2, APG-19 Email: kyungmee5@korea.com



APT Preliminary Views on Al 1.13, 1.16 and 9.1 (Issues 9.1.1, 9.1.5, 9.1.8)

Working Party 2: Broadband Applications in the Mobile Service

AI 1.13 (1/3)

- **◆**Preliminary Views
- APT Members support the consideration of additional frequency bands for International Mobile Telecommunications (IMT), including possible additional mobile allocations on a primary basis, in accordance with Resolution 238 (WRC-15).
- APT Members also support ITU-R studies on spectrum needs for the terrestrial component of IMT and sharing and compatibility studies in accordance with Resolution 238 (WRC-15). It is important for these sharing and compatibility studies to take into account protection of services to which the band is allocated on a primary basis.

AI 1.13 (2/3)

- **◆**Preliminary Views
- Subject to satisfactory results of sharing and compatibility studies, APT Members have a preference in prioritizing considerations for IMT identification in the 24.25-27.5 GHz frequency band or portions thereof.
- Regarding the overlapping issue of the frequency bands within the scope of agenda item 1.13 associated with Resolution 238 (WRC-15) and those within the scope of agenda items 1.6, 1.14 and 9.1 (issue 9.1.9), APT Members are of the view that this issue would be handled by WRC-19 based on proposals submitted to the conference, discussion on these agenda items and WRC-19's decision on use of each frequency band mentioned in the corresponding Resolutions.

AI 1.13 (3/3)

- Issues for consideration of next APG meeting
- Prioritization of considerations of frequency bands for IMT identification
- Updating APT preliminary views

DG Chair: Dr. Hiroyuki Atarashi (Japan)

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AI 1.16 (1/2)

- **◆**Preliminary Views
- APT members support studies being conducted in ITU-R in accordance with Resolution 239 (WRC-15).
- APT members are of the view that the protection of incumbent services including their current and planned use in the frequency bands 5 150-5 350 MHz, 5 350-5 470 MHz, 5 725-5 850 MHz and 5 850-5 925 MHz should be ensured, without any unacceptable constraints on these services.
- In the frequency band 5 350-5 470 MHz, APT Members support NOC to the Radio Regulations for the use of WAS/RLAN to protect incumbent services.

AI 1.16 (2/2)

- Issues for consideration of next APG meeting
- APT Members are encouraged to contribute to the next APG meeting on the Agenda Item 1.16, taking into account the outcome of APG19-3 and the results of ITU-R studies

DG Chair: Dr. Fang Ji Cheng (P. R. of China) Email: jchfang@163.com



Al 9.1 (Issue 9.1.1)

Preliminary Views

- APT members supports conducting ITU-R studies on possible technical and operational measures to ensure coexistence and compatibility between the terrestrial component of IMT and the satellite component of IMT in the frequency bands 1 980–2 010 MHz and 2 170–2 200 MHz in different countries, in accordance with Resolution 212 (Rev.WRC-15).

Issues for Consideration at Next APG Meeting

APT Members are encouraged to submit their contributions for further considerations in the next APG19 meetings, taking into account progress of ITU-R studies and draft CPM text.

DG Chair: Dr. Azim Fard (Islamic Rep. of Iran)

Email: azimfard@cra.ir

Al 9.1 (Issue 9.1.5) (1/2)

- **◆**Preliminary Views
- APT members support ITU-R studies to investigate the technical and regulatory impacts on the services referred to in Nos. 5.447F and 5.450A that would result from referencing Recommendation ITU-R M.1638-1 in place of Recommendation ITU-R M.1638-0 in those footnotes and to also add a new reference to Recommendation ITU-R M.1849-1 to these footnotes. In so doing, APT Members also support to ensure the protection of the services to which the band is allocated including those which are referenced in these footnotes without any constraints to these services.

Al 9.1 (Issue 9.1.5) (2/2)

- ◆Issues for consideration of next APG meeting
- APT Members are encouraged to contribute to the next APG meeting on the Agenda Item 9.1, Issue 9.1.5, taking into account the outcome of APG19-3 and the results of ITU-R studies.

DG Chair: Dr. Fang Ji Cheng (P. R. of China)

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Al 9.1 (Issue 9.1.8)

- Preliminary Views
- APT Members support studies on the technical and operational aspects of radio networks and systems, as well as spectrum needed, including possible harmonized use of spectrum to support the implementation of narrowband and broadband machine-type communication infrastructures, in order to develop Recommendations, Reports and/or Handbooks, as appropriate, and to take appropriate actions within the ITU Radiocommunication Sector (ITU-R) scope of work, in accordance with Resolution 958 (WRC-15).
- APT Members are of the view that the possible harmonized use of spectrum to support MTC can be achieved through ITU-R Recommendations/Reports and there is no need to make any changes to the Radio Regulations nor for any identification of spectrum to support MTC.

