



## **Lecture Text for**

### **Module 2-5: Roles of ITU-R Study Groups for a WRC**

- ITU-R Study Groups, Working Parties and Task Groups and their roles in the preparation for WRC
- Important timeline for the preparation of a WRC

**Lecturer: Mr. Xiaoyang Gao**

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# Introduction of the Lecturer

## Mr. Xiaoyang Gao



### Biographical notes

**Mr. Xiaoyang Gao** is a Chief Spectrum Officer of China Satellite Communications Co., Ltd (CHINA SATCOM). Vice-Chairman of ITU CPM-19. He is an expert of the Radio Association of China, and a member of Radio Applications and Management Committee under China Institute of Communications.

He participated in satellite engineering for more than 30 years, ITU&APG relevant activities for more than 20 years, including PP-14, WRCs, Working Party and Study Group meetings, ITU Council and Council Working Group meetings and APT Conference Preparatory Group meetings.

As Vice-Chairman of Satellite Services of ITU during the period 2007-2015, he also chaired as Drafting Group Chairman of APG on Satellite Procedure and Regulatory issues for WRC-12, Working Party Chairman of APG on Satellite Services for WRC-15, CPM Report Rapporteur on Fixed-Satellite Service for WRC-15, Working Party Chairman of WRC-15 on Satellite Allocation issues. By RA-15, Mr. GAO was elected as Vice-Chairman of WRC-19 preparatory meeting.



## **ITU-R SG/WP/TG for WRC**

Xiaoyang GAO, CHINA SATCOM, CHINA



### **A. Main Points**

- **ITU-R Study Groups, Working Parties and Task Groups and their roles in the preparation for WRC**
- **Important timeline for the preparation of a WRC**



## A. ITU-R in Brief

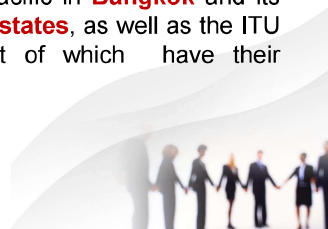
- **ITU-R: Radio-frequency allocation, satellite orbit management and access technologies.**

An increasing number of players need to make use of **these limited resources**, and participating in **ITU-R conferences and study group activities**.

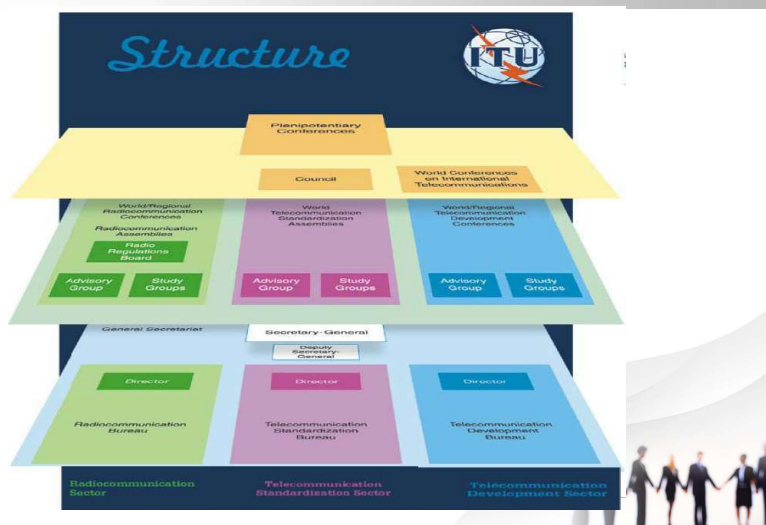
**WRC** is ITU-R **highest-level** meeting.

- ITU has **twelve regional and area offices** around the world.

**The Regional Office** for Asia and the Pacific in **Bangkok** and its **Area office** in **Jakarta** serve **38 Member states**, as well as the ITU Sector Members and Associates, most of which have their headquarters in the Region.



## A. ITU-R in Brief



## A. ITU-R in Brief

### ■ World Radiocommunication Conferences (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.

- **Revise** the **Radio Regulations** and any associated Frequency assignment and allotment Plans
- **Address** any **radiocommunication matter** of worldwide character
- **Instruct** the [Radio Regulations Board](#) and the [Radiocommunication Bureau](#), and review their activities;
- **Determine** [Questions](#) for study by the [Radiocommunication Assembly](#) and its [Study Groups](#) in preparation for future Radiocommunication Conferences.

