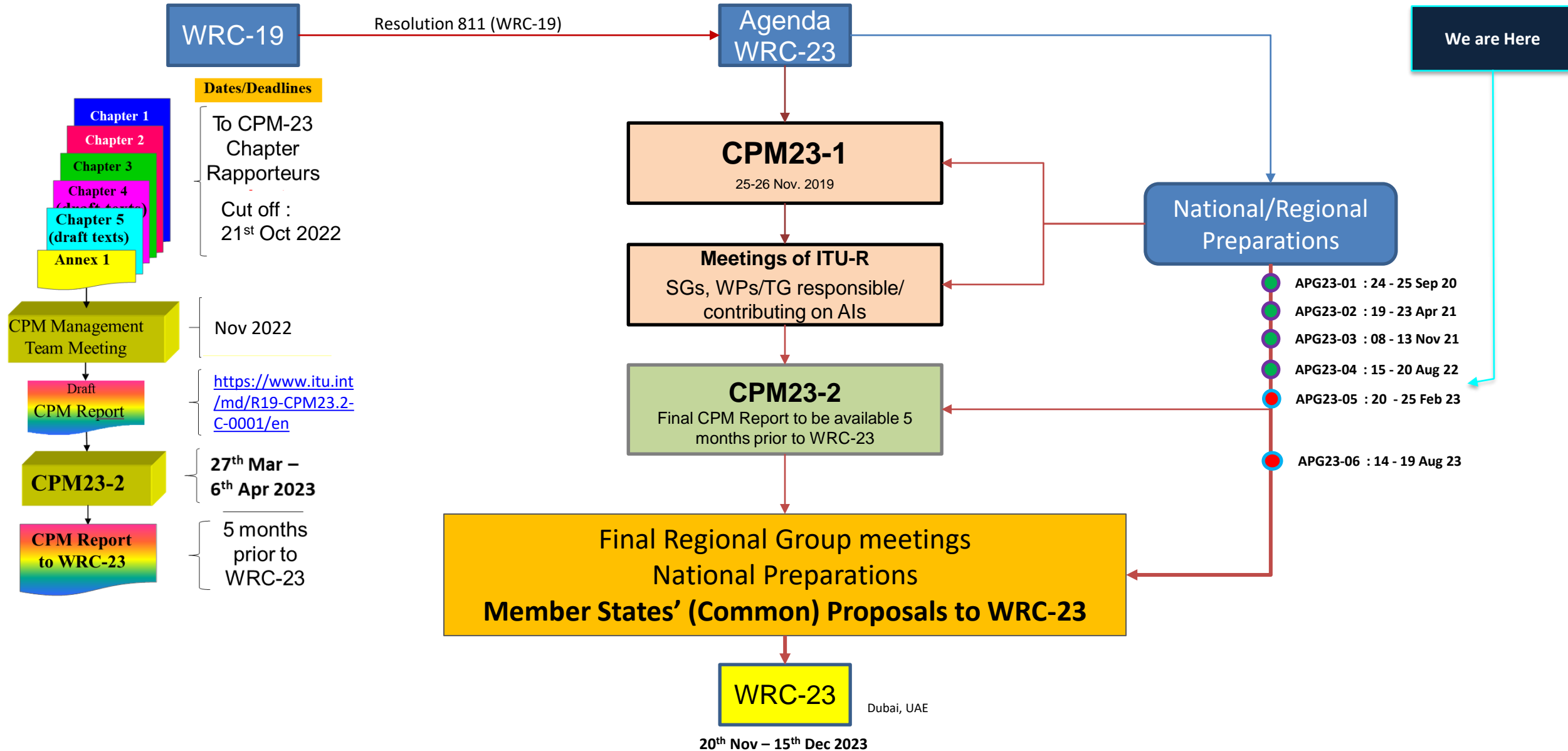


# PREPARATIONS FOR WRC-23 National Preparatory Work

- Jitendra Singh  
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# Main Steps towards WRC-23



