



44th Meeting of CITEC PCC.II
23 – 27 September 2024
Merida, Mexico

Updates on ITU Preparations for CPM27-2, RA-27 and WRC-27

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Radio Regulations (new Edition 2024)



The Radio Regulations, Edition of 2024, contains the complete texts of the Radio Regulations adopted by the World Radiocommunication Conference of 1995 (WRC-95) and reviewed by the subsequent World Radiocommunication Conferences: WRC-97 (Geneva, 1997), WRC-2000 (Istanbul, 2000), WRC-03 (Geneva, 2003), WRC-07 (Geneva, 2007), WRC-12 (Geneva, 2012), WRC-15 (Geneva, 2015), WRC-19 (Sharm el-Sheik, 2019) and WRC-23 (Dubai, 2023).

- **Entering into force on 1 January 2025, the 2024 Edition of the ITU Radio Regulations (RR) is available in all six UN official languages with electronic versions that can be downloaded free of charge here: www.itu.int/hub/publication/r-reg-rr-2024**

- The RR includes all **Articles** (Vol. 1), **Appendices** (Vol. 2), **WRC Resolutions** and **WRC Recommendations** (Vol. 3), as well as the **ITU-R Recommendations incorporated by reference** (Vol. 4).
- Texts from RR Vol. 1, 2 and 3 will be available in due course in the Conference Proposal Interface (CPI) for WRC-27.



Note: The **RR-2024 Art 5 Viewer** is being made available at: www.itu.int/pub/R-REG-RR5



Main Steps towards WRC-27

WRC-23: WRC-27 Agenda - [Resolution 813 \(WRC-23\)](#)

CPM27-1 (18-19 December 2023)
Results [@CA/270](#) of 26 Jan. 2024

Meetings of ITU-R WPs
responsible/contributing on AIs

CPM27-2 [April 2027, for CPM Report
to be available 5 months prior to WRC-27]

Final regional group meetings & national preparations
Member States' proposals to WRC-27

RA-27; WRC-27

Council: WRC-27
agenda in **Res.1422**
(see [Doc. C24/125](#) & [CL-24/49](#))
Dates & place/venue
to be determined later on

National
and
regional
preparations



Results of CPM-27 Steering COM e-meeting (held on 24 June 2024)

- Defined **23 Oct. 2026** as the deadline for the draft **CPM texts** *
* based on the planned period for CPM27-2 (currently in April 2027)
- **Amended the lists of contributing groups for some WRC-27 AIs**
Add:
WP 3M to **AI 1.14**; **WP 3J** to **AI 1.19**
Remove:
WP 1A from **AI 1.10**; **WP 1B** from **AIs 1.6, 1.7, 1.15 & 1.16**;
WP 4A from **AI 1.17**; **WP 6A** from **AI 1.11**; **WP 6B** from **AI 1.4**
- **Agreed with additional guidelines for the preparation of draft CPM texts** (Deadline for characteristics, etc.; Methods numbering scheme; ref. to ITU-R texts incl. for new or rev. WRC Res., ITU-R Res., Rec. and Reports, and their drafts)
- Meeting results in **Add. 1 to CA/270** (www.itu.int/md/R00-CA-CIR-0270, of 15 July 2024) and in the **CPM Chair's Document to all Resp. Group.** (e.g. www.itu.int/md/R23-WP1A-C-0044, of 15 July 2024)



ITU-R Preparatory Studies for WRC-27

www.itu.int/go/rcpm-wrc-27-studies

Resolution **813 (WRC-23)** (ex.COM6/23) contains the WRC-27 agenda.

WRC-27 agenda Item (Chapter)	Topic	WRC Resolution (*)	Responsible Group(s)	Information from Responsible Group(s) ^{TTES}
1		-	-	-
1.1 (1)		Res.176 (Rev.WRC-23)	WP 4A	Doc. 4A/128 Sec. 2.6.2, 3.1, 3.2, 3.2.1, 3.2.4, 5.1.1 & 5.2.1 (d), Annex 1 (b), Annex 2
1.2 (1)		Res.129 (WRC-23) (ex.COM6/1)	WP 4A (1)	Doc. 4A/128 Sec. 2.6.2, 3.2, 3.2.2, 3.2.4, 5, 5.1.1 & 5.2.1 (d), Annex 3 (b), Annex 4
1.3 (1)		Res.130 (WRC-23) (ex.COM6/3)	WP 4A	Doc. 4A/128 Sec. 2.6.2, 3.1.1, 3.1.7, 5.1.1 & 5.2.1 (d), Annex 5 (b), Annex 6
1.4 (1)		Res.726 (WRC-23) (ex.COM6/24)	WP 4A	Doc. 4A/128 Sec. 2.6.2, 3.2, 3.2.3, 3.2.4, 5.1.1 & 5.2.1 (d), Annex 7 (b), Annex 8, Annex 9 (c)
1.5 (1)		Res.14 (WRC-23) (ex.COM6/6)	WP 4A	Doc. 4A/128 Sec. 2.6.2, 3.3, 3.3.1, 3.3.3, 5.1.1 & 5.2.2 (d), Annex 10
1.6 (1)		Res.131 (WRC-23) (ex.COM6/7)	WP 4A	Doc. 4A/128 Sec. 2.6.2, 3.3, 3.3.2, 3.3.3, 5.1.1, 5.2.1 & 5.4 (d), Annex 11 (b), Annex 12, Annex 13
1.7 (2)		Res.256 (WRC-23) (ex.COM6/26)	WP 5D	Doc. 5D/242 (d) (a), Annexes 2.17 (a), 2.19 (a), 2.20 (a), 2.20.7 (b) & 2.20.8, Chapter 4 (a), Annexes 4.8 (a), 4.9 (a), 4.13, 4.17 [(f)], 4.14 [(f)], 4.15 [(f)] & 4.16 [(f)]
1.8 (2)		Res.663 (Rev.WRC-23)	WP 5B	Doc. 5B/96 Sec. 7.1.1.1 (d)
1.9 (2)		Res.411 (WRC-23) (ex.COM6/2)	WP 5B	Doc. 5B/96 Sec. 7.2 & 7.2.1.1 (d), Annex 1 (b)
1.10 (2)		Res.775 (Rev.WRC-23)	WP 5C (2)	Doc. 5C/69 Sec. 3.2.2, 3.3.4, 3.3.6 & 4 & Attachment 2 (d), Annex 2 (a), Annex 4 (a)(b)
1.11 (3)		Res.249 (Rev.WRC-23)	WP 4C	Doc. 4C/77 Sec. 2.3, 2.4, 3.1.1, 4.1 & 4.1.1 (d), Annex 1, Annex 2 (b)
1.12 (3)		Res.252 (WRC-23) (ex.COM6/8)	WP 4C	Doc. 4C/77 Sec. 2.3, 2.4, 3.1.2, 4.1 & 4.1.2 (d), Annex 3, Annex 4 (b)
1.13 (3)		Res.253 (WRC-23) (ex.COM6/9)	WP 4C (3)	Doc. 4C/77 Sec. 2.3, 2.4, 3.1.3, 4.1 & 4.1.3 (d), Annex 6 (b), Annex 7
1.14 (3)		Res.254 (WRC-23) (ex.COM6/10)	WP 4C	Doc. 4C/77 Sec. 2.3, 2.4, 3.1.4, 4.1 & 4.1.4 (d), Annex 8, Annex 9 (c), Annex 10 (b)

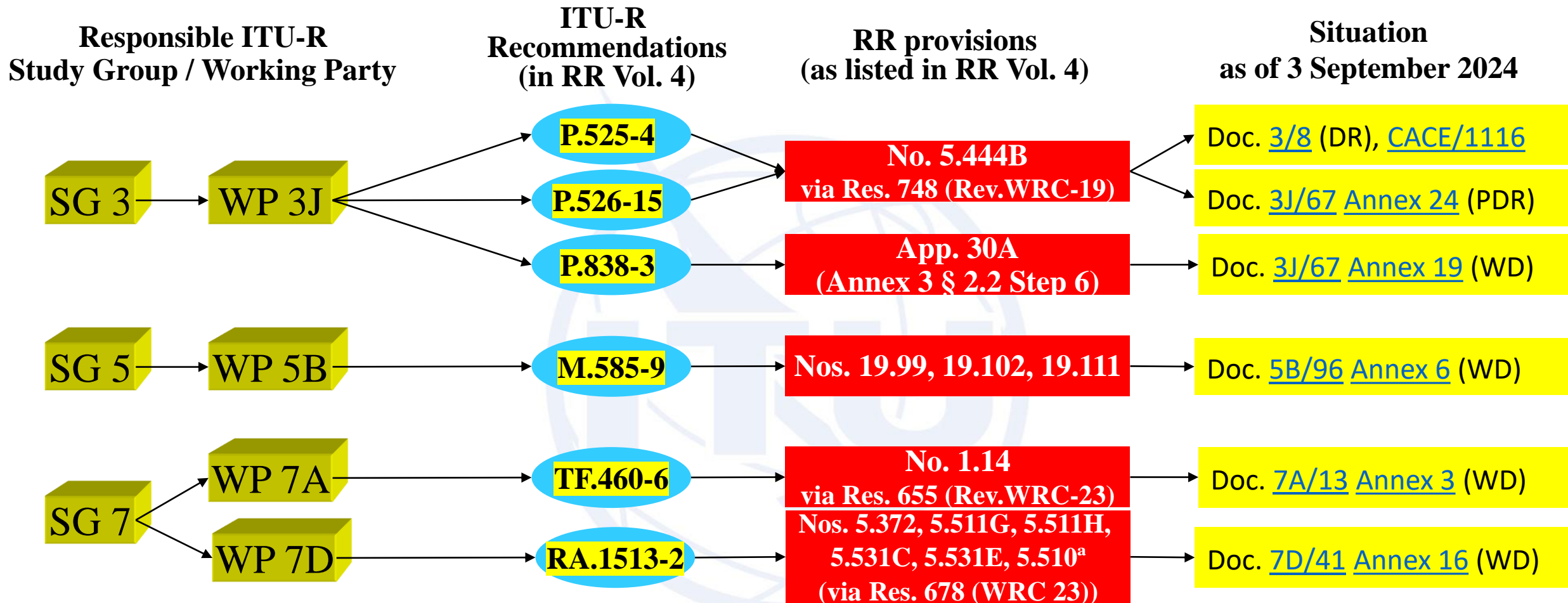
WRC-27 agenda Item (Chapter)	Topic	WRC Resolution (*)	Responsible Group(s)	Information from Responsible Group(s) ^{TTES}
1.15 (4)		Res.680 (WRC-23) (ex.COM6/4)	WP 7B	Doc. 7B/35 Sec. 2.2, 3.2, 3.2.1, 3.4, 3.4.1, 3.4.2 & 4 (d), Annex 1 (b), Annex 2 (f), Annex 3
1.16 (4)		Res.681 (WRC-23) (ex.COM6/11)	WP 7D	Doc. 7D/41 Sec. 2.1, 2.2 & 2.2.1 (d), Annex 1 (b), Annex 11 (e)
1.17 (4)		Res.682 (WRC-23) (ex.COM6/12)	WP 7C	Doc. 7C/41 Sec. 2.1, 2.3, 4, 4.1 & 8.1 (d), Annex 1 (e), Annex 3 (f), Annex 10 (b)
1.18 (4)		Res.712 (WRC-23) (ex.COM6/5)	WP 7C WP 7D (4)	Doc. 7C/41 Sec. 2.1, 2.3, 5.3.1 & 8.1 (d), Annex 9 Doc. 7D/41 Sec. 2.1, 2.2 & 2.2.2 (d), Annex 2 (b), Annex 3 (f)
1.19 (4)		Res.674 (WRC-23) (ex.COM4/8)	WP 7C	Doc. 7C/41 Sec. 2.1, 2.3, 5.1, 5.2 & 8.1 (d), Annex 8 (f)
2 (5)		Res.27 (Rev.WRC-19)	CPM27-2	See BR Administrative Circular CA/270 (a)
3		-	-	Outside scope of the CPM
4 (5)		Res.95 (Rev.WRC-19)	CPM27-2	See BR Administrative Circular CA/270 (a)
5		-	-	Outside scope of the CPM
6		-	-	Outside scope of the CPM
7 (1)		Res.86 (Rev.WRC-07)	WP 4A	Doc. 4A/128 Sec. 3.3.3 & 5 (d), Annex 14 (b), Annex 15
	A (1)	Res.86 (Rev.WRC-07)	WP 4A	Topic yet to be identified, if any
8		Res.26 (Rev.WRC-23)	CPM27-2 for information only	See BR Administrative Circular CA/270 (a)
9		-	-	-
9.1		-	-	-
9.2		-	-	-
9.3		Res.80 (Rev.WRC-07)	-	-
10		Res.804 (Rev.WRC-23) - Res. 814 (WRC-23) (ex.COM6/25)	See studies on WRC-31 preliminary agenda items	See studies on WRC-31 preliminary agenda items (updated 3 May 2024)

