

## 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:** Remote and rural areas often lack a terrestrial communication infrastructure that meets the evolving requirements of modern civil aviation. Fixed-satellite service (FSS) earth stations often 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. Supporting the continued use of FSS earth stations deployed 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 implementation of VSATs to support aeronautical and other communications requirements where terrestrial infrastructure may be lacking, and further invites ICAO to continue to assist developing countries to improve their aeronautical telecommunications including use of VSATs.

To further support the use of the FSS to meet aeronautical and meteorological communications requirements, 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*

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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.

meteorological information. The Resolution instructs the Director of the Radiocommunication Bureau to include the results of these studies in his Report to WRC-15 for the purposes of considering adequate actions in response to the *resolves to invite ITU-R* stated above.

It is 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 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.

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