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|  | **U.S. PRELIMINARY VIEW ON WRC-23 AGENDA ITEM 1.2** | |  |
|  | **(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 1.2 (3600-3800 MHz frequency band) for consideration in CITEL’s preparation for WRC-23.

**UNITED STATES OF AMERICA**

**DRAFT PRELIMINARY VIEWS FOR WRC-23**

**AGENDA ITEM 1.2**: to consider identification of the frequency bands 3 300-3 400 MHz, 3 600-3 800 MHz, 6 425-7 025 MHz, 7 025-7 125 MHz and 10.0-10.5 GHz for International Mobile Telecommunications (IMT), including possible additional allocations to the mobile service on a primary basis, in accordance with Resolution **245 (WRC-19)**;

# BACKGROUND:

Mobile broadband plays a crucial role in providing access to businesses and consumers worldwide. According to ITU estimates, the number of active mobile-cellular telephone subscriptions per 100 inhabitants continues to grow strongly, reaching 108 subscriptions per 100 inhabitants, with 18.4 percent year-on-year growth for mobile broadband subscriptions.[[1]](#footnote-1) Ninety-three percent of the world’s population lives within reach of a mobile broadband service, and the relatively small difference in the number of subscriptions between developed and developing countries demonstrates that connectivity is a priority among people in countries at all levels of development.[[2]](#footnote-2) WRC-23 will consider the possibility of identifying IMT in the bands 3 600-3 800 MHz and 3 300-3 400 MHz (Region 2); 3 300-3 400 MHz (amend footnote in Region 1); 7 025-7 125 MHz (globally); 6 425-7 025 MHz (Region 1); 10 000-10 500 MHz (Region 2). Sharing and compatibility studies will need to be conducted, with a view to ensuring the protection of existing services to which the frequency band is allocated on a primary basis, without imposing additional regulatory or technical constraints on those services, and also, as appropriate, protection of services in adjacent bands.

The demand for mobile wireless broadband services such as IMT continues to grow dramatically as does the need for access to radio spectrum to support that growth.[[3]](#footnote-3) The fifth generation of wireless technology (5G) will improve speed and reduce latency of wireless communications networks, and will enable services that revolutionize healthcare, transportation, agriculture, education, and many other facets of our economy and society. For example, 5G will support advanced services such as real-time, high-quality video for telemedicine and the growth of the Internet of Things.

The 3400-4200 MHz is globally allocated to the Fixed-Satellite Service (FSS) (space-to-Earth) on a co-primary basis with Fixed and Mobile services in Regions 2. GSO FSS satellites have and continue to provide services across the Americas. In the contiguous United States, C-band GSO satellites provide services including distribution of television and radio broadcasting programmes, telephone and data services to consumers, back-haul to mobile terrestrial operators, and feeder links for mobile-satellite services. Additionally, C-band is used for reception of essential telemetry FSS satellite signals.[[4]](#footnote-4) In Alaska, Hawaii, and insular territories, the C-band satellite services are more extensively used and relied upon for an even greater set of applications including essential VSAT networks, communications for emergency services, tele-medicine/education and backhaul for telecommunications restoration in the event of a disaster.

In the United States the Federal Communications Commission (FCC), as part of its efforts to facilitate 5G network deployments and ensure the continued access for C-band spectrum for FSS services, adopted new rules to make available 280 MHz of spectrum in the 3700 – 3980 MHz in the contiguous United States and maintained 200 MHz for FSS operations in the 4000-4200 MHz band. In Alaska, Hawaii, and insular territories, where dependence on C-band FSS services is more significant, the full 3700-4200 MHz band continues to be used to deliver FSS. The FCC also adopted domestic rules for the operation of the 5G networks and criteria to protect the FSS receive earth stations in adjacent bands, including a guard band from 3980-4000 MHz.[[5]](#footnote-5)

# U.S. VIEW:

In the United States, per RR No. **5.434**, the 3600 – 3700 MHz band is already identified for IMT.

The United States supports studies called for in Resolution **245 (WRC-19)** with respect tothe 3600-3800 MHz frequency band**,** includingsharing and compatibility with a view to ensuring the protection from harmful interference and without imposing additional regulatory or technical constraints on existing primary allocated services in this band. Taking the above into account, the United States supports appropriate action at WRC-23.

1. https://www.itu.int/en/ITU-D/Statistics/Documents/facts/FactsFigures2019.pdf [↑](#footnote-ref-1)
2. https://www.itu.int/en/ITU-D/Statistics/Documents/facts/FactsFigures2019.pdf [↑](#footnote-ref-2)
3. Ericsson predicts that total mobile traffic is expected to increase by a factor of five over the next six years, reaching 164 exabytes per month by the end of 2025. Ericsson reports that today, smartphones generate about 95% of total mobile data traffic, and that by 2025, 5G networks will carry about half of the world’s mobile data traffic. *See* Ericsson, Mobility Report at 20 (2020), https://www.ericsson.com/49da93/assets/local/mobility-report/documents/2020/june2020-ericsson-mobility-report.pdf. Cisco estimates that, by 2022, 22% of global internet traffic will come from mobile networks, up from 12% in 2017. *See* Cisco Systems Inc., Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2017-2022 White Paper (2019), https://www.cisco.com/c/en/us/solutions/collateral/service-provider/visual-networking-index-vni/white-paper-c11-738429.html. [↑](#footnote-ref-3)
4. *See Expanding Flexible Use of the 3.7-4.2 GHz Band*, Report and Order and Order of Proposed Modification, FCC 20-22, at para. 9 (rel. Mar. 3, 2020) (“*FCC C-Band Order*”), https://docs.fcc.gov/public/attachments/FCC-20-22A1.pdf. [↑](#footnote-ref-4)
5. *See FCC C-Band Order*. Interested stakeholders were encouraged to establish various multi-stakeholder industry groups to study and address various remaining issues related to the adopted rules in this band prior to the planned December 2020 auction. [↑](#footnote-ref-5)