

Exercises on preparing frequency assignment notices to be notified to the BR (WRS-14)

Fixed and Mobile Service (FXM)

Introduction

The goal of these exercises is to familiarize with the most common notice types applicable for Fixed and Mobile services. For recording in the Master Register, the technical and administrative characteristics required by these notice types are based on Appendix 4 to the Radio Regulations.

The list of all available notice types is given in the Preface to the BR IFIC (see Chapter III, Section 2), which is a reference document associated with the BR IFIC containing the explanation of abbreviations, symbols and remarks used in the BR IFIC as well as for notification (for example, Class of station, Nature of service, Polarization, etc.). The Preface is available in the BR IFIC DVD and on the ITU website at http://www.itu.int/en/ITU-R/terrestrial/brific/BRIFIC/Preface/PREFACE_EN.pdf

In addition, the Bureau provides guidelines and examples of notice types on the ITU website at <http://www.itu.int/en/ITU-R/terrestrial/tpr/Pages/Notification.aspx>

A fixed or mobile frequency assignment is uniquely identified by the following data items:

- Assigned frequency
- Geographical coordinates (or area)
- Designation of emission (Necessary bandwidth and class of emission)
- Class of station
- Hours of operation

or by giving:

- the unique identification code of the assignment (t_adm_ref_id). This code is given and managed by the administration;

This means that these items must be unique.

FXM 01: Fixed service (point-to-point)

Prepare an electronic notice of frequency **15.13100 GHz** used for the operation of **fixed** link based on the information below, for its recording in the **Master Register**.

To prepare this notice we will use the “Wizard” functionality of TerRaNotices and we will select the administration of **Argentina (ARG)** as the notifying administration and “**FX**” for class of station

Class of Emission	D7W--
Bandwidth	28 MHz
Transmitting antenna site name	FLORENCIO VARELA
Coordinates of the transmitting antenna site	58°16'20"W - 34°48'22"S
Nature of service	Preface Chapter IV, Section 7
Date of bringing into use	Not earlier than 3 months
Address code	Preface Chapter IV, Section 3
Antenna	
Antenna directivity	Directional
Beamwidth	0.8°
Azimuth of maximum radiation	112°
Effective radiated power	31.2 dBW
Power delivered to the antenna	-11 dBW
Maximum Gain relative to a half wave dipole	42.2 dB
Name of the location of the receiving station	BERAZATEGUI
Coordinates of the receiving station	58°11'24"W - 34°50'00"S

FXM 02: Fixed service (Point-to-Multipoint) in shared bands

Prepare an electronic notice of frequency **18.15375 GHz**, which falls within the bands shared on equal basis with the space services, used for the operation of two **fixed** links based on the information below, for its recording in the **Master Register**.

The two links are originating from the same transmitting station associated with two antennas.

To prepare this notice we will use the “New File” functionality of TerRaNotices and the functionality to add many antennas to a single notice. We will select the administration of **France (F)** as the notifying administration.

As the assigned frequency falls within the bands shared on equal basis with space services, the following fields are mandatory: Altitude of site above sea level, Height of Antenna above ground level, Elevation angle and Polarization.

Class of Emission	G7WDT
Bandwidth	27.5 MHz
Transmitting antenna site name	St PAUL
Coordinates of the transmitting antenna site	6°39'48"E - 46°22'15"N
Altitude of site above sea level	1140 m
Nature of service	Preface Chapter IV, Section 7
Date of bringing into use	Not earlier than 3 years
Address code	Preface Chapter IV, Section 3
Antenna 1	
Height of the Antenna above ground level	21 m
Antenna directivity	Directional
Azimuth of maximum radiation	254°
Beamwidth	1.3°
Polarization	Horizontal
Elevation angle	-13°
Maximum antenna gain relative to isotropic antenna	43 dBi
Equivalent isotropically radiated power	32 dBW
Power delivered to the antenna	-11 dBW
Name of the location of the receiving station	ETANG
Coordinates of the receiving station	6°39'13"E - 46°22'8"N
Antenna 2	
Height of the Antenna above ground level	22 m
Antenna directivity	Directional
Azimuth of maximum radiation	136°
Beamwidth	1.3°
Polarization	Vertical
Elevation angle	3.2°
Maximum antenna gain relative to isotropic antenna	43 dBi
Equivalent isotropically radiated power	32 dBW
Power delivered to the antenna	-11 dBW
Name of the location of the receiving station	BERNEX
Coordinates of the receiving station	6°41'49"E - 46°20'49"N

FXM 03: Land mobile service (point-to-area/area-to-point)

1/ Prepare an electronic notice file of frequency **959.000 MHz** assigned to a **base station** having a circular receiving area of a radius of 10 km for the Administration of **Moldova MDA**, for its recording in the **Master Register**.

