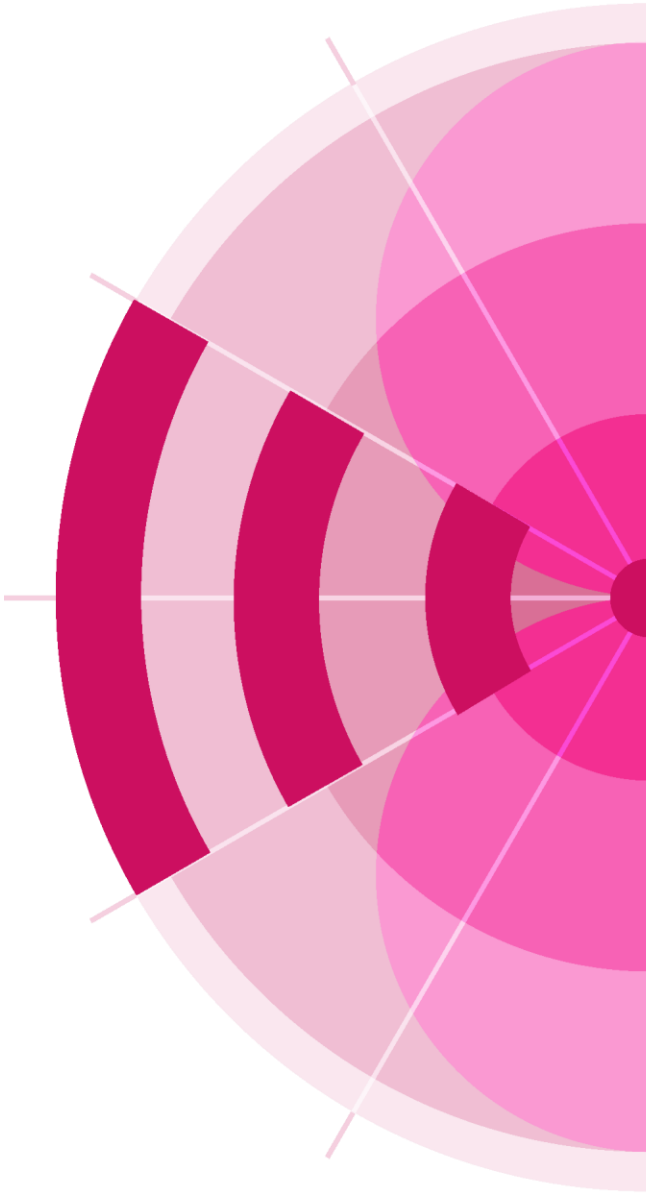
30TH WORLD RADIOCOMMUNICATION SEMINAR

24 – 28 October 2022
Geneva, Switzerland

Terrestrial Tutorial
Notification for Fixed and Mobile stations



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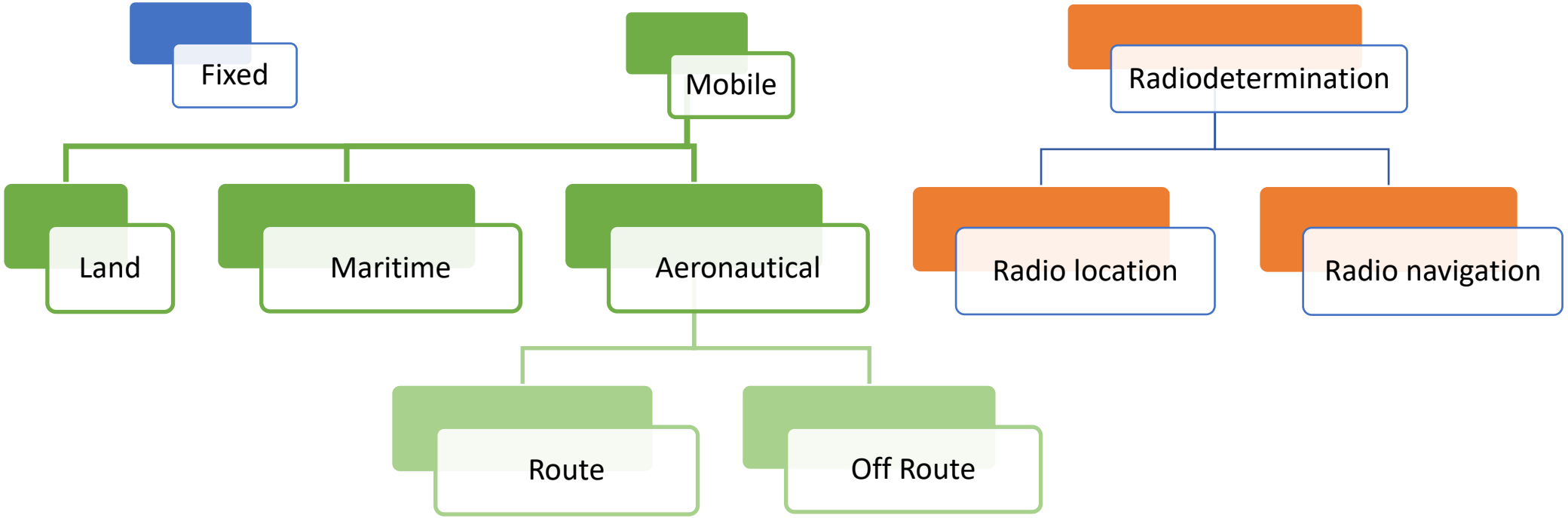
Services mainly notified



