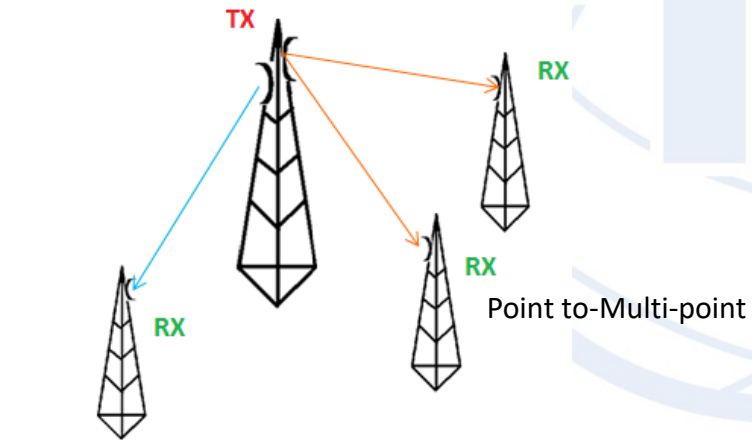
Terrestrial Workshop
Notification for
Fixed and Mobile : Exercises

Services (1/2)

Fixed service:

*a radiocommunication service between **specified fixed** points RR1.20*



Examples of notification received:

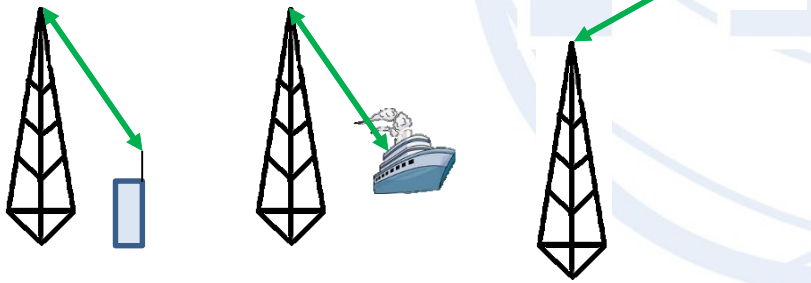
- Radio relay
- Fixed wireless

Services (2/2)

Mobile service:

a radiocommunication service between mobile and land stations, or between mobile stations RR1.24

Examples of types of notification received:

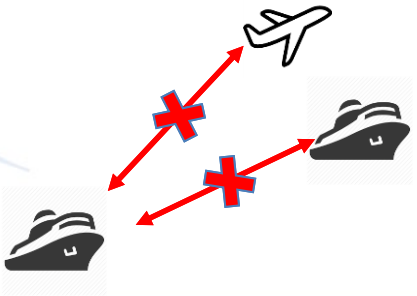


Land mobile

Maritime mobile

Aeronautical mobile

Shall not be notified in accordance with RR 11.13 and RR 11.14



General guidelines on the notification process (1/2)

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

General guidelines on the notification process (2/2)

Creation and Validation of notices

- TerRaNotices

  BR provides it with BRIFIC DVD

- Online Validation

http://www.itu.int/ITU-R/terrestrial/OnlineValidation/Login.aspx

Reference documents for notification

- Guidelines and examples of different notice types;

  [redacted]

- Preface to the BR IFIC;

  [redacted]

