

ITUEvents

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Terrestrial Services: Regulatory Framework and Frequency Plans for Broadcasting



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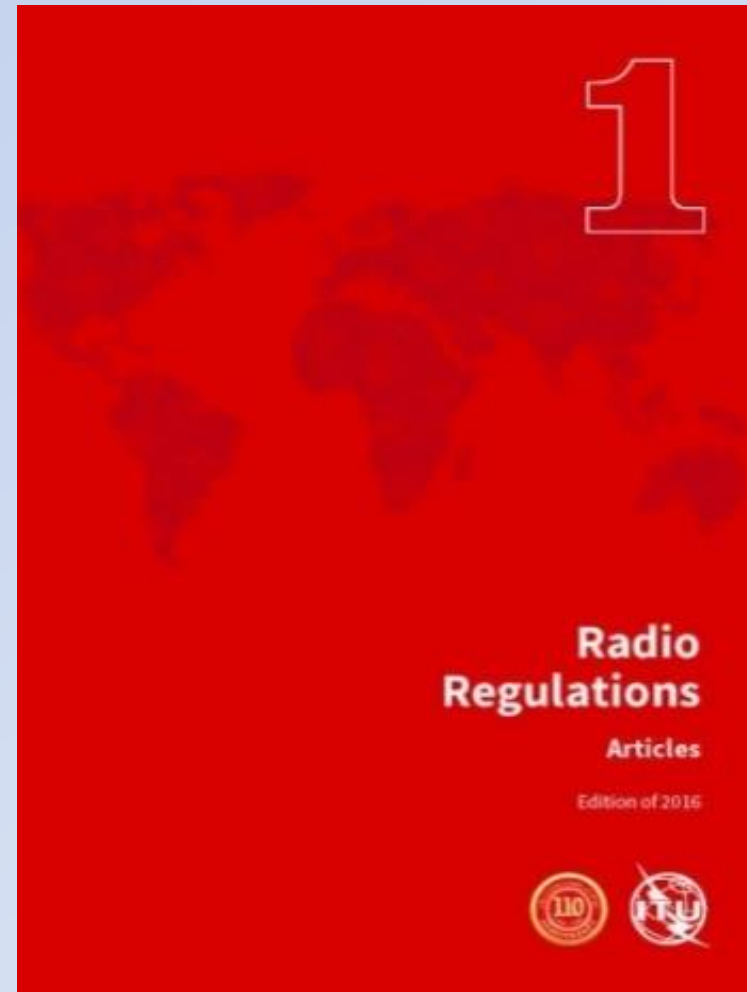
- Key concepts
- Broadcasting Plans
- HFBC
- Notification:
 - Plans
 - MIFR