# National Preparatory Committee (NPC) : WRC-23

NPC Chair : Shri VJ Christopher, Wireless Advisor

NPC WGs	Chair-Person	Topics/WRC-23 Agenda Items
WG-1	Shri MPS Alawa, Sr. DWA	Fixed, Mobile and Broadcasting issues (1.1, 1.2, 1.3, 1.4, 1.5, 9.1 (c), RR No. 21.5)
WG-2	Smt. M. Revathi, JWA	Aeronautical and maritime issues (1.6, 1.7, 1.8, 1.9, 1.10, 1.11)
WG-3	Shri Ajay Singhal, Sr. DD	Science issues (1.12, 1.13, 1.14, 9.1(a) and 9.1 (d))
WG-4	Shri MK Pattanaik, Sr. DWA	Satellite issues (1.15, 1.16, 1.17, 1.18, 1.19, 7)
WG-5	Shri Anil K Soni, Sr. DD	General issues (2, 4, 8, 9.1 (b) and 10)

# National Preparatory Committee (NPC) : WRC-23

## WG-1: Fixed, Mobile and Broadcasting issues (Last meeting – 2<sup>nd</sup> June 2022)

- [Agenda item 1.1](#) : Supports review of the pfd limit provided in RR 5.441B for protection of stations in the maritime mobile service, located in international waters (i.e. outside national territories) and operated in frequency band 4 940-4 990 MHz.
- [Agenda item 1.2](#) :
  - 3 300-3 400 MHz (amend footnote in Region 1, and Region 2) : Supports band for IMT identification for global harmonization for economies scale benefit and support studies to protect adjacent band existing services.
  - 6 425-7 025 MHz (Region 1) : Any possible IMT identification in the band 6 425-7 025 MHz in Region 1 , should protect the satellite services in Region 3.
  - 7 025-7 125 MHz (globally) : Supports possible identification in this range for IMT for global harmonization and benefits of economies of scale.
- [Agenda item 1.3](#) : Supports allocation of the frequency band 3 600-3 800 MHz to the mobile, except aeronautical mobile service to primary services within Region 1 based on the sharing and compatibility studies while protecting existing and planned satellite services in Region 3.
- [Agenda item 1.4](#) : supports technical and regulatory provision for protection of existing and planned satellite services in the band 2 500-2 690 MHz.
- [Agenda item 9.1 topic c\)](#) : Supports studies on use of IMT systems for fixed wireless broadband in the frequency bands allocated to the fixed service on primary basis.

# National Preparatory Committee (NPC) : WRC-23

## WG-2: Aeronautical and maritime issues (Last meeting – 27<sup>th</sup> May 2022)

- [Agenda item 1.6](#) : Consider, regulatory provisions to facilitate radiocommunications for sub-orbital vehicles - **No view**
- [Agenda item 1.7](#) : Supports a new co-primary allocation for the AMS (R)S in the band 117.975 MHz-137 MHz in the Earth-to-space and space-to-Earth directions.
- [Agenda item 1.8](#) : to consider appropriate regulatory actions, if necessary, revising Resolution 155 (Rev.WRC-19) and No. 5.484B to accommodate use of FSS networks by control and non-payload communications of unmanned aircraft systems - **No View**
- [Agenda item 1.9](#) : Supports the proposed changes to Appendix 27 of Radio Regulations to allow new modern/digital wideband HF communication systems using contiguous and/or non-contiguous 3 kHz channels.
- [Agenda item 1.10](#) : Supports a new allocation in the bands 15.4-15.7 GHz and 22-22.21 GHz to the aeronautical mobile service for the introduction of new non-safety aeronautical mobile applications .
- [Agenda item 1.11](#) : to consider possible regulatory actions to support the modernization of the Global Maritime Distress and Safety System and the implementation of e-navigation - **No View**

