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| **World Radiocommunication Conference (WRC-19) Sharm el-Sheikh, Egypt, 28 October – 22 November 2019** |  |
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|  | CPG(19)073 ANNEX V-21B |
| PLENARY MEETING | **Addendum 2 to Document XX(Add.21)-E** |
|  | **Date** |
|  | **Original: English** |
|  | |
| European Common Proposals | |
| Proposals for the work of the conference | |
|  | |
| Agenda item 9.1(9.1.2) | |

9 to consider and approve the Report of the Director of the Radiocommunication Bureau, in accordance with Article 7 of the Convention:

9.1 on the activities of the Radiocommunication Sector since WRC-15;

9.1 (9.1.2) Resolution **761 (WRC-15)** **-** Compatibility of International Mobile Telecommunications and broadcasting-satellite service (sound) in the frequency band 1 452-1 492 MHz in Regions 1 and 3

Introduction

ITU-R and CEPT have been conducting regulatory and technical studies between International Mobile Telecommunications (IMT) and the broadcasting-satellite service (sound) (BSS (sound)) in the frequency band 1 452-1 492 MHz in Regions 1 and 3 pursuant to Resolution **761 (WRC-15)**.

The protection of the BSS (sound) is achieved by the application of No. **9.19** currently in force.

For the protection of IMT in Resolution **761 (WRC‑15)**, the application of No. **9.11** does not provide long-term stability for the operation of IMT due to the fact that only the IMT systems that would come into operation within the next three years would be protected if their coordination is agreed, and only for those three years. This situation implies that IMT systems may not be protected appropriately in those countries planning to deploy them in future, if the territory of those countries were covered by a satellite network service area provided by another country’s BSS (sound) system(s).

CEPT has harmonised the frequency band 1 452-1 492 MHz for supplemental downlink under the mobile service. Therefore CEPT is of the view to protect the IMT from BSS (sound).

If a pfd limit(s) at the Earth’s surface produced by a space station in the BSS (sound) in the frequency band 1 452-1 492 MHz in Regions 1 and 3 is specified, then, No. **9.11** does not apply.

Additionally CEPT supports keeping implementation No. 9.11 for countries wishing to have more stringent protection requirement (e.g. in order to protect aeronautical telemetry systems).

Proposal

ARTICLE 21

Terrestrial and space services sharing frequency bands above 1 GHz

Section V − Limits of power flux-density from space stations

MOD EUR/XXXA21A2/1

TABLE **21-4**     (Rev.WRC‑15)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Frequency band | Service\* | Limit in dB(W/m2) for angles of arrival (δ) above the horizontal plane | | | Reference bandwidth |
| 0°-5° | 5°-25° | 25°-90° |
| **…** | **…** | … | … | … | **…** |
| 1°452-1°492°MHz | Broadcasting-satellite (sound) | –112 | | | 1°MHz |
| 1 670-1 700 MHz | Earth exploration- satellite  Meteorological-satellite | −133 (value based on sharing with meteorological aids service) | | | 1.5 MHz |
| **…** | **…** | … | … | … | **…** |

\* The references to services are those services which have allocations in Article 5.

**Reasons:** In order to facilitate the coexistence between IMT and BSS in the band 1 452-1 492 MHz, the current regulatory procedures governing the relation between BSS and terrestrial services need to be modified by inserting a pfd value of -112 dBW/m²/MHz for Regions 1 and 3 with the view to provide a more stable (long-term) situation to IMT.

APPENDIX 5 (REV.WRC‑15)

Identification of administrations with which coordination is to be effected or  
agreement sought under the provisions of Article 9

MOD EUR/XXXA21A2/2

TABLE 5-1     (Rev.WRC‑15)

Technical conditions for coordination

(see Article 9)

| Reference of Article 9 | Case | Frequency bands  (and Region) of the service  for which coordination  is sought | Threshold/condition | Calculation  method | Remarks |
| --- | --- | --- | --- | --- | --- |
| … | … | … | … | … | … |
| No. **9.7B**  Non‑GSO system/GSO earth station (*cont.*) |  |  | iii) the epfd↓ from the non-GSO satellite system exceeds:  a) in the frequency band  10.7‑12.75 GHz:  −174.5 dB(W/(m2 · 40 kHz)) for any percentage of time for non-GSO satellite systems with all satellites only operating at or below 2 500 km altitude, or  −202 dB(W/(m2 · 40 kHz)) for any percentage of the time for non-GSO satellite systems with any satellites operating above 2 500 km altitude;  b) in the frequency bands 17.8‑18.6 GHz or 19.7‑20.2 GHz:  −157 dB(W/(m2 · MHz)) for any percentage of time for non-GSO satellite systems with all satellites only operating at or below 2 500 km altitude, or  −185 dB(W/(m2 · MHz)) for any percentage of the time for non-GSO satellite systems with any satellites operating above 2 500 km altitude | No. **9.7B**  Non‑GSO system/GSO earth station (*cont.*) |  |
| No. **9.11** GSO, non-GSO/ terrestrial | A space station in the BSS in any band shared on an equal primary basis with terrestrial services and where the BSS is not subject to a Plan, in respect of terrestrial services | 620-790 MHz (see Resolution **549 (WRC‑07)**) 1 452-1 492 MHz 2 310-2 360 MHz (No. **5.393**) 2 535-2 655 MHz (Nos. **5.417A** and **5.418**) 17.7-17.8 GHz (Region 2)  74-76 GHz | Bandwidths overlap: The detailed conditions for the application of No. **9.11** in the bands 2 630-2 655 MHz and 2 605-2 630 MHz are provided in Resolution **539 (Rev.WRC‑03)** for non-GSO BSS (sound) systems pursuant to Nos. **5.417A** and **5.418**, and in Nos. **5.417A** and **5.418** for GSO BSS (sound) networks pursuant to those provisions.  1 452-1 492 MHz: The pfd limit from the Table 21-4 will apply to BSS in Regions 1 and 3 with respect to all terrestrial services except for countries listed in […] wishing to continue to apply No. 9.11. | Check by using the assigned frequencies and bandwidths |  |
| No. **9.12**  Non-GSO/ non-GSO | A station in a non-GSO satellite network in the frequency bands for which a footnote refers to No. **9.11A** or No. **9.12**, in respect of any other non-GSO satellite network, with the exception of coordination between earth stations operating in the opposite direction of transmission | Frequency bands for which a footnote refers to No. **9.11A** or No. **9.12** | Bandwidths overlap | Check by using the assigned frequencies and bandwidths |  |
| … | … | … | … | … | … |

**Reasons:** Countries for Regions 1 and 3 that wish to do so to continue to apply coordination procedure under RR No. 9.11 because of more stringent protection requirement (e.g. in order to protect aeronautical telemetry systems).

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