[Conference Preparatory Meeting \(CPM\)](#) shall prepare a consolidated report to be used in support of the work of such conferences



## A. ITU-R in Brief

### ■ Radiocommunication Assemblies (RA):

RA are responsible for the **structure, programme and approval** of radiocommunication studies. They are normally convened every three or four years and may be associated in time and place with [World Radiocommunication Conferences \(WRCs\)](#).

- assign conference preparatory work and other questions to the [Study Groups](#);
- respond to other requests from ITU conferences;
- suggest suitable topics for the agenda of future WRCs;
- approve and issue [ITU-R Recommendations](#) and [ITU-R Questions](#) developed by the Study Groups;
- set the programme for Study Groups, and disband or establish Study Groups according to need.



## A. ITU-R in Brief

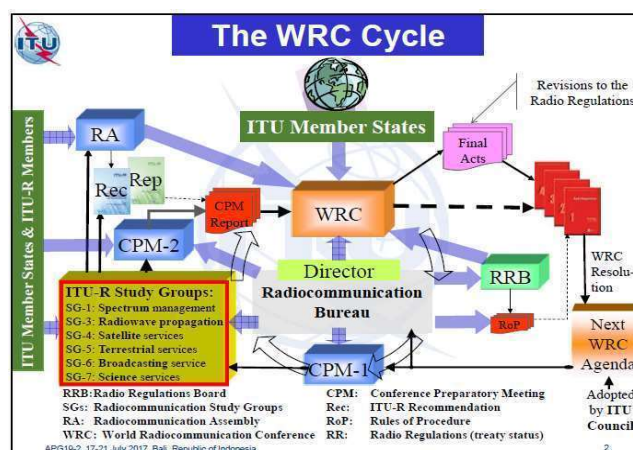
### ■ The objectives of the regulations:

With a view to fulfilling the purposes of the ITU set out in Article 1 of the Constitution, these Regulations have the following objectives:

- to facilitate **equitable access to and rational use** of the natural resources of the radio-frequency spectrum and the geostationary-satellite orbit
- to ensure the **availability** and **protection from harmful interference** of the frequencies provided for distress and safety purposes
- to assist in the **prevention and resolution of cases of harmful interference** between the radio services of different administrations
- to facilitate the **efficient and effective operation** of all radiocommunication services
- to provide for and, where necessary, **regulate new applications** of radiocommunication technology

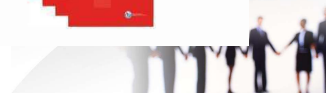


## A. ITU-R in Brief



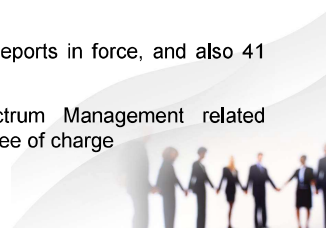
## B. ITU-R STUDY GROUPS

1906 (Berlin)	International Radiotelegraph Convention (1 <sup>st</sup> <i>Radio Regulations</i> )
1927 (Washington DC)	CCIR (International Radio Consultative Committee)
1932 (Madrid)	Telegraph & Radiotelegraph Conventions merged: the International Telegraph Union became the International Telecommunication Union
1947 (Atlantic City)	IFRB (International Frequency Registration Board) ITU as UN specialized agency
1992 (Geneva)	ITU-R (Radiocommunication Sector ): •RRB (Radio Regulations Board) •BR (Radiocommunication Bureau)



## B. ITU-R STUDY GROUPS

- ITU-R Study Groups (SGs) develop the technical bases for decisions taken at WRCs and develop global standards (Recommendations), Reports and Handbooks on radiocommunication matter. Particular attention is paid to the radiocommunication needs of developing countries.
- ITU-R SGs gathers more than 4000 specialists, from: ITU Member States, Sector and Associate Members, and Academia participate on ITU-R SG activities; ITU-R SG work in cooperation with other international radiocommunication organizations.
- ITU-R counts with 6 SG, composed by 21 Working Parties, WP. WP meets twice a years (some WP 1 or 3), normally at Geneva. SG meets yearly (after sessions of their respective WP)
- Currently 1163 Recommendations and 517 Reports in force, and also 41 Handbooks
- All ITU-R Rec, Rep, Op, and the Spectrum Management related Handbooks are of public access (download), free of charge



## B. ITU-R STUDY GROUPS

**Free online access to ITU Radiocommunication Sector (ITU-R) Publications:**

ITU-R Publications constitute an essential reference source for all those wishing to remain abreast of the rapidly changing technological developments in the various areas of international radio communication, such as government agencies, industry and private telecommunication operators, manufacturers, operators of national systems, international organizations, consultants, educators, academics, technical institutions, etc.

ITU-R Publications are available in paper format, CD-ROM, DVD-ROM and online versions.

