ITUEvents

ITU World Radiocommunication Seminar 2018

3–7 December 2018
Geneva, Switzerland
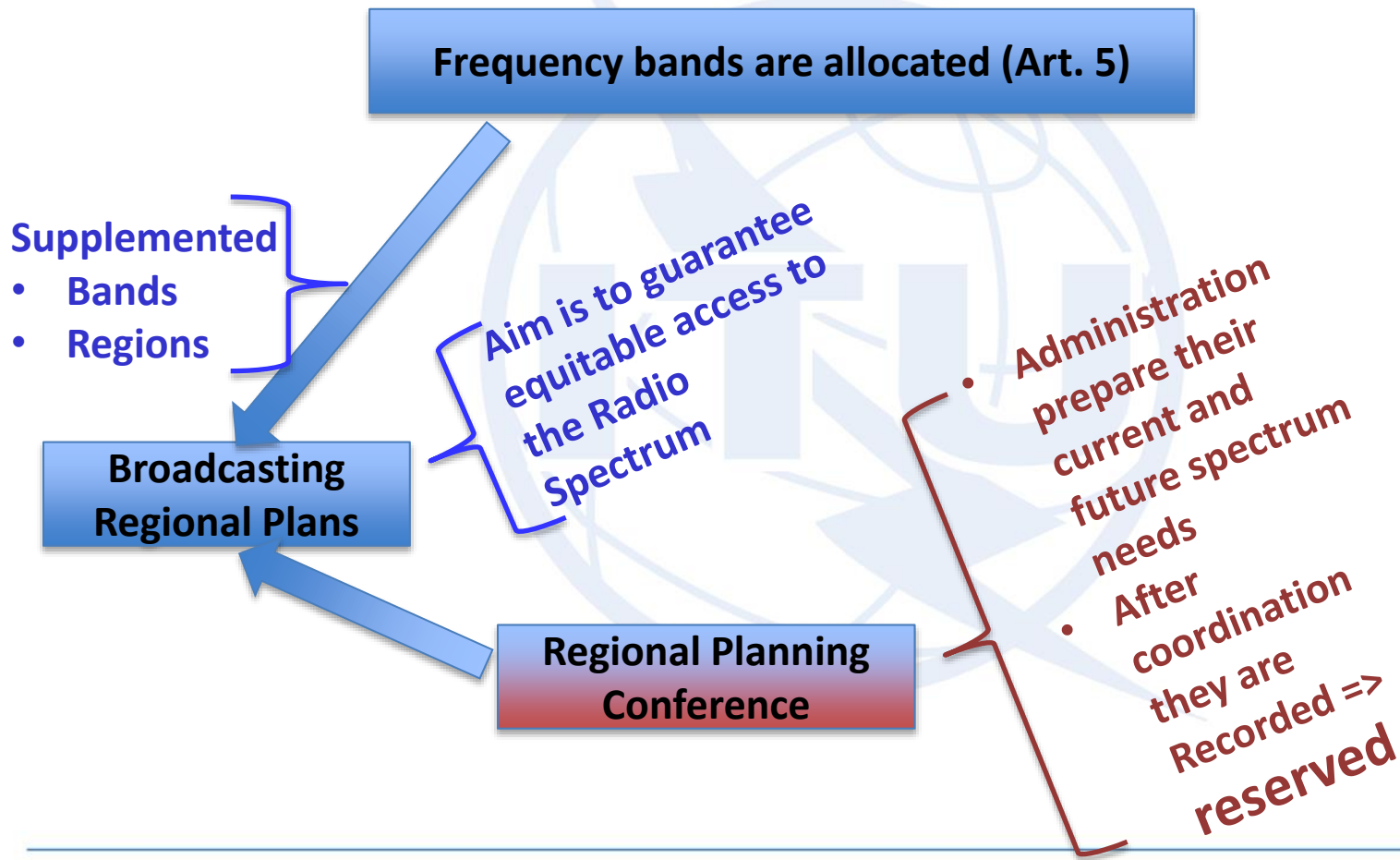
www.itu.int/go/ITU-R/WRS-18

