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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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|  | | **Doc. CPG(23)060 ANNEX V-24B** | |
| PLENARY MEETING | | **Addendum 2 to Document XXXX(Add.24)-E** | |
|  | | **24 August 2023** | |
|  | | **Original: English** | |
|  | | | |
| European Common Proposals | | | |
| Proposals for the work of the conference | | | |
|  | | | |
| Agenda item 9.1(9.1-b) | | | |

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:

(9.1-b) Review the amateur service and the amateur-satellite service allocations in the frequency band 1 240‑1 300 MHz to determine if additional measures are required to ensure protection of the radionavigation-satellite service (space-to-Earth) operating in the same band in accordance with Resolution **774 (WRC‑19)**;

Resolution **774 (WRC-19)** – Studies on technical and operational measures to be applied in the frequency band 1 240-1 300 MHz to ensure the protection of the radionavigation-satellite service (space-to-Earth)

Introduction

This European Common Proposal supports the modifications to the Radio Regulations towards ensuring protection of the radionavigation-satellite (space-to-Earth) service (RNSS) operating on a primary basis in the frequency band 1 240 – 1 300 MHz against the amateur and the amateur-satellite services that operate on a secondary basis in the same band.

This proposal adds a footnote in Section IV – Table of Frequency Allocations of Article **5**, for the protection of the RNSS that incorporates by reference the ITU-R Recommendation under development by Working Party 5A and Working Party 4C. The proposal is based on the Preliminary draft new Recommendation (PDNR) ITU-R M.[AS\_GUIDANCE] as of 21st September 2023 The text may need to be reviewed depending on the final text of such Recommendation. This proposal also supports suppressing Resolution **774 (WRC-19)** because this Resolution is no longer necessary.

In the event that the Recommendation is not adopted in due time for WRC-23, CEPT has developed as part of this European Common Proposal an Addendum proposing a WRC Resolution as a fallback position.

Proposals

ARTICLE 5

Frequency allocations

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

MOD EUR/XXXXA24A2/1

890-1 300 MHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 1 240-1 300 EARTH EXPLORATION-SATELLITE (active)  RADIOLOCATION  RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.329 5.329A  SPACE RESEARCH (active)  Amateur  5.282 5.330 5.331 5.332 5.335 5.335A ADD 5.A91B | | |

ADD EUR/XXXXA24A2/2

5.A91B The use of the frequency band 1 240-1 300 MHz by the amateur and amateur-satellite services shall be in accordance with the technical and operational conditions in Annex of Recommendation ITU-R M.[AS\_GUIDANCE]. This is without prejudice of the secondary status of the amateur service and its obligation not to cause harmful interference to primary services.   (WRC‑23)

**Reasons:** To incorporate by reference the new Recommendation ITU-R M.[AS\_GUIDANCE] which contains the technical conditions (e.g. power restrictions depending on the sub-part of the frequency band) facilitating the protection of the radionavigation-satellite (space-to-Earth) service from the amateur service and the amateur-satellite service that operate on a secondary basis in the frequency band 1240-1300 MHz.

SUP EUR/XXXXA24A2/3

RESOLUTION 774 (WRC‑19)

Studies on technical and operational measures to be applied in the   
frequency band 1 240-1 300 MHz to ensure the protection   
of the radionavigation-satellite service (space-to-Earth)

**Reasons:** Relevant studies are finalised and therefore the supporting Resolution can be suppressed.

ADDENDUM

MOD EUR/XXXXA24A2A1/1

890-1 300 MHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 1 240-1 300 EARTH EXPLORATION-SATELLITE (active)  RADIOLOCATION  RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.329 5.329A  SPACE RESEARCH (active)  Amateur  5.282 5.330 5.331 5.332 5.335 5.335A ADD 5.A91B | | |

ADD EUR/XXXXA24A2A1/2

5.A91B The use of the frequency band 1 240-1 300 MHz by the amateur and amateur-satellite services shall be in accordance Resolution **[EUR-A91B-RNSS-PROTECTION] (WRC-23)** This is without prejudice of the secondary status of the amateur service and its obligation not to cause harmful interference to primary services.   (WRC‑23)

**Reasons:** To develop a Resolution that contains the technical conditions (e.g. power restrictions depending on the sub-part of the frequency band) facilitating the protection of the radionavigation-satellite (space-to-Earth) service from the amateur service and the amateur-satellite service that operate on a secondary basis in the frequency band 1240-1300 MHz.

ADD EUR/XXXXA24A2A1/3

Draft New Resolution [EUR-A91B-RNSS-PROTECTION] (WRC-23)

Technical and operational measures for the use of the frequency band 1 240‑1 300 MHz by the amateur and amateur-satellite service in order to protect the radionavigation-satellite service (space-to-Earth)

The World Radiocommunication Conference (Dubai, 2023),

considering

*a)*that the International Amateur Radio Union (IARU) develops, maintains and publishes detailed band plans for the operation and development of the amateur and amateur-satellite services in all three Regions;

*b)* that ITU-R studied the amateurs characteristics and the impact of amateur and amateur-satellite emissions on the radionavigation-satellite service (RNSS) (space-to-Earth);

*c)*that RNSS systems using the frequency band 1 240-1 300 MHz are operational, or becoming operational, worldwide, with the aim of supporting a wide range of new satellite positioning applications;