**WRC-19 Agenda and Resolutions:**  
[www.itu.int/ITU-R/REG-19](http://www.itu.int/ITU-R/REG-19)

**Radio Regulations:**  
[www.itu.int/ITU-R/REG-RR](http://www.itu.int/ITU-R/REG-RR)

**Rules of Procedure:**  
[www.itu.int/ITU-R/REG-RRP](http://www.itu.int/ITU-R/REG-RRP)

**ITU-R Handbooks:**  
 Computer-aided Techniques for Spectrum Management (CAT)  
[www.itu.int/ITU-R/REG-RRP](http://www.itu.int/ITU-R/REG-RRP)

**Spectrum Monitoring**  
[www.itu.int/ITU-R/REG-RRP](http://www.itu.int/ITU-R/REG-RRP)

**National Spectrum Management**  
[www.itu.int/ITU-R/REG-RRP](http://www.itu.int/ITU-R/REG-RRP)

**Use of Radio Spectrum for Meteorology: Weather, Water and Climate Monitoring and Prediction**  
[www.itu.int/ITU-R/REG-RRP](http://www.itu.int/ITU-R/REG-RRP)

**ITU-R Study Group Outputs:**  
[www.itu.int/ITU-R/REG-RRP](http://www.itu.int/ITU-R/REG-RRP)

**ITU-R Recommendations:**  
[www.itu.int/ITU-R/REG-RRP](http://www.itu.int/ITU-R/REG-RRP)

**ITU-R Reports:**  
[www.itu.int/ITU-R/REG-RRP](http://www.itu.int/ITU-R/REG-RRP)

**ITU-R Questions:**  
[www.itu.int/ITU-R/REG-RRP](http://www.itu.int/ITU-R/REG-RRP)

**ITU-R Opinions:**  
[www.itu.int/ITU-R/REG-RRP](http://www.itu.int/ITU-R/REG-RRP)

**ITU-RITU-T Terms and Definitions:**  
[www.itu.int/ITU-R/REG-RRP](http://www.itu.int/ITU-R/REG-RRP)

**ITU-R Booklets:**  
 ITU-R Book of Resolutions  
[www.itu.int/ITU-R/REG-RRP](http://www.itu.int/ITU-R/REG-RRP)

**ITU-R Radiocommunications: Committed to connecting the world**  
[www.itu.int/ITU-R/REG-RRP](http://www.itu.int/ITU-R/REG-RRP)

**ITU-R Radiocommunications Study Groups**  
[www.itu.int/ITU-R/REG-RRP](http://www.itu.int/ITU-R/REG-RRP)

**ITU-R Radiocommunications: Climate Change**  
[www.itu.int/ITU-R/REG-RRP](http://www.itu.int/ITU-R/REG-RRP)

**Free online access to ITU-R Software and Databases**

**ITU Radiocommunication Sector (ITU-R):**

**Terrestrial Services:**

Terrestrial Services Software  
[www.itu.int/ITU-R/REG-RRP](http://www.itu.int/ITU-R/REG-RRP)

Global Administration Data System (GLAD)  
[www.itu.int/ITU-R/REG-RRP](http://www.itu.int/ITU-R/REG-RRP)

Maritime Mobile Access and Retrieval System (MARS)  
[www.itu.int/ITU-R/REG-RRP](http://www.itu.int/ITU-R/REG-RRP)

Emergency (Res.647)  
[www.itu.int/ITU-R/REG-RRP](http://www.itu.int/ITU-R/REG-RRP)

Monitoring Reports  
[www.itu.int/ITU-R/REG-RRP](http://www.itu.int/ITU-R/REG-RRP)

**Space Services:**

Space Network List (SNL)  
[www.itu.int/ITU-R/REG-RRP](http://www.itu.int/ITU-R/REG-RRP)

Space Network Systems (SNS)  
[www.itu.int/ITU-R/REG-RRP](http://www.itu.int/ITU-R/REG-RRP) (available as a free service for ITU-aligned users only)

**Others:**

SD3 Databanks (Radiocommunications)  
[www.itu.int/ITU-R/REG-RRP](http://www.itu.int/ITU-R/REG-RRP)

ITU Patent Statement and Licensing Declaration Information  
[www.itu.int/ITU-R/REG-RRP](http://www.itu.int/ITU-R/REG-RRP)

ITU Digitalized World Map (DWM) and Subroutine Library (D2-M)  
[www.itu.int/ITU-R/REG-RRP](http://www.itu.int/ITU-R/REG-RRP)

These resources are available online on the ITU-R homepage: [www.itu.int/ITU-R](http://www.itu.int/ITU-R)  
 "Free Resources" - in 14 languages of ITU (Arabic, Chinese, English, French, Russian, Spanish) whenever possible.

