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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 9.1 Topic D** | |  |
|  | **(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 9.1 Topic D for consideration in CITEL´s preparation for WRC-23.

**UNITED STATES OF AMERICA**

**DRAFT PRELIMINARY VIEWS ON WRC-23**

**AGENDA ITEM 9.1 Topic D**: to consider and approve the Report of the Director of the Radiocommunication Bureau, in accordance with Article 7 of the ITU Convention on the activities of the ITU Radiocommunication Sector since WRC-19:

- Protection of EESS (passive) in the frequency band 36-37 GHz from non-GSO FSS space stations operating in the frequency band 37.5-38 GHz (space-to-Earth);

**BACKGROUND:** WRC-19, at its 12th Plenary session, approved Document 535 from the Plenary Ad Hoc Group which stated that a preliminary study under WRC-19 Agenda Item 1.6 regarding the protection of EESS (passive) sensors operating in the 36-37 GHz from non-GSO FSS space stations was submitted to the ITU-R. This preliminary study, which focused on high-density and low-altitude FSS constellations, concluded that it may be necessary for FSS non-GSO space stations operating in the frequency band 37.5-38 GHz to not exceed a maximum out-of-band e.i.r.p. of −34 dBW/100 MHz, for all angles greater than 71.4 degrees from nadir. The study considered that a low-altitude non-GSO FSS space station is one that operates below the altitude of the EESS (passive) sensor. Furthermore, interference from non-GSO FSS space stations into the cold calibration channel of EESS (passive) sensors operating in the frequency band 36-37 GHz has not been studied. Consequently, WRC-19 invited the ITU-R to conduct further study of these topics and develop Recommendations and/or Reports, as appropriate, and report back to WRC-23. Because this work falls under Agenda Item 9.1, WRC-23 will take no regulatory action. Furthermore, it was agreed by WRC-19 that no modifications to Resolution **750 (Rev WRC-19)** are to be considered under these studies since the frequency band 36-37 GHz is not referenced in No. **5.340**.

The 36-37 GHz band is used by passive sensor missions. Measurements taken in this band augment weather forecasting, climatological, and topographic capabilities through the estimation of properties of rain rate, snow and sea ice morphology, lake ice, snow water content, and oil slicks.

**U.S. VIEW:** The United States is of the view that changes to the Radio Regulations are outside the scope of Agenda Item 9.1. The United States supports further study to determine if it is necessary and feasible for non-GSO FSS stations (space-to-Earth) operating in 37.5-38 GHz as part of high-density and low-altitude FSS constellations to not exceed a maximum out-of-band EIRP of −34 dBW/100 MHz, for all angles greater than 71.4 degrees from nadir, into EESS (passive) operations in 36-37 GHz. Additionally, the United States supports study of potential interference from these high-density and low-altitude non-GSO FSS space stations operating in 37.5-38 GHz into the cold calibration channel of EESS (passive) sensors operating in the frequency band 36-37 GHz. The United States endorses the agreement of WRC-19 that no modifications to Resolution **750 (Rev WRC-19)** are to be considered under these studies since the frequency band 36-37 GHz is not referenced in No. **5.340**.

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