Bandwidth	200 kHz
Class of emission	G7W--
Transmitting antenna site name	ZADNI
Location of transmitting station	28°53'34"E - 47°02'29"N
Nature of service	Preface Chapter IV, Section 7
Date of bringing into use	Not earlier than 3 months
Address code	Preface Chapter IV, Section 3
Effective radiated power	30 dBW
Antenna directivity	Omnidirectional

2/Prepare an electronic notice file of frequency **914.000 MHz** assigned to the associated receiving **land mobile station** (handset) of the above base station, for its recording in the **Master Register**.

Bandwidth	200 kHz
Class of emission	G7W--
Name of the location of the receiving station	ZADNI
Coordinates of the receiving station	28°53'34"E - 47°02'29"N
Nature of service	Preface Chapter IV, Section 7
Date of bringing into use	Not earlier than 3 months
Address code	Preface Chapter IV, Section 3
Radius	10 km
Effective radiated power	3 dBW
Antenna directivity	Omnidirectional

To prepare these notices we will first use “New File” functionality of TerRaNotices and then we will use “Insert new notice”. This functionality enables to have more than one notice in a file.

FXM 04: Maritime mobile Service (point-to-area)

Prepare an electronic notice, for the recording in the Master Register of frequency **8120 kHz** assigned to a **coast station** open exclusively to correspondence of a private agency situated in **Netherlands (HOL)** having a circular receiving area of a radius of 300 km.

For coast stations, “Call sign” or “Station identification” is mandatory. Station identification can be composed of any printable character (max. 20). However, if Call sign is notified then it shall be in conformity with the provisions of Article 19 and Appendix 42.

To prepare this notice we will use “New File” functionality of TerRaNotices.

Reference (carrier) frequency	8118.6 kHz
Bandwidth	2.8 kHz
Class of emission	J3E--
Transmitting antenna site name	Zeewolde
Coordinates of the transmitting antenna site	5°27'20"E - 52°21'44"N
Station Identification	ZeewoldeFC01
Nature of service	Preface Chapter IV, Section 7
Date of bringing into use	Not earlier than 3 months
Address code	Preface Chapter IV, Section 3
Power delivered to the antenna	26 dBW
Antenna directivity	Omnidirectional

FXM 05: Typical transmitting station

Prepare an electronic notice, for the recording in the Master Register of frequency **959 MHz** used by **several base stations** in your country using the information below.

Frequency assignments having the same technical characteristics operating within a given area can be notified in a single notice as a typical transmitting station under (RR.11.17). This provision does not apply to all service types (see RR 11.18-11.21B)

To prepare this notice we will use the “Wizard” functionality of TerRaNotices.

Necessary Bandwidth	200 kHz
Class of emission	G7W--
Transmitting geographical area	Enter the country code to notify
Nature of service	Preface Chapter IV, Section 7
Date of bringing into use	Not earlier than 3 months
Address code	Preface Chapter IV, Section 3
Power to the antenna	10 dBW
Radiated Power	25 dBW

FXM 06: Modify a frequency assignment

Prepare an electronic notice to modify a frequency assignment which is already recorded in the **Master register**.

For this exercise, we will select the Administration of **Latvia (LVA)** as the notifying administration, and Unique identification code given by Administration **081ML2013** to modify the assigned frequency **407.15 MHz** to **409.250 MHz**

To prepare this notice we will use “Open a Notice from the database ” functionality of TerRaNotices.

FXM07: Validating and identifying errors of a Frequency assignment notice

Validate and identify the errors of the electronic notice file “FXM07_with error.txt”.

To Validate and identify errors of a notice file, we will use “Open file” and “Validate Notice” functionalities of TerRaNotices.