ITU Committed to Connecting the World [www.itu.int](http://www.itu.int)

## B. ITU-R STUDY GROUPS

### ■ STUDY GROUPS

- Study Group 1 (SG 1): Spectrum management
- Study Group 3 (SG 3): Radio wave propagation
- Study Group 4 (SG 4): Satellite services
- Study Group 5 (SG 5): Terrestrial services
- Study Group 6 (SG 6): Broadcasting service
- Study Group 7 (SG 7): Science services
- Coordination Committee for Vocabulary (CCV)
- Conference Preparatory Meeting (CPM)

The BR provides the Secretariat to every ITU-R SG, headed by each SG Counselor <http://www.itu.int/en/ITU-R/study-groups>



## B. ITU-R STUDY GROUPS

### **SG1: Spectrum management**

**Scope:** Spectrum management principles and techniques, general principles of sharing, spectrum monitoring, long-term strategies for spectrum utilization, economic approaches to national spectrum management, automated techniques and assistance to developing countries in cooperation with the Telecommunication Development Sector.

**Structure:**

**WP 1A:** Spectrum engineering techniques

**WP 1B:** Spectrum management methodologies / economic strategies

**WP 1C:** Spectrum monitoring



## B. ITU-R STUDY GROUPS

### **SG3: Radiowave propagation**

**Scope:** Propagation of radio waves in ionized and non-ionized media and the characteristics of radio noise, for the purpose of improving radiocommunication systems.

**Structure:**

**WP 3J:** Propagation fundamentals

**WP 3K:** Point-to-area propagation

**WP 3L:** Ionospheric propagation and radio noise

**WP 3M:** Point-to-point and Earth-space propagation



## B. ITU-R STUDY GROUPS

### SG4: Satellite services

**Scope:** Systems and networks for the fixed-satellite service, mobile-satellite service, broadcasting-satellite service and radiodetermination-satellite service.

**Structure:**

**WP 4A:** Efficient orbit/spectrum utilization for the fixed-satellite service (FSS) and broadcasting-satellite service (BSS)

**WP 4B:** Systems, air interfaces, performance and availability objectives for the fixed-satellite service (FSS), broadcasting-satellite service (BSS) and mobile-satellite service (MSS), including IP-based applications and satellite news gathering (SNG)

**WP 4C:** Efficient orbit/spectrum utilization for the mobile-satellite service (MSS) and the radiodetermination-satellite service (RDSS) <sup>1</sup>

<sup>1</sup> WP 4C also deals with the performance issues related to RDSS



## B. ITU-R STUDY GROUPS

### SG5: Terrestrial services

**Scope:** Systems and networks for fixed, mobile, radiodetermination, amateur and amateur-satellite services.

**Structure:**

**WP 5A:** Land mobile service above 30MHz<sup>3</sup> (excluding IMT); wireless access in the fixed service; amateur and amateur-satellite services

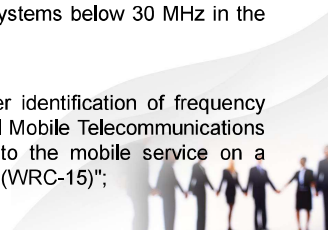
**WP 5B:** Maritime mobile service including the Global Maritime Distress and Safety System (GMDSS); the aeronautical mobile service and the radiodetermination service

**WP 5C:** Fixed wireless systems; HF and other systems below 30 MHz in the fixed and land mobile services

**WP 5D:** IMT systems

**TG 5/1:** WRC-19 Agenda item 1.13 "to consider identification of frequency bands for the future development of International Mobile Telecommunications (IMT), including possible additional allocations to the mobile service on a primary basis, in accordance with Resolution 238 (WRC-15)";

<sup>3</sup> including the exact frequency of 30MHz



## B. ITU-R STUDY GROUPS

### **SG6: Broadcasting service**

**Scope:** Radiocommunication broadcasting, including vision, sound, multimedia and data services principally intended for delivery to the general public; it encompasses the production and distribution of programmes (vision, sound, multimedia, data, etc.) as well as contribution circuits among studios, information gathering circuits (ENG, requirements for SNG, etc.), primary distribution to delivery nodes, and secondary distribution to consumers.