# Notification for VHF/UHF Broadcasting except GE06: Exercises

ITU HQ Geneva, 5 December, 2018

Broadcasting frequency bands

Frequency bands are allocated (Art. 5)

Supplemented
- **Bands**
- **Regions**

Broadcasting Regional Plans

Aim is to guarantee equitable access to the Radio Spectrum

Regional Planning Conference

- Administration prepare their current and future spectrum needs
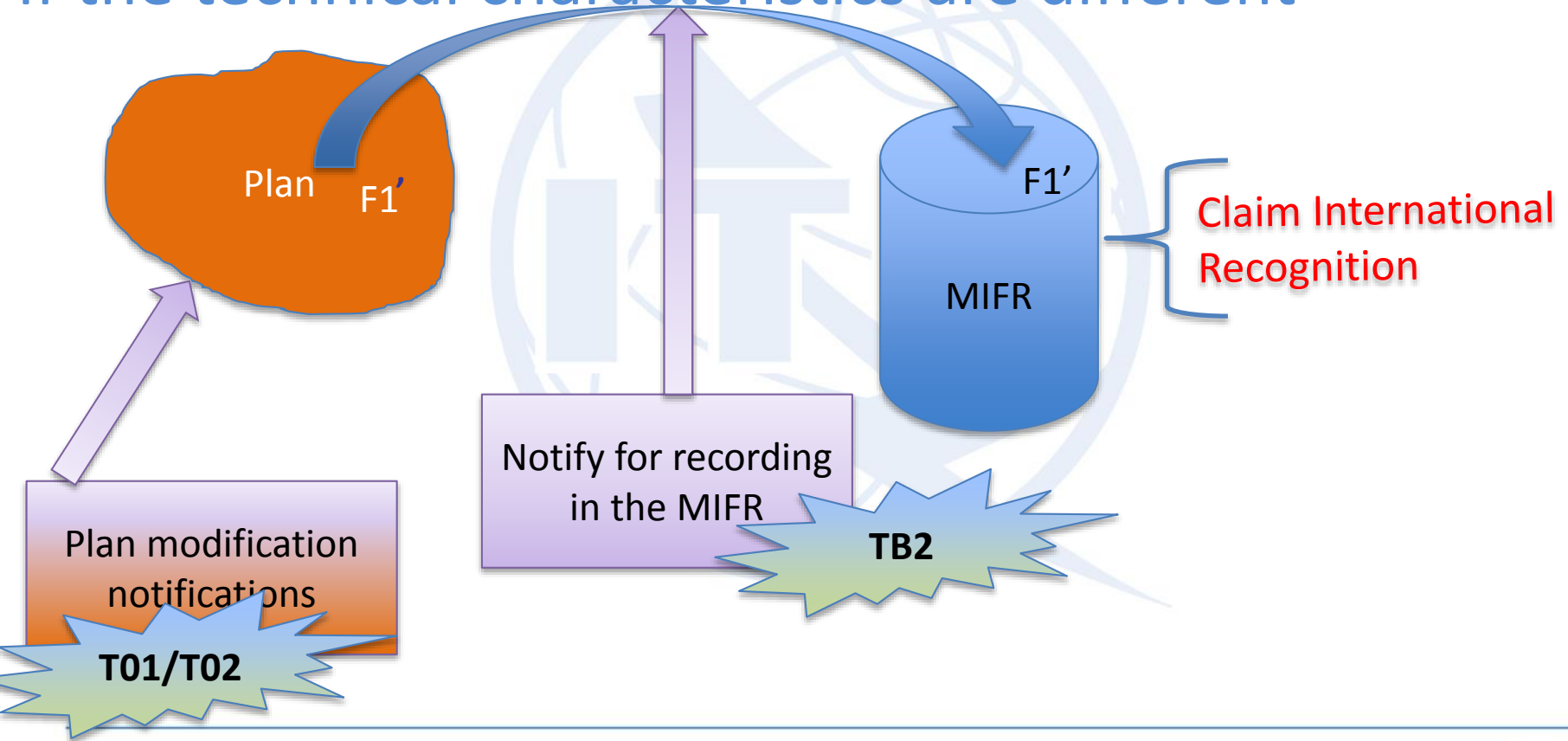- After coordination they are Recorded => **reserved**

