

ITUEvents

1st ITU Inter-regional Workshop on WRC-23 preparation

13 - 15 December 2021

www.itu.int/go/ITU-R/wrc-23-irwsp-21

#ITUWRC

**ITU Preparations for
CPM23-2, RA-23 and WRC-23**

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Main Steps towards WRC-23

WRC-19: WRC-23 agenda - [Resolution 811 \(WRC-19\)](#)

CPM23-1

25-26 Nov. 2019; **Results @CA/251**

Meetings of ITU-R SGs, WPs / TG responsible/contributing on AIs

CPM23-2 ([27 Mar-6 Apr 2023]*)**

(for final CPM Report to be available 5 months prior to WRC-23)

*** **Dates of CIGG availability; possibility to postpone to first-half of May 2023 conditioned to the availability of an alternative venue**

**Final regional group meetings & national preparations
Member States' (common) proposals to WRC-23**

RA-23 (UAE, 13-17 Nov. 2023); WRC-23 (UAE, 20 Nov.-15 Dec. 2023)

National and regional preparations

**Council: - Res.1399 on WRC-23 agenda *
- Dec. 623 on Dates & venue ****

* see Council-20
Doc. [C20/69](#)

** see Council-21
Doc. [C21/96](#)
([DM-21/1017 Annex 4](#),
results on SG [CL/37](#)
in SG [CL/49](#))



Conference Preparatory Meeting for WRC-23 (CPM-23)

In accordance with Resolution ITU-R 2-8, the CPM shall prepare a consolidated Report on the ITU-R preparatory studies and possible solutions to the WRC agenda items, to be used in support of the work of World Radiocommunication Conferences. [More >](#)



www.itu.int/ITU-R/go/rcpm

Meetings and Events	Related activities	Highlights
References	Related ITU-R Texts	Circulars

- Constitution and Convention
- Final Acts of PP-18

- Radio Regulations
- Rules of Procedure
- Final Acts WRC-19
- Minutes of the WRC-19 Plenaries
- WRC-19 decisions

- W(A)RC Resolutions
- W(A)RC Recommendations

Contacts

- CPM Chairman and Vice-Chairmen
- CPM-23 Chapter Rapporteurs
- Counsellor for CPM
- Contact email: rcpm@itu.int

WRC-19 Outcomes (incl. RR Edition 2020)

Categorization
(linked to WRC (P)Als; calling for ITU-R studies; addressed to BR; etc.)

Work of the ITU-R responsible groups

Link to Inter-regional Workshops

Link to pre-CPI for WRC-23

Results of CPM23-1 and additional information

- ITU-R Preparatory Studies for WRC-23 (updated 9 December 2021)
- ITU Inter-regional Workshops on WRC-23 Preparation
- Regional preparation for WRC-2
- Proposed detailed structure of the Draft CPM Report to WRC-23 (updated 2 February 2021) **TIES**
- Preparation of the draft CPM Report to WRC-23 - (CA/251 Addendum 1)
- WRC-23 Conference Proposal Interface (CPI) (preliminary version of CPI to retrieve formatted texts from RR-2020, see the [CPI User Guide](#))

First Session FOR WRC-23: CPM23-1

CPM23-1 DOCUMENTS

- Monday 2019-11-25 - Tuesday 2019-11-26
- Place : **Egypt**,
- Status : **Confirmed**
- Invitation - (CA/251)
- List of Registered Participants
- Registration
- Information for Participants

- Result of CPM23-1 - (CA/251)
- Contributions "as received" **TIES**
- Contributions* **TIES** - Template **W**
- Administrative Documents (ADM) **TIES**
- Information Documents (INFO) **TIES**
- Temporary Documents (DT) **TIES**
- Informal documents on Sharepoint **TIES**



Overview of the ITU-R Calendar towards WRC-23 (as of Dec. 2021)

Year	January – March		April – June		July – September		October – December			
2019		CPM19-2	Last meetings of the Responsible Groups			WS on WRC-19		RA-19	WRC-19	CPM23-1
2020	WP 5D (1 st)		WPs 7B & 7C (1 st) WP 4C+WP 4A (1 st)		WPs 5A, 5B & 5C (1 st) WPs 7B & 7C (2 nd)		WP 5D (3 rd) TG 6/1 (1 st) WP 4C+WP 4A (2 nd) WPs 5A, 5B & 5C (2 nd) WP 5D (4 th)			
				WP 5D (2 nd)			CPM-23 Steering		WRS-20	
2021	WP 4C+WP 4A (3 rd) WP 5D (5 th)		WPs 7B & 7C (3 rd) WPs 5A, 5B & 5C (3 rd) WP 5D (6 th)		TG 6/1 (2 nd) WP 4C+WP 4A (4 th) WPs 7B & 7C (4 th)		WP 5D (7 th) WP 4C+WP 4A (5 th) TG 6/1 (3 rd) WPs 5A & 5C (4 th) WP 5B (4 th) 1 st WS on WRC-23			
2022	WP 5D (8 th) TG 6/1 (4 th) [WP 5B (5 th)]		[WPs 7B & 7C (5 th)] [WP 4C+WP 4A (6 th)] [WPs 5A & 5C (5 th)] [WP 5D (9 th)]		[WP 5B (6 th)] [TG 6/1 (5 th)] [WP 4C+WP 4A (7 th)] [WPs 7B & 7C (6 th)] [WP 5D (10 th)]			[CPM-23 Manag ^{nt} Team]	[2 nd WS on WRC-23]	
			[5D-WG Spectrum]							
2023	[Meetings of the Responsible Groups]		[CPM23-2]	[Last meetings of the Responsible Groups]			[3 rd WS on WRC-23]	RA-23	WRC-23	

See also SG [CL/47](#) of 14 October 2021, on call for hosting physical ITU meetings during the construction period of the new ITU headquarters (2023-2026)

[...] = planned meetings

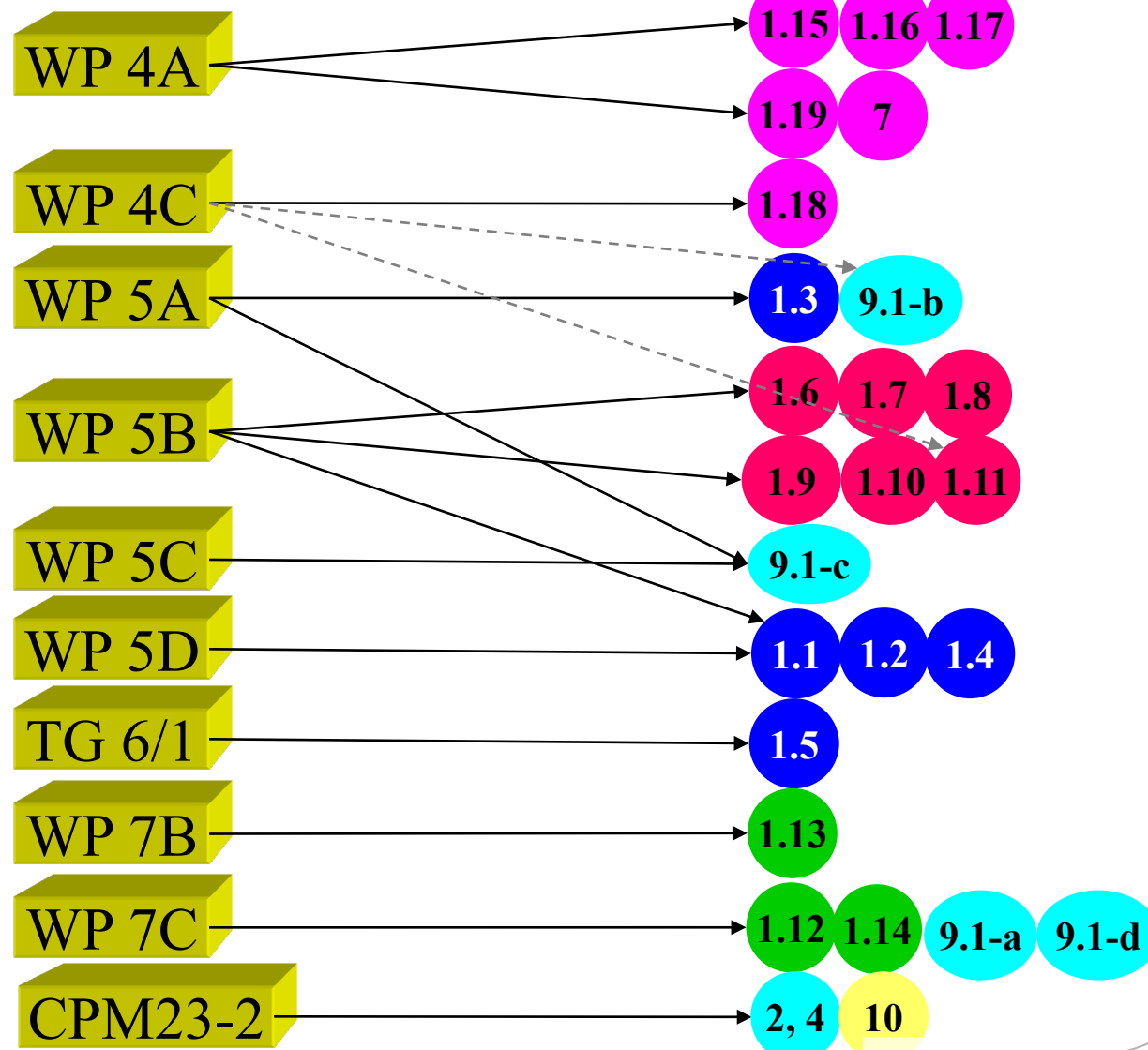
WS on WRC-23 = ITU Inter-regional Workshop on WRC-23 Preparation



Summary of CPM Report Preparation

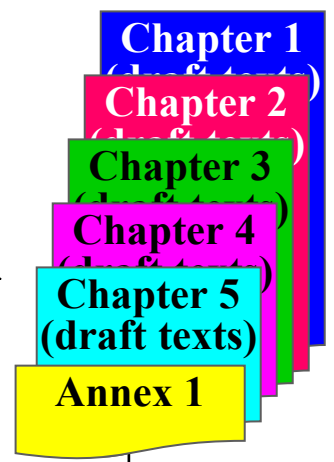
Responsible ITU-R Groups

WRC-23 agenda items (AI), incl. topics under AI 9.1



Dates/Deadlines

To CPM-23 Chapter Rapporteurs **prior to 21 October 2022***



CPM Management Team Meeting

[2-3 Nov. 2022]*

Draft CPM Report

2 months prior to CPM23-2

CPM23-2

[27 Mar – 6 Apr 2023]**

CPM Report to WRC-23

5 months prior to WRC-23

* May be postponed based on CPM23-2 dates

** Dates of CICG availability; possibility to postpone to first-half of May 2023 conditioned to the availability of an alternative venue

Up-to-date information on next meetings

at: www.itu.int/en/events/Pages/Calendar-Events.aspx?sector=ITU-R



Additional slides in this presentation

- **WRC main principles, objectives, benefits, process and cycle**
- **WRC-23 agenda items and WRC-27 preliminary agenda items**
- **Results of the first session of CPM-23 (CPM23-1)**
 - **Chairmanship and Steering Committee**
 - **Structure of draft CPM Report and of the draft CPM texts**
 - **List ITU-R Groups responsible for the items & topics on WRC-23 agenda and WRC-27 preliminary agenda**
- **Preparation of the draft CPM Report to WRC-23**
 - **Activities of the ITU-R responsible groups; dates of next meetings**
- **Overview of the CPM Management Team meeting and of the Second Session of CPM-23 (CPM23-2)**
- **Other texts assigned to the ITU-R Study Groups and sub-groups**
- **Conclusions from 28th RAG meeting and BR Tools on RR**
 - **RAG CGs; RR Nav. Tool; RR Art.5 Viewer; CPI for WRC-23**
- **Radio services abbreviations**

Information on the regional preparation for WRC-23

➤ www.itu.int/go/wrc-23-regional

Asia-Pacific Telecommunity (APT)