- As of 17 July 2024
- Will be updated on a regular basis after meetings of the responsible groups

Notes related to the information from the Responsible Groups	
a	Relevant part
b	Framework/Work Plan/Milestones/Organization of studies
c	Draft CPM text or working document towards draft CPM text
d	Chair's Report of the meeting (folder with annexes)
e	Annex including a DN or DR Rec., a PDN or PDR Rec., or WDPDN or WDPDR Rec.
f	Annex including a DN or DR Rep., a PDN or PDR Rep., or a WDPDN or WDPDR Rep.



AI 2 – Work on revision of ITU-R Rec. incorporated by reference in the RR



➤ In accordance with [Res. 27 \(Rev.WRC-19\)](#), the list of the revised Rec. approved since WRC-23 will be provided to CPM27-2

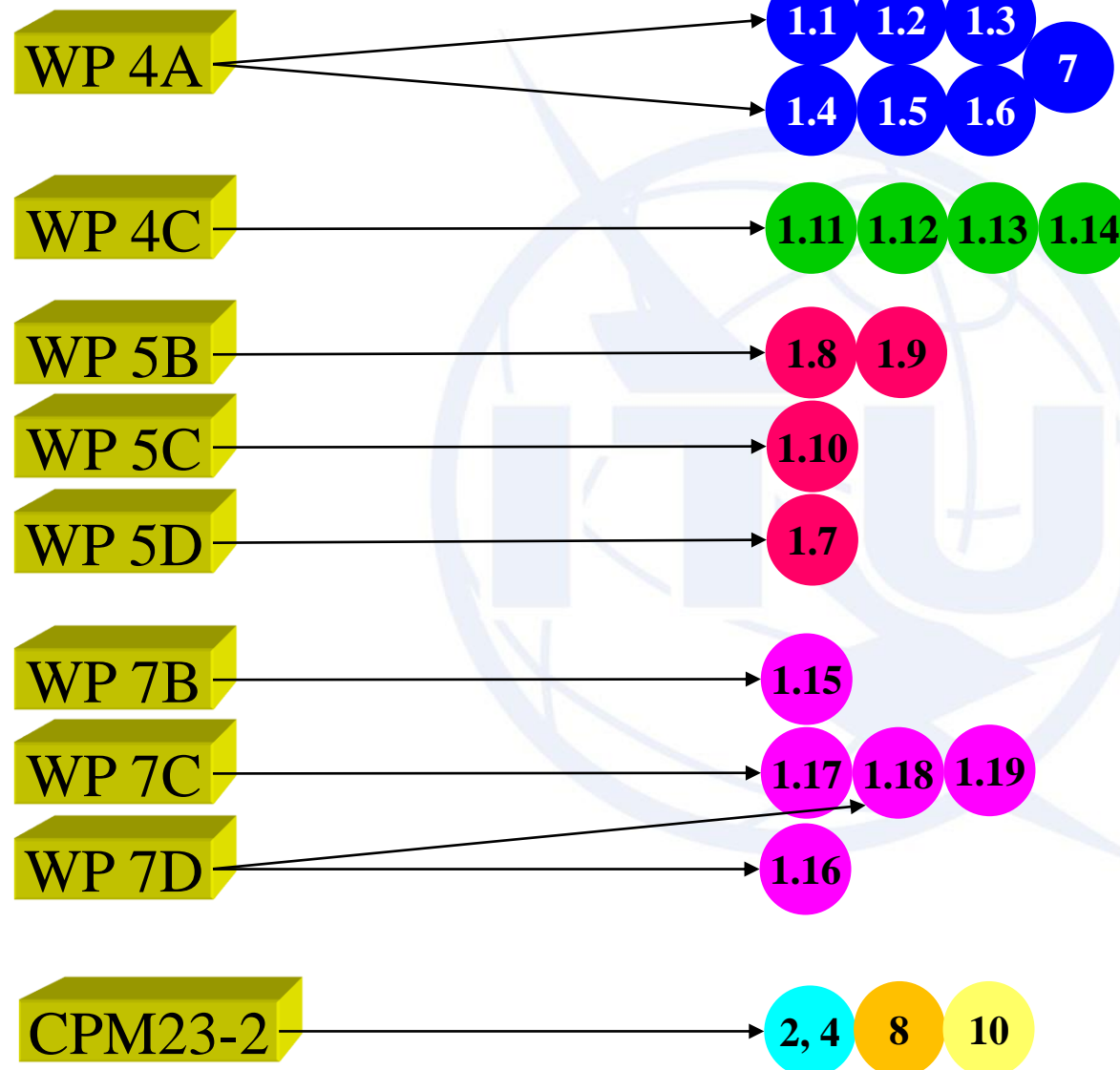
DR: Draft revision
PDR: Preliminary DR
WD: Working document towards a PDR
CACE: BR Administrative Circular



Summary of CPM Report Preparation

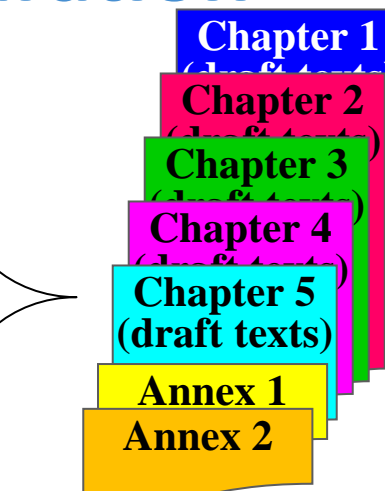
Responsible ITU-R Groups

WRC-27 agenda items



Dates/Deadlines

To CPM-27 Chapter Rapporteurs **prior to 23 October 2026**



CPM Management Team Meeting

[11-12 Nov. 2026]

Draft CPM Report

2 months prior to CPM27-2

CPM27-2

[5-15 Apr 2027]*

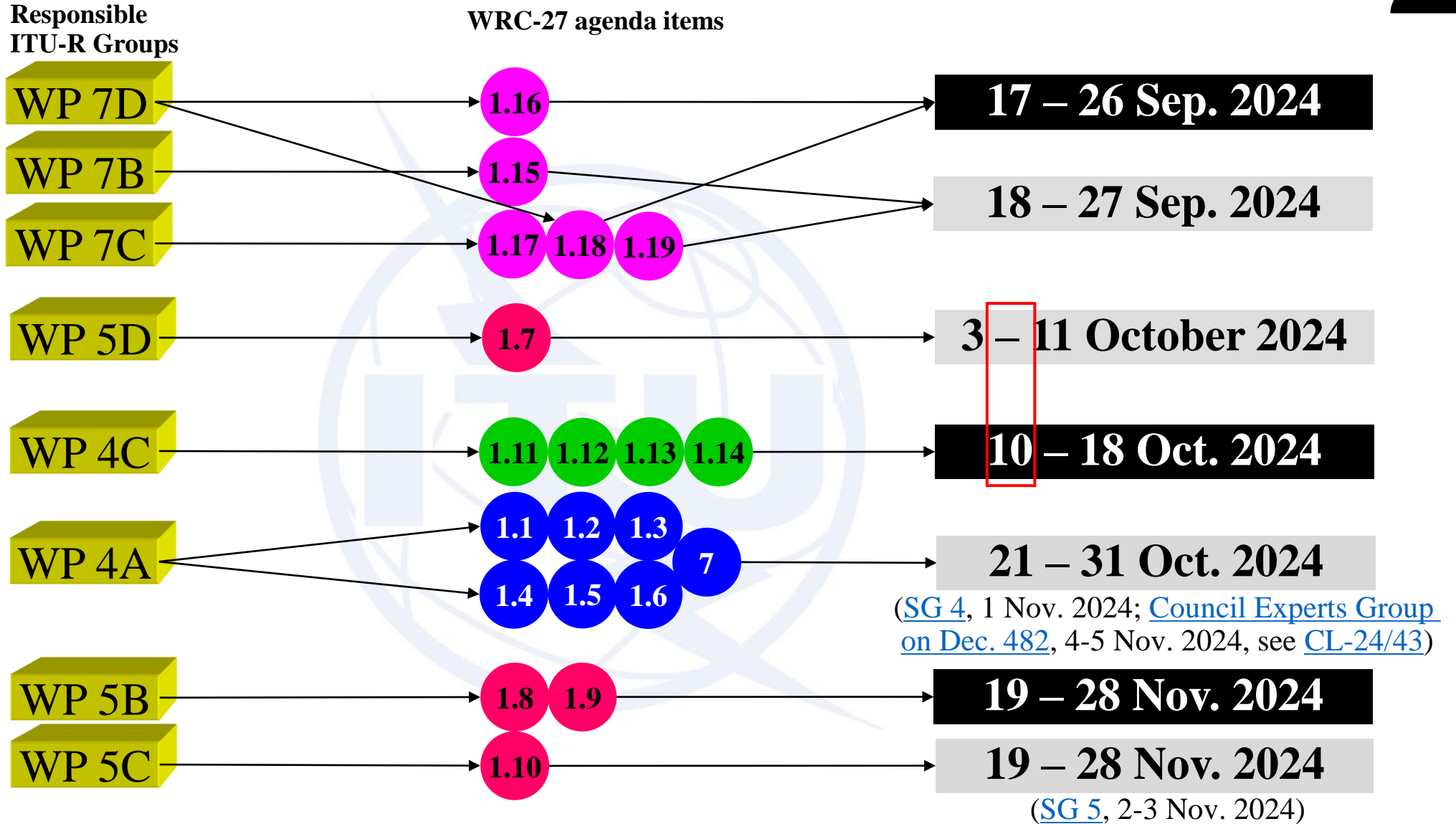
CPM Report to WRC-27

5 months prior to WRC-27

[...]: planned dates

* Dates of CIG availability

Next Meetings of Resp. Groups



Up-to-date information on ITU-R events online at: <http://www.itu.int/en/events/Pages/Calendar-Events.aspx?sector=ITU-R>