Notification processes for frequency bands governed by a Regional Plan

When putting into operation a frequency assignment with the exact technical characteristics as in the Plan
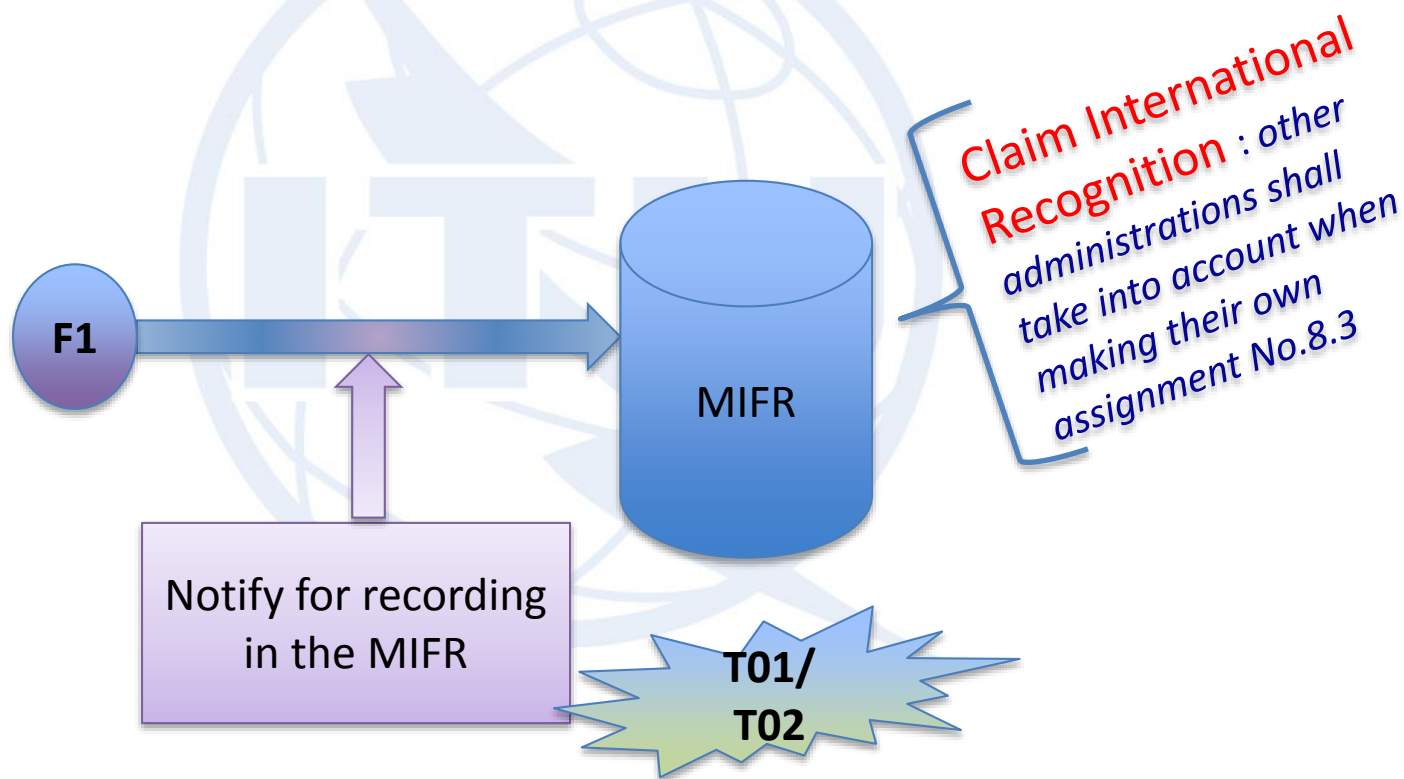
Claim International Recognition

