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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 2 to Document 89(Add.13)-E** |
|  | **7 October 2019** |
|  | **Original: English** |
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| Angola (Republic of)/Botswana (Republic of)/Eswatini (Kingdom of)/Lesotho (Kingdom of)/Madagascar (Republic of)/Malawi/Mauritius (Republic of)/Mozambique (Republic of)/Namibia (Republic of)/Democratic Republic of the Congo/Seychelles (Republic of)/South Africa (Republic of)/Tanzania (United Republic of)/Zambia (Republic of)/Zimbabwe (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)**;

Part 2 – Frequency band 37-43.5 GHz

Introduction

SADC Administrations support the identification of the entire frequency range 37-43.5 GHz (Bands C, D and E) for IMT due to the possibility of global harmonisation and because studies indicated feasibility of sharing with other services operating in the 24.25-27.25 GHz band. In the band 40.5-42.5 GHz, the secondary mobile allocation is upgraded to mobile (except aeronautical mobile) service on a primary basis. Having the entire frequency range 37-43.5 GHz available for IMT, will allow Administrations the flexibility to use this band for IMT or any of the other services to which it is allocated. SADC Administrations do not support Method C3 of the CPM Report (identify the band for IMT in the frequency band 37-40.5 GHz except Region 1 and provide common 2 GHz of spectrum to the fixed-satellite service (FSS) throughout Region 1) as this is outside the scope of the agenda. For the other services, SADC Administrations is of the view that studies indicated sufficient protection margins or sharing could be dealt with on a national basis and therefore no additional conditions are required.

ARTICLE 5

Frequency allocations

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

MOD AGL/BOT/SWZ/LSO/MDG/MWI/MAU/MOZ/NMB/COD/SEY/AFS/TZA/ZMB/ZWE/89A13A2/1#49849

34.2-40 GHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 37-37.5 FIXED  MOBILE except aeronautical mobile ADD 5.CDE113  SPACE RESEARCH (space-to-Earth)  5.547 | | |
| 37.5-38 FIXED  FIXED-SATELLITE (space-to-Earth)  MOBILE except aeronautical mobile ADD 5.CDE113  SPACE RESEARCH (space-to-Earth)  Earth exploration-satellite (space-to-Earth)  5.547 | | |
| 38-39.5 FIXED  FIXED-SATELLITE (space-to-Earth)  MOBILE ADD 5.CDE113  Earth exploration-satellite (space-to-Earth)  5.547 | | |
| 39.5-40 FIXED  FIXED-SATELLITE (space-to-Earth) 5.516B  MOBILE ADD 5.CDE113  MOBILE-SATELLITE (space-to-Earth)  Earth exploration-satellite (space-to-Earth)  5.547 | | |

**Reasons:** SADC Administrations support the identification of the band 37-43.5 GHz for IMT on a global basis through new footnote **5.CDE113**.

ADD AGL/BOT/SWZ/LSO/MDG/MWI/MAU/MOZ/NMB/COD/SEY/AFS/TZA/ZMB/ZWE/89A13A2/2#49852

5.CDE113The frequency band 37-43.5 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. [Resolution **[SADC-B113-IMT 40 GHZ] (WRC‑19)** applies.]     (WRC‑19)

**Reasons:** The new footnote is proposed for the identification of IMT in the frequency band 37-43.5 GHz on a global basis. A new Resolution pertaining to the use of IMT in the 40 GHz band is also proposed.

