ITU Overview

Presented by :

ITU (International Telecommunication Union)
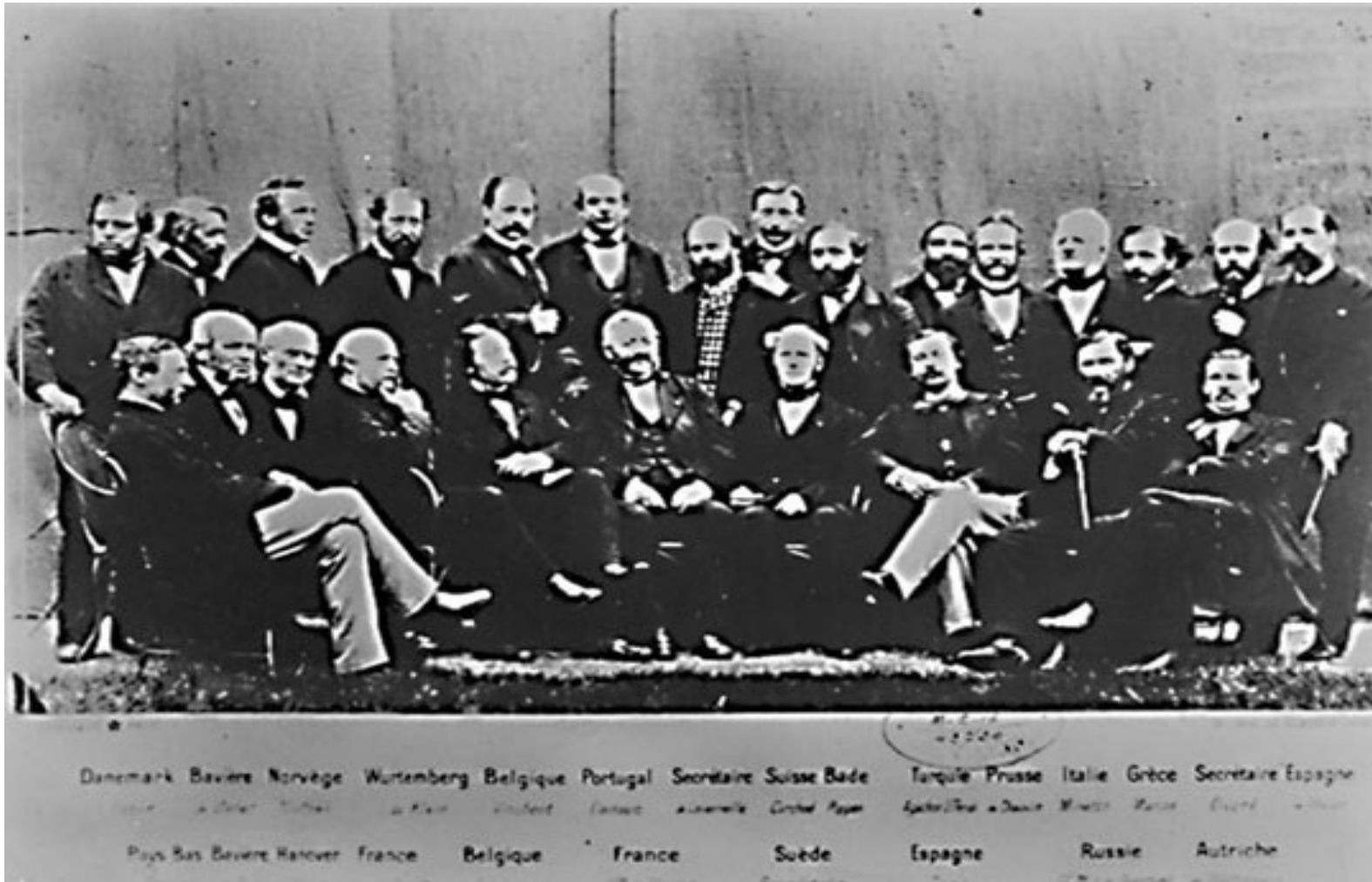
BR-Space Services Department

Akim FALOU DINE

ITSO/ITU Workshop on Satellite Communications

AFRALTI, Nairobi-KENYA, 8-12 August 2016

✓ 20 countries founded on 17 May 1865 the **International Telegraph Union (ITU)**

