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

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 is identical to the Broadcasting service
  - 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 multiple fixed receiving stations
  - All the associated fixed receiving stations shall be notified in the same notice as the transmitting station within the Antenna characteristics of the transmitter
- 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 fixed 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
  - 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
- Calculate effective antenna heights (GE06 Agreement)
- Options

Exercises

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

  Prepare an electronic notice of frequency 4.93 GHz used for the operation of two fixed links based on the information below, for its recording in the Master Register.

Class of emission	**D7W--**
Bandwidth	**40MHz**
Transmitting antenna site name	**KHASSAB (OMA)**
Coordinates of the transmitting antenna site	**56° 13'58"E - 26° 09'29"N**
Altitude of site above sea level	**31 m**
Antenna 1	
Height of the Antenna above ground level	**10 m**
Azimuth of maximum radiation	**221.7°**
Elevation angle	**0.9°**
Maximum antenna gain	**36 dB**
Effective radiated power	**34.2 dBW**
Power to the antenna	**-1.0 dBW**
Beam width	**2.6°**
Polarization	**V**
Name of the location of the receiving station	**FINE PEAK**
Coordinates of the receiving station	**56° 10'30"E - 26° 05'59"N**
Antenna 2	
Height of the Antenna above ground level	**34 m**
Azimuth of maximum radiation	**129°**
Elevation angle	**0.3°**
Maximum antenna gain	**37 dB**
Effective radiated power	**35 dBW**
Power to the antenna	**0 dBW**
Beam width	**2.4°**
Polarization	**V**
Name of the location of the receiving station	**KHOR HAJD**
Coordinates of the receiving station	**56° 15'00"E - 26° 00'00"N**

Exercises

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

  Prepare an electronic notice file of frequency 6.0638 GHz, which falls within the bands shared on equal basis with the space services, used between to two fixed stations, for its recording in the Master Register.

Transmitting antenna site name	**VENDOME (F)**
Coordinates of the transmitting antenna site	**1° 03'05"E - 47° 48'49"N**
Necessary bandwidth	**29.6 MHz**
Class of emission	**G7W**
Altitude of site above sea level*	**133 m**
Height of the Antenna above ground level*	**43 m**
Azimuth of maximum radiation	**206.5°**
Elevation angle*	**0.1°**
Antenna gain	**38.7 dB**
Effective radiated power	**35.1 dBW**
Power to the antenna	**2 dBW**
Beam width	**1.9°**
Polarization	**V**
Name of the location of the receiving station	**MONNAIE (F)**
Coordinates of the receiving station	**0° 48'25"E - 47° 28'55"N**

* These fields are mandatory for shared bands

Exercises

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

1/ Prepare an electronic notice file of frequency 466.6 MHz assigned to a Base station having circular receiving area of a radius of 30 km, for its recording in the Master Register.

Bandwidth	**1.25MHz**
Class of emission	**G7W**
Transmitting antenna site name	**BUKH BUKHARA (UZB)**
Location of transmitting station	**64° 25'10"E - 39° 45'58"N**
Effective radiated power	**28 dBW**
Antenna directivity	**Omnidirectional**

2/ Prepare an electronic notice file of frequency 456.6 MHz assigned to the associated Mobile station of the above Base station, for its recording in the Master Register.

Bandwidth	**1.25MHz**
Class of emission	**G7W**
Name of the location of the receiving station	**BUKH BUKHARA (UZB)**
Coordinates of the receiving station	**64° 25'10"E - 39° 45'58"N**
Effective radiated power	**28 dBW**
Antenna directivity	**Omnidirectional**

Exercises

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

  Prepare an electronic notice file, for recording in the Master Register, a frequency of 8.15040 MHz assigned to a Coast station situated in Korea, having a circular receiving area of a radius of 500 km.

Bandwidth	**2.8 kHz**
Class of emission	**J3E**
Transmitting antenna site name	**JEJU GWANGPYEONG RI (KOR)**
Coordinates of the transmitting antenna site	**126° 22'30"E - 33° 19'00"N**
Height of the Antenna above ground level	**10 m**
Antenna gain	**0 dB**
Power to the antenna	**24 dBW**
Effective radiated power	**24 dBW**
Call Sign	**DSA90**
Antenna directivity	**Omnidirectional**

Exercises

- **FXM 05: Suppression of an assignment no longer in use**

  Prepare an electronic notice file to suppress from the Master Register the frequency 84.775MHz assigned to a Typical station belonging to Switzerland that is no longer in use.

Class of station of the target	**FB**
Bandwidth of the target	**16 kHz**
Emission class of the target	**F3E--**
Hours of operation of the target	**00:00 – 24:00**
Geographic area, or standard area to which the typical station is applicable	**SUI**

Exercises

- **FXM 06: Typical transmitting station**

  Prepare an electronic notice of frequency 506.456 MHz used by several fixed stations within a circular area of a radius of 30 km, using the information below, for the recording in the Master Register.

Assigned frequency	**506.456 MHz**
Necessary Bandwidth	**10 kHz**
Class of emission	**F2D**
Center of the circular area	**58°32'26"W - 34°42'03"S (ARG)**
Power to the antenna	**1.7 dBW**
Type of power	**Y**
Radiated Power	**3.1 dBW**

Exercises

- **FXM 07: Modification of the radiated power of a notice in process**

  Reduce the radiated power of the 2nd antenna by 2 dBW of the notice created in FXM 01.

Any questions?

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