OVERVIEW OF WORLD RADIOCOMMUNICATION CONFERENCES

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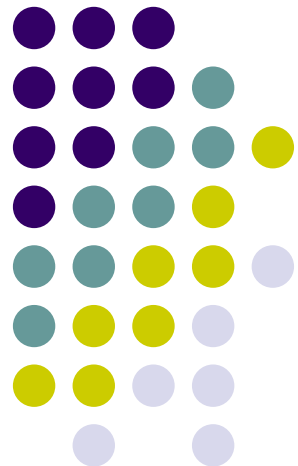
Audrey L. Allison
Executive Director, International Regulatory Affairs
The Boeing Company
audrey.allison@boeing.com



Agenda

- What is the ITU?
- Who Participates in the ITU?
- Structure of the ITU
- Elements of the ITU Radio Sector
- WRC Results

What is the ITU ?

- The International Telecommunication Union (“ITU”) is an intergovernmental organization founded in 1865 headquartered in Geneva, Switzerland.
- ITU is specialized agency of the United Nations within which Member States and Sector Members coordinate the establishment and operation of Telecommunication Networks and Services.
- ITU is responsible for facilitating the regulation, standardization, coordination and development of international telecommunications, as well as the harmonization of national policies.
- Increasingly, ITU is a forum of great value to developing countries to discuss regulation of evolving information and communications technologies, such as the Internet and its many applications.

What the ITU is Not!

- ITU is not a regulatory body.
- ITU is not a supra-national entity.
- ITU has extremely limited enforcement powers.
- ITU is not governed by a Director-General.

The ITU is a contribution-driven organization which has successfully functioned for more than a century on the basis of cooperation among nations and stakeholders.

ITU Origins

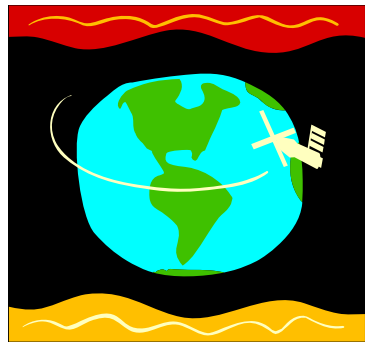
Paris - May 17 1865: International Telegraph Union established in Paris to standardize cross-border telegraphy

Berlin - 1906: International Radiotelegraph Union established to coordinate use of radio frequencies

Madrid – 1932: Merger of two unions. The ITU is formed.

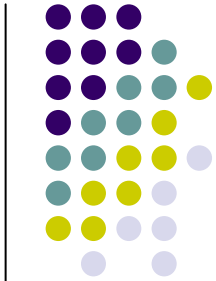
Atlantic City – 1947: Modern structure adopted; joins UN

Geneva – 1963: first World Space Radiocommunication Conference



The ITU is the longest running and most successful intergovernmental organization in history.

Purposes of the Union



1. to maintain and extend international cooperation among all Member States for the improvement and rational use of telecommunications of all kinds;
2. to promote and to offer technical assistance to developing countries in the field of telecommunications;
3. To promote development of technical facilities and their efficient operation;
4. To promote the extension of the benefits of new telecommunications technologies to all the world's inhabitants
5. To promote use of telecommunications to facilitate peaceful relations;
6. To harmonize the actions of Member States and promote fruitful and constructive cooperation and partnership between Member States and Sector Members in attainment of those ends;
7. To promote at the international level, the adoption of a broader approach to the issues of telecommunications in the global economy and society.

Source: ITU Constitution, Article 1

ITU Activities

1. effect allocation of bands of the radio-frequency spectrum, the allotment of radio frequencies and registration of radio-frequency assignments and for space services, of any associated orbital positions in the geostationary-satellite orbit or of any associated characteristics of satellites in other orbits, in order to avoid harmful interference between radio stations of different countries;
2. coordinate efforts to eliminate harmful interference between radio stations of different countries and to improve the use made of the radio-frequency spectrum for radiocommunication services and of the geostationary-satellite and other satellite orbits;
3. Facilitate the worldwide standardization of telecommunications, with a satisfactory quality of service;
4. Coordinate efforts to harmonize the development of telecommunications facilities; notably those using space techniques;