Information on the regional preparation for WRC-27

➤ [Resolution 72 \(Rev. WRC-19\)](#)

www.itu.int/en/ITU-R/conferences/wrc/2027/Pages/reg-prep.aspx

Asia-Pacific Telecommunity (APT)



- ▶ <http://www.apr.int/APTAPG>
- ▶ Chair, APG-27:
Mr. Nobuyuki Kawai, Japan,
no-kawai@kddi.com

Arab Spectrum Management Group (ASMG)



- ▶ Chair, ASMG:
Mr. Tariq AL AWADHI, UAE,
tariq.alawadhi@tra.gov.ae

African Telecommunications Union (ATU)



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

European Conference of Postal and Telecommunications Administrations (CEPT)



- ▶ <http://www.cept.org/ecc/groups/ecc/cpg>
- ▶ Chair, CPG:
Mr. Stephen Talbot, United Kingdom,
stephen.talbot@efcom.org.uk

Inter-American Telecommunication Commission (CITEL)



- ▶ <http://www.citel.oas.org/en/Pages/PCCII>
- ▶ Chair of the PCC.II Working Group relative to the CITEL's Preparation for WRCs:
Mr. Ricardo Martinez, Colombia (Republic of)
ricardo.martinez@ane.gov.co

Regional Commonwealth in the Field of Communications (RCC)



- ▶ <http://en.rcc.org.ru>
- ▶ Chair, RCC WG WRC-27/RA-27 *:
Mr. Sergey Pastukh, Russian Federation
serg-past@mail.ru; pastuhsy@niir.ru

The Network of Women for WRC-27 (NOW4WRC27) initiative has been launched.



ITU Inter-Regional Workshops on WRC-27 Preparation

➤ Resolution 72 (Rev. WRC-19)

1st IRW
[in Q4
of 2025]

- **Scheduled halfway through the preparatory cycle**
 - ⇒ **Presentation and review of the on-going preparatory studies of the responsible groups for the WRC-27 agenda items**
 - ⇒ **Presentation of the organization, preliminary views, draft priorities and positions of the regional groups**

2nd IRW
[in Q4
of 2026]

- **To be scheduled few months prior to CPM27-2**
 - ⇒ **Presentation of the draft CPM Report to WRC-27 (explanation of the draft Methods to satisfy WRC-27 agenda items)**
 - ⇒ **Presentation and review of the regional groups' draft views, positions and common proposals**

3rd IRW
[in Q3/Q4
of 2027]

- **To be scheduled few months prior to WRC-27**
 - ⇒ **Presentation of the CPM & Dir. Reports to WRC-27**
 - ⇒ **Presentation and review of the regional groups' draft views, positions and common proposals**

[...]: planned period



Thank you for your attention

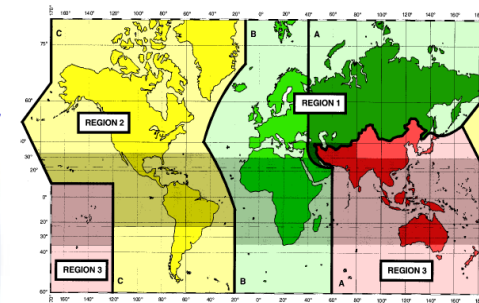
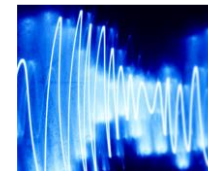
Additional slides on

- **WRC-23 Proposal Management System** (example of use)
- **Items on WRC-27 agenda and WRC-31 preliminary agenda**
- **Numbers for WRC-23 new Res. & RR provisions, incl. Art. 5 footnotes**
- **Summary of RA-23 changes to Res. ITU-R 1-9 and 2-9**
- **RAG CG on CPM process and Doc. 1 of each Study Group**
- **Results of CPM27-1, CPM-27 Chair, Vice-Chairs and Chapter Rapporteurs**
- **ITU-R Study Groups, Working Parties and Responsible Groups for items on WRC-27 agenda and WRC-31 preliminary agenda**
- **RR Navigation Tool and RR Art 5 Viewer based on RR-2020 (version for RR-2024 under development)**
- **Radio services abbreviations**

World Radiocommunication Conferences (WRCs)



- Update the Radio Regulations
- Allocate spectrum for emerging radio services & applications while protecting existing users
- Create regulatory certainty for spectrum users, regulators, industry
- Achieve spectrum harmonization for economies of scale & equipment interoperability
- Provide a stable and predictable regulatory environment needed for future investments
- Bring together all stakeholders in a process that is aimed at building consensus



Organized every 3-4 years, last one was WRC-23 (20 Nov. – 15 Dec. 2023 Dubai, UAE)

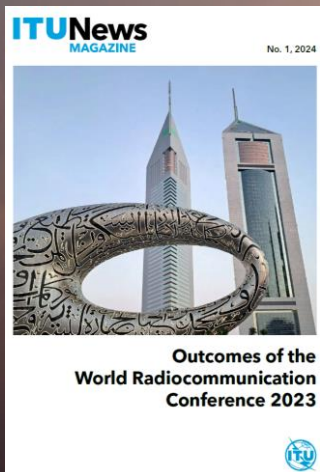
- **3987** Participants, **163** Administrations, **151** Observers (UN Agencies, SDOs, Operators, Industries, etc.)
- **> 40** agenda items, issues and topics
- **967** documents*, **6024** proposals*, **4** weeks

* see the [WRC-23 Proposal Management System](#)

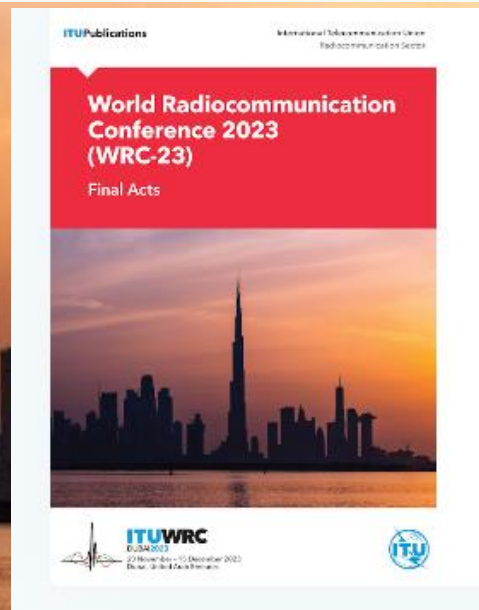


Where to find WRC-23 outcomes

www.itu.int/wrc-23



Final Act of the WRC-23



Minutes of the Plenary Meetings



Actas de las Sesiones Plenarias



Contributions (C)

proposals for the work of the conference



Blue documents

submitted by the Editorial Committee to the Plenary (1st reading)
(considered also on 2nd reading)



WRC-23 Proposal Management System



WRC-23 Proposal Management System

WRC-23

See Report of the CPM

www.itu.int/net4/proposals/WRC23

Full Text Search

Filtering

Export content(s)

Export results

Document Type/Color Any Value	Agenda Item Any Value	Action Any Value	Source Any Value
Doc. Number (e.g.: 5 A10)	Proposal Number	Provision	Mapping Any Value
Subject Any Value	Received Since	Received Before	

Reset Apply

967 documents, 6024 proposals

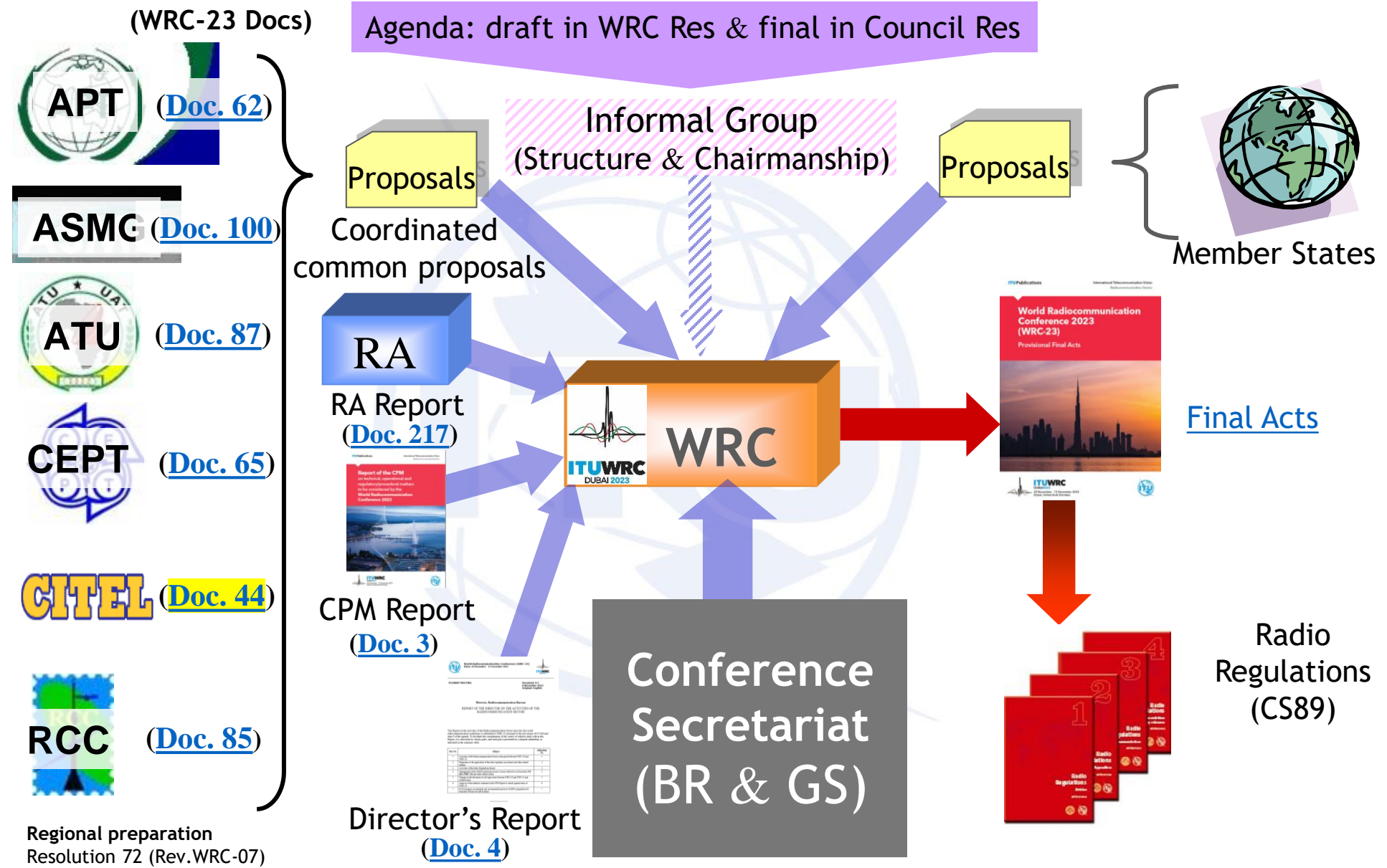
English	Agenda Item	Action	Source	Doc. Number	Proposal	Provision/Reference	Mapping	Received	Properties
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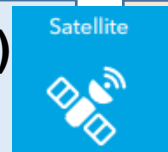
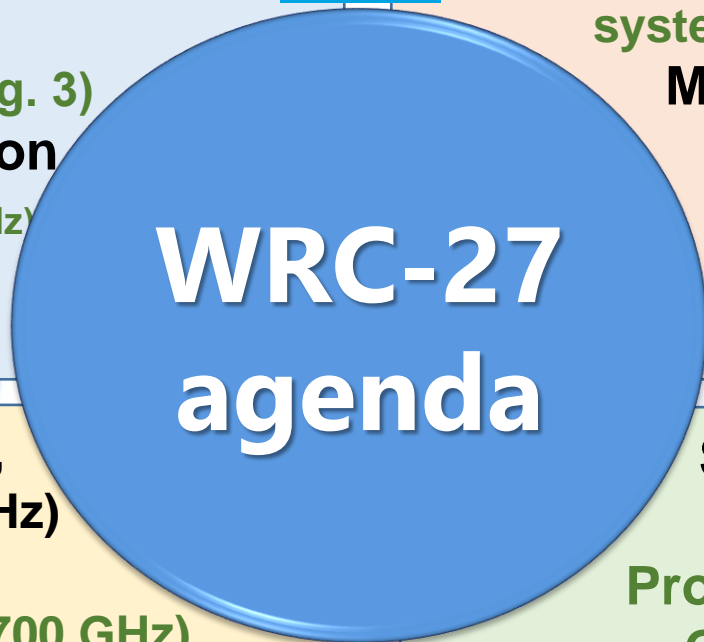