# National Preparatory Committee (NPC) : WRC-23

## WG-3: Science issues (Last meeting – 24<sup>th</sup> June 2022)

- [Agenda item 1.12](#) : Supports studies for a possible new secondary allocation to the Earth exploration-satellite (active) service for spaceborne radar sounders within the range of frequencies around 45 MHz.
- [Agenda item 1.13](#) : Supports upgrading the SRS allocation to primary status in the frequency band 14.8-15.35 GHz.
- [Agenda item 1.14](#) : Supports the consideration of possible adjustments of the existing or new primary frequency allocations to EESS (passive) in the frequency range 231.5-252 GHz.
- [Agenda item 9.1 topic a\)](#) : Supports as it is necessary to develop appropriate recognition of space weather sensors in the Radio Regulations and determine the appropriate radio service for space weather sensors.
- [Agenda item 9.1 topic d\)](#) : Supports further studies that have been conducted with a view to protection of EESS (passive) sensors operating in the band 36-37 GHz from non-GSO FSS space stations in the band 37.5-38 GHz.

# National Preparatory Committee (NPC) : WRC-23

## WG-4: Satellite issues (Last meeting – 29<sup>th</sup> June 2022)

- [Agenda item 1.15](#) : harmonize the use of frequency band 12.75-13.25 GHz (E-to-s) by earth stations on aircraft and vessels communicating with geostationary space stations in FSS globally - **No view**
- [Agenda item 1.16](#) : Supports studies for developing appropriate technical, operational, and regulatory measures to facilitate use of frequency bands 17.7-18.6 GHz and 18.8-19.3 GHz and 19.7-20.2 GHz (s-to-E) and 27.5-29.1 GHz and 29.5-30 GHz (E-to-s) FSS earth stations in motion.
- [Agenda item 1.17](#) : Supports development of appropriate regulatory framework to enable operation of satellite-to-satellite links within the FSS in frequency bands 11.7-12.7 GHz, 18.1-18.6 GHz, 18.8-20.2 GHz and 27.5-30 GHz.
- [Agenda item 1.18](#) : Potential new allocations to MSS for future development of narrowband MSS in Region 1 and Region 2 should not impose any constraints to incumbent services in Region 3.
- [Agenda item 1.19](#) : New primary allocation to the FSS in the space-to-Earth direction in frequency band 17.3-17.7 GHz in Region 2 should not impose any constraints to incumbent services in Region 3.
- [Agenda item 7](#) : to consider possible changes, in response to Resolution 86 in order to facilitate the rational, efficient and economical use of radio frequencies and any associated orbits, including the geostationary-satellite orbit - **No view**

# National Preparatory Committee (NPC) : WRC-23

## WG-5: General issues (Last meeting – 1<sup>st</sup> July 2022)

- [Agenda item 2](#) : Supports the examination and review of ITU-R Recommendations incorporated by reference into the Radio Regulations, and where appropriate, updating of these references.
- [Agenda item 4](#) : Supports the principle and intent of Resolution 95 (Rev.WRC-19) to ensure Resolutions and Recommendations of previous WRCs are relevant and kept up to date.
- [Agenda item 8](#) : administrations to delete their country footnotes or to have their country name deleted from footnotes - **No View**
- [Agenda item 9.1 topic b\)](#) : Supports ongoing ITU-R studies in line with Resolution 774 (WRC-19) to ensure the protection of RNSS (space-to-Earth) receivers from the amateur and amateur-satellite services in the frequency band 1240-1300 MHz.
- [Agenda item 10](#) : to recommend to the Council items for inclusion in the agenda for the next WRC - **No View**