*d)* that administrations may need a transition period to make the necessary changes to their national amateur and amateur-satellite services authorizations,

recognizing

*a)* that the frequency band 1 240-1 300 MHz is allocated to the radionavigation-satellite service (space-to-Earth) and (space-to-space) on a primary basis;

*b)* that the frequency band 1 240-1 300 MHz is also allocated to the amateur service on a secondary basis;

*c)* that the amateur-satellite service (Earth-to-space) may operate in the frequency band 1 260-1 270 MHz under No. **5.282**;

*d)*  that the frequency band 1 240-1 300 MHz is also allocated worldwide to the Earth exploration-satellite service (active), radiolocation service (No. **5.329** applies) and the space research service (active) on a primary basis;

*e)* that additional services are also allocated on a primary basis in some countries under Nos. **5.330** (fixed and mobile services) and **5.331** (radionavigation service) within the frequency band 1 215-1 300 MHz;

*f)* that the amateur and amateur-satellite services continually develop their use of the frequency band 1 240-1 300 MHz;

*g*) that the maximum power of amateur stations is fixed by the administrations concerned;

*h)* that administrations licensing stations of the amateur and amateur-satellite services and assigning relevant frequencies, are responsible for the compliance of those stations with the relevant provisions of the Radio Regulations,

noting

*a)*that depending on national requirements, administrations may wish to take additional measures on amateur and amateur-satellite operations in the vicinity of airports in the frequency band 1 240-1 300 MHz,

resolves

1 that in order to facilitate coexistence between the services, administrations wishing to authorize the amateur and amateur-satellites services and RNSS across their territory in the frequency band 1 256-1 300 MHz, shall use the technical and operational measures described in the Annex;

2 that the provisions of this Resolution in no way derogate the obligation of the amateur and amateur-satellite services to operate as a secondary service and on a non-harmful interference basis in the frequency band 1 240-1 300 MHz, in accordance with Nos. **5.29**, **5.30** and **5.282** as appropriate.

Annex to Draft New Resolution [EUR-A91B-RNSS-PROTECTION] (WRC-23)

This Annex is based on the values considered in the work within ITU-R WP5A as of 21st September 2023 and it is recognized that there may be a need to review the Annex based on subsequent discussions and agreements within ITU-R

Measures to facilitate coexistence between the radionavigation-satellite service (space-to-Earth) receivers and amateur services   
in the frequency band 1 240 - 1 300 MHz

No technical and operational measures will be applied in the frequency band 1 240 – 1 256 MHz.

The following measures facilitate coexistence between RNSS (space-to-Earth) receivers and amateur services in the frequency band 1 240 - 1 300 MHz.

1 For narrowband (BW ≤ 150 kHz) applications in the amateur service:

- Frequency band: 1 256-1 259 MHz

Maximum value of e.i.r.p. = 24 dBW/1 kHz;

- Frequency band: 1 296-1 298 MHz:

Maximum transmitter power[[1]](#footnote-1) = 17 dBW for θ = 0°

- Frequency band: 1 298-1 300 MHz:

Maximum transmitter power1 = 22 dBW

2 For narrowband earth-moon-earth communications in the amateur service using a symmetric high-performance antenna (e.g. boresight gain at least 30 dBi) pointing at least 15 degrees above the horizontal:

- Frequency band: 1 298-1 300 MHz:

Maximum transmitter power1 = 27 dBW

3 For broadband applications (BW > 150 kHz) in the amateur service:

- Frequency band: 1 256-1 259 MHz:

Maximum value of e.i.r.p. = 24 dBW/150 kHz

4 For narrowband applications operating (bandwidth ≤ 150 kHz) in the amateur-satellite service (Earth-to-space) pointing at least 15 degrees above the horizontal:

- Frequency band: 1 260-1 262 MHz:

Maximum value of e.i.r.p. = 37 dBW/150 kHz

5 Outside these preferred frequency blocks indicated in points 1 to 4 above, taking into account *recognizing b)* and *c)*, operation of amateur and amateur-satellite services, in the frequency band 1 256-1 300 MHz, is only for experimental applications with the following maximum value of e.i.r.p.:

Maximum value of e.i.r.p. = -17 dBW

6 When amateur and amateur satellite station antennas are installed at large antenna heights compared to the typical values contained in Report ITU-R M.2513-0, further constraints or limitations in addition to those listed in the above points 1 to 5 may need to be considered by administrations, in particular for cases of the amateur station category referred to as “permanent installations” such as repeaters and propagation beacons.

7 In case of significant increase of amateur satellite stations in the frequency band 1 260 -1 262 MHz, additional measures on the time length of transmitter usage may be needed:

- The transmitting duration of each earth station of amateur satellite service may need to be limited by 60 minutes per day.

8 Due to the known interference cases and the immediate roll-out of dedicated mass-market RNSS receivers in the frequency band 1 256 - 1 300 MHz, administrations are invited to also consider changes to the existing assignments of domestic broadband ATV stations, already in operation.

SUP EUR/XXXXA24A2A1/4

RESOLUTION 774 (WRC‑19)

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**Reasons:** Relevant studies are finalised and therefore the supporting Resolution can be suppressed.

1. Maximum power delivered by the transmitter to the amateur antenna [↑](#footnote-ref-1)