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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-10** | |
| PLENARY MEETING | | **Addendum 10 to Document XXXX-E** | |
|  | | **24 August 2023** | |
|  | | **Original: English** | |
|  | | | |
| European Common Proposals | | | |
| Proposals for the work of the conference | | | |
|  | | | |
| Agenda item 1.10 | | | |

1.10 to conduct studies on spectrum needs, coexistence with radiocommunication services and regulatory measures for possible new allocations for the aeronautical mobile service for the use of non-safety aeronautical mobile applications, in accordance with Resolution **430 (WRC‑19)**;

Introduction

CEPT is proposing to allocate the frequency bands 15.41-15.7 GHz and 22-22.2 GHz to the aeronautical mobile (off-route) service (AM(OR)S) with relevant regulatory provisions to avoid having adversely impact on the existing services.

Proposals

ARTICLE 5

Frequency allocations

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

MOD EUR/XXXXA10/1

15.4-18.4 GHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 15.4-15.41 RADIOLOCATION 5.511E 5.511F  AERONAUTICAL RADIONAVIGATION | | |
| 15.41-15.43 AERONAUTICAL MOBILE (OR) ADD 5.A110 ADD 5.B110   ADD 5.C110  RADIOLOCATION 5.511E 5.511F  AERONAUTICAL RADIONAVIGATION | | |
| 15.43-15.63 FIXED-SATELLITE (Earth-to-space) 5.511A  AERONAUTICAL MOBILE (OR) ADD 5.A110 ADD 5.B110   ADD 5.C110  RADIOLOCATION 5.511E 5.511F  AERONAUTICAL RADIONAVIGATION  5.511C | | |
| 15.63-15.7 AERONAUTICAL MOBILE (OR) ADD 5.A110 ADD 5.B110   ADD 5.C110  RADIOLOCATION 5.511E 5.511F  AERONAUTICAL RADIONAVIGATION | | |

**Reasons:** to provide a new allocation in the frequency band 15.41-15.7 GHz to the aeronautical mobile service in response to agenda item 1.10 for introduction of new non-safety aeronautical mobile applications (off-route) in response to agenda item 1.10. A 10 MHz guard band is introduced to protect radio astronomy operating in the adjacent frequency band, as studies showed this to be an effective protection measure.

ADD EUR/XXXXA10/2

5.A110 Stations in the aeronautical mobile (OR) service operating in the frequency band 15.41-15.7 GHz shall not cause harmful interference to the radio astronomy service operating in the frequency band 15.35-15.4 GHz. The aggregate power flux-density (pfd) received from these stations at any radio astronomy station operating in this frequency band shall be in compliance with the protection criteria provided in Recommendations ITU-R RA.769-2 and ITU-R RA.1513-2, unless specifically agreed by the affected administration(s).     (WRC 23)

**Reasons:** This footnote is complementary to the 10 MHz guard band to ensure protection of radio astronomy.

ADD EUR/XXXXA10/3

5.B110 Stations operating in the aeronautical mobile (OR) service shall not cause harmful interference to, or claim protection from, stations operating in the aeronautical radionavigation and radiolocation services in the frequency band 15.4-15.7 GHz.     (WRC‑23)

**Reasons:** To ensure that AM(OR)S would protect the aeronautical radionavigation and radiolocation services in the frequency band 15.4-15.7 GHz.

ADD EUR/XXXXA10/4

5.C110 The use of the aeronautical mobile (OR) service in the frequency band 15.41-15.7 GHz is limited to non-safety applications.      (WRC‑23)

**Reasons:** To capture the non-safety aspect of the AM(OR)S applications operated in this frequency band.

MOD EUR/XXXXA10/5

22-24.75 GHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 22-22.2 FIXED  MOBILE except aeronautical mobile (R) ADD 5.D110 ADD 5.E110   ADD 5.F110  5.149 ADD 5.G110 | | |
| 22.2-22.21 FIXED  MOBILE except aeronautical mobile  5.149 ADD 5.G110 | | |
| 22.21-22.5 EARTH EXPLORATION-SATELLITE (passive)  FIXED  MOBILE except aeronautical mobile  RADIO ASTRONOMY  SPACE RESEARCH (passive)  5.149 5.532 ADD 5.G110 | | |

**Reasons:** To provide a new allocation in the frequency band 22-22.2 GHz to the aeronautical mobile (off-route) service for the introduction of new non-safety aeronautical mobile applications in response to agenda item 1.10. A 10 MHz guard band is introduced to further protect radio astronomy and passive services operating in the adjacent frequency band.

ADD EUR/XXXXA10/6

5.D110 Stations in the aeronautical mobile (OR) service operating in the frequency band 22-22.2 GHz shall not cause harmful interference to the radio astronomy service operating in the frequency band 22.21-22.5 GHz. The aggregate power flux-density (pfd) received from these stations at any radio astronomy station operating in this band shall be in compliance with the protection criteria provided in Recommendations ITU-R RA.769-2 and ITU-R RA.1513-2, unless specifically agreed by the affected administration(s).     (WRC‑23)

**Reasons:** This footnote is complementary to the 10 MHz guard band to ensure protection of the radio astronomy service.

ADD EUR/XXXXA10/7

5.E110 In order to protect stations of the earth exploration-satellite service (passive) operating in the frequency band 22.21-22.5 GHz, the unwanted e.i.r.p of stations operating in the aeronautical mobile (OR) service shall not exceed −18 dBW in any 100 MHz band in the frequency band 22.21-22.5 GHz.      (WRC‑23)

**Reasons:** To ensure the protection of EESS passive based on the result of study A in Annex 9 to the preliminary draft new Report ITU-R M.[NON-SAFETY AM(OR)S CHARACTERISTICS AND SHARING STUDIES].

ADD EUR/XXXXA10/8

5.F110 The use of the aeronautical mobile (OR) service in the frequency band 22-22.2 GHz is limited to non-safety applications.      (WRC‑23)

**Reasons:** To capture the non-safety aspect of the AM(OR)S applications operated in this frequency band.

ADD EUR/XXXXA10/9

5.G110 Due to the physical properties of the frequency band 22-22.5 GHz, measurements of water vapour (using passive ground-based water-vapour radiometers) are carried out under national arrangements.      (WRC‑23)

**Reasons:** Passive ground-based water vapour radiometers, supporting a large variety of applications all over the world, are an important helper application for different radiocommunication services to calibrate signals that travel through Earth’s atmosphere and are subject to attenuation and phase shifts caused by water molecules in the troposphere.

SUP EUR/XXXXA10/10

RESOLUTION 430 (WRC‑19)

Studies on frequency-related matters, including possible additional allocations, for the possible introduction of new non-safety aeronautical mobile applications