ITU WORKSHOPS

1st ITU Inter-regional Workshop on WRC-19 Preparation

21 – 22 November 2017
Geneva, Switzerland

www.itu.int/go/ITU-R/wrc-19-irwsp-17

1st ITU INTER-REGIONAL WORKSHOP ON WRC-19 PREPARATION
(Geneva, 21-22 November 2017)

ITU Preparations for CPM19-2, RA-19 and WRC-19

Philippe Aubineau
Counsellor,
ITU-R Study Groups,
ITU Radiocommunication Bureau

Organized by:

90th Anniversary
CCIR - ITU-R Study Groups
(1927-2017)

WRC-19-IRWSP-17 - Webpage

www.itu.int/go/ITU-R/wrc-19-irwsp-17

1st ITU Inter-regional Workshop on WRC-19 Preparation - Geneva, Switzerland, 21-22 November 2017

SHARE

The ITU Radiocommunication Bureau will organize the 1st ITU Inter-regional Workshop on WRC-19 Preparation in the ITU Headquarters in Geneva on 21 and 22 November 2017.

Using information from the ITU-R responsible groups on the on-going preparatory studies for WRC–19 (see at itu.int/go/rcpm-wrc-19-studies), as well as on up-to-date information regarding the Bureau and regional preparations for CPM19-2, RA-19 and WRC-19, round tables will provide participants with the opportunity to exchange views and have a better understanding of the most challenging WRC–19 agenda items and issues, with draft preliminary common views and/or positions of the concerned entities.

The World Radiocommunication Conference 2019 (WRC-19) Agenda and Relevant Resolutions can be downloaded from the WRC-19 web page at: http://www.itu.int/go/wrc-19.

- ▸ Regional preparation for WRC-19

- ▸ Conference Preparatory Meeting (CPM)
  ITU-R Preparatory Studies for WRC-19

ITU WORKSHOPS

1st ITU Inter-regional Workshop on WRC-19 Preparation

21 – 22 November 2017
Geneva, Switzerland

www.itu.int/go/ITU-R/wrc-19-irwsp-17

| Invitation Information | Programme - Documents | Contact - Posters |

- ▸ Programme
- ▸ Input Documents
- ▸ Information Documents (INFO)
- ▸ Administrative Documents (ADM)
- ▸ Webcast - Captioning

Registration and Information

- ▸ Meeting sessions - ITU-R Meeting schedule
- ▸ Registration and Practical Information
- ▸ On-line Registration
- ▸ List of Registered Participants TIES
- ▸ Visa Information
- ▸ Hotel Accommodation

Overview of the preparations
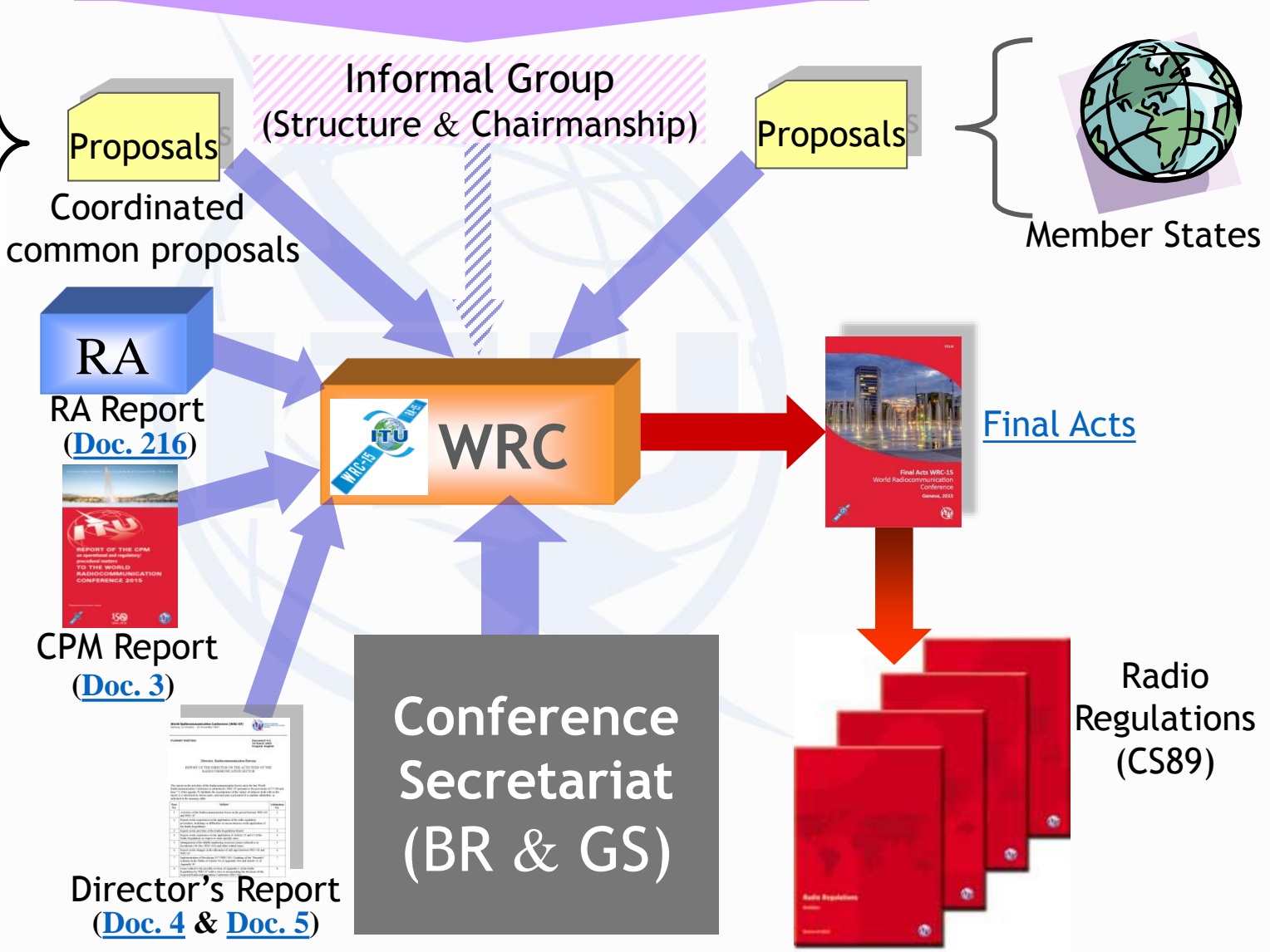
The WRC Cycle

ITU Member States

ITU Member States & ITU-R Members

RA

Rec

Rep

CPM-2

CPM Report

WRC

Final Acts

Revisions to the Radio Regulations

Radio Regulations

ITU-R Study Groups

SG-1: **Spectrum** management
SG-3: **Radiowave propagation**
SG-4: **Satellite** services
SG-5: **Terrestrial** services
SG-6: **Broadcasting** service
SG-7: **Science** services

Director
Radiocommunication Bureau

RRB

RoP

CPM-1

Next WRC Agenda

WRC Resolu-tion

Adopted by **ITU Council**

RRB: Radio Regulations Board
SGs: Radiocommunication Study Groups
RA: Radiocommunication Assembly
WRC: World Radiocommunication Conference