Source: ITU Constitution, Article 1

ITU Participants

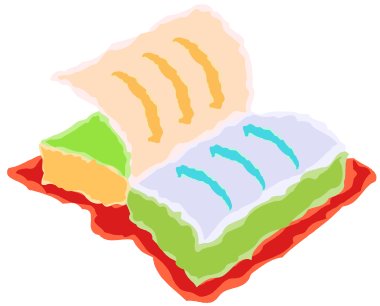
- Member States (191)
  - Near universal membership
  - One country, one vote
- Sector Members (639)
  - Including Private Sector Companies, international and regional telecommunication and standards organizations, international satellite organizations
  - Non-voting
- Associates (134)
  - Smaller companies, academic bodies
- Related UN Organizations
  - ICAO, IMO

Private Sector Participation

- Companies play a significant role in the development of ITU's contribution-driven work.
- Companies may join as Sector Members through their host government (in US, through application to the State Department).
- Companies can actively participate in lower level activities (without vote), and observe at conferences.
- In the US, private companies may also participate as members of US Delegations and draft official U.S. contributions.
- Minimum annual Sector Member contribution: 31,800 CHF
- Associates may participate in the work of one Study Group for 10,600 CHF.
- Private Sector is also active in regional bodies (*i.e.,* CITEL Associate Members).

Basic Instruments of the ITU

- The ITU Constitution
- The ITU Convention
- Administrative Regulations
  - International Telecommunication Regulations
  - Radio Regulations (includes International Table of Frequency Allocations and HF broadcasting and satellite plans)



These are treaty documents – and as such are considered statutory international law.

CS Article 44

Use of the Radio-Frequency Spectrum and of the Geostationary-Satellite and Other Satellite Orbits

Member States shall endeavour to limit the number of frequencies and the spectrum used to the minimum essential to provide in a satisfactory manner the necessary services. To that end, they shall endeavour to apply the latest technical advances as soon as possible.

In using frequency bands for radio services, Member States shall bear in mind that radio frequencies and any associated orbits, including the geostationary-satellite orbit, are limited natural resources and that they must be used rationally, efficiently and economically, in conformity with the provisions of the Radio Regulations, so that countries or groups of countries may have equitable access to those orbits and frequencies, taking into account the special needs of the developing countries and the geographical situation of particular countries.

