

APT PRELIMINARY VIEWS ON WRC-15 AGENDA ITEMS



ASIA PACIFIC TELECOMMUNITY



APAC REGIONAL PREPARATORY GROUP (RPG) MEETING FOR
WRC-2015, BANGKOK, 10-11 MARCH 2014

Presented by



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on behalf of

**APT Preparatory Group for WRC-15
(APG2015)**

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APT Preparatory Group for WRC-15



Agenda: draft in WRC Res & final in Council Res

Informal Group
(Structure & Chairmanship)

Proposals

Coordinated
common proposals

Proposals



Member States



CPM Report



Director's
Report

Conference
Secretariat
(BR & GS)



WRC



Final Acts



Radio
Regulations



APT Preparatory Group for WRC-15



- Preparatory activities for WRC-15 were started in 2012
 - 1st Meeting was held from 10-11 September 2012 in Da Nang, Socialist Republic of Vietnam
 - 2nd Meeting was held from 1-5 July 2013 in Bangkok, Thailand
 - 3rd Meeting is to be held from 9-13 June 2014 in Brisbane, Australia
 - Two further meetings scheduled for 2015
- Chairman:
 - Dr. Alan Jamieson (New Zealand)
- Vice Chairs:
 - Mr. Kavouss Arasteh (Islamic Republic of Iran)
 - Dr. Kyu-Jin Wee (Republic of Korea)
- Editorial Chair:
 - Mr. John Lewis

APT Preparatory Group for WRC-15



- APG Structure is same as CPM Chapter Structure

WP1:

- Mobile and Amateur Issues: 1.1, 1.2, 1.3 & 1.4
- Chair: Dr. Kyung-Mee Kim (Republic of Korea)

WP2:

- Science Issues: 1.11, 1.12, 1.13 & 1.14
- Chair: Ms. Zhu Keer (People's Republic of China)

WP3:

- Aeronautical, Maritime and Radiolocation Issues: 1.5, 1.15, 1.16, 1.17 & 1.18
- Chair: Mr. Neil Meaney (Australia)

WP4:

- Satellite Services: 1.6, 1.7, 1.8, 1.9.1, 1.9.2 and 1.10
- Chair: Mr. Gao Xiaoyang (People's Republic of China)

WP5:

- Satellite Regulatory Issues: 7, 9.1.1, 9.1.2, 9.1.3; 9.1.5; 9.1.8 & 9.3
- Chair: Mr. Muneo Abe (Japan)

WP6:

- General Issues: 2, 4, 8, 9.1.4, 9.1.6, 9.1.7 & 10
- Chair: Mr. Taghi Shafiee (Islamic Republic of Iran)

Process of Developing APT Common Proposals



- In general, the APT organises five APG Meetings in each WRC preparatory cycle (currently 2012 – 2015)
- The APG meetings develop and update APT Preliminary Views (APVs) on WRC agenda items based on:
 - ITU-R studies that are available
 - Input contributions from Members
- A two stage procedure is followed for preparing and approving APT Common Proposals (ACPs) for submission to the WRC

Process of Developing APT Common Proposals



- Stage One:
 - Based on the APT Preliminary Views (APVs) on Agenda Items
→ WPs at the 5th and final APG meeting develop proposals
 - For each proposal, if consensus is reached at Plenary by APT Members attending the meeting, the proposal becomes a Preliminary APT Common Proposal (PACP)
- Stage Two:
 - All APT Member administrations (38) are then requested to indicate if their country name is to be included as a signatory for each PACP
 - A PACP becomes APT Common Proposal (ACP) if it is
 - ✦ Supported by at least 25% of the APT Members (Administrations)
 - ✦ And not opposed by the 50% of the number of Members who support it

Process of Developing APT Common Proposals



- Active support from States is **vital** to ensure ACPs reflect civil aviation's continued need for spectrum
 - *Assembly Resolution A36-25 (Support of the ICAO Policy on radio frequency spectrum matters)*
 - *12th Air Navigation Conference Recommendation 1/12 (Development of the aeronautical frequency spectrum resource)*
 - *APANPIRG Conclusion 23/37 (Preparations for WRC-15)*