F1
Plan

F1

MIFR

Notify for recording in the MIFR

TB2
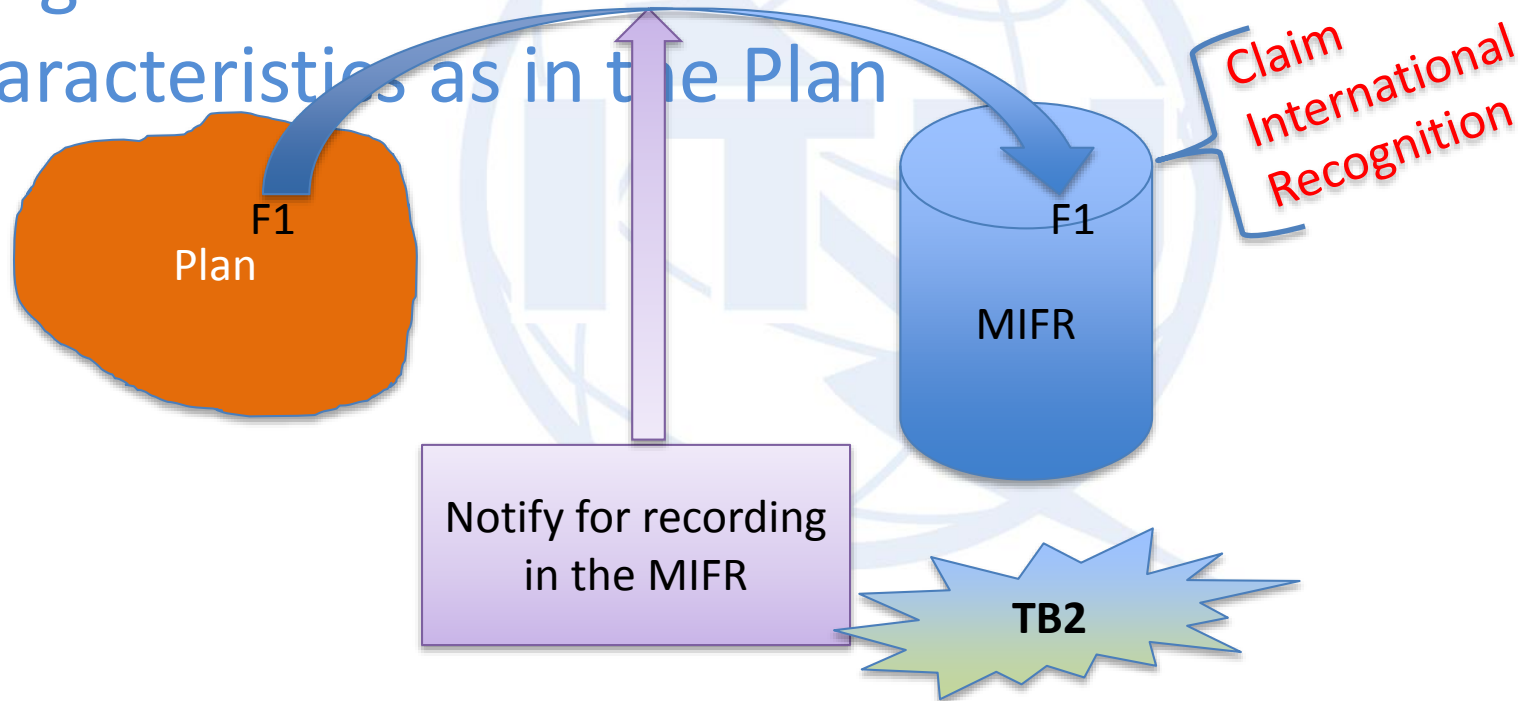
Notification processes for frequency assignments governed by a Regional Plan

If the technical characteristics are different

Plan F1'

F1'

MIFR

Claim International Recognition

Notify for recording in the MIFR

TB2

Plan modification notifications

T01/T02

Notification processes for FM/TV frequency bands outside Regional Agreements

A FM/TV frequency is selected to be into operation

F1

Notify for recording in the MIFR

MIFR

Claim International Recognition : other administrations shall take into account when making their own assignment No.8.3

T01/ T02

General guidelines on the notification process (1/3)

➢ Identifying items for *Broadcasting Stations*

AP4	Description of a data item	Data item	Example
1A	**Assigned frequency (MHz)**	**t_freq_assgn**	t_freq_assgn=89.0
4C	**Geographical Coordinates**	**t_long** **t_lat**	t_long=-0082524 t_lat=+425404

➢ 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=FM-2018

General guidelines on the notification process (2/3)

