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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 1.16** | |  |
|  | **(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 1.16 for consideration in CITEL’s preparation for WRC-23.

**UNITED STATES OF AMERICA**

**DRAFT PRELIMINARY VIEWS FOR WRC-23**

**Agenda Item 1.16**: to study and develop technical, operational and regulatory measures, as appropriate, to facilitate the use of the frequency bands 17.7-18.6 GHz and 18.8-19.3 GHz and 19.7-20.2 GHz (space-to-Earth) and 27.5-29.1 GHz and 29.5-30 GHz (Earth-to-space) by non-GSO fixed-satellite service (FSS) earth stations in motion (ESIM), while ensuring due protection of existing services in those frequency bands, in accordance with Resolution **173** **(WRC-19)**

**BACKGROUND**: The demand for broadband connectivity on the move is growing exponentially with users expecting high quality service when travelling. Most aeronautical and maritime routes rely on satellite services. Several non-GSO constellations in Ka-band are currently either operating or under development with designs to provide very high throughput connectivity with low latency to users regardless of their location on Earth. WRC-23 agenda item 1.16 will consider measures to promote the development of ubiquitous access to broadband connectivity through the development of global technical and regulatory provisions for the operation of ESIM with non-GSO FSS systems while protecting existing services in the frequency band.

Previous WRCs have adopted technical and regulatory provisions to allow ESIM to communicate with GSO FSS networks in other frequency bands. Resolution **156 (WRC-15)** addresses the use of earth stations in motion (ESIM) communicating with GSO FSS networks in the 19.7-20.2 GHz and 29.5-30.0 GHz bands (RR No. **5.527A**); and Resolution **169** **(WRC-19)** addresses the use of ESIMs communicating with GSO FSS networks in the frequency bands 17.7-19.7 GHz and 27.5-29.5 GHz (RR No. **5.517A**). In addition the European Electronic Communications Committee (ECC) has approved operations of non-GSO ESIM in portions of the Ka-band (17.3-20.2 GHz, 27.5-29.1 GHz and 29.5-30.0 GHz) and the Federal Communications Commission (FCC) has recently adopted rules to facilitate ESIM operations with non-GSO satellite systems in the 18.3-18.6 GHz, 19.7-20.2 GHz, 28.4-28.6 GHz, and 29.5-30 GHz bands on a primary basis. That ongoing proceeding is also considering regulatory provisions to protect terrestrial mobile systems in the adjacent 27.5-28.35 GHz band from out-of-band emissions of non-GSO ESIMs in 28.35-28.6 GHz.

In the frequency bands 17.7-20.2 GHz (space-to-Earth), where non-GSO ESIMs will be receiving, primary allocations include Fixed, Mobile, Fixed-Satellite, Broadcasting-Satellite, Earth Exploration-satellite (passive), Space Research (passive) and Mobile-Satellite services in slightly different allocation across all three Regions.

In the frequency bands 27.5-30.0 GHz (space-to-Earth), where non-GSO ESIMs will transmit, primary allocations include Fixed, Mobile, Fixed-Satellite and Mobile-Satellite services in slightly different allocation across all three Regions.

**U.S. VIEW**: The United States supports studies on the technical and operational characteristics of ESIMs and sharing and compatibility studies to develop technical and regulatory provisions for the operation of ESIM with non-GSO FSS systems in accordance with Resolution **173** **(WRC-19)** with a view to ensuring the protection of and not impose additional constraints on existing services, including terrestrial services and GSO FSS, in those frequency bands and in adjacent bands, including passive services.

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