

# Regional Development Forum 2008

"Bridging the Standardization Gap in Developing Countries"

Accra, Ghana, 26 - 28 May 2008

## ITU Radiocommunication Activities relevant to Africa

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Deputy Director

ITU Radiocommunication Bureau



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# ITU Radiocommunication Activities relevant to Africa

## Contents

- GE-06: digital broadcasting
- WRC-07: Radio Regulations
- WRC-11: preparations
- ITU-R Study Group: participation

# GE-06 Agreement

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GE06 Agreement, Geneva 2006 - Windows Internet Explorer

http://www.itu.int/ITU-R/terrestrial/broadcast/plans/ge06/index.html

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GE06 Agreement, Geneva 2006

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### Broadcasting Plans

- ST61
- GE75
- RJ81
- GE84
- RJ88
- FAQ
- GE89
- GE06

## GE06 Agreement, Geneva 2006

### Planning area

Region 1 (those parts of Region 1, as defined in No. 5.3 of the *Radio Regulations*, situated to the west of meridian 170° E and to the north of parallel 40° S, except the territories of Mongolia) and the Islamic Republic of Iran.

### Frequency bands

Band III: 174-230 MHz\*  
Band IV: 470-582 MHz  
Band V: 582-862 MHz

\* For Morocco, the analogue Plan covers the band 170-230 MHz.

### What's new...

#### GE06 Digital Broadcasting Notice Processing Tool

PC based application designed to assist Administrations in the creation of electronic notices GT1, GT2, GS1, GS2 and GA1 (see BR Circular Letter CR/262 of 11 August 2006)

CR/262 - File formats for submission of electronic notices related to analogue and digital broadcasting assignments/allotments (GE06 Agreement)

### Frequency Plans and the List

- GE06D - Plan of digital assignments and allotments ([pdf files zipped](#))
- GE06A - Plan of analogue television assignments
- GE06L - The list of assignments to other primary terrestrial services ([Detailed info on FXM page](#))
- RRC-06 Planning Interface 1.6.5 + MDB ([setup.zip](#))

### Regulatory procedures

- Modifications to the Plans ([Article 4](#))

# Analogue to digital transition

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- **The *Transition period* started on 17 June 2006 at 0001 hours UTC:**
  - assignments in the analogue Plan (as specified in § 3.1.2 of Article 3) shall be protected.
- **The *Transition period* shall end :**
  - on 17 June 2015 at 0001 hours UTC (for UHF bands in all countries; for VHF in all countries except those that opted for 17 June 2020) .
  - on 17 June 2020 at 0001 hours UTC for the countries:
    - *Algeria (People's Democratic Republic of), Burkina Faso, Cameroon (Republic of), Congo (Republic of the), Côte d'Ivoire (Republic of), Egypt (Arab Republic of), Gabonese Republic, Ghana, Guinea (Republic of), Iran (Islamic Republic of), Jordan (Hashemite Kingdom of), Mali (Republic of), Morocco (Kingdom of), Mauritania (Islamic Republic of), Nigeria (Federal Republic of), Syrian Arab Republic, Sudan (Republic of the), Chad (Republic of), Togolese Republic, Tunisia, Yemen (Republic of).*
    - *For the following administrations which were not present at RRC-06, namely Benin (Republic of), Central African Republic, Eritrea, Ethiopia (Federal Democratic Republic of), Guinea-Bissau (Republic of), Equatorial Guinea (Republic of), Liberia (Republic of), Madagascar (Republic of), Niger (Republic of the), Democratic Republic of the Congo, Sao Tome and Principe (Democratic Republic of), Sierra Leone and Somali Democratic Republic, the date of the end of the transition period in the VHF band (174-230 MHz), **unless** any of the aforementioned administrations communicates to the Bureau during the 90-day period from the end of RRC-06 that it selects 17 June 2015 at 0001 hours UTC.*



→ **Report ITU-R BT.XXX** (2008): Transition from analogue to digital terrestrial broadcasting (Overview of broadcasting technologies; application and implementation of digital broadcasting; transition issues; case studies)

# WRC-07 Process

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Agenda: Res. 802 (WRC-03) & Res.1227 (C04)