➢ Notice types for VHF/UHF

	Description	
T01	Analogue and digital Sound broadcasting	Complete notice
T02	Analogue and digital Television broadcasting	Complete notice
TB2	Notification under Art.11 of an assignment with identical characteristics as in the Plan	Short notice
TB3	Request for publication in Part B	Short notice
TB5	Withdraw a notice or Suppress a recorded assignment	Short notice

General guidelines on the notification process (3/3)

➢ 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;

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

➢ Preface to the BR IFIC;

> http://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

➢ Regional Agreement(s)

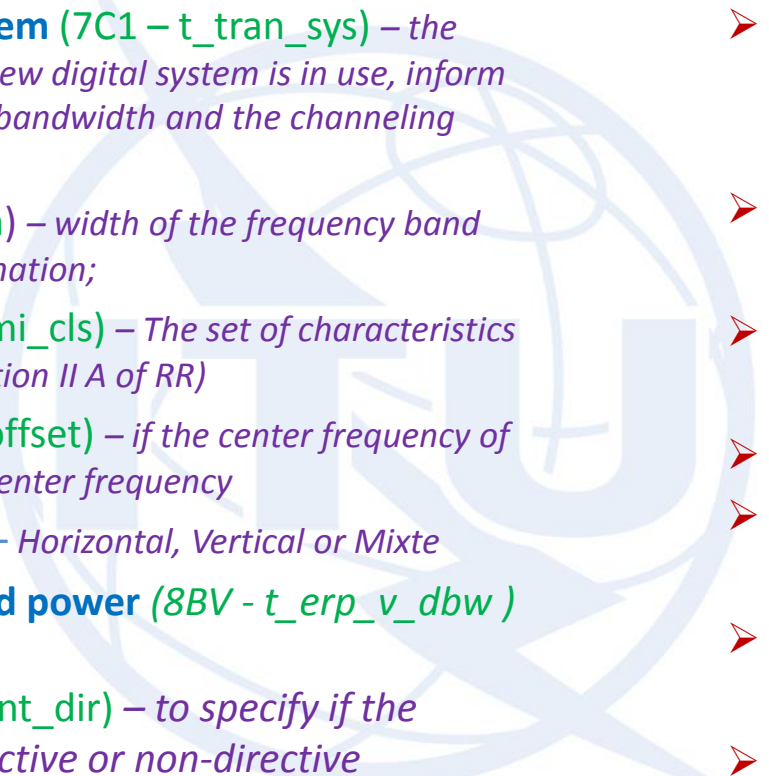> https://www.itu.int/en/ITU-R/terrestrial/broadcast/Pages/FMTV.aspx

Example of a Digital Television Broadcasting Station for recording in MIFR

- **Notice type** (t_notice_type) – *depends on the class of station which is not notified*
  - T02

- **Notifying Administration (**B, t_adm**)** – *ITU symbol for administration*
  - J

- **Fragment** (t_fragment) – *identifies the notification process for which the notice is submitted*
  - NTFD_RR

- **Assigned frequency** *(*1A - t_freq_assgn *)* – *frequency on which the transmitter broadcast;*
  - 755.0 MHz

- **Geographical area** (4B – t_ctry) – ITU symbol for geo area.
  - J

- **Geographical coordinates** *(4C – t_long (DDDMMSS) and t_lat(DDMMSS))* – location of the transmitting ant
  - 139°38'57"E - 35°13'22"N
  - *Must be within the jurisdiction of the notifying administration (Res. 1) - Except if a special agreement exists within the two parties:* must be sent to the Bureau

