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| **WORLD WEATHER WATCH****COMMISSION FOR BASIC SYSTEMS** |  |
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| STEERING GROUP ON RADIO FREQUENCY COORDINATION (SG-RFC) |
| MeteoSwiss, Payerne, Switzerland, 22 - 25 September 2015 |
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# Position ofthe Regional Commonwealth in the Field of Communications (RCC)Administrations on WRC-15 Agenda Items That Are Prime Interest or Concern for WMO

### 1 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)****.”*

*Position of the RCC Administrations indicated for the frequency bands that are WMO interest or concern for convenience of readers. In the RCC document many of them are shown in one paragraph.*

1.1 The frequency bands 1 350-1 400 MHz and 1 427-1 452 MHz

The RCC Administrations object to the primary allocation to the MS and identification for IMT systems in the frequency bands 1 350-1 400 MHz and 1 427-1 452 MHz due to the intensive use by the incumbent services and possible unacceptable interference to the stations of these services:

* 1350-1400 MHz used by RLS and RNS under RR No **5.338**;
* 1427-1452 MHz, 1452-1492 MHz, 1492-1518 MHz, 1518-1525 MHz used by aeronautical telemetry operating under RR Nos **5.342** and **4.10**.

1.2 The frequency band 1 695-1 710 MHz

The RCC Administrations object to the primary allocation to the MS and identification for IMT systems in the frequency band 1 695-1 710 MHz due to the intensive use by the incumbent services and possible unacceptable interference to the stations of these services:

* 1695-1710 MHz used by meteorological-satellite service (space-to-Earth).

1.3 The frequency bands 2 025-2 110 MHz and 2 200-2 290 MHz – not included in the list of potential candidate frequency bands

Not mentioned in the RCC position/common proposals because they are not included in the list of potential candidate frequency bands. However, the RCC Administration position is in-line with WMO.

1.4 The frequency band 2 700-2 900 MHz

The RCC Administrations object to the primary allocation to the MS and identification for IMT systems in the frequency band 2 700-2 900 MHz due to the intensive use by the incumbent services and possible unacceptable interference to the stations of these services:

* 2 700-2 900 MHz and 3 300-3 400 MHz used by the RLS.

1.5 The frequency band 3 400-4 200 MHz

The RCC Administrations oppose global allocation of the band 3400-3600 MHz to the MS on a primary basis and modification of the allocation conditions for this frequency band, established by RR No. **5.430A**.

The RCC Administrations object to the primary allocation to the MS and identification for IMT systems in the frequency bands 3 600-3 700 MHz, 3 700-3 800 MHz, 3 800-4 200 MHz and 4 500-4 800 MHz used by the FSS (space-to-Earth).

1.6 The frequency band 5 350-5 470 MHz

The RCC Administrations also oppose the primary MS allocation for use by terrestrial broadband systems (e.g. RLAN) in the following frequency bands due to their intense use by existing services and possible unacceptable interference to stations of these services:

* 5 350-5 470 MHz used by the RLS and the EESS.

### 2 Agenda item 1.6

*“to consider possible additional primary allocations:”*

*2.1 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)****.”*

The RCC Administrations  are in favour of the new primary allocation of 250 MHz to GSO systems in the fixed satellite service (GSO FSS) in both directions (Earth-to-space and space-to-Earth) in the bands 10-17 GHz in Region 1 subject to protection of incumbent services in the considered and adjacent frequency bands.

The RCC Administrations  support the following frequency bands for the new allocation to GSO FSS in Region 1:

* 13.4-13.65 GHz or 14,85-15.1 GHz (space-to-Earth), based on Methods EE2 or GG2 of CPM Report;
* 14.5-14.75 GHz (Earth-to-space), based on Method F2 of CPM Report.

The RCC Administrations are considering a new allocation of the frequency band 13.4-13.65 GHz for GSO FSS (space-to-Earth) as the preferred one, taking into account the advantages of the technical implementation of FSS systems in this band, as well as taking into account the intensive use of the frequency band 14.85-15.1 GHz by stations in the fixed service.