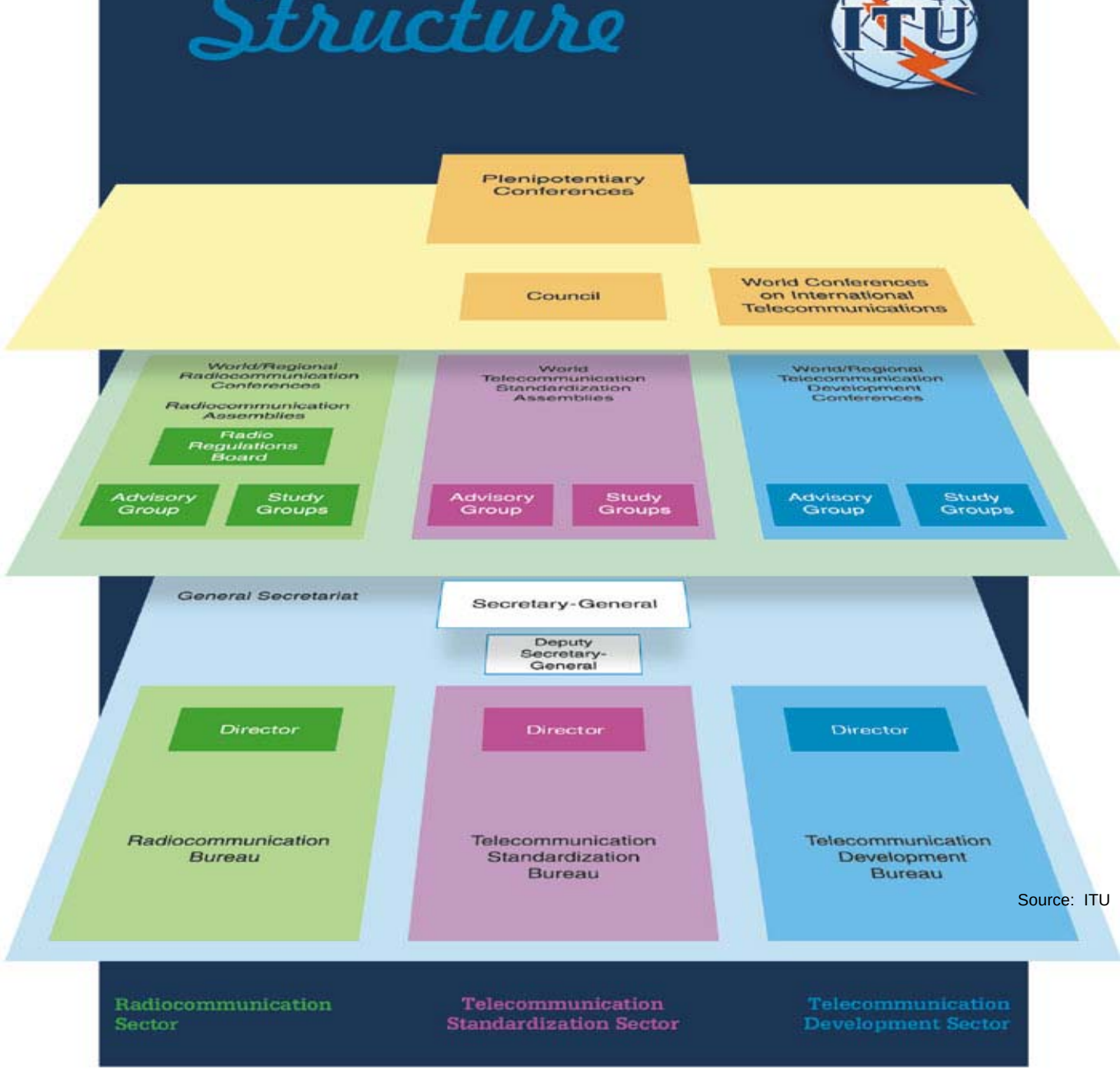
CS Article 45

Harmful Interference

No. 197 All stations, whatever their purpose, must be established and operated in such a manner as not to cause harmful interference to the radio services or communications of other Member States or of recognized operating agencies, or of other duly authorized operating agencies which carry on a radio service, and which operate in accordance with the provisions of the Radio Regulations.

No. 198 Each Member State undertakes to require the operating agencies which it recognizes and the other operating agencies duly authorized for this purpose to observe the provisions of No. 197 above.

No. 199 Further, the Member States recognize the necessity of taking all practicable steps to prevent the operation of electrical apparatus and installations of all kinds from causing harmful interference to the radio services or communications mentioned in No. 197 above.


Structure
Plenipotentiary Conferences
Council
World Conferences on International Telecommunications
World/Regional Radiocommunication Conferences
Radiocommunication Assemblies
Radio Regulations Board
Advisory Group
Study Groups
World Telecommunication Standardization Assemblies
Advisory Group
Study Groups
World/Regional Telecommunication Development Conferences
Advisory Group
Study Groups
General Secretariat
Secretary-General
Deputy Secretary-General
Director
Radiocommunication Bureau
Director
Telecommunication Standardization Bureau
Director
Telecommunication Development Bureau
Radiocommunication Sector
Telecommunication Standardization Sector
Telecommunication Development Sector