Example of a search for WRC-23 outcomes on agenda item 1.19

English >	Agenda Item	Action	Source	Doc. Number	Proposal	Provision/Reference	Full Text Search	Filtering ^
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		1.19	MOD	B42	482	2	15.4-18.4 GHz	
		1.19	ADD	B42	482	3	5.A119	
		1.19	ADD	B42	482	4	5.C119	
		1.19	MOD	B42	482	6	5.517	
		1.19	MOD	B42	482	15	TABLE 22-1B	
		1.19	ADD	B42	482	16	22.5C.X	
		1.19	MOD	B42	482	17	TABLE 22-3	
		1.19	ADD	B42	482	18	22.5F.Y	
		1.19	MOD	B42	482	19	TABLE 22-4B	
		1.19	MOD	B42	482	20	TABLE 5-1	
		1.19	MOD	B42	482	21	ARTICLE 7 - Coordination, notification and recording in the Master Internatio...	
		1.19	MOD	B42	482	22	7.1	
		1.19	SUP	B42	482	24	RESOLUTION 174 - Primary allocation to the fixed-satellite service in the space-to...	

The WRC Process





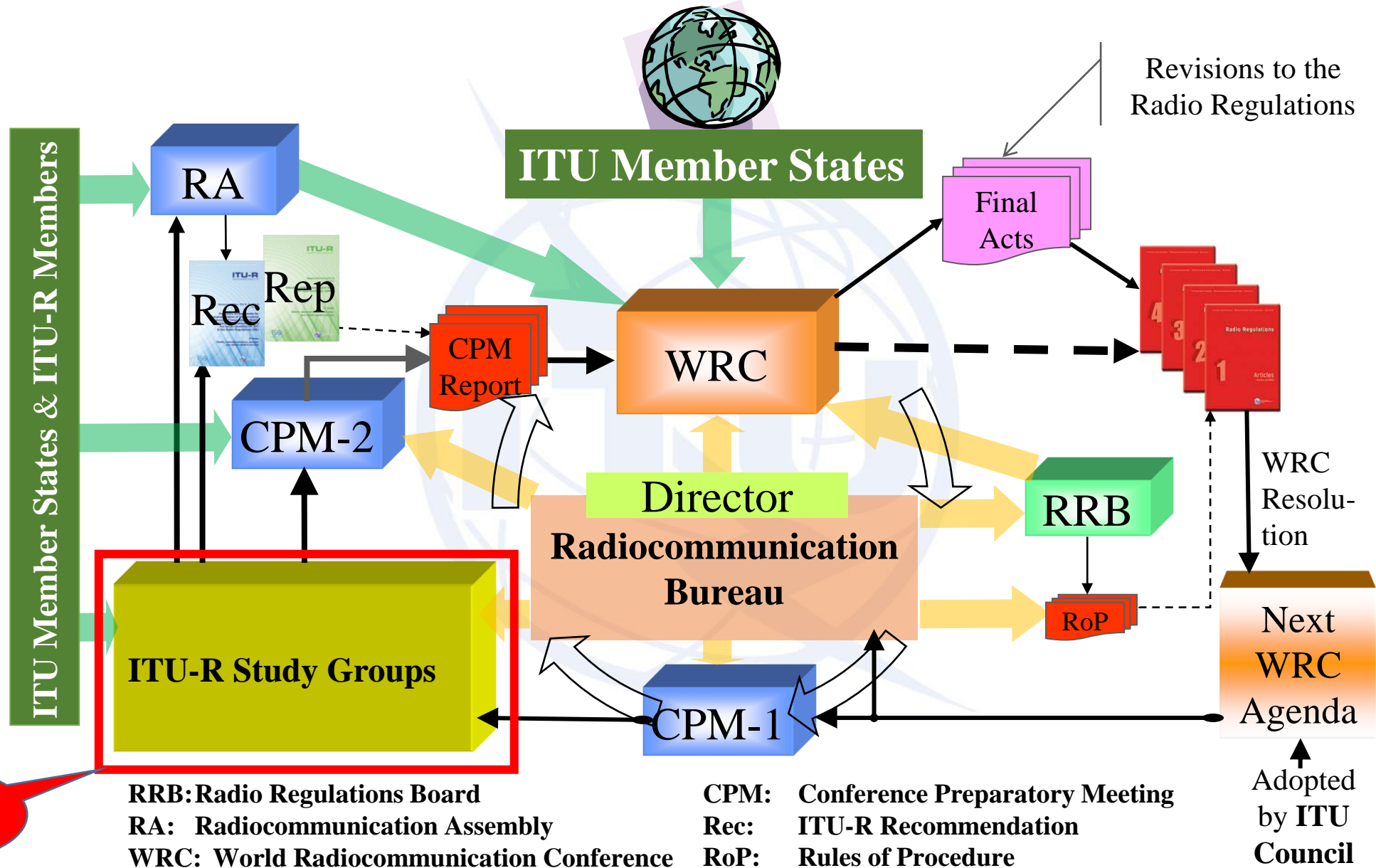
- 1.1 FSS A-ESIM & M-ESIM (47.2...51.4 GHz)**
- 1.2 FSS Smaller ES Antenna (13.75-14 GHz)**
- 1.3 FSS gateway ES (51.4-52.4 GHz)**
- 1.4 FSS & BSS (17.3...17.8 GHz , Reg. 3)**
- 1.5 NGSO FSS & MSS ES authorization**
- 1.6 FSS equitable access (37.5....51.4 GHz)**
- 7 Regulatory issues (satellite coordination & notification procedures)**

- MSS NGSO-GSO space-to-space links** *1.11*
- MSS for low-data-rate (IoT) NGSO systems between 1 427 and 2 025 MHz** *1.12*
- MSS for IMT between 694/698 MHz and 2.7 GHz** *1.13*
- MSS new allocations in bands 2010-2025 (E-s) & 2160-2170 MHz (s-E) in R1&R3 and 2120-2160 MHz (s-E) in all Reg.** *1.14*

- 1.7 IMT identification (4.4-4.8 GHz, 7.125-8.4 GHz & 14.8-15.35 GHz)**
- 1.8 RLS (231.5-275 GHz) and identification for apps (275-700 GHz)**
- 1.9 RR App. 26, AM(OR)S HF modernization**
- 1.10 RR Art. 21 limits for BSS, FSS & MSS to protect FS & MS (71-76 GHz and 81-86 GHz)**

- SRS (s-s) allocations in several bands for lunar communications** *1.15*
- Protection of RAS in specific Radio Quiet Zone from NGSO systems** *1.16*
- MetAids (space weather) in bands between 27.5 and 614 MHz for receive-only sensors** *1.17*
- EESS (passive) and RAS protection above 76 GHz from unwanted emissions** *1.18*
- EESS (passive) (4.2-4.4 GHz & 8.4-8.5 GHz)** *1.19*

The WRC Cycle



We are here

WRC-27 Agenda – FSS and BSS issues

Outcomes from WRC-23 agenda item 10: WRC-27 agenda items 1.1 to 1.6 and 7

- 1.1 ➤ Technical and operational conditions and development of regulatory measures, as appropriate, for the **use of the bands 47.2-50.2 GHz and 50.4-51.4 GHz (E-s)**, or parts thereof, by **A-ESIM** and **M-ESIM** communicating with **GSO and NGSO FSS** space stations
▶ **Resolution 176 (Rev.WRC-23)**
- 1.2 ➤ Possible **revisions of sharing conditions** in the **band 13.75-14 GHz** to allow the use of **uplink FSS earth stations with smaller antenna sizes** ▶ **Resolution 129 (WRC-23)**
- 1.3 ➤ **Use of the band 51.4-52.4 GHz** to enable use by **gateway earth stations** transmitting to **NGSO systems in the FSS (E-s)** ▶ **Resolution 130 (WRC-23)**
- 1.4 ➤ Possible **new primary allocation** to the **FSS (s-E)** in the **band 17.3-17.7 GHz** and a possible **new primary allocation** to the **BSS (s-E)** in the **band 17.3-17.8 GHz in Reg. 3**, while ensuring the protection of existing primary allocations in the same and adjacent frequency bands, and to **consider EPFD limits** to be applied in **Reg. 1 & 3** to **NGSO FSS systems (s-E)** in the band 17.3 17.7 GHz
▶ **Resolution 726 (WRC-23)**

▶ **see full text of an agenda item in Res. 813 (WRC-23) and details in the associated resolution**

WRC-27 Agenda – FSS and BSS issues (cont'd)

Outcomes from WRC-23 agenda item 10: WRC-27 agenda items 1.1 to 1.6 and 7

- 1.5 ➤ Regulatory measures, and implementability thereof, to **limit the unauthorized operations of NGSO FSS and MSS earth stations** and associated issues related to the service area of NGSO FSS and MSS systems ➤ **Resolution 14 (WRC-23)**
- 1.6 ➤ Technical and regulatory measures for FSS networks/systems in the **bands 37.5-42.5 GHz (s-E), 42.5-43.5 GHz (E-s), 47.2-50.2 GHz (E-s) and 50.4-51.4 GHz (E-s)** for equitable access to these bands ➤ **Resolution 131 (WRC-23)**
- 7 ➤ Possible changes, in response to PP Res. 86 (Rev. Marrakesh, 2002), on **advance publication, coordination, notification and recording procedures** for frequency assignments pertaining to **satellite networks**, in order to **facilitate the rational, efficient and economical use** of radio frequencies and any associated orbits, including the geostationary-satellite orbit ➤ **Resolution 86 (Rev.WRC-07)**

