**UNITED STATES OF AMERICA**

**DRAFT PROPOSALS FOR THE WORK OF THE CONFERENCE**

**Agenda Item 1.13**:*to consider identification of frequency bands for the future development of International Mobile Telecommunications (IMT), including possible additional allocations to the mobile service on a primary basis, in accordance with Resolution***238 (WRC-15)**

**Background information:**  Large amounts of spectrum will be needed for IMT services to support the growth in IMT-2020 services in future. Therefore, serious consideration should be given to all bands under study for Agenda item 1.13 to accommodate such growth. Any IMT identification in a given band does not preclude the use of that frequency band by other services to which they are allocated, while at the same time providing flexibility to the national regulators to select parts of a given band for IMT use, taking into account their needs for new services as well those of the incumbents.

The frequency range 45.5-47 GHz, or parts thereof, is allocated to the Mobile Service (MS), Mobile Satellite Service (MSS), Radionavigation Service (RNS), and Radionavigation Satellite Service (RNSS). The 47-47.2 GHz frequency band is allocated to the Amateur and Amateur Satellite Services. The focus of the studies within ITU-R for Agenda Item 1.13 was on bands below 45 GHz due to significant interest in the 26 GHz and 40 GHz bands. With regards to sharing with MSS in both uplink and downlink directions in the 45.5-47 GHz frequency range, studies submitted to the CPM-19-2 show that large margins exist for the protection of MSS. Specifically, the sharing studies indicate that for MSS uplink, there is a large positive margin between aggregate interference from IMT and any MSS protection criteria. For MSS downlink, separation distances are small, and protection of MSS earth stations can be addressed on a national / case-by-case basis. Characteristics were not provided to TG 5/1 for RNS and RNSS in this band so no studies were performed. With regards to the band 47-47.2 GHz, any use by IMT would take into account the use under these existing allocations noting that very short propagations distance are involved at these frequencies. Further, ARS and ARRS services are able to coexist in other millimeter Wave bands with much higher power use than that by IMT systems such as by Industrial Scientific and Medical (ISM) applications in the 24-24.05 GHz and Radiolocation Services in the 77.5-78 GHz band than that by the IMT systems.

Finally, there is no need for a WRC Resolution specifying technical and operational constraints on IMT to be associated with this proposed identification for IMT. Operational characteristics that are used by cellular providers, such as base station downtilt, that change on time scales needed to minimize intra- and inter-cell interference and also guarantee quality of service should not be encoded in the Radio Regulations.

**Proposal**:

ARTICLE 5

Frequency allocations

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

MOD USA/1.13/1

40-47.5 GHz

|  |  |  |  |
| --- | --- | --- | --- |
| Allocation to services | | | |
| Region 1 | Region 2 | Region 3 | |
| 43.5-47 MOBILE 5.553 ADD 5.113  MOBILE-SATELLITE  RADIONAVIGATION  RADIONAVIGATION-SATELLITE  5.554 | | |
| 47-47.2 AMATEUR  AMATEUR-SATELLITE  MOBILE except aeronautical mobile ADD 5.113 | | |

**Reasons:** As studies show sharing with other services is feasible, these modifications provide an identification for IMT in the frequency range 45.5 to 47.2 GHz. This facilitates harmonized worldwide bands for IMT, which are highly desirable in order to achieve global roaming and the benefits of economies of scale.

ADD USA/1.13/2

5.113The frequency range 45.5-47.2 GHz is identified for use by administrations wishing to implement the terrestrial component of International Mobile Telecommunications (IMT). This identification does not preclude the use of these frequency bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations.     (WRC‑19)

**Reasons**: Harmonized worldwide bands for IMT enable global roaming and the benefits of economies of scale as the same user equipment can be used to serve the global market**.**