INTERNATIONAL TELECOMMUNICATION UNION

Radiocommunication Bureau
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Circular Letter   30 July 1999
    CR/125

To Administrations of Member States of the ITU

Subject: Forms of notice and formats for electronic notification of LF/MF sound broadcasting assignments

Reference: BR Circular Letter CR/36 of 12 April 1995

To the Director General

Dear Sir,

1   This circular letter contains the specific aspects of TerRaSys related to LF/MF sound broadcasting in Regions 1 and 3 and to MF sound broadcasting in Region 2. The description of the structure is given in Annex 1, forms for notification are given in Annex 2 and the corresponding electronic notification format is given in Annex 3. Detailed description of data and further explanations are given in Annex 4.

2   The new forms or electronic formats are to be used from 1 October 1999. The Bureau regrets to inform administrations that it will not be in a position to accept the old forms of notices, APS4/A2, APS4/A7, GE75 and RJ81 nor the old electronic format described in Circular Letter CR/26 of 9 September 1994 after 1 October 1999. This is due to unexpected difficulties, already explained in Circular Letter CR/118. However, the paper notice forms have been drawn as much as possible similar to the ones already used for the corresponding Regional agreements, with minor modifications explained in Annex 4. Therefore, the Bureau does not expect severe difficulties in your administration.

3   The Bureau is ready to provide any additional information or assistance that your administration may request on this subject.

Yours faithfully,

Robert W. Jones
Director, Radiocommunication Bureau

Annexes: 4

Distribution:
–   Administrations of Member States of the ITU.
–   Members of the Radio Regulations Board.

ANNEX 1 TO CIRCULAR LETTER CR/125

General description of the notice structure for LF/MF broadcasting

The notice structure for LF/MF broadcasting is more complicated than the notice structure for VHF/UHF broadcasting (as described in CR/120). LF/MF broadcasting notices have separate sections for daytime parameters and for night-time parameters, whereas the VHF/UHF broadcasting parameters are the same for the entire 24-hour period.

In the context of LF/MF broadcasting, "daytime" refers to the time from local sunrise to local sunset, and "night-time" refers to the time from local sunset to local sunrise.

The LF/MF broadcasting notice is conceptually organized as follows:

```
                  ┌─────────────────────────────────────┐
                  │   Common (Day and Night) Parameters  │
                  │                                       │
                  │         Assigned Frequency,           │
                  │        Geographic Coordinates,        │
                  │                 etc.                  │
                  └─────────────────────────────────────┘
                                    │
              ┌─────────────────────┴─────────────────────┐
  ┌───────────────────────────────┐      ┌───────────────────────────────────┐
  │      Daytime Parameters        │      │       Nighttime Parameters         │
  │                                │      │                                    │
  │            Power,              │      │             Power,                 │
  │          Antenna Type,         │      │           Antenna Type,            │
  │   Antenna Pattern Tabulation,  │      │  Directional Antenna Parameters,   │
  │             etc.               │      │               etc.                 │
  └───────────────────────────────┘      └───────────────────────────────────┘
```
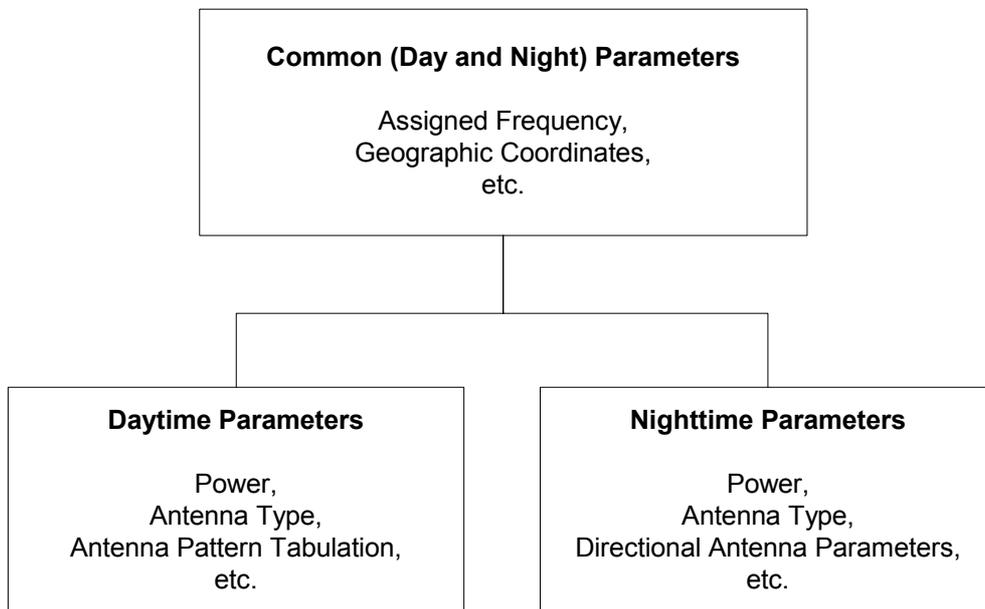
Of course, it is possible that an assignment may have only daytime parameters because it does not operate during night-time hours. And, although extremely rare, it is possible that an assignment may have only night-time parameters because it does not operate during daytime hours.