CPM: Conference Preparatory Meeting
Rec: ITU-R Recommendation
RoP: Rules of Procedure
RR: Radio Regulations (treaty status)
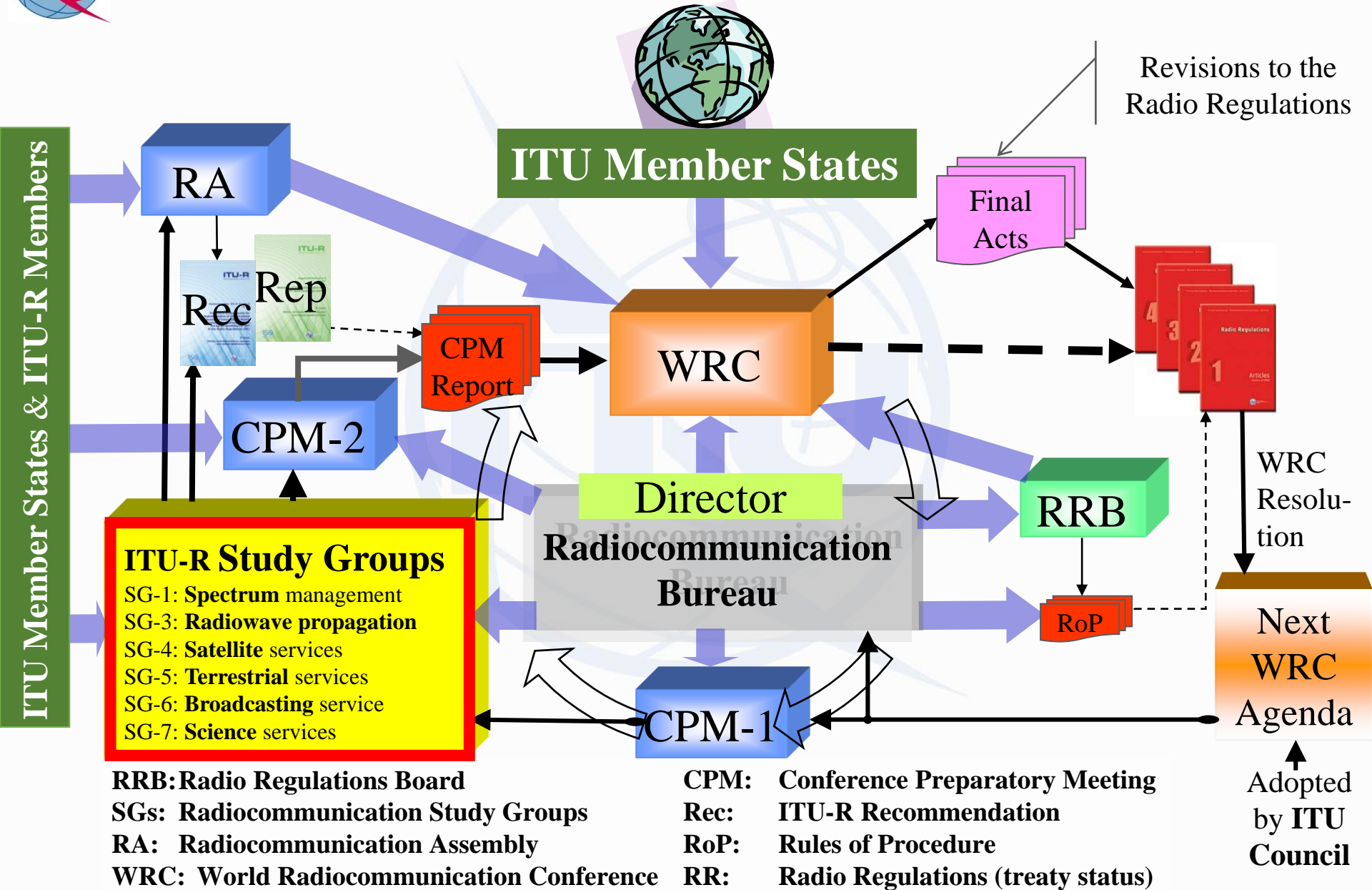
Main Steps towards WRC-19

WRC-15: **WRC-19 Agenda -** **Resolution 809 (WRC-15)**

1st Session of Conference Preparatory Meeting: CPM19-1
30 Nov – 1 Dec. 2015; **Results @CA/226 of 23/12/2015**

C-16: WRC-19 agenda & dates in **Res. 1380** with **MOD** venue @ C-17
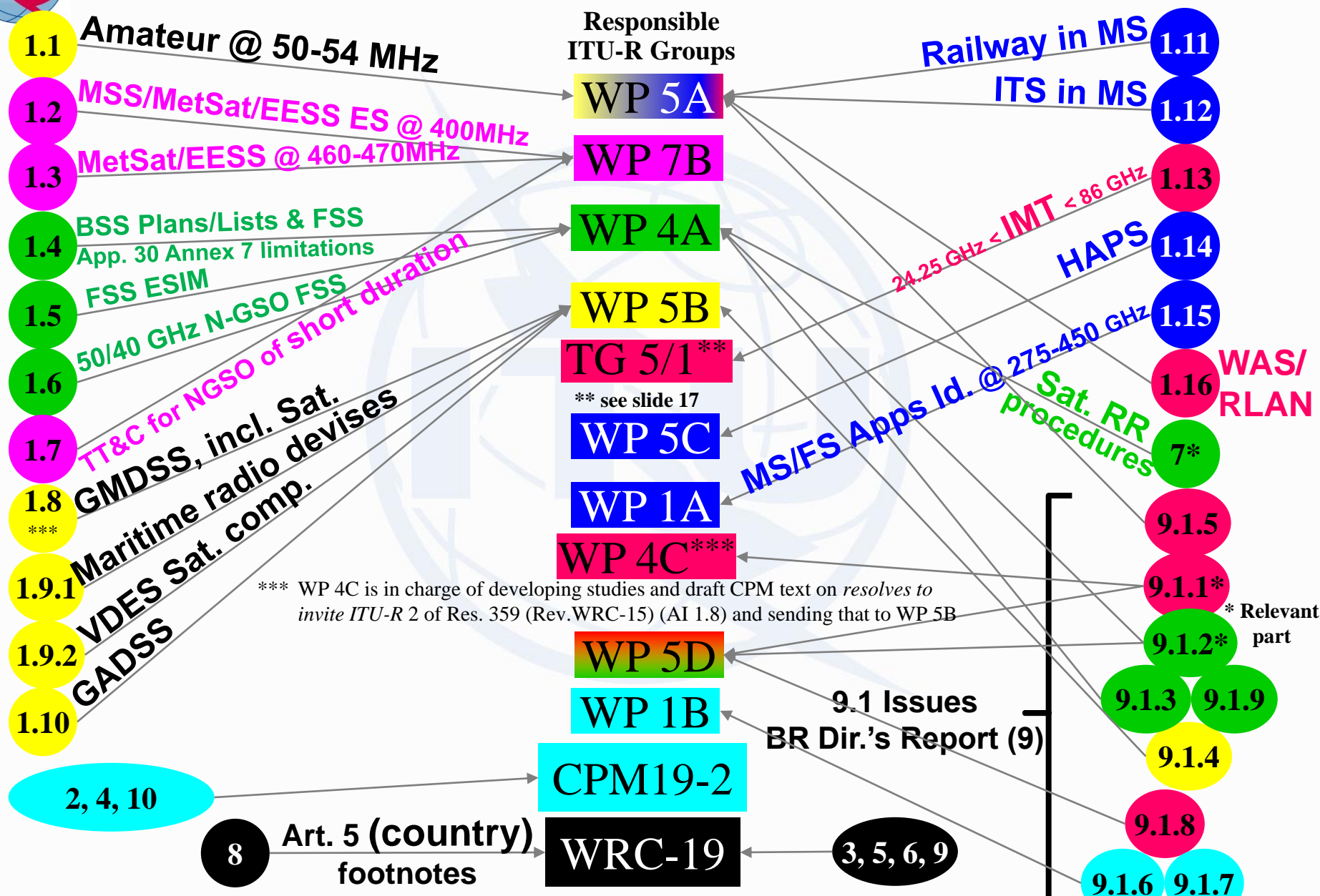Text of Res. 1380 (C-17) at www.itu.int/md/S17-CL-C-0141, see also the WRC-19 booklet

2nd Session of Conference Preparatory Meeting: CPM19-2
Planned dates at CICG in Geneva from 18 to 28 February 2019

