



Space Connectivity Workshop

24 April 2017, Nadi, Fiji

Updates on Preparations for CPM19-2, RA-19 and WRC-19

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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**

Council-16: WRC-19 agenda in Res. 1380 with dates & venue
Approved/Confirmed in **Geneva** after Member States consultation (CV Nos. 42 & 118) **(CL-16+/57)**

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



Overview of the ITU-R Calendar towards WRC-19

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 (1 st)		WPs 7B & 7C (1 st)		WP 4C+WP 4A (2 nd)		WP 5D (3 rd)		
			WP 4C+WP 4A (1 st)				WPs 7B & 7C (2 nd)		
			WPs 5A, 5B & 5C (1 st)				WPs 5A, 5B & 5C (2 nd)		
			TG 5/1 (1 st)				WPs 1A & 1B (2 nd)		
2017	WP 5D (4 th)		WPs 7B & 7C (3 rd)		[TG 5/1 (3 rd)]		[WP 5D (6 th)]		
			WP 4C+WP 4A (3 rd)				[WP 4C+WP 4A (4 th)]		
			TG 5/1 (2 nd)				[WPs 7B & 7C (4 th)]		
			WPs 5A, 5B & 5C (3 rd)				[WPs 5A, 5B & 5C (4 th)]		
2018	[Responsible Groups Meetings]		[Responsible Groups Meetings]		[Responsible Groups Meetings]		[Responsible Groups Meetings]		
	[TG 5/1 (4 th)]		[TG 5/1 (5 th)]		[TG 5/1 (6 th)]		[WS on WRC-19]		
					CPM-19 Manag ^{nt} Team				
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 on ITU-R meetings at: www.itu.int/en/events/Pages/Calendar-Events.aspx?sector=ITU-R

Information on CPM19-2 Preparation (e.g. dates, deadlines) at: www.itu.int/md/R00-CA-CIR-0226



Next Meetings of Resp. Groups

Responsible
ITU-R Groups

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

Meeting dates

WP 7B

1.2 1.3 1.7

5 – 11 Apr. 17

WP 7C, responsible for WRC-23 preliminary agenda items 2.2 and 2.3, meets usually in parallel with WP 7B

WP 4C**

9.1.1*

* Relevant part

26 Apr. – 2 May 17

WP 4A

1.4 1.5 1.6 7

9.1.2* 9.1.3 9.1.9

3 – 12 May 17

TG 5/1

1.13

15-23 May 2017

WP 5A

1.1 1.11 1.12 1.16 9.1.5

22 May – 1 June 17

WP 5B

1.8** 1.9.1 1.9.2 1.10 9.1.4

22 May – 2 June 17

WP 5C

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

1.14

22 – 31 May 17

WP 1A

1.15

13 – 20 June 17

WP 1B

9.1.6 9.1.7

(RG-WPT on 12 June 17)

WP 5D

9.1.8

13 – 21 June 17

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



WRC Regional Preparation

Pursuant to [Resolution 72 \(Rev. WRC-07\)](#)

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

Regional preparation for WRC-19

YOU ARE HERE [HOME](#) > [ITU-R](#) > [CONFERENCES AND MEETINGS](#) > [WRC](#) > [WRC-19](#) > [REGIONAL PREPARATION FOR WRC-19](#)

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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)

2nd APG-19: 17-21 July 2017, Bali, Indonesia

African Telecommunications Union (ATU)

2nd APM-19: 7-11 August 2017, Dakar, Senegal

Inter-American Telecommunication Commission (CITEL)

XXIX PCC.II: 27 - 30 June 2017, Orlando, USA

Arab Spectrum Management Group (ASMG)

22nd ASMG: [2017]

European Conference of Postal and Telecommunications Administrations (CEPT)

4th CPG-19: 4-7 July 2017

Regional Commonwealth in the Field of Communications (RCC)

3rd RCC WG WRC-19/RA-19: 10-13 April 2017,
Bishkek, Kyrgyz Republic



ITU Inter-Regional Workshops on WRC-19 Preparation

1st Workshop [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

* Subject to the confirmation of the dates of the ITU-R SG 5 meeting currently planned on 20 Nov. 2017 **