ANNEX 2 TO CIRCULAR LETTER CR/125
LF/MF broadcasting paper forms of notice

Date of notification Day Month Year	FORM OF NOTICE LF/MF SOUND BROADCASTING STATION Regions 1 and 3	**T03**

REGIONAL AGREEMENT

GENEVA, 1975 ☐ or Article S11 NOTIFICATION ☐
Article 4 Plan update Master register update

For BR use only

Notification intended for

Addition ☐   Modification ☐

Administration Unique Identifier

B
Notifying adm.

3A1/Call sign

3A2/Station identification

FOR MODIFICATIONS: IDENTIFICATION OF THE ASSIGNMENT TO BE MODIFIED

Administration Unique Identifier of the assignment to be modified

Geographical coordinates of the assignment to be modified

Assigned frequency of the assignment to be modified, kHz

Longitude
deg.   min.   sec.   E/W

Latitude
deg.   min.   sec.   N/S

SITE CHARACTERISTICS

4A/Transmitting antenna site name

4B/Geographic area

4C/Coordinates: Longitude
deg.   min.   sec. E/W

Latitude
deg.   min.   sec.   N/S

4G/Ground conductivity, mS/m

1A/Assigned frequency

kHz

Synchronized network identifier

PARTICULARS CONCERNING DAY-TIME OPERATION

10B/Regular hours of operation From (UTC) To (UTC)	7A1/Necessary bandwidth	8A Power to antenna	9I Max e.m.r.p.	9Q/Antenna type	9E/Antenna height	7B/Adj. channel prot. ratio
HJ Hour minute Hour minute or	kHz	kW	dB (kW)	(A or B)	m	dB

PARTICULARS CONCERNING NIGHT-TIME OPERATION

10B/Regular hours of operation From (UTC) To (UTC)	7A1/Necessary bandwidth	8A Power to antenna	9I Max e.m.r.p.	9Q/Antenna type	9E/Antenna height	7B/Adj. channel prot. ratio
HN Hour minute Hour minute or	kHz	kW	dB (kW)	(A or B)	m	dB

ARTICLE S11 ONLY	12A Operating agency	12B Address code		2C/Date of bringing into use Day Month Year

---

11/COORDINATION SUCCESSFULLY COMPLETED WITH THE FOLLOWING ADMINISTRATIONS

Additional remarks

Annex to form T03

Administration Unique Identifier

HJ

HN

9GV/Antenna gain in the vertical plane at different azimuths

Azimuth	10°	20°	30°	40°	50°	60°	70°	80°	90°

9GH/Antenna gain in the horizontal plane at different azimuths
(Fill in only if the antenna type is B)

0°	120°	240°
10°	130°	250°
20°	140°	260°
30°	150°	270°
40°	160°	280°
50°	170°	290°
60°	180°	300°
70°	190°	310°
80°	200°	320°
90°	210°	330°
100°	220°	340°
110°	230°	350°

If more lines are required, use an additional page

FORM OF NOTICE
MF SOUND BROADCASTING STATION
Region 2

T04

Date of notification
Day   Month   Year

For BR use only

REGIONAL AGREEMENT

RIO DE JANEIRO, 1981 ☐
Article 4 Plan update

or

Article S11

NOTIFICATION ☐
Master register update

Notification intended for

Addition ☐   Modification ☐

Administration Unique Identifier

B
Notifying
adm.

