**UNITED STATES OF AMERICA**

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

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**:

Resolution **238 (WRC-15)** calls for studies to determine the spectrum needs for the terrestrial component of IMT in the frequency range between 24.25 GHz and 86 GHz, as well as sharing and compatibility studies, taking into account the protection of services to which the frequency band is allocated on a primary basis, for the frequency bands:

– 24.25-27.5 GHz, 37-40.5 GHz, 42.5-43.5 GHz, 45.5-47 GHz, 47.2-50.2 GHz, 50.4‑52.6 GHz, 66-76 GHz and 81-86 GHz, which have allocations to the mobile service on a primary basis; and

– 31.8-33.4 GHz, 40.5-42.5 GHz and 47-47.2 GHz, which may require additional allocations to the mobile service on a primary basis.

Mobile broadband plays an increasingly crucial role in providing access to businesses and consumers worldwide. According to International Telecommunications Union (ITU) statistics, “Mobile-broadband subscriptions have grown more than 20% annually in the last five years and are expected to reach 4.3 billion globally by end 2017.” while “Mobile-broadband prices as a percentage of GNI per capita halved between 2013 and 2016 worldwide.[[1]](#footnote-2) Incredible technological innovation has enabled the use of higher frequency bands (e.g. mmWave) to help meet the ever-increasing demand for mobile broadband.  It is important to note that the properties of higher frequency bands, such as shorter wavelength, would better enable the use of advanced antenna systems, including multiple-input and multiple-output (MIMO) and beam-forming techniques in supporting enhanced mobile broadband.

The frequency range 50.4-52.6 GHz, or parts thereof, is allocated to the Fixed Service (FS), Fixed Satellite Service (FSS) and Mobile Service (MS). The frequency bands adjacent to this frequency range are allocated to the Earth Exploration Satellite Service (EESS) (passive) and Space Research Service (SRS) (passive). The results of studies between IMT-2020 and FSS showed that sharing was feasible with a large margin. With respect to the EESS (passive), Radio Regulations No. 5.340.1 applies.

5.340.1 The allocation to the Earth exploration-satellite service (passive) and the space research service (passive) in the band 50.2-50.4 GHz should not impose undue constraints on the use of the adjacent bands by the primary allocated services in those bands.

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**Proposal:**

ARTICLE 5

Frequency allocations

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

**MOD USA/1.13/1**

47.5-51.4 GHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 50.2-50.4 EARTH EXPLORATION-SATELLITE (passive)  MOBILE ADD 5.AI113  SPACE RESEARCH (passive)  5.340 | | |
| 50.4-51.4 FIXED  FIXED-SATELLITE (Earth-to-space) 5.338A  MOBILE ADD 5.AI113  Mobile-satellite (Earth-to-space) | | |

**Reasons:** Taking into account No. 5.340.1, sharing is feasible between IMT-2020 and other services in 50.2-51.4 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.

**MOD USA/1.13/2**

51.4-55.78 GHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 51.4-52.6 FIXED 5.338A  MOBILE ADD 5.AI113  5.547 5.556 | | |

**Reasons:** Taking into account No. 5.340.1, sharing is feasible between IMT-2020 and other services in 51.4-52.6 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/1.13/3**

5.A113 The frequency band 50.4-52.6 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 this frequency band by any application of the services to which they are allocated and does not establish priority in the Radio Regulations.

**Reasons:** This facilitates harmonized worldwide bands for IMT, which are highly desirable in order to achieve global roaming and the benefits of economies of scale.

1. ICT Facts and Figures 2017, p 4 and 5. See: https://www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2017.pdf [↑](#footnote-ref-2)