

FOR THE UPCOMING WORLD RADIO CONFERENCE 2019

by Evgeny Stepin,
Senior Manager, Technical
Department, Intersputnik



BACKGROUND

By the middle of the 19th century, telegraph changed the general idea about communications in Europe and North America and spread rapidly to other regions of the world. In order to support cooperation among the existing telegraph networks, twenty countries signed the first International Telegraph Convention on May 17, 1865.

This date is considered to be the date when the International Telegraph Union was established as a predecessor of today's International Telecommunication Union (ITU). This day is celebrated annually as

World Telecommunications and Information Society Day.

Today, the ITU unites 193 countries and nearly 800 private companies and academic institutions. The ITU allocates the global radio frequency spectrum and satellite orbits, develops technical standards, which help networks and technologies interact without hindrance, and works to expand access to information and communications technologies in underserved communities the world over. A key aspect of these activities is the World Radio Conference (WRC) held every three to four years.

WHAT GETS DECIDED AT WRC CONFERENCES

A tentative agenda for each WRC is drawn up four to six years in advance and finalized by the ITU Council two years in advance as agreed with the majority of the ITU Member-States.

Thus, through the mediation of WRCs, the Radio Regulations Board, Radiocommunication Assemblies, study groups, other groups and the Radiocommunication Bureau, the ITU ensures the rational, equitable, efficient and economical use of the radio frequency spectrum by all radiocommunication services, including those that use the orbit of geostationary satellites and other satellite orbits.

As set forth in the ITU Constitution, a WRC may:

- revise the Radio Regulations and any associated Frequency assignment and allotment Plans;
- address any radiocommunication matter of worldwide character;
- instruct the Radio Regulations Board and the Radiocommunication Bureau, and review their activities;
- determine questions for study by the Radiocommunication Assembly and its Study Groups in preparation for future Radiocommunication Conferences.

WHAT ARE THE RADIO REGULATIONS

The final result of all WRCs are updates to the Radio Regulations, which is an international treaty binding on the ITU Member-States and governing the use of the radio frequency spectrum, the geostationary and non-geostationary satellite orbits.

The Radio Regulations specify how frequencies are allocated, set technical and regulatory

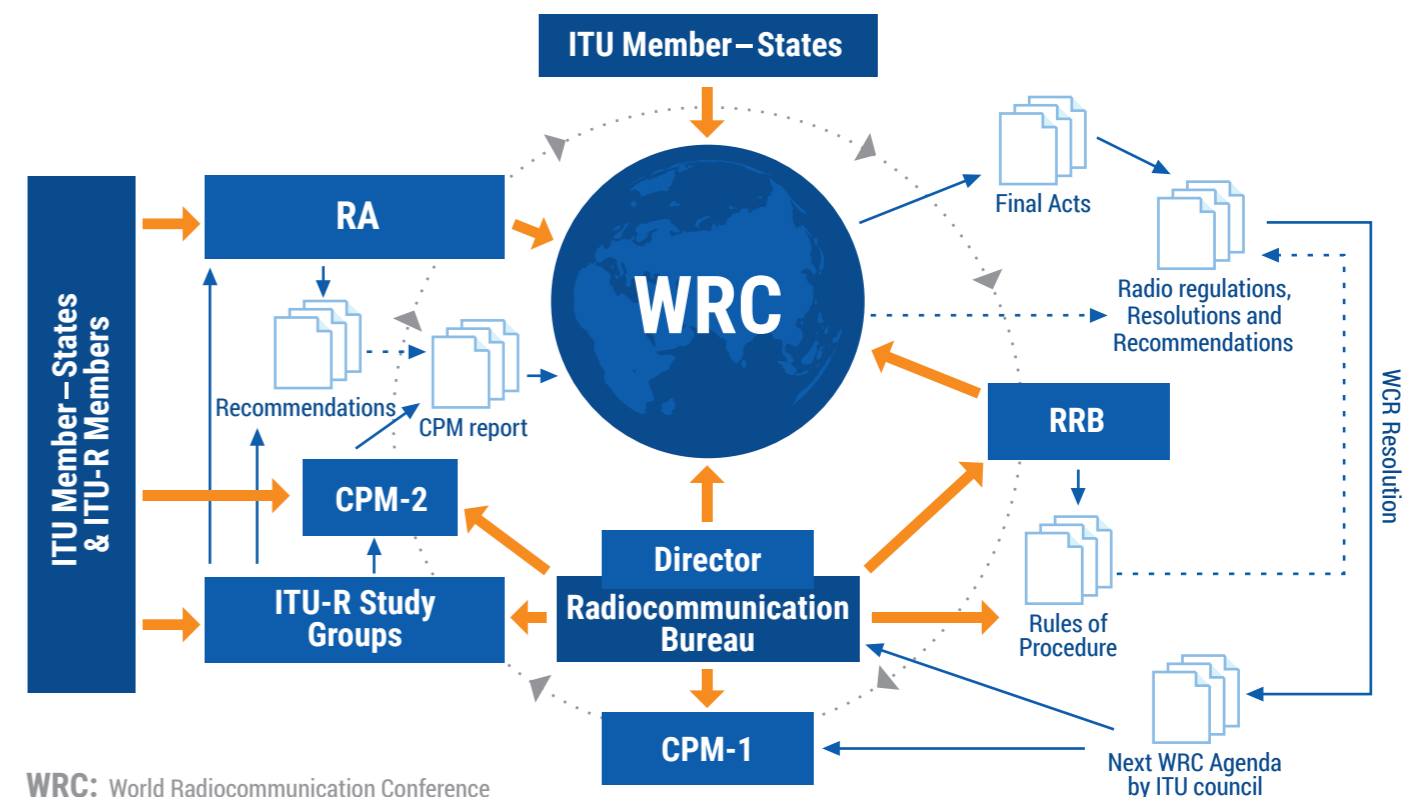
conditions of the use of the spectrum by each service. The Radio Regulations also describe the procedure of coordination among administrations or obtaining administrations' consents, thus facilitating compatibility among services, which use the same frequency bands, and among systems operating within each service. The Radio Regulations help prevent or settle cases of harmful interference.