Final meetings of regional groups
Member States' proposals to WRC-19

RA-19: **21 to 25 Oct. 2019 ;** WRC-19: **28 Oct. to 22 Nov. 2019**

WRC-19 agenda items & Resp. Groups

Responsible ITU-R Groups

1.1 Amateur @ 50-54 MHz

1.2 MSS/MetSat/EESS ES @ 400MHz

1.3 MetSat/EESS @ 460-470MHz

1.4 BSS Plans/Lists & FSS App. 30 Annex 7 limitations

1.5 FSS ESIM

1.6 50/40 GHz N-GSO FSS

1.7 TT&C for NGSO of short duration

1.8 GMDSS, incl. Sat.

1.9.1 *** Maritime radio devises

1.9.1 VDES Sat. comp.

1.9.2 GADSS

1.10

2, 4, 10

8 Art. 5 (country) footnotes

WP 5A

WP 7B

WP 4A

WP 5B

TG 5/1**

** see slide 17

WP 5C

WP 1A

WP 4C***

*** WP 4C is in charge of developing studies and draft CPM text on *resolves to invite ITU-R* 2 of Res. 359 (Rev.WRC-15) (AI 1.8) and sending that to WP 5B

WP 5D

WP 1B

CPM19-2

WRC-19

3, 5, 6, 9

1.11 Railway in MS

1.12 ITS in MS

24.25 GHz < IMT < 86 GHz

1.13

1.14 HAPS

1.15

1.16 WAS/ RLAN

Sat. RR procedures

MS/FS Apps Id. @ 275-450 GHz

7*

9.1.5

9.1.1*

* Relevant part

9.1.2*

9.1.3 **9.1.9**

9.1.4

9.1 Issues BR Dir.'s Report (9)

9.1.8

9.1.6 **9.1.7**

5 preliminary agenda items, Res. 810 (WRC-15)

Responsible ITU-R Groups

2.1 **Res. 361** (WRC-15) **– Spectrum for GMDSS modernization & implementation of e-navigation** → WP 5B

2.2 **Res. 656** (WRC-15) **– Possible new allocations for EESS (active) for spaceborne radar sounders @ 45 MHz**

2.3 **Res. 657** (WRC-15) **– Spectrum needs & designation of radio services for space weather sensors** → WP 7C

2.4 **Res. 161** (WRC-15) **– Possible new allocations for FSS @ 37.5-39.5 GHz** → WP 4A

2.5 **Res. 235** (WRC-15) **– Spectrum use and needs of existing services @ 470-960 MHz in Region 1 and possible regulatory actions @ 470-694 MHz in Region 1** → none

➢ **Res. 804** (Rev.WRC-12) **Principles for establishing WRC agendas & template for submission of related proposals**

Responsible ITU-R Groups activities

⇒ **Examine contributions from the membership** (Member States, Sector members, Associates, Academia)

⇒ **Ensure necessary coordination with the concerned groups** (contributing/interested working parties)

⇒ **Carry out technical studies** (incl. compatibility & sharing) **& develop necessary draft ITU-R Rec. & Reports for consideration by the relevant ITU-R Study Group(s)**

⇒ **Develop draft CPM texts**, including:
  ➢ Background; Summary & Analysis of study results
  ➢ Proposed **method(s)** to **satisfy** the **agenda items**
  ➢ **with** associated examples of **regulatory texts**
  to be **sent to CPM Chp. Rap.** on time for **CPM19-2**

⇒ **Finalize the technical studies prior to RA-19**
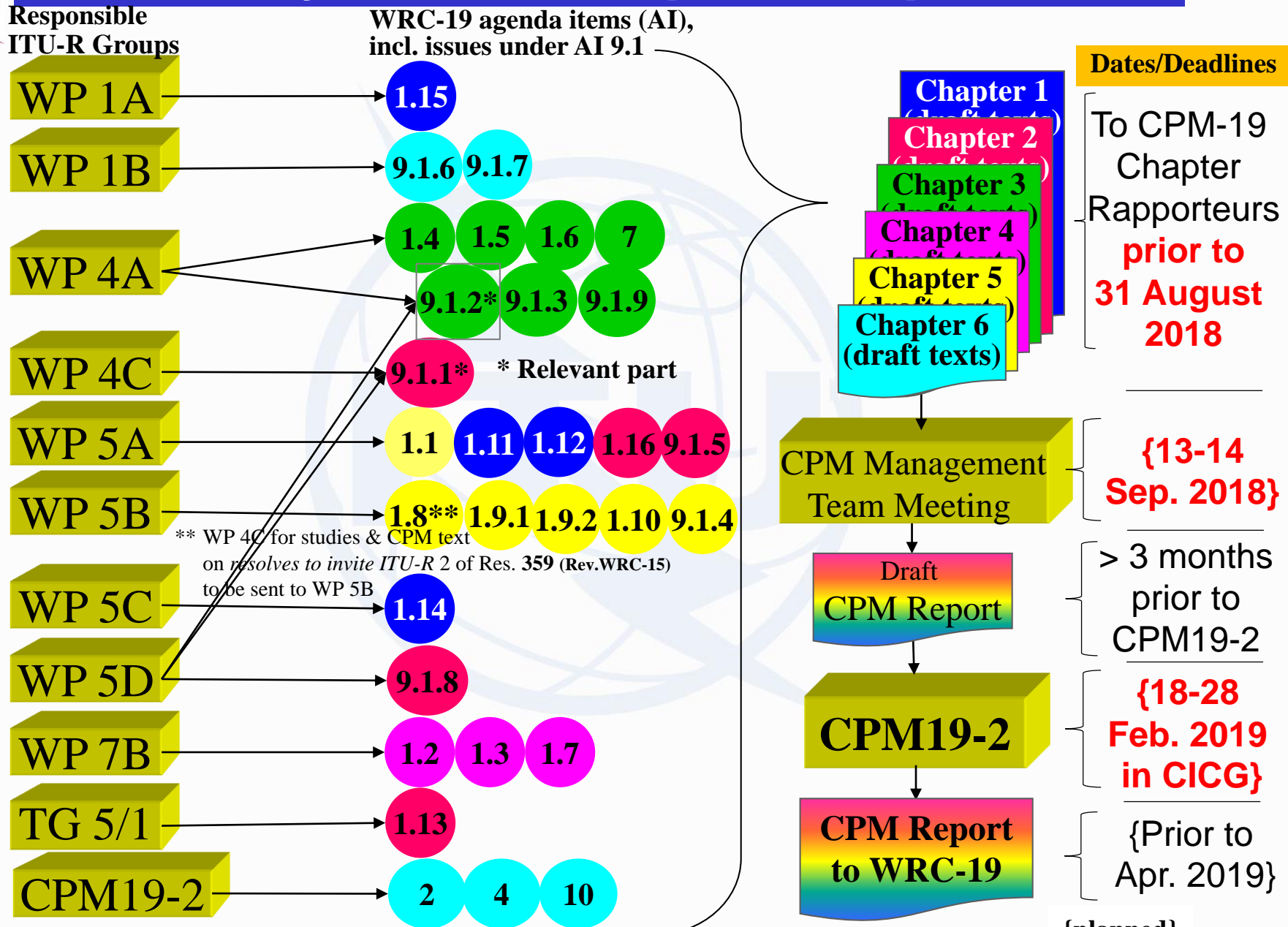
ITU-R Preparatory Studies for WRC-19

Resolution 809 (WRC-15) contains the WRC-19 agenda.

