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| A close up of a sign  Description automatically generated | **World Radiocommunication Conference (WRC-23) Dubai, 20 November - 15 December 2023** | |  |
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| PLENARY MEETING | | **Addendum 7 to Document 85(Add.24)-E** | |
|  | | **22 October 2023** | |
|  | | **Original: Russian** | |
|  | | | |
| Regional Commonwealth in the field of Communications Common Proposals | | | |
| proposals for the work of the conference | | | |
|  | | | |
| Agenda item 9.1 | | | |

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

9.1 on the activities of the ITU Radiocommunication Sector since WRC‑19:

*Additional question No. 1. Verification of No.* ***21.5*** *limits for the notification of IMT stations operating in the frequency band 24.45-27.5 GHz which use an antenna that consists of an array of active elements*

Introduction

The RCC Administrations propose that, for notification of IMT stations with active antenna arrays, Item identifier 8AA, “the power delivered to the antenna” (see Appendix **4** Table 1 of the Radio Regulations (RR)), should be specified as being the “total radiated power” (TRP), understood as the integral of the power transmitted from all antenna elements in different directions over the entire radiation sphere, as defined in Resolution **243 (WRC-19)** and Resolution **750 (Rev.WRC-19)**.

The RCC Administrations propose that the power level limit referred to in RR Article **21** No. **21.5** be left unchanged, taking into consideration the need to use a correction factor for bandwidth radiated by an IMT station using active antenna systems when setting the reference bandwidth of 200 MHz, until studies on amending RR Article **21** have been completed.

The RCC Administrations are in favour of modifying Table **21-2** of RR Article **21** with respect to the frequency bands identified by WRC-19 for IMT use and shared by terrestrial and space services on an equal basis: 24.45-27.5 GHz; 40-40.5 GHz; 42-43.5 GHz; 45.5-47 GHz; 47.2-48.2 GHz; 66-71 GHz.

Proposals

ARTICLE 21

Terrestrial and space services sharing frequency bands above 1 GHz

Section II − Power limits for terrestrial stations

MOD RCC/85A24A7/1

TABLE **21-2**     (Rev.WRC‑23)

|  |  |  |
| --- | --- | --- |
| Frequency band | Service | Limit as specified in Nos. |
| ... | ... | ... |
| 10.7-11.7 GHz 5 (Region 1) 12.5-12.75 GHz 5 (Nos. 5.494 and 5.496) 12.7-12.75 GHz 5 (Region 2) 12.75-13.25 GHz 13.75-14 GHz (Nos. 5.499 and 5.500) 14.0-14.25 GHz (No. 5.505) 14.25-14.3 GHz (Nos. 5.505 and 5.508) 14.3-14.4 GHz 5 (Regions 1 and 3) 14.4-14.5 GHz 14.5-14.8 GHz 42.5-43.5 GHz 47.2-48.2 GHz 51.4-52.4 GHz | Fixed-satellite | 21.2,21.3and21.5 |
| 17.7-18.4 GHz 18.6-18.8 GHz 19.3-19.7 GHz 22.55-23.55 GHz 24.45-29.5 GHz 40-40.5 GHz | Fixed-satellite Earth exploration-satellite Space research Inter-satellite | 21.2**,** 21.3**,** 21.5and21.5A |
| 45.5-47 GHz | Mobile-satellite | 21.2, 21.3 and21.5 |
| 66-71 GHz | Inter-satellite Mobile-satellite | 21.2, 21.3 and21.5 |
| ... | ... | ... |

**Reasons:** WRC-19 allocation of various frequency bands to the mobile service, as a result of which these bands are shared on an equal basis by terrestrial and satellite services. The relevant provisions of RR Article **21** ensuring compatibility between terrestrial and satellite services must therefore be extended to cover these frequency bands.

MOD RCC/85A24A7/2

21.5 3) The power delivered by a transmitter to the antenna, or, where appropriate, the total radiated power, of a station in the fixed or mobile services shall not exceed +13 dBW in frequency bands between 1 GHz and 10 GHz, or +10 dBW in frequency bands above 10 GHz, except as cited in No. 21.5A.     (WRC‑23)

**Reasons**: The use of active antenna arrays by stations in the mobile service.

APPENDIX 4 (REV.WRC‑19)

Consolidated list and tables of characteristics for use in the  
application of the procedures of Chapter III

ANNEX 1

Characteristics of stations in the terrestrial services[[1]](#footnote-1)1

Footnotes to Tables 1 and 2

MOD RCC/85A24A7/3

TABLE 1     (Rev.WRC‑23)

Characteristics for terrestrial services

| **Column No.** | **Item identifier** | **Notice related to**  **Description of data items and requirements** | **Broadcasting (sound and television) stations in  the VHF/UHF bands up to 960 MHz, for the  application of No. 11.2 and No. 9.21** | **Broadcasting (sound) stations in the LF/MF  bands, for the application of No. 11.2** | **Transmitting stations (except broadcasting  stations in the planned LF/MF bands, in the HF  bands governed by Article 12, and in the  VHF/UHF bands up to 960 MHz), for the  application of No. 11.2 and No. 9.21** | **Receiving land stations, for the application of  No. 11.9 and No. 9.21** | **Typical transmitting stations, for the  application of No. 11.17** | **Maritime mobile frequency allotment, for the  application of plan modification under Appendix  25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)** | **Broadcasting stations in the HF bands, for the  application of No. 12.16** | **Item identifier** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  |
| **8.3** | **8AA** | the power delivered to the antenna, or, where appropriate, the total radiated power, in dBW  In the case of a transmitting station, required for an assignment:  – in the bands below 28 MHz, in all services except the radionavigation service; or  – in the bands above 28 MHz shared with space services; or  – in the bands above 28 MHz not shared with space services:  • in the aeronautical mobile service, meteorological aids service; or  • in all other services, if the radiated power is not supplied  In the case of a receiving land station, required if the associated transmitting station’s radiated power is not supplied  In the case of a typical transmitting station, required if the radiated power is not supplied |  |  | **+** | **+** | **+** | **X** |  | **8AA** |
|  |  |  |  |  |  |  |  |  |  |  |

**Reasons:** The use of active antenna arrays by IMT stations.

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1. 1 The Radiocommunication Bureau shall develop and keep up-to-date forms of notice to meet fully the statutory provisions of this Appendix and related decisions of future conferences. Additional information on the items listed in this Annex together with an explanation of the symbols is to be found in the Preface to the BR IFIC (Terrestrial Services). [↑](#footnote-ref-1)