2nd Workshop [Q4 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

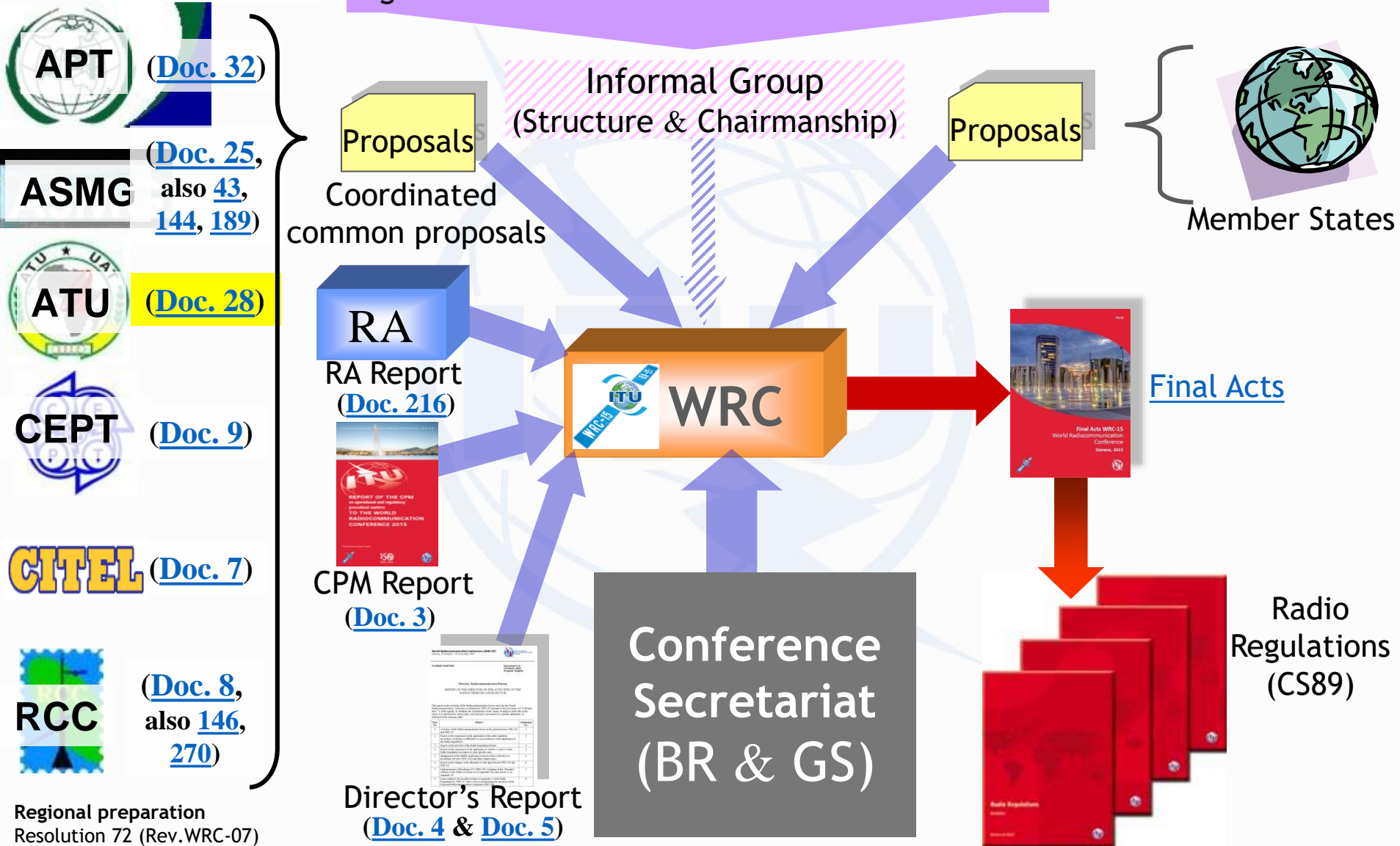
** Updated information on meeting dates to be provided later on at: www.itu.int/en/events/Pages/Calendar-Events.aspx?sector=ITU-R



Overview of the WRC preparations

(WRC-15 Docs)

Agenda: draft in WRC Res & final in Council Res





Topics on the WRC-19 Agenda

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



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



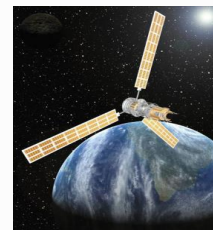
**Amateur in R1
@ 50-54 MHz
(4WW allocation)**

**Aeronautical
(GADSS needs)**



1.10

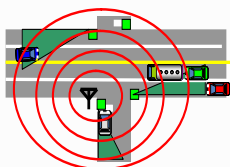
**Satellite issues
(BSS/FSS @12 GHz,
ESIM, regul. for N-GSO
FSS @ 37.5 to 51.4 GHz)**