- ▶ <http://www.apg23.org>
- ▶ Chairman, APG-23:
Dr. Kyu-Jin Wee (Rep. of Korea),
kjwee56@hotmail.com
aptapg@apt.int
- ▶ APT Preliminary Views on WRC-23 agenda items (as a result of APG23-3)

African Telecommunications Union (ATU)



- ▶ <http://www.atuuat.africa>
- ▶ Secretary General – African Telecommunications Union:
Mr. John OMO
sg@atuuat.africa

Inter-American Telecommunication Commission (CITEL)



CITEL

- ▶ <http://www.citel.oas.org/en/Pages/PCCII>
- ▶ Chairman of the PCC.II Working Group for the Preparation of CITEL for Regional and World Radiocommunication Conferences:
Mr. Victor Martinez, Mexico,
victor.martinezv@ift.org.mx

Arab Spectrum Management Group (ASMG)



- ▶ Chairman, ASMG:
Mr. Tariq AL AWADHI, UAE,
tariq.alawadhi@tra.gov.ae
- ▶ Status of ASMG Preparation for WRC-23 (October 2021)

Meetings

European Conference of Postal and Telecommunications Administrations (CEPT)



- ▶ <http://www.cept.org/ecc/groups/ecc/cpg>
- ▶ Chairman, CPG:
Mr. Alexandre Kholod, Switzerland,
alexandre.kholod@bakom.admin.ch
- ▶ Status of CEPT Preparation for WRC-23 / RA-23 (November 2021)

Regional Commonwealth in the Field of Communications (RCC)



- ▶ <http://en.rcc.org.ru>
- ▶ Chairman, RCC WG WRC-23/RA-23:
Mr. Albert Nalbandian, Armenia,
abo441@mail.ru
- ▶ Preliminary position of the RCC Administrations on the WRC-23 agenda items (version of 16 April 2021)

Informal Group Chairman: Mr. K. Arasteh (Secretary: Mr. Ph. Aubineau)

ITU Inter-Regional Workshops on WRC-23 Preparation

➤ [Resolution 72 \(Rev. WRC-19\)](#) www.itu.int/go/ITU-R/wrc-23-irwsp

1st IRW

13-15

Dec.

2021

- To be scheduled halfway through the preparatory cycle
 - ⇒ Presentation and review of the on-going preparatory studies of the ITU-R responsible groups for CPM-23
 - ⇒ Presentation of the organization, preliminary views, draft priorities and positions of the regional groups



[ITU BR CA/258](#)

2nd IRW

[30 Nov.

2 Dec.

2022]*

- To be scheduled few months prior to CPM23-2
 - ⇒ Presentation of the draft CPM Report to WRC-23 (explanation of the draft Methods to satisfy WRC-23 agenda items)
 - ⇒ Presentation and review of the regional groups' draft views, positions and common proposals

3rd IRW

[in Q3/Q4

of 2023]

- To be scheduled few months prior to WRC-23
 - ⇒ Presentation of the CPM & Dir. Reports to WRC-23
 - ⇒ Presentation and review of the regional groups' draft views, positions and common proposals

* May be postponed based on CPM23-2 dates

[...]: planned dates/period

1st ITU Inter-regional Workshop on WRC-23 Preparation

www.itu.int/go/ITU-R/wrc-23-irwsp-21

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SHARE

The ITU Radiocommunication Bureau organizes the 1st ITU Inter-regional Workshop on WRC-23 Preparation as an **online event on 13 to 15 December 2021, from 1200 to 1600/1630 Geneva time** (see [Programme](#)).

Using information from the ITU-R responsible groups on the ongoing preparatory studies for WRC-23, as well as on up-to-date information regarding the Bureau and regional preparations for CPM23-2, RA-23 and WRC-23, round tables provide participants with the opportunity to exchange views and have a better understanding of the most challenging WRC-23 agenda items and topics, as well as of the draft preliminary common views and/or positions of the concerned entities.



The World Radiocommunication Conference 2023 (WRC-23) agenda and relevant WRC Resolutions can be found at: itu.int/go/rcpm-wrc-23-studies.

- ▶ [Regional preparation for WRC-23](#)
- ▶ [Conference Preparatory Meeting \(CPM\)](#)
- ▶ [ITU-R Preparatory Studies for WRC-23](#)

[Invitation Information](#) [Programme - Documents](#) [Contact - Posters](#)

- ▶ [Programme](#)
- ▶ [Input Documents](#) - Templates
- ▶ [Information Documents \(INFO\)](#)
- ▶ [Webcast](#)
- ▶ [Captioning](#)

Registration and Information

- ▶ [Meeting sessions - Remote Services \(Zoom\)](#)
- ▶ [Registration and Practical Information](#)
- ▶ [On-line Registration](#)
- ▶ [List of Registered Participants](#)

ITUEvents

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13 – 15 December 2021

www.itu.int/go/ITU-R/wrc-23-inwsp-21

#ITUWRC



Programme outline – Day 1

12:00 hours* – Opening Session

13:00 hours* – Session 1 – Terrestrial issues

Roundtable on WRC-23 agenda items
1.2 & 1.4

Roundtable on WRC-23 agenda items
1.3 & 9.1 topics c) & b)

15:00 hours* – Session 2 –
Terrestrial issues (Cont'd)

Roundtable on WRC-23 agenda item **1.1**

Roundtable on WRC-23 agenda item **1.5**

* Geneva time

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#ITUWRC



Programme outline – Day 2

12:00 and 13:30 hours* – Session 3 – Aeronautical and Maritime issues

Roundtable on WRC-23 agenda items
1.6, 1.7, 1.8, 1.9, 1.10

Roundtable on WRC-23 agenda item
1.11

15:00 hours* – Session 4 – Science issues

Roundtable on WRC-23 agenda item
1.13

Roundtable on WRC-23 agenda items
1.12, 1.14 & 9.1 topics a) & d)

16:00 hours* – Session on NOW4WRC23

*** Geneva time**

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#ITUWRC



Programme outline – Day 3

12:00 hours* – Session 5 – Satellite issues

Roundtable on WRC-23 agenda item
1.18

Roundtable on WRC-23 agenda items
1.15, 1.16, 1.17 & 1.19

13:45 hours* – Session 6 – Satellite regulatory issues

Roundtable on WRC-23 agenda item **7**

15:30 hours* – Concluding, outlook, closing

*** Geneva time**



Thank you for your attention

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ITU-R Study Groups: www.itu.int/ITU-R/go/rsg

Email: brsgd@itu.int

Conference Preparatory Meeting (CPM) for WRC-23:

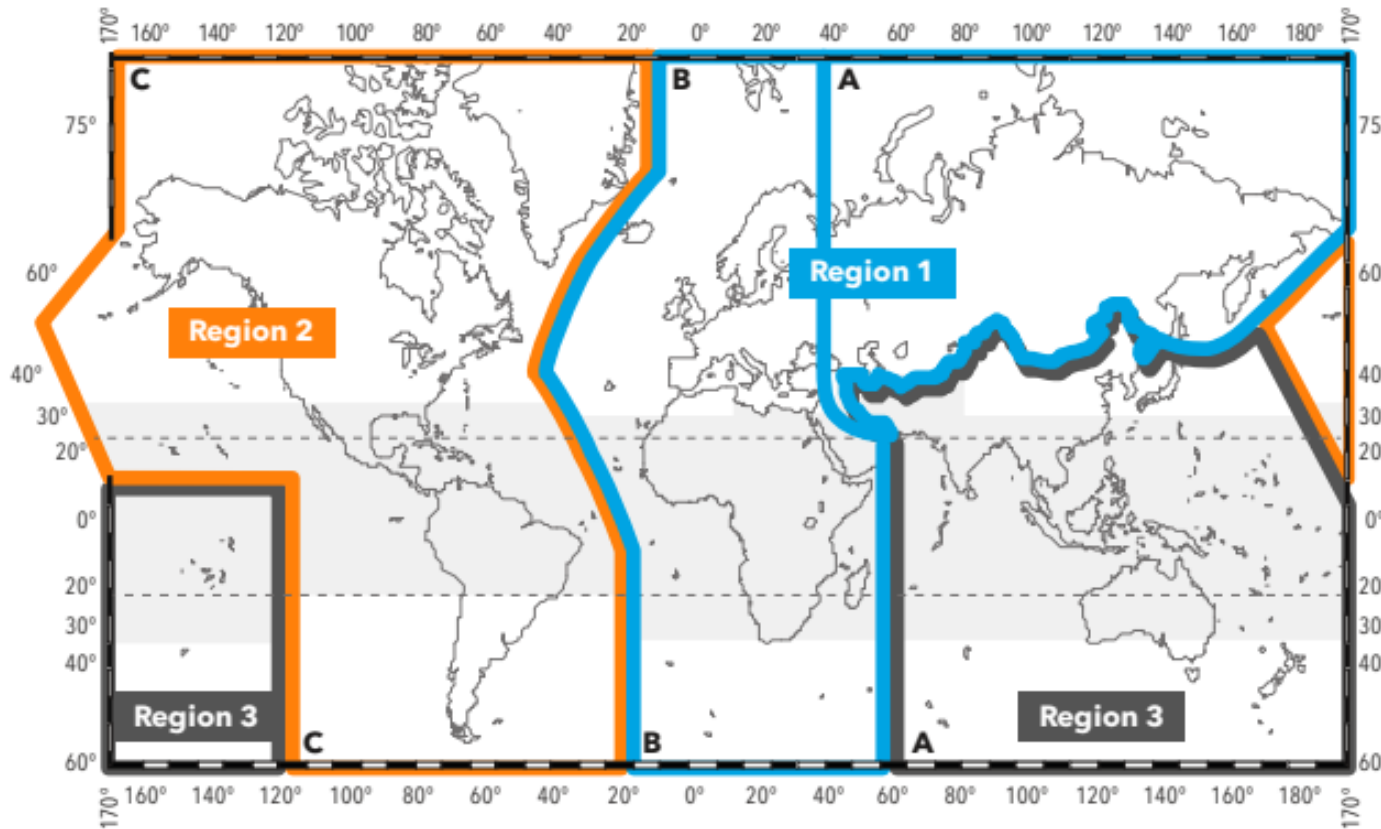
www.itu.int/ITU-R/go/rcpm

World Radiocommunication Conferences (WRCs)

- **Updated the Radio Regulations, the international treaty on the use of radio spectrum and satellite orbits**
- **Brought together all stakeholders in a process that is aimed at building consensus**
- **Provided a stable and predictable regulatory environment needed for future investments**
- **Enabled new radiocommunication systems and applications to access the radio spectrum**
- **Protected the operation of existing radiocommunication services**
- **Ensured the rational, equitable, efficient and economical use of the radio-frequency spectrum and satellite-orbit resources**