# National Preparatory Committee (NPC) : WRC-23

## Summary

Agenda item	Resolution	Responsible Group	Responsible NSG	Remarks
1.1	223 (Rev.WRC-19)	WP5B, WP5D	NSG#5	
1.2	245 (WRC-19)	WP5D	NSG#5	NPC to coordinate
1.3	246 (WRC-19)	WP5A	NSG#5	
1.4	247 (WRC-19)	WP5D	NSG#5	
1.5	235 (WRC-15)	TG 6/1	NSG#6	For Region 1
1.6	772 (WRC-19)	WP5B	NSG#5, NSG#4	NPC to coordinate
1.7	428 (WRC-19)	WP5B	NSG#5, NSG#4	NPC to coordinate
1.8	171 (WRC-19)	WP5B	NSG#5, NSG#4	NPC to coordinate
1.9	429 (WRC-19)	WP5B	NSG#5, NSG#3	NPC to coordinate
1.10	430 (WRC-19)	WP5B	NSG#5, NSG#3	NPC to coordinate
1.11	361 (Rev.WRC-19)	WP5B, WP4C	NSG#5, NSG#4	NPC to coordinate
1.12	656 (Rev.WRC-19)	WP7C	NSG#7	NPC to coordinate
1.13	661 (WRC-19)	WP7B	NSG#7	NPC to coordinate
1.14	662 (WRC-19)	WP7C	NSG#7	
1.15	172 (WRC-19)	WP4A	NSG#4, NSG#5	NPC to coordinate
1.16	173 (WRC-19)	WP4A	NSG#4, NSG#5	NPC to coordinate
1.17	773 (WRC-19)	WP4A	NSG#4	
1.18	248 (WRC-19)	WP4C	NSG#4, NSG#5	NPC to coordinate
1.19	174 (WRC-19)	WP4A	NSG#4	
2	27 (Rev.WRC-19)	CPM23-2	NPC	
3		WRC-23	NPC	
4	95 (Rev.WRC-19)	CPM23-2	NPC	
5	Nos. 135 & 136	WRC-23	NPC	Convention
6		WRC-23	NPC	
7	86 (Rev.WRC-07)	WP4A	NSG#4	NPC to coordinate
8	26 (Rev.WRC-19)	WRC-23	NPC	
9.1 (topic a)	657 (Rev.WRC-19)	WP7C	NSG#7	
9.1 (topic b)	774 (WRC-19)	WP5A	NSG#5, NSG#4	NPC to coordinate
9.1 (topic c)	175 (WRC-19)	WP5A, WP5C	NSG#5	
9.1 (topic d)	WRC-19 Doc#535	WP7C	NSG#7, NSG#5	NPC to coordinate
9.2		WRC-23	NPC	
9.3	80 (Rev.WRC-07)	WRC-23	NPC	
10	804 (Rev.WRC-19)	WRC-23	NPC	

# Overview of Draft CPM Text on WRC-23 AIs and Topics

Draft CPM Report	Chapter 1												Chapter 2					Chapter 3			Chapter 4																						
Agenda items	1.1	1.2					1.3	1.4				1.5	1.6	1.7	1.8	1.9	1.10	1.11			1.12	1.13	1.14	1.15	1.16	1.17	1.18	1.19	7														
Issues/Bands	-	1	2	3	4	5	6	-	A	B	C	D	-	-	-	-	-	A	B	C	-	-	-	-	-	-	A	B	C	D1	D2	D3	E	F	G	H	I	J	K				
Draft Method(s)	A	1A	2A	3A	4A	5A	6A	A	A1	B1	C1	D1	A	A	A	A	A	A	B	C	-	-	-	-	-	-	A	B	C	D1	D2	D3	E	F	G	H	I	J	K				
	B	1B	2B	3B	4B	5B	6B	B	A2	B2	C2	D2	B(1,2,3)	B App A	B1	B	B	B	-	-	C2, Alt 1	A2	B1	B, Opt 1	B	B	B1	B	B, Alt 1	A2	B2	C2	-	-	-	E2	F2	G2	H1B	H2B	I2	J2	K2
	C	1C	2C	3C	4C	5C	6C	C, Alt 1	A3	B3	C3	D3	C(1 TO 9)	B App B	B2	-	-	C	-	-	C2, Alt 2	B	B2	B, Opt 2	(+Options)	(+Options)	B2	-	B, Alt 2	A3	-	C3	-	-	-	E3	F3	G3	H1C	-	-	J3	-
	D	1D	-	3D	4D	5D	-	C, Alt 2	A4	B4	-	D4	D(1 TO 5)	B App C	-	-	-	D(B+C)	-	-	C2, Alt 2	C	C	B, Opt 3	-	-	B3	-	-	A4	-	-	-	-	-	F4	-	-	-	-	J4	-	
	E	1E	-	3E	4E	5E	-	C, Alt 3	-	-	-	-	E	-	-	-	-	-	-	-	C2, Alt 2	D	D	C	-	-	B4	-	-	-	-	-	-	-	-	-	-	-	-	-	J5	-	
	F	-	-	3F	-	-	-	C, Alt 4	-	-	-	-	F	-	-	-	-	-	-	-	C3	-	E	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	G	-	-	-	-	-	-	C, Alt 5	-	-	-	-	G (with B, C,D,E)	-	-	-	-	-	-	-	-	-	F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	H	-	-	-	-	-	-	D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Draft CPM Report	Chapter 5				Annex 1												
Agenda items	9.1				10												
Topics/Items	9.1-a)	9.1-b)	9.1-c)	9.1-d)	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9	2.10	2.11	2.12	2.13
Draft Summary of the studies	Draft	Draft	Draft a1/a2	Draft	[tbd]	[tbd]	[tbd]	[tbd]	Draft	Draft	[tbd]	[tbd]	[tbd]	[tbd]	[tbd]	[tbd]	[tbd]