**Structure:**

**WP 6A:** Terrestrial broadcasting delivery

**WP 6B:** Broadcast service assembly and access

**WP 6C:** Programme production and quality assessment



## B. ITU-R STUDY GROUPS

### **SG7: Science services**

**Scope:** “Science services” refer to the standard frequency and time signal, space research (SRS), space operation, Earth exploration-satellite (EESS), meteorological-satellite (MetSat), meteorological aids (MetAids) and radio astronomy (RAS) services. [MORE](#)

**Structure:**

**WP 7A:** Time signals and frequency standard emissions:

**WP 7B:** Space radiocommunication applications

**WP 7C:** Remote sensing systems

**WP 7D:** Radio astronomy



## C. ITU-R SG/WP/TG Roles for WRC

### ■ ITU-R Series on Rec, Rep, Handbook:

- BO: Satellite delivery
- BR: Recording for production, archival and play-out; film for television
- BS: Broadcasting service (sound)
- BT: Broadcasting service (television)
- F: Fixed service
- M: Mobile, radiodetermination, amateur and related satellite services
- P: Radiowave propagation
- RA: Radio astronomy
- RS: Remote sensing systems
- S: Fixed-satellite service
- SA: Space applications and meteorology
- SF: Frequency sharing and coordination between fixed-satellite and fixed service systems
- SM: Spectrum management

### ■ Prepare draft CPM text



## C. ITU-R SG/WP/TG Roles for WRC

- Normally, all the WRC preparatory work will be performed **within the framework** of the foreseen work programme and organization of the ITU-R Study Groups.

### ■ First session of CPM19-1

Besides **organizing** preparatory studies, **proposing** a CPM Report structure, **nominating** six (6) Chapter Rapporteurs, CPM19-1 invited ITU-R Study Group 5 to **establish a dedicated Task Group (TG 5/1)** to deal with complex issues related to WRC-19 agenda item 1.13.



## C. ITU-R SG/WP/TG Roles for WRC

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Allocation of ITU-R preparatory work for WRC-19

Topic	Responsible group	Action to be taken by the group	Concerned group <sup>1</sup>
1.1 to consider an allocation of the frequency band 50-54 MHz to the amateur service in Region 1, in accordance with Resolution 658 [COM6/6] (WRC-15);			
Resolution 658 [COM6/6] (WRC-15) Allocation of the frequency band 50-54 MHz to the amateur service in Region 1	WP 5A	<p>resolves to invite the 2019 World Radiocommunication Conference to consider the results of the studies below and take appropriate actions, including spectrum allocation,</p> <p>invites ITU-R</p> <p>1 to study spectrum needs in Region 1 for the amateur service in the frequency band 50-54 MHz;</p> <p>2 taking into account the results of the above studies, to study sharing between the amateur service and the mobile, fixed, radiolocation and broadcasting services, in order to ensure protection of these services.</p>	WP 5B WP 5C WP 6A (WP 3K) (WP 3M)
1.2 to consider in-band power limits for earth stations operating in the mobile-satellite service, meteorological-satellite service and Earth exploration-satellite service in the frequency bands 401-403 MHz and 399.9-400.05 MHz, in accordance with Resolution 765 [COM6/7] (WRC-15);			
Resolution 765 [COM6/7] (WRC-15) Establishment of in-band power limits for earth stations operating in mobile-satellite service, the meteorological-satellite service and the Earth exploration-satellite service in the frequency bands 401-403 MHz and 399.9-400.05 MHz	WP 7B	<p>resolves to invite the 2019 World Radiocommunication Conference to take into account the results of ITU-R studies, and consider the possibility of establishing in-band power limits for earth stations in the EESS and MetSat in the frequency bands 401-403 MHz and in the MSS frequency band 399.9-400.05 MHz,</p> <p>invites ITU-R</p> <p>to conduct and complete, in time for WRC-19, the necessary technical, operational and regulatory studies on the possibility of establishing in-band power limits for earth stations in the EESS and MetSat in the frequency band 401-403 MHz and the MSS in the frequency band 399.9-400.05 MHz,</p>	WP 4C WP 5A WP 7C (WP 3M)



## C. ITU-R SG/WP/TG Roles for WRC

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Allocation of ITU-R preparatory work for WRC-19