- Radio Regulations

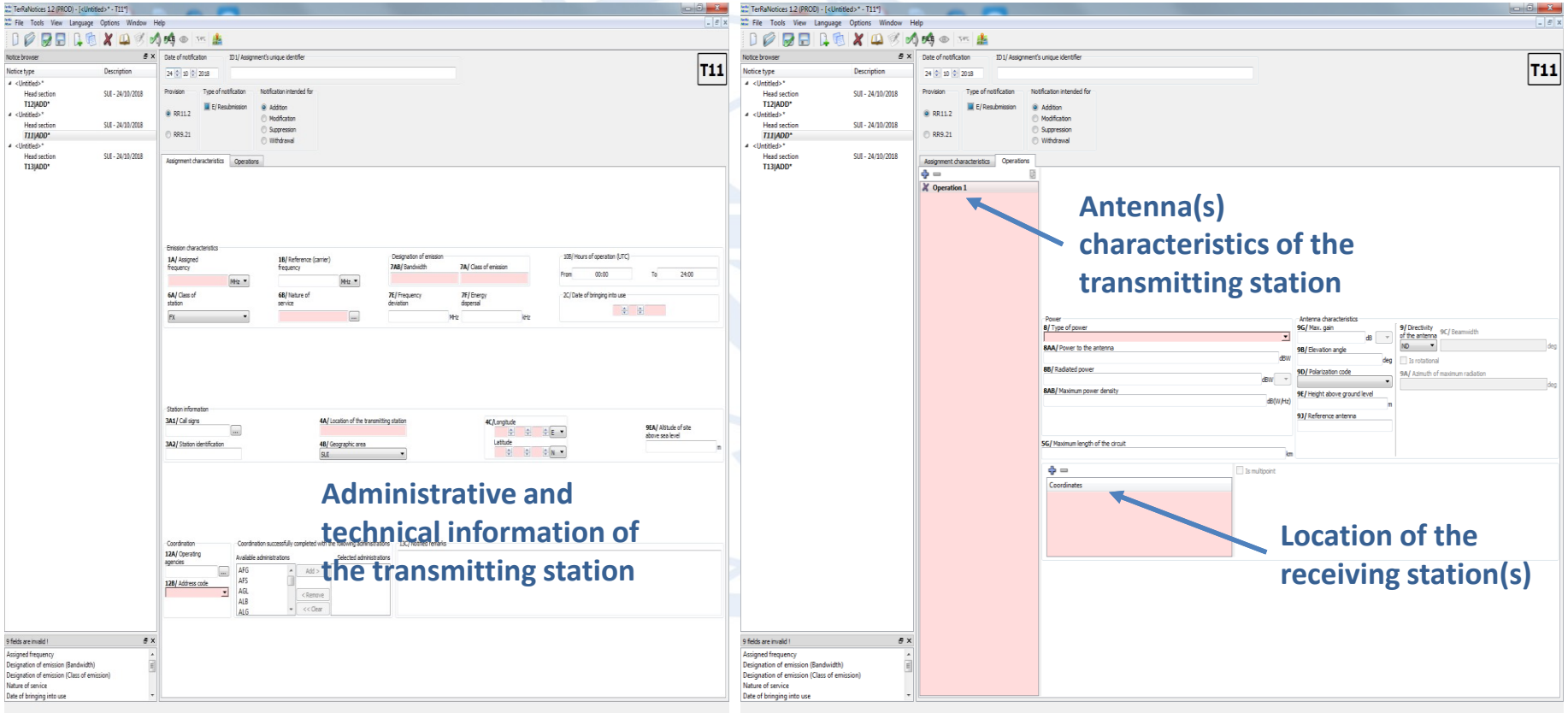
  [redacted]

- Rules of Procedures

  [redacted]