WRC CYCLE

In its activities, WRC conferences use the following documents: reports of the Director of the Radiocommunication Bureau, reports of the Conference preparatory meeting,

reports of the Radiocommunication Assembly, agreed common proposals of regional telecommunications entities and proposals of the Member-States.

The WRC Cycle



WRC: World Radiocommunication Conference
RA: Radiocommunication Assembly
CPM: Conference Preparatory Meeting
RRB: Radio Regulations Board

CONFERENCE
PREPARATORY MEETINGS

Preparations for each WRC start and end at sessions of the Conference Preparatory Meeting (CPM). The first session of the meeting is held immediately after a WRC for the purpose of coordinating working programs of the relevant Study Groups of the ITU Radiocommunication Sector (ITU-R) and defining the structure of the CPM report based on the agenda of two subsequent WRCs as well as taking into account any instructions given by a preceding WRC. The second session is held about six months in advance of the next conference in order to prepare a summary report, which is later used to support the activity of the WRC based on inputs concerning regulatory, technical, operational or procedural issues received from administrations, study groups and other sources.

When preparing the World Radio Conference 2019 (WRC-19), the first session of CPM19-1 was held in Geneva on November 30 – December 1, 2015, and the next session CPM-19-2 took place in Geneva on February 18–28, 2019. Representatives of over 85 Member-States met to coordinate and make arrangements for WRC-19 preparatory studies.

“ Representatives of over 85 Member-States met to coordinate and make arrangements for WRC-19 preparatory studies. ”

STUDY GROUPS
AND WORKING PARTIES

<p>STUDY GROUP 1 (SG-1) – SPECTRUM MANAGEMENT</p>	<p>The ITU-R Study Groups (SG) and the corresponding Working Parties (WP) play a key role in the process of preparations. They direct works to prepare a technological basis for the WRC to make decisions. There exist six Study Groups dealing with various areas:</p> <p>Working Party 1A (WP 1A) – Spectrum engineering techniques Working Party 1B (WP 1B) – Spectrum management methodologies and economic strategies Working Party 1C (WP 1C) – Spectrum monitoring</p>
<p>STUDY GROUP 3 (SG 3) – RADIO WAVE PROPAGATION</p>	<p>Working Party 3J (WP 3J) – Propagation fundamentals Working Party 3K (WP 3K) – Point-to-area propagation Working Party 3L (WP 3L) – Ionospheric propagation and radio noise Working Party 3M (WP 3M) – Point-to-point and Earth-space propagation</p>
<p>STUDY GROUP 4 (SG 4) – SATELLITE SERVICES</p>	<p>Working Party 4A (WP 4A) – Efficient orbit/spectrum utilization for FSS and BSS Working Party 4B (WP 4B) – Systems, air interfaces, performance and availability objectives for FSS, BSS and MSS, including IP-based applications and satellite news gathering Working Party 4C (WP 4C) – Efficient orbit/spectrum utilization for MSS and RDSS (radio determination satellite service)</p>
<p>STUDY GROUP 5 (SG 5) – TERRESTRIAL SERVICES</p>	<p>Working Party 5A (WP 5A) – Land mobile service above 30 MHz (excluding IMT); wireless access in the fixed service; amateur and amateur satellite services Working Party 5B (WP 5B) – Maritime mobile services including Global maritime Distress and Safety System (GMDSS); aeronautical mobile service and radio determination service Working Party 5C (WP 5C) – Fixed wireless systems; HF and other systems below 30 MHz in the fixed and land mobile services Working Party 5D (WP 5D) – IMT systems</p>
<p>STUDY GROUP 6 (SG 6) – BROADCASTING SERVICE</p>	<p>Working Party 6A (WP 6A) – Terrestrial broadcasting delivery Working Party 6B (WP 6B) – Broadcast service assembly and access Working Party 6C (WP 6C) – Program production and quality assessment</p>
<p>STUDY GROUP 7 (SG 7) – SCIENCE SERVICES</p>	<p>Working Party 7B (WP 7B) – Space radiocommunication applications Working Party 7C (WP 7C) – Remote sensing systems Working Party 7D (WP 7D) – Radio astronomy</p>