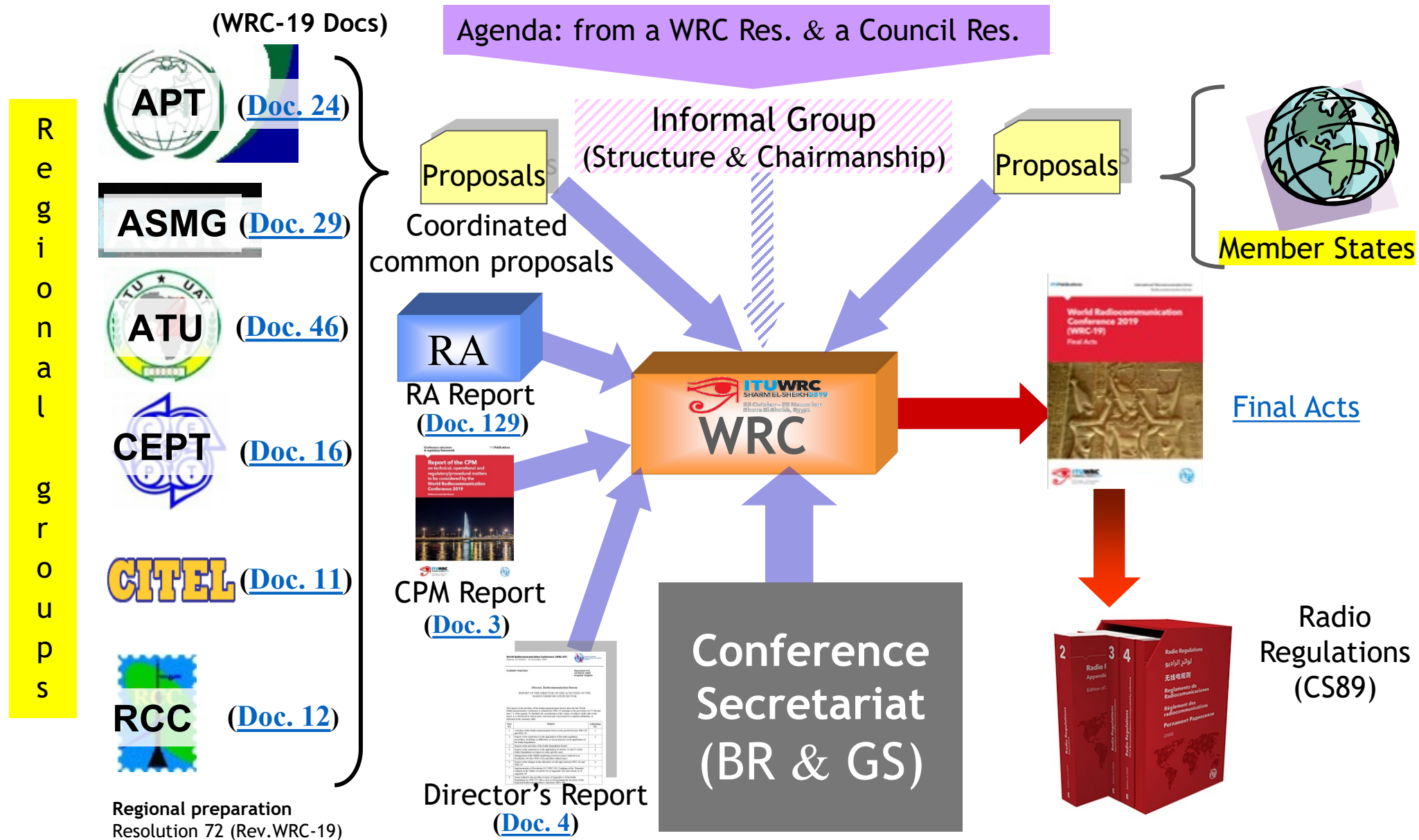
Worldwide or Regional Spectrum Harmonization



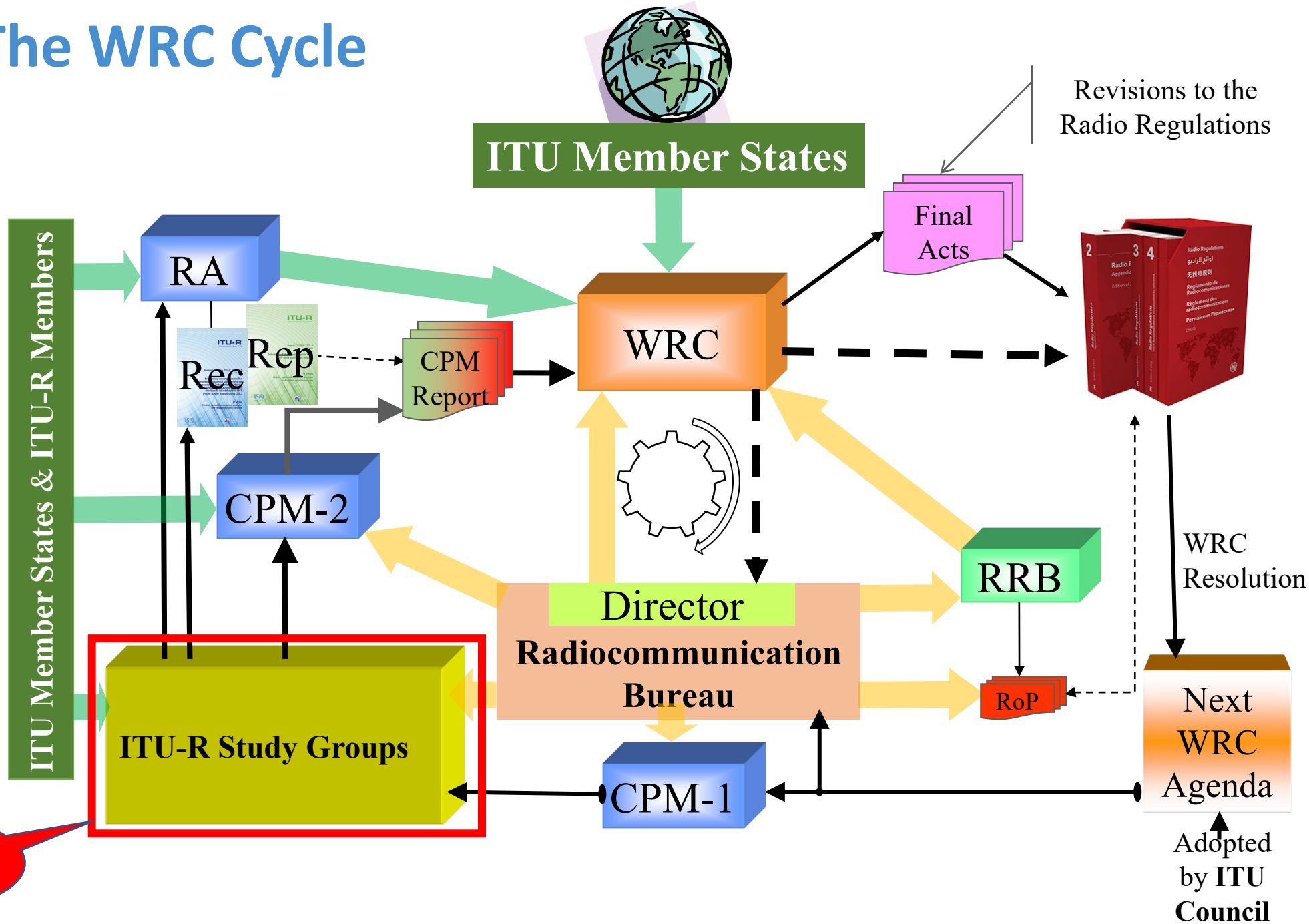
Benefits :

- Reduces the potential for **harmful interference**
- Enables interoperability and **international roaming**, allowing citizens to use the same device in different countries
- Increases economies of scale, thereby enabling **affordable devices and services**
- Supports **emergency communications**

The WRC Process



The WRC Cycle



We are here

Topics on the WRC-23 Agenda

WRC-23 agenda

1.1 **Mobile** **3.3 ≤ MS & IMT ≤ 10.5 GHz**

1.2 **0.694 ≤ HIBS ≤ 2.7 GHz**

1.3

1.4 **Broadcasting** **470 ≤ BS, MS ≤ 960 MHz**

1.5

Spaceborne radar sounders (2ndary)

EESS (active) @ 45 MHz **1.12**

SRS @ 14.8-15.35 GHz **1.13**

Remote-sensing observation requirements - EESS (passive) @ 231.5-252 GHz **1.14**

1.6 **Sub-orbital vehicles**

1.7 **Aviation** **New AMS(R)S VHF alloc.**

1.8 **UAS CNPC links via FSS**

1.9 **Dig. techno. for aviation safety-of-life applications (App.27)**

1.10 **New AMS alloc. (around 15.5 & 22 GHz) for non-safety applications**

1.11 **Maritime** **GMDSS modernization and e-navigation**

A-ESIM & M-ESIM (GSO Ku-FSS) **1.15**

ESIM (NGSO Ka-FSS) **1.16**

ISS / Sat.-to-Sat. links **1.17**

NB MSS for IoT (L/S-bands) **1.18**

Ka-FSS (s-E) (R2) **1.19**

Satellite regulatory issues **7**



Note: The WRC-23 agenda item numbers are indicated in italic (agenda items 2, 3, 4, 5, 6, 8, 9 (9.1, 9.2, 9.3) and 10 are not mentioned here).

► 19 specific and 11 standing items, see [Res. 811 \(WRC-19\)](#)

WRC-23 Agenda items on Fixed, Mobile & Broadcasting issues

WRC-23 agenda items 1.1 to 1.5



- 1.1** ➤ In the band **4 800-4 990 MHz** (identified for IMT in 39 countries), consider the pfd criteria in No. **5.441B** for the **protection of stations of the aeronautical and maritime mobile services** located in international airspace and waters from **other stations located within national territories** ➤ [Res. 223 \(Rev.WRC-19\)](#)
- 1.2** ➤ Consider the **identification for IMT** of the following frequency bands: **3 300-3 400 MHz** (sub-Reg.1 & Reg.2), **3 600-3 800 MHz** (Reg.2), **6 425-7 025 MHz** (Reg.1), **7 025-7 125 MHz** (globally) and **10.0-10.5 GHz** (Reg.2) ➤ [Res. 245 \(WRC-19\)](#)
- 1.3** ➤ Consider a **primary allocation** of the band **3 600-3 800 MHz** to the **mobile service** within **Region 1** ➤ [Res. 246 \(WRC-19\)](#)
- 1.4** ➤ Consider use of **high-altitude platform stations as IMT base stations (HIBS)** in the **mobile service** in certain frequency bands **below 2.7 GHz*** **already identified for IMT**, on a global or regional level ➤ [Res. 247 \(WRC-19\)](#)
-  studies of bands **694-960 MHz**, **1 710-1 885 MHz** (1 710-1 815 MHz for ↑ only in Reg. 3), **2 500-2 690 MHz** (2 500-2 535 MHz for ↑ only in Reg. 3, except 2 655-2 690 MHz in Reg. 3)
- 1.5** ➤ Review the **spectrum use** and **spectrum needs of existing services** in **470-960 MHz** in **Region 1** and consider **regulatory actions** in **470-694 MHz** in **Region 1** ➤ [Res. 235 \(WRC-15\)](#)
- 

WRC-23 Agenda items on Aeronautical & Maritime issues

WRC-23 agenda items 1.6 to 1.11

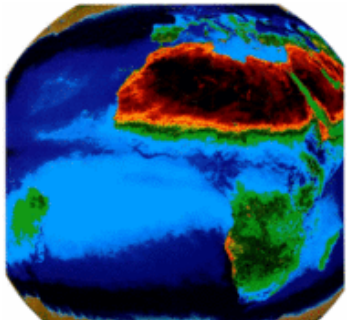
- 1.6 ➤ Consider regulatory provisions to facilitate **radiocommunications for sub-orbital vehicles** ➤ [Res. 772 \(WRC-19\)](#)
- 1.7 ➤ Consider **AMS(R)S allocation** for both the E-s & s-E directions of **aeronautical VHF communications in all or part of the frequency band 117.975-137 MHz** ➤ [Res. 428 \(WRC-19\)](#)
- 1.8 ➤ Review and, if necessary, revise **Res. 155 (Rev.WRC-19) & No. 5.484B** to accommodate the **use of FSS networks by control and non-payload communications of unmanned aircraft systems** ➤ [Res. 171 \(WRC-19\)](#)
- 1.9 ➤ Review Appendix **27**, to accommodate **digital technologies for commercial aviation safety-of-life applications** in **existing HF bands** allocated to the **AM(R)S** and ensure coexistence of current and modernized HF systems ➤ [Res. 429 \(WRC-19\)](#)
- 1.10 ➤ Consider **spectrum needs**, for possible **new AMS allocations** for **non-safety aeronautical mobile applications** ➤ [Res. 430 \(WRC-19\)](#)
- 1.11 ➤ Consider possible **regulatory actions** to support the **modernization of the GMDSS** and **implementation of e navigation** ➤ [Res. 361 \(Rev.WRC-19\)](#)



WRC-23 Agenda items on Science issues

WRC-23 agenda items 1.12 to 1.14

- 1.12 ➤ Consider new **secondary allocation** to the **EESS (active) service** for **spaceborne radar sounders** within the range of frequencies **around 45 MHz** ▶ [Res. 656 \(Rev.WRC-19\)](#)