WRC-15 Agenda Items related to aviation



- Agenda items related to specific aviation issues
 - 1.1 IMT candidate bands
 - 1.5 FSS UAS spectrum requirements
 - 1.7 Review of 5 GHz NGSO/MSS Feeder links
 - 1.17 WAIC
 - 9.1 (sub-item 5) Protection of FSS Earth stations in 3.4 – 4.2 GHz band (R1)
- Agenda items in which aviation is a concerned party
 - General: Agenda items 2, 4, 8, 9.1 (sub-item 6) and 10
 - Fixed and mobile satellite: Agenda items 1.6, 1.10, 9.1 (sub-item 1)
 - Extended allocation to the EESS: Agenda items 1.11 and 1.12
 - Spectrum access by other services & compatibility: Agenda items 1.4 and 1.16

APT Preliminary Views on WRC-15 Agenda Items



- The current APT Preliminary Views on WRC-15 agenda items were prepared at the 2nd Meeting of the APG held from 1 – 5 July 2013 in Bangkok, Thailand
- The current views of most interest to aviation for countries in the APT region (R3) are shown in the following slides in two sections
 - Section I: Agenda Items 1.1, 1.5, 1.7 and 1.17 (*Als of particular importance*)
 - Section II: Agenda Items 1.4, 1.6, 1.10, 1.11, 1.12, 1.12, 2, 4, 8, 9.1 (sub-items 1, 5 and 6) and 10 (*Als of concern*)

Section I: Agenda Items of Particular Importance



- Agenda Items of particular importance to aviation in R3
 - 1.1 IMT candidate bands
 - 1.5 FSS UAS spectrum requirements
 - 1.7 Review of 5 GHz NGSO/MSS Feeder links
 - 1.17 WAIC

Agenda Item 1.1



- *"to consider additional spectrum allocations to the mobile service on a primary basis and identification of additional frequency bands for International Mobile Telecommunications (IMT) and related regulatory provisions, to facilitate the development of terrestrial mobile broadband applications, in accordance with Resolution 233 (WRC-12)"*
- **APT Preliminary Views:**
 - APT Members, in principle, support potential additional spectrum allocations to the mobile service on a primary basis and identification of additional frequency bands for International Mobile Telecommunications (IMT) in accordance with Resolution **233 (WRC-12)**.
 - While considering potential candidate bands for additional identification for IMT, APT Members support studies, currently being carried out by ITU-R.
 - APT Members are of the view that the ITU-R studies should also take into account;
 - ✦ efficient use of spectrum and resolves of Resolution **233 (WRC-12)**;
 - ✦ the need for harmonization of spectrum bands to facilitate global roaming and to achieve economies of scale for IMT equipment development;
 - ✦ spectrum requirements to address evolving needs, evolving technologies and user demand for IMT and other terrestrial mobile broadband applications as well as other services;
 - ✦ sharing and compatibility issues with other services already having allocations in the potential candidate bands and in adjacent bands considering the current and planned use of these bands by the existing services, as well as the applicable studies already performed in ITU-R for the purpose of identification of the spectrum for IMT with respect to corresponding frequency bands being proposed for study.

Agenda Item 1.5



- *“to consider the use of frequency bands allocated to the fixed-satellite service not subject to Appendices **30**, **30A** and **30B** for the control and non-payload communications of unmanned aircraft systems (UAS) in non-segregated airspaces, in accordance with Resolution **153 (WRC-12)**”*
- **APT Preliminary Views:**
 - Support ITU-R studies on measures to allow use of frequency bands allocated to the fixed-satellite service not subject to Appendices 30, 30A and 30B for the control and non-payload communications of unmanned aircraft systems (UAS) in non-segregated airspaces, in accordance with Resolution **153 (WRC 12)**.
 - Satellite command and control links should comply with accepted safety requirements, including ICAO Standards and Recommended Practices (SARPs) when developed.
 - Any regulation modifications relating to UAS operation in FSS bands should not impact existing and future satellite networks of the FSS and other services in the same band.
 - Clear identification of globally harmonized spectrum for UAS CNPC links is preferred so that the current practice of licensing of manned aircraft following the ICAO standards can be extended to unmanned aircraft.

