

# 1<sup>st</sup> ITU Inter-regional Workshop on WRC-23 preparation

13 – 15 December 2021

[www.itu.int/go/ITU-R/wrc-23-inwsp-21](http://www.itu.int/go/ITU-R/wrc-23-inwsp-21)

#ITUWRC

**Session 1 - Terrestrial issues**  
**WRC-23 agenda item**  
**1.1**

***Mr. Stephen M. BLUST***  
***(Chairman, WP 5D)***

With acknowledgement of Mr. Michael Kraemer's  
assistance in preparation of this material.



# WRC-23 agenda item 1.1 scope

to consider, based on the results of the 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 pfd criteria in No. **5.441B** in accordance with Resolution **223 (Rev.WRC-19)**

resolves 1 <not relevant to the AI 1.1 studies>

resolves 2 <not relevant to the AI 1.1 studies>

resolves 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;

resolves 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;



# WRC-23 agenda item 1.1 scope (continued)

## resolves 5

that the power flux-density (pfd) limits in No. **5.441B**, which is subject to review at WRC23, 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 ITU-R 2

to study the technical and regulatory conditions for the protection of stations of the 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

## 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 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<sup>2</sup> · 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)** applies. This identification shall be effective after WRC-19.



# WRC-23 agenda item 1.1 current work status

**Administrative Circular CA/251:** WP 5B and WP 5D to work jointly (WP 5B to provide characteristics and protection criteria for the aeronautical and maritime mobile services. WP 5D initiates studies with characteristics of IMT. Studies must take into account comments from both Working Parties (*invites the ITU-R 2*). WP 5D in consultation with WP 5B develops reports/recommendations, as appropriate, which are approved by SG 5 in accordance with Resolution ITU-R 1-8 (*invites the ITU-R 4*). WP 5B and WP 5D develop relevant parts, as appropriate, of the draft CPM text. WP 5D finalizes draft CPM text taking into consideration comments by WP 5B (*for invites WRC-23*)).

## **Work in WP5B led by:**

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## **Work in WP5D led by:**

Mr Baxton SIREWU ([sirewu@potraz.gov.zw](mailto:sirewu@potraz.gov.zw))

- **WP5B:** Working document towards a Preliminary Draft Revision to Recommendation ITU-R M.2116 “Technical characteristics and protection criteria for the systems operating in the aeronautical mobile service and maritime mobile service within the 4 400-4 990 MHz frequency range” (see [5B/TEMP/197](#))
- **WP5D:** Working document towards a preliminary draft new Report ITU-R M.[CONDITIONS 1.1] - Working document related to WRC-23 agenda item 1.1 - Technical and regulatory conditions for the protection of stations of the Aeronautical Mobile Service (AMS) and Maritime Mobile Service (MMS) located in international airspace or waters (i.e. outside national territories) and operating in the frequency band 4 800-4 990 MHz (see [5D/886 Annex 4.9](#))
- **WP5D:** Working document towards draft CPM Text on WRC-23 agenda item 1.2 (see [5D/886 Annex 4.10](#))

## **Some key topics of ongoing work towards the 2022 meetings of WP5B and WP5D:**

- Characteristics and protection criteria for AMS/MSS (Revision of Rec. M.2116) still to be finalized in WP5B
- Methodology to derive a pfd limit per station to be agreed and draft CPM text to be progressed in WP5D



# Views of the Regional Groups & Stakeholders on WRC-23 agenda item 1.1

- APT
- ASMG
- ATU
- CEPT
- CITEL
- RCC
  
- Other views and additional comments

# Next steps ...

7-23 February 2022	WP5D #40 meeting to continue work on technical and regulatory studies and draft CPM text
28 March – 8 April 2022	Extraordinary WP5B meeting on WRC-23 preparatory work (9 working days within these two weeks)
19-22 April 2022	Interim meeting of WG Spectrum Aspects & WRC-23 Preparations to progress complex and urgent work on the following topics: <b>WRC-23 agenda items 1.1 and 1.2, and RR No. 21.5</b>
13-24 June 2022	WP5D #41 meeting to continue work on technical and regulatory studies and draft CPM text
11-22 July	WP5B #28 meeting
10-21 October 2022	WP5D #42 meeting to finalize work on technical and regulatory studies and draft CPM text
21 October 2022	CPM text deadline
27 March – 6 April 2023	CPM23-2 meeting (currently planned dates)
20 Nov. – 15. Dec. 2023	WRC-23

Depending on progress of work at WP 5D meetings #40 and #41, the possibility of correspondence group work between WP5D meetings #40, #41 and #42 needs to be considered