DG Chair: Dr. Rina Pudji Astuti (Indonesia) Email: rinapudjiastuti@telkomuniversity.ac.id



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APT Preliminary Views on Al 1.4, 1.5, 1.6, 7 and 9.1 (Issues 9.1.2, 9.1.3, 9.1.9)

Working Party 3: Satellite Services

AI 1.4

Preliminary Views

APT Members are of the view to support ITU-R studies and that any possible revision of the limitations of Annex 7 to RR Appendix **30** (Rev.WRC-15) under Resolution **557** (WRC-15) should not impose undue constraints* on current and future FSS/BSS usage in the 11.7 – 12.7 GHz frequency band for Region 3.

* See Note 1) at the end of this document.

◆ Issues for consideration of next APG meeting

APT members are encouraged to consider technical and regulatory matters and submit contributions to ITU-R WP-4A and the next APG meeting.

DG Chair: Mr. Meiditomo Sutyarjoko (Indonesia)

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AI 1.5

Preliminary Views

Taking into account Resolution 158 (WRC-15), APT Members support on-going ITU-R studies for regulatory issues and conditions on sharing and compatibility between ESIM and existing services allocated in the frequency bands 17.7-19.7 GHz and 27.5-29.5 GHz to ensure protection of, and not impose undue constraints* on the existing services allocated in these bands and their future development.

* See Note 1) at the end of this document.

◆ Issues for consideration of next APG meeting

APT Members are encouraged to consider technical and regulatory matters and submit contributions to WP4A and next APG meeting.

DG Chair: Mr. Nobuyuki Kawai (Japan)

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AI 1.6 (1/2)

Preliminary Views

APT Members support further studies on technical and operational issues, and regulatory provisions of non-GSO FSS satellite systems in the frequency bands 37.5- 39.5 GHz (space-to-Earth), 39.5 - 42.5 GHz (space-to-Earth), 47.2 - 50.2 GHz (Earth-to-space) and 50.4 - 51.4 GHz (Earth-to-space) while ensuring protection to GSO satellite networks in FSS, MSS and BSS, and other existing services in the same bands as well as protection of the EESS (passive) in the frequency bands 36-37 GHz and 50.2-50.4 GHz and the radio astronomy in the frequency bands 42.5-43.5 GHz, 48.94-49.04 GHz and 51.4-54.25 GHz.

AI 1.6 (2/2)

◆ Issues for consideration of next APG meeting

The draft CPM methods to address this agenda item should be ready for consideration by the APG19-4 meeting. APT Members are encouraged to assess the proposed draft CPM methods with a view to developing specific APT Preliminary Views.

Views relating to the overlap of frequency bands of interest with Al 1.13 should be presented in a contribution where there are specific concerns that need to be addressed.**

** See Note 2) at the end of this document.

DG Chair: Mr. David Kershaw (New Zealand)

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Issue A: NGSO BIU and consideration of a milestone-based deployment approach

◆ Preliminary View

APT Members support further studies related to the regulatory provisions and procedures for BIU of the frequency assignments of non-GSO systems and establishment of a milestone-based approach for alignment of non-GSO system deployment with the MIFR.

APT Members support the course of action which was taken by ITU-R WP4A to separate the studies of BIU of frequency assignments to non-GSO satellite systems in all bands and services and milestone-based deployment approach for non-GSO satellite systems in specific bands and services.

◆ Issues for Consideration at next APG meeting

APT Members are invited to follow the progress of ITU-R studies, and are encouraged to submit their contributions for further considerations at the next meeting.

Issue B: Ka-band coordination arc - FSS vs MSS and MSS vs MSS

Preliminary View

APT Members support the consideration of coordination arc concept to determine coordination requirements between the GSO FSS and GSO MSS satellite networks and between GSO MSS satellite networks in the bands 29.5-30 GHz (Earth-to-space) and 19.7-20.2 GHz (space-to-Earth), while keeping the possibility for administrations to apply $\Delta T/T > 6\%$ criteria under No. **9.41**, provided that the results of the ITU-R studies do not impact the operations of satellite networks in particular those used for safety of life aspects.

◆ Issues for Consideration at next APG meeting

APT Members are invited to follow the progress of ITU-R studies and are encouraged to submit their contributions for further considerations at the next meeting.

Issue C: Issues for which consensus was achieved in ITU-R

Issue C1: Inconsistency between RR No.11.43A and §8.13 of AP30B

Preliminary Views

APT Members support the single method to address this issue by aligning the text of paragraph 8.13 of Article 8 of RR Appendix **30B** with that of RR No. **11.43A** of RR Article **11** while ensuring that this alignment should not impact on any other current regulatory practice.

<u>Issue C2</u>: Possibility to notify/bring into use only one of the blocks/one sub-band under AP30B Article 6

◆ Preliminary Views

APT Members support the single method which can allow administrations to submit an application for one of the blocks/sub-bands of 250 MHz (10.7-10.95 GHz or 11.2-11.45 GHz for downlink and 12.75-13.0 GHz or 13.0-13.25 GHz for uplink) in an explicit submission of one of the blocks/sub-bands under RR Appendix **30B**.

