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| **World Radiocommunication Conference (WRC-15) Geneva, 2–27 November 2015** |  |
| **INTERNATIONAL TELECOMMUNICATION UNION** |  |
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| PLENARY MEETING | **Addendum 11 to Document 8-E** |
|  | **9 October 2015** |
|  | **Original: Russian** |
|  | |
| Regional Commonwealth in the field of Communications Common Proposals | |
| Proposals for the work of the conference | |
|  | |
| Agenda item 1.11 | |

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);

Resolution **650 (WRC-12)**: Allocation for the Earth exploration-satellite service (Earth-to-space) in the 7‑8 GHz range

Introduction

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

Provisions allowing a primary allocation of the frequency band 7 190‑7 250 MHz to the EESS (Earth-to-space) and ensuring protection of MS, SRS, SOS and FS systems in the frequency band 7 190‑7 235 MHz must be included in the Radio Regulations.

The RCC Administrations endorse Method B to satisfy the agenda item, as described in section 2/1.11/5.2, and the example of regulatory text for Method B contained in section 2/1.11/6.2, of the CPM Report and reproduced below.

Proposals

ARTICLE 5

Frequency allocations

Section IV – Table of Frequency Allocations  
(See No. 2.1)

MOD RCC/8A11/1

5 570-7 250 MHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 7 145-7 190 FIXED  MOBILE  SPACE RESEARCH (deep space) (Earth-to-space)  5.458 5.459 | | |
| 7 190-7 235 EARTH EXPLORATION-SATELLITE (Earth-to-space) ADD 5.A111 ADD 5.B111  FIXED  MOBILE  SPACE RESEARCH (Earth-to-space) MOD 5.460  5.458 5.459 | | |
| 7 235-7 250 EARTH EXPLORATION-SATELLITE (Earth-to-space) ADD 5.A111 ADD 5.B111  FIXED  MOBILE  5.458 | | |

**Reasons:** To include in the table a new allocation of frequencies to the EESS (Earth-to-space) in the frequency band 7 190‑7 250 MHz.

MOD RCC/8A11/2

5.460 No emissions from space research service systems (Earth-to-space) to deep space shall be effected in the band 7 190-7 235 MHz. Geostationary satellites in the space research service operating in the band 7 190-7 235 MHz shall not claim protection from existing and future stations of the fixed and mobile services and No. 5.43Adoes not apply.     (WRC‑15)

**Reasons:** To allow a new allocation to the EESS (Earth-to-space) in the frequency band 7 190‑7 250 MHz. TT&C functions can be carried out by pairing this new allocation with the existing allocation to the EESS (space-to-Earth) in the frequency band 8 025‑8 400 MHz. Deletion of the first sentence as a consequential amendment.

ADD RCC/8A11/3

5.A111 The use of the band 7 190-7 235 MHz (Earth-to-space) by the Earth exploration-satellite service is subject to agreement obtained under No. **9.21** with respect to the space operation service applied under No. **5.459**. Space stations in the Earth exploration-satellite service (Earth-to-space) shall not claim protection from existing and future stations in the fixed and mobile services operating in the frequency band 7 190-7 250 MHz and No. **5.43A** does not apply.     (WRC‑15)

**Reasons:** To ensure compatibility between SOS and EESS and protection of FS and MS.

ADD RCC/8A11/4

5.B111 Space stations in the Earth exploration-satellite service (Earth-to-space) shall not claim protection from emissions from the SRS in the frequency band 7 190-7 235 MHz.     (WRC‑15).

**Reasons:** In some cases for co-frequency operations, in particular when the earth stations are either collocated geographically or nearby, the interference levels from near-Earth SRS uplinks into EESS satellites could exceed the applicable ITU criteria.

