

2nd ITU Inter-regional Workshop on WRC-19 Preparation

20 - 22 November 2018
Geneva, Switzerland

www.itu.int/go/ITU-R/wrc-19-iwsp-18



2nd ITU INTER-REGIONAL WORKSHOP ON WRC-19 PREPARATION (Geneva, 20-22 November 2018)

Status of the preparation for CPM19-2, RA-19 and WRC-19

Philippe Aubineau
Counsellor, ITU-R Study Groups
Radiocommunication Bureau



Organized by:





WRC-19-IRWSP-18 Web Page

www.itu.int/go/ITU-R/wrc-19-irwsp-18

2nd ITU Inter-regional Workshop on WRC-19 Preparation - Geneva, Switzerland, 20-22 November 2018

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SHARE    

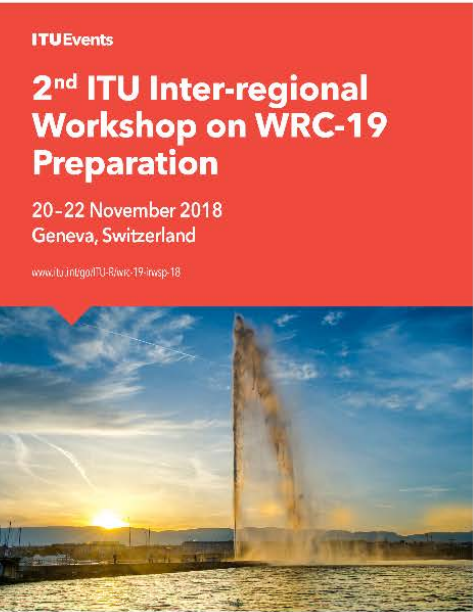
The 2nd ITU Inter-regional Workshop on WRC-19 Preparation will take place in the ITU Headquarters in Geneva from 20 to 22 November 2018.

The results of the ITU-R studies included in the Draft CPM Report to WRC-19 will be presented to the Workshop, as well as the status of regional preparations for CPM19-2, RA-19 and WRC-19.



This Workshop will provide participants with the opportunity to gain a better understanding of the possible solutions identified to satisfy the WRC-19 agenda items and issues. It will also facilitate the exchange of information on the draft common views, positions and/or proposals of the concerned entities.

The World Radiocommunication Conference 2019 (WRC-19) agenda and relevant WRC resolutions can be downloaded from the WRC-19 web page at: www.itu.int/go/wrc-19.

- ▶ [Regional preparation for WRC-19](#)
- ▶ [Conference Preparatory Meeting \(CPM\) - Draft CPM Report](#)
- ▶ [1st ITU Inter-regional Workshop on WRC-19 Preparation - Geneva, Switzerland, 21-22 November 2017](#)



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

- ▶ [Programme](#)
- ▶ [Input Documents - Templates](#)  
- ▶ [Information Documents \(INFO\)](#)
- ▶ [Administrative Documents \(ADM\)](#)
- ▶ [List of registered Participants](#)
- ▶ [Webcast](#)
- ▶ [Captioning](#)

Registration and Information

- ▶ [Meeting sessions - ITU-R Meeting schedule](#)
- ▶ [Registration and Practical Information](#)
- ▶ [On-line Registration](#)
- ▶ [List of Registered Participants](#) 
- ▶ [Visa Information](#)
- ▶ [Hotel Accommodation](#)



Programme outline

www.itu.int/go/ITU-R/wrc-19-irwsp-18 - Programme

Day 1 (20 Nov'18)

0930 hours – Opening Session

1100 hours – Session 1

Roundtable on topics related to **IMT**

1400 hours – Session 2

Roundtable on topics related to **RLAN & MTC**

1545 hours – Session 3

Roundtable on topics related to **RSTT, ITS**

Day 2 (21 Nov'18)

0900 hours – Session 4

Roundtable on topics related to **HAPS, > 250 GHz**

1045 hours – Session 5 and

1400 hours – Session 6

Roundtable on topics related to **Maritime, Aeronautical & Amateur issues**

1545 hours – Session 7

Roundtable on topics related to **Sciences issues**

Day 3 (22 Nov'18)

0900 hours – Session 8

Roundtable on topics related to **BSS, FSS, ESIM, QV-bands**

1045 hours – Session 9

Roundtable on topics related to **Satellite regulatory issues**

1400 hours – Session 10

Roundtable on topics related to **WPT-EV, Unauthorized ES, Country footnotes, WRC-23 Agenda**

1545 hours – Closing session



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
CL No. 17/52 of 18 Dec. 2017 confirmed RA-19 & WRC-19 venue in **Sharm el-Sheikh (Egypt)**

2nd Session of Conference Preparatory Meeting: CPM19-2
at CICG and ITU in Geneva from **18 to 28 February 2019** (invitation in CA/241)
(further information on the CPM webpage: www.itu.int/go/ITU-R/CPM)

Final regional group meetings & final national preparations
Member States' proposals to WRC-19

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



WRC-19 Webpage and Invitation letters

www.itu.int/go/wrc-19

World Radiocommunication Conference 2019 (WRC-19), Sharm el-Sheikh, 28 October to 22 November 2019

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

About the World Radiocommunication Conference

World radiocommunication conferences (WRC) are held every three to four years. It is the job of WRC to review, and, if necessary, revise the [Radio Regulations](#), the international treaty governing the use of the radio-frequency spectrum and the geostationary-satellite and non-geostationary-satellite orbits. [More >](#)

Preparatory Process

- ▶ [Conference Preparatory Meeting \(CPM\) for WRC-19](#)
- ▶ [ITU Inter-regional Workshops on WRC-19 Preparation](#)
- ▶ [Regional preparation for WRC-19](#)
- ▶ [Informal Group \(Chairman: Mr. T. Al Awadhi, \[tariq.alawadhi@tra.gov.ae\]\(mailto:tariq.alawadhi@tra.gov.ae\)\)](#)