Notice type depends on the Class of Station

Notice type		Class of station
T11	Terrestrial Transmitting Station (TX) in Fixed Service	*Fixed:* FX
T12	Terrestrial Transmitting Station (TX)	*Mobile:* FA, FB, FC, FD, FG, FL, FP and OE *Radiodetermination:* LR, RN, NL and AL *Meteorological aids:* SM
T13	Terrestrial Receiving Land Station (RX)	*Mobile:* MA, ML, MO, MS and OD *Radiodetermination:* MR, NR, RM and AM *Meteorological aids:* SA
T14	Terrestrial Typical Transmitting Station (TX)	As for T11 and T12 notice type

Note: Description of Class of station can be found in the Preface to the BR IFIC, Chapter IV, Section 6

Creation and Validation of notices

- TerRaNotices
  - BR provides it with BRIFIC DVD
- eValidation

https://www.itu.int/ITU-R/eTerrestrial/Account/Login

Reference documents for notification

- Guidelines and examples of different notice types;

http://www.itu.int/en/ITU-R/terrestrial/tpr/Pages/Notification.aspx

- Preface to the BR IFIC;

https://www.itu.int/en/ITU-R/terrestrial/brific/Pages/default.aspx

- Radio Regulations

https://www.itu.int/pub/R-REG-RR/en

- Rules of Procedures

https://www.itu.int/pub/R-REG-ROP/en

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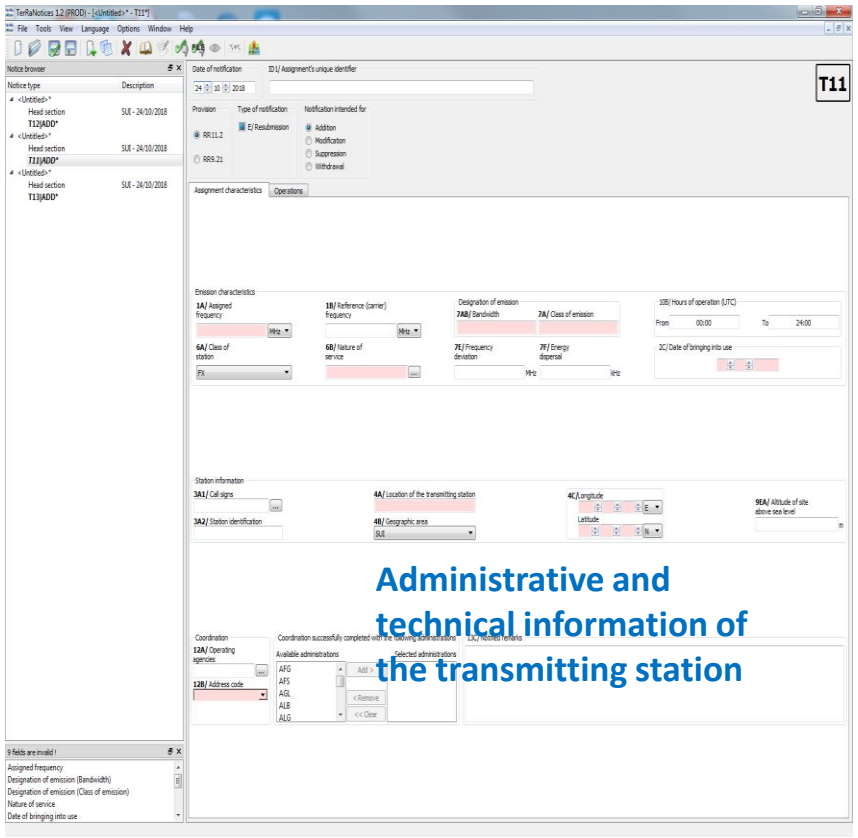
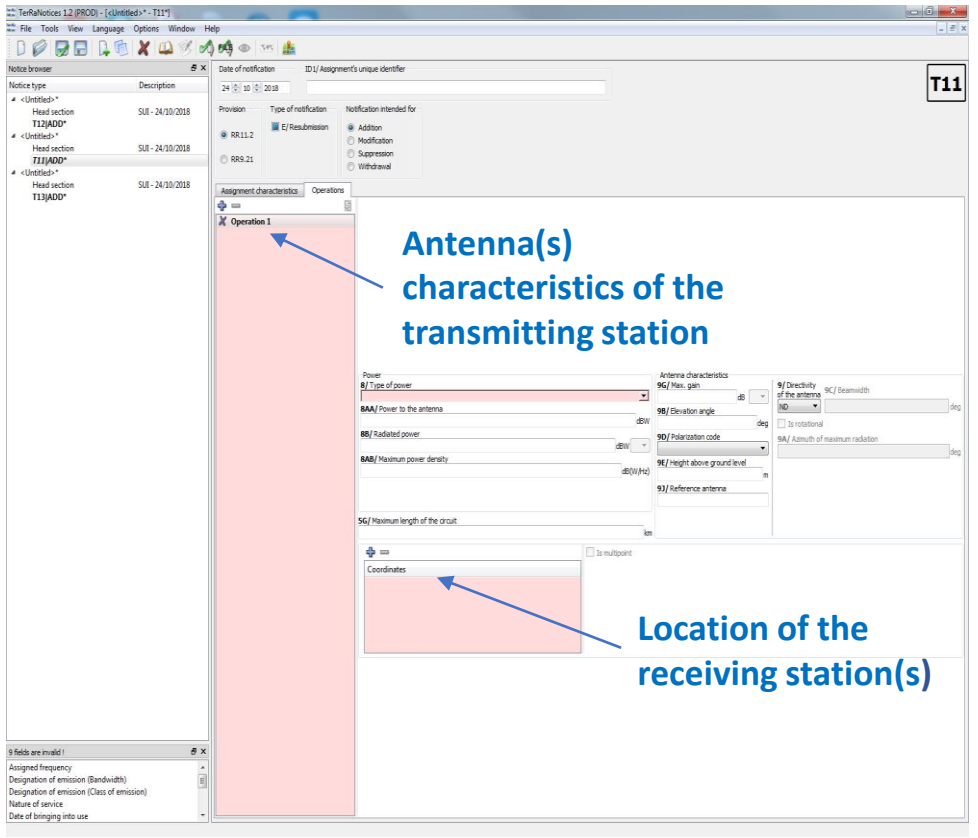
Notice Structure (1/2)