- Methods
- Approaches
- Alternatives
- Options
- Views
- Counter-views

No change method	X
Method in a final draft CPM text	X
To be developed	tbd

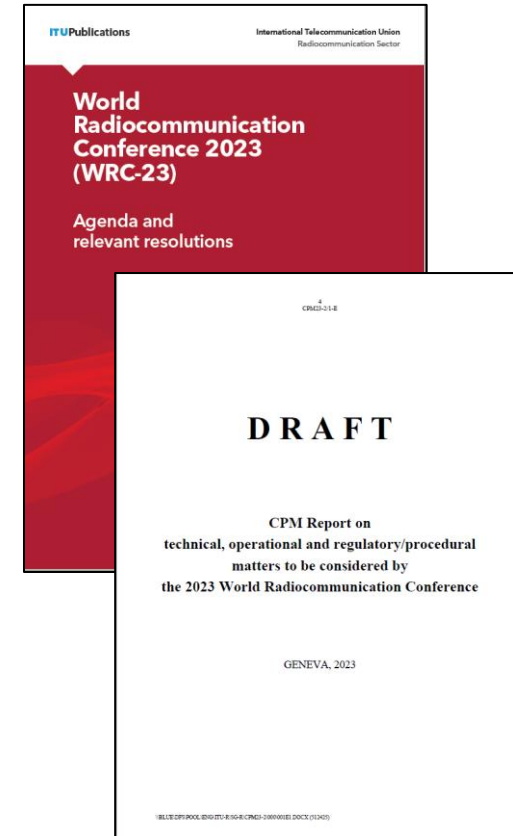
# Overview of ITU-R Calendar Towards WRC-23

