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| **World Radiocommunication Conference (WRC-15)Geneva, 2–27 November 2015** |  |
| **INTERNATIONAL TELECOMMUNICATION UNION** |  |
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| PLENARY MEETING | **Addendum 2 toDocument 7(Add.9)-E** |
|  | **29 September 2015** |
|  | **Original: English** |
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| Member States of the Inter-American Telecommunication Commission (CITEL) |
| Proposals for the work of the conference |
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| Agenda item 1.9.2 |

1.9 to consider, in accordance with Resolution **758 (WRC‑12)**:

1.9.2 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

As mentioned in Resolution 758 (WRC-12),some administrations have reported a shortfall of spectrum available for their current and future applications in these bands, and that the additional bandwidth requirements are estimated to be around a maximum of 100 MHz. However it has not been determined how much of the additional bandwidth requirements for data transmission is for maritime mobile-satellite service (MMSS) next-generation satellites. Resolution 758 (WRC-12), *resolves* 3, indicates the possibility of allocating less than the entire range 7 375-7 750 MHz (space‑to-Earth) and 8 025-8 400 MHz (Earth-to-space) to the maritime mobile-satellite service.

The bands 7 250-7 750 MHz (space-to-Earth) and 7 900-8 400 MHz (Earth-to-space) are allocated on a primary basis to the fixed-satellite service (FSS). Additionally, the bands 7 250-7 375 MHz (space-to-Earth) and 7 900-8 025 MHz (Earth-to-space) are allocated to the mobile-satellite service on a primary basis, subject to agreement obtained under No. 9.21 as required by No. 5.461. The band 7 300-8 500 MHz is allocated on a primary basis to the fixed service (FS). 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 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.

Proposals

ARTICLE 5

Frequency allocations

NOC IAP/7A9A2/1

Section IV – Table of Frequency Allocations
(See No. 2.1)

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

SUP IAP/7A9A2/2

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 agenda item 1.9.2. This proposal does not reflect a position on studies under this Resolution for agenda item 1.9.1.

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