Topic	Responsible group	Action to be taken by the group	Concerned group <sup>1</sup>
1.13 to consider identification of frequency bands for the future development of International Mobile Telecommunications (IMT), including possible additional allocations to the mobile service on a primary basis, in accordance with Resolution 238 [COM6/20] (WRC-15);			
Resolution 238 [COM6/20] (WRC-15) Studies on frequency-related matters for International Mobile Telecommunications identification including possible additional allocations to the mobile services on a primary basis in portion(s) of the frequency range between 24.25 and 86 GHz for the future development of International Mobile Telecommunications for 2020 and beyond	TG 5/1*	<p>resolves to invite ITU-R</p> <p>1 to conduct and complete in time for WRC-19 the appropriate studies to determine the spectrum needs for the terrestrial component of IMT in the frequency range between 24.25 GHz and 86 GHz, taking into account:</p> <ul style="list-style-type: none"> <li>– technical and operational characteristics of terrestrial IMT systems that would operate in this frequency range, including the evolution of IMT through advances in technology and spectrally efficient techniques;</li> <li>– the deployment scenarios envisaged for IMT-2020 systems and the related requirements of high data traffic such as in dense urban areas and/or in peak times;</li> <li>– the needs of developing countries;</li> <li>– the time-frame in which spectrum would be needed;</li> </ul> <p>2 to conduct and complete in time for WRC-19 the appropriate sharing and compatibility studies<sup>1</sup>, taking into account the protection of services to which the band is allocated on a primary basis, for the frequency bands:</p> <ul style="list-style-type: none"> <li>– 24.25-27.5 GHz<sup>2</sup>, 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 and 81-86 GHz, which have allocations to the mobile service on a primary basis; and</li> <li>– 31.8-33.4 GHz, 40.5-42.5 GHz and 47-47.2 GHz, which may require additional allocations to the mobile service on a primary basis,</li> </ul> <p>further resolves</p> <p>1 to invite CPM19-1 to define the date by which technical and operational characteristics needed for sharing and compatibility studies are to be available, to ensure that studies referred to in resolves to invite ITU-R can be completed in time for consideration at WRC-19;</p> <p>2 to invite WRC-19 to consider, based on the results of the above studies, additional spectrum allocations to the mobile service on a primary basis and to consider identification of frequency bands for the terrestrial component of IMT; the bands to be considered being limited to part or all of the bands listed in resolves to invite ITU-R 2;</p>	<p>Note: the groups below are involved groups contributing to this issue.</p> <p>WP 3I WP 3K WP 3M WP 4A WP 4B WP 4C WP 5A WP 5B WP 5C WP 5D WP 6A WP 7B WP 7C WP 7D</p>

\* See the CPM19-1 Decision in Annex 9 to this Administrative Circular.

<sup>1</sup> Including studies with respect to services in adjacent bands, as appropriate.

<sup>2</sup> When conducting studies in the band 24.5-27.5 GHz, to take into account the need to ensure the protection of existing earth stations and the deployment of future receiving earth stations under the EESS (space-to-Earth) and SRS (space-to-Earth) allocation in the frequency band 25.5-27 GHz.

