

**Report from
3rd APT WRC-12 Conference Preparatory Group (APG) Meeting
8-12 March 2010**

The third meeting of the Asia Pacific Telecommunity Conference Preparatory Group for WRC-12 (APG) was held on 8-12 March 2010. The highlights/decisions of this meeting are summarized below.

Agenda Item 1.1: *Deletion of country footnotes (Resolution 26)*

Issues under this agenda item were not considered at this meeting.

Agenda Item 1.2: *Enhancing the international regulatory framework (Resolution 951)*

With regard to this agenda item, the following preliminary APT views were developed:

- There is a need to ensure compatibility among services based on the Table of Frequency Allocations.
- The international regulatory framework should facilitate implementation of current, emerging and future radio applications in a timely manner, taking into account technological developments and digital convergence.
- The international regulatory framework should enhance the flexibility of spectrum use by administrations.
- Some APT Members were of the view that the existing regulatory definitions and allocations for fixed, mobile, broadcasting and space services should be maintained.
- Some APT Members were of the view that considerations under this agenda item should be limited to terrestrial services namely fixed and land-mobile. While the space services should be excluded from studies, in particular:
 - No MS allocations should be considered in any FSS-downlink or BSS bands;
 - Possible MS allocations in FSS-uplink bands should not constrain deployment of transmitting earth stations in this band;
 - No new MSS allocations in any FSS or BSS bands.

Agenda Item 1.3: *Spectrum requirements for Unmanned Aircraft Systems (UAS) Resolution 421*

With regard to this agenda item, the following preliminary APT views were developed:

- Support the use of existing allocations to AM(R)S, AMS(R)S and/or ARNS, in order to satisfy spectrum needs for UAS applications (i.e., no new allocations at this stage).
- Compatibility with existing services, in particular ICAO standards based systems such as MLS in the 5 GHz band, must be ensured.
- Regulatory actions under this agenda item should pertain to safety and regularity of flight communications only (i.e., not payload).

Agenda Item 1.4 - *Regulatory measures for new Aeronautical Mobile Route Service AM(R)S in the bands 112-117.975 MHz, 960-1 164 MHz, and 5 000 - 5 030 MHz (Resolutions 413,, 417 and 420)*

With regard to this agenda item, the following preliminary APT views were developed:

Concerning Resolution 413 (WRC-2007):

Based on result of the studies in Report ITU-R M.2147 showing compatibility between digital sound-broadcasting below 108 MHz and AM(R)S and taking into account Recommendation ITU-R BS.1114, support suppression of the first *invites* to ITU-R in Resolution **413 (WRC-07)**.

Concerning Resolution 417 (WRC-2007):

Support revision of Resolution **417 (WRC-07)** based on ITU-R studies on operational and technical means to facilitate sharing and coordination process between administrations planning to operate AM(R)S systems in the band 960-1164 MHz and some administrations identified in RR 5.312 operating non ICAO's ARNS systems.

Concerning Resolution 420 (WRC-2007):

To extent possible, the AM(R)S requirements should be fulfilled in the band 5091-5150 MHz. If necessary, allocation to AM(R)S in the band 5000-5030 MHz may be considered provided that they do not create undue constraints on the Radio-Astronomy Service and existing radiocommunication services including Radio-Navigation Satellite Service.

Agenda Item 1.5: Electronic News Gathering (Resolution 954)

With regard to this agenda item, some APT members expressed a preference for draft CPM Method 3 and/or 4 approach with possible harmonization of frequency bands as follows:

- 925-932 MHz for wireless microphone (in some APT countries this band is used for GSM cellular mobile systems).
- 1 700-1 710 MHz for analogue/digital audio SAB/SAP.
- 7 000-7 100 MHz, 12.0-12.2 GHz and 39-40 GHz for video links.

Agenda Item 1.6 – Allocations in the 275-3000 GHz frequency range (Resolution 950) and regulations of terrestrial free-space optical links (Resolution 955)

With regard to Resolution **950**, the APT expressed general support for review of No. 5.565.