Danemark Bavière Norvège Wurtemberg Belgique Portugal Secrétaire Suisse Bade Turquie Prusse Italie Grèce Secrétaire Espagne

Pays Bas Bavière Hanover France Belgique France Suède Espagne Russie Autriche

International telecommunication Union

ITU is the leading United Nations agency for **information** and **communication technologies**
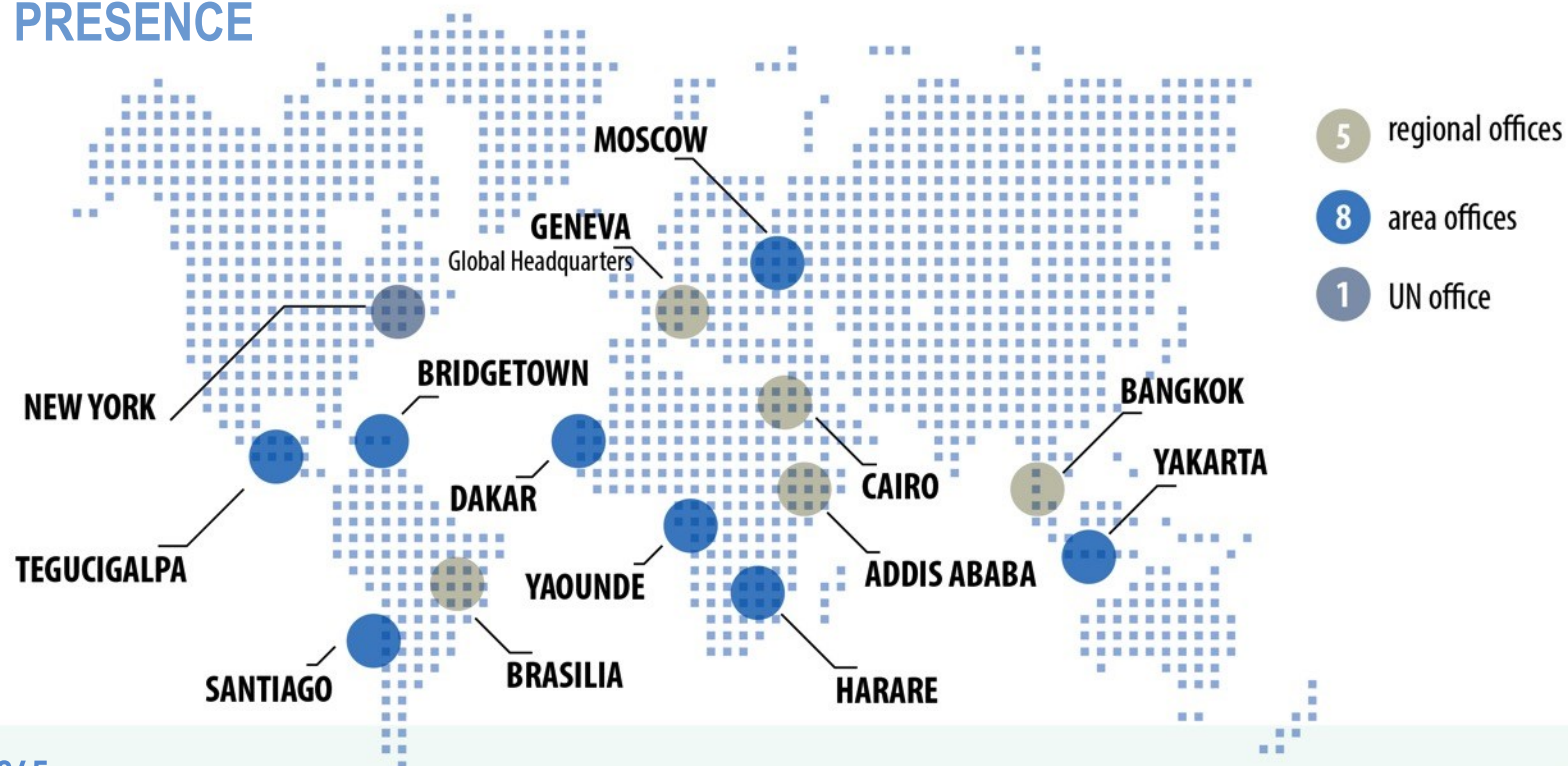
Specialized Agencies of the United Nations

UNESCO   WHO   ILO   UPU   ICAO   WMO   IMO   IAEA

WB   UNWTO   FAO   IFAD   UNIDO   WIPO   WFP   IMF

Specialized UN agency with focus on Telecommunication / ICTs

150   1865 2015

Where are we?

