Road to WRC

Charles Glass, Chief – International Spectrum Policy Division

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Topics To Be Covered

- United Nations Specialized Agencies

- The International Telecommunication Union

- Membership in the Union

- Instruments of the Union

- ITU Structure

- Structure of ITU Radiocommunication Sector (ITU-R)

- CPM

- WRC

The International Telecommunication Union

The ITU is the leading United Nations agency for information and communication technologies

- The ITU has been around since the earliest days of electronic communications and it has evolved as an organization to meet the evolution of telecommunications technologies

- Following the invention of the telegraph (1837), the first public telegraph message (1844), and then short-distance *wireless* telegraphy (1854), the International Telegraph Union founded in 1865

United Nations Specialized Agencies

You have probably heard of many of the UN specialized agencies

- International Maritime Organization (IMO)
- International Civil Aviation Organization (ICAO)
- International Telecommunication Union (ITU)
- World Meteorological Organization (WMO)
- International Monetary Fund (IMF)
- World Health Organization (WHO)

… plus 9 other specialized agencies

The International Telecommunication Union (ITU)

The ITU is the lead United Nations agency for information and communication technologies (ICTs)

- 193 Member States
- 700+ Sector Members and Associates
- *www.itu.int*

Although the ITU is a specialized agency in the UN, membership in the ITU is neither a right nor is it guaranteed

Members must financially support the ITU and its programs through annual fees. The scales of these fees are set by the Plenipotentiary Conference

Membership in the ITU

Member States – These are administrations. They have all rights and privileges. Only member states hold the right to vote

Sector members – Organizations, Industry, Recognized Operating Agencies, Academia, etc.

- **Sector** members, may participate in the activities of a Sector
- **Associate** members, may participate in a single Study Group
- **Academia** members, may participate in the activities of a Study Group through an Memorandum Of Understanding (MOU) with the General Secretariat

Instruments of the Union

- Constitution of the ITU

- Convention of the ITU

- Administrative Regulations

  – International Telecommunication Regulations (ITRs)

    www.itu.int/en/wcit-12/Documents/final-acts-wcit-12.pdf

  – Radio Regulations (RR)

    www.itu.int/pub/R-REG-RR-2012

The collection of the Basic Texts of the Union can be downloaded as a single volume for free from *www.itu.int/net/about/basic-texts*

Structure of the ITU

- Plenipotentiary Conference (the primary governing body – *all powerful*)
- Council (acts on behalf of the Plenipotentiary Conference)
- World Conference on International Telecommunications (WCIT)
- Core Sectors (ITU-R, ITU-T, ITU-D)
  - Radiocommunication Sector (ITU–R)
  - Telecommunication Standardization Sector (ITU–T)
  - Telecommunication Development Sector (ITU–D)
- General Secretariat

The General Secretariat provides services to the membership of the Union. The General Secretariat manages the administrative and financial aspects of the Union's activities

Radiocommunication Sector (ITU–R)

The **ITU-R** ensures the rational, equitable, efficient, and economical use of the radio-frequency spectrum by all radiocommunication services, including those using geostationary-satellite or other satellite orbits. The ITU-R does its work though,