- 1.13 ➤ Consider to **upgrade of the allocation** of the frequency band **14.8-15.35 GHz** to the **space research service** ▶ [Res. 661 \(WRC-19\)](#)

- 1.14 ➤ Consider possible adjustments of the existing or possible new primary **frequency allocations to EESS (passive)** in the frequency range **231.5-252 GHz**, to ensure alignment with more up-to-date **remote-sensing observation requirements** ▶ [Res. 662 \(WRC-19\)](#)



WRC-23 Agenda Items on Satellite issues

WRC-23 agenda items 1.15 to 1.19

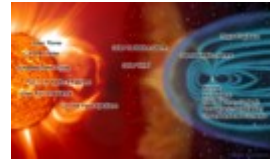
- 1.15 ➤ Consider the use of the band **12.75-13.25 GHz** (E-s) by **earth stations on aircraft and vessels** communicating with **GSO** space stations in the **FSS globally** ➤ [Res. 172 \(Rev.WRC-19\)](#)
- 1.16 ➤ Consider the use of the bands **17.7-18.6 GHz** and **18.8-19.3 GHz** and **19.7-20.2 GHz** (s-E) and **27.5-29.1 GHz** and **29.5-30 GHz** (E-s) by **non-GSO FSS** earth stations in motion (ESIM) ➤ [Res. 173 \(WRC-19\)](#)
- 1.17 ➤ Consider **inter-satellite links** in specific frequency bands*, or portions thereof, by adding an inter-satellite service allocation where appropriate
* ➤ [Res. 773 \(WRC-19\)](#) refers to **satellite-to-satellite links** in bands **11.7-12.7 GHz, 18.1-18.6 GHz, 18.8-20.2 GHz** and **27.5-30 GHz**
- 1.18 ➤ Consider **spectrum needs** and potential **new MSS allocations*** for future development of **narrowband MSS systems** ➤ [Res. 248 \(WRC-19\)](#)
* in the bands **1 695-1 710 MHz** (R2), **2 010-2 025 MHz** (R1), **3 300-3 315 MHz** and **3 385-3 400 MHz** (R2)
- 1.19 ➤ Consider new **primary allocation** to the FSS (s-E) direction in the frequency band **17.3-17.7 GHz** in **Region 2** ➤ [Res. 174 \(WRC-19\)](#)



Other topics on the WRC-23 Agenda

WRC-23 agenda item 9.1

- a) Consider technical and operational characteristics, spectrum requirements and appropriate radio service designations for **space weather sensors** with a view to describing **appropriate recognition and protection in the RR** without placing additional constraints on incumbent services ▶ [Res. 657 \(Rev.WRC-19\)](#)
- b) Consider **amateur service & the amateur-satellite service** allocations in the frequency band **1 240 1 300 MHz** to determine if **additional measures** are required to **ensure protection of the RNSS (s-E)** operating in the same band ▶ [Res. 774 \(WRC-19\)](#)
- c) Study the **use of IMT system for fixed wireless broadband** in the frequency **bands allocated to the fixed services** on primary basis ▶ [Res. 175 \(WRC-19\)](#)



Additional topic identified at CPM23-1

- d) **Protection of EESS (passive)** in the frequency band **36-37 GHz** from **non-GSO FSS space stations** ▶ [WRC-19 Doc. 573 Sec. 35.2](#)

Note: CPM23-1 also identified responsible ITU-R Working Parties (WPs) for the following studies to be reported directly to the BR Director:

- “Updating provisions related to aeronautical services in the Radio Regulations” (by WP 5B, see [CA/251 Annex 4](#) and Resolution **427 (WRC-19)**)
- “Applicability of the limit specified in No. **21.5** of the Radio Regulations to IMT stations, that use an antenna that consists of an array of active elements” (by WP 5D, see [CA/251 Annex 4](#) and [WRC-19 Document 550](#))

Other standing items on the WRC-23 Agenda

WRC-23 agenda item 2

Consider the **new approved versions**, if any, of the **ITU-R Recommendation incorporated by reference** in the RR (list in RR Vol.4, mandatory application)

▶ [Res. 27 \(Rev.WRC-19\)](#)

WRC-23 agenda item 4

Review of the W(A)RC Resolutions and Recommendations not related to other AIs (see RR Vol. 3), considering **progress of ITU-R studies, implementation of previous WRC decisions, end of transitional measures**, etc.

▶ [Res. 95 \(Rev.WRC-19\)](#)

WRC-23 agenda item 8

Consider requests from administrations to **delete their country footnotes** or to have their **country name** deleted from footnotes, if no longer required (see RR Article 5), **towards more spectrum harmonization**

▶ [Res. 26 \(Rev.WRC-19\)](#)

WRC-27 Preliminary Agenda items

WRC-23 agenda item 10

▶ [see Res. 812 \(WRC-19\)](#)

- 2.1 ▶ Consider **additional RLS spectrum allocations** on a co-primary basis in the band **231.5-275 GHz** and **identification for RLS applications** in bands in the range **275-700 GHz** for millimetre and sub-millimetre wave **imaging systems** ▶ [Res. 663 \(WRC-19\)](#)
- 2.2 ▶ Consider the technical, operational and regulatory measures, as appropriate, to facilitate the **use of the bands 37.5-39.5 GHz (s-E), 40.5-42.5 GHz (s-E), 47.2-50.2 GHz (E-s) and 50.4-51.4 GHz (E-s)** by **aeronautical and maritime earth stations in motion (ESIM)** communicating with **GSO FSS** space stations ▶ [Res. 176 \(WRC-19\)](#)
- 2.3 ▶ Consider the allocation of all or part of the frequency band **[43.5-45.5 GHz]** to the **fixed-satellite service** ▶ [Res. 177 \(WRC-19\)](#)
- 2.4 ▶ Consider the introduction of **pfd and e.i.r.p. limits in Article 21** for the frequency bands **71-76 GHz** and **81-86 GHz** ▶ [Res. 775 \(WRC-19\)](#)
- 2.5 ▶ Consider conditions for the use of the **71-76 GHz** and **81-86 GHz** bands by stations in the **satellite services** to ensure **compatibility with passive services** ▶ [Res. 776 \(WRC-19\)](#)
- 2.6 ▶ Consider regulatory provisions for recognition of **space weather sensors** and their protection in the RR, taking into account the results of ITU R studies reported to **WRC-23 under agenda item 9.1** ▶ [Res. 657 \(Rev.WRC-19\)](#)

WRC-27 Preliminary Agenda items (cont'd)

WRC-23 agenda item 10

▶ [see Res. 812 \(WRC-19\)](#)

- 2.7 ▶ Consider **NGSO FSS system feeder links** in the bands **71-76 GHz** (space-to-Earth and proposed new Earth-to-space) and **81-86 GHz** (Earth-to-space) ▶ [Res. 178 \(WRC-19\)](#)
- 2.8 ▶ Consider **space-to-space links** in the bands **[1 525-1 544 MHz]**, **[1 545-1 559 MHz]**, **[1 610-1 645.5 MHz]**, **[1 646.5 1 660.5 MHz]** and **[2 483.5-2 500 MHz]** among **NGSO and GSO satellites** operating in the **MSS** ▶ [Res. 249 \(WRC-19\)](#)
- 2.9 ▶ Consider spectrum allocations to the **MS** in the band **1 300-1 350 MHz** to facilitate the **future development of mobile-service applications** ▶ [Res. 250 \(WRC-19\)](#)
- 2.10 ▶ Consider **improving the utilization** of the **VHF maritime frequencies** in Appendix 18 ▶ [Res. 363 \(WRC-19\)](#)
- 2.11 ▶ Consider **new EESS (Earth-to-space) allocation** in the band **22.55-23.15 GHz** ▶ [Res. 664 \(WRC-19\)](#)
- 2.12 ▶ Consider **use of existing IMT identifications** in the frequency range **694-960 MHz** by consideration of the possible **removal of the limitation regarding aeronautical mobile** in the IMT for the **use of IMT user equipment by non-safety applications**, where appropriate ▶ [Res. 251 \(WRC-19\)](#)
- 2.13 ▶ Consider a possible **worldwide allocation** to the **MSS** for the **future development of narrowband mobile-satellite systems** in the range **[1.5-5 GHz]** ▶ [Res. 248 \(WRC-19\)](#)



Conference Preparatory Meeting for WRC-23 (CPM-23)

www.itu.int/ITU-R/go/rcpm

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(see details at www.itu.int/go/ITU-R/cvc/CPM)

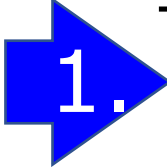
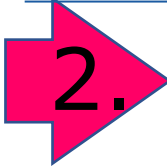
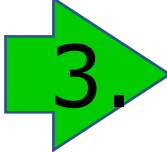
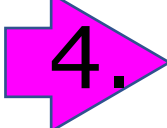
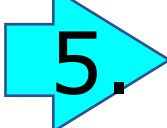
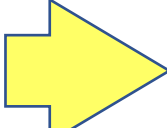
First Session of CPM-23

See [Resolution ITU-R 2-8](#) on Conference Preparatory Meeting (CPM)

- ✓ **Sharm el-Sheikh, EGY, 25-26 Nov. 2019** (330 participants, 73 MS, 11 SM, 11 contributions)
⇒ results published in CA/251 of 19 Dec. 2019 (www.itu.int/md/R00-CA-CIR-0251/en)
- ✓ Define framework of preparatory studies:
 - **Structure of the draft CPM Report**
(see the proposed detailed structure at: <https://www.itu.int/oth/R0A0A000014/en>) with **5 Chapters, one Annex and eight (co-)Rapporteurs**
 - **Identify responsible ITU-R Groups** for each WRC-23 agenda item (AI) & topic
 - ⇒ 8 existing Working Parties and
 - ⇒ one **new TG 6/1 for AI 1.5** (see ToR in Annex 9 of [CA/251](#) [see also the additional slide](#))
 - + 4 existing SGs for the WRC-27 preliminary agenda items**and contributing ITU-R groups** (see Annexes 4, 7 and 8 to [CA/251](#) + Add.1)
 - For the sharing and compatibility studies, service/application **characteristics & parameters** from contributing WPs are **required by 15 June 2021**
at the latest and unless otherwise specified (e.g. 15 May 2021 in case of TG 6/1)

Draft CPM Report – ToC

(see Annex 6 to [CA/251](#))