Issue C3: AP30B MOD to Article 6

◆ Preliminary View

APT Members support the single method to add a new provision in Article 6 of RR Appendix **30B** to clearly state that § 6.13 to 6.15 of RR Appendix **30B** do not apply in the context of requirements associated with § 6.6 of RR Appendix **30B**.

Issue C4: AP30/30A single AP4 notice for List and Notification

Preliminary View

APT Members support the single method in the Preliminary Draft CPM text for WRC-19 agenda item 7 – Issue C for Issue C4.

Issue C5: MOD to No. 11.46 and six month resubmission

Preliminary Views

APT Members support the single method to modify RR No.11.46, as mentioned in the draft CPM text, requiring the Bureau to remind the notifying administrations of six month deadline to resubmit their frequency assignments under RR No. 11.46.

Issue C6: Single AP4 notice for entry into the AP30B List (under § 6.17) and Notification (under § 8.1)

◆ Preliminary Views

APT Members support the single method to allow one single submission to be treated both in respect of entry into the List under § 6.17 and notification under § 8.1 of RR Appendix **30B** to reduce workload of both administration and the Bureau.

<u>Issue C7</u>: Harmonization of AP30B with AP30/30A on possibility of obtaining agreement for a specific period

Preliminary Views

APT Members support the single method to allow one single submission to be treated both in respect of entry into the List under § 6.17 and notification under § 8.1 of RR Appendix **30B** to reduce workload of both administration and the Bureau.

◆ Issues for consideration at next APG meeting (for Issues C1 through C7)

Issues C1, C2, C3, C4, C6 and C7:

APT Members are invited to follow the progress of ITU-R studies, and are encouraged to submit their contributions for further considerations at the next meeting.

Issue C5:

None

<u>Issue D</u>: Identification of those specific sat. networks and systems with which coordination needs to be effected under 9.12, 9.12A and 9.13

◆ Preliminary View

APT Members support Methods D2 or D3, as mentioned in the draft CPM text (See Annex-36 to WP 4A Chairman's Report: 4A/675).

◆ Issues for consideration at next APG meeting

APT Members are invited to follow the progress of ITU-R studies, and are encouraged to submit their contributions for further considerations at the next meeting.

Issue E: Harmonization of RR AP30B with RR AP30/30A

Preliminary Views***

APT members generally support to study required harmonization of RR Appendix **30B** with RR Appendices **30** and **30A**.

<u>Issue F</u>: Concerns with the lack of implementation of certain provisions of the RR that can lead to difficulties during the process of entering an assignment into the AP 30B List

◆ Preliminary View***

APT members support further study to address the relevant concerns with the lack of implementation of certain provisions of the Radio Regulations that can lead to difficulties during the process of entering an assignment into the RR Appendix **30B** List.

*** See Note 3) at the end of this document.

Issues for Consideration at next APG meeting (for Issues E and F)

APT Members are invited to follow the progress of ITU-R studies.

Issue G: Updating AP30/30A reference situation

Preliminary Views

APT Members support further studies of the possible modification to paragraphs. 4.1.18 and 4.1.18 bis of RR Appendices 30 and 30A without adversely affecting the Plan while taking into account the implication of the modification on the assignments in the List.

Issues for consideration at next APG meeting

APT Members are invited to follow the progress of ITU-R studies and are encouraged to submit their contributions for further considerations at the next meeting.

<u>Issue H</u>: MOD to AP4 items to be provided for NGSO systems not subject to Section II of Article 9

Preliminary Views

APT Members support further study on this Issue.

Issues for considerations at next APG Meeting

APT Members are invited to follow the progress of ITU-R studies, and are encouraged to submit their contributions for further considerations at the next meeting.

<u>Issue I</u>: Additional AP4 data items to be provided for NGSO systems with multiple orbital planes

Preliminary Views

APT Members support further study on this Issue.

Issues for considerations at next APG Meeting

APT Members are invited to follow the progress of ITU-R studies, and are encouraged to submit their contributions for further considerations at the next meeting.

<u>Issue J</u>: Possible MOD to Sec 1 of Annex 1 of AP30 to allow a specified pfd to be exceeded

Preliminary Views

APT Members support further studies of the possible modification to Section 1 of Annex 1 of RR AP30 to allow a specified power flux-density to be exceeded within the national territory under the jurisdiction of the notifying administration.

Issues for considerations at next APG Meeting

APT Members are invited to follow the progress of ITU-R studies and are encouraged to submit their contributions for further considerations at the next meeting.

Issue K: Difficulties for Part B exams under § 4.1.12 or 4.2.16 of AP30/30A and § 6.21 c) of AP30B

Preliminary Views

APT Members support further consideration of Method A developed at the meeting of Working Party 4A in October 2017.

Issues for considerations at next APG Meeting

APT Members are invited to follow the progress of ITU-R studies, and are encouraged to submit their contributions for further considerations at the next meeting.