- World Radiocommunication Conferences **(WRCs)**
- Radio Regulation Board (RRB)
- Radiocommunication Assemblies **(RAs)**
- Radiocommunication Study Groups
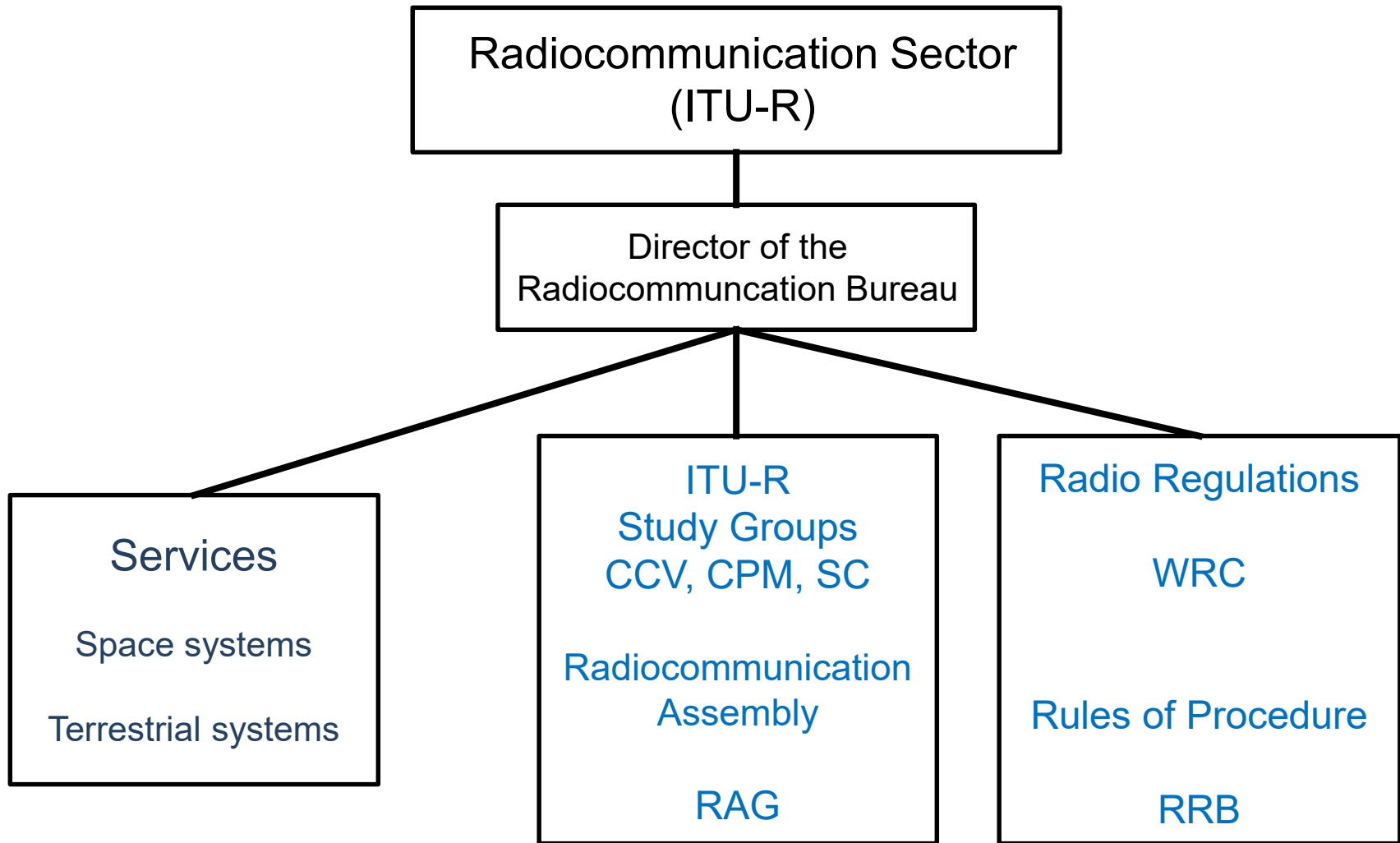- Radiocommunication Bureau

More Detail on the Radiocommunication Sector

Structure of ITU Radiocommunication Sector (ITU-R)

The ITU-R plays a vital role in the global management of the radio-frequency spectrum and satellite orbits

- Ensure the rational, equitable, efficient, and economical use of the radio-frequency spectrum by all radiocommunication services

- Manages the detailed coordination and recording procedures for space systems and earth stations

The Radiocommunication Sector (ITU-R)

Radiocommunication Sector
(ITU-R)