EXPERT COMMENTARY

According to the ITU, more than 4,000 specialists from administrations, the telecommunications industry and academic institutions take part in the activities of these groups and parties.

RADIOCOMMUNICATION ASSEMBLIES

The Radiocommunication Assemblies are responsible for the structure, program and approval of the studies in the field of radio communications. They are usually held every three to four years, often in the same place and on the same dates as WRCs.

INTER-REGIONAL WORKSHOPS

Another integral part of preparations for a WRC is annual inter-regional workshops held under the aegis of the ITU. Participants exchange opinions, shape common views, standpoints and/or proposals, which can later be submitted to the WRC for review after they are analyzed by Working Parties and added to the CRM report.

CONFERENCE STRUCTURE

As soon as the preparation process is complete, the CPM report, the Radiocommunication Assembly report, the report of Director of Radiocommunication

“ The actual WRC workload is divided among a number of committees and working groups: the Steering Committee chaired by the conference chair and others which deal with the agenda items, conference budget issues and credentials of the Member-States. ”

The Radiocommunication Assemblies have the following principal functions:

- distribution of conference preparation work as well as other tasks for Study Groups;
- dealing with other requests of ITU conferences;
- suggesting of appropriate topics for the agenda of future WRCs;
- issuance of ITU-R recommendations developed by Study Groups;
- preparation of programs of work for Study Groups;
- disbandment or establishment of Study Groups whenever necessary.

Bureau and other reports and documents are generated according to the conference agenda, and, thereafter, the WRC is opened, participants have four weeks to reach consensus on various items of the agenda.

The structure as well as the chairmanships are discussed within an ‘informal group’ in the run up to the conference. Anyone can take part in this process, but usually people who are really involved in the process take part. It’s called an ‘informal group’ because the participants express their views as individuals and not as representatives of a country. The ‘informal group’ produces a document that gets discussed and approved with or without changes by the heads of the country delegations on the eve of the conference.

The chairs and vice chairs for the committees are proposed in this informal group based on factors such as background, experience and where the candidates are from, with a balance between different regions in mind.

The actual WRC workload is divided among a number of committees and working groups: the Steering Committee chaired by the conference chair and others which deal with the agenda items, conference budget issues and credentials of the Member-States.

Certainly, the most important ones are the committees that handle the actual agenda items.

One of the starting points for discussion is the input documents from the six regional groups: the Asia-Pacific Telecommunity (APT), the Arab Spectrum Management Group (ASMG), the African Telecommunications Union (ATU), the European Conference of Postal and Telecommunications Administrations (CEPT), the Inter-American Telecommunication Commission (CITEL), and the Regional Commonwealth in the Field of Communications (RCC).

In addition to regional documents, single countries or a group of countries can join forces to submit their own input. This is an opportunity for individual countries to make their voices heard, which is particularly significant if their views differ from the regional groups they participate in.

Private sector members and organizations can contribute information papers. The papers are also allowed to be presented at the conference, as long as the chair of the committee agrees to it.

The main work of the WRC begins through the Working Groups, Sub-Working Groups and sometimes smaller Drafting Groups; the number growing larger as the Conference goes on. Participating in working groups (sub-groups) and committee meetings is the most effective method of influencing conference outcomes.

HOW DECISIONS ARE MADE

Final decisions on agenda items can be made when consensus has been reached through a delicate balance of compromise by differing countries or groups of countries with respect to any such agenda item.

Each agenda item is first discussed by the working groups (sub-groups) in order to bring differing views closer together. This is then brought through the committees until a balanced agreement has been reached. If a conference chair thinks a certain issue is especially complicated, he or she can decide to manage it directly by creating an ad-hoc group of the plenary. The final sign-off is given by the plenary.

“ The Final Acts are a record of the decisions taken at the WRC. They are made up of new and revised provisions of the Radio Regulations as well as the new and revised Resolutions and Recommendations approved by the conference. ”

FINAL ACTS

The Final Acts are a record of the decisions taken at the WRC. They are made up of new and revised provisions of the Radio Regulations as well as the new and revised Resolutions and Recommendations approved by the conference. There is always a Resolution among the approved ones that contains the agenda for the next conference. This completes the WRC cycle. ●