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## **Terrestrial Services Department**

### **THE PLANNING PROCEDURE FOR HF BROADCASTING**

#### **ARTICLE 12 OF THE RADIO REGULATIONS**

##### **1 Introduction**

Article **12** of the Radio Regulations, entitled "*Seasonal Planning of the HF Bands Allocated to the Broadcasting Service Between 5 900 kHz and 26 100 kHz*" describes the planning procedure for HF broadcasting based on a coordination procedure between administrations. The procedure was adopted by the World Radiocommunication Conference 1997 (WRC-97).

The implementation of the procedure has been carried out in close consultation with Administrations, broadcasting organizations (referred to as broadcasters in Article **12**), frequency management organizations and particularly the regional HFBC coordination groups Arab States Broadcasting Union (ASBU), Asia-Pacific Broadcasting Union – High frequency Coordination (ABU-HFC) and High Frequency Coordination Conference (HFCC). This paper discusses the planning and coordination procedures.

##### **2 Frequency bands**

###### **2.1 Current allocation situation to the broadcasting service**

<b>Band</b>	<b>Frequency range [kHz]</b>
6	5 900-6 200
7	7 200-7 450 *
9	9 400-9 900
11	11 600-12 100
13	13 570-13 870
15	15 100-15 800
17	17 480-17 900
18	18 900-19 020
21	21 450-21 850
25	25 670-26 100

\* Regions 1 and 3 only.

### **3 Principles**

The Procedure is based on the principle of equal rights of all countries, large or small, to equitable access to the concerned bands (RR No. **12.2**).

All broadcasting requirements, national and international, are treated on an equal basis, without consideration of the difference between these two kinds of broadcasting requirements (RR No. **12.5**).

The Procedure attempts to ensure an efficient use of the spectrum and to provide a satisfactory quality of reception (RR No. **12.6**). Whenever is possible, only one frequency should be used.

### **4 Main features**

Administrations are encouraged to coordinate their schedules with other Administrations as far as possible prior to submission. Administration and broadcasters are urged to participate in the relevant regional coordination groups, and to achieve the coordination through bilateral or multilateral meetings (RR No. **12.10**).

An Administration may, on behalf of a group of Administrations, submit their coordinated schedules, or authorise broadcasters or other organisations to coordinate on its behalf (RR No. **12.30**).

### **5 Notification**

#### **5.1 Who can notify?**

Requirements must be notified by Administrations or organizations, such as broadcasters and frequency managers, who are authorized by the Administrations concerned to do so. In the latter case, Administrations must advise the Bureau in writing in advance stating the names of the authorized organizations, their three-letter code and the scope of the authorizations (RR No. **12.1**).

#### **5.2 How to notify?**

Notification of requirements will be in electronic format only. The notification file shall be in the commonly used text file format. The Bureau makes available computer software that can be used by Administrations to create files of HF requirements in the appropriate electronic format.

Requirements must be submitted via the **WISFAT** (<http://www.itu.int/ITU-R/go/wisfat>) web interface for submission of frequency assignments/allotments (terrestrial services) in accordance with Circular Letters [CR/297](#) and [CR/308](#).

When an Administration ceases its broadcasting service in the HF bands, it shall notify the Bureau of such a decision in writing (RR No. **12.28**).

#### **5.3 What to notify?**

The electronic format of the text file that must be used for notification and the description of data items are summarized in the [File format for submission of HFBC requirements](http://www.itu.int/en/ITU-R/terrestrial/broadcast/HFBC/Documents/File%20format-2015-E.pdf) - <http://www.itu.int/en/ITU-R/terrestrial/broadcast/HFBC/Documents/File%20format-2015-E.pdf>

In order to avoid possible confusion on the data elements such as transmitter site codes, antenna codes and organization codes, the Bureau maintains a number of reference tables that are updated and published with each CD-ROM and are also available for viewing and downloading from ITU's website.

For all amendments to the reference tables, Administrations concerned should advise the Bureau in writing (e-mail, fax or letter) including all the necessary information. For example when an Administration wishes to include a new antenna code, it should write to the Bureau and include the full description of the antenna system. The Bureau then assigns an appropriate code, advises the Administration concerned and publishes updated reference tables in the HFBC CD-ROM and its website: <http://www.itu.int/en/ITU-R/terrestrial/broadcast/HFBC/Pages/Reference.aspx>

The proposed common electronic format is similar to the format of requirement files that are currently used by existing coordination groups so that Administrations can continue, with some modifications, to utilize their developed software for internal purposes. The text file format was chosen in order to facilitate the preparation of requirement files using commonly available software such as Notepad, MSWord, etc.

In all cases, Administrations shall submit the whole schedule, not just the amended requirements.