Invitation letters

[Invitation Letters and Credentials](#)

[Contacts](#)

CL-18/48 - Letter send of behalf of the Government of Egypt (16-11-2018)

CL-18/49 - Invitation letter to WRC-19 to ITU Member States (16-11-2018)

DM-18/1005 - Invitation letter to WRC-19 to the State of Palestine (16-11-2018)

DM-18/1006 - Invitation letter to WRC-19 to Observers (16-11-2018)

BR Administrative Circular (CA): coming soon

Credentials: coming soon

[Agenda and References](#)



RA-19 Webpage and Invitation letters

www.itu.int/go/ITU-R/RA-19

Radiocommunication Assembly 2019 (RA-19), Sharm el-Sheikh, 21-25 October 2019

[YOU ARE HERE](#) [HOME](#) > [ITU-R](#) > [CONFERENCES AND MEETINGS](#) > [RA](#) > [RA-19](#)

The Radiocommunication Assembly 2019 will be held from 21-25 October 2019, immediately preceding WRC-19. The duties and functions of the Radiocommunication Assembly are defined in Article 13 of the [Constitution](#) and Article 8 of the [Convention](#), while the working methods of the Assembly are described in § A1.2 of [Resolution ITU-R 1-7](#).

DRAFT Structure

- ▶ COM 1 - Steering Committee
- ▶ COM 2 - Budget control
- ▶ COM 3 - Editorial Committee
- ▶ COM 4 - Structure and work programme of the Study Groups
- ▶ COM 5 - Working methods of the RA and SGs

This Meeting

Documents

Invitation letters

[Invitations](#)

[Related activities](#)

Member States

- ▶ [Circular Letter No. 18/50](#) (*Invitation letter to RA-19 for Member States*)
- ▶ *Invitation letter for meeting of Heads of delegations*
- ▶ [Sector Members](#)
(*Invitation letter to RA-19 for Sector Members*)
- ▶ [State of Palestine](#)
(*Invitation letter to RA-19 for the State of Palestine*)
- ▶ [Observers](#)
(*Invitation letter to RA-19 for Observers*)
- ▶ [ITU Academia](#)
(*Invitation letter to RA-19 for ITU Academia*)

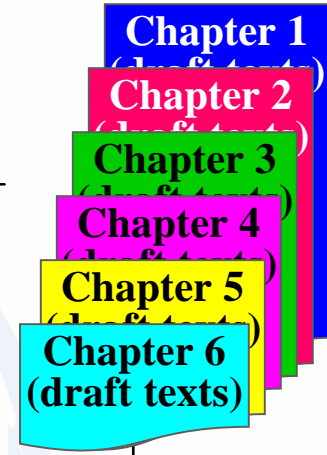
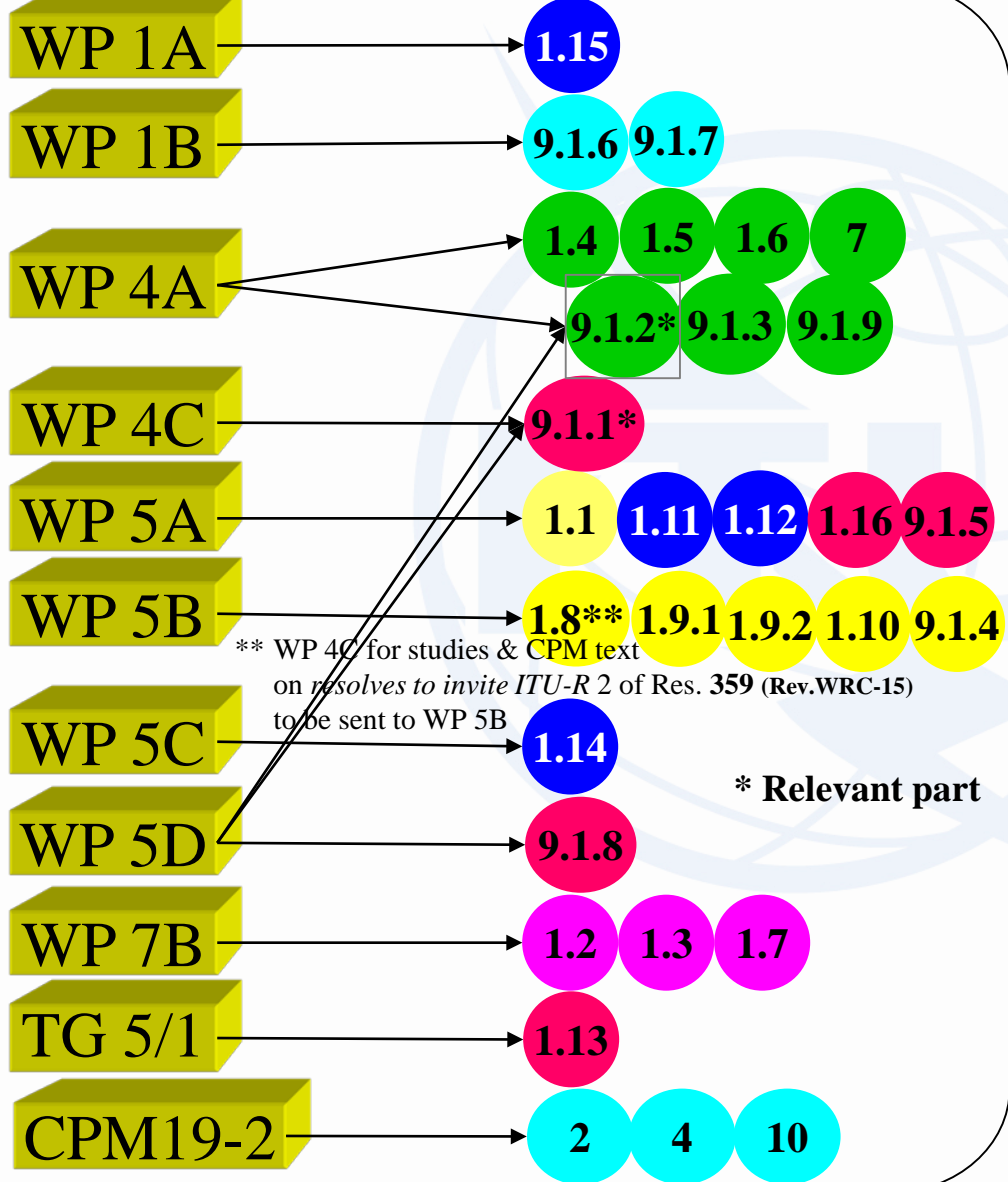


