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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/2014-1-16** |
|  | **05 March 2014** |
|  | **English only** |
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|  | **Restricted access required? (Y/N)[[1]](#footnote-1)\*** | **N** |  |
| STEERING GROUP ON RADIO FREQUENCY COORDINATION (SG-RFC) |
| SG-RFC Focal Point IN THE European Conference of Postal and Telecommunication Administrations (CEPT) |
| Report on CEPT Preliminary Positions on WRC-15 Agenda Items of WMO prime Interest |

**1. Introduction**

The third meeting of the CEPT Conference Preparatory Group (CPG) for WRC-15 was held 23 – 26 September 2013 in Zagreb, Croatia.

Meanwhile the CEPT preliminary positions were developed further at the relevant CPG Project Teams A, B and C meetings in January, respectively March 2014. The attached table outlines the CEPT preliminary position for agenda items of prime interest to WMO.

The next meeting of CPG is scheduled for 25 – 28 March 2014 in Riga, Latvia were the CEPT preliminary positions as they came out of the project teams will be reviewed and agreed.

**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 | CEPT Preliminary Positions |
| 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. | **Status: PT-D (Jan 2014)**CEPT supports:* the results of the ITU-R studies which indicate that by the year 2020, the total spectrum requirement for pre-IMT, IMT-2000 and its enhancements and for IMT-Advanced is between 1960MHz (for higher user density settings) and 1340MHz (for lower user density settings). However CEPT recognises that the national spectrum requirements may vary.
* harmonised allocations to the mobile service and identification for IMT to facilitate the global roaming and reduction of equipment-cost through economies of scale;
* that when considering identification of additional frequency bands for IMT, CEPT takes into account current use of these bands and the results of ECC and/or ITU-R sharing/compatibility studies with respect to existing services in those bands and adjacent bands.
* Based on the available studies CEPT is currently of the view that:

The following bands are supported:1427-1452 MHz1452-1492 MHz3400-3600 MHz3600-3800 MHzThe following bands are subject to further consideration taking into account sharing and compatibility studies:* 470 – 694 MHz
* 1350-1375 MHz
* 1375-1400 MHz
* 1492-1518 MHz
* 2700-2900 MHz
* 5350-5470 MHz
* 5725-5925 MHz
* 5925-6425 MHz

The following bands seem not to be suitable for mobile broadband:1300-1350 MHz1518-1525 MHz1695-1710 MHz2025-2110 MHz2200-2290 MHz2900-3100 MHz3300-3400 MHz 3800-4200 MHz4400-5000 MHz Taking into account already existing studies, further consideration and sharing/compatibility studies are needed before being able to decide in which bands an allocation to the mobile service or identification to IMT should be made.  |
| 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. | **Status: PT-B (March 2014)****AI 1.6.1:**СEPT supports the need for additional primary allocations of 250 MHz (Earth-to-space and space-to-Earth) to the GSO-FSS in frequency bands between 10 and 17 GHz in Region 1. Studies should demonstrate compatibility with the existing services before a primary allocation is to be made to the FSS in a particular frequency band.Based on the sharing studies preliminary results, CEPT identifies the following frequency bands as possible frequency bands for a new primary allocation of 250 MHz to GSO FSS subject to development of possible mitigation technique if required (e.g. PFD mask, limitation of transmit antenna size, etc.).FSS (space-to-Earth):* 13.4-13.75 GHz with preference to the band 13.4-13.65 GHz for the gap between the uplink FSS allocations in the band 13.75-14.5 GHz;
* 14.8-15.35 GHz

FSS (Earth-to-space):* [14.5-14.8 GHz]