PRESENCE

MOSCOW

GENEVA
Global Headquarters

NEW YORK

BRIDGETOWN

DAKAR

TEGUCIGALPA

YAOUNDE

BRASILIA

SANTIAGO

CAIRO

ADDIS ABABA

HARARE

BANGKOK

YAKARTA

5 regional offices

8 area offices

1 UN office

Management

WHO ARE WE?

ITU Elections

ITU Officials

5

ELECTED
OFFICIALS

Secretary
General

Deputy
Secretary
General

Director of the
Radiocommunication
Bureau (BR)

Director of the
Telecommunication
Standardization
Bureau (TSB)

Director of the
Telecommunication
Development
Bureau (BDT)

DURATION

1 — 2 — 3 — 4
+
1 — 2 — 3 — 4
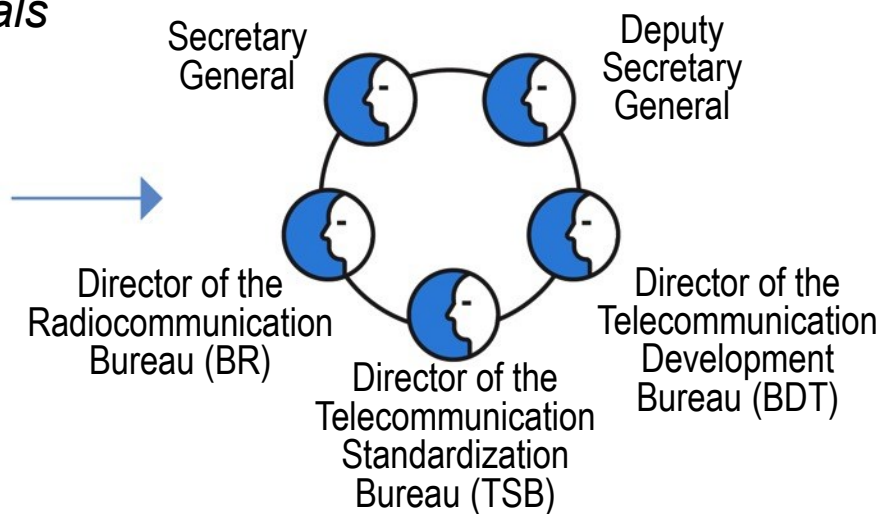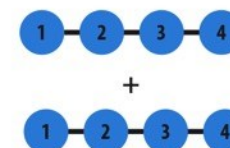
A maximum of two
four-year terms in
any elected post

1865
2015

Meet us

WHO ARE WE?

Our numbers

193
MEMBER
STATES

700
PRIVATE SECTOR
ORGANIZATIONS

70
ACADEMIA
MEMBERS

150 ITU 1865
2015

ITU

Structure — ITU

Radiocommunications
- regulations
- standards

Standardization

Development

Plenipotentiary Conferences

Council

World Conferences on International Telecommunications

World/Regional Radiocommunication Conferences
Radiocommunication Assemblies
Radio Regulations Board
Advisory Group | Study Groups

World Telecommunication Standardization Assembly
Advisory Group | Study Groups

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

ITU-T
/STANDARDIZATION/

Meet the sectors

ITU - T

KEY ROLE

Crucial role in **defining operation and interoperability of technologies** that underpin global communications network

200 - 300 new global standards approved every year, with over **4,000** in use today

150 ITU 1865 2015

ITU-D
/DEVELOPMENT/

Meet the sectors

ITU - D

KEY ROLES

Spread equitable and affordable **access to telecommunications** to help stimulate social and economic development

Human capacity-building particularly in developing and least developed countries (LDCs)