Source: ITU

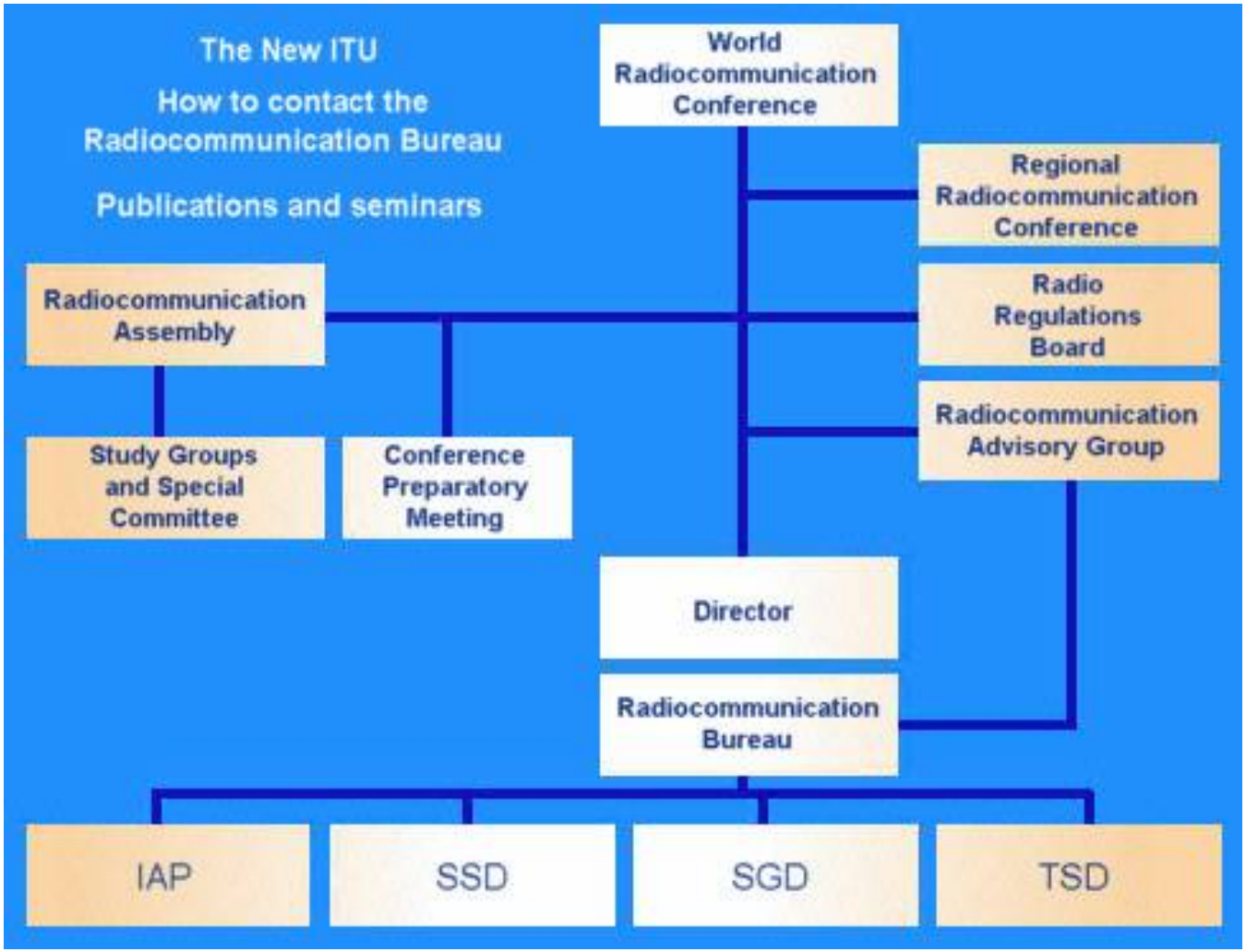
Reflections on ITU Structure

- ITU is a periodic international organization
- ITU has a federal structure; with an elected Secretary General and three elected Directors of the three functional sectors.
- One country, one vote, but usually works by consensus
- Substantive work is contribution driven -- “bottom up.”

Secretary-General

- Directs the General Secretariat.
- Acts as the Legal Representative of the Union.
- Coordinates the Union's activities with the assistance of the Coordination Committee.
- Prepares a report on the policies and strategic plan for the Union, and coordinates its implementation.
- Ensures economic use of the resources of the Union and is responsible to the Council for all administrative and financial aspects of the activities of the Union.
- New Secretary-General: Hamadoun Touré (Mali)
- New Deputy S-G: Houlin Zhou (China)

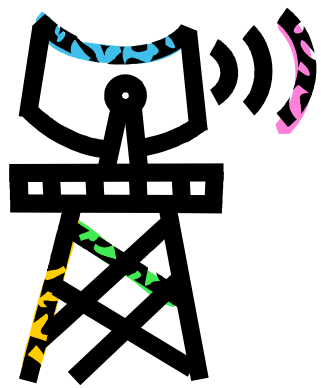
ITU-R Structure



Source: ITU

Radiocommunication Sector (ITU-R)