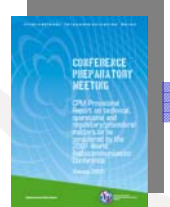
Informal Group  
(Structure & Chairmanship)



Regional preparation  
Resolution 72 (Rev.WRC-2000)

Proposals

Coordinated  
common proposals



CPM Report



Director's  
Report

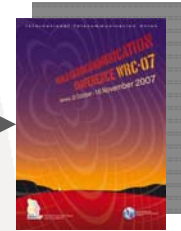
Conference  
Secretariat  
(BR & GS)

WRC

Proposals



Member States



Final Acts



Radio  
Regulations  
(CS89)

# WRC-07 in brief

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Mr. François Rancy (France)  
Chairman, ITU WRC-07

- ✓ Participation: **2,822** delegates\*, **161** Member States\*\*, **94** observer organizations  
\*) 438 from Africa, \*\*) 45 from Africa
- ✓ Documentation: Over **3,100** proposals in **350** documents, **11,800** pages translated, **2,380,000** downloads

- ✓ Meetings: Over **1,100** meetings, **30** meetings/day
- ✓ Final Acts: ~**500** pages



<http://www.itu.int/ITU-R/go/WRC-07>

# WRC-07 Participation

## (African Member States)

 Algeria (26)	 Côte d'Ivoire (16)	 Madagascar (4)	 Senegal (11)
 Angola (8)	 Dem. Rep. of Congo (2)	 Malawi* (3)	 Seychelles (2)
 Benin (1)	 Djibouti (2)	 Mali (9)	 South Africa (39)
 Botswana (6)	 Egypt (14)	 Mauritania (8)	 Sudan (5)
 Burkina Faso (8)	 Gabonese Rep (9)	 Mauritius* (2)	 Swaziland (2)
 Burundi (3)	 Gambia (5)	 Morocco (12)	 Tanzania (9)
 Cameroon (21)	 Ghana (18)	 Mozambique (6)	 Togolese Rep. (4)
 Cape Verde (1)	 Guinea (3)	 Namibia (2)	 Tunisia (17)
 Chad (6)	 Guinea-Bissau (1)	 Niger (4)	 Uganda (9)
 Comoros (2)	 Kenya (17)	 Nigeria (53)	 Zambia (5)
 Congo (8)	 Lesotho (4)	 Rwanda (7)	 Zimbabwe (9)
	 Libya* (15)		

Not present: Central African Rep., Equatorial Guinea, Eritrea, Ethiopia, Liberia, Sao Tome and Principe, Sierra Leone, Somalia. \*) Not signed Final Acts.

# Final meetings & proposals

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Final Meeting: [APG2007-5](#) (16-21.7, Busan, KOR )  
PACPs: WRC-07 Doc. 41



Final Meetings: [African Preparatory Meeting on WRC-07](#)  
(25-29.6, Abuja, NIG) & [WRC-07 Information Meeting for Africa](#)  
(28-31.8, Geneva)  
ACPs: WRC-07 Doc. 43



Final Meeting: CPG07-9 (10-13.7, Gothenburg, S)  
ECPs: WRC-07 Doc. 10



**CITEL**

Final Meeting: X PCC-II (31.7-3.8, Orlando, USA )  
IAPs: WRC-07 Doc. 14



Final Meeting: 12-19.9, Chisinau, MDA  
RCCs: WRC-07 Doc. 16



Final Meeting: [10th Arab Group](#) (22-27.7, Damascus, SYR)  
ARBS: WRC-07 Doc. 39



# African preparatory meeting

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http://www.atu-uat.org/revents\_apm\_wrc07.htm

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African Telecommunications Union Français

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ATU Secretariat  
Box 35282 Nairobi  
00200 Kenya  
Tel: +254 20 4453308,  
4453358  
Fax: +254 20 4453359  
E-mail

related events

**African Preparatory Meeting on the 2007 World Radiocommunication Conference (WRC-07) Abuja, Nigeria, 25-29 June 2007**

- [Invitations - Member States](#)
- [Invitations - Partners](#)
- [Draft Programme](#)
- [Registration Form](#)
- [List of recommended Hotels](#)
- [General information on Nigeria](#)

On the kind invitation and support of the Government of the Federal Republic of Nigeria, the African Telecommunications Union (ATU) is organizing from 25 to 29 June 2007 in Abuja, Nigeria, an African preparatory meeting on the World Radiocommunication Conference (WRC-07). WRC-07 is scheduled to take place in Geneva, Switzerland, from 22 October to 16 November 2007, after the Radiocommunication Assembly 2007, that will also be convened in Geneva, Switzerland, from 15 to 19 October 2007.