WRC-19 agenda Item (Chapter)	Issue	WRC Resolution (*)	Responsible Group(s)	Information from Responsible Group(s) TIES
1		-	-	-
1.1 (5)		Res. 658 (WRC-15)	WP 5A	Doc. 5A/469 Sections 3.3 & 4 and Annexes 4 (c), 5 (b) & 14 Doc. 5A/298 Annex 15
1.2 (4)		Res. 765 (WRC-15)	WP 7B	Doc. 7B/238 Section 3.3.1 and Annexes 1 (c), 2 (b), & 16
1.3 (4)		Res. 766 (WRC-15)	WP 7B	Doc. 7B/238 Section 3.3.2 and Annexes 3 (c), 4 (b), & 17
1.4 (3)		Res. 557 (WRC-15)	WP 4A	Doc. 4A/519 Annexes 26 (b) & 27 (c)
1.5 (3)		Res. 158 (WRC-15)	WP 4A	Doc. 4A/519 Annexes 28 (b) & 29 (c)
1.6 (3)		Res. 159 (WRC-15)	WP 4A	Doc. 4A/519 Annexes 30 (b) & 31 (c)
1.7 (4)		Res. 659 (WRC-15)	WP 7B	Doc. 7B/238 Section 3.1.3 and Annexes 5 (c), 6 (b), & 15; Doc. 7/73; Doc. 7/72
1.8 (5)		Res. 359 (Rev.WRC-15)	WP 5B (1)	Doc. 5B/305 Sections 2.1.1 & 3.3.1.2 and Annexes 1 (c) & 2 (b) Doc. 4C/192 Sections 3.2.3 & 4.2 and Annexes 14, 15 (c), 17
1.9 / 1.9.1 (5)		Res. 362 (WRC-15)	WP 5B	Doc. 5B/305 Sections 2.1.1 & 3.3.1.3 and Annexes 3 (c), 5 (b), 22 & 23
1.9 / 1.9.2 (5)		Res. 360 (Rev. WRC-15)	WP 5B	Doc. 5B/305 Sections 2.1.1 & 3.3.1.4 and Annexes 5 (c), 6 (b) & 24
1.10 (5)		Res. 426 (WRC-15)	WP 5B	Doc. 5B/305 Sections 2.1.1 & 3.2.1.1 and Annex 7 (c) & 26
1.11 (1)		Res. 236 (WRC-15)	WP 5A	Doc. 5A/469 Sections 3.4 & 4 and Annexes 6 (c), 7 (b), 16, 17 & 18
1.12 (1)		Res. 237 (WRC-15)	WP 5A	Doc. 5A/469 Section 3.7 and Annexes 8 (c), 9 (b), 32, 33, 34 & 35

Summary of CPM Report Preparation

Responsible ITU-R Groups

WRC-19 agenda items (AI), incl. issues under AI 9.1

Dates/Deadlines

WP 1A → 1.15

WP 1B → 9.1.6 9.1.7

WP 4A → 1.4 1.5 1.6 7
9.1.2* 9.1.3 9.1.9

WP 4C → 9.1.1*   * Relevant part

WP 5A → 1.1 1.11 1.12 1.16 9.1.5

WP 5B → 1.8** 1.9.1 1.9.2 1.10 9.1.4

** WP 4C for studies & CPM text on *resolves to invite ITU-R* 2 of Res. **359** (Rev.WRC-15) to be sent to WP 5B

WP 5C → 1.14

WP 5D → 9.1.8

WP 7B → 1.2 1.3 1.7

TG 5/1 → 1.13

CPM19-2 → 2 4 10

Chapter 1 (draft texts)
Chapter 2 (draft texts)
Chapter 3 (draft texts)
Chapter 4 (draft texts)
Chapter 5 (draft texts)
Chapter 6 (draft texts)

To CPM-19 Chapter Rapporteurs **prior to 31 August 2018**

CPM Management Team Meeting — **{13-14 Sep. 2018}**

Draft CPM Report — > 3 months prior to CPM19-2

CPM19-2 — **{18-28 Feb. 2019 in CICG}**

CPM Report to WRC-19 — {Prior to Apr. 2019}

{planned}

Year	January – March		April – June	July – September	October – December		
2015		CPM15-2	Last meetings of the Responsible Groups	WS on WRC-15	RA-15	WRC-15	**CPM19-1**
2016	WP 5D (1st)		WPs 7B & 7C (1st) WP 4C+WP 4A (1st) WPs 5A, 5B & 5C (1st) TG 5/1 (1st) WPs 1A & 1B (1st) WP 5D (2nd)	WP 4C+WP 4A (2nd) CPM-19 Steering	WP 5D (3rd) WPs 7B & 7C (2nd) WPs 5A, 5B & 5C (2nd) WPs 1A & 1B (2nd)		
2017	WP 5D (4th)		WPs 7B & 7C (3rd) WP 4C+WP 4A (3rd) TG 5/1 (2nd) WPs 5A, 5B & 5C (3rd) WPs 1A & 1B (3rd) WP 5D (5th)	TG 5/1 (3rd)	WP 5D (6th) WP 4C+WP 4A (4th) WPs 7B & 7C (4th) WPs 5A, 5B & 5C (4th) WS on WRC-19 WPs 1A & 1B (4th)		
2018	TG 5/1 (4th) WP 5D (7th) WP 4C+WP 4A (5th) RAG (25th)		[TG 5/1 (5th)] [WPs 7B & 7C (5th)] [WPs 5A, 5B & 5C (5th)] [WPs 1A & 1B (5th)] [WP 5D (8th)] [WP 4C+WP 4A (6th)]	[TG 5/1 (6th)] CPM-19 Managmnt Team	[WPs 7B & 7C (6th)] [WP 5D (9th)] [WPs 5A, 5B & 5C (6th)] [WS on WRC-19]		
2019	**CPM19-2**		[Last meetings of the Responsible Groups] [WS on WRC-19]		**RA-19**	**WRC-19**	

[…] = planned meetings   WS on WRC-19 = ITU Inter-regional Workshop on WRC-19 Preparation

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

Get RR texts from CPI for draft CPM texts

www.itu.int/net4/Proposals/CPI/WRC19

More information in relevant parts of CPI User Guide for WRC-19

(main steps)

agenda item/(issue) selection

Committed to connecting the world
WRC-19, ITU Conference Proposals Interface (CPI)
عربي　中文　Français　Русский　Español　| Log out

User guide　| Actions　| Agenda items

My browser　　　　　　　See full skeleton

RR text search

All WRC-19 ▾　| 5.167A ✕　| ☑ on provision number only | 🔍

1　**2**

My skeleton
1 item
Agenda item　1.1 ▾

5　**6**　Load previous skeleton

💾 Save my skeleton

WRC-19 Collapse all ▲ 1 results

#	Ag. item	Action	Provision	Mapping	
1 📄	1.1	MOD ▾	5.167A	Vol.1/Chp. II/Art. 5/Sec. IV/5.167A	✕

- ▾ ARTICLES
  - ▾ CHAPTER II - Frequencies　👁 ⊞➡
  - ☐　▾ ARTICLE 5 - Frequency allocations　👁 ⊞➡
  - ☐　　▾ Section IV　👁 ⊞➡
  - ☐　　　5.167A　👁 ⊞➡　**3**

Action selection (e.g. MOD) for "My skeleton"

RR text view

ADD
ADD*
MOD
(MOD)
SUP
SUP*
NOC
NOC

4

Vol.1/Chp. II/Art. 5/Sec. IV/5.167A　📄W　✕

5.167A　*Additional allocation:* in Indonesia and Thailand, the frequency band 50-54 MHz is also allocated to the fixed, mobile and broadcasting services on a primary basis.　(WRC-15)

Repeat steps 1 to 4 to add other RR text(s) (provisions, etc.)

RA-15 > some key study topics > RA-19

➢ **In response to updated [ITU-R Resolutions](www.itu.int/pub/R-RES) related to, e.g.:**
  – Harmonization of **Short-range devices (SRDs) –** Res. ITU-R 54-2
  – **Disaster prediction**, **detection**, **mitigation & relief –** Res. ITU-R 55-2 **(now incl. 53-1)**
  – Implementation and use of **Cognitive radio systems (CRS) –** Res. ITU-R 58-2
  – Terrestrial **Electronic News Gathering (ENG)** systems **–** Res. ITU-R 59-2

➢ **Res. ITU-R 64** – Guidelines for the management of **unauthorized operation of earth station terminals** (referred to in WRC-15 Res. 958 (i.e. AI 9.1, issue 9.1.7))

➢ **Res. ITU-R 65** – Principles for the process of **future development of IMT for 2020 and beyond** (see also Circular Letter 5/LCCE/59 of 22 March 2016)
  Res. ITU-R 56-2 – **Naming for IMT (incl.** IMT-2000, IMT-Advanced & **IMT-2020)**

➢ **Res. ITU-R 66** – **Studies related** to wireless systems and applications for the **development of the Internet of Things (IoT)**

➢ **Res. ITU-R 67** – Telecommunication/ICT **accessibility for persons with disabilities and persons with specific needs**

➢ **Res. ITU-R 68** – Improving the dissemination of knowledge concerning the **applicable regulatory procedures for small satellites, incl. nano- & pico-satellites**

➢ **Res. ITU-R 69** – Development and deployment of **international public telecommunications via satellite in developing countries**