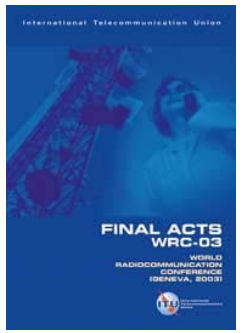
- The Radiocommunication Sector manages and coordinates use of the radio-frequency spectrum internationally, including satellite orbits. Through the actions of members, it performs studies leading to recommendations setting standards for technical and operational parameters for radiocommunication services and systems.
- The Radiocommunication Bureau (BR) maintains the Master International Frequency Register, which registers and records frequency assignments and orbital characteristics of space services;
- The BR provides assistance to developing countries on use of radio-frequency spectrum and orbital resources and assists in the investigation of cases of harmful interference.



World Radiocommunication Conferences (WRCs)

- Held every 3-4 years for 4 weeks.
- Adopt Final Acts containing revisions to the Radio Regulations, including International Table of Frequency Allocations.
- Recommend agenda items to next WRC (to be approved by Council).
- Past conferences have adopted global spectrum allocations for Big LEOs, IMT-2000, RNSS (GPS/Galileo).
- WRC-03 included 2300 delegates from 138 countries and 48 agenda items.
- WRC-07 set for 22 October -16 November 2007 in Geneva.

WRC Results



- Final Acts
  - Preamble
  - Declarations and Reservations
  - Partial Revision of the Radio Regulations (including Appendices)
  - Resolutions and Recommendations
- When revisions come into force, they become part of the RRs.
- Entry into Force is governed by Article 59, although some measures are provisionally applied.
- Resolutions and recommendations generally come into effect “when the conference rises.”
- Following the Conference, it is up to each country to implement the Final Acts within its domestic legal system.

Radio Regulations

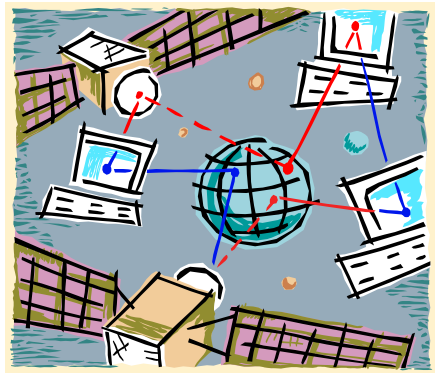
- Radio Regulations (ed. 2004)
  - Volume 1: Articles
  - Volume 2: Appendices
  - Volume 3: Resolutions and Recommendations
  - Volume 4: ITU-R Recommendations Incorporated by Reference
- Current edition contains the texts of the RRs adopted by WRC-95 and the revisions of WRC-97, WRC-2000 and WRC-03.
- A new edition of the RRs can be expected in 2009.

Radiocommunication Assemblies (RA)

- Elect Chairs of the Study Groups
- Approve program of technical studies for the Study Groups
- Approve technical Recommendations developed by the Study Groups
- Provide technical basis for WRC
- Held every 3-4 years (usually coincident with the WRC), Next one is 15-19 October 2007 in Geneva.
- RA-07 is expected to reorganize the Study Groups.

Radiocommunication Study Groups

- Established by the RA. Currently, there are 7 Study Groups.
- Study Groups carry out technical studies leading to ITU-R Recommendations and analysis supporting WRC agenda items.
- ITU-R Recommendations address technical, operational and procedural guidelines for radiocommunication services and systems.
- There are more than 1500 participants in the work of the Study Groups



ITU-R STUDY GROUPS

SG 1 Spectrum mgmt
SG 3 Radio propagation
SG 4 Fixed-satellite service
SG 6 Broadcasting services
SG 7 Science services
SG 8 Mobile, radar, amateur, and mobile-satellite service
SG 9 Fixed service

Radio Regulations Board

- Twelve elected members who are technical and regulatory experts in the field of radio communications
- USA's Julie Zoller (ITT) was elected to RRB in 2006.
- Adopts Rules of Procedure which interpret complex parts of the Radio Regulations left unresolved by the WRC. Rules of Procedures can be appealed to the next WRC.
- Board Members serve as custodians of the public trust – and work independently from their countries
- Meets quarterly in Geneva and works on a part-time basis.
- Board members attend the WRC.