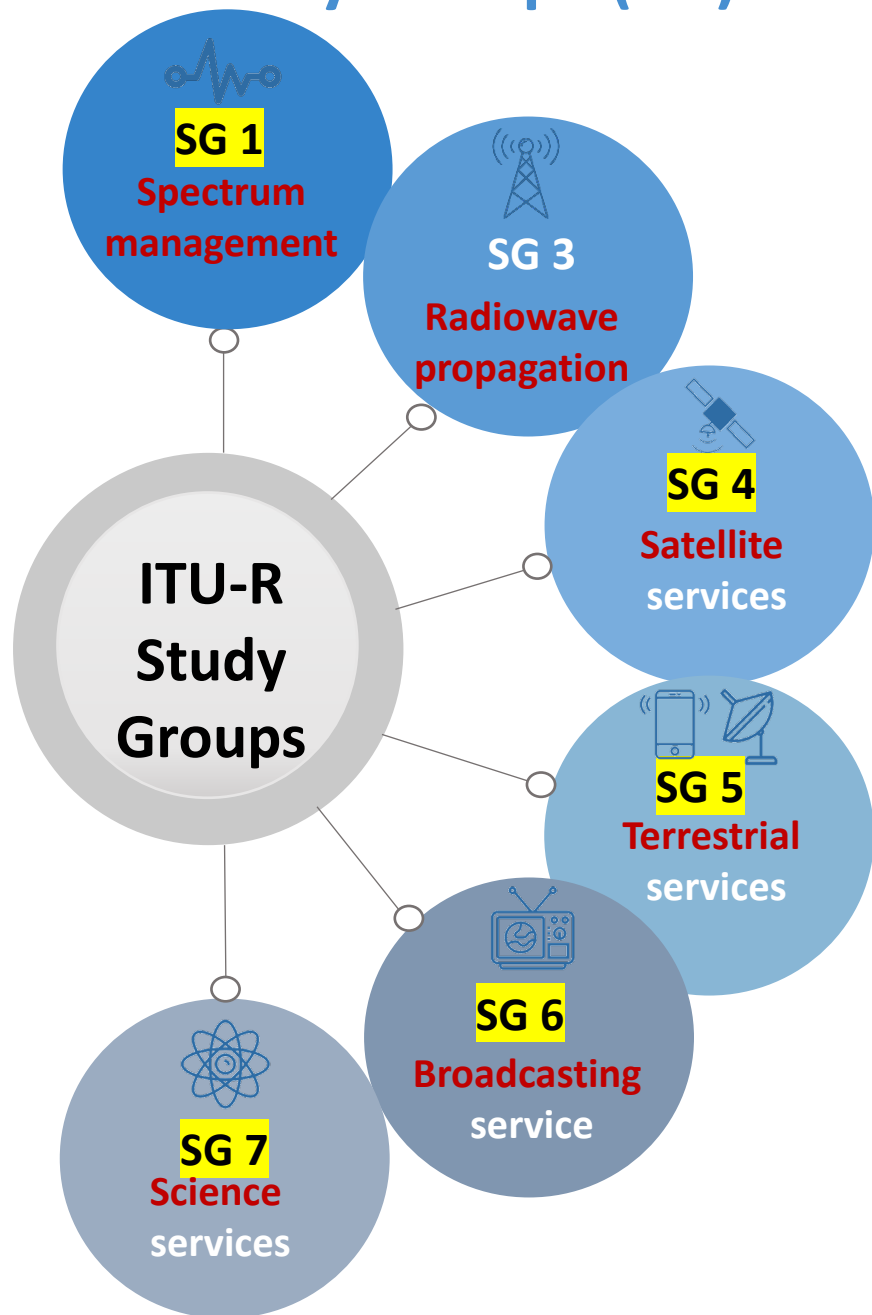
<u>Chapters of the draft CPM Report</u>	<u>WRC-23 agenda items</u>
 1. Fixed, Mobile and Broadcasting issues	1.1, 1.2, 1.3, 1.4, 1.5
 2. Aeronautical and maritime issues	1.6, 1.7, 1.8, 1.9, 1.10, 1.11
 3. Science issues	1.12, 1.13, 1.14
 4. Satellite issues	1.15, 1.16, 1.17, 1.18, 1.19, 7
 5. General issues	2, 4, 9.1 topics a), b), c), d)
 Annex 1	Information on WRC-23 agenda item 10 (WRC-27 preliminary agenda items)

CPM Chapter Rapporteurs

<u>Chapters</u>	<u>(Co-)Rapporteurs</u>
1. Fixed, Mobile and Broadcasting issues	Dr. H. ATARASHI (J) for AIs 1.1, 1.2 and 1.4 Mr. U.A. MAHMUD (NIG) for AIs 1.3 and 1.5
2. Aeronautical and maritime issues	Mr. M. ALHASSANI (UAE)
3. Science issues	Mr. T. A. BAKAUS (B)
4. Satellite issues	Ms. F. MAGNIER (F) for AIs 1.15, 1.16, 1.17, 1.18, 1.19 Mr. G. KWIZERA (RRW) for AI 7
5. General issues	Mr. J. HUANG (CHN) for agenda item 9.1 topics b) and c) Dr. J. PARK (KOR) for agenda item 9.1 topics a) and d)

(see details at www.itu.int/en/ITU-R/study-groups/rcpm/Pages/cpm-23-chp-rapporteurs.aspx)

ITU-R Study Groups (SG)



SG 1

- WP 1A** – Spectrum engineering techniques
- WP 1B** – Spectrum management methodologies and economic strategies
- WP 1C** – Spectrum monitoring

SG 3

- WP 3J** – Propagation fundamentals
- WP 3K** – Point-to-point propagation
- WP 3L** – Ionospheric propagation and radio noise
- WP 3M** – Point-to-point and Earth-space propagation

SG 4

- WP 4A** – Efficient orbit/satellite utilization for FSS and BSS
- WP 4B** – Systems, air interfaces, performance and availability objectives for FSS, BSS and MSS (incl. IP-based applications and SNG)
- WP 4C** – Efficient orbit/satellite utilization for MSS and RDSS

SG 5

- WP 5A** – Land mobile > 30 MHz, fixed WAS, amateur & amateur-satellite
- WP 5B** – Maritime and aeronautical mobile services and radiodetermination
- WP 5C** – HF and other systems < 30 MHz in the fixed and land mobile services
- WP 5D** – IMT systems

SG 6

- WP 6A** – Terrestrial broadcasting delivery
- WP 6B** – Broadcast service assembly and access
- WP 6C** – Programme production and quality assessment
- TG 6/1** – WRC-23 agenda item 1.5 (use of the band 470-960 MHz)



SG 7

- WP 7A** – Time signals and frequency standard emissions
- WP 7B** – Space radiocommunication applications: space operation, space research, Earth exploration, meteorological satellite services
- WP 7C** – Remote sensing systems (active and passive): Earth exploration-satellite, MetAids, space research services
- WP 7D** – Radio astronomy

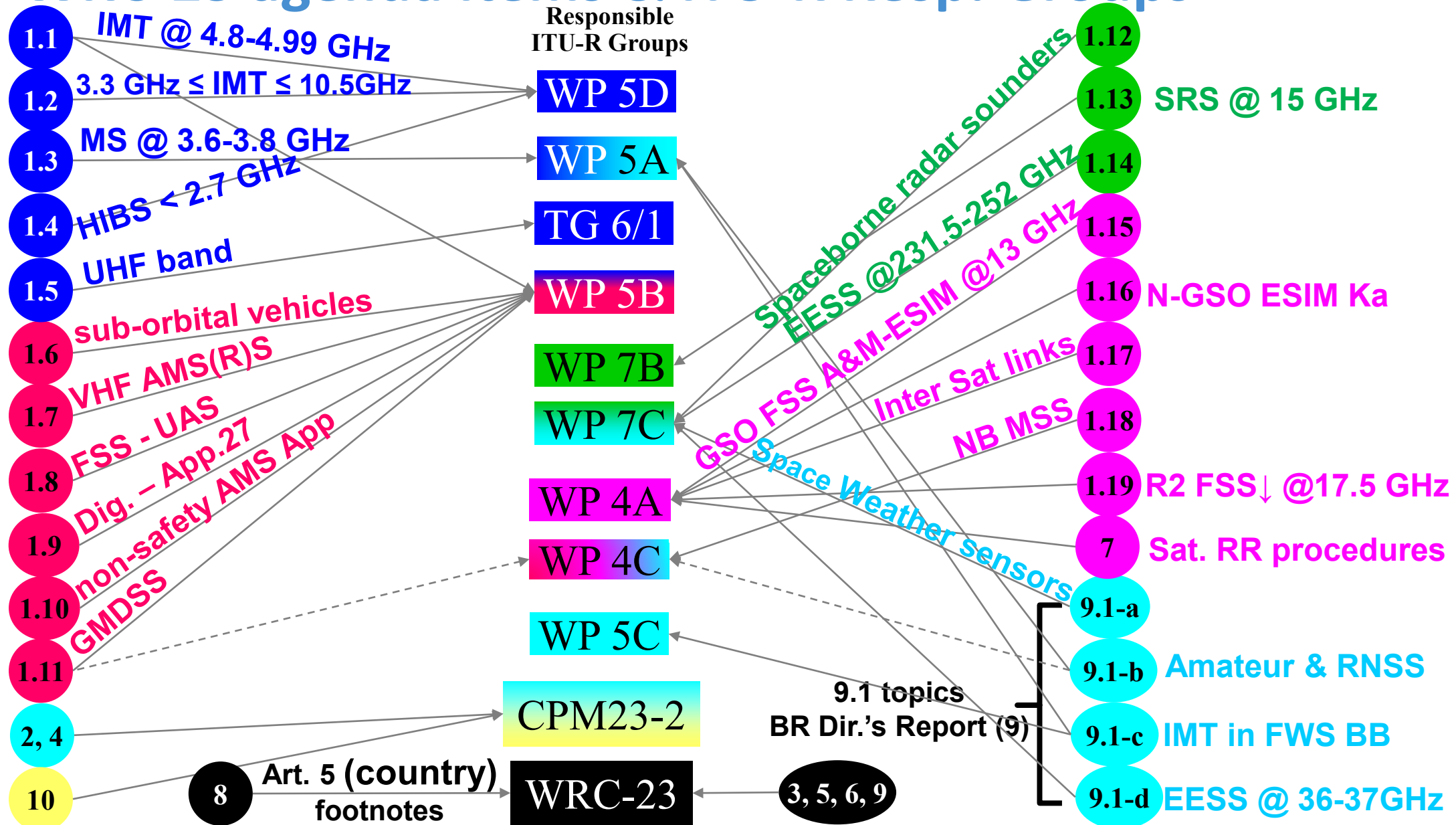


New TG 6/1 on WRC-23 AI 1.5

- ✓ Taking into account **CPM23-1 Decision** (see [CA/251 Annex 9](#)), **SG 6 established new TG 6/1** (www.itu.int/en/ITU-R/study-groups/rsg6/tg6-1)
- ✓ **SG 6 appointed Mr. Sergey PASTUKH as the Chairman**
- ✓ **SG 5 appointed Dr. Abdulhadi ABOU-ALMAL as the Vice-Chairman**
- **By 15 May 2021**, in accordance with *resolves to invite ITU-R 1* of [Res. 235 \(WRC-19\)](#), **results of studies on spectrum use and spectrum needs within the band 470-960 MHz should be reported by:**
 - **Working Party (WP) 6A regarding the Broadcasting Service** (including the needs of the countries party to the GE06 Agreement)
 - **SG 5 relevant WPs regarding the Mobile (except aeronautical mobile) Service**
- **By 15 May 2021**, **study assumptions** (incl. propagation model, system parameters) and **technical characteristics** including protection criteria of the **services allocated in the band 470-694 MHz should be provided by the WPs***
- **TG 6/1 is responsible for conducting the sharing and compatibility studies** ([resolves to invite ITU-R 2 & 3](#)) **and developing the draft CPM text**
- **CPM23-1 provided also elements for the scheduling of the 5 or 6 meetings of TG 6/1**