Summary of CPM Report Preparation

Responsible ITU-R Groups

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

Dates/Deadlines



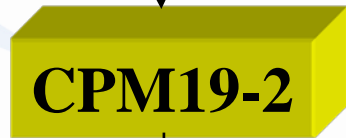
To CPM-19 Chapter Rapporteurs prior to 31 August 2018



6-7 Sep. 2018



3 months prior to CPM19-2



18-28 Feb. 2019 in CIGG



Prior to Apr. 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 (1 st) WPs 5A, 5B & 5C (1 st) TG 5/1 (1 st) WPs 1A & 1B (1 st) WP 5D (2 nd)	WP 4C+WP 4A (2 nd) CPM-19 Steering	WP 5D (3 rd) WPs 7B & 7C (2 nd) WPs 5A, 5B & 5C (2 nd) WPs 1A & 1B (2 nd)
2017	WP 5D (4 th)	WPs 7B & 7C (3 rd) WP 4C+WP 4A (3 rd) TG 5/1 (2 nd) WPs 5A, 5B & 5C (3 rd) WPs 1A & 1B (3 rd) WP 5D (5 th)	TG 5/1 (3 rd)	WP 5D (6 th) WP 4C+WP 4A (4 th) WPs 7B & 7C (4 th) WPs 5A, 5B & 5C (4 th) 1 st WS on WRC-19 WPs 1A & 1B (4 th)
2018	TG 5/1 (4 th) WP 5D (7 th) WP 4C+WP 4A (5 th) RAG (25 th)	TG 5/1 (5 th) WPs 7B & 7C (5 th) WPs 5A, 5B & 5C (5 th) WPs 1A & 1B (5 th) WP 5D (8 th) WP 4C+WP 4A (6 th)	TG 5/1 (6 th) CPM-19 Management Team	WPs 7B & 7C (6 th) WP 5D (9 th) WPs 5A, 5B & 5C (6 th) WP 1B (6 th) 2 nd WS on WRC-19 WRS-18
2019	WP 5D (10 th) CPM19-2	[WPs 5A, 5B & 5C (7 th)] [SG 3*] [WPs 1A (6 th) & 1B (7 th)] [SG 1*] [WPs 7B & 7C (7 th)] [SG 7*] [WP 4C+WP 4A (7 th)] [SG 4*] * Last meeting of Study Groups before RA-19	[WP 5D (11 th)] [SG 5*] [SG 6*] [3 rd WS on WRC-19]	RA-19 WRC-19 CPM 23-1

[...] = planned meetings

WS on WRC-19 = ITU Inter-regional Workshop on WRC-19 Preparation

WRS = ITU World Radiocommunication Seminar

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



Draft Methods to satisfy the WRC-19 AIs

Draft CPM Chapter	5		4			3			4		5			1	
Agenda items	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8		1.9.1	1.9.2	1.10	1.11	1.12	
Issues/items/bands	-	-	-	-	-	-	-	A	B	A	-	-	-	-	
Draft Method(s)	A	A	A	A	A	A	A	A1	B1	A	A	A	A	A	
	B1	B	B	B	B	B	B1	A2	B2	B1	B	B	B	B	
	B2	C	-	C	-	C	B1	-	B3	B2	C	-	C	C	
	C	D	-	-	-	D	C	-	B4	B3	D	-	-	-	
	D	E	-	-	-	-	-	-	B5(a)	-	E	-	-	-	
-	F	-	-	-	-	-	-	B5(b)	-	F	-	-	-		

Draft CPM Chapter	2												1									2						
Agenda items	1.13												1.14									1.15	1.16					
Issues/items/bands	A	B	C	D	E	F	G	H	I	J	K	L	1	2	3	4	5	6	7	8	9	-	A	B	C	D	E	
Draft Method(s)	A1	B1	C1	D1	E1	F1	G1	H1	I1	J1	K1	L1	A	A	A	A	A	A	A	A	A	A	A	A1	B	C	D1	E
	A2 (Alt. 1) (Alt. 2) (Cond. a to g) (+Options)	-	C2 (Alt. 1) (Alt. 2) (Cond. a to e) (+Options)	D2 (Alt. 1) (Alt. 2) (Cond. a to c) (+Options)	E2 (Alt. 1) (Alt. 2) (Cond. a to c) (+Options)	F2 (Alt. 1) (Alt. 2) (Cond. a to b) (+Options)	G2 (Alt. 1) (Alt. 2) (Cond. a to b) (+Options)	G2 (Alt. 1) (Alt. 2) (Cond. a to d) (+Options)	I2 (Alt. 1) (Alt. 2) (Cond. a to c) (+Options)	J2 (Alt. 1) (Alt. 2) (Cond. a to c) (+Options)	K2 (Alt. 1) (Alt. 2) (Cond. a to c) (+Options)	L2 (Alt. 1) (Alt. 2) (Cond. a to e) (+Options)	B1	-	-	-	-	B1	B1	-	B1	B	A2	-	-	D2	-	
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	B2	-	B2	-	-	B2	-	C	A3	-	-	D3	-	
	-	-	-	-	-	-	-	-	-	J3	-	-	C	C	-	-	-	C	C	-	C	E	-	-	-	-	-	