With regard to Resolution **955**, the APT supports studies on free-space optical links but some expressed concern that possible regulatory action may impact satellite optical links.

Agenda Item 1.7: Meet requirements for AMS(R)S, while retaining the generic MSS allocation at 1525-1559 and 1626.5-1660.5 MHz (Resolution 222)

With regard to this agenda item, the APT agreed on the following views:

- (1) Support ITU-R efforts on methodology to estimate the aeronautical mobile satellite (R) service spectrum requirements.
- (2) Support studies into appropriate regulatory provisions to ensure long-term spectrum availability and access for AMS(R)S in the current allocations and consequential regulatory changes to safeguard spectrum access for AMS(R)S in practical terms.

- (3) Some APT members are of the view that a new WRC Resolution (or modified Resolution 222) may be required to ensure that AMS(R)S is given actual and practical priority access to the frequency band under No. 5.357A.
- (4) Another administration is of the view that current radio regulations adequately prioritize AMS(R)S access and additional regulatory modifications are unnecessary.

Agenda Item 1.8: *Fixed service in the bands between 71-238 GHz (Resolutions 731 & 732)*

With regard to this agenda item, some APT members expressed that frequency allocations to the fixed service are outside the scope of this agenda item. Others expressed a view that the FS emissions in the band 81-86 GHz may need to be constrained to protect the EESS in the band 86-92 GHz.

Agenda Item 1.9: *Review of Appendix 17 in order to implement new digital technologies for the maritime mobile service (Resolution 351)*

With regard to this agenda item, the APT expressed support for the revision of Appendix 17, taking into account the following points:

- All safety and distress aspects currently enforced including distress and safety frequencies for GMDSS identified in Appendix 15 must be retained and protected;
- commercial communications should be taken into account;
- new channeling arrangement should be applied to new systems such as LRIT and e-Navigation;
- bandwidths for the new digital technologies should be defined in Appendix 17 to avoid confusion;
- new system should be compatible with the existing system;
- GMDSS compliance of new digital technologies should be addressed before reducing NBDP frequencies;
- any changes of Appendix 17 should be implemented with sufficient transitional period;
- implementation phase should be preceded with a test phase to identify and remove harmful interferences;
- Morse code communications should be allowed without claiming protection.

Agenda Item 1.10: *Frequency allocation requirements and regulatory provisions for operation of safety systems for ships and ports (Resolution 357)*

With regard to this agenda item, the APT expressed support for possible future requirements to enhance safety of transportation of goods, in particular with regard to:

- regulatory status of the Appendix 18 channels used by AIS with possible identification of channels 75 and 76;
- possible harmonization of technologies for cargo identification and tracking through ITU Recommendations;
- broadcasting of security levels for ports and coastal waters on frequencies around 500 kHz;
- harmonized introduction of new technologies by the Maritime mobile service (in the VHF band) through possible regulatory measures (Resolution 342);

- possible single-frequency channels usage derived from two-frequency channels in Appendix 18;
- concept of e-navigation;
- concept of Maritime Mesh Networks.

The APT also expressed that:

- any modification under this agenda item should not affect the frequencies used by the GMDSS;
- HF data issues are fully considered under agenda item 1.9 and there is no need for further developments under the Agenda item 1.10.
- Channels 75 and 76 are the guard bands of channel 16, and accordingly, any future studies should be compatible and in compliance with note (n) of Appendix 18.

Agenda Item 1.11: *Primary allocation to the space research service (Earth-to-space) within the band 22.55-23.15 GHz (Resolution 753)*

With regard to this agenda item, the APT expressed support for a primary allocation to the space research service (SRS) in accordance with Resolution **753 (WRC-07)**, provided that ITU-R sharing studies demonstrate compatibility with fixed, inter-satellite and mobile services within the band 22.55–23.15 GHz. Some administrations, noting that the draft CPM text acknowledges a high number of FS stations in the band, emphasized the need to ensure that regulatory measures (e.g., minimum separation distance between SRS stations and international borders) to avoid constrains on the existing FS networks.