➢ **Rev. Working Methods - streamline & clarify procedures (Res. ITU-R 1-7)**

➢ **Unchanged basic Structure of Study Groups (see Res. ITU-R 4-7)**

➢ **Updated Work Programme & Questions (see Res. ITU-R 5-7)**

➢ **ITU-R collaboration with:**
   - ITU-T (new possibility of **Intersector Rap. Groups (IRG), Res. ITU-R 6-2**)
   - ITU-D (substantial **areas of mutual interest** identified, **Res. ITU-R 7-3**,
   e.g.: **SM, BB & IMT, CRS, LSA, DSA**)
   - Other relevant organizations, incl. ISO, IEC **& CISPR (Res. ITU-R 9-5)**

➢ **Study Groups (SG) and sub-groups (e.g. Working Parties):**
   - List of **SG Chairmen and Vice-Chairmen** online
   - List of **sub-groups Chairmen and Vice-Chairmen** online
   - Assignment of texts to the Sub-Groups on:

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

WRC Regional Preparation

Pursuant to Resolution 72 (Rev. WRC-07)

See details @ www.itu.int/go/wrc-19-regional

Regional preparation for WRC-19

SHARE

- Asia-Pacific Telecommunity (APT)
- Arab Spectrum Management Group (ASMG)
- African Telecommunications Union (ATU)
- European Conference of Postal and Telecommunications Administrations (CEPT)
- Inter-American Telecommunication Commission (CITEL)
- Regional Commonwealth in the Field of Communications (RCC)

▸ Resolution 72 (Rev. WRC-07)

Asia-Pacific Telecommunity (APT)	Arab Spectrum Management Group (ASMG)
3rd APG-19: [12-16 March 2018, Australia]	22nd ASMG: [tbd]

African Telecommunications Union (ATU)	European Conference of Postal and Telecommunications Administrations (CEPT)
3rd APM-19: [17-21 Sep. 2018, venue tbd]	5th CPG-19: 8-11 Jan 2018, Budapest, Hungary

Inter-American Telecommunication Commission (CITEL)	Regional Commonwealth in the Field of Communications (RCC)
30th PCC.II: 27 Nov.-1 Dec. 2017, Barranquilla, CLM	5th RCC WG: [2018]

Informal Group (Chairman: Mr. T. Al Awadhi, tariq.alawadhi@tra.gov.ae)

ITU Inter-Regional Workshops on WRC-19 Preparation

1st Workshop on 21-22 Nov. 2017 	• **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-19** ⇨ **Presentation of the organization, preliminary views, draft priorities and positions of the regional groups**
2nd Workshop [21-23 November 2018]*	• **To be scheduled few months prior to CPM19-2** ⇨ **Presentation of the Draft CPM Report to WRC-19 (explanation of the draft Methods to satisfy the WRC-19 agenda items)** ⇨ **Presentation and review of the regional groups' draft views, positions and common proposals**
3rd Workshop [Q3 2019]*	• **To be scheduled few months prior to WRC-19** ⇨ **Presentation of the CPM & Dir. Reports to WRC-19** ⇨ **Presentation and review of the regional groups' draft views, positions and common proposals**

* Updated information on meeting dates to be provided later on at: www.itu.int/en/events/Pages/Calendar-Events.aspx?sector=ITU-R

WRC-19-IRWSP-17 - Programme Webpage

1st ITU Inter-regional Workshop on WRC-19 Preparation
Preliminary Programme[1]
(Geneva, 21-22 November 2017)

Day 1 (Tuesday, 21 November 2017)

08:00-09:00 - Registration

09:00-09:45 - Opening Session

- Opening address by the Director of the BR
- Overview of the organization for CPM19-2, RA-19 and WRC-19 by the regional groups and the BR

09:45-10:00 - Break

10:00-12:00 - Session 1 - Terrestrial issues

Roundtables[2] on WRC-19 agenda items:

- 1.13 (see **Res. 238 (WRC15)**)
  Moderator: Ms. Cindy-Lee COOK (Chairman, **TG 5/1**)
  Panelists: APT, ASMG, ATU, CEPT, CITEL, RCC

- 9.1/9.1.8 (see **Res. 958 (WRC-15) Annex item 3**)
  Moderator: Mr. Stuart COOKE (for **WP 5D** Chairman)
  Panelists: APT, ASMG, ATU, CEPT, CITEL, RCC

- 1.14 (see **Res. 160 (WRC-15)**)
  Moderator: Mr. Pietro NAVA (Chairman, **WP 5C**)
  Panelists: APT, ASMG, ATU, CEPT, CITEL, RCC

Day 2 (Wednesday, 22 November 2017)

08:00-09:00 - Registration

09:00-10:00 - Session 4 - Science issues

Roundtables[2] on WRC-19 agenda items:

- 1.2 & 1.3 (see **Res. 765 (WRC-15)** & **Res. 766 (WRC-15)**)
  Moderator: Mr. Bradford A. KAUFMAN (Chairman, **WP 7B**)
  Panelists: APT, ASMG, ATU, CEPT, CITEL, RCC

- 1.7 (see **Res. 659 (WRC-15)**)
  Moderator: Mr. Bradford A. KAUFMAN (Chairman, **WP 7B**)
  Panelists: APT, ASMG, ATU, CEPT, CITEL, RCC

10:00-10:15 - Break

10:15-12:00 - Session 5 - Satellite issues

Roundtables[2] on WRC-19 agenda items:

- 1.5 & 1.6 (see **Res. 158 (WRC-15)** & **Res. 159 (WRC-15)**)
  Moderator: Mr. Jack WENGRYNIUK (Chairman, **WP 4A**)
  Panelists: APT, ASMG, ATU, CEPT, CITEL, RCC

- 7 (see **Res. 86 (Rev.WRC-07)**)
  Moderator: Mr. Jack WENGRYNIUK (Chairman, **WP 4A**)

WRC-19-IRWSP-17 - Programme outline

Day 1 (Tuesday, 21 November 2017)	Day 2 (Wednesday, 22 November 2017)
0900 – 0945 hours, Opening Session	**0900 – 1000 hours, Session 4 -** Roundtables[1] on WRC-19 agenda items **1.2** & **1.3**; **1.7**
0945 – 1000 hours, Break	1000 – 1015 hours, Break
1000 – 1200 hours, Session 1 - Roundtables[1] on WRC-19 agenda items **1.13**; **9.1/9.1.8**; **1.14**	**1015 – 1200 hours, Session 5 -** Roundtables[1] on WRC-19 agenda items **1.5** & **1.6**; **7**
1200 – 1330 hours, Lunch Break	1200 – 1400 hours, Lunch Break
1330 – 1440 hours, Session 2 - Roundtables[1] on WRC-19 agenda items **1.16** & **9.1/9.1.5**; **1.11**; **1.12**	**1400 – 1425 hours: Session 6 -** Roundtable[1] on WRC-19 agenda item **9.1/9.1.6**
1445 – 1530 hours, Session 3 - Roundtables[1] on WRC-19 agenda items **1.10** & **9.1/9.1.4**; **1.8** & **1.9.1**	**1430 – 1530 hours, Session 7 -** Roundtable[1] on WRC-19 agenda items with **overlapping frequency bands** (1.6, 1.13, 1.14 & 9.1/9.1.9 and 1.11, 1.12, 1.16)
1530 – 1600 hours, Break	1530 – 1600 hours, Break
1600 – 1800 hours, Celebration of the 90th Anniversary of the CCIR/ITU R Study Groups	**1600 – 1700 hours: Concluding & outlook session[1]** Concluding remarks of regional groups and outlook (if any) on WRC-19 agenda item 10 preparation and considered items - **Closing remarks**
1800 – 2000 hours, Cocktail Reception	