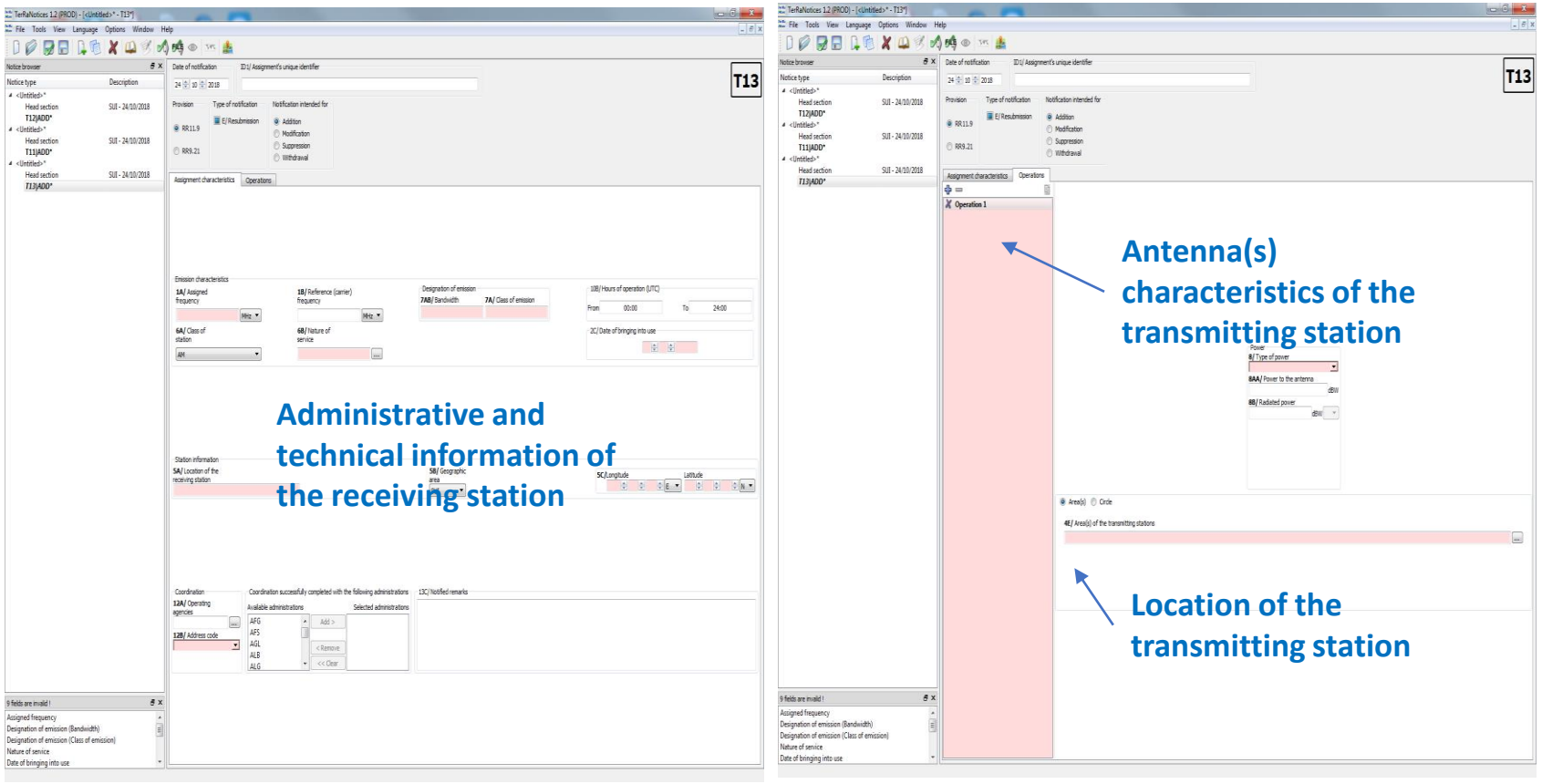
- Transmitting Stations (T11, T12, T14)





