

UNITED STATES OF AMERICA
PROPOSALS FOR THE WORK OF THE CONFERENCE

Agenda Item 1.9.2: *to consider, in accordance with Resolution 758 (WRC-12) ... the possibility of allocating the bands 7 375-7 750 MHz and 8 025-8 400 MHz to the maritime-mobile satellite service and additional regulatory measures, depending on the results of appropriate studies*

Background Information: WRC-15 agenda item 1.9.2 directs consideration of allocating the bands 7 375-7 750 MHz and 8 025-8 400 MHz to the maritime mobile-satellite service (MMSS). The proposed allocation would effectively allow the entire 7 250-7 750 MHz (space-to-Earth) and 7 900-8 400 MHz (Earth-to-space) bands (subject to No. **9.21** agreement for bands 7 250-7 375 MHz and 7 900-8 025 MHz) to be accessible to the MMSS, making it identical to the existing fixed-satellite service (FSS) allocations.

The Earth exploration-satellite service (EESS) (space-to-Earth) has a worldwide primary allocation in the band 8 025-8 400 MHz. This band supports the downlink of environmental and climate data from non-geostationary orbit (NGSO) satellites, which are often in polar orbits, to earth stations that may be located at high latitudes and/or near coastal areas. The space research service (SRS) (space-to-Earth) has a worldwide primary allocation in the adjacent band 8 400-8 500 MHz, with No. **5.465** limiting the band 8 400-8 450 MHz to deep space use. There is extensive use of the band 8 400-8 450 MHz at sites around the world, including in coastal locations, by the SRS (space-to-Earth) for deep space with very large antennas and sensitive receivers that are susceptible to possible interference from out-of-band emissions.

ITU-R sharing studies demonstrate that the proposed MMSS uplinks in the 8 025-8 400 MHz bands will interfere with existing services in the band, specifically the EESS (space-to-Earth). The proposed satellite uplink transmissions will cause interference into EESS earth station receivers. Very large separation distances from shore required to mitigate this interference would make the use of MMSS impractical. ITU-R sharing studies demonstrate that the proposed MMSS uplinks in the 8 025-8 400 MHz bands will also interfere with the adjacent SRS (space-to-Earth) allocation in 8 400-8 500 MHz, specifically the 8 400-8 450 MHz sub-band limited to deep space research. Large separation distances and/or frequency separation would be required to mitigate interference.

Proposal:

NOC USA/AI 1.9.2/1

ARTICLE 5

Frequency allocations

Reasons: ITU-R studies indicate a potential for interference into existing services, both in-band and adjacent band.

SUP USA/AI 1.9.2/2

RESOLUTION 758 (WRC-12)

**Allocation to the fixed-satellite service and the maritime-
mobile satellite service in the 7/8 GHz range**

Reasons: This proposal is consequential to completion of the agenda item 1.9.2. This proposal does not reflect a position on studies under this Resolution for agenda item 1.9.1.