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| A close up of a sign  Description automatically generated | **World Radiocommunication Conference (WRC-23) Dubai, 20 November - 15 December 2023** | |  |
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| PLENARY MEETING | | **Document 190-E** | |
|  | | **31 October 2023** | |
|  | | **Original: English** | |
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| Brazil (Federative Republic of)/Colombia (Republic of)/Costa Rica/Dominican Republic/Ecuador/Guatemala (Republic of)/Jamaica/Mexico/Paraguay (Republic of)/Peru/Uruguay (Eastern Republic of) | | | |
| PROPOSALS FOR THE WORK OF THE CONFERENCE | | | |
|  | | | |
| Agenda item 1.2 | | | |

1.2 to consider identification of the frequency bands 3 300-3 400 MHz, 3 600‑3 800 MHz, 6 425-7 025 MHz, 7 025-7 125 MHz and 10.0-10.5 GHz for International Mobile Telecommunications (IMT), including possible additional allocations to the mobile service on a primary basis, in accordance with Resolution **245 (WRC‑19)**;

Introduction

Mobile broadband plays a crucial and fundamental role in providing access to information for businesses and consumers worldwide. Mobile broadband users are also demanding higher data rates and are increasingly using mobile devices to access audio-visual content. The mobile industry continues to drive technological innovations in order to meet these evolving user demands.

The evolution of International Mobile Telecommunications (IMT), which provides wireless telecommunication services on a worldwide scale, has contributed to global economic and social development. IMT systems are now being evolved to provide applications such as enhanced mobile broadband, massive machine-type communications and ultra-reliable and low-latency communications.

In November 2015, ITU-R approved Recommendation ITU-R M.2083 – *Framework and overall objectives of the future development of IMT for 2020*, which highlights three key usage scenarios for IMT-2020: enhanced mobile broadband, massive machine type communications and ultra-reliable and low latency communications. The success of these usage scenarios, in both developed and developing countries, will rely on both spectrum availability for the terrestrial IMT-2020 systems and the support of high capacity backhaul capabilities (including fiber, wireless, satellite and microwave solutions). Recognizing the need to consider additional mid-band spectrum in the range 3 300 MHz to 10.5 GHz to support the terrestrial component of IMT, WRC-19 approved WRC-23 agenda item 1.2. ITU-R, standards development organizations and industry continue to progress the work on the development of IMT-2020.

Beyond the results of both WRC-15 and WRC-19, the challenge for the future is now to focus efforts on the frequency range 3 300 MHz to 10.5 GHz. This is a great opportunity to meet the technical and spectral needs for the future development of IMT-2020 systems, better known as 5G.

WRC-23 agenda item 1.2 (Resolution **245 (WRC-19)**) calls for sharing and compatibility studies, with a view to ensuring the protection of services to which the frequency band is allocated on a primary basis, without imposing additional regulatory or technical constraints on those services, and also, as appropriate, on services in adjacent bands, for the frequency bands:

– 3 300-3 400 MHz and 3 600-3 800 MHz and (Region 2);

– 3 300-3 400 MHz (amend footnote in Region 1);

– 6 425-7 025 MHz (Region 1);

– 7 025-7 125 MHz (globally);

– 10.0-10.5 GHz (Region 2).

Proposals

ARTICLE 5

Frequency allocations

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

MOD B/CLM/CTR/DOM/EQA/GTM/JMC/MEX/PRG/PRU/URG/190/1#1378

10-10.7 GHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 10-10.4  EARTH EXPLORATION-SATELLITE (active) 5.474A 5.474B 5.474C  FIXED  MOBILE  RADIOLOCATION  Amateur | 10-10.4  EARTH EXPLORATION-SATELLITE (active) 5.474A 5.474B 5.474C  RADIOLOCATION  Amateur | 10-10.4  EARTH EXPLORATION-SATELLITE (active) 5.474A 5.474B 5.474C  FIXED  MOBILE  RADIOLOCATION  Amateur |
| 5.474D 5.479 | 5.474D 5.479 MOD 5.480 ADD 5.A12 | 5.474D 5.479 |
| 10.4-10.45  FIXED  MOBILE  RADIOLOCATION  Amateur | 10.4-10.45  RADIOLOCATION  Amateur | 10.4-10.45  FIXED  MOBILE  RADIOLOCATION  Amateur |
|  | MOD 5.480 ADD 5.A12 |  |
| 10.45-10.5  RADIOLOCATION  Amateur  Amateur-satellite | 10.45-10.5  RADIOLOCATION  Amateur  Amateur-satellite | 10.45-10.5  RADIOLOCATION  Amateur  Amateur-satellite |
| MOD 5.481 | MOD 5.481 ADD 5.A12 | MOD 5.481 |

**Reasons:** Brazil, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Jamaica, Mexico, Paraguay, Peru and Uruguay support the identification of the frequency band 10-10.5 GHz for IMT under certain conditions, as shown in draft new Resolution **[C12-10 GHz]** **(WRC-23)**. The identification of sufficient frequency spectrum for IMT is essential to be able to address digitalization (e.g. sustainable smart cities, industries) and reduce the digital divide in the Americas.