➤ **see full text of an agenda item in Res. 813 (WRC-23) and details in the associated resolution**

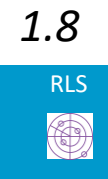
WRC-27 Agenda – FS, MS and RLS issues

Outcomes from WRC-23 agenda item 10: WRC-27 agenda items 1.7 to 1.10



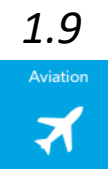
1.7

- Studies on sharing and compatibility and develop technical conditions for the **use of IMT** in the **bands 4 400-4 800 MHz & 7 125-8 400 MHz (or parts thereof), and 14.8-15.35 GHz** taking into account existing primary services operating in these, and adjacent, frequency bands
▶ **Resolution 256 (WRC-23)**



1.8

- Possible **additional spectrum allocations to the RLS** on a **primary** basis in frequency **range 231.5-275 GHz** and possible **new identifications for RLS applications** within frequency **range 275-700 GHz** for millimetric and sub millimetric **wave imaging systems**
▶ **Resolution 663 (Rev.WRC-23)**



1.9

- Appropriate **regulatory actions to update RR Appendix 26** in support of **aeronautical mobile (OR) HF modernization**
▶ **Resolution 411 (WRC-23)**
(RR App.26 - Provisions and associated Frequency Allotment Plan for the AM(OR)S in the bands allocated exclusively to that service **between 3 025 kHz and 18 030 kHz**)



1.10

- Developing **PFD and EIRP limits** for inclusion in **RR Article 21** for **FSS, MSS and BSS** to **protect the FS and MS** in the **bands 71-76 GHz and 81-86 GHz**
▶ **Resolution 775 (Rev.WRC-23)**

▶ **see full text of an agenda item in Res. 813 (WRC-23) and details in the associated resolution**

WRC-27 Agenda – MSS issues

Outcomes from WRC-23 agenda item 10: WRC-27 agenda items 1.11 to 1.14

- 1.11 ➤ Technical and operational issues, and regulatory provisions, for **space-to-space links among NGSO and GSO satellites** in the **bands 1 518-1 544 MHz, 1 545-1 559 MHz, 1 610-1 645.5 MHz, 1 646.5-1 660 MHz, 1 670-1 675 MHz and 2 483.5-2 500 MHz** allocated to the MSS ➤ **Resolution 249 (Rev.WRC-23)**
- 1.12 ➤ Possible **allocations to the MSS** and possible regulatory actions in the **bands 1 427-1 432 MHz (s-E), 1 645.5-1 646.5 MHz (s-E) (E-s), 1 880-1 920 MHz (s-E) (E-s) and 2 010-2 025 MHz (s-E) (E-s)** required for the future development of **low-data-rate NGSO mobile satellite systems** ➤ **Resolution 252 (WRC-23)**
- 1.13 ➤ Possible **new allocations to the MSS** for **direct connectivity** between **space stations and IMT user equipment to complement terrestrial IMT network coverage** (in the frequency **range between 694/698 MHz and 2.7 GHz**, ➤ **Resolution 253 (WRC-23)** taking into account the IMT frequency arrangements addressed in the most recent version of Rec. ITU-R M.1036)
- 1.14 ➤ Possible **additional allocations to the MSS** ➤ **Resolution 254 (WRC-23)** (in **bands 2 010-2 025 MHz (E-s) and 2 160-2 170 MHz (s-E) in Regions 1 and 3** and **2 120-2 160 MHz (s-E) in all Regions**)

➤ **see full text of an agenda item in Res. 813 (WRC-23) and details in the associated resolution**

Outcomes from WRC-23 agenda item 10: WRC-27 agenda items 1.15 to 1.19

- 1.15 ➤ Studies on frequency-related matters, including possible **new or modified SRS (space-to-space) allocations**, for future development of **communications on the lunar surface and between lunar orbit and the lunar surface**
 (in the following **frequency ranges** or portions thereof: **▶ Resolution 680 (WRC-23)**
 - **390-406.1 MHz, 420-430 MHz and 440-450 MHz**, limited to outside the SZM (shielded zone of the Moon);
 - **2 400-2 690 MHz, 3 500-3 800 MHz, 5 150-5 570 MHz, 5 570-5 725 MHz, 5 775-5 925 MHz, 7 190-7 235 MHz, 8 450-8 500 MHz and 25.25-28.35 GHz;**)
- 1.16 ➤ Studies on the technical and regulatory provisions necessary to **protect RAS operating in specific Radio Quiet Zones** and, **in frequency bands allocated to the RAS on a primary basis globally**, from aggregate radio-frequency interference caused by **NGSO systems** (**bands: 10.6-10.7 GHz; 42.5-43.5 GHz; 76-77.5 GHz; 94.1-95 GHz; 100-102 GHz; 114.25-116 GHz; 130-134 GHz**) **▶ Resolution 681 (WRC-23)**
- 1.17 ➤ **regulatory provisions for receive-only space weather sensors** and their protection in the RR, taking into account the results of ITU Radiocommunication Sector studies
 (**bands: 27.5-28.0 MHz; 29.7-30.2 MHz; 32.2-32.6 MHz; 37.5-38.325 MHz; 73.0-74.6 MHz; 608-614 MHz**) **▶ Resolution 682 (WRC-23)**
▶ see full text of an agenda item in Res. 813 (WRC-23) and details in the associated resolution

Outcomes from WRC-23 agenda item 10: WRC-27 agenda items 1.15 to 1.19

- 1.18 ➤ possible regulatory measures regarding the **protection of the EESS (passive) and the RAS** in certain frequency **bands above 76 GHz** from **unwanted emissions of active services** ➤ **Resolution 712 (WRC-23)**
(EESB bands: **86-92 GHz; 114.25-116 GHz; 164-167 GHz; 200-209 GHz;**
RAS bands: **76-81 GHz; 130-134 GHz; 164-167 GHz; 226-231.5 GHz**)
- 1.19 ➤ possible **primary allocations in all Regions to the EESS (passive)** in the frequency **bands 4 200-4 400 MHz and 8 400-8 500 MHz** ➤ **Resolution 674 (WRC-23)**

➤ **see full text of an agenda item in Res. 813 (WRC-23) and details in the associated resolution**



WRC-31 Preliminary Agenda*

Outcomes from WRC-23 agenda item 10: WRC-31 preliminary agenda items 2.1 to 2.14 (WRC-27 agenda item 10)

- 2.1 ➤ **potential new allocations** to the **FS, MS, RLS, ARS, ARSS, RAS, EESS** (passive and active) and **SRS** (passive) in the frequency **range 275-325 GHz**, with the consequential update of Nos. **5.149, 5.340, 5.564A** and **5.565** ➤ **Resolution 721 (WRC-23)**
- 2.2* ➤ [to consider the **possible [frequency bands]** for [non-beam and beam] wireless **power transmission** to avoid harmful interference to the radiocommunication **services** caused by wireless power transmission ➤ **Resolution 910 (WRC-23)**
- 2.3 ➤ use of **A-ESIM** and **M-ESIM** communicating with **NGSO** stations in the **FSS (E-s)** in the frequency **band 12.75-13.25 GHz** ➤ **Resolution 133 (WRC-23)**
- 2.4 ➤ Support for **ISS allocations** in the **bands 3 700-4 200 MHz** and **5 925-6 425 MHz**, and associated regulatory provisions, to enable **links between NGSO and GSO satellites** ➤ **Resolution 683 (WRC-23)**

* For further consideration at WRC-27, given the divergent views regarding the frequency bands to be studied and the means to ensure the full protection of all incumbent services concerned.

➤ **see full text of an agenda item in Res. 814 (WRC-23) and details in the associated resolution**



WRC-31 Preliminary Agenda* (cont'd)

Outcomes from WRC-23 agenda item 10: WRC-31 preliminary agenda items 2.1 to 2.14 (WRC-27 agenda item 10)

- 2.5* ➤ Possible primary allocation in the **bands [694-960 MHz, or parts thereof, in Region 1], 890-942 MHz, or parts thereof, in Region 2, and [3 400-3 700 MHz, or parts thereof, in Region 3]** to the AMS for the use of IMT user equipment in terrestrial IMT networks by non-safety applications ➤ **Resolution 251 (Rev.WRC-23)**
- 2.6* ➤ Identification of the **bands [102-109.5 GHz, 151.5-164 GHz, 167-174.8 GHz, 209-226 GHz and 252-275 GHz]** for IMT ➤ **Resolution 255 (WRC-23)**
- 2.7 ➤ **improving** the utilization of **VHF** maritime radiocommunication ➤ **Resolution 363 (Rev.WRC-23)**
- 2.8 ➤ **improving** the utilization and channelization of **maritime radiocommunication** in the **MF and HF bands**, incl. potential revisions of Art. **52** and App. **17** ➤ **Resolution 366 (WRC-23)**
- 2.9* ➤ possible **allocations to the RNSS (s-E)** in the frequency **bands [5 030-5 150 MHz and 5 150-5 250 MHz] or parts thereof** ➤ **Resolution 684 (WRC-23)**

* For further consideration at WRC-27, given the divergent views regarding the frequency bands to be studied and the means to ensure the full protection of all incumbent services concerned.

➤ **see full text of an agenda item in Res. 814 (WRC-23) and details in the associated resolution**



WRC-31 Preliminary Agenda* (cont'd)

Outcomes from WRC-23 agenda item 10: WRC-31 preliminary agenda items 2.1 to 2.14 (WRC-27 agenda item 10)

- 2.10 ➤ possible **new primary allocation** to the **EESS (E-s)** in the frequency **band 22.55-23.15 GHz** ➤ **Resolution 664 (Rev.WRC-23)**
- 2.11* ➤ upgrade of the **secondary allocation** to the **EESS (s-E)** in the **band [37.5-40.5 GHz]** or possible new **worldwide frequency allocations** on a **primary basis** to the **EESS (s-E)** in certain bands within the **range [40.5-52.4 GHz]** ➤ **Resolution 685 (WRC-23)**
- 2.12* ➤ possible **new allocations** to the **EESS (active)** in the **bands [3 000-3 100 MHz]** and **[3 300-3 400 MHz]** on a secondary basis ➤ **Resolution 686 (WRC-23)**
- 2.13 ➤ studies on **coexistence** between **spaceborne synthetic aperture radars** operating in the **EESS (active)** and the **RDS** in the **band 9 200-10 400 MHz**, with possible actions as appropriate ➤ **Resolution 722 (WRC-23)**
- 2.14 ➤ review **spectrum use and needs** of **applications of BS and MS** and consider possible regulatory actions in the **band 470-694 MHz or parts thereof** ➤ **Resolution 235 (Rev.WRC-23)**

* For further consideration at WRC-27, given the divergent views regarding the frequency bands to be studied and the means to ensure the full protection of all incumbent services concerned.

