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| **WORLD WEATHER WATCH****COMMISSION FOR BASIC SYSTEMS** |  |
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| **Steering Group on Radio Frequency Coordination (SG-RFC)****Boulder, Colorado. USA. 11-13 March 2014.** | **Document SG-RFC/2014-1-15** |
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| STEERING GROUP ON RADIO FREQUENCY COORDINATION (SG-RFC) |
| SG-RFC Focal Point IN THE ASIA-Pacific Telecommunity (APT) |
| Report on APT Views on WRC-15 Agenda Items of WMO Interest |

**1. Introduction**

The second meeting of the Asia-Pacific Telecommunity (APT) Conference Preparatory Group for WRC-15 (APG15-2) was held from 1 to 5 July 2013 in Bangkok, Thailand. The main focus was on Agenda item 1.1, however progress was made on the development of preliminary views on most Agenda items of interest to the WMO. The next APG meeting is scheduled for June 9-13 2014 in Brisbane, Australia.

**2. Action (by SG-RFC) Proposed**

Note the information in the attached table.

**3. Draft Text for Inclusion in the SG-RFC Meeting Reports or Other Documents**

None.

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|  | WRC-15 Agenda Item | WMO Position | APT Preliminary Views |
| 1.1JTG 4-5-6-7 | 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). | WMO opposes allocation/identification for terrestrial mobile broadband applications including IMT of the frequency bands 1 675-1 710 MHz, 2 025-2 110 MHz, 2 200-2 290 MHz, 2 700-2 900 MHz and 5 350-5 470 MHz.WMO opposes any allocation in the 1 400-1 427 MHz frequency band, covered by RR No 5.340, and also requires that protection of sensors in this band be ensured from unwanted emissions of terrestrial mobile broadband applications including IMT if proposed in the adjacent bands.In addition, WMO states its requirement to maintain relevant fixed satellite service capacity and availability in the 3 400-4 200 MHz frequency band. | 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.
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| 1.6WP4A | to consider possible additional primary allocations:**1.6.1**: to thefixed-satelliteservice (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).**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). | WMO opposes a new allocation to FSS in the 13.25-13.75 GHz frequency band.WMO also opposes any allocation in the 10.6-10.7 GHz frequency band. WMO requires that protection of sensors in the band 10.6-10.7 GHz be ensured from unwanted emissions of FSS systems. | **AI 1.6.1:**- 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. **AI 1.6.2:**- 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).  |
| 1.9.2WP4C | to consider, in accordance with Resolution 758 (WRC‑12) the possibility of allocating the bands 7 375-7 750 MHz and 8 025-8 400 MHz to the maritime-mobile satellite service and additional regulatory measures, depending on the results of appropriate studies. | WMO considers that no new allocations to the MMSS should be made in these frequency bands unless acceptable sharing criteria with EESS and MetSat are developed. Particular concern is noted with regard to potential interference to EESS (space-to-Earth) operations in 8 025-8 400 MHz at high latitudes from ships operating in proximity. | - APT members support the ITU-R technical and regulatory studies for possible new allocations of maritime-mobile satellite service (MMSS) in the 7/8 GHz bands, while ensuring compatibility with existing services and their future development in these bands and no undue constraints should be placed on existing services. - APT members are also of the view that the pfd limits for a space station of FSS in the band 7375-7750 MHz (space-to-Earth) shown in Table **21-4** of Article **21** of the Radio Regulations could also be applicable to a space station of MMSS. This would be the case if ITU-R studies indicate that the interference level from a space station in MMSS into a station in terrestrial services does not exceed that from a space station in FSS into a terrestrial station.  |
| 1.10WP4C | 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). | WMO opposes new MSS allocations in the 23.6-24 GHz and 25.5–26.0 GHz frequency ranges. Allocations to MSS in other portions of the 22-26 GHz frequency range will have to be associated with the adequate protection of EESS applications from emissions of MSS systems. | - 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.  |
| 1.11WP7B | to consider a primary allocation for theEarth exploration-satellite service (Earth-to-space) in the 7-8 GHz range, in accordance with Resolution 650 (WRC‑12). | WMO supports a new EESS (Earth-to-space) allocation in the 7-8 GHz frequency band, provided that compatibility with meteorological-satellite systems operating in the bands 7 450-7 550 MHz and 7 750-7 900 MHz is ensured. | - 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.  |
| 1.12WP7C | 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). | WMO urges that a new EESS (Earth-to-space) allocation in the 9 GHz frequency range shall ensure adequate protection of meteorological applications, in particular, meteorological radars in the frequency band 9 300-9 500 MHz and passive sensors in the frequency band 10.6-10.7 GHz. | - APT members support 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.  |
| 1.17WP5B | 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). | WMO opposes to the use of the 2 700-2 900 MHz and 5 350-5 460 MHz frequency bands for WAIC based on the previous studies in the frequency band 5 600-5 650 MHz, which concluded that mobile applications on board aircraft are not compatible with meteorological radars. For other frequency bands considered for WAIC (e.g. the frequency band 13.25-13.4 GHz or frequency bands above 15.7 GHz), compatibility with meteorological and Earth observation applications should be assessed and the adequate protection should be ensured. | - APT Members support 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.  |
| 9.1.1WP4C | 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:Protection of the systems operating in the mobile-satellite service in the band 406-406.1 MHz (Resolution 205 (Rev.WRC-12)). | WMO supports studies and regulatory measures towards ensuring the adequate protection to Cospas-Sarsat receivers against emissions from adjacent bands, noting that, to a large extent, those receivers are implemented on meteorological satellites. | 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.  |
| 9.1.5WP4A | consider and approve the Report of the Director on the ITU-R activities on 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**.** | WMO supports technical and regulatory actions to protect the FSS operations in the band 3 400-4 200 MHz for the dissemination of meteorological data in Region 1.In addition, WMO states its requirement to maintain relevant fixed satellite service capacity and availability in the 3 400-4 200 MHz frequency band. | Position to be developed. |

1. \* If restricted access is selected the WMO Document will only be accessible to the WMO WIKI registered users. [↑](#footnote-ref-1)