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| **40 MEETING OF PERMANENT**  **CONSULTATIVE COMMITTEE II:**  **RADIOCOMMUNICATIONS**  **October 31 to November 04, 2022**  **Port of Spain, Trinidad and Tobago** | | **OEA/Ser.L/XVII.4.2.39**  **CCP.II-RADIO /doc. /22**  **6 October 2022**  **Original: English** |
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|  | **DRAFT PROPOSALS FOR THE WORK OF THE CONFERENCE**  **AGENDA ITEM 1.7** | |
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|  | **(Item on the Agenda: 3.1)**  **(Document submitted by the United States of America)** | |

**Impact on the sector:**

This document supports the CITEL PCCII WRC Working Group’s preparations for WRC-23.

**Executive Summary:**

This document contains a preliminary proposal from the United States for WRC-23 agenda item 1.7 addressing VHF aeronautical AMS(R)S allocation in the frequency band 117.975-137 MHz.

**UNITED STATES OF AMERICA**

**DRAFT PROPOSALS FOR THE WORK OF THE CONFERENCE**

**AGENDA ITEM 1.7**: *Studies on a possible new allocation to the aeronautical mobile-satellite (R) service within the frequency band 117.975-137 MHz in order to support aeronautical VHF communications in the Earth-to-space and space-to-Earth directions (WRC-19)*

**BACKGROUND INFORMATION**:

The frequency band 117.975 - 137 MHz is allocated on a primary basis to the AM(R)S service and used for air-ground, ground-air and air-air systems, providing critical voice and data terrestrial communications for air traffic management and airline operational control on a global basis. Resolution **428 (WRC-19)** invites WRC-23 to consider a new primary allocation to the AMS(R)S based on the results of sharing and compatibility studies. This new AMS(R)S service is intended to support direct pilot-air traffic controller voice as well as data communications in oceanic and remote areas without modifying aircraft equipment.

The AM(R)S allocation in 117.975-137 MHz supports Air Traffic Control (ATC) and Aeronautical Operational Control (AOC) systems for aircraft. This includes both standard voice communications and datalink systems utilizing data messages for ATC and AOC functions to aircraft in the air and on the ground. There is significant utilization by terrestrial VHF systems within this allocation today, thus severely limiting options for new regional or national satellite frequency assignments that would need to be harmonized with existing terrestrial assignments.

Many administrations use ICAO regional groups to plan and register cross border assignments in the 117.975-137 MHz frequency band. However, not all administrations participate in this process, and even those that do may only include ATC voice but not either AOC or applicable AM(OR)S assignments. For example, several administrations within ITU-R Region 2 coordinate cross border AM(R)S assignments directly through mutual bilateral agreements but do not participate in any ICAO process for recording any AM(R)S assignments.

The current draft ITU-R studies carried out under Resolution **428 (WRC-19)** indicate support for a new primary AMS(R)S service in the 117.975 – 136 MHz frequency band provided such an allocation is found to be compatible with existing services and implemented with an appropriate means of planning and coordination. The new allocation must protect existing primary services in and adjacent to the frequency band 117.975-137 MHz and should not constrain the planned usage of those systems.

**PROPOSAL**

Support a new primary AMS(R)S allocation in the 117.975 – 136 MHz frequency band, under Resolution **428 (WRC-19),** subject to agreement obtained under No. **9.11A** and limited to relaying voice-only aeronautical air traffic control communications that operate and are planned in accordance with recognized international aeronautical standards. Such use shall not cause harmful interference to, nor claim protection from, current and future AM(R)S systems operating in the frequency range 117.975-137 MHz.

By limiting to ATC voice systems only, any planning required for States that are not formally part of the ICAO process could be managed through CAAs on a case-by-case basis directly with ICAO. Further studies are required for the consideration of the frequency band, 136-137 MHz.

**ARTICLE 5**

**Frequency allocations**

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

**MOD USA/AI 1.7/1**

75.2-137.175 MHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 75.2-87.5  FIXED  MOBILE except aeronautical mobile | **75.2-75.4**  FIXED  MOBILE  5.179 | |
|  | 75.4-76  FIXED  MOBILE | 75.4-87  FIXED  MOBILE |
|  | 76-88  BROADCASTING  Fixed | 5.182 5.183 5.188 |
| 5.175 5.179 5.187 | Mobile | 87-100  FIXED |
| 87.5-100  BROADCASTING | 5.185 | MOBILE  BROADCASTING |
| 5.190 | 88-100  BROADCASTING |  |
| 100-108 BROADCASTING  5.192 5.194 | | |
| 108-117.975 AERONAUTICAL RADIONAVIGATION  5.197 5.197A | | |
| 117.975-136 AERONAUTICAL MOBILE (R)  AERONAUTICAL MOBILE SATELLITE (R) **ADD** 5.A17  5.111 5.200 5.201 5.202 | | |
| 136-137 AERONAUTICAL MOBILE (R)  5.111 5.200 5.201 5.202 | | |

ADD USA/AI 1.7/2

**5.A17** In the frequency band 117.975 - 136 MHz, the use of the aeronautical mobile-satellite (R) service is subject to agreement obtained under No. **9.11A** and administrations shall take all necessary steps to protect and not constrain assignments to stations of the aeronautical mobile (R) service in frequency range 117.975 - 137 MHz.The use of this band by the aeronautical mobile-satellite (R) service shall be limited to systems that operate and are planned in accordance with recognized international aeronautical standards.

**Reasons**: Draft studies have not fully demonstrated how these new AMS(R)S systems will be implemented or coordinated, and the still unknown effect VHF datalink services would have. As such, Article **9.11A** should be applied to ensure a managed implementation of voice communications only by each state. Since the relay of AMS(R)S voice communications will be supplemental to ground-based stations and not constrain their current or future usage, such use shall take measures to protect the frequencies assigned to stations of the aeronautical mobile (R) service when assigning frequencies to stations of the aeronautical mobile-satellite (R) service.

SUP USA/A1.7/3

RESOLUTION 428 (WRC‑19)

**Studies on a possible new allocation to the aeronautical mobile-satellite (R) service within the frequency band 117.975-137 MHz in order to support aeronautical VHF communications in the Earth-to-space and space-to-Earth directions**

**Reasons:** This resolution may be suppressed by WRC-23 because of a decision to add a new provision in Article **5** for AMS(R)S.