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| **38 MEETING OF PERMANENT**  **CONSULTATIVE COMMITTEE II:**  **RADIOCOMMUNICATIONS**  **November 8 to 12, 2021**  ***Virtual, Mexico*** | | **OEA/Ser.L/XVII.4.2.38**  **CCP.II-RADIO /doc. /21**  **22 October 2021**  **Original: English** | |
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|  | **PRELIMINARY VIEWS FOR WRC-23**  **AGENDA ITEM 1.12** | |  |
|  | **(Item on the Agenda: 3.1)** | |  |
|  | **(Document submitted by delegation of the United States of America)** | |  |

**Impact on the sector:**

This document supports the work of CITEL’s PCC.II Working Group for WRC under 3.1 of the agenda.

**Executive Summary:**

This document contains an attachment for the USA preliminary view on WRC-23 Agenda Item 1.12 for consideration in CITEL´s preparation for WRC-23.

**UNITED STATES OF AMERICA**

**DRAFT PRELIMINARY VIEWS ON WRC-23**

**AGENDA ITEM 1.12**: to conduct, and complete in time for WRC‑23, studies for a possible new secondary allocation to the Earth exploration-satellite (active) service for spaceborne radar sounders within the range of frequencies around 45 MHz, taking into account the protection of incumbent services, including in adjacent bands, in accordance with Resolution **656 (Rev.WRC‑19)**;

**BACKGROUND:** WRC-23 will consider the results of studies on spectrum needs for a possible new secondary allocation to the Earth exploration-satellite (active) service for spaceborne radar sounders with the range of frequencies around 45 MHz, taking into account the protection of incumbent services. The frequency range 40-50 MHz is currently allocated, and widely used by, the fixed, mobile, and broadcasting services on a primary basis, as well as being allocated on primary basis in portions of the band to the aeronautical radionavigation service (No. **5.160**) and radiolocation service limited to oceanographic radars (No. **5.161A**) in some countries. It is also adjacent to a primary allocation to the amateur service in Regions 2 and 3, and some countries in Region 1. Secondary allocations in portions of the 40-50 MHz band include the space research service, radiolocation service (No. **5.161** and No. **5.162A** (limited to wind profiler radars). Sharing studies will need to be conducted with those services operating on a primary and secondary basis (taking account No. **5.31c**) in the frequency range 40-50 MHz, as well as primary amateur operations in the adjacent band.

A secondary allocation around 45 MHz would provide the science community the ability to provide radar maps of subsurface scattering layers with the intent to locate water/ice deposits. The sounding radars are intended to be utilized only in either uninhabited or sparsely populated areas of the globe, with particular focus on deserts and polar ice fields, and only at night-time from 3 a.m. to 6 a.m. locally. Taking into account the high investment cost associated with this type of sensor observations in the 40-50 MHz band, the number of spaceborne radar sounder missions operating simultaneously is expected to remain very few; perhaps only one, or two, in number.

**U.S. VIEW:** The United States supports studies and possible consideration of a new allocation to the Earth exploration-satellite (active) service on a secondary basis within the frequency range 40‑50 MHz. Such consideration would need to take into account the results of studies on spectrum needs and sharing studies, and the need to provide protection and to not impose constraints on incumbent services in this frequency range and adjacent frequency bands.

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