Day 1 (Tuesday, 21 November 2017)	Day 2 (Wednesday, ... November 2017)
0900 – 0945 hours, Opening Session	**0900 – ... hours, Session - Roundtables[1] on** WRC-... items 1.2 & 1.3; 1.7
0945 – 1000 hours, Break	... – ... hours, Break
1000 – 1200 hours ... WRC-19 agenda it...	**1015 – 1200 h... Session 5 -** Roundtables[1] on W... 1.5 & 1.6; 7
1200 – 1330 hour... Break	... , Lunch Break
1330 – 1440 hours, Session 2 - Rou... WRC-19 agenda items **1.16** & **9.1...**	**...425 hours: Session 6 -** Roundtable[1] on WRC-19 agenda item **9.1/9.1.6**
1445 – 1530 hours, Session 3 - Roundtables[1] on WRC-19 agenda items **1.10** & **9.1/9.1.4**; **1.8** & **1.9.1...**	**...430 – 1530 hours, Session 7 -** Roundtable[1] on WRC-19 agenda items with **overlapping frequency ...nds** (1.6, 1.13, 1.14 & 9.1/9.1.9 and 1.11, 1.12, 1.16)
1530 – 1600 hours, Break	1530 – 1600 hours, Break
1600 – 1800 hours, Celebration of the 90th Anniversary of the CCIR/ITU R Study Groups	**1600 – 1700 hours: Concluding & outlook session[1]** Concluding remarks of regional groups and outlook (if any) on WRC-19 agenda item 10 preparation and ... **Clo...ing remarks**
1800 – 2000 hours, Cocktail Reception	

Thank you for your attention! ?

www.itu.int/go/WRC-19

Radio Regulations (2016 Ed.)

www.itu.int/pub/R-REG-RR/en

Radio Regulations

The Radio Regulations contains the complete texts as adopted by the World Radiocommunication Conference (Geneva, 1995) (WRC-95) and subsequently revised and adopted by World Radiocommunication Conferences, including all Appendices, Resolutions, Recommendations and ITU-R Recommendations incorporated by reference.

Related links

- World Radiocommunication Conferences

2016 **New!** Publication Notice with Order Form

The Radio Regulations, edition of 2016, contains the complete texts of the Radio Regulations as adopted by the World Radiocommunication Conference (Geneva, 1995) (WRC-95), subsequently revised and approved by the World Radiocommunication Conference (Geneva, 1997) (WRC-97), the World Radiocommunication Conference (Istanbul, 2000) (WRC-2000), the World Radiocommunication Conference (Geneva, 2003) (WRC-03), the World Radiocommunication Conference (Geneva, 2007) (WRC-07), the World Radiocommunication Conference (Geneva, 2012) (WRC-12) and the World Radiocommunication Conference (Geneva, 2015) (WRC-15), including all Appendices, Resolutions, Recommendations and ITU-R Recommendations incorporated by reference. Available: end-October 2016

Available in

Other editions: 2012 Edition of 2008 Edition of 2004 Edition of 2001 Edition of 1998

Topics on the WRC-19 Agenda

17 specific & 6 standing items, Res.809 (WRC-15)

WRC 2019

1.13
1.14
1.15
1.16
Fix. & Mob. BB Apps (24.25 < IMT < 86 GHz, HAPS, Apps.Id>275 GHz, WAS/RLAN @ 5 GHz)

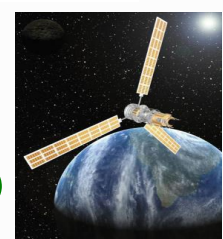**Maritime (GMDSS modernization (+Sat.), use of radio devices, VDES Sat component)** — 1.8, 1.9.1, 1.9.2

1.1 **Amateur in R1 @ 50-54 MHz** (4WW allocation)
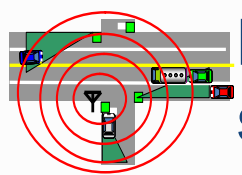
Aeronautical (GADSS needs) — 1.10

1.11
1.12
New Transport systems (harmonized bands for railways, ITS)

Satellite issues (BSS/FSS @12 GHz, ESIM, regul. for N-GSO FSS @ 37.5 to 51.4 GHz) — 1.4, 1.5, 1.6

1.2
1.3
1.7
Earth resources & Climate monitoring Weather forecast, DCS improvement, TT&C for N-GSO Sat. of short duration
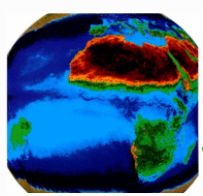
Regulatory issues (Sat. regulations, 7 harmonization of 8 spectrum use, etc.)

➢ See additional information in the slides attached to this presentation

*Note: WRC-19 agenda item numbers indicated in italic*

Broadband applications in the MS (WRC-19 agenda items 1.13 and 1.16)

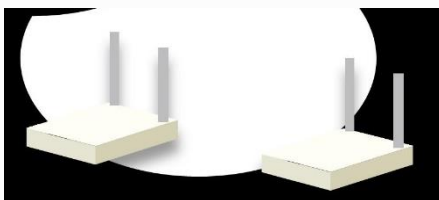The following bands, which are already allocated to mobile, will be studied with a view to an **IMT-2020 identification**:

- **24.25 – 27.5 GHz**
- **37 – 40.5 GHz**
- **42.5 – 43.5 GHz**
- **45.5 – 47 GHz**
- **47.2 – 50.2 GHz**
- **50.4 – 52.6 GHz**
- **66 – 76 GHz**
- **81 – 86 GHz**

The following bands will also be studied, although they **do not currently have global mobile allocations**:

- **31.8 – 33.4 GHz**
- **40.5 – 42.5 GHz**
- **47 - 47.2 GHz**
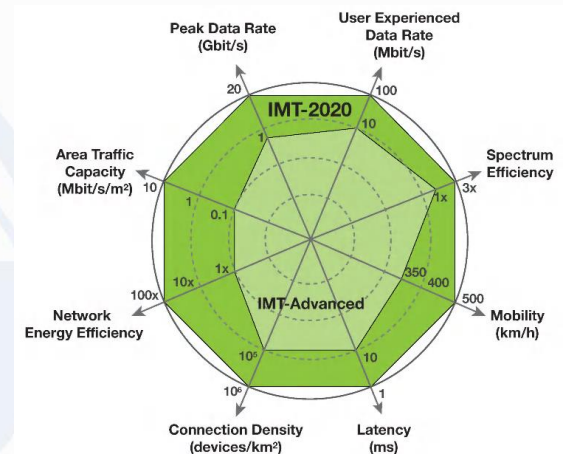
► **Res. 238 (WRC-15)**

Appropriate regulatory actions, incl. additional MS allocations, for **WAS/RLAN** will be studied in the bands between **5 150-5 925 MHz**

► **Res. 239 (WRC-15)**
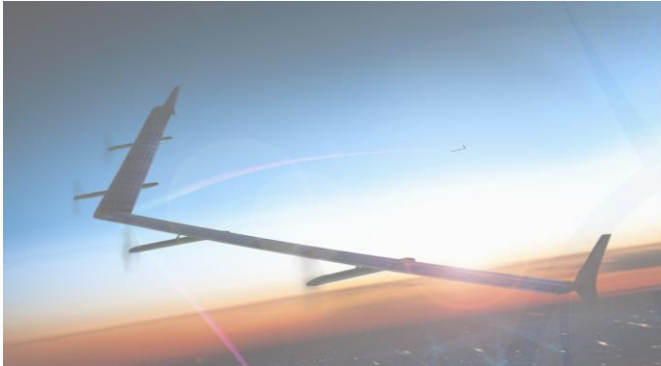
Studies for considering **appropriate regulatory actions for HAPS***, within existing FS alloc. at 47.2-47.5, 47.9-48.2 & 31.0-31.3**/27.9-28.2** GHz (**outside Reg. 2, +5 ADMs @6.5/6.5 MHz) <u>or</u> study new bands: 38-39.5 GHz & 21.4-22*** & 24.25-27.5*** GHz (*high-altitude platform stations (HAPS);   *** in Region 2)
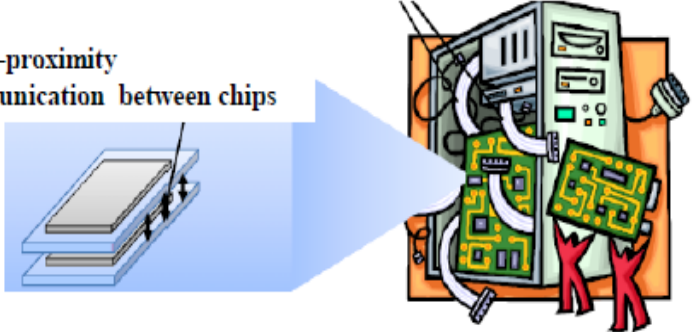
▶ **Res. 160 (WRC-15)**