Helps to ensure that people everywhere are empowered **to reap the benefits that connectivity delivers**

ITU-R
/RADIOCOMMUNICATIONS/

Meet the sectors

ITU - R

KEY Mission

to ensure rational, equitable, efficient and economical use of the radio-frequency spectrum

- effect allocation & allotment and the registration of radio frequency & GSO orbital position
- coordinate efforts to eliminate harmful interference

150 ITU 1865 2015

ITU-R history in brief

1906 (Berlin)	**International Radiotelegraph Convention** (1st *Radio Regulations*)
1927 (Washington DC)	**CCIR** (International Radio Consultative Committee)
1932 (Madrid)	Telegraph & Radiotelegraph Conventions merged: the International Telegraph Union became the **International Telecommunication Union**
1947 (Atlantic City)	**IFRB** (International Frequency Registration Board) ITU as UN specialized agency
1992 (Geneva)	**ITU-R** (Radiocommunication Sector): ▪ **RRB** (Radio Regulations Board) ▪ **BR** (Radiocommunication Bureau)

110+ years of ITU *Radio Regulations*

Roles of ITU-R

international **regulations**

global **standards** & guidelines

assistance to administrations

- ✓ Rights of access to the spectrum
- ✓ Efficient use of spectrum
- ✓ Operation free from interference
- ✓ Economies of scale
- ✓ Interoperability and roaming
- ✓ Global harmonization
- ✓ Guidelines for national & regional regulations

GOOD QUALITY AND LESS COSTLY EQUIPMENT

MORE FAVORABLE INVESTMENT ENVIRONMENT (CLEAR & STABLE)

ITU-R mission

- To ensure **interference-free operations** of radiocommunication systems by implementing the Radio Regulations and regional agreements, as well as updating these instruments in an efficient and timely manner through the processes of world and regional radiocommunication conferences.
- To establish **Recommendations** intended to assure the necessary performance and quality in operating radiocommunication systems.
- To seek ways and means to ensure the **rational, equitable, efficient and economical use of the radio-frequency spectrum and satellite-orbit** resources and to promote flexibility for future expansion and new technological developments.
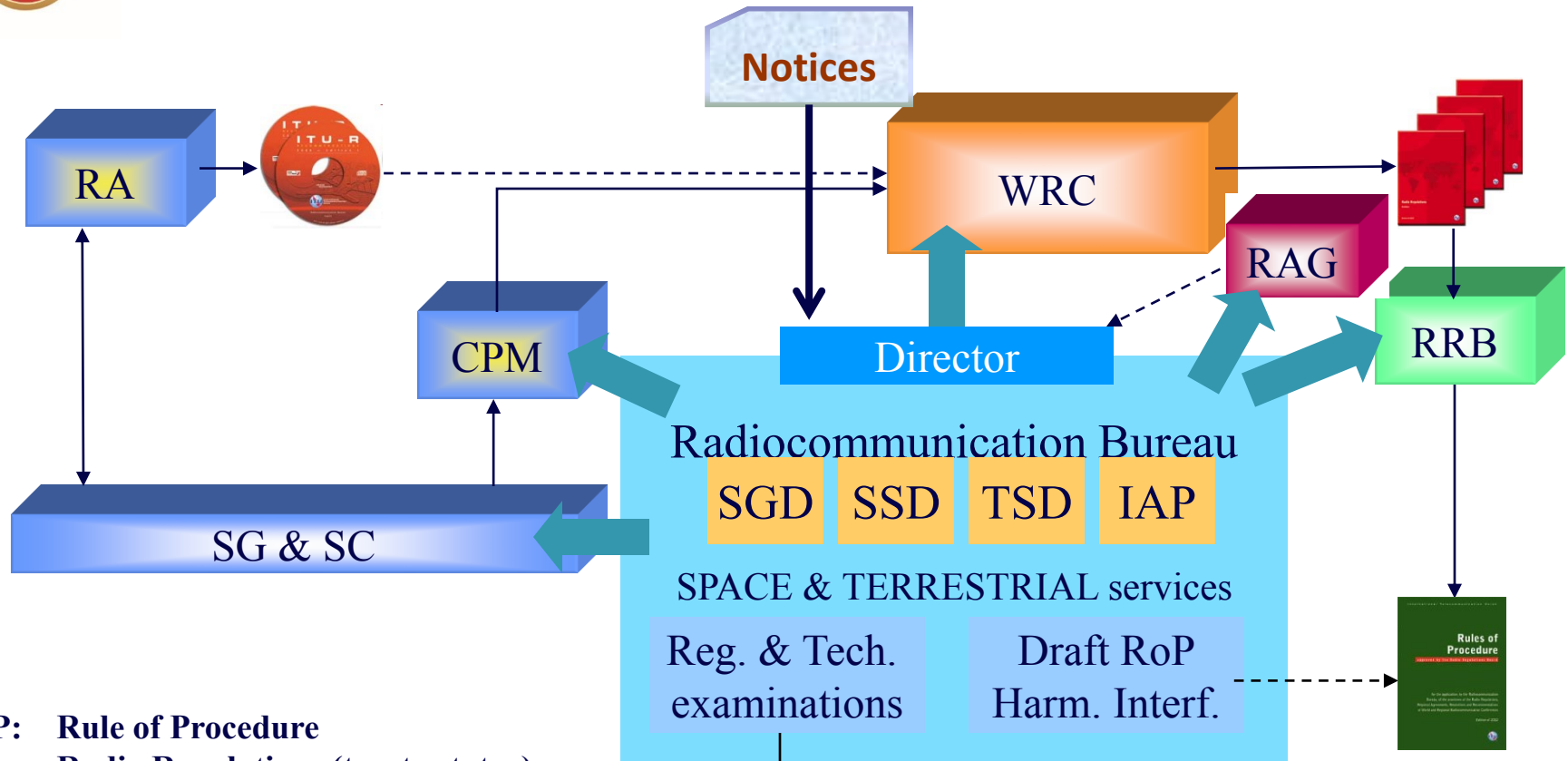
Role conducted through *(inter alia)***:**
✓ World and Regional Radio-communication Conferences
✓ Radiocommunication Study Groups
✓ Radio Regulations Board
✓ Radiocommunication Bureau

