



# Regulatory Aspects (Terrestrial Radiocommunication Services)

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# Overview of the Presentation

- Introduction;
- Radio Regulations (RR):
  - Table of allocations – Article 5;
  - Type of allocation;
  - Frequency plans;
  - Coordination Procedures – Article 9;
  - Notification Procedure – Article 11;
  - Processing of notifications;
  - Publication of notices;
- Final remarks.

# Introduction

The rights and the obligations of the International Telecommunication Union Member States in the domain of international frequency management of the Spectrum are incorporated in the Constitution (CS) and Convention (CV) of ITU and in the Radio Regulations (RR).

These instruments are intergovernmental treaties ratified by administrations, which means that they undertake to:

- Apply these provisions in their countries;
- Adopt adequately, the national legislation to the essential provisions of this international treaty.

These instruments are further complemented by:

- Regional Agreements;
- Rules of Procedures (RoP);
- Special Agreements;
- ITU-R Recommendations.

# Radio Regulations (RR)

- The RR, being the principal instrument of the international radio regulatory arrangement, are based on the use of two main concepts:
  - Frequency block allocations, as contained in the Table of Frequency Allocations in Article 5 of the RR;
    - Frequency blocks are allocated to mutually compatible services operating with similar technical characteristics in specific parts of the spectrum.
  - Voluntary or obligatory regulatory procedures (coordination, notification and recording) that are adopted according to the allocation.
- These RR are revised and updated during the World Radiocommunication Conferences (WRCs) by the ITU Member States
  - WRCs are generally held every 3 – 4 years.
  - WRC-15 will be held in Geneva, 2 – 27 November 2015



# Table of frequency allocations – Article 5

- The Regulatory frequency band 8.3 kHz - 1 000 GHz.
- It is segmented into smaller bands and allocated to more than 40 radiocommunication services.
- Radio services are identified as Primary and Secondary:
  - Secondary services shall not cause harmful interference to - nor claim protection from, primary services;
  - In the Table of Frequency Allocations, primary services are in capital letters (i.e. FIXED) and secondary services are in lower case (i.e. Mobile).
- Footnotes are used to further specify how certain frequencies are to be assigned or used.
- The Table of Frequency Allocations is organized into three Regions of the world and is supplemented by plans for some bands and services and/or by mandatory coordination procedures.

# Types of allocation

- Exclusive allocations: for broad international use of equipment. In some cases, exclusive allocations are subject to a Plan (e.g. in the broadcasting service, in the maritime mobile service, or in the aeronautical service).
- Shared frequency allocations: to maximize the usage of the spectrum when many radiocommunication services can effectively use the same frequency band.
- Alternative allocations: a band is indicated in a footnote of the Table as “allocated” to a service different from the allocation indicated in the Table.
- Additional allocations : a band is indicated in a footnote of the Table as “also allocated” to another service in an area smaller than a Region, or in a particular country.

# Frequency Plans

- To preserve the rights of all Member States, in the context of equitable access to the limited radio spectrum, frequency allotment or frequency assignment plans represent the key mechanism.
- Worldwide Plans:
  - Appendix 25: “Frequency Allotment Plan for coast radiotelephone stations operating in the exclusive maritime mobile bands between 4 000 and 27 000 kHz”;
  - Appendix 26 : “Frequency Allotment Plan for the aeronautical mobile (OR) service in the exclusive bands between 3 025 and 18 030 kHz”;
  - Appendix 27 : “Frequency Allotment Plan for the aeronautical mobile (R) service in the exclusive bands between 2 850 and 22 000 kHz”.
- Regional/Subregional Plans:
  - Sound and television broadcasting in VHF/UHF bands: ST61, GE84, GE89, GE06;
  - Sound broadcasting in the LF/MF band : GE75, RJ81, RJ88;
  - Maritime mobile and aeronautical radio navigation : GE85M, GE85N;
- HF Broadcasting : Seasonal planning between 5900 – 26 100 kHz.
- Outside ITU : ICAO, IALA, etc.

# Coordination Procedures – Article 9

- Coordination is a bilateral or multilateral process conducted between administrations. It enables implementation of new radiocommunication systems while avoiding harmful interference with the other existing and planned assignments.
- The coordination process comprises of:
  - Identification of administrations whose assignments are likely to be affected and with which prior coordination must be sought ;
  - The use of standardized methods for calculating the potential for interference (Ap. 5 to RR);
  - Application of standardized steps such as:
    - Exchange of sufficient number of data items as defined in Ap. 4 to the RR;
    - Communicating comments within a prescribed period;
    - Publication of coordination results under provision No. 9.21 of the RR.
- In certain cases, coordination is mandatory before notifying to the Bureau:
  - For Plan modification;
  - For cases referred to under provision Nos. 9.16, 9.18, 9.19 and 9.21.