Studies towards an **identification** for use by administrations for **LMS and FS applications** operating in the frequency range **275-450 GHz**

▶ **Res. 767 (WRC-15)**

Super-proximity communication between circuit board
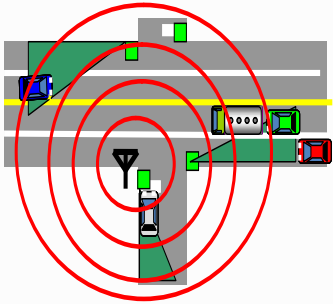
Super-proximity communication between chips

Studies to take necessary actions, as appropriate, to facilitate **global or regional harmonized bands to support railway radiocommunication systems** between train & trackside <u>within existing MS allocations</u>

► **Res. 236 (WRC-15)**

Studies to consider possible **global or regional harmonized bands**, to the maximum extent possible, for **implementation of evolving ITS**[*] <u>within existing MS allocations</u>

► **Res. 237 (WRC-15)**

* Intelligent Transport systems (ITS)

Maritime issues
## (WRC-19 agenda items 1.8, 1.9.1 & 1.9.2)

Studies to consider possible **regulatory actions** to **support GMDSS** (Global Maritime Distress and Safety Systems) **modernization** and the introduction of **additional satellite systems** into the GMDSS ► **Res. 359 (Rev.WRC-15)**

Studies to consider **regulatory actions within** the band **156-162.05 MHz for autonomous maritime radio devices** to protect the GMDSS and AIS (Automatic Identification System) ► **Res. 362 (WRC-15)**

Studies to consider RR MODs, including **new MMSS (E-s & s-E)** allocations, preferably **within 156.0125-157.4375 MHz & 160.6125-162.0375 MHz** of RR App. 18, to **enable a new VDES** (VHF data exchange system) **satellite component** ► **Res. 360 (Rev.WRC-15)**

Aeronautical and Amateur issues
(WRC-19 agenda items 1.10 & 1.1)
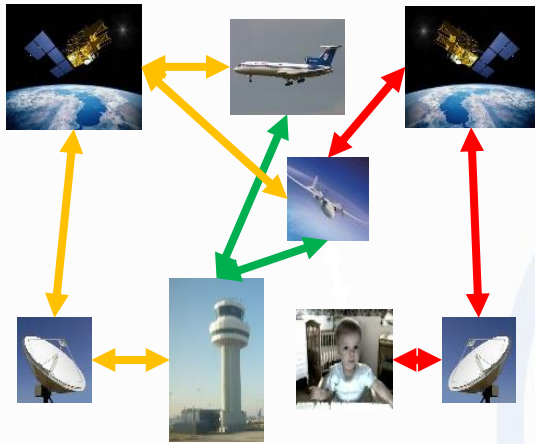
Studies to consider **spectrum needs & regulatory provisions** for **introduction and use of the GADSS** (Global Aeronautical Distress and Safety System)
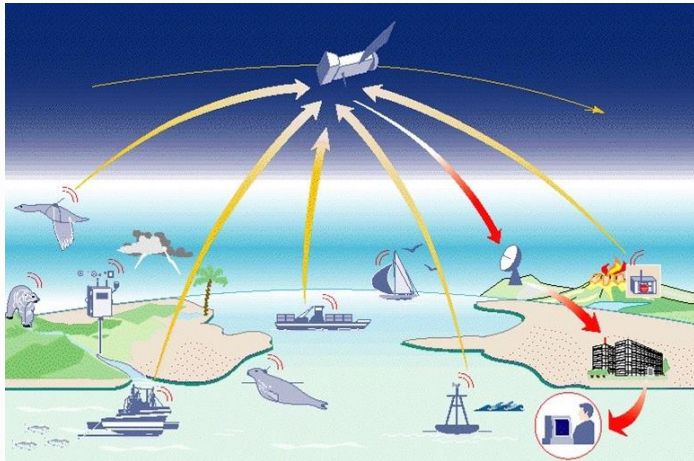
▶ **Res. 426 (WRC-15)**

Studies for consideration of an allocation of the band **50-54 MHz to the amateur service in Region 1** (towards a worldwide allocation for harmonized weak signal communications) ▶ **Res. 658 (WRC-15)**

Science issues
(WRC-19 agenda items 1.2, 1.3 and 1.7)

Studies to consider **in-band power limits** for earth stations in **MetSat & EESS @ 401-403 MHz** for DCS* and in the **MSS @ 399.9-400.05 MHz**

► **Res. 765 (WRC-15)**

Studies to consider possible upgrading of the **2ndary MetSat (s-E)** allocation **to 1mary** status & a possible **1mary EESS (s-E)** allocation **@ 460-470 MHz** for DCS

► **Res. 766 (WRC-15)**

Study spectrum needs for **TT&C in the SOS** for non-GSO satellites with short duration missions & consider, if necessary, new SOS allocations
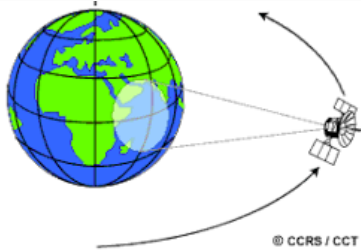
► **Res. 659 (WRC-15)**

* Data Collection Systems (DCS) are used to monitor and predict climate change, monitor oceans, weather and water resources, weather forecasting and assisting in protecting biodiversity, improving maritime security

Satellite issues
(WRC-19 agenda items 1.4, 1.5, 1.6 & 7)

Consider results of studies on review, and possible revision if necessary, of RR App. **30** Annex 7 **limitations**, **incl. orbital position limitations**

► **Res. 557 (WRC-15)**

Studies to consider the **use of the bands 17.7-19.7 GHz (s-E) and 27.5 29.5 GHz (E-s)** by **earth stations in motion** communicating with GSO space stations **in the FSS** and take appropriate action

► **Res. 158 (WRC-15)**

Studies on development of a **regulatory framework for non-GSO FSS systems** that may operate in the bands **37.5-39.5 GHz (s-E), 39.5-42.5 GHz (s-E), 47.2-50.2 GHz (E-s) and 50.4-51.4 GHz (E-s)**

► **Res. 159 (WRC-15)**

Satellite Regulatory issues

► **Res. 86 (Rev.WRC-07)**

Overlapping frequency bands** between some WRC-19 agenda items

1.6 – NGSO FSS Res. 159 (WRC-15)	1.13 – IMT Res. 238 (WRC-15)	1.14 – HAPS Res. 160 (WRC-15)	9.1 (9.1.9) – FSS Res. 162 (WRC-15)
	24.25-27.5	24.25-27.5 (Reg. 2)	
37.5-39.5 (s-E*)	37-40.5	38-39.5 (globally)	
39.5-42.5 (s-E*)	40.5-42.5		
47.2-50.2 (E-s*)	47.2-50.2		
50.4-51.4 (E-s*)	50.4-52.6		51.4-52.4 (E-s*)

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

** Frequency bands in GHz

Studies to **address mutual compatibility & sharing feasibility** among the **services/applications** for which **allocation/identification is envisaged** under the corresponding Res. relating to the AI in the overlapping bands

AI with Overlapping frequency bands **
Organization of the studies

to address mutual compatibility & sharing feasibility among the services/applications under AI-Resolutions with overlapping freq. bands

1.6 – NGSO FSS Res. 159 (WRC-15) (studies by WP 4A)	1.13 – IMT Res. 238 (WRC-15) (studies by TG 5/1)	1.14 – HAPS Res. 160 (WRC-15) (studies by WP 5C)	9.1 (9.1.9) – FSS Res. 162 (WRC-15) (studies by WP 4A)
	24.25-27.5	24.25-27.5 (Reg. 2)	**Studies*** by WP 5C**
37.5-39.5 (s-E*)	37-40.5	38-39.5 (globally)	
39.5-42.5 (s-E*)	40.5-42.5	**Studies*** by TG 5/1**	**Studies*** by WP 4A**
47.2-50.2 (E-s*)	47.2-50.2		
50.4-51.4 (E-s*)	50.4-52.6		51.4-52.4 (E-s*)

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

** Frequency bands in GHz

*** Other studies to **address mutual compatibility & sharing feasibility** among the **services/applications** for which **allocation/identification is envisaged** under the corresponding Res. relating to the AI in the overlapping bands

Preparation of WRC-19 agenda item 8

- ➤ Consider/take appropriate action on requests from ADMs to **delete their country footnotes** or to have their **country name deleted from footnotes**, if no longer required, taking into account Resolution **26 (Rev.WRC-07)**

- ➤ At least last two **WRCs adopted a similar approach:**
  see WRC-15 Doc. 142 (Rev.1) at: www.itu.int/md/R15-WRC15-C-0142

- ✓ **ADD of FN** or **MOD of FN** addressed by Res. **26 (Rev. WRC-07) were considered under the relevant WRC agenda item**, as appropriate, and had to be re-submitted under that relevant AI. (would be better to submit them directly under the relevant AI)

- ✓ Other **ADD of FN** were **not considered**!