3A1/Call sign

3A2/Station identification

FOR MODIFICATIONS: IDENTIFICATION OF THE ASSIGNMENT TO BE MODIFIED

Administration Unique Identifier of the assignment to be modified

Geographical coordinates of the assignment to be modified

Assigned frequency of the assignment to be modified, kHz

Longitude
deg.   min.   sec. E/W

Latitude
deg.   min.   sec. N/S

SITE CHARACTERISTICS

4A/Transmitting antenna site name

4B/Geographic area

4C/Coordinates: Longitude
deg.   min.   sec. E/W

Latitude
deg.   min.   sec. N/S

1A/Assigned frequency

kHz

Synchronized network identifier

7B/RJ81 Class

(A, B or C)

PARTICULARS CONCERNING DAY-TIME OPERATION

	10B/Regular hours of operation			7A1/Necessary bandwidth	8A Power to antenna	9I r.m.s. radiation	9Q/Antenna type	9F/Electrical antenna height
HJ	From (UTC)		To (UTC)	kHz	kW	mV/m	(A or B)	Degrees
	Hour	minute	Hour minute					
	or							

PARTICULARS CONCERNING NIGHT-TIME OPERATION

	10B/Regular hours of operation			7A1/Necessary bandwidth	8A Power to antenna	9I r.m.s. radiation	9Q/Antenna type	9F/Electrical antenna height
HN	From (UTC)		To (UTC)	kHz	kW	mV/m	(A or B)	Degrees
	Hour	minute	Hour minute					
	or							

ARTICLE S11
ONLY

12A
Operating
agency

12B
Address
code

2C/Date of bringing
into use
Day   Month   Year

11/COORDINATION SUCCESSFULLY COMPLETED WITH THE FOLLOWING ADMINISTRATIONS

Additional remarks

Annex to form T04

Administration Unique Identifier | | **HJ** | | **HN** |

9O/Type of pattern | | (T, M or E) | 9P/Special quadrature factor | | . | mV/m

TOWER CHARACTERISTICS

9T1 No	9T2 Field	9T3 Phase	9T4 Spacing	9T5 Orientation	9T7 Height	9T8 Struc.	9T9A TLSA	9T9B TLSB	9T9C TLSC	9T9D TLSD
01										
02										
03										
04										
05										
06										
07										
08										
09										
10										
11										
12										

DESCRIPTION OF AUGMENTATION

No	9IA Radiation	9AA Azimuth	9CA Span	No	9IA Radiation	9AA Azimuth	9CA Span	No	9IA Radiation	9AA Azimuth	9CA Span
01				11				21			
02				12				22			
03				13				23			
04				14				24			
05				15				25			
06				16				26			
07				17				27			
08				18				28			
09				19				29			
10				20				30			

TB6
(LF/MF)

Form for submission of a modification to the Administration Unique Identifier

Action requested: **ADMINID**

Date of notice (dd-mm-yyyy):

Notifying administration: ---

For BR use only	Identification of the assignment to be updated: *Fill either Adm. Unique Identif. or frequency and coordinates*			
	Fragment (Plan name or NTFD_RR)	Administration Unique Identifier of the target	Assigned frequency (kHz)	Geographical coordinates ddd°mm'ss''E/W dd°mm'ss''N/S	New Administration Unique Identifier
					Remarks

TB7
(LF/MF)

Form for notification under Article S11 of an assignment with all technical characteristics as in the Plan

Action requested: **CONFORM**
Date of notice (dd-mm-yyyy):   Notifying administration: ---

For BR use only	Plan name	Administration Unique Identifier	Assigned frequency (kHz)	Geographical coordinates ddd°mm'ss"E/W dd°mm'ss"N/S	New Administration Unique Identifier	2C/Date of bringing into use dd-mm-yyyy	12B/Address code	12A/Operating Agency Code	10B/Day-time Hours of operation hh:mm - hh:mm	10B/Night-time Hours of operation hh:mm - hh:mm

NOTE - When filling this form, the first line corresponds to the Plan assignment to be copied to the Master Register, and the second to the corresponding assignment in the Master Register. Therefore:

in the first line, the following fields shall be filled in:

- the Plan name
- either the Administration Unique Identifier or the assigned frequency and the geographical coordinates of the Plan assignment in the second line, the following fields shall be filled in:
- if the notice modifies an assignment in the Master Register, either the Administration Unique Identifier or the assigned frequency and the geographical coordinates of this assignment
- the new Administration Unique Identifier (optional)
- the date of bringing into use (mandatory)
- the address code (mandatory)
- the operating agency code (optional)
- the hours of operation, day-time and night-time (optional)

TB8 (LF/MF)

Form for requesting publication of a modification in Part B of the corresponding Special Section

Action requested: **PARTB**

Date of notice (dd-mm-yyyy):

