• Founded in 1865.
• United Nations body.
• Manages access to orbits and radio spectrum.
• Maintains Master Register of International Frequency Assignments (MIFR).
ITU Members & Participants

• **Member States (193)**
  - Near universal membership
  - One country, one vote

• **Sector Members (545)**
  - Including Private Sector Companies, international and regional telecommunication and standards organizations, international satellite organizations
  - Non-voting

• **Associates (161)**

• **Academia (33)**

• **UN Organizations (ICAO, IMO, WMO)**
Purposes of the ITU

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; and
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 Basic Instruments

- ITU Constitution (Geneva, 1992)

- ITU Convention

- Administrative Regulations
  - International Telecommunication Regulations
  - Radio Regulations (includes International Table of Frequency Allocations and satellite plans)

These are treaty documents – statutory international law. Radio Regulations must be implemented by domestic authorities.
Radio Regulations

• Radio Regulations (ed. 2012)
  – Volume 1: Articles
  – Volume 2: Appendices
  – Volume 3: Resolutions and Recommendations
  – Volume 4: ITU-R Recommendations Incorporated by Reference

• Adopted by WRC-95 and revised by WRC-97, WRC-2000, WRC-03, WRC-07, and WRC-12.

• A new edition will be published after WRC-15.
Legal Principles

Use of the Radio-Frequency Spectrum and Orbits (Art. 44)

• Limited natural resource
• Rational use
• Equitable Access for all nations
• Promote advancement of technology

Harmful Interference (Art. 45)

• Prevent radio stations from causing harmful interference to stations of other member states operating in accordance with the ITU Radio Regulations
Is it Working?
The Satellite Network in Context

Operational Satellites by Function
(as of 2013)

- Nearly 1,200 operating satellites as of year-end 2013
  - >50% are communications satellites
  - 40% are commercial communications satellites
- 50+ countries operate at least one satellite (some as part of regional consortia)
Global satellite industry grew 3% in 2013, slightly outpacing both worldwide economic growth (2.4%) and U.S. growth (2.8%).
Regulatory Methods for Space Services

• **First-come, first served**
  – Rights secured through coordination process leading to registration in the Master International Frequency Register (RR Arts. 9,11)
  – Right to international recognition based on favorable finding in the MIFR

• **A priori frequency planning**
  – Rights secured through filing for an allotment in a satellite service plan for Fixed Satellite Service or Broadcast Satellite Service
  – Ensures access to orbit by all Member States
**First Come, First Served Process**

**TIMELINE:** Countries begin network coordination **2-7 years before operation**

- **API filing**
- **CR filing**
- **Coordination with potentially affected networks**
- **BR Publishes Data in BRIFIC**
- **Date of Receipt by the BR**
- **Date of Receipt by the BR**
- **Notification Filing**
- **Date of Bringing Into Use**
- **Processing delay**

**Legend:**
- API = Advanced Publication Information
- BR = Radiocommunication Bureau (of the ITU)
- BRIFIC = BR’s International Frequency Information Circular
- CR = Coordination Request

**CR filing expires if not brought into use and Notified within 7 years of receipt of API filing!**
Options for Improvement

• Continue to improve procedures on incremental, ongoing basis at every World Radio Conference
• Introduce monitoring/tracking of spacecraft in orbit
• Introduce Administrative Due Diligence milestones post launch
• Notify more realistic parameters at the notification/recording stage
• Charge fees for maintaining data in the MIFR
• End “free” filings by administrations
• Introduce more deterrent enforcement mechanisms
Thank you.
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