- **Locality of the transmitting antenna** (4A - t_site_name) – name of locality by which the transmitting antenna is known;
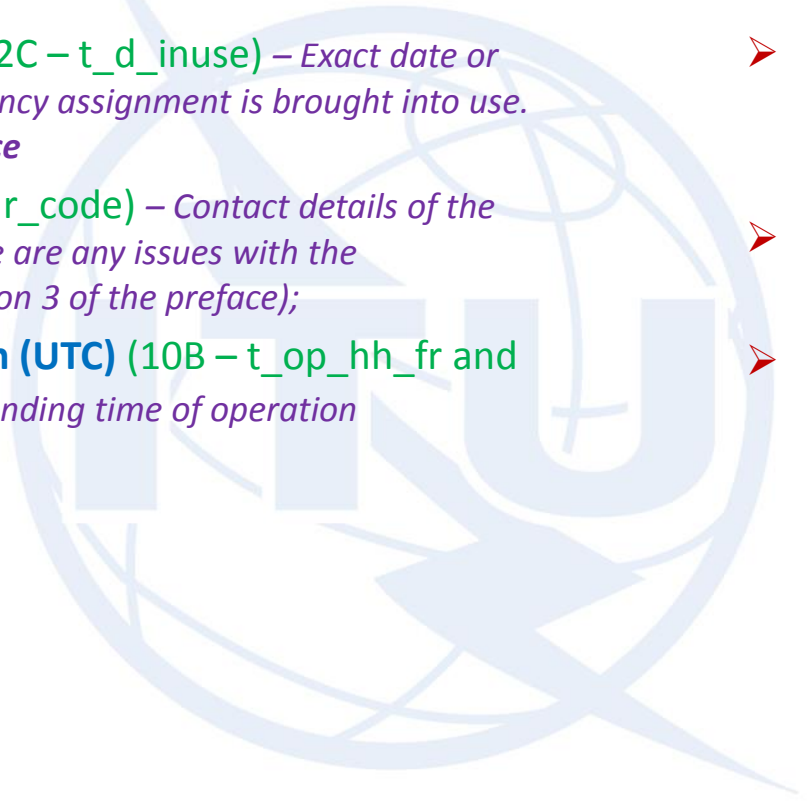 - YOKOSUKA

Example of a Digital Television Broadcasting Station for recording in MIFR

- **Code for the television system** (7C1 – t_tran_sys) – *the codes for television systems. A new digital system is in use, inform BR giving the class of emission, bandwidth and the channeling arrangement.*

- **Bandwidth** (7AB - t_bdwdth) – *width of the frequency band necessary to transmit the information;*

- **Class of emission** (7A – t_emi_cls) – *The set of characteristics of an emission (Appendix 1, Section II A of RR)*

- **Frequency offset** (1EO – t_offset) – *if the center frequency of the emission is offset from the center frequency*

- **Polarization** *(9D – t_polar)* – *Horizontal, Vertical or Mixte*

- **Maximum effective radiated power** *(8BV - t_erp_v_dbw)* – depends on the polarization;

- **Antenna directivity** (9 – t_ant_dir) – *to specify if the transmitting antenna is directive or non-directive*

- T9

- 6000 kHz (automatically filled)

- X7F-- (automatically filled)

- 142.857 kHz (default value 0)
- Vertical

- 30 dBW

- ND

Example of a Digital Television Broadcasting Station for recording in MIFR

➤ **Height of the antenna above the ground level** (9E-t_hgt_agl)

➤ **Maximum effective antenna height** *(9EB – t_eff_hgtmax)*
  – height above the mean level of the ground

➤ **Antenna characteristics**
  ➤ **Effective antenna height diagram** (9EC – t_eff_hgt@azmXXX) – *effective height of the antenna above the mean level of the ground, at 36 different azimuths in 10 intervals – recommended to provide*

  ➤ **Antenna attenuation diagram** (9NH and/or 9NV – t_attn@azmXXX) – attenuation values at 36 different azimuths in 10 intervals for each polarization plane

➤ 24 m

➤ 136 m (Calculated by TerRaNotices)

➤ Only for directive antenna

Example of a Digital Television Broadcasting Station for recording in MIFR

- **Date of bringing into use** (2C – t_d_inuse) – *Exact date or foreseen date when the frequency assignment is brought into use.* ***Maximum 3 months in advance***

  - 23 January 2007

- **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

- **Regular hours of operation (UTC)** (10B – t_op_hh_fr and t_op_hh_to) – *starting and ending time of operation*

  - Round the clock 00:00 24:00

Terrestrial Workshop WRS – 18
Presentation BS Exercises –Part 2

BS 01: VHF sound broadcasting assignment

Prepare an electronic notice file of frequency **90.1 MHz** assigned to a **sound broadcasting station** 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 **Chile (CHL)** as the notifying administration.