Agenda Item 1.7



- *“to review the use of the band 5 091-5 150 MHz by the fixed-satellite service (Earth-to-space) (limited to feeder links of the non-geostationary mobile-satellite systems in the mobile-satellite service) in accordance with Resolution 114 (Rev.WRC-12)”*

- **APT Preliminary Views:**
 - APT Members support studies of the ITU-R on compatibility between aeronautical radionavigation service and fixed-satellite service (Earth-to-space) (limited to feeder links of the non-geostationary mobile-satellite systems in the mobile-satellite service) in the frequency band 5 091-5 150 MHz with a view to consider, if appropriate, the removal of the date limitations on the FSS.
 - APT Members are also encouraged to actively participate in the relevant ITU-R studies.

Agenda Item 1.17



- *“to consider possible spectrum requirements and regulatory actions, including appropriate aeronautical allocations, to support wireless avionics intra-communications (WAIC), in accordance with Resolution 423 (WRC-12)”*
- **APT Preliminary Views:**
 - APT Members supports relevant ITU-R studies on WAIC in accordance with Resolution **423 (WRC-12)**. APT Members are also of the view that the possible introduction of WAIC systems should not cause harmful interference nor constraints to services to which the frequency band is allocated.

Section II: Agenda Items of Concern



- Agenda items in which aviation has concerns of spectrum access by other services, compatibility with other services or protection from interference
 - 1.4, 1.6, 1.10, 1.11, 1.12, 1.16 and 9.1 (sub-items 1 and 5)
- Agenda items where the future interests of aviation need to be promoted and taken into account
 - 2, 4, 8, 9.1 (sub-item 6) and 10

Agenda Item 1.4



- *“to consider possible new allocation to the amateur service on a secondary basis within the band 5 250-5 450 kHz in accordance with Resolution 649 (WRC-12)”*
- **APT Preliminary Views:**
 - APT Members support relevant ITU-R studies on this issue.
 - APT Members are of the view that the protection of the services to which the band is currently allocated and their future development should be ensured, through appropriate technical, operational and regulatory measures, where required. No constraints should also be imposed upon existing services and their future development in the frequency band 5 250-5 450 kHz

Agenda Item 1.6



- **Agenda Item 1.6.1:** *“to the fixed-satellite service (Earth-to-space and space-to-Earth) of 250 MHz in the range between 10 GHz and 17 GHz in Region 1; and review the regulatory provisions on the current allocations to the fixed-satellite service within each range, taking into account the results of ITU-R studies, in accordance with Resolution 151 (WRC-12)”*
- **APT Preliminary Views:**
 - APT Members support ITU-R to conduct studies on Agenda Item **1.6.1** in accordance with Resolutions **151 (WRC-12)**, while ensuring protection of existing primary services in the band(s).
 - APT Members are of the view that, if consideration is given to use of the 14.5-14.8 GHz band, there is a need to take appropriate measures to ensure the integrity and adequate protection of the AP30A Plan and List from any new fixed-satellite service utilization of the bands.
 - APT Members are of the view that, the bands 10.6-10.7 GHz and 13.25-13.75 GHz should be excluded from the candidate bands under Agenda item **1.6.1** to protect the EESS (passive) and EESS (active) respectively.