Director of the
Radiocommuncation Bureau

Services

Space systems

Terrestrial systems

**ITU-R
Study Groups
CCV, CPM, SC**

**Radiocommunication
Assembly**

RAG

Radio Regulations

WRC

Rules of Procedure

RRB

ITU-R Study Groups

The study groups carry out the technical work to support methods for addressing agenda items under a WRC as well as other work on *Reports*, *Recommendations*, and *Handbooks* for spectrum issues under their area of expertise and sharing and compatibility studies in cooperation with other study groups.
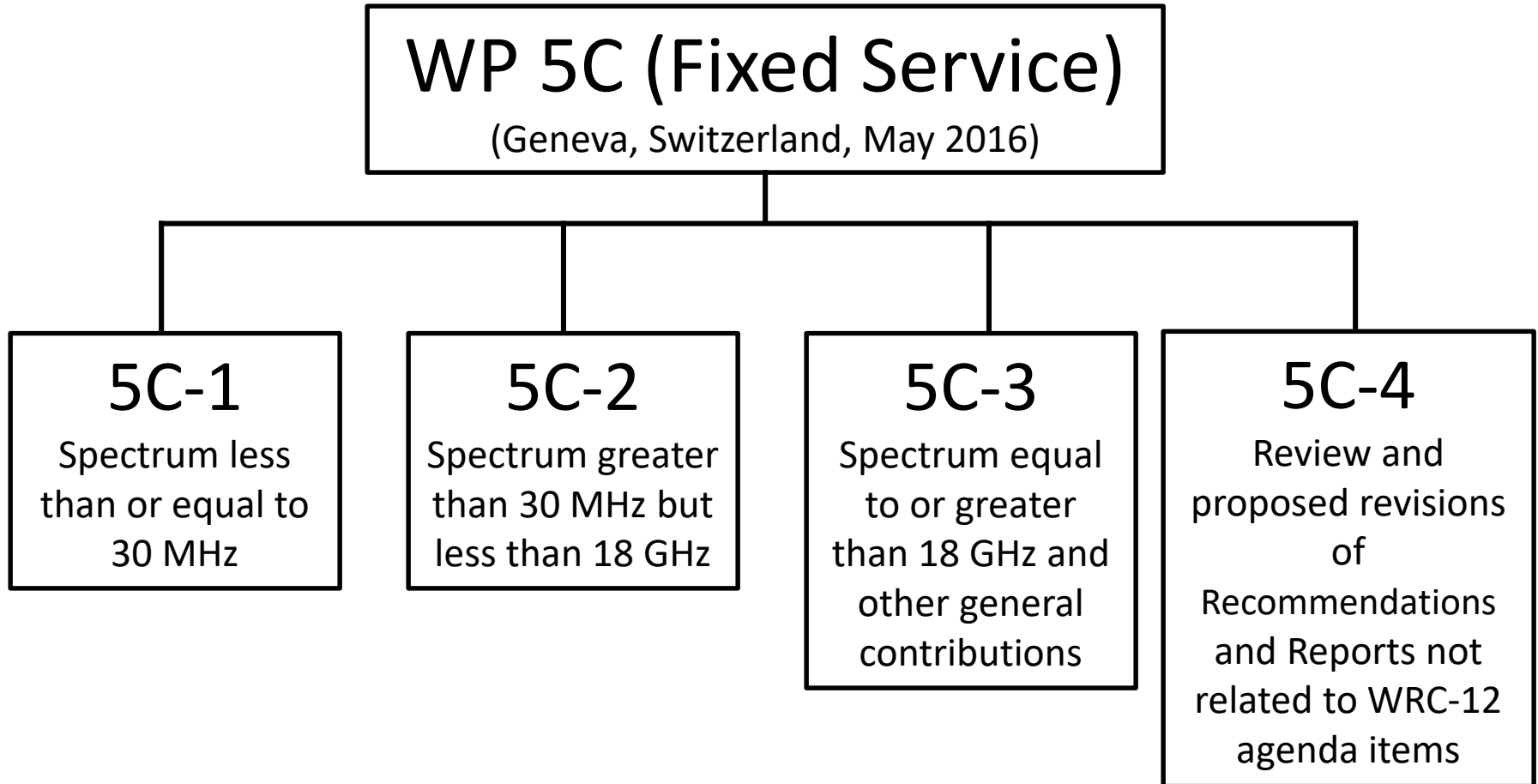
- SG1 – Spectrum Management
- SG3 – Radiowave Propagation
- SG4 – Satellite Services
- SG5 – Terrestrial Services
- SG6 – Broadcasting Service
- SG7 – Science Services