Agenda Item 1.12: *Protect primary services in the band 37-38 GHz from interference resulting from aeronautical mobile service (Resolution 754)*

With regard to this agenda item, the APT expressed support for the protection of primary services within the band 37–38 GHz from interference resulting from aeronautical mobile service transmissions. Some members expressed concern with feasibility of the draft CPM Method B.

Agenda Item 1.13: *Spectrum usage of the 21.4-22 GHz band for plan BSS in Regions 1 and 3*

With regard to this agenda item, the APT members agreed that in light of rain attenuation characteristics in Region 3 and high annual service availability requirements of BSS (HDTV) systems, $(-105) \text{ dB(W/(m}^2 \cdot 1 \text{ MHz))}$ is the appropriate reference pfd limit for the BSS in the band 21.4-22.0 GHz in Region 3. The APT did not agree on whether there is a need to reconsider the super-primary regulatory status of the BSS in the band 21.4-22.0 GHz in regions 1 and 3. Nor did the APT agree on whether issues concerning No. 23.13 should be considered under this agenda item.

Agenda Item 1.14 – *Allocations or regulatory provisions for radiolocation service in the range 30-300 MHz (Resolution 611)*

With regard to this agenda item, the APT agreed on the following views:

- Support consideration of a possible additional allocation in the portion of the band 30-300 MHz, except the band 154-156 MHz, to the radiolocation service with

limitation for space object detection applications only, as defined in the Resolution 611 (WRC-07).

- Do not support allocation of the band 154-156 MHz for Radiolocation service.
- Do not support allocations to the radiolocation service in bands used by regional distress and safety applications of aeronautical or maritime services.
- The interference protection criteria of field strength of 12 dB(μ V/m) does not provide adequate protection of the MS stations. The protection criteria specified in Recommendation ITU-R M.1808, based on I/N values, should be applied in the sharing studies under this agenda item.

Agenda Item 1.15: Consider possible allocations in the range 3-50 MHz to the radiolocation service for oceanographic radar applications (Resolution 612)

With regard to this agenda item, the APT supports possible allocations, each band not exceeding 600 kHz, to suitable candidate sub-bands in the range 3-50 MHz to the radiolocation service for oceanographic radar applications, provided that the oceanographic radar applications will not cause harmful interference to, or claim protection from existing services in accordance with Resolution 612(WRC-07).

Agenda Item 1.16: Needs of passive systems for lightning detection in MetAids, including possibility of an allocation in the range below 20 kHz (Resolution 671)

With regard to this agenda item, some APT members expressed support for a new allocation to the meteorological aids service on a primary basis in the frequency band 9-11.3 kHz.

Agenda Item 1.17: Sharing studies between the mobile service and other services in the band 790-862 MHz in Regions 1 and 3 (Resolution 749)

With regard to this agenda item, the APT is of the view that:

- Current regulatory provisions shall continue to apply for services to which the frequency bands 790-862 MHz was allocated prior to WRC-07 (e.g., MS in Region 3). Cross-border sharing issues should be addressed through bilateral coordination.
- Results of the sharing studies, once completed by ITU-R [JTG 5-6], may be considered by Region 3 administrations for coordination of the mobile services with other primary services in Regions 1 and 3, on not obligatory basis..
- No changes to Radio Regulations are required under this agenda item.

Agenda Item 1.18: Radiodetermination-satellite service (s-to-E) allocations in the band 2 483.5-2 500 MHz (Resolution 749)

With regard to this agenda item, the APT maintained support for the extension of the existing primary RDSS allocation in Region 2 to global primary allocation provided that existing services in the band remain protected.

Agenda Item 1.19: Regulatory measures related to the introduction of SDR and CRS (Resolution 956)

With regard to this agenda item, the APT expressed:

- On SDR, support “No change to the Radio Regulations and suppression of Resolution 956 (WRC-07).”

- On CRS, support “No change to the Radio Regulations and suppression of Resolution **956 (WRC-07)**.”