- ✓ Other **MOD of FN** to add ADM's name **were accepted**, until the end of the 1st week and treated under AI 8, under certain circumstances on a purely exceptional basis & if justified, **subject to the express condition of no objections** from affected countries

- ✓ **SUP of FN** or **MOD of FN** to sup. ADM's name **were accepted**, until end of the 2nd week, and considered under AI 8

Agenda item 9.1 Issues

9.1.1	**Res. 212** – **Terrestrial & Satellite components of IMT**	
	(Rev.WRC-15)	**co-existence & compatibility @1885-2025 & 2110-2200** MHz
9.1.2	**Res. 761** – **IMT and BSS sound @ 1452-1492 MHz**	
	(WRC-15)	**in Regions 1 and 3**
9.1.3	**Res. 157** – **Technical/Operational/Regulatory studies for**	
	(WRC-15)	**new N-GSO Sat. in "C-Band" allocated to FSS**
9.1.4	**Res. 763** – **Stations on board sub-orbital vehicles**	
	(WRC-15)	
9.1.5	**Res. 764** – **IbR of Rec. ITU-R M.1638-1 & M.1849-1**	
	(WRC-15)	**(MS(RLAN)@5GHz & new radar characteristics)**
9.1.6	**Res. 958** – **1) Urgent studies on Wireless Power**	
	(WRC-15)	**Transmission (WPT) for electric vehicles**
9.1.7	**Res. 958** – **2) Managing unauthorized operations of**	
	(WRC-15)	**Earth Station terminals**
9.1.8	**Res. 958** – **3) Narrowband & BB machine-type**	
	(WRC-15)	**communication infrastructures**
9.1.9	**Res. 162** – **FSS needs @ 51.4-52.4 GHz**	
	(WRC-15)	

CPM-19

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

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

Draft CPM Report – ToC

(see Annex 6 to CA/226)

Chapters of the draft CPM Report	WRC-19 Agenda items
1. Land mobile and fixed services	**1.11, 1.12, 1.14, 1.15**
2. Broadband applications in the mobile service	**1.13, 1.16, 9.1 (9.1.1, 9.1.5, 9.1.8)**
3. Satellite services	**1.4, 1.5, 1.6, 7, 9.1 (9.1.2, 9.1.3, 9.1.9)**
4. Science services	**1.2, 1.3, 1.7**
5. Maritime, aeronautical and amateur services	**1.1, 1.8, 1.9.1, 1.9.2, 1.10, 9.1 (9.1.4)**
6. General issues	**2, 4, 9.1 (9.1.6, 9.1.7), 10**

CPM Chapter Rapporteurs

Chapters	Rapporteurs
1. Land mobile and fixed services	**Ms K. ZHU (CHN)**, Email: Zhukeer@miit.gov.cn
2. Broadband applications in the mobile service	**Mr J. ARIAS FRANCO (MEX)**, Email: jose.arias@ift.org.mx
3. Satellite services	**Mr N. VARLAMOV (RUS)**, Email: vnv73@mail.ru
4. Science services	**Mr V. MEENS (F)**, Email: vincent.meens@cnes.fr
5. Maritime, aeronautical and amateur services	**Mr W. SAYED (EGY)**, Email: wsayed@ntra.gov.eg
6. General issues	**Mr P.N. NGIGE (KEN)**, Email: ngige@cck.go.ke

(see details at www.itu.int/en/ITU-R/study-groups/rcpm/Pages/cpm-19-chp-rapporteurs.aspx)

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

(see Annexes 6 and 11 to CA/226)

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**

(see the Proposed detailed Structure for the Draft CPM Report to WRC-19 at:
http://www.itu.int/oth/R0A0A00000A/en)

* Not more than half a page of text   ** Not applicable to issues under agenda item 9.1, instead:
N/9.1.X/4   Conclusions

CPM-19 Management Team

Organised in accordance with Res. ITU-R 2-7 and composed of:
- **CPM-19 Chairman, Vice-Chairmen and Chapter Rapporteurs**
- **Chairmen of Study Groups and Responsible Groups**

⇒ **Consolidate the draft CPM texts/chapters into the draft CPM Report to WRC-19 (input to CPM19-2)**

See also **CA/226 Add.1** on **Preparation** of the **Draft CPM Report** to **WRC-19**

Second Session of CPM-19

➢ **Based on the draft CPM Report (available in six official ITU languages a minimum of 3 months before CPM19-2)**

➢ **Consider contributions from ITU Member States & ITU-R Sector Members**

➢ **Consider also a preliminary draft version of the BR Director's Report to WRC-19**

⇒ **To finalize the CPM Report to WRC-19 (incl. draft solutions (methods) to satisfy the agenda items)**

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**

Other abbreviations (1/3)

Abbreviations	Description	RR Nos.
ADS-B	Automatic Dependent Surveillance-Broadcast	-
AIS	Automatic Identification System	-
Art. or AP/App	An Article or an Appendix of the RR	-
BB	Broadband	-
BIPM	International Bureau of Weights and Measures	-
(D)BiU	(Date of) Bringing Into Use	-
BR	ITU Radiocommunication Bureau	-
DCS	Data Collection System	-
E-s, s-E	Earth-to-space, space-to-Earth	-
ES	Earth station	No. **1.63**
ESIM	ES In Motion	-
ESV	ES on board Vessels	-
GE06	Geneva 2006	-
GFT	Global Flight Tracking	-

Abbreviations	Description	RR Nos.
GMDSS	Global Maritime Distress and Safety System	-
GSO	Geostationary-Satellite Orbit	No. **1.190**
HAPS	High Altitude Platform Station	No. **1.66A**
HF VHF UHF	High Frequency: 3 to 30 MHz Very High Frequency: 30 to 300 MHz Ultra High Frequency: 300 to 3000 MHz	No. **2.1**
ICAO	International Civil Aviation Organization	-
IMT	International Mobile Telecommunications	-
ITS	Intelligent Transport Systems	-
ITU	International Telecommunication Union	-
ITU-R	ITU Radiocommunication Sector	-
PPDR	Public Protection and Disaster Relief	-
SARPs	Standards and recommended practices	Nos. **5.2** to **5.9**
R1, R2, R3	RR Regions 1, 2 or 3	Nos. **5.2** to **5.9**

Abbreviations	Description	RR Nos.
Rec. / Rap.	Recommendation / Report	-
Res.	Resolution	-
RLAN	Radio Local Area Network(s)	-
RR	ITU Radio Regulations	-
RRB	ITU Radio Regulations Board	-
TT&C	Telemetry, Tracking and Command	(See Nos. **1.131**-**1.136**)
UA / UAS	Unmanned Aircraft / Unmanned Aircraft Systems	-
UTC	Coordinated Universal Time	No. **1.14**
VDES	VHF Data Exchange System	-
VSAT	Very Small Aperture Terminal	-
WAIC	Wireless Avionics Intra-Communications	-
WAS	Wireless Access System(s)	-
WRC	World Radiocommunication Conference	-