This follows the current practice used in the ABU-HFC, ASBU, and HFCC coordination groups. By submitting the whole schedule, this minimizes the potential for errors, for example, modifying incorrect requirements because the targets are incorrectly identified.

In the case where requirements for a given season period are exactly those of the previous corresponding season, Administrations can advise the Bureau in writing of the fact without submitting the new schedule. This is to facilitate Administrations having regular broadcast requirements.

#### **5.4 When to notify?**

For each broadcasting season, the Bureau establishes and publishes, via circular letter and its website, the closing dates for receipt of the schedules relating to the current season. The closing dates are generally set at about two (2) weeks before the publication dates of HFBC CD-ROMs to allow inclusion of up-to-date data, while providing the Bureau with sufficient time to process and arrange publication of the schedules.

Generally Administrations should send their schedules to the Bureau ten (10) weeks before the start date of a given schedule period. Two weeks before the start date of a given schedule period Administrations can, if necessary, send amended full schedules.

During a given schedule period, Administrations should send any changes to their schedules to the Bureau as soon as possible.

It is important to note that, in order to allow for the time required by the Bureau to prepare for the publication of updates of the schedule and its corresponding compatibility analysis, any requirements or amendments received less than two (2) weeks before the publication date will not be included in the publication.

The above timing is consistent with Resolution **535 (WRC-97)**.

#### **5.5 What if no schedule is submitted?**

If an Administration does not submit its requirements for a new seasonal schedule, the Bureau shall use the requirements from the previous corresponding seasonal schedule for this Administration for the new schedule period. The Bureau will advise the Administration concerned of the action. These requirements will be identified accordingly in the published schedule (RR No. **12.26**).

If the same Administration does not indicate its requirements for the next corresponding seasonal period, the Bureau shall notify the Administration concerned that the schedule will not include its requirements unless the Administration advises otherwise (RR No. **12.27**).

## **6 Publication of the schedule and compatibility analysis**

### **6.1 How is the data published?**

The schedule and corresponding compatibility analysis are published on CD-ROM and sent by mail to regional coordination groups and registered subscribers.

### **6.2 What does the CD-ROM contain?**

The CD-ROM contains the following:

- Up-to-date broadcasting schedule of the current seasonal schedule together with detailed signal propagation and compatibility analysis;
- Propagation data to 911 test points for all requirements;
- Up-to-date reference tables;
- Latest version of ITU HFBC software that can be used to:
  - Prepare amendments to requirements and create file in appropriate electronic format for submitting to the Bureau;
  - Assess performance of requirements (basic and overall service reliability);
  - Select a suitable frequency band for a requirement; and
  - Carry out what-if studies to search for solutions to minimize interference between services.

### **6.3 When is the data published?**

Two Tentative Schedules are published two months and one month before the start of each of the two schedule periods (WRC-03).

At the start of each broadcasting season, the Bureau publishes the first schedule.

During the season updated versions of the schedule are published (two versions for season A and one version for season B).

One month after the end of the season the Bureau publishes the final schedule (RR No. **12.43**).

## **7 Coordination**

Coordination shall be achieved through bilateral and multilateral meetings of Administrations or broadcasters or other means such as telephone, facsimile, e-mail, etc., acceptable to the parties concerned (RR No. **12.36**).

Regional Coordination Groups shall identify themselves to the Bureau (RR No. **12.11**).

For additional information please contact the existing Regional Coordination Groups:

- Arab States Broadcasting Union (ASBU):  
<http://www.asbu.net>
- Asia-Pacific Broadcasting Union – High frequency Coordination (ABU-HFC):  
<http://www.abu.org.my/>
- High Frequency Coordination Conference (HFCC):  
<http://www.hfcc.org>

Administrations, broadcasters and authorized organizations are encouraged to participate in the relevant coordination groups.

The Bureau should convene, as appropriate, joint meetings of the representatives of all the regional coordination groups to develop strategies for further reduction of incompatibilities and to discuss related matters.

## **8 Assistance to Administrations**

### **8.1 Selection of frequencies**

Any requirement submitted without a frequency or with a number of (up to three) alternative frequencies or with a preferred operating frequency band will be considered as a request for assistance from the Bureau in selecting a suitable frequency. The Bureau will carry out studies to look for suitable frequencies and will advise the Administration concerned accordingly (RR No. **12.33**).

### **8.2 Application of the procedure**

Upon request and subject to its resources, the Bureau shall endeavour to assist Administrations, particularly the Administrations of developing countries, in the application of the procedure.

In particular circumstances, where an Administration can demonstrate that it does not have adequate resources to carry out an effective coordination with other Administrations, the Bureau shall consider appropriate measures including coordinating the Administration's broadcast requirements on their behalf.

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