

Proposed Modification to NTIA/RCS proposal for A.I. 7.2 (Space Research-22GHz)

The NTIA in a communication from its Associate Administrator for spectrum, has forwarded to the WAC a proposal related to Agenda Item 7.2 of WRC-07. This agenda item concerns proposals for the agenda of WRC-10. The proposal of interest states:

“2.X.B to consider the addition of up to a 500 MHz primary space research service (Earth-to-space) allocation in the 22.55-23.55 GHz band, taking into account the results of ITU-R studies and recognizing the need to protect existing systems in the band.”

The background information in this draft proposal indicates that the suggested new allocation is required to provide for, “a companion uplink(Earth-to-space) band to provide the mission data, command and control links” for referenced NASA missions to the moon both robotic and manned. It is further indicated that such an allocation is desirable be in close proximity to the ISS links in the 25.25-27.5 GHz allocation.

It is certainly clear that this is an important mission and clearly needs spectrum support. It is also clear that the referenced ISS allocation is already extensively used and is expected to continue to be by both the Iridium system and other NASA ISS links. The Iridium ISS links operate in the band 23.183-23.377 GHz. Of concern is that when an international allocation is adopted in Article 5 of the Radio Regulations it is available to all 189 members of the ITU. This means that there could be any number of Administrations requesting to use the band, and particularly since this is proposed to be an uplink transmission could present sharing difficulties.

As may not be apparent the capability offered by non-GSO MSS systems such as Iridium Have become increasingly important as the last communication link in the context of emergencies and natural disasters cause by Tsunamis, Hurricanes, and earth quakes. The ISS links are critical to providing the associated services.

The importance of the NASA mission is recognized, however, it appears that such a requirement could be met through an appropriate footnote to the US table of allocations. However, alternatively, given the requirement indicated, it could be accommodated through a modification of this proposal which avoids conflict with the Iridium ISS links. The NASA requirement is for 500 MHz. This requirement can easily be accommodated in the lower half of the existing ISS allocation. Therefore if an agenda item is really necessary the proposed frequency range in the NTIA/RCS proposal should be changed to 22.55-23.05 GHz. This should be reflected in the text of the proposal and the associated Resolution. A proposed modification to reflect this is attached.

In summary, it appears that Iridium concerns could be addressed by either providing for the requirement through a US domestic footnote or by a small change in the suggested proposal by referencing only the lower half of the ISS allocation in the 22.55-23.55 GHz band.

Attachment

United States of America

Agenda Item 7.2 to recommend to the Council items for inclusion in the agenda for the next WRC, and to give its views on the preliminary agenda for the subsequent conference and possible agenda items for future conferences, taking into account Resolution 802 (WRC-03);

Background Information

Add additional paragraph to this section:

The Intersatellite Service links of a non-GSO MSS satellite system operate in the ISS allocation in the band 23.183-23.377 GHz. They have been in operation for several years and increasingly being used as a source of last communications in situations of emergencies and natural disasters.

Proposal:

Modify the NTIA/RCS proposal as follows:

USA/ / 1 MOD

RESOLUTION 803 (WRC-07)

Agenda for the 2010 World Radiocommunication Conference

The World Radiocommunication Conference (Geneva, 2007)

USA/ / 2 ADD

2.XB to consider the addition of up to a 500 MHz primary space research service (Earth-to-space) allocation in the 22.55-23.05 GHz band, taking into account the results of ITU-R studies and recognizing the need to protect existing systems in the band.

Reasons: Allocating sufficient primary space research service frequency spectrum in the 22.55-23.055 GHz band will provide the space exploration initiatives adequate uplink (Earth-to-space) bandwidth as a companion to the primary space research service space to Earth band at 25.5-27.0 GHz.

USA/ / 3 ADD

RESOLUTION US XXX (WRC-07)

Use of the Band 22.55-23.05 GHz by the Space Research Service

In considering h), i), j), recognizing 1, 2, and 3, resolves 1, and invites administrations, of the NTIA/RCS draft proposal in the referenced resolution, the band 22.55-23.55 GHz should be changed to 22.55-23.05 GHz.