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| **World Radiocommunication Conference (WRC-19)Sharm el-Sheikh, Egypt, 28 October – 22 November 2019** |  |
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| PLENARY MEETING | **Addendum 13 toDocument 57-E** |
|  | **4 October 2019** |
|  | **Original: English** |
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| Brazil (Federative Republic of) |
| Proposals for the work of the conference |
|  |
| Agenda item 1.13 |

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)**;

Frequency band 66-71 GHz

Background

The aim of 5G is to create a more “hyper connected” society by more comprehensively, and intelligently, integrating LTE, Wi-Fi and cellular IoT technologies, together with at least one new 5G radio interface. This will allow mobile networks to dynamically allocate resources to support the varying needs of a hugely diverse set of connections – ranging from industrial machinery in factories, to automated vehicles as well as smartphones. The significant extra capacity of the 5G radio network will need to be supported with higher bandwidth backhaul, including fibre and microwave networks. Satellite networks should also be considered for 5G backhaul while noting their limited ability to satisfy 5G’s expected latency and bandwidth requirements.

A central component in the evolution of all mobile technology generations has been the use of increasingly wide frequency bands to support higher speeds and larger amounts of traffic. 5G is no different, ultra-fast 5G services will require large amounts of spectrum including above 24 GHz where wide bandwidths are more readily available. Without making these higher frequency bands available for 5G, it may not be possible to deliver a step-change in mobile broadband speeds and support rapidly growing mobile data traffic, especially in busy urban areas.

Spectrum above 24 GHz is well recognized worldwide as being the key component for the fastest 5G services. Without them, 5G won’t be able to deliver significantly faster data speeds or support projected extensive mobile traffic growth.

The Brazilian Administration proposes to identify the band 66-71 GHz to IMT.

ARTICLE 5

Frequency allocations

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

MOD B/57A13/1

66-81 GHz

|  |
| --- |
| Allocation to services |
| Region 1 | Region 2 | Region 3 |
| 66-71 INTER-SATELLITE MOBILE MOD 5.553 5.558 ADD 5.F113 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.554 |

**Reasons:** The identification of the band 66-71 GHz to IMT will help satisfy the need for additional spectrum in the bands above 24 GHz.

ADD B/57A13/2

5.F113 The band 66-71 GHz is identified for use by administrations wishing to implement 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. Resolution **[B/F113-66GHZ]** applies.     (WRC-19)

**Reasons:** The identification of the band 66-71 GHz to IMT will help satisfy the need for additional spectrum in the bands above 24 GHz.

MOD B/57A13/3

5.553 In the band 43.5-47 GHz, stations in the land mobile service may be operated subject to not causing harmful interference to the space radiocommunication services to which these bands are allocated (see No. 5.43).     (WRC‑19)

**Reasons:** The identification of the band 66-71 GHz to IMT will help satisfy the need for additional spectrum in the bands above 24 GHz.

ADD B/57A13/4

Draft New Resolution [B/F113-66GHZ]

**Use of the band 66-71 GHz for International Mobile Telecommunications (IMT) and measures for coexistence with Multiple Gigabit Wireless Systems (MGWS) and other Wireless Access Systems (WAS)**

The World Radiocommunication Conference (Sharm el-Sheikh, 2019),

considering

*a)* that International Mobile Telecommunications (IMT), including IMT-2000, IMT‑Advanced and IMT‑2020, is intended to provide telecommunication services on a worldwide scale regardless of location and type of network or terminal;

*b)* that the evolution of IMT is being studied within ITU‑R;

*c)* that harmonized worldwide bands and harmonized frequency arrangements for IMT and MGWS/other WAS are highly desirable in order to achieve global roaming and the benefits of economies of scale;

*d)* that adequate and timely availability of spectrum and supporting regulatory provisions are essential to realize the objectives in Recommendation ITU‑R M.2083;

*e)* that IMT systems are envisaged to provide increased peak data rates and capacity that may require a larger bandwidth;

*f)* that the lower adjacent band, 57-66 GHz, is used for MGWS/other WAS,

recognizing

*a)* that the identification of a frequency band for IMT does not establish priority in the Radio Regulations and does not preclude the use of the frequency band by any application of the services to which it is allocated;

*b)* Resolutions **223 (Rev.WRC-15)**, **224 (Rev.WRC‑15)** and **225 (Rev.WRC‑12)**, which also relate to IMT;

*c)* thatRecommendation ITU-R M.2083 provides IMT Vision - “Framework and overall objectives of the future development of IMT for 2020 and beyond”;

*d)* Recommendation ITU-R M.2003-2 on Multiple Gigabit Wireless Systems in frequencies around 60 GHz”;

*e)* Report ITU-R M.2227-2 on use of Multiple Gigabit Wireless systems in frequencies around 60 GHz,

resolves

that administrations wishing to implement IMT in the frequency band 66-71 GHz under the provisions in No.**5.F113,** who have implemented or are wishing to implement MGWS and other WAS in the same frequency band, consider coexistence between them taking into account the latest relevant ITU-R Reports and Recommendations (see *invites ITU-R* 2, 3),

invites ITU‑R

1 to develop harmonized frequency arrangements to facilitate IMT deployment in the frequency band 66-71 GHz taking into account the results of sharing and compatibility studies;

2 to develop ITU-R Recommendations and Reports that will assist administrations in ensuring that applications and services in the band 66-71 GHz can utilize the band efficiently including the development of appropriate coexistence techniques between IMT and MGWS and other WAS where needed;

3 to regularly review the impact of the evolution of IMT technical and operational characteristics (including deployment and base-station density) on sharing and compatibility with other services (e.g. space services) and, as necessary, to take into account the results of these reviews in the development or revision of ITU-R Recommendations/Reports, e.g. on IMT characteristics.

**Reasons:** The identification of the band 66-71GHz to IMT will help satisfy the need for additional spectrum in the bands above, while ensuring both IMT and Multiple Gigabit Wireless Systems (MGWS) can coexist.

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