The new GSO FSS allocation shall not impose substantial additional constraints to existing frequency assignments or prevent development of the FS.

The RCC Administrations oppose allocation of the frequency bands 13.4-13.75 GHz and 14.8-15.35 GHz to the GSO FSS (Earth-to-space) in Region 1.

*2.2 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)****.”*

The RСС Administrations consider that with the new primary allocation of 250 MHz to GSO FSS (Earth-to-space) in Region 2 and 300 MHz in Region 3 in frequency bands between 13 and 17 GHz, incumbent services which have allocations in these frequency bands in Region 1 should be protected.

The RCC Administrations have no objections to the new allocation of the frequency band 14.5-14.75 GHz for GSO FSS (Earth-to-space) on a primary basis in Region 2 and 14.5-14.8 GHz in Region 3, based on Method F2 of CPM Report.

The RCC Administrations oppose allocation of the frequency bands 13.4-13.75 GHz and 14.8-15.35 GHz for GSO FSS (Earth-to-space) in Regions 2 and 3.

**2.3 The RCC Administration General Position on Agenda items 1.6.1 and 1.6.2**

New FSS allocations are preferable in frequency bands which are contiguous with the existing FSS allocations, and also in frequency bands, where the allocation is possible on the worldwide basis.

The RСС Administrations consider that allocation of additional spectrum for the GSO FSS on the worldwide basis (in all three Regions) has advantage over regional allocation (in one Region) when planning satellite communication networks and providing efficient territory coverage.

The RСС Administrations consider that protection of the radio astronomy service and some applications in the space research service having allocations on a secondary basis, from the impact of GSO FSS systems in the considered frequency bands and in the adjacent frequency bands, shall be ensured under existing SRS and RAS protection criteria. Necessary regulatory provisions and restrictions of technical characteristics of GSO FSS systems should be included in the Radio Regulations.

The RСС Administrations oppose allocation of the 10.6-10.68 GHz and 15.35-15.4 GHz frequency bands to the GSO FSS due to complicated compatibility with stations of passive services operating in these frequency bands.

### 3 Agenda item 1.9

*“to consider, in accordance with Resolution****758 (WRC‑12)****:”*

*3.1 Agenda item 1.9.2*

*“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.”*

The RCC Administrations oppose the allocation of the frequency bands 7 375-7 750 MHz and 8 025-8 400 MHz to the maritime mobile-satellite service since the ITU-R studies have shown that compatibility of the MMSS with other space services is not possible without imposing additional constraints on them.

The RCC Administrations do not object to the allocation of the frequency band 7 375-7 750 MHz (space-to-Earth), because the studies carried out by the ITU-R shown that compatibility between the maritime mobile-satellite service and the existing radio services is achievable without putting on them additional constrains.

### 4 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)****.”*

The RCC Administrations consider that an additional spectrum allocation to the mobile-satellite service within the frequency range from 22 GHz to 26 GHz is possible only if sharing with the existing terrestrial and space services is ensured in the same and adjacent frequency bands (taking into account RR Nos. **5.149** and **5.340**), and if such allocations to MSS do not impose additional constraints on the existing services. Also, unwanted emissions from earth and space stations in the MSS networks shall not cause harmful interference to EESS systems (passive), SRS (passive) and RAS in the frequency bands 23.6-24.00 GHz; 22.01-22.21 GHz; 22.21-22.5 GHz; 22.81-22.86 GHz and 23.07-23.12 GHz.

The RCC Administrations support additional allocation of 250 MHz for the MSS in every direction:

 in the band 23.15-23.55 GHz or 24.25-24.55 GHz  (space-to-Earth),

 in the band 25.25-25.5 GHz or 24.25-24.55 GHz (Earth-to-space).

### 5 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)****.”*

The RCC Administrations do not object to allocation of frequency band 7 190-7 250 MHz on a primary basis to the Earth exploration-satellite service (Earth-to-space) provided the compatibility with systems of SOS, SRS, FS and MS is ensured.