Notice structure (2/2)

- Receiving Station (T13)



Identifying items for Fixed and Mobile Stations

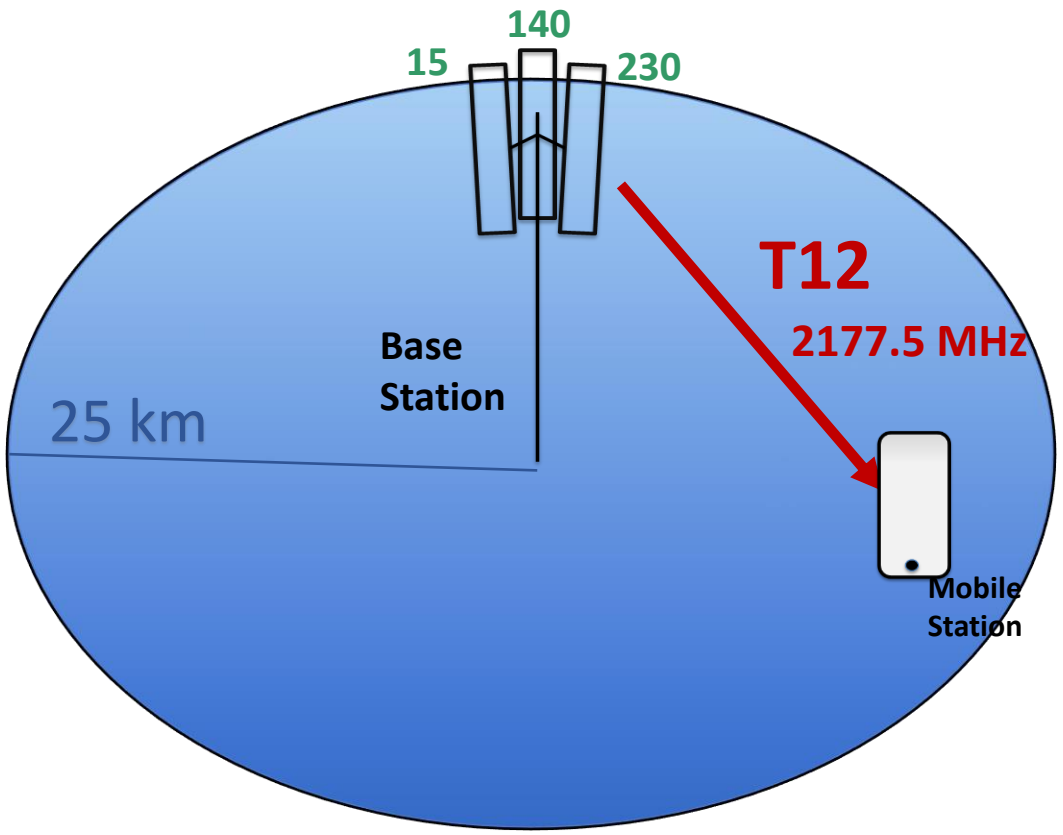
AP4	Description of a data item	Data item	Example
1A	**Assigned frequency**	**t_freq_assgn**	t_freq_assgn=4979.000000
4C	**Geographical Coordinates**	**t_long** **t_lat**	t_long=-0082524 t_lat=+425404
6A	**Class of station**	**t_stn_cls**	t_stn_cls=FX
7AB	**Bandwidth code**	**t_bdwdth_cde**	t_bdwdth_cde=28M0
7A	**Emission class**	**t_emi_cls**	t_emi_cls=D7W--
10B	**Hours of operation**	**t_op_hh_fr** **t_op_hh_to**	t_op_hh_fr=00:00 t_op_hh_to=24:00

and/or

AP4	Description of a data item	Data item	Example
ID1	**Unique Identification Code given by the administration**	**t_adm_ref_id**	t_adm_ref_id=FX-2021-01011

IMPORTANT: BR Assign ID and Site name are **NOT** identifying elements, but they could be notified in the remarks field as additional information, in case of modification, suppression and/or withdrawal

FXM01 : of Land mobile service



T12 Base Station

f = 2 177.5 MHz

3 antenna sections for each Azimuth:

