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| **36 MEETING OF PERMANENT**  **CONSULTATIVE COMMITTEE II:**  **RADIOCOMMUNICATIONS**  **November 30 to December 4, 2020**  ***Virtual meeting*** | | **OEA/Ser.L/XVII.4.2.36**  **CCP.II-RADIO/doc. /20**  **7 November 2020**  **Original: English** | |
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|  | **U.S. PRELIMINARY VIEW ON WRC-23 AGENDA ITEM 1.19** | |  |
|  | **(Item on the Agenda: 3.1)** | |  |
|  | **(Document submitted by the United States of America)** | |  |

**Introduction:**

This document contains an attachment including the USA preliminary view on WRC-23 Agenda Item 1.19 for consideration in CITEL’s preparation for WRC-23.

**UNITED STATES OF AMERICA**

**DRAFT PRELIMINARY VIEWS ON WRC-23**

**AGENDA ITEM 1.19**: to consider a primary allocation to the fixed-satellite service (FSS) in the space-to-Earth direction in the frequency band 17.3-17.7 GHz in Region 2, while ensuring the protection of existing primary services in the band, recognizing the need of preserving and protecting the frequencies subject to the application of Appendix 30A, in accordance with Resolution **174 (WRC-19)**

# BACKGROUND:

WRC-23 is considering the possibility of a new primary FSS allocation in the space-to-Earth direction in the frequency band 17.3-17.7 GHz in Region 2. Current satcom trends encourage the development and implementation of new technologies in FSS for broadband applications to provide high-capacity and low-cost means of broadband communication even to the most isolated regions of the world. The use of satellite radiocommunication technology would facilitate the efficient use of this spectrum while aligning with the Region 1 Table of Allocations. The inclusion of an FSS downlink allocation in 17.3-17.7 GHz would provide a contiguous amount of FSS spectrum for broadband applications throughout Region 2.

The 17.3-17.7 GHz frequency band is allocated to the unplanned broadcasting-satellite service (BSS, by definition, a downlink) and the FSS in the Earth-to-space direction limited to BSS feeder links operating under Appendix **30A**. An FSS downlink allocation is technologically similar to the already allocated BSS allocation which currently employs a sharing regime through regular coordination under **No. 9.7** with a coordination trigger defined in Appendix 5. With respect to sharing with BSS feeder links, there are two interference paths – 1) ground path interference and 2) space path interference. For ground path interference, where a transmitting feeder link earth station may cause interference with nearby receiving FSS earth stations, sharing procedures exists through the application of site coordination through Article 6 of Appendix **30A** and using the coordination area determined by Appendix **7**.

For space path interference, which involves a transmitting FSS space station and a receiving BSS feeder-link space station, Article **7** and Annex 4 to Appendix **30A** addresses the space path interference between transmitting BSS space stations and receiving BSS feeder-links space stations. This parallels a new transmitting FSS space station allocation. In addition, Recommendation ITU-R BO.1835 addresses compatibility between transmitting BSS space stations and receiving BSS feeder-link space stations, and its Annex concludes that such networks can operate compatibly with reasonable operational characteristics and with satellites spaced as close as 0.02 to about 0.3° apart, not including station-keeping.

# U.S. VIEW:

The United States supports studies, in accordance with Resolution **174 (WRC-19)**, to develop appropriate regulatory provisions and coordination mechanisms to protect Appendix **30A** BSS feeder links and BSS downlinks, to facilitate a new FSS downlink allocation in the frequency range 17.3-17.7 GHz in Region 2.

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