# Notification - Article 11 (1/5)

- Notification of frequency assignments under Article 11 of the RR is to update the Master International Frequency Register (MIFR) with frequency assignments that are in use;
  - The MIFR should reflect the exact use of the radio spectrum in your territory;
  - The content of the MIFR is an essential information when looking for new allocations.
- Why do administrations need to notify?
  - ITU Members are bound to apply the provisions of the RR;
  - International rights and obligation of administrations with respect to their assignments derive from the recording of those assignments in the MIFR;
  - Assignments recorded in the MIFR with favourable findings have the right to international recognition.
- When to notify?
  - Normally prior to bringing into use (Nos. 11.24 – 11.26)

# Notification - Article 11 (2/5)

- Which frequency assignments are to be notified to the Bureau (BR)?
  - Any frequency assignment relating to a transmitting station and to its associated receiving stations if they are:
    - Capable of causing harmful interference to any service of another administration;
    - Used for international radiocommunication;
    - Subject to a world or regional frequency allotment or assignment plan which does not have its own notification procedure;
    - Subject to the Art. 9 coordination procedure;
    - Requesting international recognition;
    - For information only (No. 4.4):
      - When operating, it shall not cause harmful interference to - nor claim protection from - harmful interference (No. 8.4);
    - Provision Nos. 11.3 to 11.8 of the RR.

# Notification - Article 11 (3/5)

- What not to notify to the Bureau?
  - Assignments to stations in the amateur service;
  - Assignments to ship stations;
  - Assignments involving specific frequencies which are prescribed by the Radio Regulations for common use by terrestrial stations of a given service:
    - These frequencies are entered in the Master Register by the BR;
    - The consolidated table is published in the Preface to the BR International Frequency Information Circular (BR IFIC), in Chapter VI.
  - Provision Nos. 11.13 – 11.14.

# Notification - Article 11 (4/5)

- When to notify?
  - Not earlier than three years before the assignment is brought into use, for terrestrial stations involved in coordination with a satellite network and for high altitude platform stations operating as a base station to provide IMT;
  - Not earlier than five years before the assignment is brought into use, for assignments to high altitude platform stations in the fixed service;
  - Not earlier than three months before the assignment is brought into use, for all other terrestrial stations;
  - Provision Nos. 11.24 – 11.26A.

# Notification - Article 11 (5/5)

- How to notify?
  - A notice for each frequency assignment – No. 11.2.
  - Except for typical stations – No. 11.17:
    - The same frequency is re-used with the same technical characteristics many times within a given area;
    - Does not apply to all services or to all frequency bands;
    - Provision Nos. 11.18 – 11.21B;
  - Transmitting mobile station for reception by a land station – No. 11.9.
  - All frequency assignment notices are in electronic format.
  - To be submitted to the Bureau by registered notifiers selected by the notifying administration via a secured web interface (WISFAT).

# Processing of Notification (1/3)

Notices are received via WISFAT:

1. Validation;
2. Publication in BR BR IFIC - Part 1 as an acknowledgment of receipt;
3. Examination;
4. Final publication in BR IFIC:
  - If the notices are in conformity with the relevant provisions of the RR:
    - Part 2;
    - Recorded in the Master Register (MIFR);
    - Right to international recognition – No. 8.3.
  - If the notices are not in conformity with the relevant provisions of the RR:
    - Part 3;
    - Returned to the administration;
    - Resubmission under No. 4.4.

# Processing of Notification (2/3)

- Notices are validated by the Bureau:
  - Incomplete notices are returned to the notifying administration in accordance with No. 11.27;
  - Complete notices are published in Part I of the BR IFIC within two months of their receipt in accordance with No. 11.28;
  - This publication in Part I is an acknowledgment of receipt of the information submitted by the administrations.
- Notices are examined in accordance with Article 11, Section II (Nos. 11.27 to 11.49):
  - According to the date of receipt.
  - Regulatory examination, based on Article 5 and Rules of Procedures – No. 11.31:
    - If findings are **unfavourable**, the examination stops and they will be published in Part 3;
    - If findings are **favourable**, the examination will continue if necessary.
  - Conformity with procedures relating to coordination with other administrations (i.e. Footnotes, Table of Frequency Allocations) - No. 11.32;
  - Probability of harmful interference when no prior coordination was effected to existing frequency assignment (e.g. in shared bands when the station is located within the coordination area of an earth station) – No. 11.33;
  - Conformity with a regional or world allotment/assignment plan (e.g. Maritime, Aeronautical, Broadcasting) – No. 11.34;
  - Favourable findings will be published in Part 2.

# Processing of Notification (3/3)

- For notices published in Part 3 due to unfavourable findings with regards to technical examination (No. 11.41):
  - Resubmit these notices for their recording in the Master Register;
  - For information only - No. 4.4.
- For notices submitted before their date of bringing into use, they will be provisionally recorded in the Master Register under No. 11.47:
  - Shall confirm their bringing into use;
  - The Bureau may delete them from the Master Register.



# BR International Frequency Information Circular

- Notices submitted to the Bureau are published in BR International Frequency Information Circular (BRIFIC)
- The current official format of the BR IFIC is a DVD;
- Published every two weeks, a copy is distributed free of charge to all ITU Member States;
- Also available:
  - Web : Only the incremental changes in MDB format and a summary list in PDF format:  
<http://www.itu.int/en/ITU-R/terrestrial/brific/Pages/default.aspx>;
  - For BR IFIC subscribers , possibility to download the entire BR IFIC:  
<http://www.itu.int/pub/R-SP-LN.IT-2014>.



# Final Remarks

- Administrations are bound to apply the provisions of the Radio Regulations.
- Frequency assignments recorded in the MIFR with favourable findings allows for international recognition.
- The MIFR should reflect the exact use of the spectrum.
- The BR IFIC enables to keep trace of administration's notifications and also to follow what is being notified by the neighboring administrations.

*Thank you for  
your attention!*

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