- 15 degree
- 140 degree
- 230 degree

FXM 01 - Base Station for recording in the Master register using the Wizard

- **Notifying Administration (**B, t_adm**)** – *ITU symbol for adm :* F
- **Fragment (**t_fragment**) :** Update of the Master Register
- **Action (**t_action**)** – *The action to be taken for this notice: ADD, MODIFY, WITHDRAW or SUPPRESSION :* ADD
- **Class of Station (**6A, t_stn_cls**)** – *Identify the type of service (Chapter IV, Section 6 of the Preface) :* FB
- **Station Type** – *Transmitting station or Typical Station :* Transmitting station
- **Assigned Frequency (**1A, t_freq_assgn**)** – *The transmitting frequency - Must be allocated to Mobile Service :* 2177.5 MHz
- **Notice type (**t_notice_type**)** – *automatically selected :*T12
- **Provision (**D, t_prov**)** – *automatically selected :* RR11.2
- **Unique Identification Code given by ADM (**ID1, t_adm_ref_id**)** – *Optional. When is notified it must be* ***unique*** :FB-01
- **Necessary bandwidth (**7AB, t_bdwdth_cde**)** – *Width of the frequency band necessary to transmit the information. (Appendix 1, Section I of RR) :* 15M0
- **Class of emission (**7A, t_emi_cls**)** – *The set of characteristics of an emission (Appendix 1, Section II A of RR) :* G7W—
- **Nature of service (**6B, t_nat_srv**)** – *indicate the type of service (Chapter IV, Section 7 of the Preface) :* CP - Public correspondence
- **Date of bringing into use (**2C, t_d_inuse**)** – *Exact date or foreseen date when the frequency assignment is brought into use. There are some limitation specified in RR11.24 – 11.25* : Max. 3 years in advance – SB
- **Name of the site where the transmitter is located (**4A, t_site_name**)** – *name of locality or name under which the station is known to responsible organization* : Le Mans
- **Geographical area (**4B, t_ctry**)** – *Must be within the jurisdiction of the notifying administration (Res.1) : Automatically filled based on the notifying administration :* F
- **Geo. coordinates of the transmitter (**4C, t_long, t_lat**)** : 0° 08‘14“E - 48° 01‘10"N
- **Altitude of site above sea level (**9E, t_site_alt**)** - *Mandatory for SB :* 137 m
- **Address Code (**12B, t_addr_code**)** – *Contact details of the responsible organ in case there are any issues with the assignment (Chapter IV, Section 3 of the preface) :* A

FXM 01 : Base Station : Antenna 1 details

- **Type of the power according RR 1.156 – 1.159 (**8, t_pwr_xyz**)** – depends on the *class of emission (Chapter IV, Section 8) :* Y (mean power)
- **Equivalent isotropically radiated power and type** (8B, t_pwr_dbw and t_pwr_eiv**)** – *The type of radiated power in one of the forms described in Nos. 1.161 – 1.163 of the RR (e.i.r.p. - equivalent isotropically, e.r.p. - effective or e.m.r.p. - effective monopole).:* 31.4 dBW, I
- **Maximum Antenna Gain relative to isotropic antenna and type (**9G, t_gain_max and t_gain_type**)** – *Mandatory, if the antenna is directional. For non-directional antenna, this data item is mandatory in the bands above 28 MHz if the radiated power is not notified.* 13.8 dB, I
- **Height of antenna above ground level (**9E, t_hgt_agl**)** – *Mandatory for SB :* 56 m
- **Elevation angle (**9B, t_ elev**)** – *Mandatory for SB :* 15°
- **Antenna direction (**9, t_ant_dir**) :** D
- **Beamwidth (**9C, t_bmwdth**)** – *Mandatory for directional antennas:* 62°
- **Azimuth of maximum radiation (**9A, t_azm_max_e**)** – *The value is in degrees from True North for directional antennas* 15°

Receiving site details of the Antenna 1

- **Type of geographical area describing the location of the receiving area :** Circle
- **Geographical Coordinates of the center of the receiving area**(5E - t_long and t_lat) – *geographical area where the receiving site is situated :* 0° 08‘14“E - 48° 1‘10"N
- **Radius of the circular receiving area** (5F - t_radius) *in km, radius in which mobile transmitting stations associated with a receiving land station.:* 25 km

FXM 01 : Base station : Antenna 2 and its Receiving site details

As all the antenna characteristics are the same except for the Azimuth of the maximum radiation, we will use the "**Duplicate Operation**" functionality of TerRaNotices