WRC-23 agenda items & ITU-R Resp. Groups

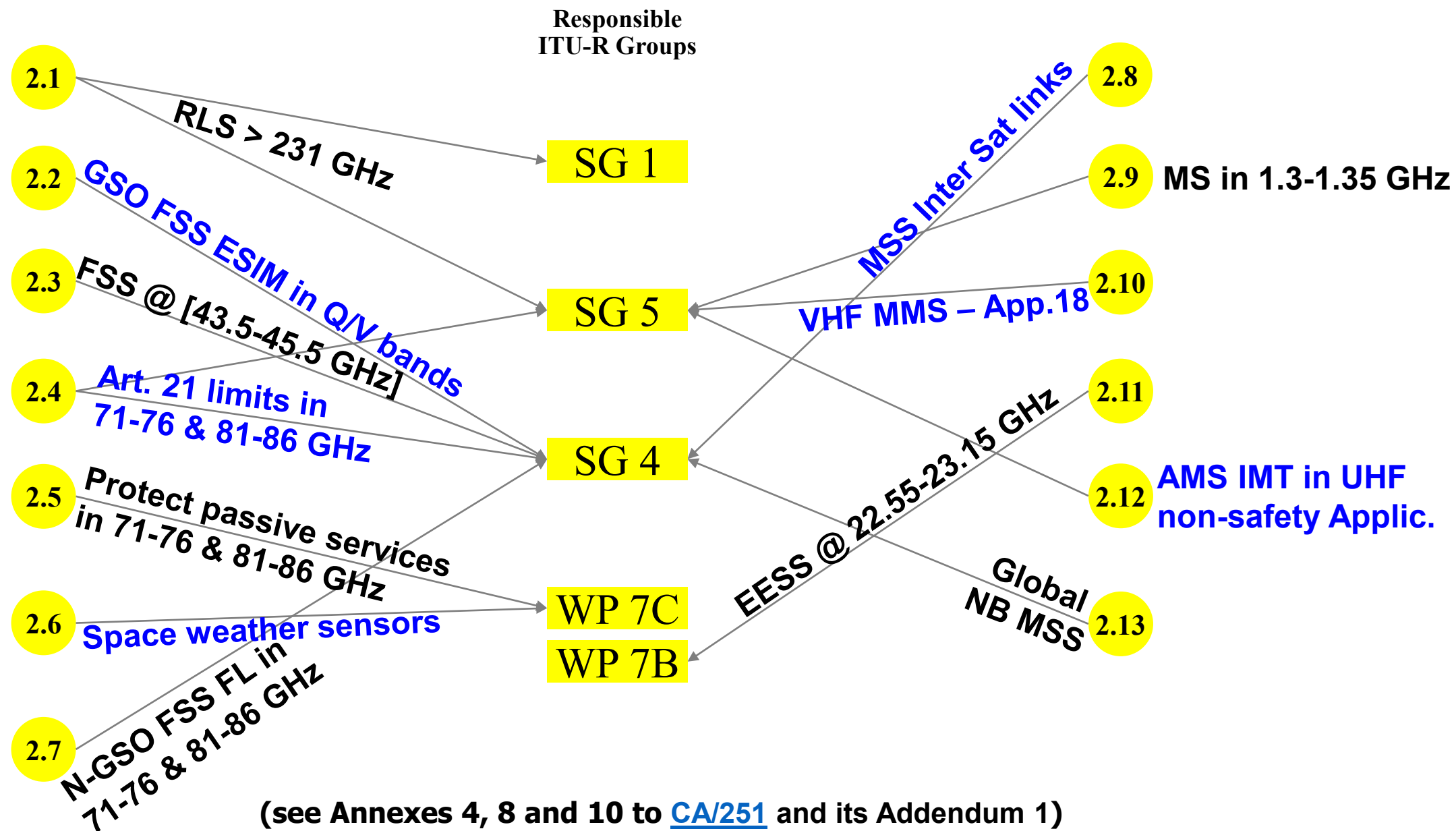


(see Annexes 4, 7 and 10 to [CA/251](#) and its Add.1)

+Studies to be reported directly to the BR Director by:

- WP 5D on No. 21.5 limit (see [CA/251](#) Annex 4)
- WP 5B on Res. 427 (WRC-19)

WRC-27 preliminary items & ITU-R Resp. Groups



Structure of the draft CPM texts for an agenda item in each chapter

(see Annexes 6 and 11 to [CA/251](#))

Chapter N	
Agenda Item 1.XY	
[Relevant WRC Resolutions if any]	
N/1.XY/1	Executive Summary*
N/1.XY/2	Background*
N/1.XY/3	Summary and Analysis of the results of ITU-R studies, including a list of relevant ITU-R Recommendations
N/1.XY/4	Method(s) to satisfy the agenda Item
N/1.XY/5	Regulatory and procedural considerations

* Not more than half a page of text

Chapter 5
Agenda Item 9.1(9.1-[x])

5/9.1-[x] [label of the topic]
Summary of the results of ITU-R studies

Annex 1 – Information on WRC-23 AI 10
--

2.[x] [label of the agenda item]
[Text of a short summary of ITU-R studies completed under the preliminary agenda item]

(see the Proposed detailed Structure for the Draft CPM Report to WRC-23 at: www.itu.int/oth/R0A0A000014/en)

Results of CPM-23 Steering COM e-meeting (held on 3 Sep. 2020)

- Defined **21 Oct. 2022** as the deadline for the draft CPM texts *
* based on the planned period for CPM23-2 (see next slide)
- **Amended the list of contributing groups for some WRC-23 AIs**
 - + (WP 5B) to AI 1.13; + (WP 5C) to AI 1.12;
 - + (WP 7C) to AIs 1.16, 1.17, 1.18, 1.19 (in place of WP 7B) & 9.1-b
 - + (WP 7D) to AIs 1.2, 1.5, 1.6, 1.11 & 1.14
- **Clarified the lists of resp. & contrib. groups for some WRC-27 PAIs**
 - WP 7B for PAI 2.11 and WP 7C for PAIs 2.5 & 2.6 in place of SG 7
 - + (WP 7B) to PAI 2.2 + (WP 7D) to PAIs 2.2 & 2.3
- **Agreed with additional guidelines for the preparation of draft CPM texts** (Methods numbering scheme, reference to ITU-R texts incl. for new or revised WRC Res., ITU-R Res., Rec. and Reports, and their drafts)
- Meeting results in **Add. 1 to CA/251** (www.itu.int/md/R00-CA-CIR-0251, of 17 Sep'20) and in the **CPM Chairman's Document to all Resp. Group.** (e.g. www.itu.int/md/R19-SG01-C-0021/en, of 18 Sep.'20)

Note: Additional amendments to the list of contributing groups for WRC-23 AI 9.1, topic a) were agreed at the Oct. & Nov. 2020 e-meetings of ITU-R Study Group 4 and WP 5D.

Results of CPM-23 Management Team consultation & CVC meetings (January 2021)

- **Postponed to **23 July 2021**** the deadline for **submission of service/application characteristics and parameters** by the contributing groups to the responsible groups (see also [CACE/955](#)) (except for AI 1.5, for which the deadline remains on 15 May 2021)
- **Amended the list of contributing groups for some WRC-23 AIs**
 - + **(WP 7C)** to **AI 1.15** (GSO FSS A&M-ESIM @13 GHz)
 - + **(WP 4A)** to
 - + **(WP 4C)** to
 - + **(WP 5D)** to**AI 9.1 topic a** (Space Weather sensors)
- **Update the table*** on **WRC-23 agenda items with overlapping frequency bands** (* Table 1 of Annex 4 to CA/251) (see next slide)
- Results published in **Corr. 1 to CA/251 (Add.1)**
(www.itu.int/md/R00-CA-CIR-0251, of 11 Feb'21)
- **Summary of the CVC e-meeting** (20 January 2021), including issues on: e-working methods; encourage more flexible attitude and behaviour with trust
(Doc. CVC/4 of 29 Jan. 2021 at www.itu.int/md/R19-CVC-C-0004)

Overlapping frequency bands between some WRC-23 agenda items

1.2 (IMT) WP 5D	1.4 (HIBS) WP 5D	1.16 (non-GSO FSS ESIMs) WP 4A	1.17 (ISL) WP 4A	1.18 (narrowband MSS) WP 4C
	2 010-2 025 MHz (Regions 1 & 3)			2 010-2 025 MHz (Region 1)
3 300-3 400 MHz (Regions 1 & 2)				3 300-3 315 MHz 3 385-3 400 MHz (Region 2)
		27.5-29.1 GHz (E-s) 29.5-30 GHz (E-s)	27.5-30 GHz (s-s)	

* E-s: Earth-to-space; s-s: space-to-space.

- The responsible groups are invited to **exchange the necessary characteristics, parameters and protection criteria to complete studies addressing mutual compatibility and sharing feasibility** among the applicable services/applications.
- They should **coordinate their work and review**, as appropriate, the **progress of studies so that any potential difficulties can be addressed**.

ITU-R Responsible Groups activities

- ⇒ **Examine contributions from the membership**
(Member States, Sector members, Associates, Academia) (see also [CACE/955](#))
- ⇒ **Ensure necessary coordination with the contributing groups**
(liaison statements to and from contributing working parties)
- ⇒ **Carry out technical studies** (incl. compatibility & sharing studies)
& develop necessary draft ITU-R Rec. & Reports
for consideration by the relevant ITU-R Study Group(s)
- ⇒ **Develop regulatory/technical solutions in draft CPM texts**
to be sent to the respective CPM-23 Chapter (co)-Rapporteurs
- ⇒ **Finalize the technical studies prior to RA-23**



Resolution **811 (WRC-19)** contains the WRC-23 agenda.

WRC-23 agenda Item (Chapter)	Topic	WRC Resolution (*)	Responsible Group(s)	Information from Responsible Group(s) ¹¹¹³
1		-	-	-
1.1 (1)		Res.223 (Rev.WRC-19)	WP 5B (1) WP 5D (1)	Doc. 5B/355 Sec. 10.2 & 10.2.1.1 and Annex 16 Doc. 5D/886 Chapter 1 (a), Chapter 2 Attachments 2.1, 2.2, 2.7, 2.11, 2.12 & 2.17 (a) and Annexes 2.23 (a) & 2.24.12 (b) and Chapter 4 Sec. 2, 3.4 & 3.7 (a) and Annexes 4.8, 4.9, 4.10 (c) & 4.11 (b)
1.2 (1)		Res.245 (WRC-19)	WP 5D	Doc. 5D/886 Chapter 1 (a), Chapter 2 Attachments 2.1, 2.2, 2.7, 2.11, 2.12 & 2.17 (a) and Annexes 2.23 (a) & 2.24.13 (b) and Chapter 4 Sec. 2, 3.5 & 3.7 (a) and Annexes 4.4 (a), 4.12, 4.13 (c), 4.14, 4.15, 4.16 & 4.17 (b)
1.3 (1)		Res.246 (WRC-19)	WP 5A	Doc. 5A/491 (a) and Annexes 3 (a), 4 (c), 5 (b) & 20
1.4 (1)		Res.247 (WRC-19)	WP 5D	Doc. 5D/886 Chapter 1 (a), Chapter 2 Attachments 2.1, 2.2, 2.7, 2.11, 2.12 & 2.17 (a) and Annexes 2.23 (a) & 2.24.14 (b), and Chapter 4 Sec. 2, 3.6 & 3.7 (a) and Annexes 4.18, 4.19 (c), 4.20, 4.21 & 4.22 (b)
1.5 (1)		Res.235 (WRC-15)	TG 6/1 (2)	Doc. 6-1/77 and Annexes 1, 2, 3 (c) & 4 (b)
1.6 (2)		Res.772 (WRC-19)	WP 5B (3)	Doc. 5B/355 Sec. 2.3, 2.8, 7, 10.2 & 10.2.1.2 and Annexes 1 (b) & 34 and Doc. 5B/225 Annex 1 (c)
1.7 (2)		Res.428 (WRC-19)	WP 5B (3)	Doc. 5B/355 Sec. 2.3, 2.8, 7, 10.2 & 10.2.1.3 and Annexes 29 & 37 and Doc. 5B/225 Annex 3 (c)
1.8 (2)		Res.171 (WRC-19) - Res.155 (Rev.WRC-19)	WP 5B (3)	Doc. 5B/355 Sec. 2.6, 2.8, 5, 7, 10.5 & 10.5.1 and Annexes 2 (b), 20, 31, 35 & 36
1.9 (2)		Res.429 (WRC-19)	WP 5B	Doc. 5B/355 Sec. 2.3, 2.8 & 10.2.1.4 and Annexes 3 (b), 4 (c) & 32
1.10 (2)		Res.430 (WRC-19)	WP 5B	Doc. 5B/355 Sec. 2.3, 2.8, 10.2 & 10.2.1.5 and Annex 30 and Doc. 5B/225 Annexes 6 (c) & 7 (b)
1.11 (2)		Res.361 (Rev.WRC-19)	WP 5B (4)	Doc. 5B/355 Sec. 2.4, 2.8 & 10.3.1.1 and Annexes 5 (c), 6 (b) and 38 Doc. 4C/283 Sec. 2.3, 3.1.2, 3.8, 4.1, 6, 8 & 9 and Annexes 5, 6 (c), 7 (b) & 8
1.12 (3)		Res.656 (Rev.WRC-19)	WP 7C	Doc. 7C/283 Sec. 3.5, 8.2, 9.1 & 9.2 and Annexes 4, 5 & 6 (c)
1.13 (3)		Res.661 (WRC-19)	WP 7B	Doc. 7B/158 (a) and Annexes 1 (c), 2 & 3 (b)
1.14 (3)		Res.662 (WRC-19)	WP 7C	Doc. 7C/283 Sec. 5.9, 5.16, 5.18, 8.5, 9.1 & 9.2 and Annexes 18, 19 (c) & 20
1.15 (4)		Res.172 (WRC-19)	WP 4A	Doc. 4A/522 Sec. 1, 4.1, 4.1.1, 4.1.5 & 6 and Annexes 15, 25 (c), 30 (b) & 31
1.16 (4)		Res.173 (WRC-19)	WP 4A	Doc. 4A/522 Sec. 1, 4.1, 4.1.2, 4.1.4, 4.1.5 & 6 and Annexes 16, 26 (c), 32 (b) & 33
1.17 (4)		Res.773 (WRC-19)	WP 4A	Doc. 4A/522 Sec. 1, 4.1, 4.1.3, 4.1.4, 4.1.5 & 6 and Annexes 17 to 20, 27 (c), 34 (b) & 35
1.18 (4)		Res.248 (WRC-19)	WP 4C	Doc. 4C/245 Annexes 8, 9 and Doc. 4C/283 Sec. 2.3, 3.1.1, 3.8, 4.2, 6, 8 & 9 and Annexes 9 (b) & 10
1.19 (4)		Res.174 (WRC-19)	WP 4A	Doc. 4A/522 Sec. 1, 4.1, 4.1.4 & 4.1.5 and Annexes 21, 28 (c) & 36 (b)