1.4, 1.5, 1.6

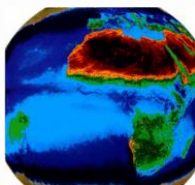
New Transport systems

(harmonized bands
for railways, ITS)



1.11
1.12

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,
harmonization of
spectrum use, etc.)**

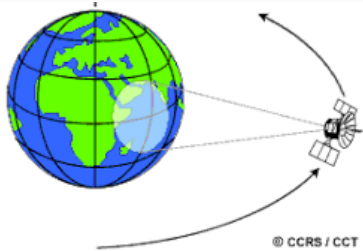
7
8

➤ See additional information in the slides attached to this presentation

Note: WRC-19 agenda item numbers indicated in italic

Satellite issues

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

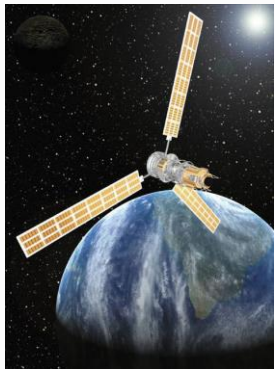


Consider results of studies on review, and possible revision if necessary, of RR App. 30 Annex 7 **limitations, incl. orbital position limitations**

► **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)**



Agenda item 7 Issues

(identified by WP 4A as of Oct'16)

✓ Seven issues identified so far under AI 7:

- A. Factors related to the **BiU** of frequency assignments of **non-GSO systems subject to coordination**
- B. **Modification** (characteristics reduction) of a **recorded assignment** under RR App. **30 & 30A** Reg. 1 and 3 List
- C. Discrepancy and/or inconsistency between RR provisions dealing with any changes to characteristics of assignment
- D. **Ident. specific sat. networks & systems** to coordinate with, under RR Nos. **9.12, 9.12A** and **9.13** or **9.21**
- E. Harmonization of RR App. **30B** with RR App. **30 & 30A**
- F. Enhancement of RR App. **30B** provisions to observe the principles based on which it was initially established
- G. Updating ref. sit. for networks in RR App. **30 & 30A** after conversion into definitive of provisionally recorded assign^{nts}

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

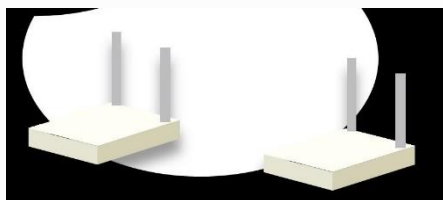
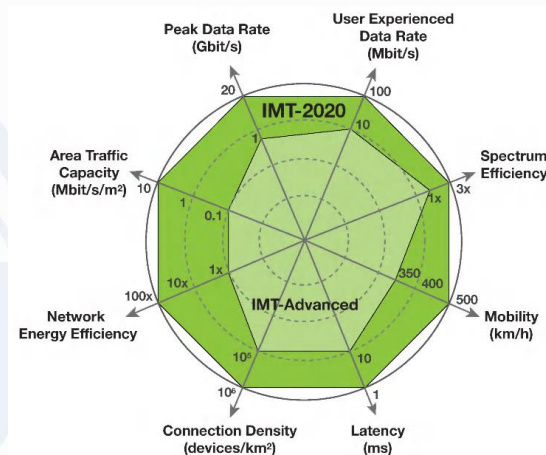
The following bands, which are already allocated to mobile, will be studied with a view to an **IMT-2020** identification:

- 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)**

Other LMS & FS Systems & Apps. (WRC-19 agenda items 1.14 and 1.15)



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) or

study new bands: 38-39.5 GHz & 21.4-22*** & 24.25-27.5*** GHz
(*high-altitude platform stations (HAPS); *** in Region 2)

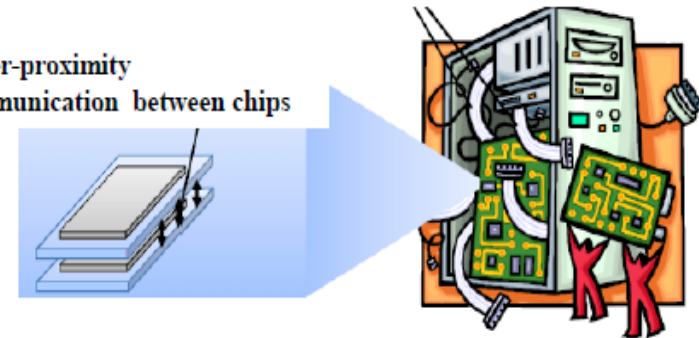
► **Res. 160 (WRC-15)**

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

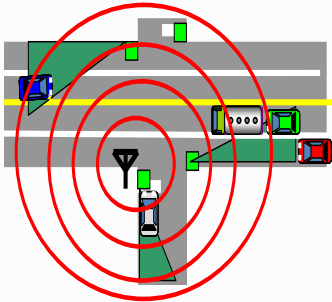


New transport systems in the MS (WRC-19 agenda items 1.11 & 1.12)