DG Chairs:

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Mr. Iraj Mokarrami (Islamic Rep. of Iran)

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Al 9.1 (Issue 9.1.2)

Preliminary Views

APT Members support the regulatory and technical studies being conducted by ITU-R in order to achieve compatibility of IMT and BSS (sound) in the frequency band 1 452-1 492 MHz in Regions 1 and 3 in accordance with Resolution **761 (WRC-15)**. APT Members are of view that appropriate regulatory and technical measures should be developed to ensure coexistence and compatibility between IMT and BSS (Sound) in the frequency bands 1 452 – 1 492 MHz taking into account the results of ITU-R studies.

Issues for consideration at next APG meeting

Appropriate regulatory and technical measures will be discussed to achieve compatibility of IMT and BSS (sound) in the frequency band 1 452-1 492 MHz in Regions 1 and 3.

APT Members are kindly requested to review the possible regulatory actions in the draft CPM text which are discussed in the ITU-R WP 4A & 5D and are encouraged to submit their contributions for further considerations at the next APG meeting. In addition, APT Members are also requested to provide the operational requirement of IMT and BSS (sound) systems in their countries, as appropriate.

DG Chair: Dr. Dae-Sub Oh (Rep. of Korea)

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Al 9.1 (Issue 9.1.3)

◆ Preliminary Views

APT Members support no change (NOC) to the Radio Regulations to satisfy agenda item 9.1, issue 9.1.3 based on study progress of ITU-R for new non-GSO systems in the 3 700-4 200 MHz, 4 500-4 800 MHz, 5 925-6 425 MHz and 6 725-7 025 MHz frequency bands under the terms of Resolution 157 (WRC-15).

◆ Issues for consideration at next APG meeting

APT Members are invited to follow the progress of ITU-R studies, particularly the planned WP4A meeting on 3-14 July 2018, and are encouraged to submit their contributions in the next APG meeting, if necessary.

DG Chair: Mrs. Cheng Fenhong (P. R. of China)

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AI 9.1 (Issue 9.1.9)

Preliminary Views

APT Members support further studies of ITU-R relating to sharing and compatibility between FSS in 51.4-52.4 GHz and other co-frequency, and adjacent band services in accordance with Resolution **162 (WRC-15)**. APT Members are of the view that consideration of an allocation to FSS(Earth-to-space) in 51.4-52.4 GHz limited to feeder links for GSO use is subject to satisfactory outcomes of ITU-R studies related to spectrum needs and compatibility with existing services allocated to the same and adjacent bands.

Issues for consideration at next APG meeting

It was agreed that the issues of unwanted emission power limits for the protection of EESS (passive) in the adjacent band 52.6-54.25 GHz and limitation of minimum antenna size of earth stations would be further discussed at the next APG meeting.

APT Members are invited to follow the progress of ITU-R studies, particularly the planned WP4A meeting on 3-14 July 2018, and are encouraged to submit their contributions for further considerations in the next APG meeting.

DG Chair: Mrs. Cheng Fenhong (P. R. of China)

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AI 9.3

Preliminary Views

APT Members support the studies conducted by the ITU-R on this issue, in accordance with Resolution 80 (Rev.WRC-07).

◆ Issues for consideration at next APG meeting

APT Members are invited to follow the progress of ITU-R studies and development of reports to WRC-19 on action in response to Resolution 80 (Rev.WRC-07) from the Radio Regulations Board, and the Radiocommunication Bureau Director's Report to WRC-19, and are encouraged to submit their contributions for further considerations at the next meeting.

DG Chair: Mrs. Cheng Fenhong (P. R. of China)

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Notes

Note 1): "undue constraint"

The use of the terms "constrain" and "constraint" throughout /within the APG documentation is understood to mean that any type of restriction, limitation or likewise that could be imposed / put by an incoming assignment to an incumbent assignment of any service or application of an administration the acceptance or otherwise of which is solely within the discretion and authority of the administration responsible of that incumbent assignment and/or application. The use of "undue constraint" introduces more ambiguity to the terms discussed above.

The above understanding has a provisional nature /status until the end of APG19-5, by when the APG is expected to make a decision on a more comprehensive alternative to these terms that will have a more meaningful and practical meaning.

With this understanding, the future use of the terms mentioned above in any WRC resolution, in particular, those dealing with Agenda Items of future WRC, need to be further explored and finalized by WRC before adoption of resolution of those agenda items.

Notes

Note 2): Frequency overlapping among WRC-19 Agenda Items

APG understands that overlapping frequencies across WRC-19 Agenda Items 1.6, 1.13, 1.14 and 9.1 (issue 9.1.9) would be handled by WRC-19.

Note 3): WRC-19 Agenda Item 7 Issues E and F

WRC-19 Agenda Item 7 Issues E and F are of a general nature intending to harmonize certain provisions of RR Appendix **30B** with those of RR Appendices **30** and **30A** and to enhance certain provisions of RR Appendix **30B**.

After discussion at WP 4A it was concluded that appropriate measures to resolve the difficulties raised in Issues E and F will be addressed in a more specific manner in a draft Resolution for consideration by WRC-19. For this reason, Issues E and F are provisionally suspended. Once this Resolution is finalized, Issues E and F will no longer be pursued. A Draft Resolution is given Annex 45 of Doc 4A/675 of the Working Party 4A Chairman's Report.