Draft CPM Chapter	3															
Agenda items	7															
Issues/items/bands	A		B	C			D	E	F	G	H	I	J	K	L	M
Sub-issues	BiU	Milestone-based approach with alternatives & options	-	7 sub-issues			-	-	-	-	-	-	-	-	-	-
Draft Method(s)	A1		B1	One method for each sub-issues C1, C2, C3, C4, C5, C6, C7			D1	One	F1	G1	One	One	J1	One	One	One
	A2		B2	-	-	-	D2	-	F2	G1	-	-	J2	-	-	-
	A3	-	-	-	-	D3	-	-	G3	-	-	-	-	-	-	



Information on CPM19-2

(second session of the CPM for WRC-19)

(see [Res. ITU-R 2-7](#), Web page at: www.itu.int/ITU-R/go/rcpm)

Geneva, CIGG & ITU HQ, 18 – 28 February 2019

- ⇒ **Prepare consolidated CPM Report to WRC-19, using:**
 - ✓ **Draft CPM Report in [Doc. CPM19-2/1](#)**
(Now available in all six ITU official languages!)
 - ✓ **Contributions from ITU-R membership**
deadlines for submission @ cpm19-2@itu.int:
 - **18 December 2018** if translation is required
 - **4 February 2019, 1600 hours UTC in all cases**
 - ✓ **BR Director's reports on agenda items 2 and 4**
- ⇒ **Consider also the preliminary draft of the BR Director's Report to WRC-19**
- ⇒ **CPM19-2 meeting structure should be based on the structure of the draft CPM Report**



Some guidelines for the preparation of modifications to the Draft CPM Report

- **Use of the Draft CPM Report to WRC-19** once published as [Doc. CPM19-2/1](#) and of the ITU-R document Templates
- **Use of the 2016 Edition of the Radio Regulations and of CPI to retrieve text from the RR** (CPI access at: www.itu.int/net4/Proposals/CPI/WRC19/Main, [CPI User Guide](#) (preliminary version))
- **Take into account the guidelines and examples on how to use**
 - **revision marks with track changes and**
 - **highlights changes in Turquoise**

(see the [Guidelines for the Preparation of Contributions](#) to CPM19-2)



One example of modifications of the Draft CPM Report

3°230-5°003·kHz

Allocation-to-services		
Region-1	Region-2	Region-3
4°063-4°438 271 →	MARITIME MOBILE--5.79A--5.109--5.110--5.130--5.131--5.132	
→ → → →	5.128-5.129	
4°063 271 -4°438 ←	<u>MARITIME MOBILE--5.79A--5.109--5.110--5.130--5.131--5.132</u>	
→ → → →	<u>FIXED</u>	
→ → → →	<u>MOBILE except aeronautical mobile (R)</u>	
→ → → →	<u>5.128-5.129</u> <u>ADD-5.MMI</u>	

Creating another row: Turn-off track-changes, copy the original row from the Radio Regulations (bands 4-063-4-438), turn-on track-changes, make modifications (deletions and additions) and highlight results.

Adding or deleting further: Turn-on track-changes, add text (should then appear as underlined) or delete text (should then appear as strikethrough) and highlight result.

Original text revised

MOD

3°230-5°003·kHz

Allocation-to-services		
Region-1	Region-2	Region-3
4°063-4°438 271 →	MARITIME MOBILE--5.79A--5.109--5.110--5.130--5.131--5.132	
→ → → →	5.128-5.129	
4°063 271 -4°438 351 →	<u>MARITIME MOBILE--5.79A--5.109--5.110--5.130--5.131--5.132</u>	
→ → → →	<u>FIXED</u>	
→ → → →	<u>MOBILE except aeronautical mobile (R)</u>	
→ → → →	<u>5.128-5.129</u> <u>ADD-5.MMI</u>	
4°063 351 -4°438 →	<u>MARITIME MOBILE--5.79A--5.109--5.110--5.130--5.131--5.132</u>	
→ → → →	<u>MOBILE except aeronautical mobile (R)</u>	
→ → → →	<u>5.128-5.129</u> <u>ADD-5.MMI</u>	



Another example of modifications of the Draft CPM Report

Draft CPM Report Text

MOD

5.543A In Bhutan, Cameroon, Korea (Rep. of), the Russian Federation, India, Indonesia, Iran (Islamic Republic of), Iraq, Japan, Kazakhstan, Malaysia, Maldives, Mongolia, Myanmar, Uzbekistan, Pakistan, the Philippines, Kyrgyzstan, the Dem. People's Rep. of Korea, Sudan, Sri Lanka, Thailand and Viet Nam, the allocation to the fixed service in the frequency band 31-31.3 GHz may also be used by systems using high altitude platform stations (HAPS) in the direction ground-to-HAPS ~~direction~~. The use of the frequency band 31-31.3 GHz by systems using HAPS is limited to the territory of the countries listed above and shall not cause harmful interference to, nor claim protection from, other types of fixed-service systems, systems in the mobile service and systems operated under No. **5.545**. ~~Furthermore, the development of these services shall not be constrained by HAPS. Systems using HAPS in the frequency band 31-31.3 GHz shall not cause harmful interference to the radio astronomy service having a primary allocation in the frequency band 31.3-31.8 GHz, taking into account the protection criterion as given in the most recent version of Recommendation ITU-R RA-769. In order to ensure the protection of satellite passive services, the level of unwanted power density into a HAPS ground station antenna in the frequency band 31.3-31.8 GHz shall be limited to -106 dB(W/MHz) under clear-sky conditions, and may be increased up to -100 dB(W/MHz) under rainy conditions to mitigate fading due to rain, provided the effective impact on the passive satellite does not exceed the impact under clear-sky conditions. See Resolution 145 (Rev.WRC-12).~~ (WRC-1519)

