



## **Terrestrial Services Department**

### **BROADCASTING ALLOTMENT PLAN RJ88**

#### **1 Introduction**

This document describes the procedures of the RJ88 Agreement, related to modifications to the Plan and notifications to the Master International Frequency Register (MIFR) (flowcharts are on <https://www.itu.int/en/ITU-R/terrestrial/broadcast/Pages/LFME.aspx>).

#### **2 General aspects of RJ88 Agreement**

Frequency band: 1 605-1 705 kHz

Planning area: Region 2

Plan Type: Allotment (frequency channels are allotted to a given allotment area)

The Regional Administrative Conference held in 1988 in Rio de Janeiro (Brazil) established the rules for the use of the band 1 605-1 705 kHz for the broadcasting service in Region 2, as defined in Radio Regulations (RR)<sup>1</sup>. These agreed rules as well as the original Plan are contained in the Final Acts<sup>2</sup> of the Conference.

The RJ88 Agreement in its Article 8 states that Annex 4 to the Agreement contains the allotment Plan in three parts: lists of allotments (Part A), maps showing the allotment areas (Part B) and technical criteria (Part C). Each allotment included in the Plan may be used for one or more assignments (1.13 of Article 1 of RJ88).

The RJ88 Agreement entered into force on 1 July 1990.

The main broadcasting standards of the RJ88 Plan are as follows:

Class of emission: A3E (others may be used on condition that the energy level outside the necessary bandwidth does not exceed that normally expected in A3E emission; agreed protection ratios allow operation with 20 kHz occupied bandwidth).

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<sup>1</sup> For a definition of Region 2, see the Radio Regulations available on the Publication section of the ITU website.

<sup>2</sup> The RJ88 Final Acts are available on <https://www.itu.int/en/ITU-R/terrestrial/broadcast/Pages/LFME.aspx>.

Carrier frequencies: 1 610, 1 620, 1 630, 1 640, 1 650, 1 660, 1 670, 1 680, 1 690 and 1 700 kHz.

Maximum power: 1 kW (for standardized parameters), 10 kW (not to be exceeded in any case).

The planning was based on allotting channels to allotment areas derived from standardized parameters and distances. However, the use of non-standardized parameters and/or non-allotted channels has also been made possible under defined conditions. Agreed protection ratios with respect to co-channel, first adjacent channel and second adjacent channel are 26, 0 and –29.5 dB, respectively.

The Table of Frequency Allocations of Article 5 of the RR allocates, in Region 2, the frequency band 1 605-1 625 kHz on primary basis to broadcasting and the frequency band 1 625-1 705 kHz on primary basis to broadcasting, fixed and mobile and on secondary basis to radiolocation. Notification and use of fixed and mobile services in this shared band must take into account allotments and assignments to broadcasting service (see point 3.3 below).

### **3 Regulatory procedures**

The procedures for modifying the Plan (Article 4) as well as the procedures for notifying to the MIFR (Article 5) were established on the basis of the application of technical data (Annex 1 to RJ88 Agreement) and limits to determine when the services of another administration are affected (Annex 2 to RJ88 Agreement). Resolution 3 of RJ88 Agreement requests the BR to evaluate the level of adjacent channel interference that may exist between assignments on channels 1 590, 1 600, 1 610 and 1 620 kHz (last two “highest” channels of RJ81 and two “lowest” channels of RJ88) and to communicate the results to the administration concerned.

#### **3.1 Modification to the Plan**

Article 4 of RJ88 Final Acts provides procedure for modification to this allotment Plan. The “modification” comprises addition of a new allotment (frequency channel in a given allotment area), change or deletion of an existing one as well as any modification of an allotment area.

Up to now, there was no request for modification to the allotment plan of the RJ88 Agreement. Therefore the up-to-date copy of the RJ88 Plan is that contained in Annex 4 of the Final Acts of RJ88 Agreement.

#### **3.2 Notification to the MIFR**

Article 5 of RJ88 Final Acts provides procedure for notification to the MIFR of frequency assignments stemming from the allotment plan. The “notification” comprises addition of a new station and modification or suppression of already recorded one. The format of the notification and the rules to follow are given in BR LF/MF Guidelines<sup>3</sup>.

To rapidly record an assignment in the MIFR it is recommended to use standardized parameters in a channel allocated to an allotment area for a given station location as no technical examination is required in this case.

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<sup>3</sup> See Submission of frequency assignments/allotments to stations of terrestrial services:  
[https://www.itu.int/en/ITU-R/terrestrial/tpr/Documents/LFMF/lmf\\_guidelines.pdf](https://www.itu.int/en/ITU-R/terrestrial/tpr/Documents/LFMF/lmf_guidelines.pdf)

### **3.3 Rules of Procedure**

Part A7 of the Rules of Procedure<sup>4</sup> provide clarifications with respect to the application of the RJ88 Agreement, especially regarding its Article 6 “Notification of Assignments to Stations of the Fixed and Mobile Services in the Band 1 625-1 705 kHz” and its Resolution 1: “Continued Operation of Services other than the Broadcasting Service in the Band 1 605-1 705 kHz”.

## **4 Introduction of digital sound broadcasting**

Two systems – Digital Radio Mondiale (DRM) and In-Band On-Channel Digital Sound broadcasting (IBOC DSB) – are recommended for digital sound broadcasting in the broadcast bands below 30 MHz by Recommendation ITU-R BS.1514<sup>5</sup> where they have been described and compared. Both systems may also be used for digital sound broadcasting up to about 120 MHz.

In Circular Letter CCRR/20<sup>6</sup>, the Radiocommunication Bureau concluded that the formulations in the RJ88 Agreement would permit the introduction of digital modulation DRM A3 or B3 and also perhaps that of IBOC DSB (either hybrid or full digital) subject to completion of the studies related to co-channel, first and second adjacent channel protection ratios and subject to further limitations at the band edges in order to be consistent with RR 4.5.

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<sup>4</sup> <https://www.itu.int/pub/R-REG-ROP/en>

<sup>5</sup> <https://www.itu.int/rec/R-REC-BS.1514/en>

<sup>6</sup> <https://www.itu.int/md/R00-CCRR-CIR-0020/en>