IWG-3/018R3
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United States of America

DRAFT PROPOSALS FOR THE WORK OF THE CONFERENCE

WRC-11 Agenda Item 1.11: to consider a primary allocation to the space research service (Earth-to-space) within the band 22.55-23.15, taking into account the results of ITU-R studies, in accordance with Resolution 753 (WRC-07)

Background Information:

To support the SRS missions in near Earth orbit, including missions in transit to the moon and at or near the moon, downlink (space-to-Earth) transmissions will operate in the 25.5-27.0 GHz SRS allocation. This 1.5 GHz wide downlink band will be used for both scientific data retrieval and voice/video communication with the Earth. However, there is a need for a companion uplink (Earth-to-space) band to provide the mission data, command and control links for these missions. Due to the potential for many concurrent exploration-related systems and the large bandwidth requirements of these systems, especially , it is envisioned that an uplink bandwidth of sufficient primary space research service frequency spectrum in the 22.55-23.15 GHz range will provide the space exploration initiatives adequate uplink (Earth-to-space) bandwidth capacity in a band that is paired with the inter-satellite service and thus is a reasonable companion to the primary space research service 25.5-27.0 GHz space-to-Earth band.

Resolution **753 (WRC-07)** calls for sharing studies between SRS (Earth-to-space) and the fixed, inter-satellite and mobile services in the band 22.55-23.15 GHz to determine appropriate criteria which will provide for sharing between a new SRS (Earth-to-space) allocation and the existing services in the 22.55-23.15 GHz band. These sharing studies have been initiated in ITU-R Working Party 7B, the responsible group for CPM studies in support of WRC-11 agenda item 1.11.

The CPM text for Agenda Item 1.11 has several Methods. Method B recognizes a protection criteria agreed in the ITU-R for the non -GSO ISS links operating in the band above 23.15 GHz. This criteria is proposed for inclusion in the Radio Regulations.

Proposal

Article 5

Frequency Allocations

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

MOD USA/1.11/1

22-24.75 GHz

Allocation to services		
Region 1	**Region 2**	**Region 3**
22.55-22.85	FIXED INTER-SATELLITE 5.338A MOBILE SPACE RESEARCH SERVICE (Earth to Space) USA/1.11/ISS-3 5.149	

MOD USA/1.11/2

22.85-23.55	FIXED INTER-SATELLITE 5.338A MOBILE 5.149

Reason- This allocation proposal fulfills the requirements of the agenda item and ensures protection of all services in the allocation before the conference.

USA/1.11/ISS-3

5.ISS the aggregated unwanted emission levels from all earth stations in the space research service in the band 22.55-23.15 GHz shall not exceed a power density of -215 dBW/Hz at the input to the non-GSO ISS satellite receiver, not to be exceeded for a fraction of time greater than 10-2 percent(0.01%) in the band 23.183-23.377 GHz.

Deleted: GHz.10^{-2} percent (0.01%) in the band23.183-23.377 GHz.

Reason: to ensure protection of the operational ISS links operating in the band 22.15-23.55 GHz.