Deleting proposed new text:
Turn on track changes, delete the text (should then appear as underlined and strikethrough) and **highlight result.**

Reinstating text
Turn on track changes, reject revision mark to the text (should then appear as clean text) and **highlight result.**

Adding or deleting further:
Turn on track changes, add text (should then appear as underlined) or delete text (should then appear as strikethrough) and **highlight result.**

Proposed Modification to Draft CPM Report Text

MOD

5.543A In Bhutan, Cameroon, Korea (Rep. of), the Russian Federation, India, Indonesia, Iran (Islamic Republic of), Iraq, Japan, Kazakhstan, Malaysia, Maldives, Mongolia, Myanmar, Uzbekistan, Pakistan, the Philippines, Kyrgyzstan, the Dem. People's Rep. of Korea, Sudan, Sri Lanka, Thailand and Viet Nam, the allocation to the fixed service in the frequency band 31-31.3 GHz may also be used by systems using high altitude platform stations (HAPS) in the direction ground-to-HAPS direction. The use of the frequency band 31-31.3 GHz by systems using HAPS is limited to the territory of the countries listed above and shall not cause harmful interference to, nor claim protection from, other types of fixed-service systems in the fixed-service, systems in the mobile service and systems operated under No. **5.545**. Furthermore, the development of these services shall not be constrained by HAPS. Systems using HAPS in the frequency band 31-31.3 GHz shall not cause harmful interference to the radio astronomy service having a primary allocation in the frequency band 31.3-31.8 GHz, taking into account the protection criterion as given in the most recent version of Recommendation ITU-R RA-769. In order to ensure the protection of satellite passive services, the level of unwanted power density into a HAPS ground station antenna in the frequency band 31.3-31.8 GHz shall be limited to -106 dB(W/MHz) under clear-sky conditions, and may be increased up to -100 dB(W/MHz) under rainy conditions to mitigate fading due to rain, provided the effective impact on the passive satellite does not exceed the impact under clear-sky conditions. See Resolution 145 (Rev.WRC-12). (WRC-1519)



Other references/information for the preparation of contributions to CPM19-2

- Resolution ITU-R 2-7 with Annexes 1 and 2 (Rev. RA-15) www.itu.int/pub/R-RES-R.2-7-2015
- BR Administrative Circular CA/226, its Add. 1 & Corr. 2 on CPM19-1, at: www.itu.int/md/R00-CA-CIR-0226
- **1st CPM Chairman's Doc. to ITU-R Responsible Groups** www.itu.int/md/R15-WP1A-C-0077/en of 19 Sep. 2016
- **2nd CPM Chairman's Doc. to ITU-R Resp. Groups on 9.1 issues** www.itu.int/md/R15-WP1A-C-0279/en of 1 May 2018
- BR Administrative Circular CA/241 & its Add. 1 on CPM19-2 at: www.itu.int/md/R00-CA-CIR-0241
- Additional information and examples of RR modifications in the Guidelines on [the CPM webpage](#)



Get RR texts from CPI for draft CPM texts

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

More information in the [CPI User Guide for WRC-19](#)

(main steps)

agenda item/(issue) selection

1 RR text search

2 agenda item/(issue) selection

3 RR text view

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

5 My skeleton

6 Save my skeleton

WRC-19 Collapse all 1 results

ARTICLES

CHAPTER II - Frequencies

ARTICLE 5 - Frequency allocations

Section IV

5.167A

Agenda item 1.1

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

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

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)

ADD

ADD*

MOD

(MOD)

SUP

SUP*

NOC

NOC

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

➤ [Nov. 2017 presentation of the CPI preliminary version](#)



CPM Webpage (incl. CPM19-2)

In accordance with [Resolution ITU-R 2-7](#), the CPM shall prepare a consolidated Report on the ITU-R preparatory studies and possible solutions to the WRC agenda items, to be used in support of the work of World Radiocommunication Conferences. [More >](#)



Meetings and Events	Related activities	Highlights
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- ▶ [ITU-R Meeting schedule](#)
- ▶ [Meeting sessions](#)
- ▶ [ITU-R Event Registration and Practical Information](#)
- ▶ [CCIR/ITU-R Study Groups 90th anniversary](#)

Second Session FOR WRC-19: CPM19-2

- ▶ [Monday 2019-02-18 - Thursday 2019-02-28](#)
- ▶ Place : **Switzerland, Geneva**
- ▶ Status : **Confirmed** - [Add to Calendar](#)
- ▶ [Invitation](#) - (CA/241)
- ▶ [List of Registered Participants](#) [TIES](#)
- ▶ [Registration](#) (**registration now open**)
- ▶ [CPM meetings Sharepoint site](#) [TIES](#)
- ▶ [Meeting sessions](#)
- ▶ [Captioning](#) [TIES](#)
- ▶ [Webcast](#) [TIES](#)