4A	**Transmitting antenna site name**	PUNTA ARENAS
4C	**Coordinates of the transmitting station**	**71°00'01"W - 53°09'00"S**
7AB	**Bandwidth**	**300kHz**
7D	**Transmission system**	**4 (optional)**
9D	**Polarization**	**Vertical**
8B	**Effective radiated power**	**24 dBW**
9	**Antenna Directivity**	**Omnidirectional**
9E	**Height of the Antenna above ground level**	**30 m**
9EB/ 9EC	**Maximum Effective Antenna Height and Effective antenna heights (m) at 36 different azimuths in 10 degrees interval**	**To be calculated using TerRaNotices facility**
8B	**Date of bringing into use**	**01 March 2002**
9G	**Address code**	**Preface to the BR IFIC**
10B	**Operating Hours**	**24 hours**

BS 02: Modification of an assignment recorded in the Master Register

Prepare an electronic notice file to notify the modification of the **site name** of a broadcasting frequency assignment recorded in the Master Register having the unique identification code **SUI-UHF-DVB-04-05-06** for the Administration of **Switzerland (SUI).**

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

BS 03: Request to suppress a frequency assignment

Prepare an electronic notice file to notify the suppression of the following frequency assignment, which is recorded in the **Master Register.**

To prepare this notice we will use the "Generate TB notices" functionality of TerRaNotices and we will select the Administration of **Cuba (CUB)** as the notifying administration.

1A	Assigned Frequency	791.0 MHz
4C	Coordinates of the transmitting station	080°17'37"W - 22°24'49"N

BS04: Validating the file with frequency assignment notices

Validate the electronic notice file

"BS 04_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

BS 05: FM sound broadcasting assignment

GE84 Plan – Regional Agreement for use of the band 87.5 - 108 MHz for FM sound broadcasting in Region 1 and Democratic Republic of Afghanistan and the Islamic Republic of Iran

Prepare an electronic notice of frequency **96.1 MHz** assigned to a sound broadcasting station based on the information below, for the modification of the **GE84 Plan**.

To prepare this notice we will use the "Wizard" functionality of TerRaNotices and we will select the Administration of **Morocco (MRC)** as the notifying administration.

4A	Transmitting antenna site name	ESSAOUIRA
4C	Coordinates of the transmitting station	9°27'01"W - 31°44'00"N
7AB	Bandwidth	300kHz
7D	Transmission system	4
9D	Polarization	Vertical
8B	Effective radiated power	42.0 dBW
9	Antenna Directivity	Omnidirectional
9E	Height of the Antenna above ground level	110 m
9EB/ 9EC	Maximum Effective Antenna Height and Effective antenna heights (m) at 36 different azimuths in 10 degrees interval	To be calculated using TerRaNotices facility

BS 06: Request for publication in Part B

GE84 Plan – Regional Agreement for use of the band 87.5 - 108 MHz for FM sound broadcasting in Region 1 and Democratic Republic of Afghanistan and the Islamic Republic of Iran

Prepare an electronic notice file for requesting publication of a modification in **Part B** of the **GE84 Special Section** for the following notice.

1A	Assigned Frequency	106.0 MHz
4C	Coordinates of the transmitting station	23°30'08"E - 48°33'30"N

To prepare this notice we will use the "Generate TB notices" functionality of TerRaNotices and we will select the Administration of **Ukraine (UKR)** as the notifying administration.

BS 07: Request to register an assignment in the Master Register with all technical characteristics as recorded in the plan for a station in operation

GE84 Plan – Regional Agreement for use of the band 87.5 - 108 MHz for FM sound broadcasting in Region 1 and Democratic Republic of Afghanistan and the Islamic Republic of Iran

Prepare an electronic notice file to request a frequency assignment to record in the Master Register with the same technical characteristics as it is recorded in the GE84 plan.having the unique identification code **DGL-0100621** for the Administration of **Spain (E)**.

To prepare this notice we will use the "Generate TB Notices" functionality of TerRaNotices.

Thank you for your attention!

- ITU – Radiocommunication Bureau
- Questions to brmail@itu.int or brtpr@itu.int