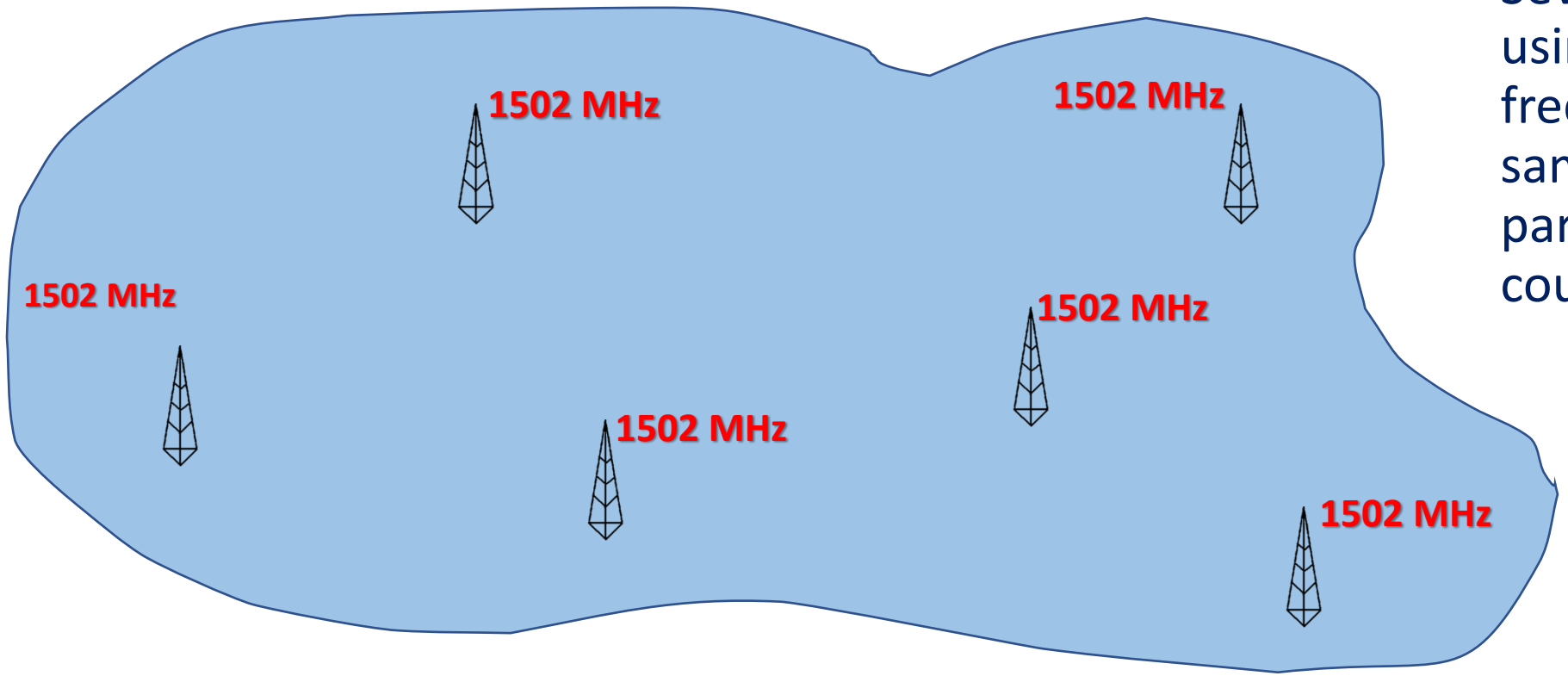
8B	Equivalent isotropically radiated power and type	31.4 dBW, I
9G	Maximum Antenna Gain relative to isotropic antenna and type	13.8 dB, I
9E	Height of antenna above ground level	56 m
9B	Elevation angle	15°
9	Antenna directivity	Directional
9C	Beamwidth	62°
9A	Azimuth of maximum radiation	140°
	Receiving site details of the Antenna 2	
	Type of geographical area describing the location of the receiving area	Circle
5B	Coordinates of the receiving station	0°08‘14“E - 48°01‘10"N
5F	Radius of the circular receiving area	25 km

FXM 01 : Base station : Antenna 3 and its Receiving site details

As all the antenna characteristics are the same except for the Azimuth of the maximum radiation, we will use the "**Duplicate Operation**" functionality of TerRaNotices

8B	**Equivalent isotropically radiated power and type**	**31.4 dBW, I**
9G	**Maximum Antenna Gain relative to isotropic antenna and type**	**13.8 dB, I**
9E	**Height of antenna above ground level**	**56 m**
9B	**Elevation angle**	**15°**
9	**Antenna directivity**	**Directional**
9C	**Beamwidth**	**62°**
9A	**Azimuth of maximum radiation**	**230°**
	Receiving site details of the Antenna 3	
	Type of geographical area describing the location of the receiving area	**Circle**
5B	**Coordinates of the receiving station**	**0°08‘14“E - 48°01‘10"N**
5F	**Radius of the circular receiving area**	**25 km**

FXM 02: Typical transmitting station (RR11.17)



Several base stations using the same frequency and the same technical parameters in your country