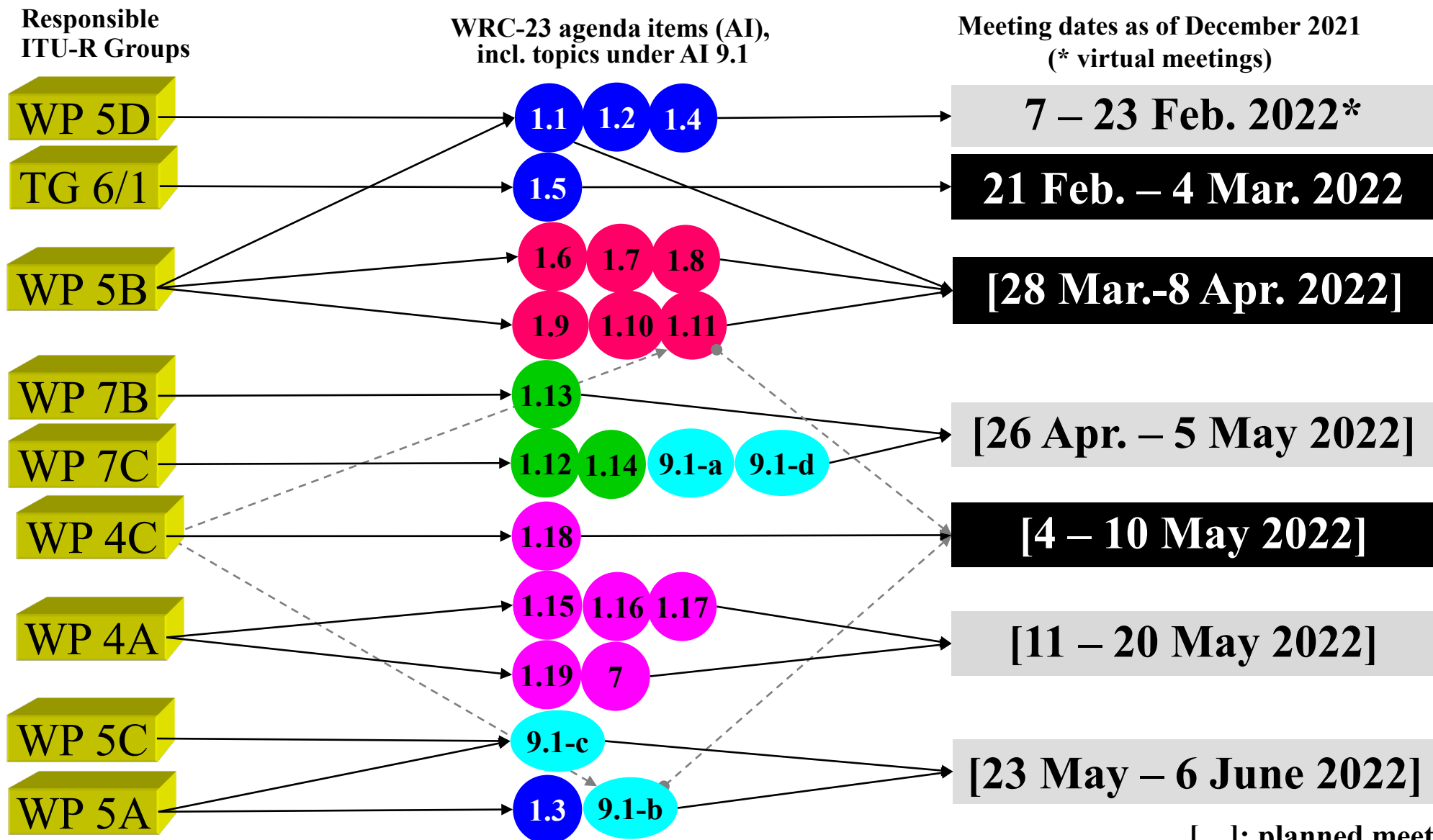
ITU-R Preparatory Studies for WRC-23

www.itu.int/go/rcpm-wrc-23-studies

➤ Webpage updated on a regular basis after meetings of responsible groups (note (c) indicates annexes on draft CPM texts)

7 (4)		Res.86 (Rev.WRC-07)	WP 4A	Doc. 4A/522 Sec. 1, 4.2.1, 4.2.3, 4.3, 5 & 6 and Annexes 37 (b), 38 & 43
	A (4)	Res.86 (Rev.WRC-07)	WP 4A	Doc. 4A/522 Annex 22
	B (4)	Res. 86 (Rev.WRC-07)	WP 4A	Doc. 4A/522 Annexes 23 & 29 (c)
	C (4)	Res. 86 (Rev.WRC-07)	WP 4A	Doc. 4A/522 Annex 24
	D (4)	Res.86 (Rev.WRC-07)	WP 4A	Doc. 4A/392 Annex 35 (c) and Doc. 4A/522 Sec. 4.3
	E (4)	Res.86 (Rev.WRC-07)	WP 4A	Doc. 4A/392 Annex 20 and Doc. 4A/522 Sec. 4.3
	F (4)	Res.86 (Rev.WRC-07)	WP 4A	Doc. 4A/392 Annex 21 and Doc. 4A/522 Sec. 4.3
	G (4)	Res.86 (Rev.WRC-07)	WP 4A	Doc. 4A/522 Annex 42
8		Res.26 (Rev.WRC-19)	-	Outside scope of the CPM
9		-	-	-
9.1		-	-	-
	a) (5)	Res.657 (Rev.WRC-19)	WP 7C	Doc. 7C/283 Sec. 3.7, 6.2, 6.5.3, 8.5, 9.1 & 9.2 and Annexes 7, 8, 9, 10, 11 & 12 (c), 13
	b) (5)	Res.774 (WRC-19)	WP 5A (5)	Doc. 5A/491 (a) and Annexes 3 (a), 6 (c), 7 (b), 10 & 11 Doc. 4C/283 Sec. 2.3, 3.1.3, 3.3, 4.3, 4.3.3, 6, 8 & 9 and Annexes 4 & 11 (b)
	c) (5)	Res.175 (WRC-19)	WP 5A (6) WP 5C (6)	Doc. 5A/491 (a), and Annexes 3 (a), 8 (c) & 9 (b) Doc 5C/248 (a)
	d) (5)	WRC-19 Doc. 573 (Minutes of the twelfth plenary meeting), Section 35.2, sub-section "Protection of EESS in the frequency band 36-37 GHz	WP 7C	Doc. 7C/283 Sec. 5.14, 6.2, 8.5, 9.1 & 9.2 and Annex 23
9.2		-	-	-
9.3		Res.80 (Rev.WRC-07)	-	-
10		Res.804 (Rev.WRC-19) - Res. 812 (WRC-19)	See studies on WRC-27 preliminary agenda items	See studies on WRC-27 preliminary agenda items (updated 28 October 2021)

Next Meetings of Resp. Groups for WRC-23 AIs



[...]: planned meetings

See up-to-date information and other ITU-R meetings at: <http://www.itu.int/en/events/Pages/Calendar-Events.aspx?sector=ITU-R>
 See also e-meetings of Correspondence Groups on some AIs in the [SG 4 Share Point](#), [SG 5 Share Point](#) and [SG 7 Share Point](#) sites



CPM-23 Management Team

Organised in accordance with [Res. ITU-R 2-8](#) and composed of:

- ✓ CPM-23 Chairman, Vice-Chairmen and Chapter Rapporteurs (= Steering Committee)
- ✓ Chairmen of Study Groups and Responsible Groups

⇒ **Consolidate the draft CPM texts/chapters**

into the draft CPM Report to WRC-23 (as an input to CPM23-2)

See also [CA/251 Add.1](#) on Preparation of the **draft CPM Report to WRC-23**

Second Session of CPM-23

- **Based on the draft CPM Report**
(available in six official ITU languages a minimum of 2 months before CPM23-2)
- **Consider contributions from ITU Member States
& ITU-R Sector Members**
- **Consider also a preliminary draft version of the
BR Director's Report to WRC-23**
⇒ **Finalize the CPM Report to WRC-23**
(incl. draft solutions (methods) to satisfy the agenda items)



Description of the texts* assigned to the ITU-R Study Groups and sub-groups

(Working Methods in [Res. ITU-R 1-8](#))

- **Spectrum Management** (SG 1, see [Doc. 1/1](#))
- **Radiowave Propagation** (SG 3, see [Doc. 3/1](#))
- **Satellite Services** (SG 4, see [Doc. 4/1](#))
- **Terrestrial Services** (SG 5, see [Doc. 5/1](#))
- **Broadcasting Service** (SG 6, see [Doc. 6/1](#))
- **Science Services** (SG 7, see [Doc. 7/1](#))

* ITU-R Questions,
Recommendations,
Reports, Handbooks,
Resolutions,
Opinions, Decisions
and
W(A)RC Resolutions and
Recommendations

ITU-R Collaboration with other sectors and organizations

- **ITU-T** ([Res. ITU-R 6-3](#)) and **ITU-D** ([Res. ITU-R 7-4](#))
- **Other relevant organizations, incl. ISO, IEC & CISPR** ([Res. ITU-R 9-6](#))



Conclusions from 28th RAG meeting (29 Mar.-1 Apr. 2021) relating to the preparations for RA-23 & WRC-23

(see **Summary of Conclusion** in Administrative Circular **CA/256** at: www.itu.int/md/R00-CA-CIR-0256)

- **Funding** to cover costs for preparation of certain **WRC-23 agenda items should be secured** based on additional information to be provided by BR
- **Council 2021 will set the precise WRC-23 dates; UAE invitation** to host WRC-23 was appreciated
- BR Director was invited to **identify possible options of improving ITU-R preparatory studies** in case virtual meetings would have to continue
- **Strict application of General Rules** of Conferences, Assemblies & Meetings of the Union are required to facilitate achieving progress
- **Continue CG#1** on Implementation of the **WRC-19 Gender Declaration**
- **New CG#2** on possible revisions of **Res. ITU-R 1-8 (RA/SGs working methods)**

(RAG webpage: www.itu.int/ITU-R/go/rag; SGs webpage: www.itu.int/ITU-R/go/rsg)

Next RAG meetings are planned on 24 Feb. 2022* & on 11-14 April 2022 (29th meeting)



RAG Correspondence Groups (details on RAG webpage)

- **CG#1 on Implementation of the WRC-19 Gender Declaration**
 - **BR Circular Letter CA/256** includes the outcome of the RAG 2021 meeting, taking into account the discussions on this subject, and other information available in ITU website
 - SGs & WPs Chairmen are invited to continue to support, to the extent practicable, gender equality, equity and parity by **encouraging women to be appointed to leadership positions within the WPs & RGs** including as Chairmen, Vice-Chairmen and Rapporteurs
- **ToR CG#2 on possible revisions of Res. ITU-R 1-8 (RA/SGs working methods)**
 1. **Possible revision of Section A2.6.2.1.3:** (see [Annex 2 to CA/256](#))
 1. adoption & approval procedures when a **text is relevant to topics of multiple SGs** and to the **circulation of objections** received during the approval process
 2. need, if any, for revisions to ITU-R working methods for the adoption and approval of recommendations of interest to multiple ITU-R Study Groups
 3. need of fixing, if identified, any omissions, and/or contradictions of existing texts
 2. **Possibility of transferring relevant part of Res. ITU-R 15-6 to Res. ITU-R 1-8**, consider appropriateness of establishing **maximum term of office for ITU-R WP Chairmen**, and suggest the deletion of Resolution ITU-R 15-6; report to next RAG meeting to decide on this matter.