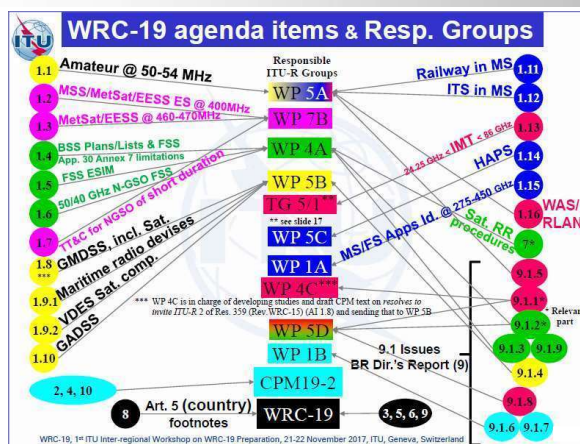


## C. ITU-R SG/WP/TG Roles for WRC

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Allocation of ITU-R preparatory work for WRC-19			
Topic	Responsible group	Action to be taken by the group	Concerned group <sup>1</sup>
9		to consider and approve the Report of the Director of the Radiocommunication Bureau, in accordance with Article 7 of the Convention:	
9.1		on the activities of the Radiocommunication Sector since WRC-15:	
Issue 9.1.1: Resolution 212 (Rev.WRC-15) Implementation of International Mobile Telecommunications in the frequency bands 1 885-2 025 MHz and 2 110-2 200 MHz	WP 4C (see Note 1)  WP 5D (see Note 2) (see also Note 3)	resolves that administrations which implement IMT: a) should make the necessary frequencies available for system development; b) should use those frequencies when IMT is implemented; c) should use the relevant international technical characteristics, as identified by ITU-R and ITU-T Recommendations, <i>invites ITU-R</i> to study possible technical and operational measures to ensure coexistence and compatibility between the terrestrial component of IMT (in the mobile service) and the satellite component of IMT (in the mobile service and the mobile-satellite service) in the frequency bands 1 980-2 010 MHz and 2 170-2 200 MHz where those frequency bands are shared by mobile service and the mobile-satellite service in different countries, in particular for the deployment of independent satellite and terrestrial components of IMT and to facilitate development of both the satellite and terrestrial components of IMT, <i>encourages administrations</i> 1 to give due consideration to the accommodation of other services currently operating in these frequency bands when implementing IMT; 2 to participate actively in the ITU-R studies in accordance with <i>invites ITU-R</i> above, instructs the Director of the Radiocommunication Bureau to include in his report, for consideration by WRC-19, the results of the ITU-R studies referred to in <i>invites ITU-R</i> above, <i>further invites ITU-R</i> to continue its studies with a view to developing suitable and acceptable technical characteristics for IMT that will facilitate worldwide use and roaming, and ensure that IMT can also meet the telecommunication needs of the developing countries and rural areas.	-
<p>Note 1: WP 4C is responsible for the studies requested in the <i>invites ITU-R</i> with respect to the satellite component of IMT, taking into account the technical and operational characteristics provided by WP 5D.</p> <p>Note 2: WP 5D is responsible for the studies requested in the <i>invites ITU-R</i> with respect to the terrestrial component of IMT, taking into account the technical and operational characteristics provided by WP 4C.</p> <p>Note 3: The conclusion of the draft CPM text shall be agreed by both WP 4C and WP 5D. For this purpose, the Chairmen of both WPs shall coordinate the schedule of the meetings, as appropriate.</p>			

## C. ITU-R SG/WP/TG Roles for WRC



## C. ITU-R SG/WP/TG Roles for WRC

<u>Chapters of the draft CPM Report</u>	<u>WRC-19 Agenda items</u>
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

## C. ITU-R SG/WP/TG Roles for WRC

**See details @ [www.itu.int/go/wrc-19-regional](http://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)

<b>Asia-Pacific Telecommunity (APT)</b> 3 <sup>rd</sup> APG-19: [12-16 March 2018, Australia]	<b>Arab Spectrum Management Group (ASMG)</b> 22 <sup>nd</sup> ASMG: [tbd]
<b>African Telecommunications Union (ATU)</b> 3 <sup>rd</sup> APM-19: [17-21 Sep. 2018, venue tbd]	<b>European Conference of Postal and Telecommunications Administrations (CEPT)</b> 5 <sup>th</sup> CPG-19: 8-11 Jan 2018, Budapest, Hungary
<b>Inter-American Telecommunication Commission (CITEL)</b> 30 <sup>th</sup> PCC.II: 27 Nov.-1 Dec. 2017, Barranquilla, CLM	<b>Regional Commonwealth in the Field of Communications (RCC)</b> 5 <sup>th</sup> RCC WG: [2018]