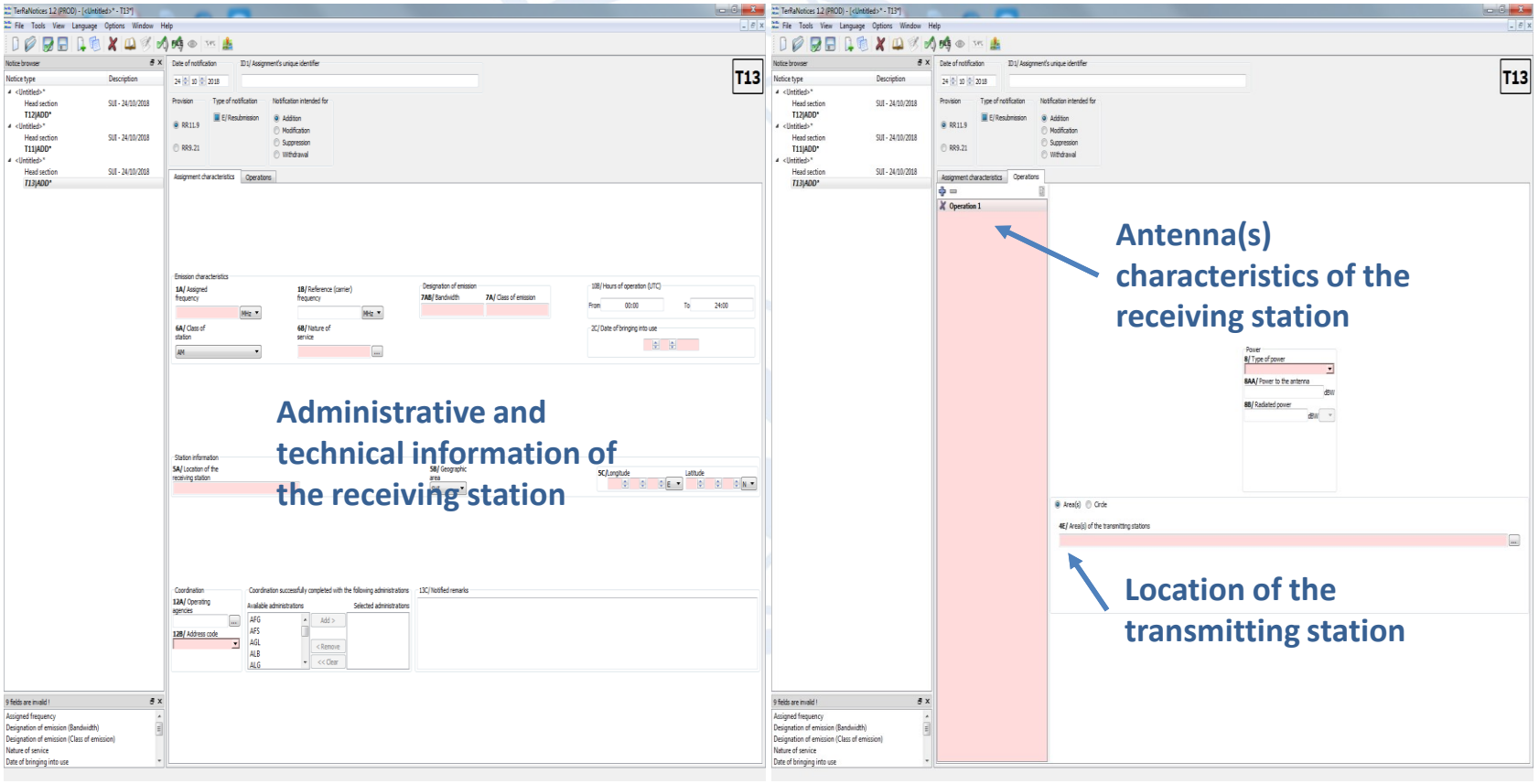
Notice Structure (1/2)

- Transmitting Stations (T11, T12, T14)



Notice structure (2/2)

- Receiving Station (T13)



Identifying items for *Fixed and Mobile Stations*

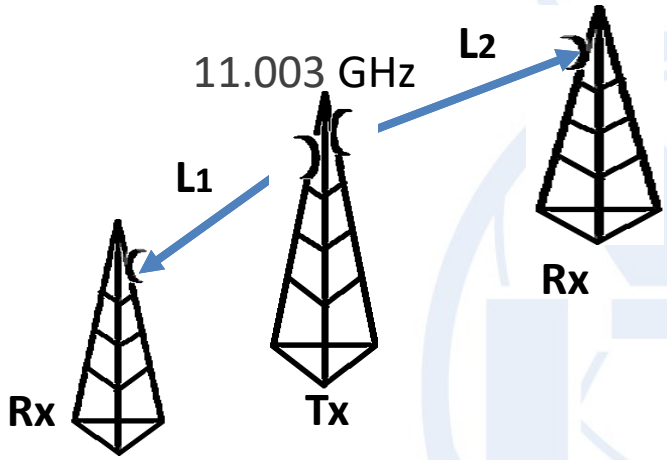
AP4	Description of a data item	Data item	Example
1A	**Assigned frequency**	**t_freq_assgn**	t_freq_assgn=4979.000000
4C	**Geographical Coordinates**	**t_long** **t_lat**	t_long=-0082524 t_lat=+425404
6A	**Class of station**	**t_stn_cls**	t_stn_cls=FX
7AB	**Bandwidth code**	**t_bdwdth_cde**	t_bdwdth_cde=28M0
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-2019-01011

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

Example of Fixed station : point-to-multipoint



- L1 and L2 are originating from the same transmitter with identical technical characteristics (identifying elements are the same).
- This network configuration must be notified in ONE notice
- The assigned frequency **falls within the bands shared on equal basis with space services**