Agenda Item 1.6



- **Agenda Item 1.6.2:** *“to the fixed-satellite service (Earth-to-space) of 250 MHz in Region 2 and 300 MHz in Region 3 within the range 13-17 GHz; and review the regulatory provisions on the current allocations to the fixed-satellite service within each range, taking into account the results of ITU-R studies, in accordance with Resolution 152 (WRC-12)”*
- **APT Preliminary Views:**
 - APT Members support ITU-R to conduct studies on Agenda Item **1.6.2** in accordance with Resolutions **152 (WRC-12)**, while ensuring protection of existing primary services in the band(s).
 - APT Members are of the view that, if consideration is given to use of the 14.5-14.8 GHz band, there is a necessity to take appropriate measures to ensure the integrity and adequate protection of the AP30A Plan and List from any new fixed-satellite service utilization of the bands.
 - APT Members are of the view that, the band 13.25-13.75 GHz should be excluded from the candidate bands under Agenda item **1.6.2** to protect the EESS (active).

Agenda Item 1.10



- *“to consider spectrum requirements and possible additional spectrum allocations for the mobile-satellite service in the Earth-to-space and space-to-Earth directions, including the satellite component for broadband applications, including International Mobile Telecommunications (IMT), within the frequency range from 22 GHz to 26 GHz, in accordance with Resolution 234 (WRC-12)”*
- **APT Preliminary Views:**
 - The APT Members are of the view that the frequency requirements for the 22-26 GHz band should be clearly identified for the potential MSS allocation taking into account current allocations for MSS above 19 GHz. The requirements and additional allocations should be based on the compatibility studies in order to adequately protect the existing services and their future developments.

Agenda Item 1.11



- *“to consider a primary allocation for the Earth exploration-satellite service (Earth-to-space) in the 7-8 GHz range, in accordance with Resolution 650 (WRC-12)”*

- **APT Preliminary Views:**
 - APT Members support the current sharing studies in the ITU-R in accordance with Resolution **650 (WRC-12)**.
 - APT Members are of the view that the band 7 145-7190 MHz (deep-space SRS band) should be excluded for further considerations under this agenda item taking into account the current study results of the ITU-R WP7B.
 - APT Members are also of the view that the existing services in this band should be adequately protected from potential interference due to the possible new allocation to the Earth exploration-satellite service (Earth-to-space), in accordance with resolution 650, and no constraints are placed on these services.

Agenda Item 1.12



- *“to consider an extension of the current worldwide allocation to the Earth exploration-satellite (active) service in the frequency band 9 300-9 900 MHz by up to 600 MHz within the frequency bands 8 700-9 300 MHz and/or 9 900-10 500 MHz, in accordance with Resolution 651 (WRC-12)”*
- **APT Preliminary Views:**
 - It supports current ITU-R studies concerning the sharing and compatibility issues for the extension of EESS (active) spectrum.
 - Appropriate protection of the existing services currently allocated in the same frequency bands should be ensured according to the Radio Regulations.
 - Protection of services in adjacent frequency bands should be ensured.

Agenda Item 1.16



- *“to consider regulatory provisions and spectrum allocations to enable possible new Automatic Identification System (AIS) technology applications and possible new applications to improve maritime radiocommunication in accordance with Resolution 360 (WRC-12)”*
- **APT Preliminary Views:**
 - Supports ITU-R studies towards new applications using the AIS and enhanced maritime radiocommunications in the maritime mobile service in accordance with Resolution **360 (WRC-12)**.
 - No modifications are required to existing AIS equipment on board existing vessels, but rather allow for new applications using AIS technology to evolve, supported by communication primarily on the new frequencies identified by WRC-12, while protecting the integrity of the original operational purpose of AIS as the primary function on the existing AIS frequencies.
 - That the frequency band identified to VDES should accommodate the expected future AIS VDL loading
 - Supports the frequency bands identified by WRC-12 for digital modulation could be considered as possible candidates for the global and regional channel allocation for VDE

Agenda Item 2



- *“to examine the revised ITU-R Recommendations incorporated by reference in the Radio Regulations communicated by the Radiocommunication Assembly, in accordance with Resolution **28 (Rev.WRC-03)**, 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-12)”*
- **APT Preliminary Views:**
 - APT Members are urged to use the basic concepts and processes presented in Resolutions **27 (Rev.WRC-12)** and Resolution **28 (Rev.WRC-03)** to develop their proposals for consideration by future APG meetings.