Dr. Atmadji W. Soewito (Indonesia)

Chairman of WP4, APG-19

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APT Preliminary Views on AI 1.2, 1.3 and 1.7

Working Party 4: Science Services

Preliminary Views:

APT Members support the ITU-R studies in accordance with Resolution **765** (**WRC-15**) to conduct and complete, in time for WRC-19, the necessary technical, operational and regulatory studies on the possibility of establishing in-band power limits for earth stations in the EESS and MetSat in the frequency band 401-403 MHz and the MSS in the frequency band 399.9-400.05 MHz, adding a new footnote. APT members are of the view that transitional arrangements are needed to ensure that the existing telecommands for EESS, including those systems to be notified/brought into use before a certain date (e.g. the November 22, 2019), may continue to operate.

Issues to be Considered at Next APG Meeting:

As the draft CPM text is due at the next WP7B meeting, Members are encouraged to actively participate that meeting.

DG Chair: Mr. Liu Zhuoran (P. R. of China)

Email: liuzhr@srrc.org.cn



Preliminary Views:

APT Members support the ITU-R studies in accordance with Resolution 766 (WRC-15) to conduct and complete, in time for WRC-19, the necessary technical, operational and regulatory studies on the possibility to upgrade the secondary allocation of the meteorological-satellite service (space-to-Earth) to primary status and a primary allocation to the Earth exploration-satellite service (space-to-Earth) in the frequency band 460-470 MHz, provided that the appropriate measures are taken to ensure the protection of existing fixed, mobile, and broadcasting services and not to constraint their future developments in the frequency band 460-470 MHz and in the adjacent bands, and stations of the EESS and MetSat services shall not claim protection from the fixed and mobile services. APT Members also note that the priority of MetSat over EESS should be maintained.

Issues to be Considered at Next APG Meeting:

APT members are encouraged to participate in and contribute to the works of WP7B in May 2018. APT members are encouraged to consider the draft of CPM text for the next APG meeting

DG Chair: Dr. Miftadi Sudjai (Indonesia)

Email: miftadi@telkomuniversity.ac.id

Preliminary Views:

- ITU-R studies should be continued in accordance with Resolution 659 (WRC-15).
- Protection of existing services is necessary and any new allocations or upgrades of existing allocations to the space operation service should be applied without any constraint to the incumbent services and their future development, both in-band as well as adjacent bands.
- The following frequency ranges should not be considered:
 - Maritime mobile VHF radiocommunication in the frequency ranges 156-157.45 MHz, 160.6-160.975 MHz and 161.475-162.05 MHz, in accordance with RR No. **5.226** and Appendix **18** (Rev. WRC-15).
 - The frequency range 406-406.1 MHz that is dedicated for satellite emergency position-indicating radio beacons, in accordance with Resolution 205 (Rev. WRC-15); and
 - Frequency bands used by Global Maritime Distress and Safety System (GMDSS) included in Appendix 15 of RR.

Issues to be Considered at Next APG Meeting:

APT Members are encouraged to participate in and submit their contributions to WP 7B and future APG meetings.

DG Chair: Mr. Nguyen Huy Cuong (Viet Nam)

Email: cuongnh@rfd.gov.vn

Mr. Bui Ha Long (Viet Nam)
Chairman of WP5, APG-19
Email: longbh@rfd.gov.vn



APT Preliminary Views on AI 1.1, 1.8, 1.9, 1.10 and 9.1 (Issue 9.1.4)

Working Party 5: Maritime, Aeronautical and Amateur Services

Preliminary Views

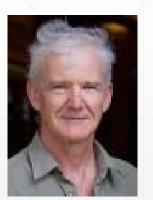
- APT members support ongoing ITU-R studies relevant to WRC-19 agenda item 1.1.
- Noting this is a Region 1 issue, APT members agree that any changes made to the Radio Regulations under WRC-19 Agenda Item 1.1 shall not adversely impact the incumbent amateur, broadcasting, fixed and mobile services in the 50 – 54 MHz frequency band and adjacent frequency bands in Region 3.

Issues for consideration of next APG meeting

Final development of APG Preliminary View on WRC19 Agenda Item 1.1

DG Chair: Mr. Dale Hughes (Australia)

Email: dalevk1dsh@gmail.com



AI 1.8 (1/2)

Preliminary Views:

APT Members support the ITU-R studies on possible regulatory actions for GMDSS modernization to enhance maritime capabilities and the studies on sharing and compatibility with other services in the frequency bands and adjacent frequency bands under study and to ensure possible modification to the Radio Regulations to protect services to which the frequency bands are currently allocated without any constraints by additional GMDSS satellite systems, in accordance with the Resolution 359 (Rev. WRC-15).