Example of Fixed station : Transmitting station details

- **Notice type** (t_notice_type) – *depends on class of station* → T11
- **Notifying Administration** (B, t_adm) – *ITU symbol for adm* → UGA
- **Action** (t_action) – *The action to be taken for this notice: ADD, MODIFY, WITHDRAW or SUPPRESSION* → ADD
- **Provision** (D, t_prov) determines the **Fragment** (t_fragment) – *For recording in Master Register (RR11.2) and for seeking agreement (RR9.21)* → RR11.2
- **Assigned Frequency** (1A, t_freq_assgn) – *The transmitting frequency - Must be allocated to Fixe Service* → 11.003 GHz
- **Necessary bandwidth** (7AB, t_bdwdth_cde) – *Width of the frequency band necessary to transmit the information. (Appendix 1, Section I of RR)* → 28M0
- **Class of emission** (7A, t_emi_cls) – *The set of characteristics of an emission (Appendix 1, Section II A of RR)* → D7W—
- **Class of Station** (6A, t_stn_cls) – *identify the type of service (Chapter IV, Section 6 of the Preface)* → FX

Example of Fixed station : Transmitting station details

- **Nature of service** (6B, t_nat_srv) – *indicate the type of service (Chapter IV, Section 7 of the Preface)*
  - Public correspondence – CP
- **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 – 11.26A*
  - In this case, Max. 3 year before
- **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*
  - KAMPALA
- **Geographical area** (4B, t_ctry) – Must be within the jurisdiction of the notifying administration (Res.1)
  - UGA
- **Geo. coordinates of the transmitter** (4C, t_long, t_lat)
  - 32°35‘00“E - 0°19‘56"N
- **Altitude of the site above sea level** (9EA, t_site_alt) – *Mandatory if the assignment is notified in the bands **shared** between terrestrial and space services with equal rights.*
  - 1178 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

Example of Fixed 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)
- **Power delivered to the antenna** (8AA, t_pwr_ant**)** – *Mandatory in the bands bellow 28 MHz and those that are shared between terrestrial and space services with equal rights.*
  - -3.9 dBW
- **Equivalent isotopically radiated power and type** (8B, t_pwr_dbw and t_pwr_eiv**)** – *Mandatory in bands above 28 MHz. 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).*
  - -1 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.*
  - 3.2 dBi, I
- **Polarization (**9D, t_polar**)** – *Mandatory if the assignment is notified in the bands **shared** between terrestrial and space services with equal rights*
  - Vertical

Example of Fixed station : Antenna 1 details

- **Elevation angle** (9B, t_elev) – *Mandatory if the assignment is notified in the bands **shared** between terrestrial and space services with equal rights*
  - -1°
- **Height of transmitting antenna above ground level** (9E- t_hgt_agl) – *Mandatory if the assignment is notified in the bands **shared** between terrestrial and space services with equal rights terrestrial and space services with equal rights.*
  - 35 m
- **Antenna direction** (9, t_ant_dir)
  - D
- **Beamwidth** (9C, t_bmwdth) – *Mandatory for directional antennas*
  - 3°
- **Azimuth of maximum radiation** (9A, t_azm_max_e) – *The value is in degrees from True North for directional antennas*
  - 145°

Example of Fixed station : Receiving site details of the Antenna 1

- **Site name of receiving station** (5A - t_site_name) – *The name of the receiving station(s).*
  - Makindye
- **Geographical Coordinates** (5C - t_long and t_lat) – *geographical area where the receiving site is situated*
  - 32°38‘03“E - 0°15‘31"N
- **Geographical area where the receiving station is located** (5B - t_ctry) - *ITU symbol designating the geographical area where the receiving station is located.*
  - UGA

Example of Fixed station : Antenna 2 and its Receiving site details

9E	Height of the Antenna above ground level	24 m
9	Antenna directivity	Directional
9A	Azimuth of maximum radiation	79°
9C	Beamwidth	3°
9D	Polarization	Vertical
9B	Elevation angle	1°
9G	Maximum antenna gain relative to isotropic antenna	3.2 dBi
8B	Equivalent isotropically radiated power	-1 dBW
8AA	Power delivered to the antenna	-3.9 dBW
5A	Name of the location of the receiving station	Seeta
5B	Coordinates of the receiving station	32°45‘51“E - 0°22‘01"N

Terrestrial Workshop RRS-19-Africa
Presentation FXM Exercises – Part 2

EXERCISES

FXM01: Validating the file with frequency assignment notices

Validate the electronic notice file

“FXM 01_OnlineVal.txt” using the web online validation tool.

