#### **Regional Development Forum 2008**

"Bridging the Standardization Gap in Developing Countries" for the Asia-Pacific Region Hanoi, Vietnam, 15-17(am) September 2008

## **Preparations for WRC-11**

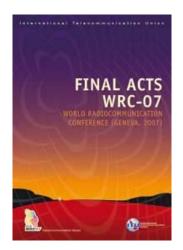
### Kevin A Hughes ITU Radiocommunication Bureau

# WRC-07 vs WRC-11



#### 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, ...

## Aeronautical issues at WRC-11

- Increase and high-priority of Aeronautical Route communications by satellite for safety and regularity of flights in civil air transportation
- Aeronautical community needs for safetycritical radiocommunication data links and new applications / concepts in air traffic management
- Unmanned Aircraft Systems: Increasing radio-communications for UAS systems in same environment as manned aircrafts, as well as in specific environments not accessible to manned aircrafts

## Maritime & Amateur issues

#### Maritime issues

- Introduction of new digital technologies better responding to emerging demand for new services capable of delivering maritime safety information
- Increasing need to enhance ship and cargo identification, tracking, surveillance and ship and port security and safety

#### Amateur issues

 Provide ultra-reliable regional communications to the Amateur Radio Service to enable it to serve in cases of natural emergency situations as a backup to public communication channels

# Scientific issues at WRC-11

#### Radiolocation issues

- Emerging requirements for increased resolution of radar operations, enabling space object detection
- Use of HF oceanographic radars for environmental, oceanographic, meteorological, climatological, maritime and disaster mitigation operations

#### Science issues

- Protection of spectrum use by passive services for climatological and meteorological purposes as well as for Radio astronomy (in bands from 275 to 3 000 GHz)
- Needs for future high-resolution sensors at 8GHz, for weather forecast, climate changes, hazard predictions

## **Other Science & Satellite issues**

#### Other science issues

- MetAids/Passive systems used for lightning detection and locations, and for Operational and safety-of-life services providing warnings of extreme weather events (systems using VLF bands)
- Growing interest in space exploration with both robotic and manned missions (particularly towards and around the Moon: examining terrain, environment and potential landing sites)

### Satellite issues

 Need for worldwide spectrum allocation for position & time radio-determination by Satellite, offering great societal benefits

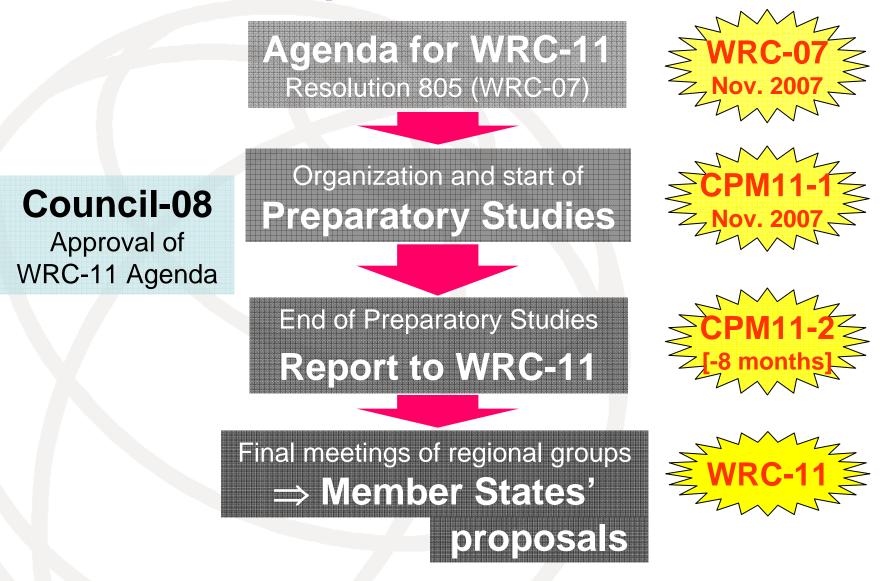
# IMT and other services issues

- Use of the digital dividend resulting from the analogue to digital television transition Spectrum opportunities for new applications (IMT-Advanced, ...)
- Need for additional spectrum allocation(s) to meet the requirements for satellite component of IMT as well as those of other mobile communications by satellite
- Development of high-speed data fixed wireless applications in spectrum above 70 GHz
- Use of high altitude platform stations (HAPS)
- Increase harmonization of spectrum use for coverage of international events (ENG), including emergencies, natural disasters, breaking news

# **Other Regulatory issues**

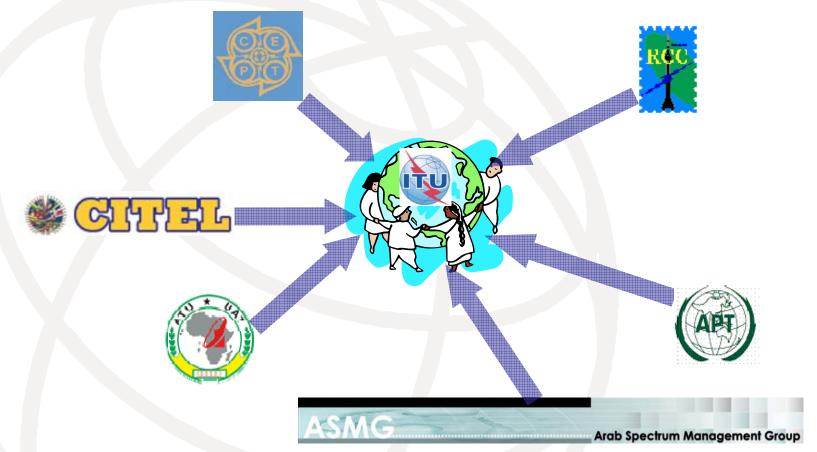
- Frequency spectrum congestion, mainly in urban areas, leads to development of new radio technologies
   (software defined radio and cognitive radio systems)
   ⇒ need for a more flexible and efficient use of the spectrum resource
- Increasing use of Short Range radio Devices, proliferating across various frequency bands
- Growing demand of new applications based on a convergence of radio technologies, combining elements of different historical radio services
  - ⇒ need to review and enhance the international regulatory framework
  - ⇒ would have also significant impact on national spectrum management

# Main steps toward WRC-11



# **Regional Preparations**

✓ Six regional groups:



✓ For the preparation of common and coordinated proposals

# **Meetings of the Regional Groups**



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

Asia Pacific Telecommunity





•[not yet communicated]

African Telecommunications Union



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

**European Conference of Postal and Telecommunications Administrations** 



•XI PCC.II, 22 – 25 April 2008, Washington, USA •XII PCC.II, 16 – 19 September 2008, Argentina

**Inter-American Telecommunication Commission** 

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

**Regional Commonwealth in the field of Communications**