- Coordination Committee On Vocabulary (CCV)
- Conference Preparatory Meeting

ITU-R Study Group and Working Party Output

Study Groups and further divided into Working Parties in order to better distribute the work by topic. Typical output includes,

- **ITU-R QUESTION** - A statement of a technical, operational or procedural problem seeking a Recommendation, Handbook or Report
- **ITU-R RECOMMENDATION** - An answer to a Question or part(s) of a Question which, within the scope of existing knowledge and studies, gives specifications, data, or guidance
- **ITU-R REPORT** - A technical, operational or procedural statement
- **ITU-R HANDBOOK** - Practical information engineers, system planners, and operating officials
- **DRAFT CPM TEXT** - Provides the technical basis, summary of studies, and suggested Methods to address WRC agenda items

Example ITU-R Study Group Working Party Structure

WP 5C (Fixed Service)
(Geneva, Switzerland, May 2016)

5C-1
Spectrum less than or equal to 30 MHz

5C-2
Spectrum greater than 30 MHz but less than 18 GHz

5C-3
Spectrum equal to or greater than 18 GHz and other general contributions

5C-4
Review and proposed revisions of Recommendations and Reports not related to WRC-12 agenda items

Conference Preparatory Meetings (CPM)

The CPM is one part of the family of ITU-R *Study Groups*

The CPM prepares a report detailing the technical basis for agenda items being considered by a WRC, including Methods to satisfy the agenda items

CPM XX-1 is held immediately following a WRC
- Attended by Chairmen and Vice Chairmen of ITU-R Study Groups
- Determines the structure of the CPM report and designates Chapter Rapporteurs
- Assigns work to Working Parties of the Study Groups, which will conduct studies and prepare the text to be compiled in the report

Conference Preparatory Meetings (CPM)

