Terrestrial Workshop on the Preparation of Notices for Fixed and Mobile Services

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International Telecommunication Union

Overview of the Notification workshop on Fixed and Mobile Services

- General guidelines for Fixed and Mobile Services
- Reference documents for notification
- The main features of TerRaNotices
- Exercises

General guidelines on the notification process for Fixed and Mobile Services

- The notification process enables administrations to send, at any time, either new data or to modify the data submitted to the BR
  - The new notification will replace the previous one
  - The new notification shall be a complete notice with the relevant changes
  - The Bureau needs to uniquely identify each notice

General guidelines on the notification process for Fixed and Mobile Services

- Identifying elements for fixed or mobile notification
  - Frequency, geographical coordinates, class of station, Designation of emission and operating hours
  - Unique identification code given by the administration
- BR Assign ID and site name are NOT identifying elements but they could be notified in the remarks field, for information

General guidelines on the notification process for Fixed and Mobile Services

- Notifying a transmitting station with several links
  - All the transmitting links of that station shall be notified in the same notice as the transmitting station
  - Each link's associated receiving station shall be notified within the Antenna characteristics of its transmitter
- The same general principle applies to the case of a receiving station with mobile transmitter(s)

General guidelines on the notification process for Fixed and Mobile Services

- Call sign or station Identification is mandatory for:
  - Fixed service in the bands below 28 MHz
  - Safety services (aeronautical, maritime, etc.)
- Call Sign if provided shall be in conformity with the Article 19 of RR and Appendix 42 to RR
- Article 19 Section III – Formation of call sign for the different types of stations

General guidelines on the notification process for Fixed and Mobile Services

- Assigned frequencies that fall within the bands shared on an equal basis with space services:
  - The following data items are mandatory
    - Elevation angle
    - Antenna height
    - Altitude of site above sea level
    - Polarization
  - The radiated power and maximum antenna gain shall be notified in isotropical values

Reference documents for notification

- Guidelines and examples of different notice types

http://www.itu.int/ITU-R/go/terrestrial-notice/en

- Preface to the BR IFIC

http://www.itu.int/ITU-R/go/terrestrial-brific/en

- Radio Regulations and World and Regional Agreements

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The main features of TerRaNotices

- Create new notices
- Notice creation “Wizard”
- Open a notice from the database
- Validate an existing notice
- Options

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

- Prepare an electronic notice of frequency 153.6 MHz 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 “New Notice” functionality of TerRaNotices and we will select CLM as the notifying administration.

Class of Emission	G3E
Bandwidth	11 kHz
Transmitting antenna site name	BONDA
Coordinates of the transmitting antenna site	74° 07'10"W - 11° 14'01"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
Antenna	
Antenna directivity	Directional
Effective radiated power	16 dBW
Power delivered to the antenna	7 dBW
Maximum antenna gain	9 dB
Azimuth of maximum radiation	242
Beamwidth	36
Name of the location of the receiving station	GAIRA
Coordinates of the receiving station	74° 12'42"W - 11° 11'11"N

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

- Prepare an electronic notice of frequency 7.05000 GHz, which falls within the bands shared on equal basis with the space services, used for the operation of three fixed links based on the information below, for its recording in the Master Register.
- The three links are originating from the same transmitting station associated with three antennas.
- To prepare this notice we will use the “Wizard” functionality of TerRaNotices and the functionality of TerRaNotices to add many antennas to a single notice.
- 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
  - Polarization

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

Class of Emission	G7E		
Bandwidth	28 MHz		
Transmitting antenna site name	BUITRERA		
Coordinates of the transmitting antenna site	76° 12'49"W - 3° 30'23"N		
Altitude of site above sea level	1 224 m		
Date of bringing into use	Not earlier than 3 years		
	Antenna 1	Antenna 2	Antenna 3
Height of the Antenna above ground level	25 m	21	17 m
Antenna directivity	Directional	Directional	Directional
Azimuth of maximum radiation	295°	263°	283°
Beamwidth	1.6°	1.8°	1.8°
Polarization	Vertical	Vertical	Vertical
Elevation angle	-0.3°	-0.5°	-0.7°
Maximum antenna gain relative to isotropic antenna	36 dBi	34 dBi	34 dBi
Equivalent isotropical radiated power	31.2 dBW	27 dBW	27 dBW
Power delivered to the antenna	-4.8 dBW	-7 dBW	-7 dBW
Name of the location of the receiving station	ATUNZUELA	CALI	YUMBO
Coordinates of the receiving station	76° 42'18"W - 3° 44'22"N	76° 32'44"W - 3° 28'02"N	76° 29'35"W - 3° 34'17"N

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

1. Prepare an electronic notice file of frequency 157.6 MHz assigned to a Base station having a circular receiving area of a radius of 10 km, for its recording in the Master Register.

Bandwidth	**16 kHz**
Class of emission	**F3E**
Transmitting antenna site name	**BOGOTA**
Location of transmitting station	**74° 07'26"E - 4° 35'31"N**
Effective radiated power	**13 dBW**
Power delivered to the antenna	**11 dBW**
Maximum antenna gain	**2 dB**
Antenna directivity	**Omnidirectional**

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

2. Prepare an electronic notice file of frequency 157.825 MHz assigned to the associated Receiving Mobile station of the above Base station, for its recording in the Master Register.

Bandwidth	**16 kHz**
Class of emission	**F3E**
Name of the location of the receiving station	**BOGOTA**
Coordinates of the receiving station	**74° 07'26"E - 4° 35'31"N**
Effective radiated power	**13 dBW**
Power delivered to the antenna	**11 dBW**
Antenna directivity	**Omnidirectional**

To prepare these notices we will first use “New Notice” functionality of TerRaNotices with CME as the notifying administration and then we will use “Insert new notice” functionality of TerRaNotices. 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 217.9375 MHz assigned to a coast station open to public correspondence having a circular receiving area of a radius of 100 km.
- For coast stations, Call sign or Station identification is mandatory. Station identification can be composed of any printable characters (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 Notice” functionality of TerRaNotices and we will select CLM as the notifying administration.

Bandwidth	**16 kHz**
Class of emission	**G3E**
Transmitting antenna site name	**Santa Maria**
Coordinates of the transmitting antenna site	**74° 12'19"W - 11° 14'11"N**
Power delivered to the antenna	**17 dBW**
Effective radiated power	**17 dBW**
Call Sign	**5JL754**
Antenna directivity	**Omnidirectional**

FXM 05: Typical transmitting station

- Prepare an electronic notice, for the recording in the Master Register of frequency 935.8 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	**F3E**
Transmitting geographical area	**Enter the country code to notify**
Power to the antenna	**14.9 dBW**
Radiated Power	**14.9 dBW**

FXM 06: Fixed service (point-to-point) notice with errors

- Use TerRaNotices to validate the electronic notice file FXM06.txt and identify the errors and to correct the errors.

Thank you for your attention!