The Abuja preparatory meeting is organized with the main objective to evolve African common proposals and positions for the work of the WRC-07. In order to assist in this process, we have mandated Mr. Shola Taylor, Member of the Radiocommunication Regulation Board, to compile the various African national positions.

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[+]

news

- **Final Communiqué:** Conference of Ministers of Telecommunications and ICTs. 6 – 7 December 2007, Hotel Ivoire, Abidjan, Cote D'Ivoire. [more...](#)
- **Task Force Meeting** to Consider Consultant's Report on Reviewed Terms and Conditions of Service in ATU. 17th -18th April 2008, Lenana House, Nairobi, Kenya. [more...](#)
- **4th Training session of the ICT Training Program** – Cairo Egypt 27th April – 15th May, 2008. The training shall target telecom professionals and mid-level Managers in the ICT sector. [more...](#)

■ [more news...](#)

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Microsoft PowerPoint ...

EN 22:42

[http://www.atu-uat.org/revents\\_apm\\_wrc07.htm](http://www.atu-uat.org/revents_apm_wrc07.htm)

# African information meeting

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Radiocommunication Sector (ITU-R) - WRC-07 Information Meeting for African countries, Geneva, Switzerland, 28-31 August 2007 - Mozilla Firefox

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http://www.itu.int/ITU-R/index.asp?category=conferences&rlink=wrc-07-atu-2908&lang=en

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International Telecommunication Union

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## WRC-07 Information Meeting for African countries, Geneva, Switzerland, 28-31 August 2007

General Information

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start Radiocommunication ... Microsoft PowerPoint ...

EN 22:44

<http://www.itu.int/ITU-R/index.asp?category=conferences&rlink=wrc-07-atu-2908&lang=en>

# African common proposals

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World Radiocommunication Conference (WRC-07)  
Geneva, 22 October - 16 November 2007



PLENARY MEETING

Document 43-E  
2 November 2007  
Original: English

## African Telecommunications Union Administrations

### AFRICAN COMMON PROPOSALS FOR THE WORK OF THE CONFERENCE

The African Common Proposals (AFCPs) for the work of the Conference are contained in Addenda 1 to 19 to this document as follows:

- Addendum 1 – Agenda item 1.2
- Addendum 2 – Agenda item 1.3
- Addendum 3 – Agenda item 1.4
- Addendum 4 – Agenda item 1.5
- Addendum 5 – Agenda item 1.6
- Addendum 6 – Agenda item 1.9
- Addendum 7 – Agenda item 1.10
- Addendum 8 – Agenda item 1.11
- Addendum 9 – Agenda item 1.15
- Addendum 10 – Agenda item 1.17
- Addendum 11 – Agenda item 1.19
- Addendum 12 – Agenda item 1.7
- Addendum 13 – Agenda item 1.12
- Addendum 14 – Agenda item 1.13
- Addendum 15 – Agenda item 1.14
- Addendum 16 – Agenda item 1.16
- Addendum 17 – Agenda item 1.18
- Addendum 18 – Agenda item 1.20
- Addendum 19 – Agenda item 1.21