CPM XX-2 is held 6 months prior to the WRC

- This meeting is open to delegates from ITU member states
- The meeting reviews and finalizes the CPM report
- This meeting may lead to consensus on how to address some agenda items prior to the WRC, but the meeting could produce more options for some agenda items for the WRC to consider
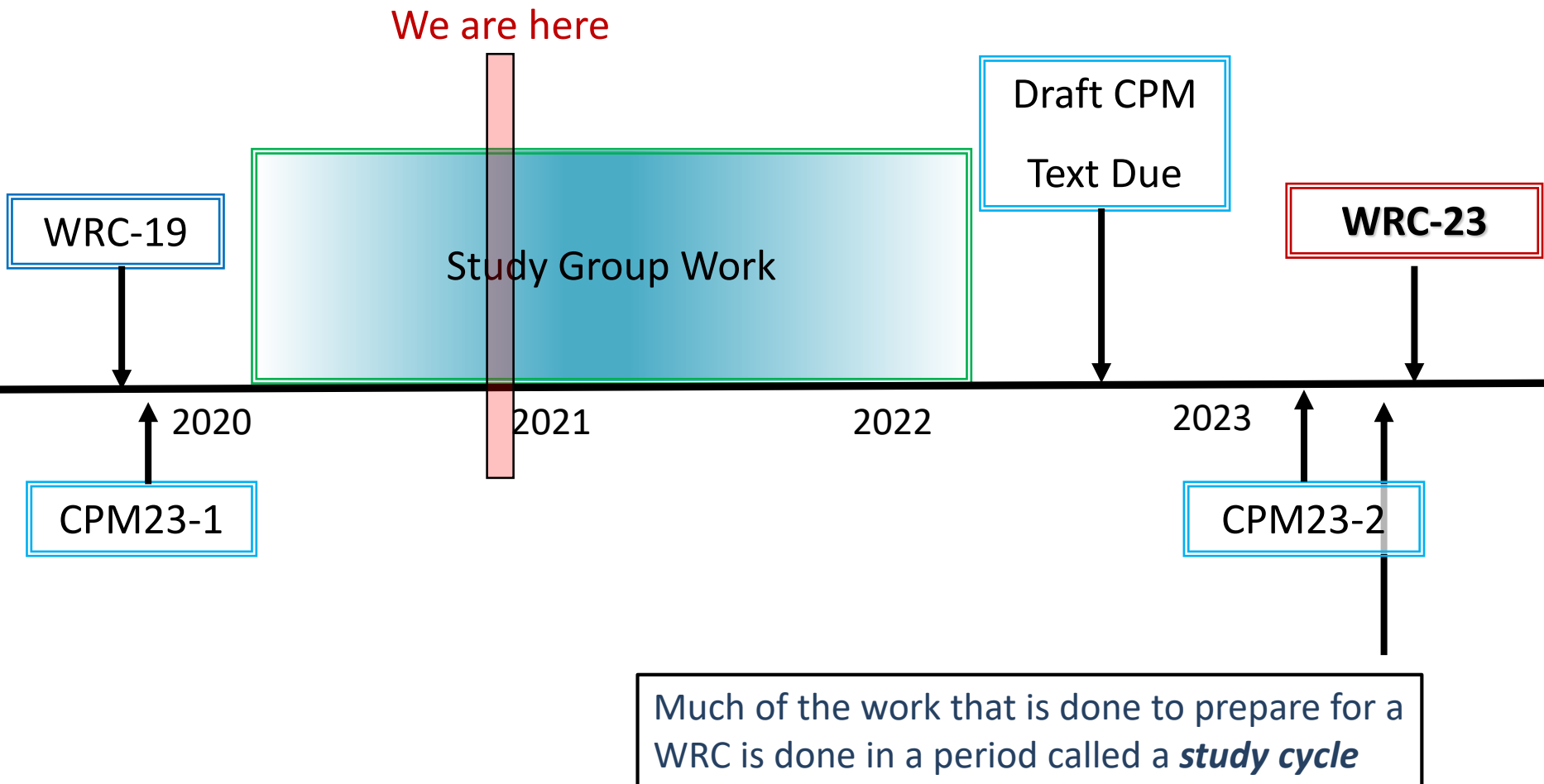
The CPM Report is a contribution to the WRC

World Radicommunication Conference (WRC)

WRC-XX is held 6 months after the CPM and may be hosted by a member state

- This meeting is open to delegates from all ITU member states

- The meeting addresses the issues under the agenda established by the previous conference (which must be approved by Council)

- This generally operates under consensus, however voting is an option to resolve issues

- The WRC modifies the existing Radio Regulations and the output is a corrigendum to the Radio Regulations (Final Acts of that WRC) until the Radio Regulations can be updated

- Member States must sign the output to retain the right to vote within the ITU

The Big Picture

We are here

Draft CPM
Text Due

WRC-23

WRC-19

Study Group Work

2020

2021

2022

2023

CPM23-1

CPM23-2

Much of the work that is done to prepare for a WRC is done in a period called a *study cycle*

International Spectrum Policy Division

Office of Spectrum Management, National Telecommunications and Information Administration (NTIA), U.S. Department of Commerce

Branch Chief

Charles Glass

Terrestrial Branch

Brian Patten – Chief

Amy Sanders – Mobile Broadband

Bruce Lamb – Fixed / Mobile Infrastructure

Vacancy

Vacancy

Satellite Branch

Brandon Mitchell - Chief

Vacancy

Vacancy

Questions?