➤ **see full text of an agenda item in Res. 814 (WRC-23) and details in the associated resolution**



Other relevant standing items on WRC Agenda

Outcomes from WRC-23 agenda item 10: WRC-27 agenda items 2, 4, 8 and 9

- 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 \(Rev.WRC-19\)](#)
 - 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 \(Rev.WRC-19\)](#)
 - 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 \(Rev.WRC-23\)](#)
 - 9 ➤ Consider and approve the Report of the BR Director, in accordance with Article 7 of the ITU Convention:
 - 9.1 – on **ITU-R activities** since WRC 23*
 - 9.2 – on any **difficulties or inconsistencies encountered in the application of the RR****
 - 9.3 – on action in **response to** ➤ [Res. 80 \(Rev.WRC-07\)](#)
- * Strictly limited to the Report of the Director on ITU-R activities, no topics outside WRC-27 agenda items 1.1 to 1.19
- ** Strictly limited to the Report of the Director on any difficulties or inconsistencies ... and the comments from administrations.
- [see full text of an agenda item in Res. 813 \(WRC-23\) and details in the associated resolution](#)



List of ITU-R Rec. incorporated by reference in the new RR Edition WRC-27 agenda item 2

ITU-R Rec. *1	RR provisions and footnotes	SG/WP
TF.460-6	No. 1.14 (via Res. 655 (Rev.WRC-23))	7 / 7A
M.489-2	Nos. 51.77, 52.231, App. 18 (General notes e))	5 / 5B
M.492-6	No. 56.2	5 / 5B
P.525-4	No. 5.444B (via Res. 748 (Rev.WRC-19))	3 / 3J
P.526-15	No. 5.444B (via Res. 748 (Rev.WRC-19))	3 / 3J
M.541-11	Nos. 51.35, 52.112, 52.149, 52.153, 54.2	5 / 5B
M.585-9 *2	Nos. 19.99, 19.102, 19.111	5 / 5B
M.633-5	No. 34.1	4 / 4C
S.672-4	TABLE 22-2 (and No. 22.5D.3), TABLE 22-3 (and No. 22.5F.3)	4 / 4A
M.690-3	App. 15 (Table 15-2)	5 / 5B
RA.769-2 *3	Nos. 5.372, 5.511G, 5.511H, 5.531C, 5.531E and No. 5.510A (via Res. 678 (WRC 23))	7 / 7D
P.838-3	App. 30A (Annex 3 § 2.2 Step 6)	3 / 3J
M.1084-5	App. 18 (NOTE B) (prior to the table)	5 / 5B
SM.1138-3	App. 1 (§ 1 and § 2)	1 / 1A
SA.1154-0	No. 5.391	7 / 7B
M.1171-1	Nos. 52.192, 52.195, 52.213, 52.224, 52.234, 52.240, 57.1	5 / 5B
M.1172-0	No. 19.48	5 / 5B
M.1173-1	Nos. 52.181, 52.229, App. 17 (Part B, Section I § 2 and § 6)	5 / 5B
M.1174-4	Nos. 5.287, 5.288	5 / 5B
M.1187-1	App. 4 (Annex 2 item C.11.b)	4 / 4C
S.1256-0	No. 22.5A	4 / 4A
RS.1260-2	No. 5.279A	7 / 7C

ITU-R Rec. *1	RR provisions and footnotes	SG/WP
BO.1293-2	App. 30A (Annex 3 § 3.3), App. 30 (Annex 5 § 3.4)	4 / 4A
S.1340-0	No. 5.511C	4 / 4A
S.1428-1	TABLE 22-1A, TABLE 22-1B, TABLE 22-1C (and No. 22.5C.6)	4 / 4A
BO.1443-3	TABLE 22-1D (and No. 22.5C.11 and 22.5C.13)	4 / 4A
RA.1513-2	Nos. 5.372, 5.511G, 5.511H, 5.531C, 5.531E, 5.510A (via Res. 678 (WRC 23))	7 / 7D
M.1583-1	No. 5.372, No. 5.443B (via Res. 741 (Rev.WRC-15)), App. 4 Annex 2 (item A.17.b.3) (via Res. 741 (Rev.WRC-15))	4 / 4C
S.1586-1	No. 5.551H	4 / 4A
F.1613-0	No. 5.447E	5 / 5A
RA.1631-0	No. 5.208B (via Res. 739 (Rev.WRC-19)), No. 5.372, No. 5.443B (via Res. 741 (Rev.WRC-15)), No. 5.551H, App. 4 Annex 2 (item A.17.b.3) (via Res. 741 (Rev.WRC-15))	7 / 7D
M.1642-2	Nos. 5.328A (via Res. 609 (Rev. WRC-07))	4 / 4C
M.1643-0	No. 5.504B (refers to Annex 1, Part C of Rec. ITU-R M.1643-0), Nos. 5.504C, 5.508A and 5.509A (refer to Annex 1, Part B of Rec. ITU-R M.1643-0)	4 / 4C
M.1652-1 *4	No. 5.446A, 5.447F, 5.450A (via Res. 229 (Rev.WRC-23))	5 / 5A
M.1827-1	No. 5.444B (via Res. 748 (Rev.WRC-19))	5 / 5B
M.2013-0	No. 5.327A (via Res. 417 (Rev.WRC-15))	5 / 5B
RS.2065-0	No. 5.474C	7 / 7C
RS.2066-0	No. 5.474B	7 / 7C
S.2157-0	Nos. 5.550C, 22.5L.1 (via Res. 770 (Rev.WRC 23))	4 / 4A

44th *1 Titles & texts of the ITU-R Rec. are available in RR Vol. 4; *2 M.585-9 Annex 1; *3 RA.769-2 parts related to application of these RR Nos.; *4 M.1652-1 Annex 1 and Annex 5



WRC-23 new Resolutions

(see Annex 3 to [CA/270](#))

Res. No.	Provisional No.	Res. No.	Provisional No.	Res. No.	Provisional No.
COM4/1	364	COM5/7	678	COM6/12	682
COM4/2	406	COM5/8	679	COM6/13	721
COM4/3	213	COM5/9	126	COM6/14	910
COM4/4	218			COM6/15	133
COM4/5	365	COM6/1	129	COM6/16	683
COM4/6	219	COM6/2	411	COM6/17	255
COM4/7	220	COM6/3	130	COM6/18	366
COM4/8	674	COM6/4	680	COM6/19	684
		COM6/5	712	COM6/20	685
COM5/1	675	COM6/6	14	COM6/21	686
COM5/2	121	COM6/7	131	COM6/22	722
COM5/3	123	COM6/8	252	COM6/23	813
COM5/4	8	COM6/9	253	COM6/24	726
COM5/5	676	COM6/10	254	COM6/25	814
COM5/6	677	COM6/11	681	COM6/26	256

WRC-23 new RR Article 5 footnotes

WRC-23 No.	Final Acts No.
5.A111	5.82D
5.B111	5.137A
5.A112	5.159A
5.A17	5.198A
5.B17	5.198B
5.15A	5.295A
5.15B	5.307A
5.15C	5.307B
5.14A	5.312B
5.14B	5.314A
5.A91B	5.332A
5.111Z	5.372A
5.14C	5.409A
5.A12	5.429G

WRC-23 No.	Final Acts No.
5.A13C	5.433B
5.A13A	5.434A
5.A13D	5.434B
5.A13B	5.435A
5.36A12	5.435B
5.6A12	5.457E
5.6B12	5.457D
5.6C12	5.457F
5.A7(C)3	5.461AC
5.10B12	5.480A
5.A115	5.496A
5.A113	5.510A
5.AA110	5.511G
5.A110	5.511H

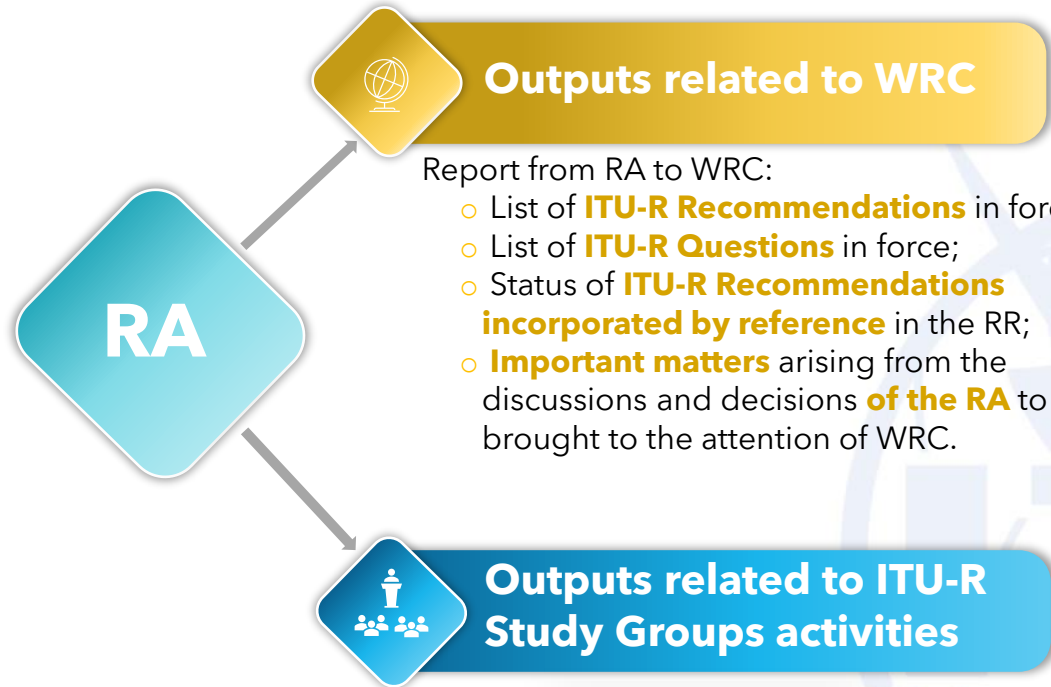
WRC-23 No.	Final Acts No.
5.A119	5.515A
5.C119	5.515B
5.A116	5.517B
5.A117	5.521A
5.523X	5.523DA
5.B7(C)3	5.529A
5.B110	5.531A
5.C110	5.531B
5.D110	5.531C
5.F110	5.531D
5.G110	5.531E
5.E110	5.531F
5.A91D	5.550CA
5.B114	5.563AA

WRC-23 new provisions in other RR Articles

WRC-23 No.	Final Acts No.
11.44B.3 and 11.44C.5	11.44B.3 and 11.44C.5
11.49.1bis and 11.49.2bis	11.49.1A and 11.49.2A
xx (in MOD Table 21-4)	21.16.19
22.5C.X	22.5C.13
22.5F.Y	22.5F.4
ARTICLE 29B, 29B.1, 29B.2	ARTICLE 29B, 29B.1, 29B.2
33.40bis	33.40A
33.46A1	33.46A
33.46A2	33.46B
51.49bis	51.49A
51.49ter	51.49B

WRC-23 No.	Final Acts No.
51.64A1, 51.64A2, 51.64A3, 51.64A4, 51.64A5	51.64A, 51.64B, 51.64C, 51.64D, 51.64E
52.13A (§ 6bis)	52.13A (§ 6A)
Section <u>IVbis</u> 52.xx0, 52.xx1, 52.xx2, 52.xx3, 52.xx4, 52.xx5	Section IVA 52.162A, 52.162B, 52.162C, 52.162D, 52.162E, 52.162F
52.265A1	52.265A
ARTICLE 54bis 54bis.1, 54bis.2	ARTICLE 54A 54A.1, 54A.2
59.17, 59.18	59.17, 59.18