CPM19-2 DOCUMENTS

- ▶ [Draft CPM Report to WRC-19](#)
- ▶ [Contributions*](#) [TIES](#) - [Template](#) [W](#)
Final deadline: **4 February 2019, 1600 hours UTC**
(see [CA/241](#))
* "As received" versions (pdf) in contributions folder
- ▶ [Guidelines for the Preparation of Contributions](#)
English
- ▶ [Administrative Documents \(ADM\)](#) [TIES](#)
- ▶ [Information Documents \(INFO\)](#) [TIES](#)
- ▶ [Temporary Documents \(DT\)](#) [TIES](#)
- ▶ [Informal documents on Sharepoint](#) [TIES](#)
- ▶ [Sync Application - For PC - For Mac - User Guide](#)
- ▶ [Administrative Circulars \(CA\)](#) [TIES](#)
- ▶ [Administrative Circulars \(CACE\)](#) [TIES](#)
- ▶ [CPM-15 - Archives](#)
- ▶ [CPM Previous sessions - Archives](#)

References	Related ITU-R Texts	Circulars
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- ▶ [Radio Regulations](#)
- ▶ [Working methods \(Resolution ITU-R 1\)](#)
- ▶ [Guidelines for the working methods](#)
- ▶ [Conference Preparatory Meeting \(Resolution ITU-R 2\)](#)
- ▶ [ITU Style Guides](#)
- ▶ [ITU Terms and Definitions Database](#)
- ▶ [Structure of Radiocommunication Study Groups \(Resolution ITU-R 4\)](#)

Contacts	Electronic working	Intellectual Property Rights
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- ▶ [CPM Chairman and Vice-Chairmen](#)



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

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)

4th APG-19: 7-12 Jan. 2019, Busan, KOR

African Telecommunications Union (ATU)

3rd APM-19: 17-21 Sep. 2018, Cairo, EGY

Inter-American Telecommunication Commission (CITEL)

32nd PCC.II: 3-7 Dec. 2018, Brasilia, B

Arab Spectrum Management Group (ASMG)

24th ASMG: 9-13 Dec. 2018, Amman, JOR

European Conference of Postal and Telecommunications Administrations (CEPT)

7th CPG-19: 27-30 Nov. 2018, Hilversum, HOL

Regional Commonwealth in the Field of Communications (RCC)

6th RCC WG: 2-4 Oct. 2018, Moscow, RUS

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



ITU Inter-Regional Workshops on WRC-19 Preparation

[Webpage](#)

**1st Workshop
on 21-22
Nov. 2017**
[Webpage](#)

- 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
20-22
November
2018**
[Webpage](#)

- 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
[4-6 Sep.
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, 2nd ITU Inter-regional Workshop on WRC-19 Preparation, 20-22 November 2018, ITU, Geneva, Switzerland



Thank you for your attention

philippe.aubineau@itu.int

Counsellor for ITU-R SG1 & CPM

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

Email: brsgd@itu.int

Conference Preparatory Meeting (CPM) for WRC-19:

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

Additional slides on

- **CPM-19 leadership, draft Report structure**
- **Topics and items on the Agenda for WRC-19**
- **Preparation for RA-19**
- **Radio services abbreviations (other abbreviations are provided in the [draft CPM Report](#))**