In implementing this mission, the actions in ITU-R aim at creating the conditions for harmonized development and efficient operation of existing and new radiocommunication systems, taking due account of all parties concerned.

ITU-R structure & activities

Notices

RA

WRC

RAG

CPM

Director

RRB

Radiocommunication Bureau

SGD | SSD | TSD | IAP

SPACE & TERRESTRIAL services

Reg. & Tech. examinations

Draft RoP Harm. Interf.

SG & SC

Rules of Procedure

Findings

MIFR

BR IFIC

RoP: Rule of Procedure
RR: Radio Regulations (treaty status)
RRB: Radio Regulations Board
SG: Study Group
WRC: World Radiocommunication Conference
CPM: Conference Preparatory Meeting
MIFR: Master International Frequency Register
RA: Radiocommunication Assembly
RAG: Radiocommunication Advisory Group
Rec: Recommendations (international voluntary standards)
IFIC: International Frequency Information Circular

Radio Regulations (RR)

The Radio Regulations (international *treaty)* incorporates the decisions of the World Radiocommunication Conferences, including all Appendices, Resolutions, Recommendations and ITU-R Recommendations incorporated by reference.

➤ Frequency block **allocations** to defined radio services (Article 5)

➤ Mandatory or voluntary **regulatory procedures** (coordination, plan modification, notification, recording) that are adapted to the allocation structure

Radio Regulations

Status
RIGHT for international recognition
OBLIGATION to eliminate harmful interference
Art7-8

Frequency
TABLE
(9k-275GHz)
Art4-6

Interference
& monitoring
Art15-16
App9-10

Definitions – Art1-3, App14, 42
Administrative
Secrecy/Licences/
Interception/Identification of stations/
call signs/Service Publications
Art 17-20
Bureau & RRB – Art13-14

Procedures
Coordination,
Notification &
Recording
Art9, 11
App4-8

Limits
technical/operational
Arts21, 22
Apps1-3

Services
Aeronautical – Art35-45
Maritime – Art46-58
Amateur, broadcasting,
fixed, radiodetermination,
standard freq. & time - Art12, 23-29
App11-13, 16, 19