Notifying administration: ---

For BR use only	*Identification of the notice to be updated:* *Fill either Adm. Unique Identif. or frequency and coordinates*			
	Plan Name	Administration Unique Identifier of the target	Assigned frequency, kHz	Geographical coordinates ddd°mm'ss"E/W dd°mm'ss"N/S	11/Coordinated with (please indicate ALL coordinations)	Remarks

TB9
(LF/MF)

Form for suppressing an assignment or for withdrawing a notice under treatment

Date of notice (dd-mm-yyyy):   Notifying administration: ---

For BR use only		*Identification of the assignment to be suppressed or of the notice to be withdrawn:* *Fill either Adm. Unique Identif. or frequency and coordinates*				
	Fragment	Administration Unique Identifier of the target	Assigned frequency, kHz	Geographical coordinates ddd°mm'ss"E/W dd°mm'ss"N/S	Action: **SUPPRESS** or **WITHDRAW**	Remarks

ANNEX 3 TO CIRCULAR LETTER CR/125

File structure to be used for LF/MF broadcasting electronic notices

I   General structure

As with the file structure to be used for VHF/UHF broadcasting electronic notices (see Circular Letter CR/120), the file to be used for LF/MF broadcasting electronic notices is a sequential, record-oriented file, which follows the general outline of an **SGML** (Standard Generalized Markup Language) file, using a tagging scheme. However, to simplify the approach for *TerRaSys* electronic notices, neither the **SGML** Document Type Definitions, nor tags for each data element are used.

The file consists of three or more sections. The first section is the **HEAD** section. The last section is the **TAIL** section. Between the **HEAD** and **TAIL** sections, there is one section for each notice. These sections are named **NOTICE**. Each section contains one or more keys, with a value (specified as a text string) associated with the key. Each section may also have subsections; at this time, only the **NOTICE** section may contain subsections.

Because this structure is the same as for VHF/UHF broadcasting electronic notices (described in CR/120), the **NOTICE** sections for VHF/UHF broadcasting electronic notices can be intermixed with the **NOTICE** sections for the LF/MF broadcasting electronic notices described in this circular letter.

There is a defined beginning - the start-tag - and a defined end - the end-tag - of each section. The start-tag has the format <section_name>, and the end-tag has the format </section_name>, as in **SGML**.

As indicated, a section may or may not have subsections. The subsections are also defined using start-tags and end-tags, using the formats <sub-section_name> and </sub-section_name>.

The concept is recursive, so that there may also be sub-subsections, etc.

The keys within a section or subsection follow the start-tag, and continue until the corresponding end-tag. Start-tags and end-tags are mandatory.

Subsections are grouped at the end of the section. Sub-subsections are grouped at the end of a subsection, etc.

Within a section, subsection, etc. each value is preceded by a key, as in the example below:

t_action = ADD

Within each section, subsection, etc. each key shall be unique, except for specific keys (in the case of T03 and T04 notices, these keys are **t_remarks** in the <NOTICE> section and **t_adm** in the <COORDINATION> subsection.

The general schema for a single file with several notices is:

```
<HEAD>
key1=string
key2=string
…..
</HEAD>
```

```
<NOTICE>
key1=string
key2=string
…..
</NOTICE>
<NOTICE>
key1=string
key2=string
…..
</NOTICE>
<NOTICE>
key1=string
key2=string
…..
</NOTICE>
…..
<TAIL>
key1=string
</TAIL>
```

The lines in the file are variable length. Each line in the file is terminated with a CR/LF (carriage return/linefeed) combination, a CR (carriage return), or an LF (linefeed).

The ISO 8859-1 (Latin-1) coded character set is to be used throughout the file. Only printable characters (plus carriage return and linefeed) may be used.

The **HEAD** section must be the first section in the file. The **TAIL** section must be the last section in the file. The **NOTICE** sections may be in any order within the file between the **HEAD** and **TAIL** sections. The name of the section may be in uppercase, lowercase, or mixed case. White space (e.g. blanks) must *not* appear before a start-tag or end-tag, nor within a start-tag or end-tag.

The keys for a section or subsection may be in any order within that section or subsection; they are referenced by name - within this section or subsection - rather than by position. The name of the key may be in uppercase, lowercase, or mixed case. White space (e.g. blanks) must *not* appear before or within a key name.

Each key is composed of alphanumeric text and must be unique within its section (apart from the two cases noted above). Each key is followed by the symbol = and then by the value associated with this key. There can be zero or more spaces between the key and the equal sign, and zero or more spaces after the equal sign and before the value corresponding to the key. The first non-space character after the equal sign will be the first character of the value corresponding to the key; in other words, the first character of a field can never be a space. However, white space is permitted within the value associated with the key. (For example, the Transmitting Antenna Site Name may consist of several words, separated by blank spaces.)