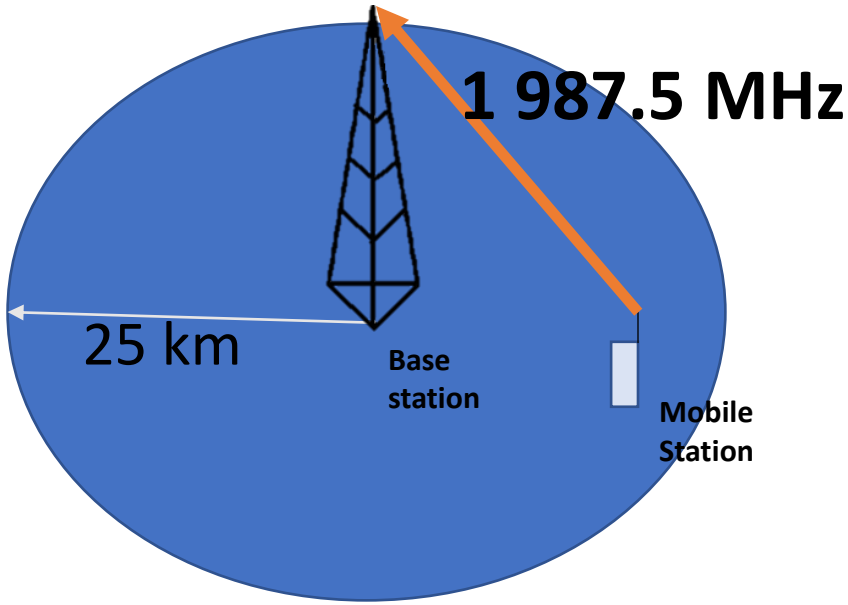
FXM 02: Typical transmitting station (RR11.17)

Prepare an electronic notice, for the recording in the Master Register, of frequency **1502 MHz** used by **several base stations (FB)** in your country using the information below.
**This provision does not apply to all service types (see RR 11.18-11.21B)*

ID1	**Unique Identification Code given by ADM**	**FB_T14**
6B	**Nature of service**	**“Public correspondence”**
7AB	**Necessary Bandwidth**	**20 MHz**
7A	**Class of emission**	**G7W--**
2C	**Date of bringing into use**	**Max. 3 months in advance**
	Type of geographical area describing the location of the typical station	**Zone**
4E	**Transmitting geographical area**	**Enter your country code**
8	**Type of Power**	**Y**
	Power to the Antenna	**18 dBW**
8B	**Effective radiated power**	**30 dBW, E**
12B	**Address code**	**Preface Chapter IV, Section 3**

FXM 03: Receiving Land mobile station (area-to-point)

The link from mobile station to land station



FXM 03: Receiving Land mobile station (area-to-point)

Prepare an electronic notice file of frequency **1 987.5 MHz** assigned to a **receiving Land mobile station (ML)** for the Administration of **France** (**F**) for its recording in the **Master Register**.

ID1	**Unique Identification Code given by ADM**	**ML_T13**
6B	**Nature of service**	**“Public correspondence ”**
7AB	**Bandwidth**	**15 MHz**
7A	**Class of emission**	**G7W--**
2C	**Date of bringing into use**	**Max. 3 years in advance**
5A	**Name of the location of the receiving station**	**Le Mans**
5C	**Coordinates of the receiving station**	**0°08’14“E - 48°01’10"N**
12B	**Address code**	**Preface Chapter IV, Section 3**
	Transmitting Antenna details	
8B	**Equivalent isotropically radiated power and type**	**-2 dBW I**
8AA	**Power to the antenna**	**-2 dBW**
	Transmitting site details of the Antenna	
	Type of geographical area describing the location of the receiving area	**Circle**
4D	**Radius**	**25 km**

FXM 04: Modify a frequency assignment

Prepare an electronic notice to modify a frequency assignment which is already recorded in the Master register.
To prepare this notice we will use "**Open a Notice from the database** " functionality of TerRaNotices.

- Notifying Administration – Egypt (**EGY**)
- Unique identification code – **FX-MW-G-4**
- Modify the assigned frequency **12.848 GHz** to **12.876 GHz**

FXM 05: SUPPRESS a frequency assignment

Prepare an electronic notice to suppress a frequency assignment which is already recorded in the Master register.
To prepare this notice we will use Tools "**Generate Suppressions/Withdrawal notices**" functionality of TerRaNotices.

- Notifying Administration – New Zealand (**NZL**)
- Unique identification code – **209700**

FXM 06: Fixed station

Prepare an electronic notice file of **frequency 2400 MHz** assigned to a **fixed station (FX)** for the Administration of **Spain (E)** for its **recording in the Master Register**

ID1	**Unique Identification Code given by ADM**	**FX-T11**
6B	**Nature of service**	**“Exclusively to correspondence of private agency” - CV**
7AB	**Necessary Bandwidth**	**50 MHz**
7A	**Class of emission**	**G7D--**
2C	**Date of bringing into use**	**Max. 3 months in advance**
4A	**Name of the location of the transmitting station**	**GANGUREN**
4C	**Coordinates of the transmitting station**	**2°51’59“W - 43°15’36"N**
12B	**Address code**	**Preface Chapter IV, Section 3**