Mitigation measures (e g orbital separation) need to be implemented to protect the Space Research service in the bands 13.4-13.75 GHz, 14.5-14.8 GHz, 14.8-15.35 GHz and RAS in the adjacent band 15.35-15.4 GHz (RR 5.340).Moreover, the deployment of transmitting Earth stations for the ACES systems operating under the standard frequency and time signal-satellite would need to be ensured without additional constraint that may result from the protection of FSS receiving Earth stations.**AI 1.6.2:**CEPT supports a worldwide allocation for additional primary allocations (Earth-to-space) to the GSO-FSS in frequency bands between 13 and 17 GHz in all Regions.CEPT considers that the additional allocation of 250 MHz to FSS (Earth-space) in Region 2 and 300 MHz in Region 3 in frequency bands between 13 and 17 GHz could be made only while ensuring compatibility with existing services in these frequency bands, taking into account radio services allocated in Region 1, if different FSS up-link bands are allocated in the Region 1 and Regions 2 and 3.CEPT does not support additional allocation to FSS in frequency bands 10.6-10.68 GHz under AI 1.6.1 and 15.35-15.4 GHz both for AIs 1.6.1 and 1.6.2 due to the difficulty of sharing with passive services operating in these bands. |
| 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. | **Status: PT-B (March 2014)**CEPT supported the on-going ITU-R studies on the possibility of making a new allocation to the MMSS in the bands 7 375-7 750 MHz (space-to-Earth) and 8 025-8 400 MHz (Earth-to-space), subject to not placing undue constraints to and to ensuring protection of the services already allocated in these frequency bands. To this respect, CEPT does not support the usage of these bands for applications that could imply a deployment of a large number of Earth stations in the MMSS. In particular, CEPT does not support the usage of the bands 7 375-7 750 MHz (space-to-Earth) and 8 025-8 400 MHz (Earth-to-space) for e-navigation or GMDSS. This would require appropriate regulatory mechanisms, yet to be defined.CEPT notes that the ITU-R and CEPT studies show that compatibility between EESS (space-to-Earth) and MMSS in the band 8025-8400 MHz requires the establishment of large exclusion zones around the EESS earth stations. CEPT also notes that the maintenance of an exclusion zones database and the enforcement of these exclusion zones for a steadily growing number of EESS Earth stations makes such an allocation impracticable. In addition, CEPT notes that the protection of SRS deep space stations in adjacent band would have to be ensured through a combination of unwanted emission limits and/or exclusions zones, therefore adding to the constraints on MMSS.Consequently CEPT doesn’t support an allocation for MMSS in the band 8025-8400 MHz without acceptable and practicable regulatory methods.Note: Position on the band 7375-7750 MHz still to be developed. |
| 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. | **Status: PT-B (March 2014)**CEPT sees difficulties, in particular in sharing, for MSS allocations within the frequency range 22-26 GHz and does not support such additional allocations under this Agenda Item. Further to this agenda item CEPT does not see a need for additional spectrum and therefore requests justification for possible spectrum allocations for the MSS in the band frequency range 22-26 GHz. |
| 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. | **Status: PT-A (January 2014)**CEPT supports the allocation of the frequency band 7190-7250 MHz on a primary basis to the Earth exploration-satellite service (Earth-to-space).The SOS allocated in the Russian Federation in the band 7190-7235 MHz needs to be protected and the sharing studies EESS-SOS need to be finalised.CEPT recognizes that EESS (E-s) cannot share with SRS (deep space) in 7145-7190 MHz band. |
| 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. | **Status: PT-A (January 2014)**CEPT currently supports the allocation of additional radio frequency spectrum of 600 MHz in the frequency band [9 200-9 300 MHz and 9.9-10.4 GHz / 9.9-10.5 GHz] to the Earth Exploration-Satellite Service (active) with a [primary] status. Stations in the Earth exploration-satellite service (active) shall not cause harmful interference to, nor claim protection from, stations operating in the Radio Determination Services allocated in the same frequency bands.Provisions for the protection of Fixed, Mobile, Space Research and Radio Astronomy Services from EESS (active) need to be implemented, as appropriate. |
| 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. | **Status: PT-C (January 2014)**CEPT supports a primary AM(R)S allocation in the 4 200 – 4 400 MHz band limited to WAIC to accommodate the required frequency spectrum of 145 MHz.CEPT supports further sharing and compatibility studies on other frequency bands if necessary. |
| 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. | **Status: PT-B (March 2014)**In order to ensure adequate protection of MSS systems in the frequency band 406-406.1, CEPT supports a revision of Resolution 205 (rev WRC2012) containing mitigation measures. However, it should also be ensured that existing stations/systems duly authorized in adjacent frequency bands will not experience undue constraints. |
| 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. | **Status: PT-B (March 2014)**CEPT supports the modification of Resolution 154 (WRC-12) to urge relevant administrations in Region 1 to use special care in the coordination, assignment, and management of frequencies taking into consideration the potential impact on FSS earth stations used for satellite communications related to safe operation of aircraft and reliable distribution of meteorological information in the band 3 400-4 200 MHz. CEPT supports a combination of possible modifications to Resolution 154 (WRC-12) that would aim at urging relevant administrations of Region 1 to coordinate, with their neighboring countries, and notify their receiving earth stations, to use relevant ITU-R methodologies to ensure compliance with RR No. 5.430A, to take into account the needs of existing and planned FSS earth stations used for safe operation of aircraft and reliable distribution of meteorological information in national planning and to employ any appropriate mitigation techniques.  |

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