Each string associated with a key is an undelimited text string; there are no quotation marks or other delimiters.

Administrations are requested to strictly conform to this format in order to avoid unnecessary errors.

II   Structure of numeric and other data

Each string must be less than or equal to the length allowed on the corresponding paper notice form.

If the string contains numeric data (e.g. power), then:

•   no white space (e.g. blanks) may appear within the string;

- the decimal separate (if used) is the FULL STOP character (not a comma, for example);

- there must be no thousands separators in the string; that is, the value ten thousand, for example, would be submitted as **10000** and *not* as 10,000 nor as 10.000. In fact, 10.000 would be interpreted as ten, not ten thousand;

- the sign, if any, must be at the beginning of the string. With the exception of the geographic coordinates, the plus sign is optional if the value is greater than or equal to zero.

Each key and its corresponding value must be on a separate line, and must terminate with CR/LF, CR, or LF, as described above.

Sections and subsections which do not match any of the *TerRaSys* sections will be entirely ignored by *TerRaSys*. Therefore, administrations wishing to send the same file to the Bureau and to others can add additional sections and/or subsections for other purposes without fear of disruption of the *TerRaSys* electronic notice process.

Currently, the names of the sections and subsections are in English only.

The keys in each section correspond to the name of a data element being notified. The string associated with the key is the value of the data element. To avoid any conflicts with the Radiocommunication Data Dictionary (RDD) being developed by ITU-R Study Group 1, all data elements names are prefixed with **t_**. After the RDD is adopted, the Bureau may revise the names to correspond to those in the RDD. Nonetheless, both the current names and the RDD names would be acceptable for a sufficiently long transition period.

Certain keys have default values. It is not necessary to enter the key (and associated value) if the default is to be used.

Keys which do *not* begin with **t_** will be ignored by *TerRaSys*. Therefore, administrations wishing to send the same file to the Bureau and to others can use additional keys for other purposes without disrupting the *TerRaSys* electronic notice process. All unknown keys beginning with **t_** within a *TerRaSys* section will be flagged as errors to be referred to the administration submitting the notice, as typographic errors will be suspected.

The format for dates and times in the *TerRaSys* electronic notices was described in Circular Letter CR/120. Similarly, the format for the geographic coordinates in the *TerRaSys* electronic notices was described in Circular Letter CR/120. These descriptions are not repeated here, but are incorporated by reference.

III   Characteristics of electronic notices for LF/MF broadcasting

A)   The section named **HEAD** was described in Circular Letter CR/120, and is incorporated by reference.

B)   The section named **TAIL** was described in Circular Letter CR/120, and is incorporated by reference.

C)   The section named **NOTICE** contains the following keys:

t_notice_type	The type of notice; corresponds to the paper notice. See paragraph 5 of Annex 4.
t_d_adm_ntc	The date that the administration gives to this notice. This may be different than t_d_sent in the **HEAD** section. See paragraph 6 of Annex 4.

t_fragment The part of the database to be updated. See paragraph 7 of Annex 4.

t_plan The name of the Plan. See paragraph 8 of Annex 4.

t_action The action to be taken regarding this notice. See paragraph 9 of Annex 4.

t_adm_ref_id Administration's *unique* identifier, assigned by the administration. See paragraph 10 of Annex 4.

t_call_sign The call sign. See paragraph 13 of Annex 4.

t_station_id The information transmitted by the radio station to aid identification of the source of its emission. See paragraph 13 of Annex 4.

t_freq_assgn The assigned frequency (**MHz**). Note that the assigned frequency is specified in megahertz in the electronic notice format, and in kilohertz in the paper notice format. See paragraph 14 of Annex 4.

t_ctry The three-character code for the name of the geographic area where the transmitting antenna is located. See paragraph 18 of Annex 4.

t_site_name The name of the location of the transmitting antenna. See paragraph 19 of Annex 4.

t_long The longitude of the transmitting antenna site, using the format for the longitude described in CR/120. See paragraph 20 of Annex 4.

t_lat The latitude of the transmitting antenna site, using the format for the latitude described in CR/120. See paragraph 20 of Annex 4.

t_sync_net If this is a synchronized operation, the name or code of the synchonized network. See paragraph 17 of Annex 4.

t_op_agcy The three-character code for the operating agency. See paragraph 26 of Annex 4.

t_addr_code The two-character address code for the responsible administration. See paragraph 25 of Annex 4.