Key Concepts

Terrestrial Services

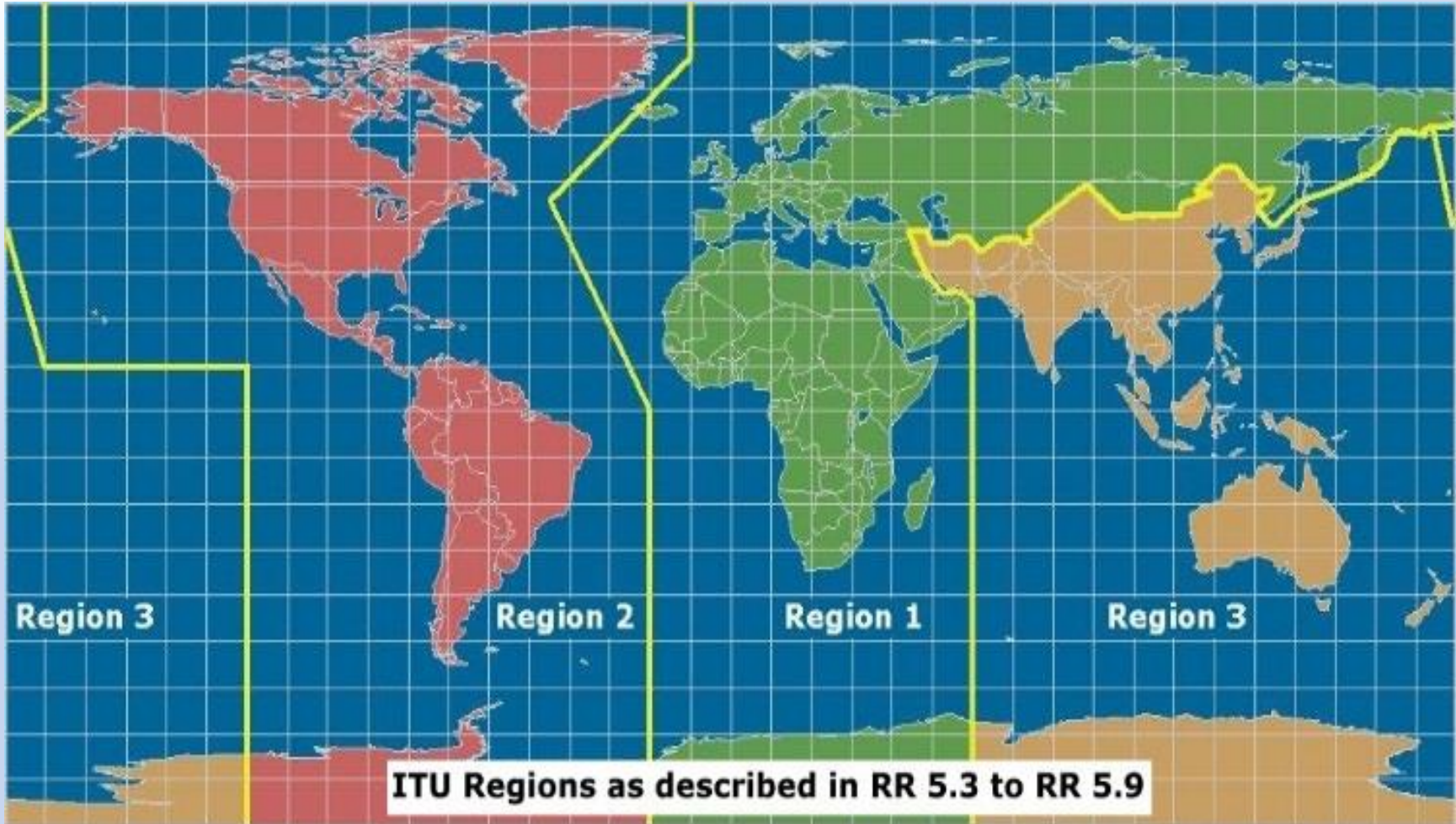


- **Terrestrial radiocommunication**
No. 1.7 of the Radio Regulations (RR): Any radiocommunication other than space radiocommunication or radio astronomy.
- **Terrestrial services:**
Broadcasting, fixed, mobile.
- **Fixed service**
No. 1.20 of the RR: A radiocommunication service between specified fixed points.
- **Mobile service**
No. 1.24 of the RR: A radiocommunication service between mobile and land stations, or between mobile stations
- **Broadcasting service**
No. 1.38 of the RR: A *radiocommunication service* in which the transmissions are intended for direct reception by the general public. This service may include sound transmissions, *television* transmissions or other types of transmission.



Key Concepts

ITU-R Regions



ITU Regions as described in RR 5.3 to RR 5.9

Key Concepts

Frequency Allocation versus Frequency Assignment



- **Frequency Allocation (Article 5 of the RR):**
Spectrum is divided in frequency bands which are **allocated** to specific services → only some bands of the spectrum can be used for the broadcasting service
- **Frequency Assignment:** Specific frequencies are **assigned** to specific stations (or geographical areas) complying with the Table of Frequency Allocations (Art. 5 of the RR)

Frequency Allocation ↔ Radio Regulations ↔ Services

Frequency Assignment ↔ National level ↔ Stations

Key Concepts

MIFR



- MIFR: Master International Frequency Register
- Global database with all the **stations in service** (contains over 2.800.000 space and terrestrial stations).
- Broadcasting stations: can be notified 3 months before they are put in service.
- The procedure for notifying to the MIFR is contained in Art. 11 of the RR.
- Stations recorded in the MIFR get international recognition.