FXM 06: Fixed station : Antenna and receiving site details

8B	Effective radiated power	41 dBW, E
9G	Maximum Gain relative to a half wave dipole	28 dB, D
8A	Power to the Antenna	13 dBW
9	Antenna directivity	Directional
9A	Azimuth of maximum radiation	336°
9C	Beamwidth	3°
	Receiving site details of the Antenna	
	Type of geographical area describing the location of the receiving area	Point
5A	Name of the location of the receiving station	PARKE
5B	Coordinates of the receiving station	2°53’7“W - 43°17’35"N

FXM 07 : Coast station in the Maritime mobile Service (point-to-area)

Prepare an electronic notice, for the recording in the **Master Register**, of a frequency **156.45 MHz** assigned to a **coast station (FC)** open to exclusively to correspondence of a private agency situated in **France** (**F**) within a circular receiving area of a **radius of 2 km.**

6A	**Class of station**	**FC**
6B	**Nature of service**	**CV**
7AB	**Bandwidth**	**16K0**
7A	**Class of emission**	**G3E**
2C	**Date of bringing into use**	**Max. 3 months in advance**
3A	**Station Identification (Mandatory for coast station)**	**123456**
4A	**Transmitting antenna site name**	**FRONTIGNAN**
4C	**Coordinates of the transmitting antenna site**	**3°46'31"E - 43°26‘06"N**
12B	**Address code**	**Preface Chapter IV, Section 3**

FXM 07 : Coast station Antenna and receiving site details

8B	Effective radiated power	3 dBW
9G	Maximum Gain relative to a half wave dipole	0 dB
8A	Power to the Antenna	3
9	Antenna directivity	Non-Directional
Receiving site details of the Antenna		
	Type of geographical area describing the location of the receiving area	Circle
5B	Coordinates of the receiving station	3°46'31"E - 43°26‘06"N
5F	Radius of circular receiving area	2 km

Validating a file with using eValidation tool

https://www.itu.int/ITU-R/eTerrestrial/Account/Login

If you don't have an ITU login yet, please use the following credential for this exercise:
Username: wrsterre/ **Password** RRS2021

Submit the validated file using WISFAT

https://www.itu.int/en/ITU-R/terrestrial/tpr/Pages/Submission.aspx

Only registered users can login therefore please user the following credentials
Username: wrsterre **Password** RRS2021

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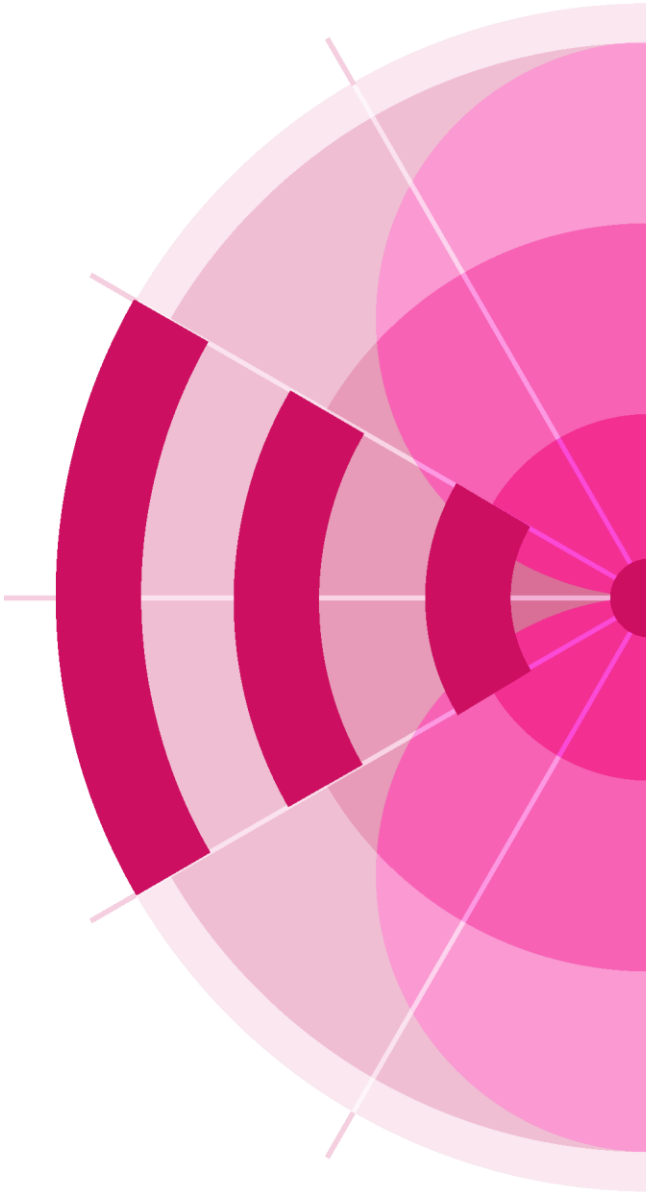
Thank you!

ITU – Radiocommunication Bureau

Questions to brtpr@itu.int or sujiva.pinnagoda@itu.int



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