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

► **Res. 236 (WRC-15)**



Studies to consider possible **global or regional harmonized bands**, to the maximum extent possible, for **implementation of evolving ITS*** within existing MS allocations

► **Res. 237 (WRC-15)**

* Intelligent Transport systems (ITS)

Maritime issues

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



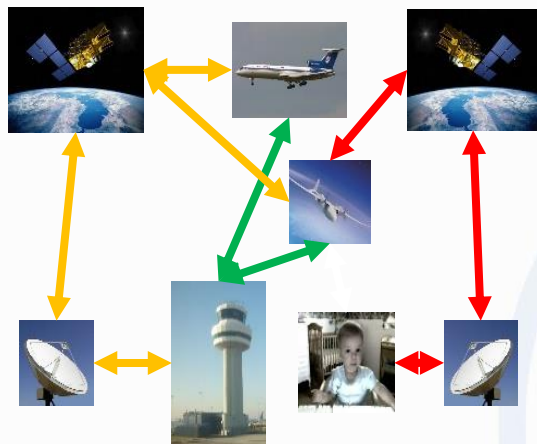
Studies to consider possible **regulatory actions** to **support GMDSS** (Global Maritime Distress and Safety Systems) **modernization** and the introduction of **additional satellite systems** into the GMDSS ► **Res. 359 (Rev.WRC-15)**



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)

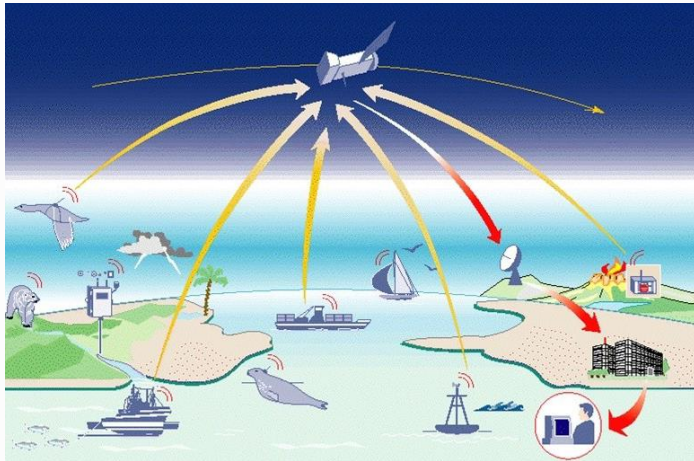
► **Res. 426 (WRC-15)**



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 **1^{mary}** status & a possible **1^{mary} 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

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



CPM-19

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

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



First Session of CPM-19

Scope defined in [Resolution ITU-R 2-7](#)

✓ **Geneva, 30 November - 1 December 2015**

(269 participants, 63 MS, 25 SM, 13 contributions)

⇒ **results published in CA/226, of 23 Dec. 2015**
(see at <http://www.itu.int/md/R00-CA-CIR-0226/en>)

➤ **Define framework of preparatory studies with**
Structure of the draft CPM Report (see the proposed detailed structure at: <http://www.itu.int/oth/R0A0A00000A/en>) **and**
six Chapter Rapporteurs

➤ **Identify responsible ITU-R Groups**
for each WRC-19 agenda item (AI) and issue
⇒ **9 existing Working Parties and**
⇒ **Proposed new TG 5/1 for AI 1.13 (ToR in Annex 9 of [CA/226](#))**
+ 3 existing WPs for the WRC-23 preliminary agenda items
and concerned (contributing / interested) ITU-R groups
(see Annexes 7 and 8 to [CA/226](#))



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)



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*)