Agenda Item 1.20: HAPS gateway links in the range 5 850-7 075 MHz (Resolution 734)

With regard to this agenda item, the APT expressed support for a possible frequency identification of HAPS gateway links in the range 5 850-7 075 MHz, conditioned on adequate protection for the existing and planned services and AP **30B** Plan allotments. Some APT members expressed a view that if HAPS gateway links were to be considered in the band 5 850-7 075 MHz, such operation shall be on non-interference and unprotected basis with respect to GSO FSS.

Agenda Item 1.21: Consider a primary allocation to the radiolocation service in the band 15.4 – 15.7 GHz

With regard to this agenda item, the APT maintained the view that a possible new allocation to radiolocation service in the band 15.4-15.7 GHz must fully protect existing radionavigation and radio-astronomy systems.

Agenda Item 1.22: Emissions from short range devices (Resolution 953)

With regard to this agenda item,

- Some APT members support NOC;
- Some APT members are of the view that regulation of emissions by SRDs can be achieved via national arrangements using, when available, relevant ITU-R Recommendations or regional agreement.

Agenda Item 1.23: Secondary Allocation of about 15 KHz to Amateurs in the Band 415-526.5 kHz

With regard to this agenda item, the APT expressed support for the ongoing studies which show that sharing by the amateur service in the band 415-526.5 kHz is feasible under some circumstances. The APT is of the view, however, that further studies are necessary.

Agenda Item 1.24: Expansion of non-GSO MetSat (s-E) allocation in 7750-7850 MHz to 7850-7900 MHz (Resolution 672)

With regard to this agenda item,

- some APT members are considering extension of Article 21 limits and Appendix 7 coordination provisions to the new allocation.
- one APT member expressed concern with possible resultant constraints on the FS and MS allocated in the band 7 850-7 900 MHz.

Agenda Item 1.25: Additional allocations to the MSS with particular focus on the bands between 4 GHz and 16 GHz (Resolution 231)

With regard to this agenda item, some APT members expressed that sharing spectrum between MSS and FS or MS in frequency bands 4400-4500 MHz, 4800-4990 MHz,

7055-7250 MHz, 7750-7900 MHz, 8400-8500 MHz, 10.5-10.6 GHz and 14.8-15.35 GHz may not be feasible. The APT also reiterated its opposition to possible MSS allocations in the Appendices 30, 30A and 30B frequency bands.

Agenda Item 7: Changes in response to Resolution 86 (Rev. Marrakesh, 2002)

The APT considered the following issues:

- *Issue 1: Harmonization of footnotes in Article 5 referring to No. 9.11A* -- the APT agreed that no regulatory action is required.
- *Issue 2: Application of No. 5.510 of the Radio Regulations* -- the APT agreed that no regulatory action is required.
- *Issue 3: Resolution 49 (Rev.WRC-07)* -- the APT agreed that no regulatory action is required.
- *Issue 4: Steerable beams (Annex 2 to Appendix 4 of the Radio Regulations)* -- the APT agreed to consider this issue at a future meeting.
- *Issue 5: Antenna gain contour covering area beyond submitted service area (Annex 2 to Appendix 4 of the Radio Regulations)* -- the APT agreed to consider this issue at a future meeting.
- *Issue 6: Application of Nos. 11.41 and 11.42 of the Radio Regulations (provisional/definitive recording of frequency assignments)* -- the APT did not reach consensus on this issue and consideration was deferred to a future meeting.
- *Issue 7: List of satellite networks with which coordination needs to be effected (application of No. 9.3)* -- the APT did not reach consensus on this issue and consideration was deferred to a future meeting.
- *Issue 8: Nos. 9.51 and 9.52 as applied to coordination under No. 9.7* – the APT maintained its position that no regulatory action is required.
- *Issue 9: Application of Nos. 23.13, 23.13A, 23.13B and 23.13C* – the APT did not reach consensus on this issue and consideration was deferred to a future meeting.

Other Developments

Administration of Iran nominated Mr. Kavouss Arasteh as the APT's candidate for the chairmanship of WRC-12.

Next meeting:

The 4th meeting of APG is scheduled for 13-18 December 2010.