Regarding resolve 1,

- APT Members support the incorporation of NAVDAT systems and NAVDAT frequencies, both MF and HF as described in Recommendation ITU-R M.2010 and ITU-R M.2058 into consideration for addressing this agenda item.
- The recognition of these MF NAVDAT and HF NAVDAT frequencies as GMDSS for inclusion into RR Appendix 15 would be considered at a future WRC after IMO concludes its work on the modernisation of the GMDSS.
- The existing frequencies used for NAVTEX should be retained and protected.

AI 1.8 (2/2)

Preliminary Views: (cont.)

Regarding Resolves 2

APT Members support possible modifications to the provisions of the Radio Regulations to provide for additional satellite systems into the GMDSS, taking into consideration the activities of IMO, while ensuring no additional impact on the existing services, particularly RAS, within the frequency band and the adjacent bands under study.

Issues for consideration of next APG meeting

APT Members are encouraged to contribute their views, taking into accounts the ITU-R studies and APT preliminary views and submit contributions to the next APG meeting (APG19-4).

DG Chairs:

Mr. Byungok Kim (Rep. of Korea)

Email: kimbo60@hanmail.net

Mr. Zhao Xiaoding (P. R. of China)

Email: xiaodongzhao1963@vip.sina.com

AI 1.9.1 (1/3)

◆Preliminary Views

APT Members support the ITU-R studies on the spectrum needs, technical and operational characteristics, categorization, identifications of AMRDs and its applications, as well as the studies in relation to regulatory actions within the frequency band 156-162.05 MHz while ensuring the protection of the GMDSS and AIS, in accordance with Resolution 362 (WRC-15). APT Members are also of the view that:

- the term "autonomous maritime radio device" (AMRD) and its intended applications should be properly defined before the studies in relation to regulatory actions, support a definition of AMRDs to be developed in an ITU-R Recommendation;
- AMRDs Group A should be regulated for the use of frequencies and identities of the maritime mobile service;
- Regarding AMRDs Group B, regulation of the use of frequencies, and technical and operational characteristics, should benefit both the user of devices as well as coexistence with maritime safety devices and applications. Identification of additional spectrum within the frequency band 156-162.05 MHz and the numbering issue should be considered;

AI 1.9.1 (2/3)

◆ Preliminary View (cont.)

- Any identification of additional spectrum for AMRDs Group B should not cause harmful
 interference or any impact on the existing services within the frequency band and the
 adjacent bands. In this regard mitigation technique of interference such as limitation of
 output power of AMRDs (to 1 watt as an example) should be considered;
- Any regulatory action of AMRD Group B within the frequency band 156-162.05 MHz, should also consider the limited numbering resources of MMSI and also consider the implementation transition period when the operation of autonomous maritime radio devices bring in to use;
- Search and rescue aircraft system operating in maritime frequencies must be protected.

AI 1.9.1 (3/3)

◆Issues for consideration of next APG meeting

APT Members are encouraged to contribute to the next APG meeting on the Agenda Item 1.9.1, taking into account the studies of ITU-R WP5B as well as the activities and information of the IMO.

DG Chair: Mr. Hu Bo (P. R. of China)

Email: hoobo2008@cttic.cn



AI 1.9.2 (1/2)

◆Preliminary Views

APT Members support the ITU-R studies undertaken in accordance with Resolution 360 (Rev. WRC-15) to identify possible new allocations to the maritime mobile-satellite service for VDES satellite component.

In regards to the possible modification of the Radio Regulations under WRC-19 Agenda Item 1.9.2, APT Members are of the view that:

- Existing allocations and systems in the same and adjacent bands should be protected from harmful interference, and no any additional constraints are imposed;
- The VDES satellite component downlink pfd mask should be developed with appropriate parameters and assumptions contained in ITU-R Recommendations, that have been widely used in sharing studies conducted by ITU-R Study Groups;
- Search and rescue aircraft system operating in maritime frequencies must be protected;
- VDES satellite components downlink transmission should not degrade the terrestrial VDES components, ASM and AIS operation;
- The AIS integrity should be protected, and avoid any modification to existing AIS equipment on board vessels;

AI 1.9.2 (2/2)

- ◆ Preliminary View (cont.)
- VDES satellite components should not claim protection from harmful interference caused by stations of a land mobile service to which frequencies are already assigned; and
- If the spectrum needs were appropriately justified, new spectrum allocations could be identified to the
 maritime mobile-satellite service (MMSS) (Earth-to-space and space-to-Earth), with the provision they do
 not cause harmful interference, and have no claim of protection from incumbent service on a
 primary basis in the same and adjacent frequency bands.
- ◆ Issues for consideration of next APG meeting

APT Members are encouraged to contribute their views including the supporting Method, taking into account ITU-R studies and APT preliminary views, and submit contributions to APG19-4

DG Chair: Mr. Yoshio Miyadera (Japan)

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Preliminary View

APT Members support the ITU-R studies being undertaken for the introduction and use of Global Aeronautical Distress and Safety System (GADSS) in accordance with Resolution 426 (WRC-15).