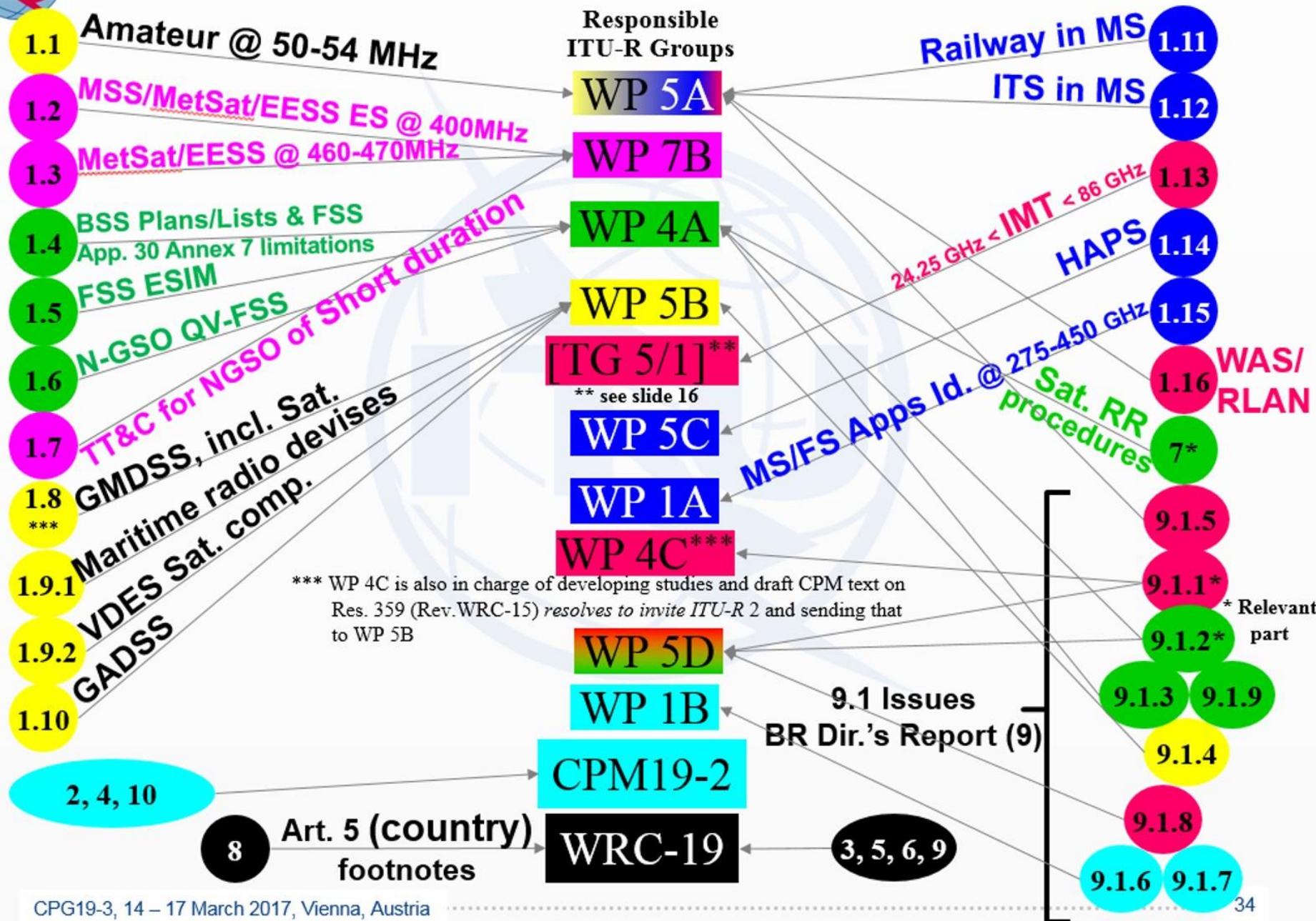
* E-s: Earth-to-space; s-E: space-to-Earth.

** 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



WRC-19 agenda items & Resp. Groups





WRC-23 preliminary items & Resp. Groups

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

Responsible
ITU-R Groups

- | | | | |
|-----|--|---|-------|
| 2.1 | Res. 361 – Spectrum for GMDSS modernization & implementation of e-navigation
(WRC-15) | → | WP 5B |
| 2.2 | Res. 656 – Possible new allocations for EESS (active) for spaceborne radar sounders @ 45 MHz
(WRC-15) | → | WP 7C |
| 2.3 | Res. 657 – Spectrum needs & designation of radio services for space weather sensors
(WRC-15) | | |
| 2.4 | Res. 161 – Possible new allocations for FSS @ 37.5-39.5 GHz
(WRC-15) | → | WP 4A |
| 2.5 | Res. 235 – Spectrum use and needs of existing services @ 470-960 MHz in Region 1 and possible regulatory actions @ 470-694 MHz in Region 1
(WRC-15) | | none |