t_d_inuse The date at which the administration intends to bring this assignment into use. See paragraph 27 of Annex 4.

t_gnd_cond	The ground conductivity (mS/m). See paragraph 23 of Annex 4.
t_rj81_cls	For RJ81 only, the RJ81 Class of Station. See paragraph 24 of Annex 4.
t_remarks	Any comment designed to assist the Bureau in processing the notice. There is no limit on the number of characters per line nor is there a limit on the number of **t_remarks** keys which may be included in a given **NOTICE**. See paragraph 38 of Annex 4.
t_trg_adm_ref_id	The Administration's Unique Identifier of the assignment to be modified or suppressed, or of the notice under treatment to be updated or withdrawn. See paragraph IV below and paragraph 11 of Annex 4.
t_trg_freq_assgn	The assigned frequency (**MHz**) of the assignment to be modified or suppressed, or of the notice under treatment to be updated or withdrawn. Note that this frequency is specified in megahertz in the electronic notice format, and in kilohertz in the paper notice format. See paragraph IV below and paragraph 15 of Annex 4.
t_trg_long	The longitude of the transmitter site of the assignment to be modified or suppressed, or of the notice under treatment to be updated or withdrawn. See paragraph IV below and paragraph 21 of Annex 4.
t_trg_lat	The latitude of the transmitter site of the assignment to be modified or suppressed, or of the notice under treatment to be updated or withdrawn. See paragraph IV below and paragraph 21 of Annex 4.
t_plan_adm_ref_id	The Administration's Unique Identifier of the assignment in the Plan to be copied to the Master Register. See paragraph V below and paragraph 12 of Annex 4.
t_plan_freq_assgn	The assigned frequency (**MHz**) of the assignment in the Plan to be copied to the Master Register. Note that this frequency is specified in megahertz in the electronic notice format, and in kilohertz in the paper notice format. See paragraph V below and paragraph 16 of Annex 4.
t_plan_long	The longitude of the transmitter site of the assignment in the Plan to be copied to the Master Register. See paragraph V below and paragraph 22 of Annex 4.

t_plan_lat	The latitude of the transmitter site of the assignment in the Plan to be copied to the Master Register. See paragraph V below and paragraph 22 of Annex 4.

The subsection named **COORDINATION**, if it exists, contains one key for each administration with which coordination has been successfully completed. The key is named **t_adm**, and the value is the code of the administration with which coordination has been achieved. If there is more than one such administration, each administration should be listed with a separate **t_adm** key on a separate line. Note that, unlike the paper notices, there is no limit on the number of administrations which can be entered here.

t_adm	The code of the administration with which coordination has been successfully achieved. See paragraph 41 of Annex 4.

There are one or two **OPERATION** subsections in each LF/MF **NOTICE** section. The allowable keys in the **OPERATION** subsection depends on whether the notice is Notice Type T03 (for Regions 1 and 3) or Notice Type T04 (for Region 2). There may be no more than one **OPERATION** subsection where **t_op_prd_cde** is equal to **HJ**, and no more than one **OPERATION** subsection where **t_op_prd_cde** is equal to **HN**.

The **OPERATION** subsections for both types of notices contain the following keys:

t_op_prd_cde	The code for the period of time during which the parameters in this **OPERATION** subsection are in use. Possible values are **HJ** for Daytime (local sunrise to local sunset) and **HN** for Night-time (local sunset to local sunrise). See paragraph 28 of Annex 4.
t_pwr_kw	The antenna input power for this **OPERATION**, in kilowatts. See paragraph 30 of Annex 4.
t_bdwdth	The necessary bandwidth for this **OPERATION**, in kilohertz. See paragraph 34 of Annex 4.
t_op_hh_fr	The starting time for the hours of operation for this **OPERATION**. See paragraph 29 of Annex 4.
t_op_hh_to	The ending time for the hours of operation for this **OPERATION**. See paragraph 29 of Annex 4.

In addition to the keys described above, the **OPERATION** subsection for Notice Type T03 (Regions 1 and 3) contains the following keys:

t_adj_ratio	The adjacent channel protection ratio, in dB, for this **OPERATION**. See paragraph 33 of Annex 4.
t_e_max	The maximum radiation, in units of dB relative to 1 kW (dB relative to 300 mV/m at 1 kilometre), for this **OPERATION**. See paragraph 31 of Annex 4.

t_hgt_agl	The height of the antenna tower above ground level, metres, for this **OPERATION**. See paragraph 36 of Annex 4.