Key concepts

BR IFIC



BR IFIC: BR International Frequency Information Circular

BR IFIC for terrestrial services:

- Published every 2 weeks
- Contains information about frequency assignments submitted by administrations for recording in the MIFR or Regional Plans



The BR IFIC is published every 2 weeks in DVD and online:

www.itu.int/en/itu-r/terrestrial/brific

Broadcasting Plan



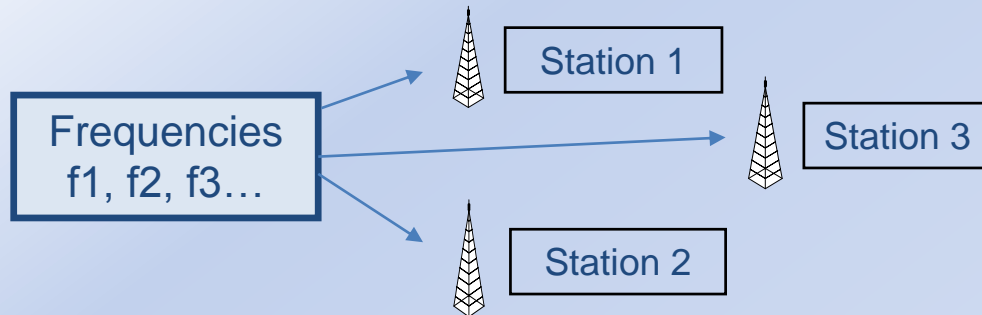
- **Agreement between Administrations** on the use of frequencies by the broadcasting stations in a specific region/area for specific services.
- **Must comply with Art. 5 of the RR** (Table of frequency Allocations)
- **Planned frequencies/stations** → “Planned” means that the stations do not have to be in operation to be included in the Plan

Objective: preserve rights and give an equitable access to the spectrum

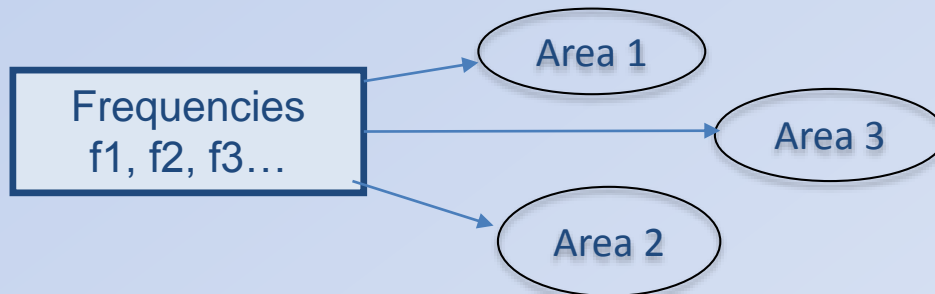
Types of Broadcasting Plans

- **Two types of Plans:**

- **Assignment Plan:** frequencies are assigned to stations



- **Allotment Plan:** frequencies are assigned to geographical areas



Keep in mind...



- Broadcasting Plan = **Planned** stations

- Master International Frequency register (MIFR)
= Stations **in service**

- When a station is concerned by a Regional Plan:
 1. Submit the station to the BR to be recorded in the Plan (Article 4 of the Plan)
 2. Once the station is brought into service, notify it to the BR to be recorded in the MIFR (Article 5 of the Plan)

The need for broadcasting plans...



Efficiency, because the spectrum is a limited resource and we have to make a well-planned use of it

Equity, because the use of spectrum should be fair and impartial allowing all people equal access to it.



