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| U.S. Radiocommunications Sector  Fact Sheet | | |
| **Working Party:** ITU-R WP 5B | **Document No:** USWP5B32-04 | |
| **Ref:** WRC-27 AI 1.13 | **Date:** March 7, 2024 | |
| **Document Title:** Proposed draft liaison statement to Working Party 4C | | |
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| **Purpose/Objective:** This contribution proposes a draft liaison statement to WP 4C regarding AI 1.13 to help WP 4C to proceed with its planning for sharing studies. | | |
| **Abstract:** Pursuant to Resolution **253 (WRC-23)**, in preparation for Agenda Item 1.13 (**WRC-27**), this contribution proposes a draft reply liaison statement to WP 4C with relevant technical information of systems operating in the frequency bands 960-1 215 MHz, 1 215-1 370 MHz, and in the adjacent band 2.7-2.9 GHz. | | |

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| **Radiocommunication Study Groups** |  |
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| **English only** |
| United States of America | |
| proposed draft reply liaison statement to Working party 4c  **Relevant technical information for sharing studies under WRC-27 Agenda Item 1.13** | |
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**Introduction**

WRC-27 Agenda Item 1.13 considers possible new allocations to the mobile-satellite service in the frequency range between 694/698 MHz and 2.7 GHz, for direct connectivity between space stations and International Mobile Telecommunications (IMT) user equipment to complement terrestrial IMT network coverage, in accordance with Resolution **253 (WRC-23)**. This contribution proposes a draft reply liaison statement to WP 4C with relevant technical information of aviation systems operating in the frequency bands 960-1 215 MHz, 1 215-1 370 MHz, and in the adjacent band 2.7-2.9 GHz.

Attachment: 1

ATTACHMENT

# Working Party 5B

PROPOSAL DRAFT REPLY LIAISON STATEMENT TO WORKING PARTY 4C

**Relevant technical information for sharing studies under WRC-27 Agenda Item 1.13**

Working Party (WP) 5B thanks WP 4C for its liaison statement (Document 5B/xx), requesting the characteristics and protection criteria of the systems operating in the frequency range between 694/698 MHz and 2.7 GHz, for sharing/compatibility studies between incumbent services including in adjacent frequency bands, under WRC-27 agenda item 1.13.

WP 5B highlights the following ITU-R recommendations and ICAO document that provide relevant technical information of aviation systems operating in the frequency bands 960-1 215 MHz, 1 215-1 370 MHz, and in the adjacent frequency band 2.7-2.9 GHz:

**Recommendation ITU-R M.1463-3** Characteristics of and protection criteria for radars operating in the radiodetermination service in the frequency band 1 215-1 400 MHz (02/2015)

This Recommendation provides technical and operational characteristics, as well as protection criteria, of operational ground-based radars in the frequency band 1 215-1 400 MHz. The Recommendation includes representative characteristics on the transmitter, receiver, and antenna components of these radars. Representative technical characteristics of RDS radars in 1 215-1 400 MHz are in Table 1 of the Annex. The I/N protection criteria of RDS radars in 1 215-1 400 MHz are in Recommends 3 of this recommendation.

**Recommendation ITU-R M.1639-1** Protection criterion for the aeronautical radionavigation service with respect to aggregate emissions from space stations in the radionavigation-satellite service in the band 1 164-1 215 MHz (2003-2005)

This Recommendation gives the equivalent power flux density (epfd) level which protects stations of the aeronautical radionavigation service (ARNS). Some characteristics of the distance measuring equipment (DME)/tactical air navigation (TACAN) are in Annex 1 Table 1.

**Recommendation ITU-R M.1642-2** Methodology for assessing the maximum aggregate equivalent power flux density at an aeronautical radionavigation service station from all radionavigation satellite service systems operating in the 1 164-1 215 MHz band (2003-2005-2007)

This Recommendation gives a methodology and the reference antenna characteristics for assessing the maximum aggregate equivalent power flux-density (epfd) level produced at the input of a station of the aeronautical radionavigation service (ARNS) by all radionavigation-satellite service (RNSS) systems operating in any portion of the 1 164-1 215 MHz band. Annex 2 provides ARNS reference station characteristics to be used in epfd calculation.

**ICAO Annex 10 Volume 1 Chapter 3 Section 3.5** This section contains information of the DME systems.

**Recommendation ITU-R M.1464-2** Characteristics of non-meteorological radiolocation radars, and characteristics and protection criteria for sharing studies for aeronautical radionavigation and radars in the radiodetermination service operating in the frequency band 2 700-2 900 MHz (02/2015)

Representative technical characteristics of ARNS radars in 2 700-2 900 MHz are in Annex 1 Table 1. Operational characteristics of ARNS radars are in Annex 1 section 4.1. The I/N protection criteria of ARNS radars can be found in Annex 2 sections 1 and 2.

WP 5B requests to be kept informed on the progress of the studies under WRC-27 agenda item 1.13 and will provide to WP 4C any relevant updated information, before 31 December 2024 deadline, for studies under this WRC-27 agenda item.

Status: For information and action, as appropriate

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