In addition to the keys described above, the **OPERATION** subsection for Notice Type T04 (Region 2) contains the following keys:

t_ptrn_type	The type of antenna pattern (theoretical, expanded, or modified expanded (augmented)) for this **OPERATION**. See paragraph 39 of Annex 4.
t_e_rms	The RMS of the antenna radiation pattern, for this **OPERATION**, in the horizontal plane, mV/m at one kilometre. See paragraph 32 of Annex 4.
t_q_fact	If the pattern type is expanded or modified expanded (augmented), the "Q" factor for the calculation of the expanded or modified expanded antenna radiation pattern for this **OPERATION**, mV/m at one kilometre. See paragraph 40 of Annex 4.

If a given **OPERATION** in Notice Type T03 (for Regions 1 and 3) has more than a simple non-directional radiator, then this **OPERATION** subsection must also include a **PATTERN** sub-subsection.

Each **PATTERN** sub-subsection includes either one (for daytime **OPERATION**s) or 10 (for night-time **OPERATION**s) **GAIN** sub-sub-subsections with the following keys:

t_elev	The vertical elevation angle (degrees) for which the gain is specified in this **GAIN** sub-sub-subsection. For the daytime operation, this should always be equal to 0.0. For the night-time operation, there should be 10 **GAIN** sub-sub-subsections, each with a **t_elev** equal to 0, 10, 20, …, 90 degrees.). See paragraph 42 of Annex 4.
t_gain@azmxxx	The antenna gain at the azimuth **xxx** (degrees) and at the vertical elevation specified by **t_elev**. There should be a key for each azimuth from 0 through 350 degrees, in increments of 10 degrees. The azimuth **xxx** may be written with or without leading zeros (for example, **t_gain@azm010** is equivalent to **t_gain@azm10**). See paragraph 43 of Annex 4.

Notice Type T04 (for Region 2) *never* contains a **PATTERN** sub-subsection. Instead, each **OPERATION** subsection in Notice Type T04 must include a **TOWER** sub-subsection for *each* **TOWER**. For example, if this **OPERATION** has three antenna towers, there should be three **TOWER** sub-subsections in this **OPERATION** subsection. Because the description for each tower is independent of the other towers, the **TOWER** sub-subsections can be in any order; the towers are *not* numbered. Each **TOWER** sub-subsection has the following keys:

t_fld_ratio	The field ratio for this tower, relative to a reference tower. Not required if there is only one **TOWER** for this **OPERATION**. See paragraph 44 of Annex 4.
t_phase_diff	The phase difference between this tower and the reference tower, electrical degrees. Not required if there is only one **TOWER** for this **OPERATION**. See paragraph 45 of Annex 4.
t_spacing	The spacing of this tower from a common reference point, electrical degrees. Not required if there is only one **TOWER** for this **OPERATION**. See paragraph 46 of Annex 4.
t_orient	The orientation of this tower with respect to a common reference point, degrees from true North. Not required if there is only one **TOWER** for this **OPERATION**. See paragraph 47 of Annex 4.
t_hgt_elec	The electrical height of this tower, electrical degrees. See paragraph 48 of Annex 4.
t_structure	The code for the structure of this tower. If this key is missing, a structure of 0 is assumed. See paragraph 49 of Annex 4.
t_tls_a	Tower parameter "A". See paragraph 50 of Annex 4.
t_tls_b	Tower parameter "B". See paragraph 51 of Annex 4.
t_tls_c	Tower parameter "C". See paragraph 52 of Annex 4.
t_tls_d	Tower parameter "D". See paragraph 53 of Annex 4.

Note that a non-directional **OPERATION** requires one **TOWER** sub-subsection to specify the electrical height of the tower (**t_hgt_elec**) and, as appropriate, **t_structure**, **t_tls_a**, **t_tls_b**, **t_tls_c**, and **t_tls_d**.

If a given **OPERATION** in Notice Type T04 (Region 2) has a modified expanded antenna pattern (i.e. **t_ptrn_type** = M), then this **OPERATION** subsection must also include an **AUGMENTATION** sub-subsection for *each* **AUGMENTATION**. For example, if this **OPERATION** has three augmentations, there should be three **AUGMENTATION** sub-subsections in this **OPERATION** subsection. Because the description for each augmentation is independent of the other augmentations, the **AUGMENTATION** sub-subsections can be in any order; the augmentations are *not* numbered. Each **AUGMENTATION** sub-subsection has the following keys:

t_aug_azm	The central azimuth for this augmentation, degrees from true North. See paragraph 55 of Annex 4.

t_aug_span   The span of this augmentation, degrees. See paragraph 56
                             of Annex 4.

t_aug_e   The radiation at the centre of this augmentation, mV/m at
                             one kilometre. See paragraph 54 of Annex 4.