CPM-19

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

Chairman

Mr K. AL-AWADHI (UAE), E-mail: khalid.alawadi@tra.gov.ae

Vice-Chairmen, CPM

Mr M. AL BADI (OMA), E-mail: albadi@tra.gov.om

Ms C. BEAUMIER (CAN), E-mail: chantal.beaumier@canada.ca

Mr X. GAO (CHN), E-mail: gaoxiaoyang@chinasatcom.com

Mr V. GOEL (IND), E-mail: viresh.goel@gmail.com

Mr A. KÜHN (D), E-mail: alexander.kuehn@bnetza.de

Dr H. SEONG (KOR), E-mail: seong@msip.go.kr

Mr T. SHAFIEE (IRN), E-mail: shafiee@cra.ir

Mr. A. V. VASSILIEV (RUS), E-mail: alexandre.vassiliev@ties.itu.int

(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



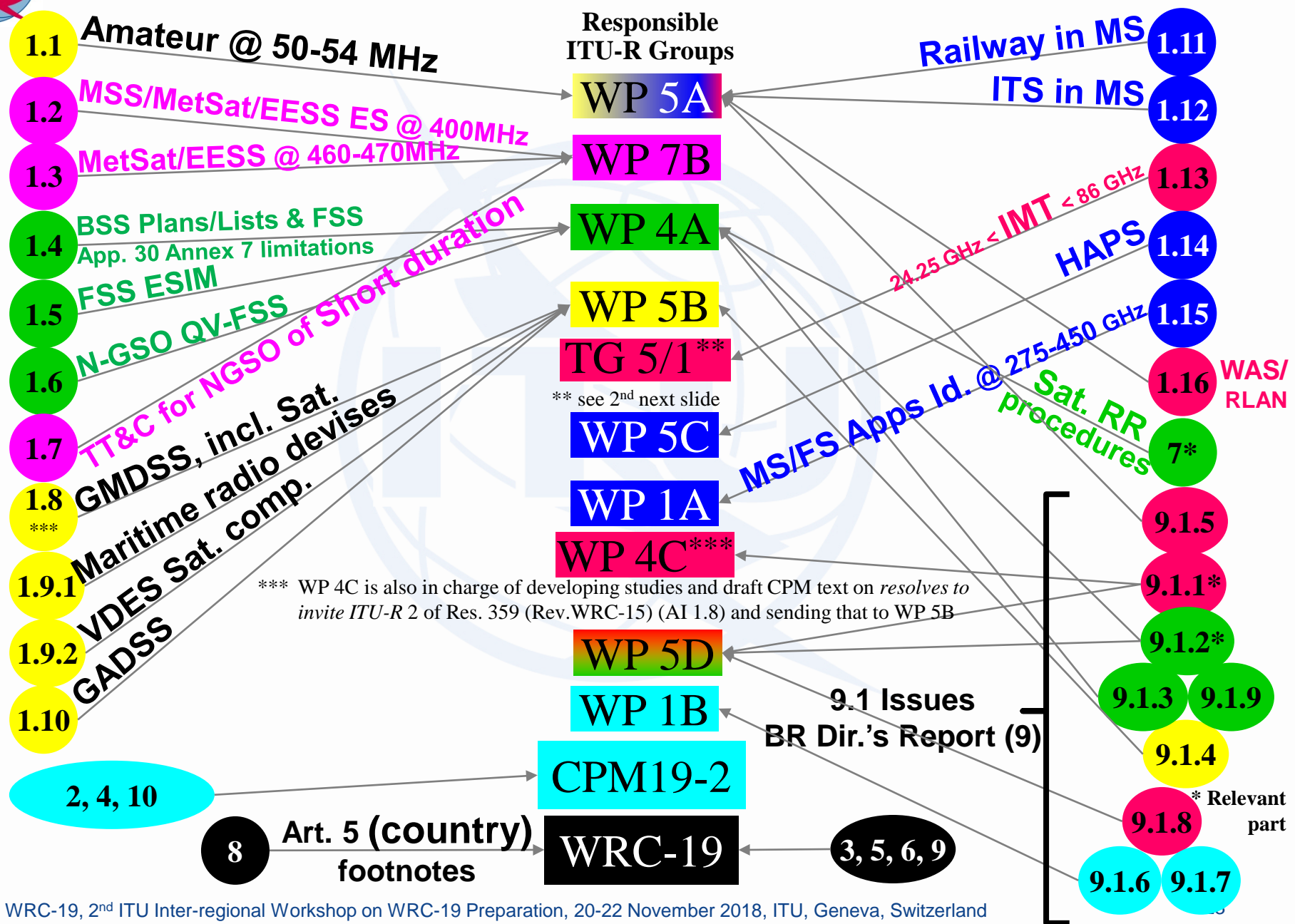
CPM Chapter Rapporteurs

<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)



WRC-19 agenda items & Resp. Groups





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)



WRC-23 preliminary items & Resp. Groups

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



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

Chapter N Agenda Item 1.XY

[Relevant WRC Resolutions if any]

N/1.XY/1 Executive Summary

N/1.XY/2 Background

N/1.XY/3 Summary and Analysis of the results of ITU-R studies, including a list of relevant ITU-R Recommendations

N/1.XY/4 Method(s) to satisfy the Agenda Item**

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

** Not applicable to issues under agenda item 9.1, instead: **N/9.1.X/4 Conclusions**



Topics and items on the Agenda for the 2019 World Radiocommunication Conference

A blue circular button with a white border and a slight shadow, containing the text 'WRC 2019' in white, bold, sans-serif font. The button is centered on the slide and overlaps a large, faint background watermark of the ITU logo.

**WRC
2019**



Topics on the WRC-19 Agenda

17 specific & 11 standing items ▶ Res.809 (WRC-15)



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

- 1.13
- 1.14
- 1.15
- 1.16

Maritime (GMDSS modernization (+Sat.), use of radio devices, VDES Sat component)



- 1.8
- 1.9.1
- 1.9.2



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

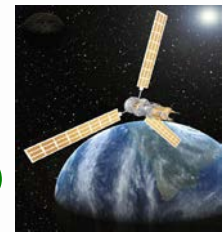
- 1.1

Aeronautical (GADSS needs)

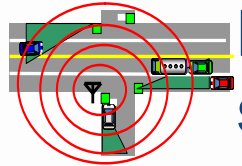


- 1.10

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



- 1.4, 1.5, 1.6



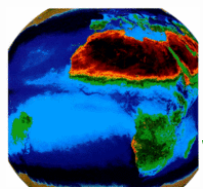
New Transport systems

(harmonized bands for railways, ITS)

- 1.11
- 1.12



Earth resources & Climate monitoring Weather forecast, DCS improvement, TT&C for N-GSO Sat. of short duration



- 1.2
- 1.3
- 1.7



Regulatory issues (Sat. regulations, harmonization of spectrum use, etc.)

- 7
- 8

Note: WRC-19 agenda item numbers indicated in italic

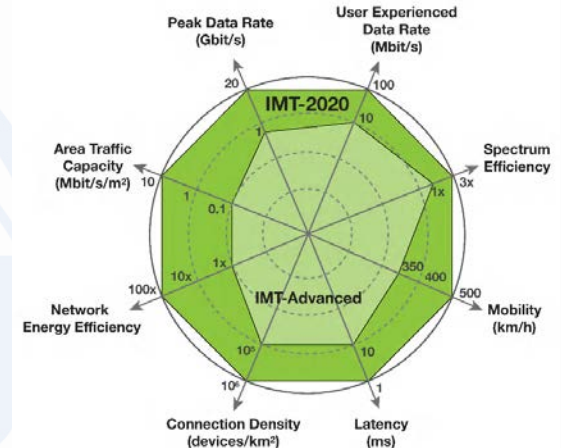
Broadband applications in the MS (WRC-19 agenda items 1.13 and 1.16)

Consider **IMT identification** in the following bands, which have allocations to the mobile service on a primary basis:

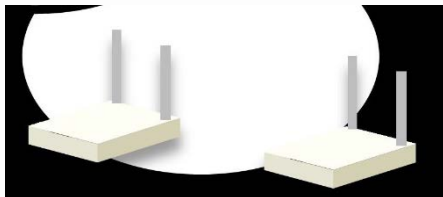
- **24.25 – 27.5 GHz**
- **37 – 40.5 GHz**
- **42.5 – 43.5 GHz**
- **45.5 – 47 GHz**
- **47.2 – 50.2 GHz**
- **50.4 – 52.6 GHz**
- **66 – 76 GHz**
- **81 – 86 GHz**