Agenda Item 4



- *“to accordance with Resolution 95 (Rev.WRC-07), to review the resolutions and recommendations of previous conferences with a view to their possible revision, replacement or abrogation”*
- **APT Preliminary Views:**
 - APT Members are encouraged to review Resolutions and Recommendations of the previous conferences in accordance with Resolution 95 (Rev.WRC-07) with a view to developing regional positions in APG15

Agenda Item 8



- *“to consider and take appropriate action on requests from administrations to delete their country footnotes or to have their country name deleted from footnotes, if no longer required, taking into account Resolution 26 (Rev.WRC-07)”*
- **APT Preliminary Views:**
 - APT Members are encouraged to review their footnotes and to propose, as soon as possible, the deletion of their country names or the deletion of country footnotes, if no longer required in accordance with the concepts and the processes presented in Resolution **26 (Rev.WRC-07)**

Agenda Item 9.1



- *“to consider and approve the Report of the Director of the Radiocommunication Bureau, in accordance with Article 7 of the Convention on the activities of the Radiocommunication Sector since WRC-12”*

- **APT Preliminary Views:**
 - *Issue 9.1.1: Resolution 205 (Rev.WRC-12) - Protection of the systems operating in the mobile-satellite service in the band 406-406.1 MHz*
 - ✦ Further studies are required on this issue. APT members are encouraged to monitor and evaluate the studies conducted in ITU-R and submit their contributions for further considerations in future meetings. All incumbent services to which the relevant bands are allocated should be protected for existing and planned assignments.

 - *Issue 9.1.5: Resolution 154 (WRC-12) - Consideration of technical and regulatory actions in order to support existing and future operation of fixed-satellite service earth stations within the band 3 400-4 200 MHz, as an aid to the safe operation of aircraft and reliable distribution of meteorological information in some countries in Region 1*
 - ✦ TBD

 - *Issue 9.1.6: Resolution 957 (WRC-12) - Studies towards review of the definitions of fixed service, fixed station and mobile station*
 - ✦ APT Members are of the view that there is no need to modify the existing definitions of fixed service, fixed station and mobile station. Furthermore APT Members are also of the view that any modification to Article 1 should not impact existing allocations to radiocommunication services.

Agenda Item 10



- *“to recommend to the Council items for inclusion in the agenda for the next WRC, and to give its views on the preliminary agenda for the subsequent conference and on possible agenda items for future conferences, in accordance with Article 7 of the Convention”*
- **APT Preliminary Views:**
 - APT Members are invited to examine the proposed Agenda items within the Resolution **808 (WRC-12)**. APT Members are also invited to provide new items for inclusion to agenda of WRC-18, taking into account the principles described in Resolution **804 (WRC-12)** and using the template annexed to the Resolution.

Schedule of the Next APG Meetings



- The 3rd Meeting of the APG will be held from 9 - 13 June 2014 in Brisbane, Australia
- The 4th Meeting of the APG will be held in Q1 [Jan] of 2015 [People's Republic of China]
- The 5th Meeting of the APG will be held in Q3 [July] of 2015 Republic of Korea

Workplan for the 3rd APG Meeting (9-13 Jun 14)



- APG Training Workshop (6–7 Jun 14)
- Review the progress of studies in ITU-R Study Groups on WRC-15 Agenda items
- Review and update APT's Preliminary Views on WRC-15 Agenda Items based on result of the outcomes of APG15-2, Member's contribution and study results available at ITU-R Study Groups
- Develop APT's views on RA-15 related issues
- Meeting Invitation: www.aptsec.org/2014-APG15-3



APG Documents and Preliminary views are available at: www.apg.int/APTAPG

THANK YOU!