Plans
Maritime HF, VHF (App17-18)
Maritime coast stations (App25)
Aeronautical (OR) (App26)
Aeronautical (R) (App27)
Broadcasting-satellite (App30-30A)
Fixed-satellite (App30B)
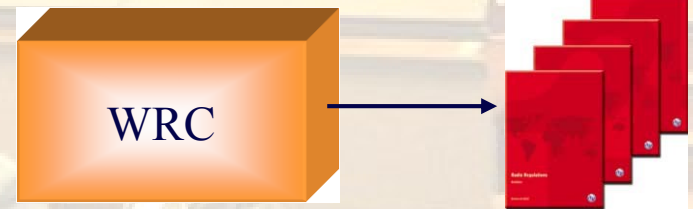
MIFR
(register)

GMDSS
Art30-34
App15

World Radiocommunication Conference

✓ **Updates the Radio Regulations** *(treaty status)*

  • **Spectrum Allocation**

  • **Notification procedures**

  • **Administrative and operational procedures**

✓ **Adopts Resolutions**

✓ **Held every 4 years**

WRC

WRC-15

9 kHz < proposals < 3000 GHz

http://www.itu.int/en/ITU-R/conferences/wrc/2015

Space Services

✓ *Coordination and recording* procedures for space systems and earth stations: capture, processing and publication of data and examination of frequency assignment notices submitted by administrations for inclusion in the formal coordination procedures or recording in the Master International Frequency Register (MIFR).

✓ Procedures for space related assignment and allotment *plans*

✓ *Assistance* to administrations on all of the above issues

Terrestrial Services

✓ **Regulatory and Technical Functions**

- Broadcasting / Fixed and Mobile / Maritime Mobile / Aeronautical Mobile

✓ **Terrestrial Plans**

- AP25, AP26, AP27, ST61, GE75, RJ81, GE84, GE85M, GE85N, RJ88, GE89, GE06

✓ **HF Broadcasting (Art.12)**

✓ **Administrative and Operational Procedures**

- International means of identification

  - call sign series / maritime identification digits / blocks of selective call sign numbers

- Service Documents

  - Ship stations / coast stations / radio determination / call signs / MARS, etc

✓ **Harmful interference & monitoring programs**

ITU-R Study Groups

SG 1: **Spectrum management**

SG 3: **Radiowave propagation**

SG 4: **Satellite services**

SG 5: **Terrestrial services**

SG 6: **Broadcasting service**
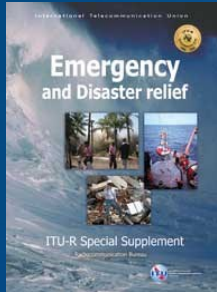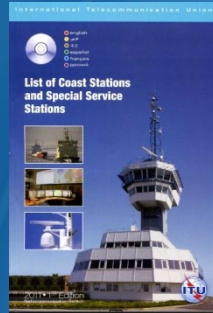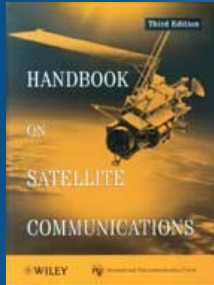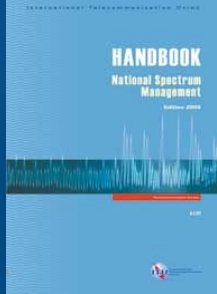
SG 7: **Science services**

- ✓ **>900 Recommendations**
- ✓ **"Standards" in areas of spectrum management and radio technology**
- ✓ **Result of consensus from meetings of world-wide experts**
- ✓ **Some referred to in RR**
- ✓ **Used by spectrum planners and system designers**