ANNEX 2  
Co-signatories of AFCPs for WRC-07

Addendum No.	01		02						Key:
	1.2		1.3						
Agenda item	A1/1	A2/1	A2/2	A2/3	A2/4	A2/5	A2/6		
1 Algeria								?	
2 Angola								X	
3 Benin								Blank	
4 Botswana	?	?	?	?	?	?	?		
5 Burkina Faso	?	?	?	?	?	?	?		
6 Burundi	?	?	?	?	?	?	?		
7 Cameroon	?	?	?	?	?	?	?		
8 Cape Verde									
9 Central African Rep.									
10 Comoros									
11 Congo (Rep. of the)									
12 Côte d'Ivoire	?	?	?	?	?	?	?		
13 Djibouti									
14 Egypt									
15 Eritrea									
16 Ethiopia									
17 Gabon	?	?	?	?	?	?	?		
18 Gambia									
19 Ghana	?	?	?	?	?	?	?		
20 Guinea									
21 Guinea-Bissau									
22 Equatorial Guinea									
23 Libyan Arab Jamahiriya									
24 Kenya									
25 Lesotho									
26 Liberia									
27 Madagascar									
28 Malawi									
29 Mali									
30 Morocco									
31 Mauritius									
32 Mauritania									
33 Mozambique									
34 Namibia	?	?	?	?	?	?	?		
35 Niger	?	?	?	?	?	?	?		
36 Nigeria	?	?	?	?	?	?	?		
37 Uganda									
38 Dem. Rep. of the Congo									
39 Rwanda									
40 Sao Tome and Principe									
41 Senegal	?	?	?	?	?	?	?		
42 Seychelles									
43 Sierra Leone									
44 Somalia									
45 Sudan	?	?	?	?	?	?	?		
46 South Africa									
47 Swaziland									
48 Tanzania									
49 Chad	?	?	?	?	?	?	?		
50 Togo									
51 Tunisia									
52 Zambia									
53 Zimbabwe									
Total co-signatories									
Total countries rejecting									

## International Mobile Telecommunications (IMT)

Globally harmonized spectrum identified for use by IMT represents an important step in the worldwide development of IMT systems:

**450–470 MHz** (((



))) **698–862 MHz**  
R2 & R3 (9 countries)

))) **790–862 MHz**  
R1 & R3

**3.4–3.6 GHz band** (((  
(no global allocation)

))) **2.3–2.4 GHz**

Note:

- Higher frequencies: to face growth in densely populated areas.
- Lower frequencies to provide, at a reasonable cost, high speed mobile services everywhere, in particular in less densely populated areas.

2 700-4 800 MHz		
Allocation to services		
Region 1	Region 2	Region 3
...		
<b>3 400-3 600</b> FIXED FIXED-SATELLITE (space-to-Earth) Mobile 5.430A Radiolocation  5.431	<b>3 400-3 500</b> FIXED FIXED-SATELLITE (space-to-Earth) Amateur Mobile 5.431A Radiolocation 5.433 5.282	<b>3 400-3 500</b> FIXED FIXED-SATELLITE (space-to-Earth) Amateur Mobile 5.432B Radiolocation 5.433 5.282 5.432 5.432A
	<b>3 500-3 700</b> FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile Radiolocation 5.433	<b>3 500-3 600</b> FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.433A Radiolocation 5.433