MOD RCC/8A11/5

APPENDIX 7 (REV.WRC‑15)

Methods for the determination of the coordination area around an earth  
station in frequency bands between 100 MHz and 105 GHz

ANNEX 7

System parameters and predetermined coordination distances for determination of the coordination area around an earth station

# 3 Horizon antenna gain for a receiving earth station with respect to a transmitting earth station

MOD RCC/8A11/6

TABLE 7b    (Rev.WRC‑15)

Parameters required for the determination of coordination distance for a transmitting earth station

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Transmitting space radiocommunication  service designation | | Fixed-satellite, mobile-satellite | Aero-nautical mobile-satellite (R) service | Aero-nautical mobile-satellite (R) service | Fixed- satellite | Fixed- satellite | Fixed- satellite | Fixed- satellite | | Earth exploration-satellite service, space  operation, space  research | | Fixed-satellite, mobile-satellite, meteorological- satellite | | Fixed- satellite | | Fixed- satellite | | Fixed- satellite | Fixed- satellite 3 | Fixed- satellite | Fixed- satellite 3 |
| Frequency bands (GHz) | | 2.655-2.690 | 5.030-5.091 | 5.030-5.091 | 5.091-5.150 | 5.091-5.150 | 5.725-5.850 | 5.725-7.075 | | 7.100-7.250 5 | | 7.900-8.400 | | 10.7-11.7 | | 12.5-14.8 | | 13.75-14.3 | 15.43-15.65 | 17.7-18.4 | 19.3-19.7 |
| Receiving terrestrial service designations | | Fixed, mobile | Aeronautical radio- navigation | Aeronautical mobile (R) | Aeronautical radio- navigation | Aeronautical mobile (R) | Radiolocation | Fixed, mobile | | Fixed, mobile | | Fixed, mobile | | Fixed, mobile | | Fixed, mobile | | Radiolocation radionavigation (land only) | Aeronautical radionavigation | Fixed, mobile | Fixed, mobile |
| Method to be used | | § 2.1 | § 2.1, § 2.2 | § 2.1, § 2.2 |  |  | § 2.1 | § 2.1 | | § 2.1, § 2.2 | | § 2.1 | | § 2.1 | | § 2.1, § 2.2 | | § 2.1 |  | § 2.1, § 2.2 | § 2.2 |
| Modulation at terrestrial station 1 | | A |  |  |  |  |  | A | N | A | N | A | N | A | N | A | N | − |  | N | N |
| Terrestrial station interference parameters and criteria | *p0* (%) | 0.01 |  |  |  |  |  | 0.01 | 0.005 | 0.01 | 0.005 | 0.01 | 0.005 | 0.01 | 0.005 | 0.01 | 0.005 | 0.01 |  | 0.005 | 0.005 |
| *n* | 2 |  |  |  |  |  | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 |  | 2 | 2 |
| *p* (%) | 0.005 |  |  |  |  |  | 0.005 | 0.0025 | 0.005 | 0.0025 | 0.005 | 0.0025 | 0.005 | 0.0025 | 0.005 | 0.0025 | 0.01 |  | 0.0025 | 0.0025 |
| *NL* (dB) | 0 |  |  |  |  |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 |
| *Ms* (dB) | 26 2 |  |  |  |  |  | 33 | 37 | 33 | 37 | 33 | 37 | 33 | 40 | 33 | 40 | 1 |  | 25 | 25 |
| *W* (dB) | 0 |  |  |  |  |  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  | 0 | 0 |
| Terrestrial station parameters | *Gx* (dBi) 4 | 49 2 | 6 | 10 | 6 | 6 |  | 46 | 46 | 46 | 46 | 46 | 46 | 50 | 50 | 52 | 52 | 36 |  | 48 | 48 |
| *Te* (K) | 500 2 |  |  |  |  |  | 750 | 750 | 750 | 750 | 750 | 750 | 1 500 | 1 100 | 1 500 | 1 100 | 2 636 |  | 1 100 | 1 100 |
| Reference bandwidth | *B* (Hz) | 4 × 103 | 150 × 103 | 37.5 × 103 | 150 × 103 | 106 |  | 4 × 103 | 106 | 4 × 103 | 106 | 4 × 103 | 106 | 4 × 103 | 106 | 4 × 103 | 106 | 107 |  | 106 | 106 |
| Permissible interference power | *Pr*( *p*) (dBW) in *B* | −140 | −160 | −157 | −160 | −143 |  | −131 | −103 | −131 | −103 | −131 | −103 | −128 | −98 | −128 | −98 | −131 |  | −113 | −113 |