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

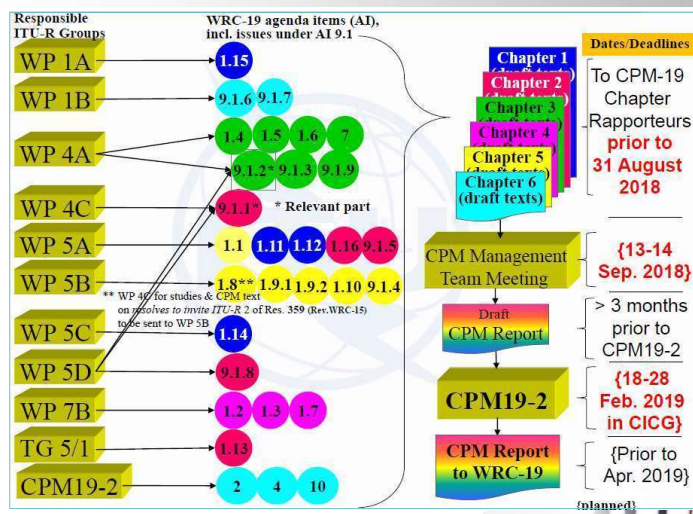
<http://www.itu.int/go/wrc-19-regional>



## C. ITU-R SG/WP/TG Roles for WRC

<b>1<sup>st</sup> Workshop</b> <b>on 21-22</b> <b>Nov. 2017</b> <a href="#">Webpage</a>	<ul style="list-style-type: none"> <li>To be scheduled halfway through the preparatory cycle</li> <li>⇒ Presentation and review of the on-going preparatory studies of the ITU-R responsible groups for CPM-19</li> <li>⇒ Presentation of the organization, preliminary views, draft priorities and positions of the regional groups</li> </ul>
<b>2<sup>nd</sup> Workshop</b> <b>[21-23</b> <b>November</b> <b>2018]*</b>	<ul style="list-style-type: none"> <li>To be scheduled few months prior to CPM19-2</li> <li>⇒ Presentation of the Draft CPM Report to WRC-19 (explanation of the draft Methods to satisfy the WRC-19 agenda items)</li> <li>⇒ Presentation and review of the regional groups' draft views, positions and common proposals</li> </ul>
<b>3<sup>rd</sup> Workshop</b> <b>[Q3 2019]*</b>	<ul style="list-style-type: none"> <li>To be scheduled few months prior to WRC-19</li> <li>⇒ Presentation of the CPM &amp; Dir. Reports to WRC-19</li> <li>⇒ Presentation and review of the regional groups' draft views, positions and common proposals</li> </ul>

## D. Important Timeline





## D. Important Timeline

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 <sup>st</sup> )	WPs 7B & 7C (1 <sup>st</sup> ) WP 4C+WP 4A (1 <sup>st</sup> ) WPs 5A, 5B & 5C (1 <sup>st</sup> ) TG 5/1 (1 <sup>st</sup> ) WPs 1A & 1B (1 <sup>st</sup> ) WP 5D (2 <sup>nd</sup> )	WP 4C+WP 4A (2 <sup>nd</sup> )	WP 5D (3 <sup>rd</sup> ) WPs 7B & 7C (2 <sup>nd</sup> ) WPs 5A, 5B & 5C (2 <sup>nd</sup> ) WPs 1A & 1B (2 <sup>nd</sup> )
	WP 5D (4 <sup>th</sup> )	WPs 7B & 7C (3 <sup>rd</sup> ) WP 4C+WP 4A (3 <sup>rd</sup> ) TG 5/1 (2 <sup>nd</sup> ) WPs 5A, 5B & 5C (3 <sup>rd</sup> ) WPs 1A & 1B (3 <sup>rd</sup> ) WP 5D (5 <sup>th</sup> )	CPM19 Steering TG 5/1 (3 <sup>rd</sup> )	WP 5D (6 <sup>th</sup> ) WP 4C+WP 4A (4 <sup>th</sup> ) WPs 7B & 7C (4 <sup>th</sup> ) WPs 5A, 5B & 5C (4 <sup>th</sup> ) WS on WRC-19 WPs 1A & 1B (4 <sup>th</sup> )
	TG 5/1 (4 <sup>th</sup> ) WP 5D (7 <sup>th</sup> ) WP 4C+WP 4A (5 <sup>th</sup> ) RAG (25 <sup>th</sup> )	[TG 5/1 (5 <sup>th</sup> )] [WPs 7B & 7C (5 <sup>th</sup> )] [WPs 5A, 5B & 5C (5 <sup>th</sup> )] [WPs 1A & 1B (5 <sup>th</sup> )] [WP 5D (8 <sup>th</sup> )] [WP 4C+WP 4A (6 <sup>th</sup> )]	[TG 5/1 (6 <sup>th</sup> )]	[WPs 7B & 7C (6 <sup>th</sup> )] [WP 5D (9 <sup>th</sup> )] [WPs 5A, 5B & 5C (6 <sup>th</sup> )] [WS on WRC-19]
	CPM19-2	[Last meetings of the Responsible Groups]	[WS on WRC-19]	RA-19 WRC-19

[www.itu.int/en/events/Pages/Calendar-Events.aspx?sector=ITU-R](http://www.itu.int/en/events/Pages/Calendar-Events.aspx?sector=ITU-R)



## D. Important Timeline

### Dates for CPM19-2, RA-19, WRC-19, CPM23-1

2019/2/18	2019/2/28	ITU-R	CPM19-2	Second Session of the Conference Preparatory Meeting for WRC-19	Switzerland [Geneva]	Planned
2019/10/21	2019/10/25	ITU-R	RA-19	Radiocommunication Assembly 2019 (RA-19)	Egypt [Sharm El Sheikh]	Confirmed
2019/10/28	2019/11/22	ITU-R	WRC-19	World Radiocommunication Conference 2019	Egypt [Sharm El Sheikh]	Confirmed
2019/11/25	2019/11/26	ITU-R	CPM23-1	First Session of the Conference Preparatory Meeting for WRC-23	Egypt [Sharm El Sheikh]	Planned



## E. TIPS

- Take part in ITU-R studies
- Learn other regional group studies
- Know update of ITU-R PDN Rep/Rec and draft CPM text
- Exchange different views

*Thank You for Your kind attention*



ITU-R SG/WP/TG for WRC

*QUESTIONS ?*