Overview of RA-23 outputs



Currently, there are **40 ITU-R Resolutions** in force. RA-23 decided as follows:





RA-23 new, revised and maintained ITU-R Resolutions

- Resolution ITU-R 72 - **Promoting gender equality and equity**
- Resolution ITU-R 73 - **Use of IMT technologies for fixed wireless broadband**
- Resolution ITU-R 74 - **Space sustainability (see CA/272 of 1 March 2024 www.itu.int/md/R00-CA-CIR-0272)**
- Resolution ITU-R 75 - **Strengthening intersectoral coordination (from former Res. ITU-R 6-3, 7-4, 48-3)**
- Revised ITU-R Resolutions:

Resolution	Subject	Resolution	Subject
ITU-R 1-9	Working methods of the RA and SGs	ITU-R 56-3	Naming for International Mobile Telecommunications
ITU-R 2-9	CPM	ITU-R 59-3	Electronic news gathering systems
ITU-R 4-9	Structure ITU-R SGs	ITU-R 60-3	Reduction of energy consumption
ITU-R 5-9	Work programme and Questions of ITU-R SGs	ITU-R 61-3	World Summit on the Information Society and 2030 Agenda for Sustainable Development
ITU-R 8-4	Radiowave propagation studies	ITU-R 62-3	Testing for conformance with ITU-R Recommendations and interoperability
ITU-R 9-7	Liaison with external organizations	ITU-R 65-1	Future development of IMT
ITU-R 11-6	Further development of the Spectrum Management System for Developing Countries	ITU-R 66-2	Studies related to wireless systems and applications for the development of the Internet of Things
ITU-R 12-2	Handbooks and special publication	ITU-R 67-2	Accessibility
ITU-R 19-6	Dissemination of ITU-R texts	ITU-R 69-2	International public telecommunications via satellite in developing countries
ITU-R 22-6	Spectrum management practices	ITU-R 70-1	Future development of broadcasting
ITU-R 23-4	International monitoring system to a worldwide scale	ITU-R 71-1	Ongoing development of Television, Sound and Multimedia Broadcasting
ITU-R 36-6	Coordination of vocabulary in the six official languages		
ITU-R 50-5	Role of the Radiocommunication Sector in the ongoing development of IMT		
ITU-R 54-4	Studies to achieve harmonization for short-range devices		
ITU-R 55-4	ITU-R studies of disaster prediction, detection, mitigation and relief		

- **Maintained ITU-R Resolutions: 25-3; 28-2; 37; 40-4; 47-2; 52-1; 57-2; 58-2; 64; 68.**

ITU-R Study Groups and their Working Parties



All groups are supporting and contributing to the studies.

ITU-R Responsible Groups for studies on WRC-27 agenda items

- 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-area 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 (excl. IMT), fixed WAS in the FS, amateur & amateur-satellite services
 - [WP 5B](#) – Maritime (incl. GMDSS) and aeronautical mobile services & 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

- 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 (incl. planetary sensors)
 - [WP 7D](#) – Radio astronomy



Summary of RA-23 changes to Res. ITU-R 1-9 – Working Methods

Resolution ITU-R 1-9 was approved by RA-23. The following summarize the major changes with respect to its previous version:

- Inclusion of reference to [new Resolution ITU-R 72](#) on Promoting gender equality and equity
- Description of each Committee of RA and their mandate
- Addition of a new section on the [procedures of voting at RA](#)
- Establishment of the [maximum term of office for WPs Chairs](#) (two terms, extendable to three)
- After all efforts to reach consensus have been exhausted, the WPs may take decisions, e.g. on the agreement of documents to be submitted to the SGs. The Chair of the WPs will invite the objecting Member State(s) to include an attributed short statement
- Role and mandate of [SGs Vice-Chairs](#) and [WPs Chairs](#). Role of the steering committee members
- SGs Chairs and Vice-Chairs should participate in RA and in RAG to represent their respective study groups
- [Fellowship policy](#) for persons originating from developing countries
- RAG shall be made aware of the [non-attendance of Vice-Chairs](#)
- The [deadline](#) for submission of contributions for meetings of all SGs, the CCV and their subordinate groups (WPs, TGs, etc.) has changed to **12** calendar days (1600 hours UTC) prior to the start of the meeting
- When a new or revised draft Recommendation is adopted, but not approved, the SG may consider submitting the document for approval to the RA



Summary of RA-23 changes to Res. ITU-R 2-9 – CPM

Resolution ITU-R 2-9 was approved by RA-23. The following summarize the major changes with respect to its previous version:

- Technical studies contributed to the second session of CPM shall be limited to rationalization
- Contributions concerning proposals by administrations regarding their country footnotes to CPM should be considered **for information only** and a list of such proposals may be included in an Annex of the CPM Report
- The **number of new topics** under the standing agenda item in accordance with Resolution **86 (Rev.WRC-07)** (currently agenda item 7) **shall be limited**

Guidelines for preparation of the CPM Report

- The **background section** shall not include advertisement, promotional and commercial information and it should avoid repetition or duplication of the already included text
- **Page limit and format for draft CPM texts**
 - All necessary texts should be as concise as possible
 - Acronyms/abbreviations should be included in the beginning of the Report
 - Views of Member States and/or RTOs should not be included in the draft CPM texts or in the CPM Report
- **Methods to satisfy the WRC agenda items**
 - A summary of supporting reasons and possible concerns may be included after the method description to facilitate understanding and should not exceed half a page



Conclusions from 31st RAG meeting (25-27 Mach 2024) relating to the preparations for RA-27 & WRC-27

(see [BR Administrative Circular CA/273](#))

- The RAG established **new Correspondence Group (CG)** on **Improving the CPM Process** (see [Res. ITU-R 2-9](#))
 - **Tasked with exploring potential improvements to the CPM process with the following terms of reference:**
 - Conduct a thorough review of the second session of the CPM, in order to identify areas for procedural improvements of preparing the CPM Report.
 - Aims to submit a comprehensive report 45 days prior to 32nd RAG Meeting (planned on 14-17 April 2025)
 - CG Chair: Mr Fahad ALGHAMDI (Saudi Arabia)
 - CG features (SharePoint folder, Mailing List) on [RAG CG webpage](#)
- Among other topics, the RAG considered also:
 - need for seminars, workshops or training events on regulatory and technical aspects of **constellation systems for non-GSO communications**,
 - possibilities for the development of a comprehensive course of action to promote consistency and coherence in **spectrum management practices for aeronautical and maritime services**.



Description of the texts* assigned to the ITU-R Study Groups and sub-groups (Working Methods in [Res. ITU-R 1-9](#))

- **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 and ITU-D** ([Res. ITU-R 75](#))
- **Other relevant organizations, incl. ISO, IEC & CISPR** ([Res. ITU-R 9-7](#))



First Session of CPM-27

See [Resolution ITU-R 2-9](#) on Conference Preparatory Meeting (CPM)

- ✓ **Dubai, 18-19 December 2023** (345 participants, 76 MS, 34 SM, 8 contributions)
⇒ **results published in CA/270 of 26 January 2024** (see at www.itu.int/md/R00-CA-CIR-0270/en)
- **Appointed the [CPM-27 Vice-Chairs](#) and [Chapter Rapporteurs](#)**
- **Defined the structure of the draft CPM Report** (see Annexes 5, 6 and 10 to [CA/270](#))
with 5 Chapters, 2 Annexes and 7 Chapter (co-)Rapporteurs
- **Identified responsible ITU-R Groups for the WRC-27 agenda items**
 - ⇒ **8 existing ITU-R Working Parties (WPs) responsible for 20 agenda items**
+ contributing ITU-R WPs for most of the agenda items
 - ⇒ **8 existing WPs for the 14 items on the WRC-31 preliminary agenda**
(see Annexes 7 and 8 to [CA/270](#))
- For the sharing and compatibility studies, **set a general deadline to provide criteria, characteristics and methodologies by [31 December 2024](#)**
(may be extended up to the 1 July 2025 by the CPM-27 Steering Committee if requested by a WP)
(see Annex 4 to [CA/270](#))



Overlapping frequency bands between some WRC-27 agenda items

(see Annex 4 to [CA/270](#))

- 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.**

Frequency bands	WRC-27 agenda items (responsible groups)
1 427-1 432 MHz; 1 645.5-1 646.5 MHz; 1 880-1 920 MHz	1.12 (WP 4C); 1.13 (WP 4C)
1 518-1 544 MHz; 1 545-1 559 MHz; 1 610-1 645.5 MHz; 1 646.5-1 660 MHz; 1 670-1 675 MHz	1.11 (WP 4C); 1.13 (WP 4C)
2 010-2 025 MHz	1.12 (WP 4C); 1.13 (WP 4C); 1.14 (WP 4C)
2 120-2 160 MHz; 2 160-2 170 MHz	1.13 (WP 4C); 1.14 (WP 4C)
2 483.5-2 500 MHz	1.11 (WP 4C); 1.13 (WP 4C); 1.15 (WP 7B)
2 400-2 483.5 MHz; 2 500-2 690 MHz	1.13 (WP 4C); 1.15 (WP 7B)
7 190-7 235 MHz	1.7 (WP 5D); 1.15 (WP 7B)
8 450-8 500 MHz	1.15 (WP 7B); 1.19 (WP 7C)
42.5-43.5 GHz	1.6 (WP 4A); 1.16 (WP 7D)
47.2-50.2 GHz; 50.4-51.4 GHz	1.1 (WP 4A); 1.6 (WP 4A)
71-76 GHz	1.10 (WP 5C); 1.16 (WP 7D); 1.18 (WPs 7C & 7D)
81-86 GHz	1.10 (WP 5C); 1.18 (WP 7C & WP 7D)
114.25-116 GHz; 130-134 GHz	1.16 (WP 7D); 1.18 (WP 7C & WP 7D)



ITU-R Responsible Groups activities

- ⇒ **Examine contributions from the membership**
(Member States, Sector members, Associates, Academia)
- ⇒ **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). Responsible and contributing groups should work as much as possible towards common parameters, characteristics and methodologies in the preparatory studies on an agenda item. If criteria or other relevant elements are submitted by a contributing group, the responsible groups have to take them into account (see [Doc. CPM27-1/3](#) and Section 2.2 of Annex 4 to [CA/270](#)).
- ⇒ **Develop regulatory/technical solutions in draft CPM texts**
to be sent to the respective CPM-27 Chapter (co)-Rapporteurs
- ⇒ **Finalize the technical studies prior to RA-27**

Draft CPM Report – ToC

(see Annex 5 to [CA/270](#))

Chapters of the draft CPM Report

WRC-27 Agenda items

1.	Fixed-satellite and Broadcasting-satellite issues	1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 7
2.	Fixed, mobile and radiolocation issues	1.7, 1.8, 1.9, 1.10
3.	Mobile-satellite issues	1.11, 1.12, 1.13, 1.14
4.	Science issues	1.15, 1.16, 1.17, 1.18, 1.19
5.	General issues	2, 4
	Annex 1	10 (for information only)
	Annex 2	8 (for information only)