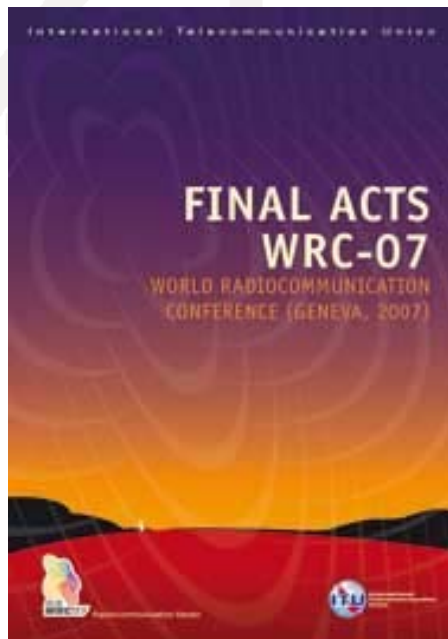
**ADD 5.430A** *Different category of service:* in Albania, **Algeria**, Germany, Andorra, Saudi Arabia, Austria, Azerbaijan, Bahrain, Belgium, **Benin**, Bosnia and Herzegovina, **Botswana**, Bulgaria, **Burkina Faso**, **Cameroon**, Cyprus, Vatican, **Congo (Rep. of the)**, **Côte d'Ivoire**, Croatia, Denmark, **Egypt**, Spain, Estonia, Finland, France and French Overseas Departments and Communities in Region 1, **Gabon**, Georgia, Greece, **Guinea**, Hungary, Ireland, Iceland, Israel, Italy, Jordan, Kuwait, **Lesotho**, Latvia, The Former Yugoslav Republic of Macedonia, Liechtenstein, Lithuania, **Malawi**, **Mali**, Malta, **Morocco**, **Mauritania**, Moldova, Monaco, Mongolia, Montenegro, **Mozambique**, **Namibia**, **Niger**, Norway, Oman, Netherlands, Poland, Portugal, Qatar, the Syrian Arab Republic, Slovakia, Czech Rep., Romania, United Kingdom, San Marino, **Senegal**, Serbia, **Sierra Leone**, Slovenia, **South Africa**, Sweden, Switzerland, **Swaziland**, **Chad**, **Togo**, **Tunisia**, Turkey, Ukraine, **Zambia** and **Zimbabwe**, the band 3 400-3 600 MHz is allocated to the mobile, except aeronautical mobile, service on a primary basis subject to agreement obtained under No. **9.21** with other administrations and is identified for International Mobile Telecommunications (IMT). This identification does not preclude the use of this band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. At the stage of coordination the provisions of Nos. **9.17** and **9.18** also apply. Before an administration brings into use a (base or mobile) station of the mobile service in this band, it shall ensure that the power flux-density (pfd) produced at 3 m above ground does not exceed  $-154.5 \text{ dB(W)/(m}^2 \cdot 4 \text{ kHz)}$  for more than 20% of time at the border of the territory of any other administration. This limit may be exceeded on the territory of any country whose administration has so agreed. In order to ensure that the pfd limit at the border of the territory of any other administration is met, the calculations and verification shall be made, taking into account all relevant information, with the mutual agreement of both administrations (the administration responsible for the terrestrial station and the administration responsible for the earth station), with the assistance of the Bureau if so requested. In case of disagreement, the calculation and verification of the pfd shall be made by the Bureau, taking into account the information referred to above. Stations of the mobile service in the band 3 400-3 600 MHz shall not claim more protection from space stations than that provided in Table **21-4** of the Radio Regulations (Edition of 2004). This allocation is effective from 17 November 2010. (WRC-07)

# WRC-07 Final Acts

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The Final Acts record the decisions taken at the World Radiocommunication Conference, 2007 (WRC-07). They include the new and revised provisions of the Radio Regulations and associated Appendices, as well as the new and revised Resolutions and Recommendations adopted by the Conference. Statements made by Member States at the time of signing the Final Acts are also included.



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[Resolutions](#)

[Recommendations](#)