MOD AGL/BOT/SWZ/LSO/MDG/MWI/MAU/MOZ/NMB/COD/SEY/AFS/TZA/ZMB/ZWE/89A13A2/3

40-47.5 GHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 40-40.5 EARTH EXPLORATION-SATELLITE (Earth-to-space)  FIXED  FIXED-SATELLITE (space-to-Earth) 5.516B  MOBILE ADD 5.CDE113  MOBILE-SATELLITE (space-to-Earth)  SPACE RESEARCH (Earth-to-space)  Earth exploration-satellite (space-to-Earth) | | |
| 40.5-41  FIXED  FIXED-SATELLITE  (space-to-Earth)  MOBILE ADD 5.CDE113  BROADCASTING  BROADCASTING-SATELLITE  5.547 | 40.5-41  FIXED  FIXED-SATELLITE  (space-to-Earth) 5.516B  MOBILE ADD 5.CDE113  BROADCASTING  BROADCASTING-SATELLITE  Mobile-satellite (space-to-Earth)  5.547 | 40.5-41  FIXED  FIXED-SATELLITE  (space-to-Earth)  MOBILE ADD 5.CDE113  BROADCASTING  BROADCASTING-SATELLITE  5.547 |
| 41-42.5 FIXED  FIXED-SATELLITE (space-to-Earth) 5.516B  MOBILE ADD 5.CDE113  BROADCASTING  BROADCASTING-SATELLITE    5.547 5.551F 5.551H 5.551I | | |
| 42.5-43.5 FIXED  FIXED-SATELLITE (Earth-to-space) 5.552  MOBILE except aeronautical mobile ADD 5.CDE113  RADIO ASTRONOMY  5.149 5.547 | | |

**Reasons:** SADC Administrations support the identification of the band 37-43.5 GHz for IMT on a global basis through new footnote **5.CDE113**. SADC Administrations also support the upgrading of mobile to a primary allocation in the band 40.5-42.5 GHz.

ADD AGL/BOT/SWZ/LSO/MDG/MWI/MAU/MOZ/NMB/COD/SEY/AFS/TZA/ZMB/ZWE/89A13A2/4#49927

DRAFT NEW RESOLUTION [SADC-B113-IMT 40 GHZ] (WRC‑19)

International Mobile Telecommunications in frequency band 37-43.5 GHz

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 adequate and timely availability of spectrum and supporting regulatory provisions is essential to realize the objectives in Recommendation ITU‑R M.2083;

*d)* 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;

*e)* 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;

*f)* that ultra-low latency and very high bit-rate applications of IMT will require larger contiguous blocks of spectrum than those available in frequency bands that are currently identified for use by administrations wishing to implement IMT;

*g)* that the properties of higher frequency bands, such as shorter wavelength, would better enable the use of advanced antenna systems including MIMO and beam-forming techniques in supporting enhanced broadband;

*h)* that harmonized worldwide bands for IMT are desirable in order to achieve global roaming and the benefits of economies of scale,

noting

Recommendation ITU‑R M.2083 “IMT Vision –Framework and overall objectives of the future development of IMT for 2020 and beyond”,

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)* the identification of high-density applications in the fixed-satellite service in the space-to-Earth direction in the bands 39.5-40 GHz in Region 1, 40-40.5 GHz in all Regions and 40.5-42 GHz in Region 2 (see No. **5.516B**);

*c)* that Resolution **752 (WRC‑07)** established a power limit of −10 dBW for stations in the mobile service in the 36-37 GHz band in order to facilitate sharing between active and passive services in this band;

*d)* that the relevant standards organizations have standardized an unwanted emission level of −13 dBm/MHz from IMT stations operating in the 37-40 GHz band, which is below the limit in *recognizing c)*;

*e)* that for the purpose of protecting the radio astronomy service in the frequency band 42.5-43.5 GHz, No. **5.149** applies,

resolves

that administrations wishing to implement IMT consider the use of the frequency band 37-43.5 GHz identified for IMT in No. **5.CDE113** and the benefits of harmonized utilization of the spectrum for the terrestrial component of IMT taking into account the latest relevant ITU‑R Recommendation,

invites ITU‑R

1 to develop harmonized frequency arrangements to facilitate IMT deployment in the frequency band 37-43.5 GHz;

2 to continue providing guidance to ensure that IMT can meet the telecommunication needs of the developing countries and rural areas in the context of the studies referred to above;

3 to develop generic unwanted emission characteristics for mobile and base stations of the terrestrial radio interfaces of IMT-2020.

**Reasons:** SADC Administrations propose a new Resolution pertaining to the use of IMT in the frequency band 37-43.5 GHz band.

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