In addition:
CCV: Coordination Committee for Vocabulary

ITU-R Publications
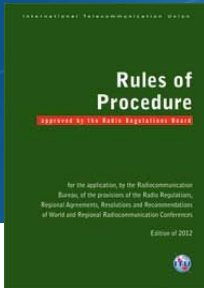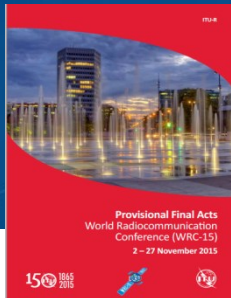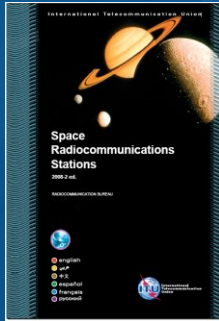
- **Radio Regulations (RR)**
- **Service documents**
  - **e.g., BR International Frequency Information Circular (IFIC)**
- **ITU-R Recommendations**
  - **Online subscriptions**
  - **CD/DVD-ROM**
  - **Paper**
- **Handbooks & Reports**

ITU | General Secretariat | **Radiocommunication** | Standardization | Development | ITU Telecom | Members' Zone | **Join ITU**

About | Events | Databases & e-Services | Publications | Space | Terrestrial | Study Groups | Regional Presence | Join ITU-R

ITU Radiocommunication Sector

YOU ARE HERE   HOME > ITU-R

SHARE

International Mobile Telecommunications

ITU global standard for international mobile telecommunications (IMT-Advanced) provides a global platform on which to build the next generations of mobile services in the form of exciting new interactive services...

World Radiocommunication Conference 2015
ITU global standard for international mobile

More >

BRS-15-AMERICAS | ITU-R | IMT | GSRG-SYMPOSIUM-2015

Entities | Highlights | Free Resources | FAQs

› World Radiocommunication Conferences (WRC)

› Radiocommunication Assemblies (RA)

› Regional Radiocommunication Conferences (RRC)

› Radio Regulations Board (RRB)

› Radiocommunication Study Groups

› Radiocommunication Advisory Group (RAG)

SPACE SERVICES ›

BRIFIC | SNL | SNS | Space Plans

International coordination, notification and recording procedures for **space systems and earth stations** and examination of frequency assignment notices submitted by Administrations (Membership) for inclusion in the **Master International Frequency Register (MIFR)**.

Manages procedures for space-related ITU assignment or allotment plans for launching of satellites.

TERRESTRIAL SERVICES ›

BRIFIC | GLAD | MARS | WISFAT

International coordination, notification and recording procedures for **terrestrial systems** and examination of frequency assignment notices submitted by Adminis-trations (Membership) for inclusion in the **Master International Frequency Register (MIFR) and Plans**.

Application of administrative procedures dealing with allocation of international means of identification (**call sign series**, **MIDs**) and with safety of life, processing submissions for various service publications and

Meetings | Conferences | Seminars/Workshops

ITU Inter-regional Workshop on WRC-15 Preparation - Confirmed
2015-09-01 - 2015-09-03   GENEVA, SWITZERLAND

RRB-15.3 - Confirmed
2015-10-19 - 2015-10-23   GENEVA, SWITZERLAND

RA-15 - Confirmed
2015-10-26 - 2015-10-30   GENEVA, SWITZERLAND

WRC-15 - Confirmed
2015-11-02 - 2015-11-27   GENEVA, SWITZERLAND

CPM19-1 - Planned
2015-11-30 - 2015-12-01   GENEVA, SWITZERLAND

More Events >

QUICK LINKS

Radiocommunication Sector (ITU-R)

RADIOCOMMUNICATION STUDY GROUPS ›

| Study Groups: | 1 | 3 | 4 | 5 | 6 | 7 |
| JTG 4-5-6-7 | CCV | CPM | SC |

Over 5000 specialists from telecommunication and ICT organizations and administrations throughout the world, participate in the Radiocommunication Study Groups to prepare technical bases for Radiocommunication

RADIO REGULATIONS ›

Rules of Procedure

Radio Regulations
Articles

The Radio Regulations (RR) incorporates the decisions of the World Radiocommunication Conferences (WRCs), including all Appendices, Resolutions, Recommen-dations and ITU-R Recommendations incorporated by reference.

The Rules of Procedure are approved by the Radio

Publications | Recommendations | Circulars

Handbook on Ground wave propagation
2014-06-17

Handbook on Radiometeorology
2014-05-30

Handbook on Amateur and amateur-satellite services
2014-05-26

Question 254/5
2014-05-05

Question 138/6
2014-05-02

Thank you !