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

(see Annexes 6 and 10 to [CA/270](#), see also Annex 2 to Res. ITU-R 2-9)

Chapter N

Agenda Item 1.XY

[Relevant WRC Resolutions if any]

N/1.XY/1 Executive Summary* (see § A2.1 of Res. ITU-R 2-9)

N/1.XY/2 Background* (see § A2.2 of Res. ITU-R 2-9, incl. “shall not include advertisement, promotional and commercial information”)

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 (see § A2.4 of Res. ITU-R 2-9)

N/1.XY/5 Regulatory and procedural considerations

(Page limit and format: see § A2.3 of Res. ITU-R 2-9) * Not more than half a page of text

Annex 1 – Information on WRC-27 AI 10

2.[x] [label of the preliminary agenda item]

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

Annex 2 – Information on WRC-27 AI 8

(see the Proposed detailed Structure for the draft CPM Report to WRC-27 at: www.itu.int/oth/R0A0A000023/en)

CPM-27 Chair and Vice-Chairs

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

Chair, CPM (appointed at RA-23) Emails

Mr. Alexander KÜHN (D)

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Vice-Chairs, CPM (appointed at CPM27-1)

Mr. Anuar Aidarov (KAZ)

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Mr. Afonso Rocha Ferreira Junior (B)

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Mr. Richard Makgotlho (AFS)

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Mr. Mohamed Soliman (EGY)








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

CPM-27 Chapter Rapporteurs

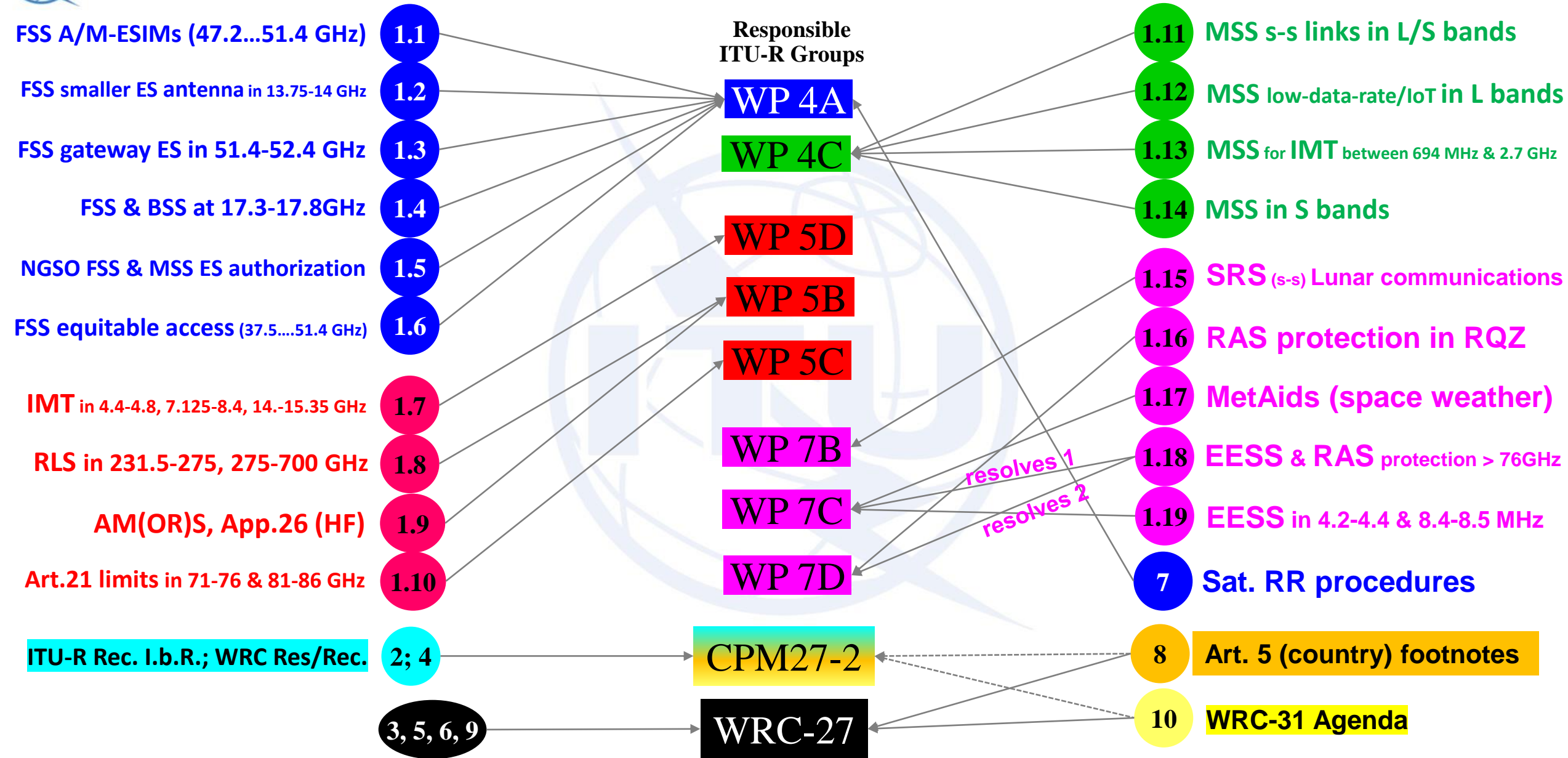
(see Annex 5 to [CA/270](#))

<u>Chapters</u>	<u>(Co-)Rapporteurs</u>
1. Fixed-satellite and Broadcasting-satellite issues	Mr. Andrew PEGUES  Mr. Mostafa MOUSA  for AIs 1.1, 1.2, 1.3, 1.4, 1.6 for AIs 1.5, 7
2. Fixed, mobile and radiolocation issues	Mr. Richard MAKGOTLHO  Mr. Abdulla JABER  for 1.8, 1.9 for AIs 1.7, 1.10
3. Mobile-satellite issues	Mr. Sergey S. UVAROV 
4. Science issues	Mr. Jean PLA 
5. General issues	Mr. Bin LIU 

(see details at www.itu.int/en/ITU-R/study-groups/rcpm/Pages/cpm-27-chp-rapporteurs.aspx)



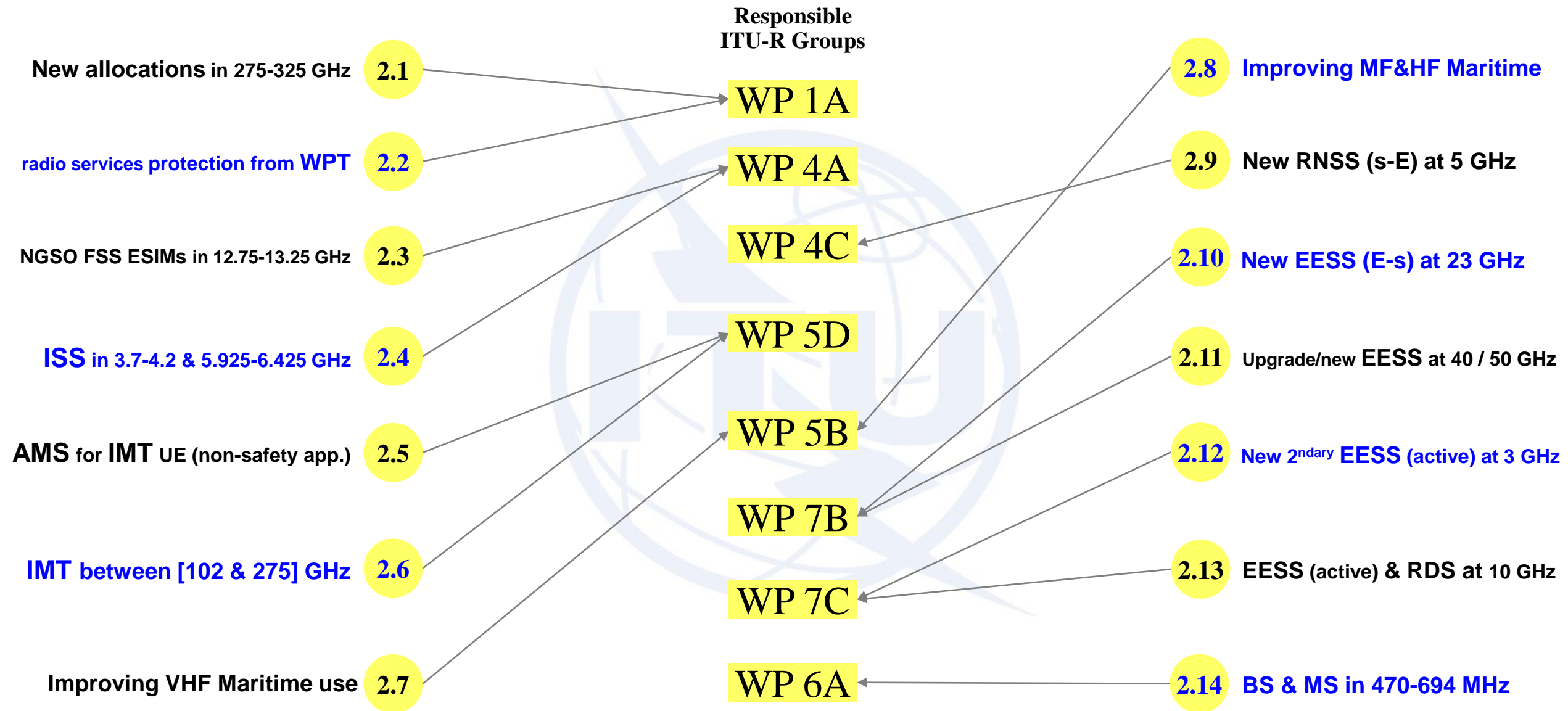
WRC-27 agenda items & Resp. Groups



(see Annexes 7 and 9 to [CA/270](#))



WRC-31 preliminary items & Resp. Groups



(see Annexes 8 and 9 to [CA/270](#))



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.



RR Art 5 Viewer



www.itu.int/pub/R-REG-RR5-2020

Article 5 of the Radio Regulations (RR5) - Table of Frequency Allocations (RR 2016 Edition)

Allocations to services Footnotes Preferences Tools Help



Main Table Allocations to Services

Region 1 Region 2 Region 3

As of 15/11/2018

Frequency Band Below 110 kHz

Region 1	Region 2	Region 3
Table: Below 8.3 kHz (Not allocated)		
5.53 5.54		
Table: 8.3 - 9 kHz METEOROLOGICAL AIDS (passive) 5.54A 5.54B 5.54C Additional: 8.3 - 9 kHz FIXED MOBILE RADIONAVIGATION	Table: 8.3 - 9 kHz METEOROLOGICAL AIDS (passive) 5.54A 5.54B 5.54C	Table: 8.3 - 9 kHz METEOROLOGICAL AIDS (passive) 5.54A 5.54B 5.54C Additional: 8.3 - 9 kHz FIXED MOBILE RADIONAVIGATION

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:
 - o The exporting data to various formats
 - o The tracing and comparison of the evolution of the Article 5 Table and its associated footnotes (from the 2001 Edition onward)
 - o 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

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