And also in the following bands which may require additional 1stary MS 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)

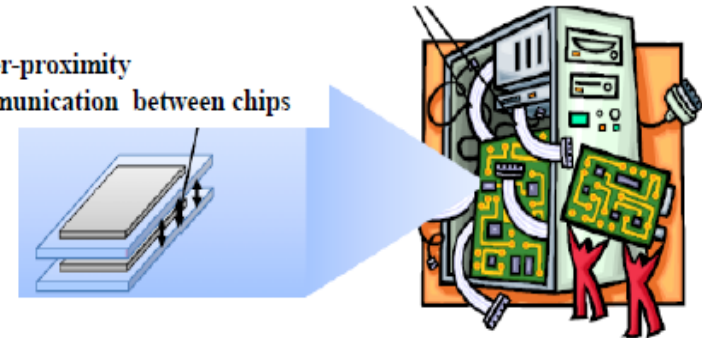
▶ **Res. 160 (WRC-15)**

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

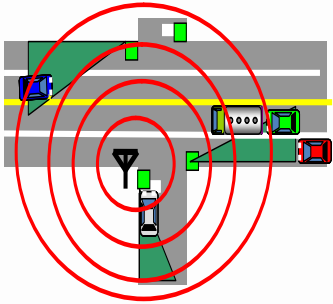


New transport systems in the MS (WRC-19 agenda items 1.11 & 1.12)



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)



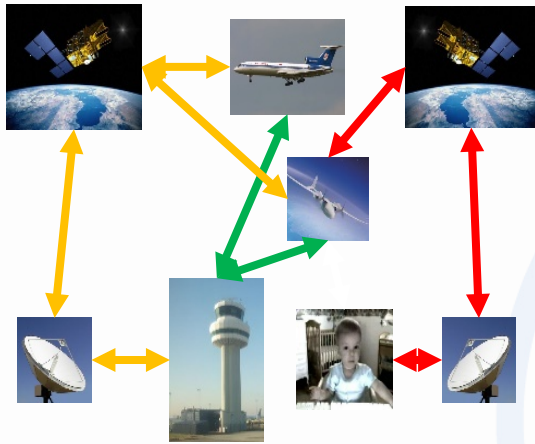
Studies to consider possible **regulatory actions** to **support GMDSS** (Global Maritime Distress and Safety Systems) **modernization** and the introduction of **additional satellite systems** into the GMDSS ► [Res. 359 \(Rev.WRC-15\)](#)



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)

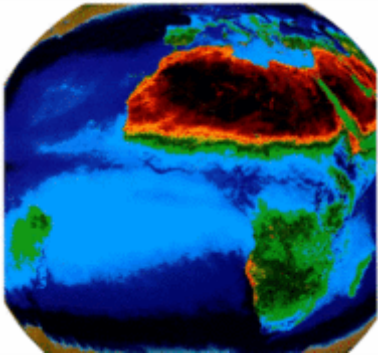
▶ [Res. 426 \(WRC-15\)](#)



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** and in the **MSS @ 399.9-400.05 MHz** for DCS*

▶ [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

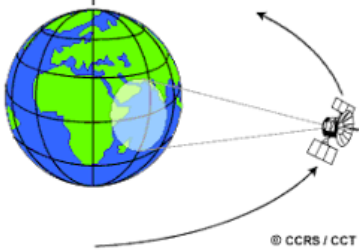
▶ [Res. 659 \(WRC-15\)](#)

* 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



Satellite issues

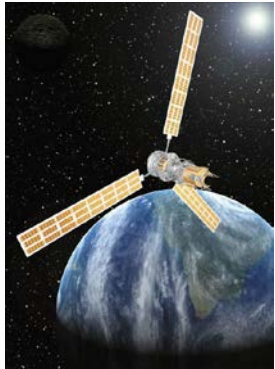
(WRC-19 agenda items 1.4, 1.5, 1.6 & 7)



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 \(Rev.WRC-07\)](#)





Satellite regulatory issues (WRC-19 agenda item 7 – part 1)

- ✓ **Thirteen (13) issues identified under AI 7:**
 - A. Bringing into use of frequency assignments to all non-GSO systems**, and consideration of a milestone-based approach for the deployment of non-GSO systems in specific frequency bands and services
 - B. Application of coordination arc in the Ka-band**, to determine coordination requirements between the FSS and other satellite services
 - C. Issues for which consensus was achieved in ITU-R and a single method** has been identified
 - D. Ident. specific sat. networks & systems** to coordinate with, under RR Nos. **9.12, 9.12A and 9.13**
 - E. Resolution related to RR Appendix 30B**
 - F. Measures to facilitate entering new assignments** into the **RR App 30B List**



Satellite regulatory issues

(WRC-19 agenda item 7 – part 2)

- G. Updating ref. sit. for networks in RR App. 30 & 30A** after conversion into definitive of provisionally recorded assignments
- H. Modifications to RR Appendix 4 items** to be provided for **non-geostationary satellite systems** not subject to the procedures of Section II of RR Article 9
- I. Additional RR Appendix 4 data items** to be provided for **non-geostationary satellite systems with multiple orbital planes**
- J. Pfd limit** in Section 1, Annex 1 of RR Appendix 30
- K. Difficulties for Part B examinations** under § 4.1.12 or 4.2.16 of RR App. 30 and 30A and § 6.21 c) of App. 30B
- L. Update to RR Appendix 4 data elements** required for RR Article 22 epfd verification after revision of Recommendation ITU-R S.1503
- M. Simplified regulatory regime for non-GSO satellite systems with short-duration missions**



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