# WRC-07 vs WRC-11

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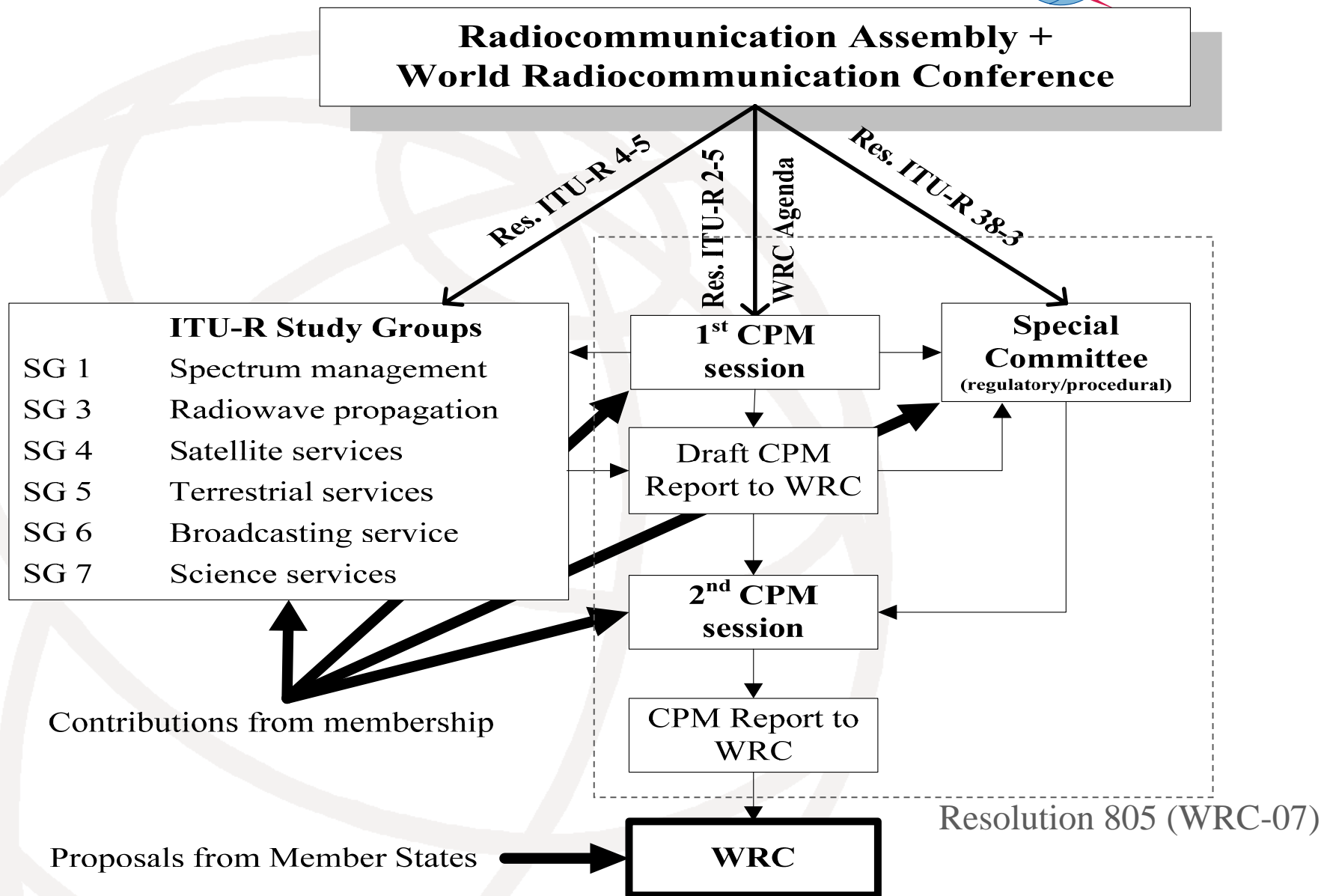
## WRC-07 (22.10-16.11.2007)

- 30 agenda items, 3100 proposals, 2800 del.!
- almost all services (terrestrial: FS, MS, BS, Amat.S, RAS, RLS, space: FSS, BSS, MSS, EESS, SRS, SO, MetSat, Amat.Sat)
- several applications: IMT, HAPS, HF, GMDSS



## WRC-11 ([dates in 2011 to be confirmed])

- 33 agenda items,
- again almost all services (terrestrial: RLS, AM(R)S, passive S, FS, BS, MS, Maritime MS, Amat.S, space: AMS(R)S, SRS, BSS, MSS, MetAids, RDSS, MetSat) and other issues (Res.951, SRDs, Cognitive Radio)
- and many applications and systems :  
UAS, ENG, HAPS, oceanographic radar, ...





# CPM-11 Report Preparation

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Responsible ITU-R Groups

WRC-11 (agenda items)