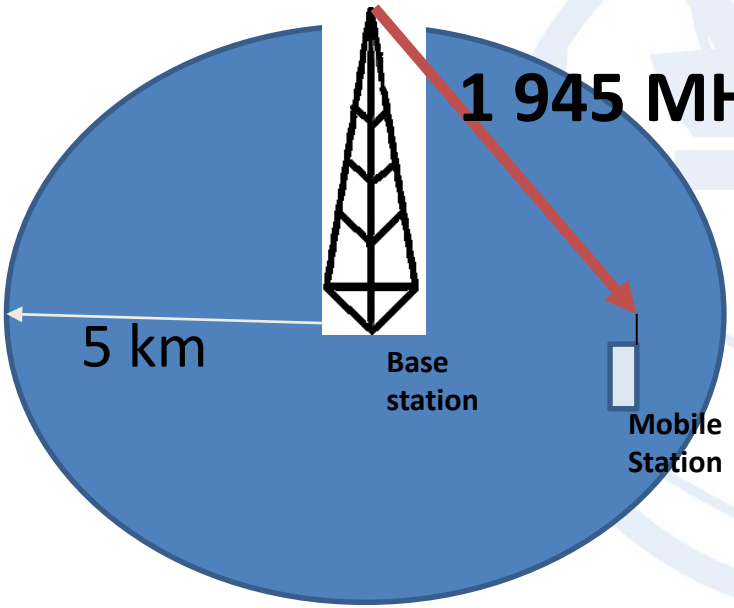
This file is available on terrestrial workshop.

*This validation tool is accessible with the **ITU login**

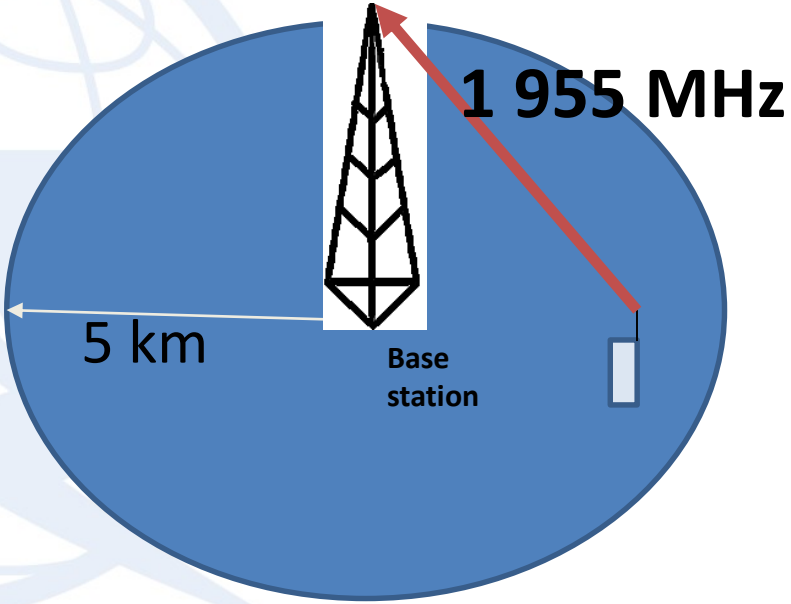
http://www.itu.int/ITU-R/terrestrial/OnlineValidation/Login.aspx

FXM 02: Land mobile service (point-to-area/area-to-point)

1. The link from **land** station to **mobile** station



2. The link from **mobile** station to **land** station



FXM 02: Land mobile service (point-to-area/area-to-point)

1. Prepare an electronic notice file of frequency **1 945 MHz** assigned to a **base station** having a circular receiving area of a **radius of 5 km** for the Administration of **Sudan, SDN**, for its recording in the **Master Register**.

7AB	**Bandwidth**	**5 MHz**
7A	**Class of emission**	**G9W--**
4A	**Transmitting antenna site name**	**KHARTOUM**
4C	**Coordinates of the transmitting station**	**32°32‘00“E - 15°37‘00"N**
6B	**Nature of service**	**“Exclusively to correspondence of a private agency”- Preface Chapter IV, Section 7**
2C	**Date of bringing into use**	**Max. 3 months in advance**
12B	**Address code**	**Preface Chapter IV, Section 3**
8B	**Effective radiated power**	**30 dBW**
9G	**Maximum Gain relative to a half wave dipole**	**15 dB**
9	**Antenna directivity**	**Omnidirectional**