1 A: analogue modulation; N: digital modulation.

2 The parameters for the terrestrial station associated with transhorizon systems have been used. Line-of-sight radio-relay parameters associated with the frequency band 5 725‑7 075 MHz may also be used to determine a supplementary contour with the exception that *Gx* = 37 dBi.

3 Feeder links of non-geostationary-satellite systems in the mobile‑satellite service.

4 Feeder losses are not included.

5 Actual frequency bands are: 7 190‑7 250 MHz for the Earth exploration-satellite service; 7 100-7 155 MHz and 7 190-7 235 MHz for the space operation service; and 7 145-7 235 MHz for the space research service.    (WRC‑15)

**Reasons:** Consequential changes to reflect inclusion of a new allocation to the Earth exploration-satellite service (Earth-to-space) in Table 7b (Parameters required for the determination of coordination distance for a transmitting earth station) of Annex 7.

ARTICLE 21

Terrestrial and space services sharing frequency bands above 1 GHZ

Section III − Power limits for earth stations

MOD RCC/8A11/7

TABLE **21-3**     (Rev.WRC‑15)

|  |  |  |
| --- | --- | --- |
| Frequency band | | Services |
| 2 025-2 110 MHz  5 670-5 725 MHz  5 725-5 755 MHz6 | (for the countries listed in No. 5.454 with respect to the countries listed in Nos. 5.453 and 5.455)  (for Region 1 with respect to the countries listed in Nos. 5.453 and 5.455) | Fixed-satellite  Earth-exploration-satellite  Meteorological-satellite  Mobile-satellite  Space operation |
| 5 755-5 850 MHz6 | (for Region 1 with respect to the countries listed in Nos. 5.453, 5.455 and 5.456) | Space research |
| 5 850-7 075 MHz |  |  |
| 7 190- 7 250 MHz |  |  |
| 7 900-8 400 MHz |  |  |
| 10.7-11.7 GHz6 | (for Region 1) |  |
| 12.5-12.75 GHz6 | (for Region 1 with respect to the countries listed in No. 5.494) |  |
| 12.7-12.75 GHz6 | (for Region 2) |  |
| 12.75-13.25 GHz |  |  |
| 14.0-14.25 GHz | (with respect to the countries listed in No. 5.505) |  |
| 14.25-14.3 GHz | (with respect to the countries listed in Nos. 5.505, 5.508 and 5.509) |  |
| 14.3-14.4 GHz6 | (for Regions 1 and 3) |  |
| 14.4-14.8 GHz |  |  |
| 17.7-18.1 GHz |  | Fixed-satellite |
| 22.55-23.15 GHz |  | Earth exploration-satellite |
| 27.0-27.5 GHz6 | (for Regions 2 and 3) | Mobile-satellite |
| 27.5-29.5 GHz |  | Space research |
| 31.0-31.3 GHz | (for the countries listed in No. 5.545) |  |
| 34.2-35.2 GHz | (for the countries listed in No. 5.550 with respect to the countries listed in No. 5.549) |  |

**Reasons:** Consequential changes taking into account the new allocation to the EESS (Earth-to-space) in the frequency band 7 190‑7 250 MHz

SUP RCC/8A11/8

RESOLUTION 650 (WRC‑12)

Allocation for the Earth exploration-satellite service   
(Earth-to-space) in the 7-8 GHz range

**Reasons:** This resolution is no longer needed.

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