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**



TG 5/1 on WRC-19 AI 1.13

Taking into account CPM19-1 Decision ([CA/226 Annex 9](#)), SG 5 established new TG 5/1 (www.itu.int/en/ITU-R/study-groups/rsg5/tg5-1)

- **Conduct sharing and compatibility studies**
- **Develop draft CPM text under WRC-19 agenda item 1.13 to be submitted directly to the CPM-19 Process**
- **Considering results from**
 - WP 5D* on studies on spectrum needs, technical and operational characteristics of IMT by **31 March 2017**
 - Technical characteristics including protection criteria provided by involved Working Parties* by **31 March 2017** for existing services allocated in, or adjacent to bands
 - SG 3 WPs* on propagation models by **31 March 2017**;
- **TG 5/1 will work making maximum use of modern means of communications, incl. remote participation to the extent practicable**
- **TG 5/1 management team including AI 1.13 coordinators from the six regional groups (APG, ASMG, ATU, CEPT, CITEL, RCC)**

* Involved Working Parties contributing to this issue: 3J, 3K, 3M, 4A, 4B, 4C, 5A, 5B, 5C, 5D, 6A, 7B, 7C, 7D



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

<u>Chapters</u>	<u>Rapporteurs</u>
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. EL 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 (1/3)

(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



Structure of the draft CPM texts for an agenda item in a given chapter (2/3)

(see Annex 1 to CPM Chairman's Doc. at: www.itu.int/md/R15-WP1A-C-0077,
which includes also the special case of WRC-19 agenda item 7)

Chapter N Agenda Item 1.XY

(typical example with a single issue in the Agenda item)

...

N/1.XY/4 Methods to satisfy the Agenda Item

N/1.XY/4.1 Method A* - ...

N/1.XY/4.2 Method B - ...

...

N/1.XY/5 Regulatory and procedural considerations

N/1.XY/5.1 For Method A* - ...

N/1.XY/5.2 For Method B - ...

...

*** Alternatives to Method A (or B, etc.) could be Sub-Methods A1, A2, etc.,
and be presented in Sub-section N/1.XY/4.1.1, N/1.XY/4.1.2, etc.,
and same in the corresponding sub-sections of Section 5**



Structure of the draft CPM texts for an agenda item in a given chapter (3/3)

(see CPM Chairman's Doc. at: www.itu.int/md/R15-WP1A-C-0077)

Chapter N

Agenda Item 1.XY

(typical example with multiple issues in the Agenda item)

...

N/1.XY/4 Methods to satisfy the Agenda Item

N/1.XY/4.1 **Issue A** - ...

N/1.XY/4.2 **Issue B** - ...

N/1.XY/4.1.1 **Method A1*** - ...

N/1.XY/4.2.1 **Method B1** - ...

N/1.XY/4.1.2 **Method A2** - ...

N/1.XY/4.2.2 **Method B2** - ...

N/1.XY/5 Regulatory and procedural considerations...

N/1.XY/5.1 **For Issue A** - ...

N/1.XY/5.2 **For Issue B** - ...

N/1.XY/5.1.1 **For Method A1*** - ...

N/1.XY/5.2.1 **For Method B1** - ...

N/1.XY/5.1.2 **For Method A2** - ...

N/1.XY/5.2.2 **For Method B2** - ...

* Alternatives to Method A1 (or A2, B1, etc.) could be Sub-Methods A1a, A1b, etc., and be presented in Sub-sections N/1.XY/4.1.1.1, N/1.XY/4.1.1.2, etc., and same in the corresponding sub-sections of Section 5.



Summary of CPM Report Preparation

Responsible
ITU-R Groups

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

Dates/Deadlines
(CA/226 Add.1)

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

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

CPM Management
Team Meeting

Draft
CPM Report

CPM19-2

CPM Report
to WRC-19

**{13-14
Sep. 2018}**

**> 3 months
prior to
CPM19-2**

**{18-28
Feb. 2019
in CICG}**

**{Prior to
Apr. 2019}**

{planned}



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)**



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

- In response to updated [ITU-R Resolutions](http://www.itu.int/pub/R-RES) (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**



RA-15 > ITU-R Study Groups > RA-19

- 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)



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



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	-

Other abbreviations (2/3)

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



Other abbreviations (3/3)

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	-