Chapter 1

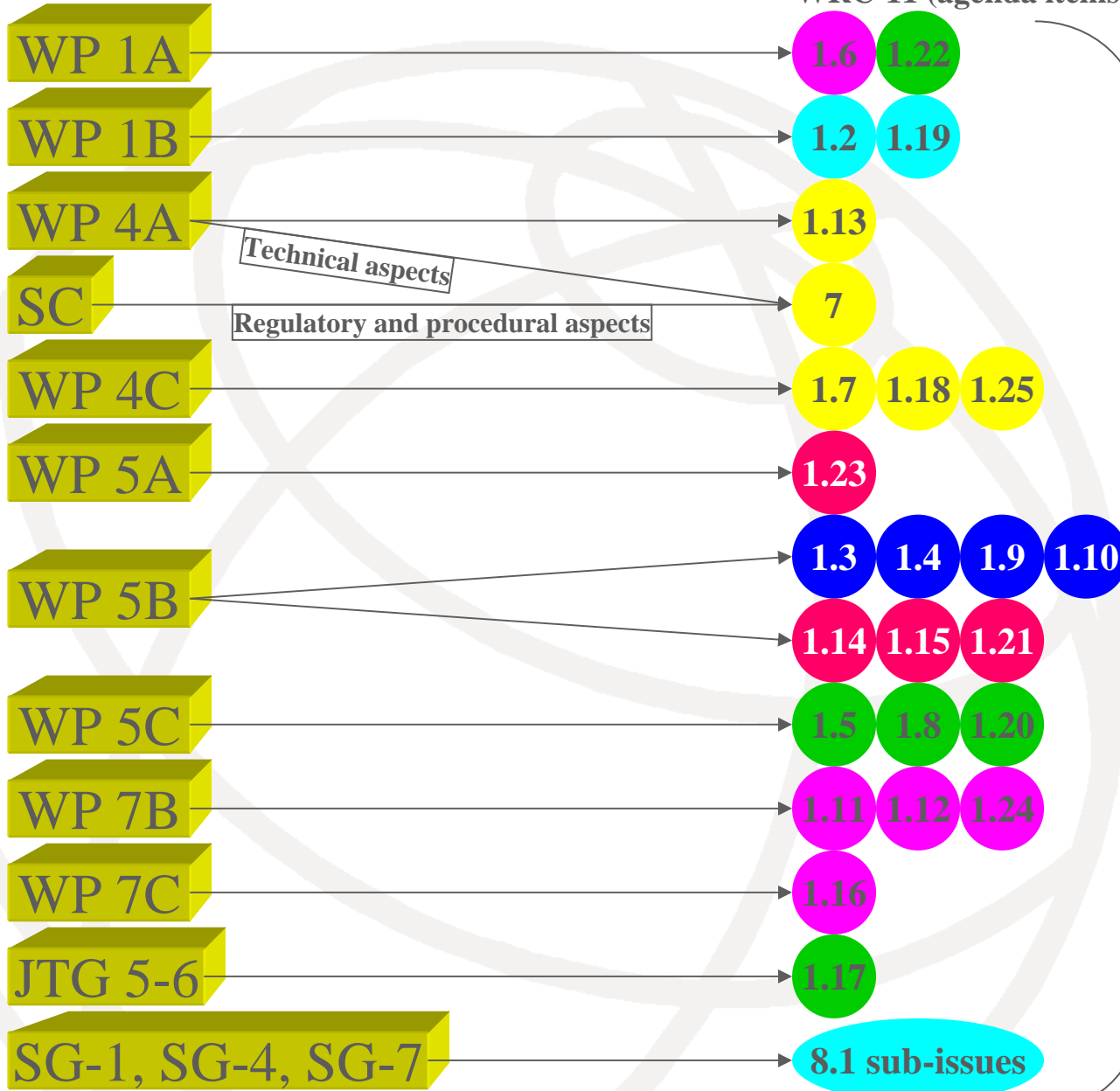
Chapter 2

Chapter 3

Chapter 4

Chapter 5

Chapter 6\*  
(draft texts)



CPM Management Team Meeting

Draft CPM Report → SC

CPM11-2

CPM Report to WRC-11

\* includes also a.i. 2, 4, 8.2

# WRC-11 & Regional Groups

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Asia Pacific Telecommunity

- APG2011-1, 06 – 08 March 2008, Bangkok, Thailand
- APG2011-2, [not yet communicated]



- 11<sup>th</sup> ASMG, 02 – 06 March 2008, Abu Dhabi, UAE
- 12<sup>th</sup> ASMG, [not yet communicated]

Arab Spectrum Management Group



African Telecommunications Union

- [not yet communicated]



European Conference of Postal and Telecommunications Administrations

- CPG11-1, 20 – 22 February 2008, Paris, France
- CPG11-2, 1 – 3 December 2008, Brussels, Belgium



**CITEL**

- XI PCC.II, 22 – 25 April 2008, Washington, USA
- XII PCC.II, [not yet communicated]

Inter-American Telecommunication Commission



Regional Commonwealth in the field of Communications

- 1<sup>st</sup> meeting, 26 – 28 February 2008, Minsk, Belarus
- 2<sup>nd</sup> meeting, October 2008, Astana, Kazakhstan