2019	CPM19-2	Last meetings of the Responsible Groups	WS on WRC-19	RA-19	WRC-19	CPM23-1
2020	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> ) WPs 7B & 7C (2 <sup>nd</sup> )	WP 5D (3 <sup>rd</sup> ) TG 6/1 (1 <sup>st</sup> ) WP 4C+WP 4A (2 <sup>nd</sup> ) WPs 5A, 5B & 5C (2 <sup>nd</sup> ) WP 5D (4 <sup>th</sup> )	CPM-23 Steering	WRS-20
	WP 4C+WP 4A (3 <sup>rd</sup> ) WP 5D (5 <sup>th</sup> )	WPs 7B & 7C (3 <sup>rd</sup> ) WPs 5A, 5B & 5C (3 <sup>rd</sup> ) WP 5D (6 <sup>th</sup> )	TG 6/1 (2 <sup>nd</sup> ) WP 4C+WP 4A (4 <sup>th</sup> ) WPs 7B & 7C (4 <sup>th</sup> )	WP 5D (7 <sup>th</sup> ) WP 4C+WP 4A (5 <sup>th</sup> ) TG 6/1 (3 <sup>rd</sup> ) WPs 5A & 5C (4 <sup>th</sup> ) WP 5B (4 <sup>th</sup> ) 1 <sup>st</sup> WS on WRC-23		
2022	WP 5D (8 <sup>th</sup> ) TG 6/1 (4 <sup>th</sup> ) WP 5B (5 <sup>th</sup> )	WPs 7B & 7C (5 <sup>th</sup> ) WP 4C+WP 4A (6 <sup>th</sup> ) WPs 5A & 5C (5 <sup>th</sup> ) WP 5D (9 <sup>th</sup> )	WP 5B (6 <sup>th</sup> ) TG 6/1 (5 <sup>th</sup> ) WP 4C+WP 4A (7 <sup>th</sup> ) WPs 7B & 7C (6 <sup>th</sup> ) WP 5D (10 <sup>th</sup> )	WPs 5A, 5C (6 <sup>rd</sup> ) & 5B (7 <sup>th</sup> ) WRS-22	CPM-23 Manag <sup>nt</sup> Team	2 <sup>nd</sup> WS on WRC-23
	WP 5D (11 <sup>th</sup> )	5D-WG Spectrum				
2023	APG	[WPs 5A & 5C (7 <sup>th</sup> )] [WP 5D (12 <sup>th</sup> )]	[WPs 5A (8 <sup>th</sup> )]			
	CPM23-2	[WP 4C+WP 4A (8 <sup>th</sup> )]	APG	[WPs 7B & 7C (7 <sup>th</sup> )]	RA-23	WRC-23
			[WP 5B (8 <sup>th</sup> )]			[3 <sup>rd</sup> WS on WRC-23]

# National Preparatory Committee (NPC) : WRC-23

## Important Events

- 2<sup>nd</sup> ITU Inter-regional Workshop on WRC-23 Preparation : 29<sup>th</sup> Nov – 1<sup>st</sup> Dec 2022
- ITU Regional Radiocommunication Seminar (RRS) : 15<sup>th</sup> Dec – 20<sup>th</sup> Dec 2022
- 43<sup>rd</sup> Meeting of WP5D : 31<sup>st</sup> Jan – 9<sup>th</sup> Feb 2023
- 5<sup>th</sup> APG for WRC-23 (APG23-5) : 20<sup>th</sup> Feb – 25<sup>th</sup> Feb 2023
- **CPM23 – 2 : 27<sup>th</sup> Mar – 6<sup>th</sup> Apr 2023**
- 6<sup>th</sup> APG for WRC-23 (APG23-6) : 14<sup>th</sup> – 19<sup>th</sup> Aug 2023
- 3<sup>rd</sup> ITU Inter-regional Workshop on WRC-23 Preparation : 27<sup>th</sup> Sep – 29<sup>th</sup> Sep 2023
- RA-23 : 13<sup>th</sup> Nov – 17<sup>th</sup> Nov 2023
- WRC-23 : 20<sup>th</sup> Nov – 15<sup>th</sup> Dec 2023

