WAC Informal Working Group (IWG)-3

Modifications to
NTIA's Preliminary View on Agenda Item 1.11 (see WAC/005 (13.01.09))

Preparation for ITU Radiocommunication Conferences

UNITED STATES OF AMERICA
PRELIMINARY VIEWS ON WRC-11 AGENDA ITEM 1.11

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

ISSUE: Resolution **753 (WRC-07),** "Use of the band 22.55-23.15 GHz by the space research service," calls for consideration of sharing between space research service systems operating in the Earth-to-space direction and the fixed, inter-satellite, and mobile services in the band 22.55-23.55 GHz, with a view to consider the inclusion of the sharing criteria within the Radio Regulations and appropriate modifications to the Table of Frequency Allocations in the band 22.55-23.15GHz.

Deleted: .

BACKGROUND: 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 those supporting manned missions, it is envisioned that an uplink bandwidth of up to 600 MHz will be needed. Allocating sufficient primary space research service frequency spectrum in the 22.55-23.15 GHz band 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.

The proposed allocation is in a portion of the ISS allocation 22.55-23.55GHz. The part of the allocation above 23.15GHz is in use by the Hibleo-2/2FL satellite system which is Notified, and brought into use some years ago, and is expected to be in operation for years to come.

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. Given the expected high eirp to be associated with the intended application of the proposed Space Research Service it is important that the impact of the unwanted emissions from this application into the part of the ISS band above 23.15GHz be determined to ensure against harmful interference to systems in that part of the allocation.

U.S. VIEW: The United States supports this CITEL proposed agenda item to WRC-07 that calls for the study of sharing in the band 22.55-23.15 GHz between potential SRS (Earth-to-space) systems and the systems of the fixed, inter-satellite, and mobile services. The United States supports a new SRS (Earth-to-space) primary allocation in the band 22.55-23.15 GHz taking into account the results of ITU-R studies, including those which apply to unwanted emissions from the envisioned SRS application into the part of the ISS allocation above 23.15GHz.

_____