Radio Regulations Navigation Tool

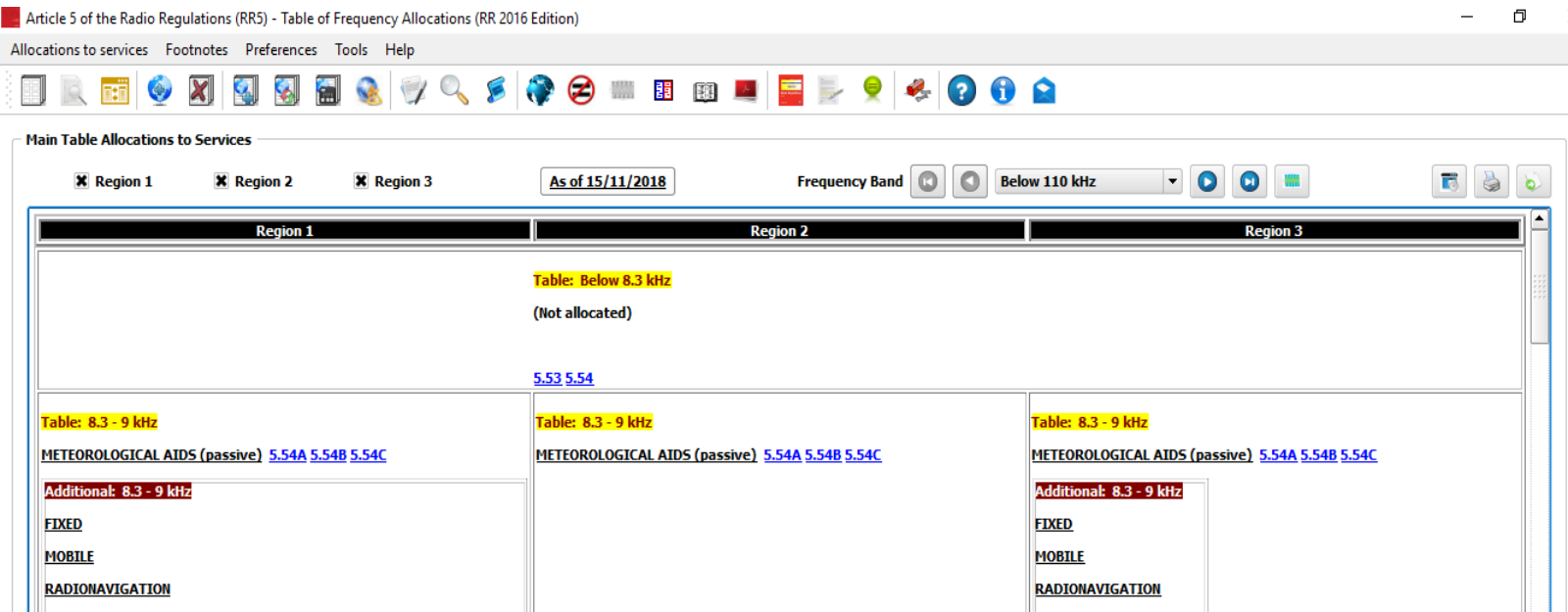


www.itu.int/pub/R-REG-RRX-2021

A Java application for the browsing of elements from the following ITU publications:

- Volumes I to IV of the **Radio Regulations**
- **Rules of Procedures**
- **ITU Constitution and Convention**
- **Plenipotentiary Conference Resolutions**
- **ITU-R Recommendations** mentioned in the RR (in addition to those incorporated by reference and included in RR Vol. 4)

Allows users to navigate from those publications without requiring any further download.



The RR Art.5 Frequency Allocations Table (FAT) Software (RR5FATViewer):

- **Stand-alone application** (can work offline)
- Useful tool to **electronically use, consult and analyze the RR FAT and its associated notes** (as they appear in RR Article 5 and in some other related texts (Res., ITU-R Rec., Rules of Procedure))

- **Perfect complement to the 2020 Edition of the Radio Regulations** (incl. WRC-19 decisions, but limited to the scope and boundaries of RR Article 5)
- **Enables filtering** by frequency range, service, category of service, footnote, country, etc.
- **Is equipped with several tools and utilities** that allow, among other things:
 - The exporting data to various formats
 - The tracing and comparison of the evolution of the Article 5 Table and its associated footnotes (from the 2001 Edition onward)
 - The **extraction and modification of National Table of Frequency Allocations** for a given geographic area (country), based on the corresponding "International Plan" from RR Art. 5



New Conference Proposals Interface for WRC-23

www.itu.int/net4/proposals/CPI/WRC23

- Preliminary version to be used for preparation of draft documents with proposed actions (MOD, ADD, etc.) to **RR-2020** texts

Username (TIES) :

Password :

Sign in (to access the screen below)

User guide

Actions

Committed to connecting the world
WRC-23 ITU Conference Proposals Interface (CPI)
Français Español عربي 中文 Русский | [Log out](#)

My browser [See full skeleton](#)

All on provision number only

WRC-23 Collapse all ▲

- ARTICLES
- APPENDICES
- RESOLUTIONS **ADD**
- RECOMMENDATIONS **ADD**
- GENERAL MATTERS **OTHER**

My skeleton [Load previous skeleton](#)

0 item
Agenda item

#	Ag. item	Action	Provision	Mapping	
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List of the WRC-23 agenda items (issues)

2020 Edition of the Radio Regulations



Possible actions (ADD, MOD, SUP, NOC ...)

ADD Proposal to add new text to the Radio Regulations (RR)

NOTE – Where new text is to be added within an existing paragraph or sub-paragraph, the symbol MOD should be used (see instructions for MOD below).

ADD* Proposal to add existing text from elsewhere in the RR

NOTE – It is necessary to reproduce the texts carrying the symbol ADD*.

MOD Proposal to amend RR text by addition, deletion or replacement of words or figures

NOTE – To amend the text, turn on track changes, make modifications (deleted text should then appear as ~~strikethrough~~ and added texts should then appear as underlined).

(MOD) Proposal to amend RR text, from an editorial point of view

NOTE – To amend the text, turn on track changes, make modifications (deleted text should then appear as ~~strikethrough~~ and added texts should then appear as underlined).

SUP Proposal to delete RR text / RR provision(s), Resolution(s) or Recommendation(s)

NOTE 1 – It is not necessary to reproduce texts carrying the symbol SUP.

NOTE 2 – Where text is to be deleted from within a paragraph or sub-paragraph, the symbol MOD should be used (see instructions for MOD above).

SUP* Proposal to transfer text elsewhere in the Radio Regulations

NOTE – It is not necessary to reproduce texts carrying the symbol SUP*.

NOC RR text for which no change is indicated

NOTE – This symbol may be used to clarify that no proposals are made with respect to texts carrying this symbol. It is not necessary to reproduce texts carrying this symbol.

NOC Proposal for RR text to be maintained without change

NOTE – This symbol may be used together with a proposal number to emphasize that a particular provision or provisions of an article should remain unchanged, e.g. Article XX may be shown as NOC but provisions AA and BB of Article XX may be shown as NOC. The reasons as to why these provisions need to be maintained without change should be given.

Include RR text(s) in a draft document

(main steps)

Additional information can be found in the [CPI User Guide for WRC-23](#)

The screenshot shows the WRC-23 CPI interface with several key elements highlighted by red boxes and numbered callouts:

- 1** **RR text search**: A search box containing the text "5.441B".
- 2** **See full skeleton**: A link next to the search box.
- 3** **RR text view**: An eye icon next to the "5.441B" entry in the "ARTICLE 5 - Frequency allocations" list.
- 4** **Action selection**: A dropdown menu showing options: ADD, ADD*, MOD, (MOD), SUP, SUP*.
- 5** **Agenda item selection**: A dropdown menu showing "1.1".
- 6** **Save my skeleton**: A red button with a document icon.

The "My skeleton" table contains the following data:


#	Ag. item	Action	Provision	Mapping
1	1.1	MOD	5.441B	Vol.1/Chp. II/Art. 5/Sec. IV/5.441B

The "RR text view" window displays the following text:

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/m² · 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-19)



Draft Doc. created with CPI for WRC-23


- Sample Doc. generated by CPI when clicking on *. The Doc. is also attached to an email sent by CPI to the User.


Sample Doc. part not relevant at this stage

- Using WRC-23 and ITU-R Study Group Document Templates

- No button yet in CPI to submit WRC-23 proposals (will be in a future version)

Sample RR texts correctly formatted

* An intermediate screen appears to enter the name of the country/regional group and the Doc. suffix number. This information is not necessary at this stage and can be ignored by clicking on "Save my skeleton". 

World Radiocommunication Conference (WRC-23) 

PLENARY MEETING Addendum 1 to Document 4018-E
18 March 2021
Original: English

[Name of the Country/regional group]
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);

ARTICLE 5

Frequency allocations

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

MOD MSP/4018A1/1

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 $-155 \text{ dB(W/(m}^2 \cdot 1 \text{ MHz))}$ produced up to 19 km above sea level at 20 km from the coast, defined

Radio service abbreviations (1/2)

Abbreviations	Radio services	RR definition
AMS	aeronautical mobile service	No. 1.32
AM(R)S	aeronautical mobile (route) service	No. 1.33
AMSS	aeronautical mobile-satellite service	No. 1.35
AMS(R)S	aeronautical mobile-satellite (route) service	No. 1.36
ARNS	aeronautical radionavigation service	No. 1.46
ARNSS	aeronautical radionavigation-satellite service	No. 1.47
ARS	amateur service	No. 1.56
ARSS	amateur-satellite service	No. 1.57
BS	broadcasting service	No. 1.38
BSS	broadcasting-satellite service	No. 1.39
EESS	Earth exploration-satellite service	No. 1.51
FS	fixed service	No. 1.20
FSS	fixed-satellite service	No. 1.21
ISS	inter-satellite service	No. 1.22
LMS	land mobile service	No. 1.26
LMSS	land mobile-satellite service	No. 1.27
MetAids	meteorological aids service	No. 1.50
MetSat	meteorological-satellite service	No. 1.52

Radio service abbreviations (2/2)

Abbreviations	Radio services	RR definition
MMS	maritime mobile service	No. 1.28
MMSS	maritime mobile-satellite service	No. 1.29
MRNS	maritime radionavigation service	No. 1.44
MRNSS	maritime radionavigation-satellite service	No. 1.45
MS	mobile service	No. 1.24
MSS	mobile-satellite service	No. 1.25
RAS	radio astronomy service	No. 1.58
RDS	radiodetermination service	No. 1.40
RDSS	radiodetermination-satellite service	No. 1.41
RLS	radiolocation service	No. 1.48
RLSS	radiolocation-satellite service	No. 1.49
RNS	radionavigation service	No. 1.42
RNSS	radionavigation-satellite service	No. 1.43
SOS	space operation service	No. 1.23
SFTSS	standard frequency and time signal service	No. 1.53
SFTSSS	standard frequency and time signal-satellite service	No. 1.53
SRS	space research service	No. 1.55