APT Members are of the view that:

- No additional spectrum allocations and no changes to Article 5 of the Radio Regulations are required
- Modification of Radio Regulations other than Article 5 to facilitate introduction of GADSS may be required eg. modification of Article 30 General provision
- Any studies on regulatory provisions required for the implementation of GADSS should take into account the GADSS concept provided by ICAO
- ◆ Issues for consideration of next APG meeting

APT members are encouraged to actively participate in relevant studies conducted by the ITU-R WP 5B including the development of method(s) to address this agenda item.

DG Chair: Mr. Sungchul Chae (Rep. of Korea)

Email: scchae@korea.kr

AI 9.1 (Issue 9.1.4)

◆Preliminary View

APT Members support the ITU-R studies in accordance with Resolution **763** (**WRC-15**), which includes but not limited to the concept, definition, operation and functions of stations on board sub-orbital vehicles, including which radiocommunication service it operates on, as well as the spectrum requirement for sub-orbital vehicles operations.

◆Issues for consideration of next APG meeting
It was agreed that APT members are invited to submit further contribution at the next APG meeting

DG Chair: Mr. Muhammad Suryanegara (Indonesia)

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Mr. Taghi Shafiee (Islamic Rep. of Iran)

Chairman of WP6, APG-19

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APT Preliminary Views on Al 2, 4, 8, 9.1 (Issues 9.1.6, 9.1.7) and 10

Working Party 6: General Issues

AI 2 (1/2)

Preliminary Views

- APT Members support examination and review of ITU-R Recommendations incorporated by reference in the Radio Regulations in accordance with Resolutions 27 (Rev.WRC-12) and 28 (Rev.WRC-15).
- APT Members are encouraged to participate in or look into the ITU-R studies, which may propose revisions of the ITU-R Recommendations incorporated by reference, with a view to developing the APT positions on this agenda item towards the WRC-19.
- The referencing of Recommendation ITU-R M.1638-0 contained in Nos. **5.447F** and **5.450A** of the Radio Regulations will also specifically be considered under Issue 9.1.5 (Resolution **764 (WRC-15)**).
- APT Members are of the view to merge Resolutions 27 (Rev.WRC-12) and 28 (Rev.WRC-15) in order to have a single resolution that refers to incorporation by reference in the Radio Regulations.
- APT Members are also of the view to propose the following consequential changes to the wording of standing WRC
 agenda item related to incorporation by reference:

to examine the revised ITU-R Recommendations incorporated by reference in the Radio Regulations communicated by the Radiocommunication Assembly, in accordance with Resolution 27 (Rev.WRC 19), and to decide whether or not to update the corresponding references in the Radio Regulations, in accordance with the principles contained in Annex 1 to Resolution 27 (Rev.WRC-1219).

Al 2 (2/2)

- ◆ Issues to be considered at next APG Meeting
- To facilitate the work for drafting activity to merge Resolutions 27 (Rev.WRC-12) and 28 (Rev.WRC-15), e-mail exchange between the DG and participants would be conducted prior to the APG-4 meeting.

DG Chair: Dr. Akira Hashimoto (Japan)

Email: Hashimoto@nttdocomo.com



AI 4 (1/2)

Preliminary Views

APT Members support modification or suppression as appropriate of WRC Resolutions and Recommendations contained in Volume 3 of the Radio Regulations in accordance with Resolution 95 (Rev.WRC-07). To facilitate consideration with a view to developing the APT positions on this agenda item towards the WRC-19, a list of the past conference Resolutions and Recommendations is provided in the table in Attachment 1 to Document APG19-3/OUT-28. It should be noted that, the status of the column of the table for "New proposed action" is still preliminary and open for further consideration at the future APG meetings.

Furthermore, in reviewing the above mentioned table, the following points need to be noted:

- Since a number of the studies requested by the WRC Resolutions are now under consideration by relevant ITU-R Study Groups, APT Members are encouraged to participate in these studies;
- the progress of the above studies is important information for those Resolutions that include "*invites ITU-R*", or similarly, the progress of the implementation work of the ITU Radiocommunication Bureau (BR) is also important for those Resolutions that include "*instructs the Director of the Radiocommunication Bureau*".

AI 4 (2/2)

- ◆ Issues to be considered at next APG Meeting
- To review the list of the past conference Resolutions and Recommendations.

DG Chair: Dr. Akira Hashimoto (Japan)

Email: Hashimoto@nttdocomo.com



AI 8 (1/2)

- Preliminary Views
- APT Members support that administrations taking the initiative to review their footnotes and to propose the
 deletion of their country names or the deletion of country footnotes, if no longer required.
- O APT Members are of the view that this agenda item is not intended for adding country names into existing footnotes and the addition of new country footnotes. Therefore, any proposal for the addition of a new country footnote should not be considered under this agenda item. However WRCs may continue to deal with requests to add country names to the existing footnotes on a case by case basis, subject to the principle that there are no objections from the affected countries.
- o APT Members are of the view that the proposals under agenda item 8 need to be available at a sufficient time before the Conference for consideration by concerned administrations. Therefore, it is proposed to modify Resolution 26 (Rev. WRC-07) and request administrations to submit their proposals under this agenda item to the second session of the Conference Preparatory Meeting and invite the CPM to include all of these proposals in CPM Report to the Conference. In this regard, an example for modification to Resolution 26 (Rev. WRC-07) is provided in Annex 1 to this Document for further consideration by the next APG meeting.