Regional Broadcasting Plans

(concerning countries of Region 1)



Geneva 2006:

Sound and Television Broadcasting (174-230 / 470-862 MHz)
Region 1 (except Mongolia) and Iran



Geneva 1989 (revised in 2006):

Television Broadcasting (41-68 MHz / 230 - 238 MHz / 246-254 MHz)
African Broadcasting area



Geneva 1984:

Sound Broadcasting (87.5-108 MHz)
Region 1 and part of Region 3



Geneva 1975:

Sound Broadcasting
Region 1 (148.5-283.5 kHz), Regions 1 and 3 (526.5 - 1606.5 kHz)



Stockholm 1961 (revised in 2006):

Broadcasting (Sound and TV: 41-68 MHz; TV: 87.5-100 MHz / 162-174 MHz)
European Broadcasting area

Regional Broadcasting Plans



Band	Frequency (kHz/MHz)	BC/BT	Region Geo. zone	Plan
LF	148.5 – 283.5 kHz	BC	R1	GE75
MF	526.5 – 1606.5 kHz	BC	R1 and R3	GE75
	535 – 1605 kHz	BC	R2	RJ81
	1605 – 1705 kHz	BC	R2	RJ88
VHF /UHF	47 – 68 MHz	BC, BT	EBA	ST61
	47 – 68 MHz	BT	ABA	GE89
	66 – 68 MHz	BC	EBA	ST61
	87.5 – 100 MHz	BT	EBA	ST61
	87.5 – 108 MHz	BC	R1+IRN+AFG	GE84
	162 – 170 MHz	BT	MRC	ST61
	(170 MRC) 174 – 230 MHz	BC, BT	R1-MNG+IRN	GE06
	230-238, 246-254 MHz	BT	See RR 5.252	GE89
470 – 862 MHz	BT	R1-MNG+IRN	GE06	

BC- Sound Broadcasting
BT- Television Broadcasting

HFBC: High Frequency Broadcasting



- Sound Broadcasting

- Regulated worldwide by articles 5 and 12 of the RR:
 - **Article 5** : 5 900 - 26 100 kHz.
 - **Article 12**: Procedure for coordination, notification and publication of the seasonal planning



High Frequency Broadcasting bands allocated worldwide:

5900-6200 kHz; 7300-7400 kHz; 9400-9900 kHz; 11600-12100 kHz; 13570-13870 kHz; 15100-15800 kHz; 17480-17900 kHz; 18900-19020 kHz; 21450-21850 kHz; 25670-26100 kHz

Broadcasting Plans

Adoption and modification



Adoption of Broadcasting Plans in Regional Radiocommunication Conferences

Adopts technical
planning criteria

Adopts
modification
procedure

Adopts Agreements
containing frequency
Plans

Modifications to Broadcasting Plans (Article 4)

Add a new
assignment/allotment

Modify a recorded
assignment/allotment

Suppress a recorded
assignment/allotment

Broadcasting Plans Modification Procedure (Article 4)



Submission

An Administration submits to the BR some proposed modifications to the Plan

Publication in Part A (BR IFIC Special Section)

BR identifies potentially affected administrations and publishes (modifications + affected administrations) in the BRIFIC (Part A of the corresponding Special Section).

Coordination

Period to reach agreement between notifier and affected administrations.

Publication in Part B (BR IFIC Special Section)

If an agreement is reached with all affected administrations, BR publishes the modifications to the Plan in the BRIFIC (Part B of the corresponding Special Section) and the modifications are recorded into the Plan.

