

ITUEvents

3rd ITU Inter-regional Workshop on WRC-23 Preparation

**27 - 29 September 2023
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#ITUWRC**

**Regional positions on
WRC-23 agenda item 1.1**

**Session 2 – IMT issues –
WRC-23 agenda item 1.1**

MODERATOR: BAXTON SIREWU



WRC-23 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)**;

RESOLUTION 223 (REV.WRC-19)

Additional frequency bands identified for International Mobile Telecommunications

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

...

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;

...

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,

RESOLUTION 223 (REV.WRC-19)

Additional frequency bands identified for International Mobile Telecommunications

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

...

invites the ITU Radiocommunication Sector

...

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;

...

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**.

ASMG



ASMG Preliminary positions WRC 23

WG-1

1.1) Protection of stations of the aeronautical and maritime mobile services and review the pfd criteria in the frequency band 4 800-4 990 MHz

- Arab Common Proposal (ACP) to support Method A (No change to Radio Regulations) in the frequency band 4 800-4 990 MHz for protection of the aeronautical mobile and maritime mobile services located in international airspace and waters from IMT stations

ATU



AFRICAN TELECOMMUNICATIONS UNION
L'UNION AFRICAINE DES TÉLÉCOMMUNICATIONS

Agenda Item (AI)	APM23-4 Outcomes (AfCPs)
<p>AI 1.1</p> <p><i>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 p.f.d. criteria in footnote No. 5.441B in accordance with Resolution 223 (Rev.WRC-19).</i></p>	<p>APM23-4 agreed to:</p> <p><u>Part 1: Common position:</u></p> <p>Support Method F which entails application of RR No. 9.21 and optionally bilateral/multilateral coordination agreements with coastal States for the protection of AMS/MMS stations in international airspace and international waters.</p> <p><u>Part 2: Way forward</u></p> <p>Request ATU administrations to:</p> <ol style="list-style-type: none">1. Support the AfCP under this agenda item.2. Consider adding their names in the footnote 5.441B, for those Administrations not in the footnote, 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 4800-4990 MHz for the implementation of IMT.

CEPT



CEPT position

CEPT is of the view that,

- AMS and MMS stations located in international airspace or waters and operated in the band 4800 -4990 MHz shall be protected on the basis of the following pfd limits provided in RR No. **5.441B** and derived from detailed AMS and MMS characteristics and protection criteria:
 - In the frequency bands 4800-4825 MHz and 4835-4950 MHz, $-140 \text{ dB(W/(m}^2 \cdot 1 \text{ MHz))}$ produced up to 19 km above sea level at 22 km from the coast, defined as the low-water mark, as officially recognized by the coastal State.
 - In the band 4800-4990 MHz, $-134 \text{ dB(W/(m}^2 \cdot 1 \text{ MHz))}$ produced up to 30 m above sea level at 22 km from the coast, defined as the low-water mark, as officially recognized by the coastal State.
- These pfd criteria shall apply to IMT operating in national territories in order to protect AMS and MMS stations located in international airspace or waters and operating in the band 4800-4990 MHz, i.e. beyond the territorial seas.
- The above new pfd criteria shall apply to all countries listed in RR No. **5.441B** ensuring consistency in the application of the limits.

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1.1 - IMT 4.9 GHz

Unlock and harmonize 190 MHz spectrum for IMT development

The RCC Administrations **oppose applying the PFD limits** to protect stations of the aeronautical and maritime mobile services located in international airspace and waters (i.e., outside national territories) since:

- this imposes restrictions on services within national territories;
- administrations do not hold exclusive spectrum rights in international airspace and waters and there is no notification and registration procedure in international airspace and waters for AMS and MMS in this band;
- AMS and MMS stations do not have priority over other applications of terrestrial services in international airspace and waters or within national territories of countries.

Protection of AMS and MMS stations' frequency assignments in international airspace and waters **can be provided if agreed by concerned administration(s)** since it can impose restrictions on their frequency assignments within national territories. Such agreement may be reached, for example, through developing the relevant harmonized spectrum utilization plans for AMS and MMS, based on the standards approved by ICAO and IMO.

RCC Common Proposal: Method F from CPM Report with some modification.



Preliminary APT Common Proposals on WRC-23 Agenda Items: **AI 1.1**

- **Preliminary APT Common Proposal (PACP):**

- None

- **Discussion in APT:**

- A detailed specific PACP was not developed at the last meeting of APG in August 2023.
- APT Members would consider potential consensus on the matter with a view to find a satisfactory solution mutually agreed by concerned Administrations, taking into account appropriate Method(s) and associated limit(s) contained in the CPM Report, which
 - Ensures the continued operation of AMS and MMS stations in the frequency band 4 800 – 4 990 MHz; and
 - Facilitates the use of the IMT in the frequency band 4 800 – 4 990 MHz.

CITEL



Summary Table from the Moderator

REGIONAL ORGANISATION	POSITOIN
ASMG	Method A – No Change – retain the current pfd limit in No 5.441B
ATU	Method F – delete the pfd limit from No 5.441B , No 9.21 applies, bi- or multilateral agreements
CEPT	Method D – relaxed pfd limits for AMS / MMS in No 5.441B which shall apply to all countries in No. 5.441B
RCC	Method F (with some mod.) – delete the pfd limit from No 5.441B , No 9.21 applies, bi- or multilateral agreements
APT	None
CITEL	None