World Radiocommunication Conference (WRC-23)
Dubai, 20 November - 15 December 2023

PLENARY MEETING

Addendum 1 to
Document 6042-E
3 October 2023
Original: English

African Common Proposals

PROPOSALS FOR THE WORK OF THE CONFERENCE

Agenda item 1.1

1.1 to consider, based on the results of ITU-R studies, possible measures to address, in the frequency band 4 800-4 990 MHz, protection of stations of the aeronautical and maritime mobile services located in international airspace and waters from other stations located within national territories, and to review the power flux-density criteria in No. **5.441B** in accordance with Resolution **223 (Rev.WRC-19)**;

Introduction

This agenda item aims at determining whether or not there is a need to update the technical and regulatory conditions for the protection of stations of the aeronautical mobile service (AMS) and the maritime mobile service (MMS) located in international airspace or waters (i.e. outside national territories) and operated in the frequency band 4 800-4 990 MHz against the IMT stations operating in the same band.

Given that there is already a 3GPP band specification (3GPP band n79) for the frequency band 4 800-4 990MHz along with a developing technology ecosystem, there is significant potential for this band to become one of the prominent IMT supported bands. This realization would deliver desired economies of scale that would immensely benefit developing countries. This band therefore offers African Administrations the opportunity to support its mid-band IMT spectrum needs as a complementary band to the C Band for the deployment of IMT-2020. The key enablers for the realization of the desired technology ecosystem is the relaxation of the existing pfd limit to appropriate levels along with an expansion of support by further administrations identifying the band for IMT.

Based on the results of the ITU-R studies, ATU Member States are of the view that no additional measures for protection of AMS/MMS in international airspace and waters is required and bi- or multilateral agreements between the concerned administrations can provide an efficient mechanism of AMS/MMS protection in international airspace and waters in the frequency band 4 800-4 990 MHz in geographical areas where it is necessary. However, RR No. **9.21** would continue to

apply, providing a mechanism for protection of AMS operations from IMT in areas up to 450 km around respective ground stations located in countries which authorized the use of AMS applications in question. This method corresponds to the existing regulatory practice implemented in the RR in other IMT frequency bands and is considered to be sufficient.

Also, the protection of AMS/MMS stations is limited to the areas of national territories of countries using these stations. The use of AMS/MMS stations outside of national territories shall not claim protection from mobile and other services deployed within national territories.

Proposal

The African common proposal is the removal of the deletion of existing pfd limit in RR No. **5.441B** imposed on IMT stations for the protection of AMS/MMS stations in international airspace/waters. Consequential modifications are therefore proposed to Resolution **223 (Rev.WRC-19)** and RR No. **5.441B**, as attached.

Also, administrations wishing to add their names in the footnote No. **5.441B** should be allow so in accordance with the procedure as laid down in Resolution **26 (Rev. WRC-19)**, in order to achieve global/regional harmonization of the frequency band 4 800-4 990 MHz for the implementation of IMT.

ARTICLE 5

Frequency allocations

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

MOD AFCP/6042A1/1

4 800-5 250 MHz

Allocation to services		
Region 1	**Region 2**	**Region 3**
4 800-4 990	FIXED MOBILE 5.440A 5.441A MOD 5.441B 5.442 Radio astronomy 5.149 5.339 5.443	

Reasons: To reflect the modification proposed on footnote No. **5.441**.

MOD AFCP/6042A1/2

5.441B In Angola, Armenia, Azerbaijan, Benin, Botswana, Brazil, Burkina Faso, Burundi, Cambodia, Cameroon, China, Côte d'Ivoire, Djibouti, Eswatini, Russian Federation, Gambia, Guinea, Iran (Islamic Republic of), Kazakhstan, Kenya, Lao P.D.R., Lesotho, Liberia, Malawi, Mauritius, Mongolia, Mozambique, Nigeria, Uganda, Uzbekistan, the Dem. Rep. of the Congo, Kyrgyzstan, the Dem. People's Rep. of Korea, Sudan, South Africa, Tanzania, Togo, Viet Nam, Zambia and Zimbabwe, the frequency band 4 800-4 990 MHz, or portions thereof, is identified for use by administrations wishing to implement 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. The use of IMT stations is subject to agreement obtained under No. **9.21** with concerned administrations, and IMT stations shall not claim protection from stations of the aeronautical ~~other applications of the~~ mobile service. ~~In addition, before an administration brings into use an IMT station in the mobile service, it shall ensure that the power flux-density (pfd) produced by this station does not exceed −155 dB(W/(m^2 · 1 MHz)) produced up to 19 km above sea level at 20 km from the coast, defined as the low-water mark, as officially recognized by the coastal State. This pfd criterion is subject to review at WRC-23.~~ Resolution **223 (Rev.WRC-~~19~~23)** applies. ~~This identification shall be effective after WRC-19.~~ (WRC-~~19~~23)