Compatibility conditions between the EESS (Earth-to-space) and other existing services in the 7-8 GHz frequency range shall be incorporated in the Radio Regulations.

The RCC Administrations support Method B in CPM Report.

### 6 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)****.”*

The RCC Administrations consider that worldwide extension of the available allocation to the EESS (active) in the frequency band 9 300-9 900 MHz up to 600 MHz would be more preferable within the frequency band 9 900-10 500 MHz, and the extension would be possible only subject to defining the conditions of providing protection for systems in other services operating in this and adjacent frequency bands.

The RCC Administrations consider that in case of additional allocation of up to 600 MHz to the EESS (active), this frequency band shall be used only by the EESS systems with the pfd limits derived from the ITU-R studies and subject to not claiming protection from the services having allocations in this frequency band.

The RCC Administrations consider that protection shall be ensured for systems in other services, specifically RLS in the frequency band 9 900-10 500 MHz as well as for radiodetermination systems in the frequency band 9 200-9 300 MHz deployed on river boats and sea ships.

Complies with Method A2 of CPM Report with specified pfd limits.

### 7 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)****.”*

The RCC Administrations consider that:

* WAIC systems shall operate in the frequency bands allocated to aeronautical services;
* frequency bands used by WAIC shall be harmonized in all three Regions;
* implementation of WAIC shall not impose constraints on other systems operating in the common frequency bands.

The RCC Administrations have no objections for the allocation of 4200-4400 MHz frequency band to the air mobile (R) service to be used only by WAIC systems, keeping the status of Earth exploration satellite service (EESS) and space research service (SRS) as passive services and ensuring protection of aeronautical radionavigation service (ARNS) systems.

The RCC Administrations support the existing method to satisfy the agenda item.

### 8 Agenda item 9.1.1

*“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: Protection of the systems operating in the mobile-satellite service in the band 406-406.1 MHz Resolution****205 (Rev.WRC-12)****).”*

The RCC Administrations support activities ensuring appropriate protection of the COSPAS-SARSAT system in the frequency band 406-406.1 MHz from emissions which could cause harmful interference to the authorized uses in this frequency band (RR No. **5.267** and No. **5.266**), taking into account existing and future deployment of services in adjacent (390-406 MHz and 406.1-420 MHz) frequency bands.

To satisfy the specified tasks, the RCC Administrations support modification to Resolution **205 (WRC-12)** and inclusion in the Article **5** a footnote with reference to Resolution **205 (WRC-12)**.

### 9 Agenda item 9.1.5

*“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 (Resolution****154 (WRC-12)****).”*

The RCC Administrations support the development of possible technical and regulatory measures in some countries in Region 1 (on a national basis) in order to ensure the operation of existing and future fixed-satellite service earth stations within the band 3 400-4 200 MHz used for satellite communications related to safe operation of aircraft and reliable distribution of meteorological information.

In order to protect FSS earth stations from IMT networks in the frequency band 3 400-3 600 MHz on a national basis it is possible to use technical conditions of RR No. **5.340A.**

The conditions for protection of FSS earth stations in the frequency band 3 400-3 600 MHz from new networks of fixed and mobile services including wireless access systems must be determined on the basis of ITU-R studies on compatibility between these systems and FSS earth stations, carried out in the framework of this issue.

The RCC Administrations consider that technical and regulatory measures under Resolution **154 (WRC-12)** shall not limit the use of the band 3 400-4 200 MHz by other existing and planned systems and services in other countries, including the SOS for the purpose of spacecraft control.

### 10 Agenda item 9.1.8

*“Consider and approve the Report of the Director on the ITU-R activities on regulatory aspects for nano-and picosatellites”.*

The RCC Administrations consider that any changes in the notification procedures of satellite networks operating nano-and picosatellites should not lead to complications in the notification, coordination and use of other satellite networks. Necessary changes could be included in the RR at WRC-19.

Appropriate changes should be confirmed by ITU studies.

### 11 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, (Resolution****808 (WRC-12)****).”*

The RCC Administrations position/common proposals are still under development.

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