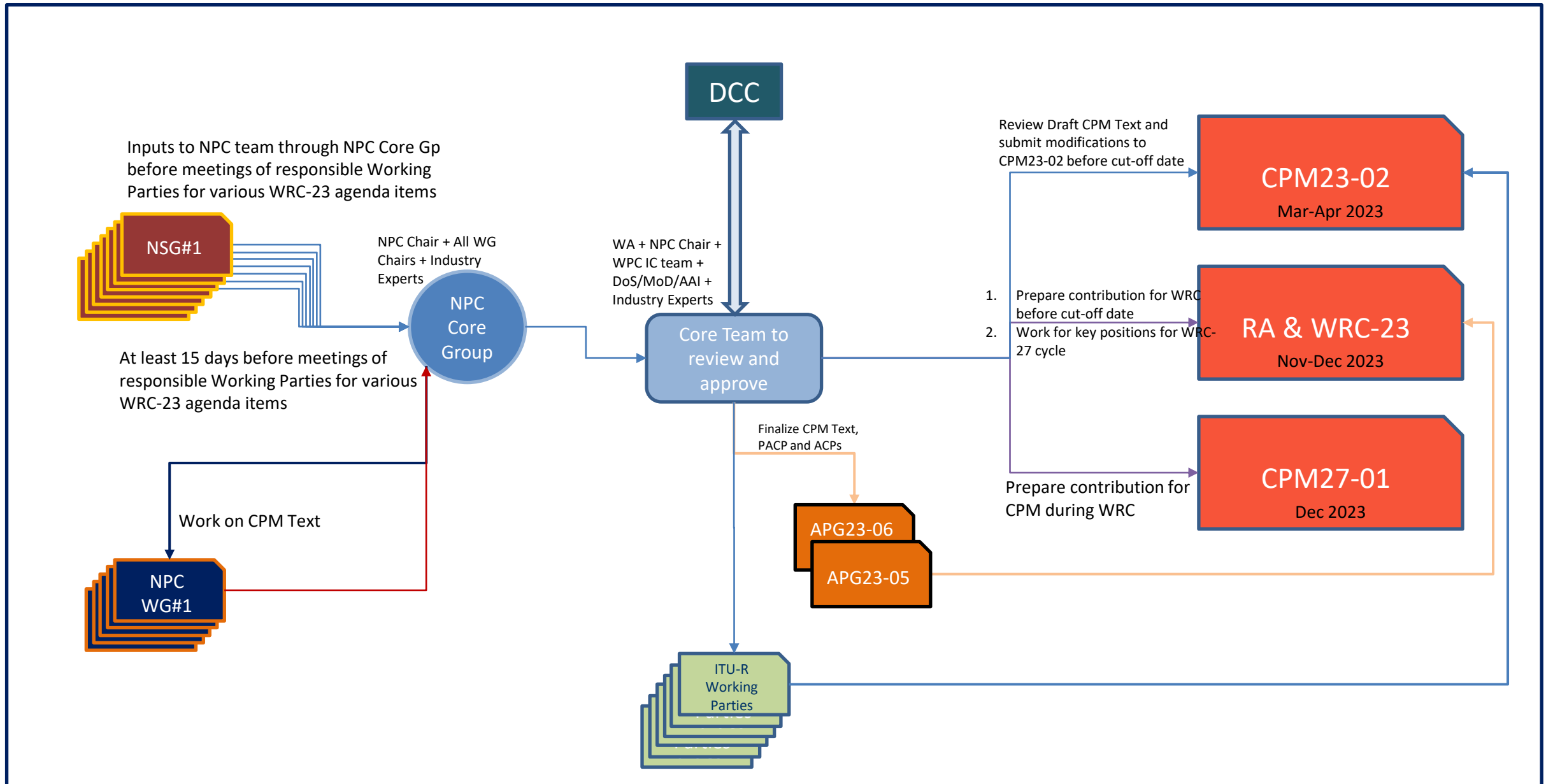


# National Process towards WRC-23

Spectrum a force-multiplier : Think and Act differently

- Importance of ITU-R - Long term impact of international treaties
- WRC decisions impact strategic planning and economic growth
- Rapid increase in data usage - Availability of spectrum
- Maximizing ICT growth - Govt and national stakeholders to plan for WRC
- Different countries - different approach towards driving their interests
- Do not wait for last day - start now, it is already too late
- Continuity in participation in ITU-R/Regional meetings
- These meetings are a serious business - Accountability and Responsibility
- Need to create a national core group now (Govt + Industry)
- Work on each and every agenda item (decision on support/no-support/negotiation)
- Create leads with responsibility on specific agenda items (including for WRC-27)
- Establish leadership role in various meeting groups

# National Process towards WRC-23



**Thank You**