

## UNITED STATES OF AMERICA

### DRAFT PRELIMINARY VIEWS FOR WRC-15

**Agenda Item 9.1.5** consideration of technical and regulatory actions in order to support existing and future operation of fixed-satellite service earth stations within the band 3400-4200 MHz, as an aid to the safe operation of aircraft and reliable distribution of meteorological information in some countries in Region 1.<sup>1</sup>

**BACKGROUND:** In some countries in Region 1, remote and rural areas often lack a terrestrial communication infrastructure that meets the evolving requirements of modern civil aviation. In these cases, fixed- satellite service (FSS) earth stations are the only viable option to augment the communication infrastructure in order to satisfy the overall communications infrastructure requirements of the International Civil Aviation Organization (ICAO) and to ensure distribution of meteorological information under the auspices of the World Meteorological Organization (WMO). For many years, states and / or organizations within Region 1 have developed and implemented VSAT networks in this band to support all aeronautical communications services. The use of FSS earth stations deployed in some countries in Region 1 in the 3.4-4.2 GHz band for aeronautical communications has the potential to significantly enhance communications between air traffic control centers as well as with remote aeronautical stations.

Robust aeronautical communications infrastructure within Region 1 is essential for the safe operation of US Aircraft in that region and in the overall safe and efficient operation of air navigation worldwide.

Recommendation **724 (WRC-07)** “Use by civil aviation of frequency allocations on a primary basis to the fixed-satellite service” recommends that administrations “encourage the implementation of VSAT systems that could support both aeronautical and other communications requirements” where terrestrial infrastructure may be lacking, and invites ICAO to continue to assist developing countries to improve their aeronautical telecommunications including use of VSATs.

Resolution **154 (WRC-12)** *resolves to invite ITU-R to study possible technical and regulatory measures in some countries in Region 1 to support the existing and future FSS earth stations in the 3 400-4 200 MHz band used for satellite communications related to safe operation of aircraft and reliable distribution of meteorological information. The Resolution notes that the FSS is not a safety service. The Resolution instructs the Director of the Radiocommunication Bureau to include the results of these studies in his*

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<sup>1</sup> This matter has been included in the Outline of the draft CPM Report to WRC-15 and is addressed in the Allocation of ITU-R preparatory work for WRC-15. *See* Administrative Circular (CA/201), Results of the first session of the Conference Preparatory Meeting for WRC-15 (CPM15-1), at Annexes 7 and 8.

Report to WRC-15 for the purposes of considering adequate actions in response to the *resolves to invite ITU-R* stated above. The 3 400-3 600 MHz band is identified for IMT in 83 countries in Region 1 through Footnote 5.430A of the Radio Regulations (RR).

It is noted that this band is within a suitable frequency range proposed by WP 5D for consideration under Agenda Item 1.1, “to consider additional spectrum allocations to the mobile service on a primary basis and identification of additional frequency bands for International Mobile Telecommunications (IMT). Resolution 233 considers “that harmonized worldwide band and harmonized frequency arrangements for IMT and other mobile broadband systems are highly desirable in order to achieve global roaming and the benefit of economies of scale.”

It is further noted that some work has already been done in the ITU-R to address sharing between FSS systems in the 3.4-4.2 GHz band such as: Report ITU-R S.2199 on studies on compatibility of broadband wireless access systems and FSS networks in the 3 400-4 200 MHz band; and Report ITU-R M.2109 on sharing studies between International Mobile Telecommunications-Advanced (IMT-Advanced) systems and geostationary-satellite networks in the fixed-satellite service in the 3 400-4 200 MHz and 4 500-4 800 MHz frequency bands.

**U.S. View:** The United States is of the view that, as stated in *noting a* of Resolution **154 (WRC-12)**, FSS is not a safety service; although it does serve as an aid to the safe operation of aircraft and reliable distribution of meteorological information in some countries in Region 1. The US supports ITU-R studies under Resolution **154 (WRC-12)** in order to explore measures that Administrations in some countries in Region 1 may be able to employ to facilitate protection of VSATs used for the transmission of aeronautical and meteorological information in the 3.4 to 4.2 GHz frequency band from other services operating in the band. Any proposed regulatory changes would need to also take into account any regulatory changes proposed under Agenda item 1.1.

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