AI 8 (2/2)

- ◆ Issues to be considered at next APG Meeting
- o APT Members are invited to examine their country footnotes with a view as to whether they are still necessary and relevant and propose the deletion of their country footnotes or country names from footnotes, as appropriate. APT Members may provide this information to APG with a view to preparing a consolidated APT Common Proposal to WRC-19 on Asia-Pacific Administrations proposing removal of their names from country footnotes from Article **5** of the RR.
- APT Members are encouraged to consider development of principles to be used by future WRCs in the consideration of proposals from administrations to add their country name to footnotes of the Table of Frequency Allocations separate to standing agenda item 8 similar to that contained in WRC-15 Document 142.
- APT Members are encouraged to consider further improvement to the proposed modifications to Resolution 26 (Rev. WRC-07) as provided in Annex 1 to this document.

DG Chair: Dr. Arifin Nugroho (Indonesia)

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Al 9.1 (Issue 9.1.6)

Preliminary Views

- APT Members support the studies carried out by ITU-R in accordance with Resolution 958 (WRC-15) to assess the impacts of WPT for electric vehicles on radiocommunication services and to study suitable harmonized frequency ranges which would minimize the impact on radiocommunication services from WPT for electric vehicles (EVs).
- APT Members are of the view that all radiocommunication services must be adequately protected from harmful
 interference that may be generated by WPT for EVs, both at the fundamental frequency and from spurious and out-ofband emissions.
- APT Members support consideration of the inclusion of one or more frequency ranges for WPT for EVs in an ITU-R Recommendation based on completion of ITU-R studies.

Issues to be considered at Next APG Meeting

Assessment of outputs of ITU-R SG 1 block meetings to be held in June 2018

DG Chair: Mr. Satoshi Kobayashi (Japan)

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Al 9.1 (Issue 9.1.7)

Preliminary Views

- APT Members are of the view that earth station licensing and related issues including unauthorized transmissions are national matters and no changes to the Radio Regulations are necessary as Article 18 sufficiently addresses the required international regulatory measures.
- APT Members support the studies for the development of ITU-R texts (Recommendations, Reports and Handbooks etc.) to assist administrations in managing (identifying and geo-locating) the unauthorized operation of earth station terminals deployed within their territory.

Issues to be considered at Next APG Meeting

 Other views expressed by APT Members at APG19-3 need further consideration and to be developed to a harmonized view among APT Members at the next APG meeting.

DG Chair: Mrs. Zeng Fansheng (P. R. of China)

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AI 10 (1/3)

- ◆ General Issues
- □ Preliminary Views
- In developing new WRC Agenda items, APT Members supports the 'Principles for establishing agendas for WRCs' as
 detailed in Annex 1 to Resolution 804 (Rev.WRC-12) and encourages the use of the Template for the submission of
 proposals for agenda items (Annex 2 of the Resolution).
- ☐ Issues to be considered at Next APG Meeting
- APT members are encouraged to consider the WRC-23 preliminary agenda items included in Resolution 810(WRC-15)
 and provide their views to the next APG meeting.

AI 10 (2/3)

- ◆ Standing Agenda Item 7
- □ Preliminary Views
- APT Members are of the view that it is required to develop a course of action such as establishment of a deadline for submitting proposals under WRC standing agenda item 7. The identified issues need to be studied by ITU-R before the second session of the CPM and required regulatory examples be included into the draft CPM Report. The Conference should consider under WRC agenda item 7 only those issues which have been adequately studied by ITU-R and included in the CPM Report.
- ☐ Issues to be considered at Next APG Meeting
- In view of the above, APT Members are of the view that Resolution 86 (Rev. WRC-07) need to be modified. An example
 for this approach is provided for further consideration by the next APG meeting with a view to have an APT common
 proposal.

AI 10 (3/3)

- ◆ Standing Agenda Item 9.1
- □ Preliminary Views
- O APT Members are of the view that issues which are identified by WRC resolutions to be studied by ITU-R and the results of which to be included in the Report of the Director of the Radiocommunication Bureau to the future WRC should not propose any changes to the Radio Regulations. Those issues that may lead to a modification to the Radio Regulations should not be included in the list of issues under agenda item 9.1. Instead, they should be considered as regular WRC agenda item, if the Conference agrees."
- ◆ Standing Agenda Item 9.2
- □ Preliminary Views
- o APT Members are of the view that this standing WRC agenda item is strictly limited to the Report of the Director on any difficulties or inconsistencies encountered in the application of the Radio Regulations and the comments from administrations. The difficulties or inconsistencies encountered by administrations in the application of the Radio Regulations should be sent to the Radiocommunication Bureau for appropriate action, and should not be considered by the Conference under this standing WRC agenda item.

DG Chair: Mr. Tashi Shafiee (Iran)

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