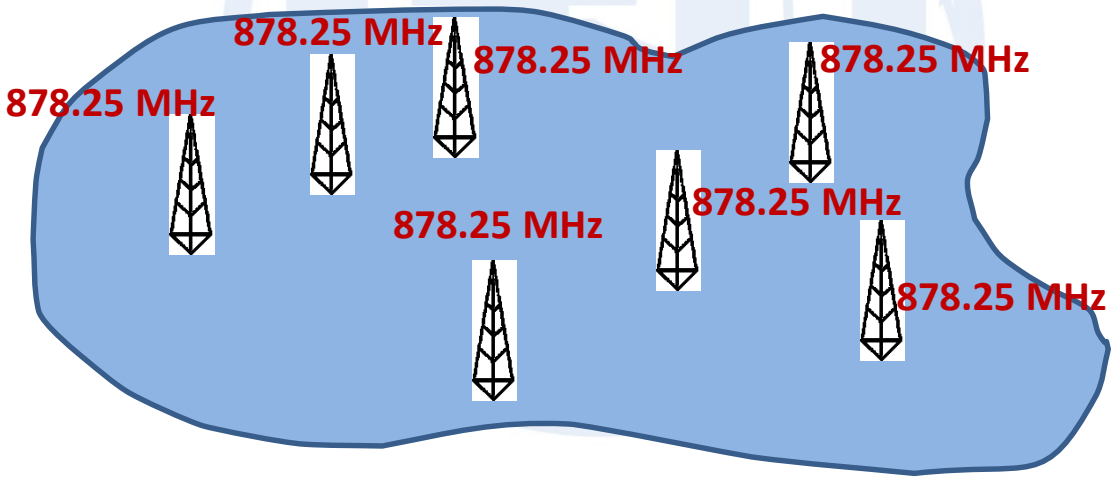
FXM 02: Land mobile service (point-to-area/area-to-point)

2. Prepare an electronic notice file of frequency **1 955 MHz** assigned to the associated receiving **land mobile station** (handset) of the above base station, for its recording in the **Master Register**. Use the functionality “Insert new notice”

7AB	**Bandwidth**	**5 MHz**
7A	**Class of emission**	**G9W--**
5A	**Name of the location of the receiving station**	**KHARTOUM**
5C	**Coordinates of the receiving station**	**32°32‘00“E - 15°37‘00"N**
6B	**Nature of service**	**“Exclusively to correspondence of a private agency”- Preface Chapter IV, Section 7**
2C	**Date of bringing into use**	**Max. 3 months in advance**
12B	**Address code**	**Preface Chapter IV, Section 3**
4D	**Radius**	**5 km**
8B	**Effective radiated power**	**12dBW**

FXM 03: Typical transmitting station (RR11.17)

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



FXM 03: Typical transmitting station (RR11.17)

Prepare an electronic notice, for the recording in the Master Register of frequency **878.25 MHz** used by several base stations in your country using the information below.

**This provision does not apply to all service types (see RR 11.18-11.21B)*

7AB	**Necessary Bandwidth**	**5 MHz**
7A	**Class of emission**	**G7W--**
4E	**Transmitting geographical area**	**Enter the country code to notify**
6B	**Nature of service**	**"Official correspondence exclusively" - Preface Chapter IV, Section 7**
2C	**Date of bringing into use**	**Max. 3 months in advance**
12B	**Address code**	**Preface Chapter IV, Section 3**
8A	**Power to the antenna**	**16 dBW**
8B	**Radiated Power**	**30 dBW**
9G	**Maximum Gain relative to a half wave dipole**	**14 dB**

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

Prepare an electronic notice, for the recording in the Master Register of frequency **6378.5 kHz** assigned to a **coast station** open exclusively to correspondence of a private agency situated in **Tanzania (TZA)** having a circular receiving area of a radius of 800 km.

7AB	**Bandwidth**	**8.8 kHz**
7A	**Class of emission**	**F7B--**
4A	**Transmitting antenna site name**	**DAR ES SALAAM**
4C	**Coordinates of the transmitting antenna site**	**39°17'04"E - 6°47'08"S**
3A	**Call sign**	**5HA21**
6B	**Nature of service**	**"Official correspondence exclusively"- Preface Chapter IV, Section 7**
2C	**Date of bringing into use**	**Max. 3 months in advance**
12B	**Address code**	**Preface Chapter IV, Section 3**
8A	**Power delivered to the antenna**	**30 dBW**
9	**Antenna directivity**	**Omnidirectional**

Thank you for your attention!

ITU – Radiocommunication Bureau

Questions to brmail@itu.int or brtpr@itu.int