Master Register (Article 5)

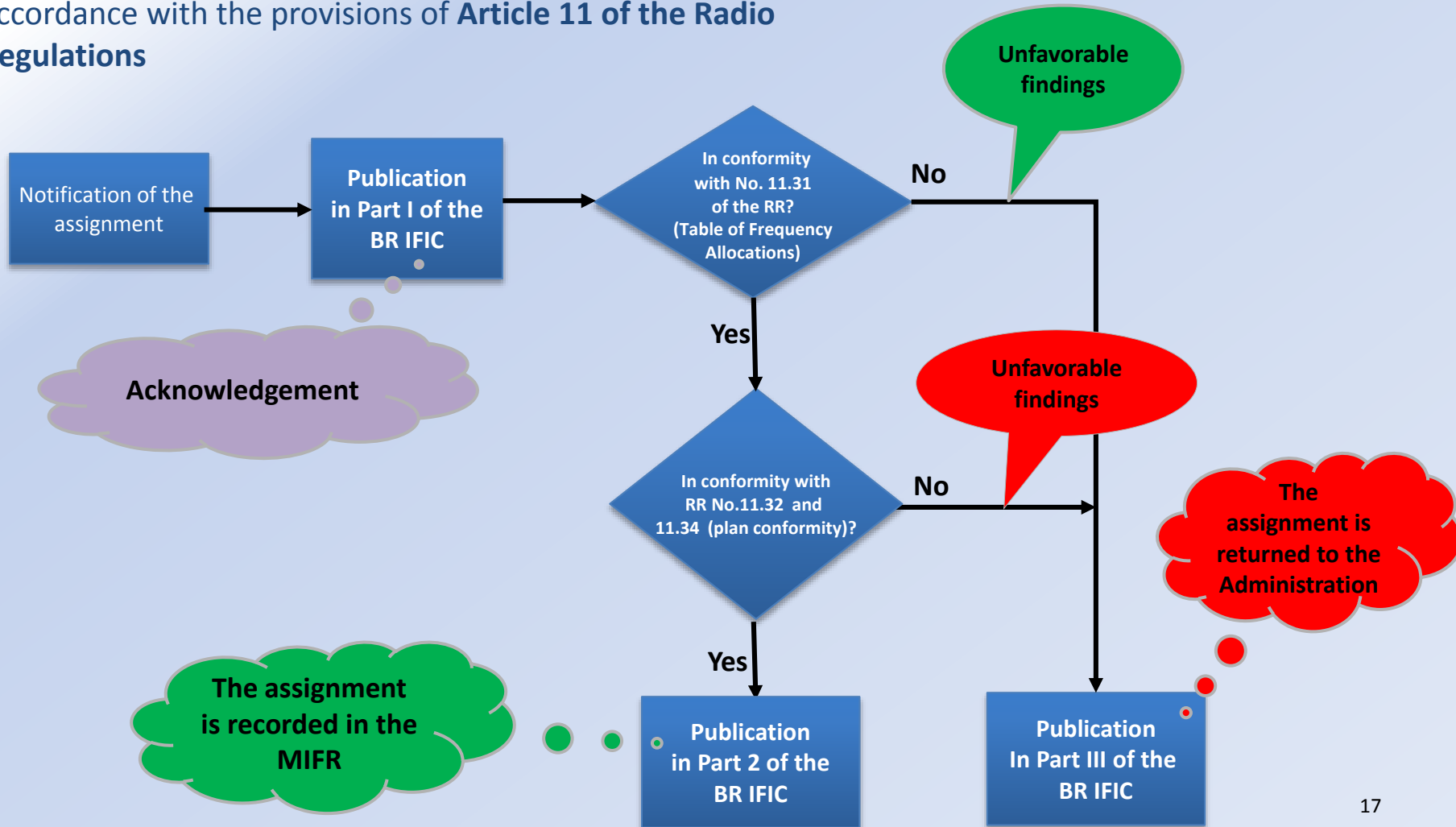
When putting the station in operation, the administration should notify the BR in order to include the station in the Master Register

Different Plans will have different deadlines for comments and different actions (agreement/disagreement) to be taken in case of no comment received from an affected administration

Notification to the Master Register for all Broadcasting Plans (Article 5)



When an administration wants to bring into use an assignment, it shall notify its characteristics to the BR in accordance with the provisions of **Article 11 of the Radio Regulations**





Thank you for your attention!

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