MOD B/CLM/CTR/DOM/EQA/GTM/JMC/MEX/PRG/PRU/URG/190/2#1383

5.480 *Additional allocation:*in Argentina, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, El Salvador, Ecuador, Guatemala, Honduras, Jamaica, Mexico, Paraguay, the overseas countries and territories within the Kingdom of the Netherlands in Region 2, Peru and Uruguay, the frequency band 10‑10.45 GHz is also allocated to the fixed and mobile services on a primary basis. In Venezuela, the frequency band 10‑10.45 GHz is also allocated to the fixed service on a primary basis.     (WRC‑23)

**Reasons:** As consequence of the identification of the frequency band 10-10.5 GHz for IMT, Colombia, Costa Rica, Dominican Republic and Jamaica support the additional allocation for the fixed and mobile services on a primary basis in the frequency band 10-10.45 GHz.

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5.481 *Additional allocation*:  in Algeria, Germany, Angola, Brazil, China, Colombia, Costa Rica, Côte d’Ivoire, Dominican Republic, Egypt, El Salvador, Ecuador, Spain, Guatemala, Hungary, Jamaica, Japan, Kenya, Morocco, Mexico, Nigeria, Oman, Uzbekistan, Pakistan, Paraguay, Peru, the Dem. People’s Rep. of Korea, Romania, Tunisia and Uruguay, the frequency band 10.45-10.5 GHz is also allocated to the fixed and mobile services on a primary basis.      (WRC‑23)

**Reasons:** As consequence of the identification of the frequency band 10-10.5 GHz for IMT, Colombia, Costa Rica, Dominican Republic, Jamaica and Mexico supports the additional allocation for the fixed and mobile services on a primary basis in the frequency band 10.45-10.5 GHz.

ADD B/CLM/CTR/DOM/EQA/GTM/JMC/MEX/PRG/PRU/URG/190/4

5.A12 In Brazil, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Jamaica, Mexico, Paraguay, Peru and Uruguay, the frequency band 10-10.5 GHz is identified for the implementation of 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 it is allocated and does not establish priority in the Radio Regulations. Resolution**[C12-10 GHz] (WRC‑23)** applies.     (WRC‑23)

**Reasons:** Brazil, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Jamaica, Mexico, Paraguay, Peru and Uruguay support the identification of the frequency band 10-10.5 GHz for IMT under certain conditions, as shown in draft new Resolution **[C12-10 GHz] (WRC‑23)**. The identification of sufficient frequency spectrum for IMT is essential to be able to address digitalization (e.g. sustainable smart cities, industries) and reduce the digital divide in the Americas.

ADD B/CLM/CTR/DOM/EQA/GTM/JMC/MEX/PRG/PRU/URG/190/5#1390

Draft New Resolution [C12-10 GHz] (WRC‑23)

Terrestrial component of International Mobile Telecommunications   
in the frequency band 10-10.5 GHz

The World Radiocommunication Conference (Dubai, 2023),

considering

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

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

*c)* that there is a need to continually take advantage of technological developments in order to increase the efficient use of spectrum and facilitate spectrum access;

*d)* that IMT systems are now being evolved to provide diverse usage scenarios and applications, such as enhanced mobile broadband, massive machine-type communications and ultra-reliable and low-latency communications,

recognizing

*a)* that timely availability of wide and contiguous blocks of spectrum is important to support the development of IMT;

*b)* that the frequency band 10.6-10.68 GHz is allocated on a primary basis to both active and passive services with specific conditions outlined in Resolution **751 (WRC‑07)**, based on the conclusion of studies contained in Report ITU‑R RS.2096, that allow for sharing with the Earth exploration-satellite service (EESS) (passive);

*c)* that the frequency band 10.68-10.7 GHz is globally allocated to passive services, and No. **5.340** applies,

resolves

1that administrations wishing to implement IMT consider the use of the frequency band 10-10.5 GHz identified for IMT in No. **5.A12**, taking into account the latest relevant ITU‑R Recommendations;

2 that administrations shall take practical measures to ensure the transmitting antennas of outdoor base stations are normally pointing below the horizon when deploying IMT base stations within the frequency band 10-10.5 GHz; the mechanical pointing needs to be at or below the horizon;

3 that administrations shall use suppression side lobe techniques providing 29.5 dB of attenuation for angles above 30 degree, referenced to the maximum antenna gain at the boresight;

4 that, for the purposes of protecting the EESS (passive), the unwanted emission level per IMT base station shall not exceed −36.7 dB(W/100 MHz) in the frequency band 10.6-10.7 GHz;

5 that, for the purposes of protecting the EESS (passive), the unwanted emission level per IMT user equipment shall not exceed −34 dB(W/100 MHz) in the frequency band 10.6-10.7 GHz,

invites the ITU Radiocommunication Sector

1 to develop harmonized frequency arrangements to facilitate IMT deployment in the frequency band 10-10.5 GHz, taking into account the results of sharing and compatibility studies conducted in preparation for WRC‑23;

2 to continue providing guidance to ensure that IMT can meet the telecommunication needs of the developing countries;

3 to develop an ITU‑R Report and/or Recommendation on methodologies for calculating coordination zones around radio astronomy stations operating in the frequency band 10.6-10.7 GHz in order to avoid harmful interference from IMT systems operating in the frequency band 10‑10.5 GHz;

4 to update existing ITU-R Recommendations/Reports or develop new ITU-R Recommendations, as appropriate, to provide information and assistance to the concerned administrations on possible coordination of FS stations with IMT stations in the frequency band 10‑10.5 GHz,

instructs the Director of the Radiocommunication Bureau

to bring this Resolution to the attention of relevant international organizations.

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