Reasons: The pfd limit as set out under footnote No. **5.441B** is not necessary to protect AMS and MMS operating in international spaces and that co-ordination under Article No. **9.21** along with multi-lateral agreements between concerned administrations would suffice.

MOD AFCP/6042A1/3

RESOLUTION 223 (REV.WRC-~~19~~23)

Additional frequency bands identified for International Mobile Telecommunications

The World Radiocommunication Conference (~~Sharm el Sheikh, 2019~~Dubai, 2023),

…

recognizing

a) that for some administrations the only way of implementing IMT would be spectrum refarming, requiring significant financial investment~~,~~;

b) that the rights to international recognition and protection of any frequency assignments are derived from the recording of those frequency assignments in the Master International Frequency Register and conditioned by the provisions of the Radio Regulations,

resolves

1 to invite administrations planning to implement IMT to make available, based on user demand and other national considerations, additional frequency bands or portions of the frequency bands above 1 GHz identified in Nos. **5.341B**, **5.384A**, **5.429B**, **5.429D**, **5.429F**, **5.441A** and **5.441B** for the terrestrial component of IMT; due consideration should be given to the benefits of harmonized utilization of the spectrum for the terrestrial component of IMT, taking into account the services to which the frequency band is currently allocated;

2 to acknowledge that the differences in the texts of Nos. **5.341B**, **5.384A** and **5.388** do not confer differences in regulatory status;

3 that in the frequency bands 4 800-4 825 MHz and 4 835-4 950 MHz, in order to identify potentially affected administrations when applying the procedure for seeking agreement under No. **9.21** by IMT stations in relation to aircraft stations, a coordination distance from an IMT station to the border of another country equal to 300 km (for land path)/450 km (for sea path) applies;

4 that in the frequency band 4 800-4 990 MHz, in order to identify potentially affected administrations when applying the procedure for seeking agreement under No. **9.21** by IMT stations in relation to fixed-service stations or other ground-based stations of the mobile service, a coordination distance from an IMT station to the border of another country equal to 70 km applies~~;~~,

~~5 that the power flux-density (pfd) limits in No. **5.441B**, which is subject to review at WRC-23, shall not apply to the following countries: Armenia, Brazil, Cambodia, China, Russian Federation, Kazakhstan, Lao P.D.R., Uzbekistan, South Africa, Viet Nam and Zimbabwe,~~

invites the ITU Radiocommunication Sector

1 to conduct compatibility studies in order to provide technical measures to ensure coexistence between the MSS in the frequency band 1 518-1 525 MHz and IMT in the frequency band 1 492-1 518 MHz, including guidance on the implementation of frequency arrangements for IMT deployment in the frequency band 1 427-1 518 MHz, taking into account the results of these studies;

2 to study the technical and regulatory ~~conditions~~measures for ~~the protection of~~facilitating sharing between terrestrial IMT stations of coastal States and stations of the AMS and the maritime

mobile service (MMS) located ~~in international airspace or waters (i.e.~~ outside the national territories of any country~~)~~ and operated in the frequency band 4 800-4 990 MHz, including measures based on frequency planning, and, on the basis of these studies, to develop ITU-R Recommendations and/or Reports, as appropriate, to assist administrations willing to implement such measures;

3 to continue providing guidance to ensure that IMT can meet the telecommunication needs of developing countries and rural areas;

4 to include the results of the studies mentioned in *invites the ITU Radiocommunication Sector* above in one or more ITU-R Recommendations and Reports, as appropriate~~;~~.

~~*invites the 2023 World Radiocommunication Conference*~~

~~to consider, based on the results of the studies referred to in *invites the ITU Radiocommunication Sector* above, possible measures to address, in the frequency band 4 800-4 990 MHz, protection of stations of the AMS and MMS located in international airspace and waters from other stations located within national territories and to review the pfd criteria in No. **5.441B**.~~

Reasons: The amendment to this resolution is reflecting the removal of the existing pfd limits applicable to IMT.