**IV   Additional fields in the NOTICE section to uniquely define the existing assignment to
        be modified or suppressed, or of the notice under treatment to be updated or
        withdrawn**

In the case of a notice for modifying or suppressing an assignment or for updating or withdrawing a
notice under treatment, it is necessary to identify the target assignment or notice. There are two
alternative methods of submitting such identifiers:

•   Supply the Administration's Unique Identifier of the assignment to be modified or
        suppressed, or of the notice under treatment to be updated or withdrawn (the target),
        t_trg_adm_ref_id. Note that the combination of the identifier and the Fragment must be
        unique within a given administration.

•   Supply the assigned frequency and geographic coordinates of the assignment to be
        modified or suppressed, or of the notice under treatment to be updated or withdrawn,
        t_trg_freq_assgn, **t_trg_long**, and **t_trg_lat**.

•   *TerRaSys* will first use the Administration's Unique Identifier of the target,
        t_trg_adm_ref_id - if submitted - to identify the target. If the Administration's Unique
        Identifier of the target is *not* submitted, *TerRaSys* will use the combination of the assigned
        frequency and geographic coordinates of the target, **t_trg_freq_assgn**, **t_trg_long**, and
        t_trg_lat, to identify the target. In any case, the frequency and geographic coordinates,
        t_freq_assgn, **t_long**, and **t_lat**, shall be notified.

**V   Additional fields in the NOTICE section to uniquely define the existing assignment in
        the Plan to be copied to the Master Register**

In the case of a notice intended to copy all parameters from the Plan to the Master Register, it is
necessary to identify the assignment of the Plan to be copied. There are two alternative methods of
submitting such identifiers:

•   Supply the Administration's Unique Identifier of the Plan assignment to be copied,
        t_plan_adm_ref_id. Note that the combination of the identifier and the Fragment must be
        unique within a given administration.

•   Supply the assigned frequency and geographic coordinates of the assignment to be copied,
        t_plan_freq_assgn, **t_plan_long**, and **t_plan_lat**.

In summary, the structure for these electronic notices includes the **NOTICE** section and other
subsections, sub-subsections, etc. as follows:

section	subsection	sub-subsection	sub-sub-subsection	Notice Types
NOTICE				T03 and T04
	COORDINATION			T03 and T04
	OPERATION			T03 and T04
		PATTERN		T03
			GAIN	T03
		TOWER		T04
		AUGMENTATION		T04

Table of fields of electronic notice used for the notification of LF/MF sound broadcasting assignments

\<SECTION\> **\<SUB-SECTION\>** **Key name of the field (t_field=)**	**Identifiers²**	**Field is: M (Mandatory); I (Ignored); R (Required); O (Optional) ¹ for the following action (t_action):**						**Comments**
		Add	**Modify**	**Suppress or Withdraw**	**Conform**	**Adminid**	**Part B**	
\<HEAD\>		M	M	M	M	M	M	Use this section only once in the file
t_char_set=		O	O	O	O	O	O	Don't provide (default value is ISO-8859-1)
t_email_addr=		O	O	O	O	O	O	BR will use it to verify uncertain data notified
t_d_sent=		O	O	O	O	O	O	Date of dispatch of the notices
t_adm=		M	M	M	M	M	M	ITU code of notifying administration
\</HEAD\>		M	M	M	M	M	M	Section end
\<NOTICE\>		M	M	M	M	M	M	Use once for each notice
t_notice_type=		M	M	M	M	M	M	
t_d_adm_ntc=		O	O	O	O	O	O	Date assigned by administration to the notice
t_fragment=	Yes	M	M	M	I	M	I	GE75, RJ81 and NTFD_RR (for Article S11)
t_plan=	Yes	I	I	I	M	I	M	GE75, RJ81
t_call_sign=		O	O	I	I	I	I	See Article S19 of RR
t_station_id=		O	O	I	I	I	I	No validation applied to the value notified
t_action=		M	M	M	M	M	M	See header of this table
t_adm_ref_id=		O	O	I	O	M	I	Unique within administration and t_fragment

---

1 "M", "I", "O" mean that field is in any circumstances MANDATORY, IGNORED, OPTIONAL, respectively; "R" means that a field is in certain circumstances REQUIRED.

2 Different field combinations may be used to create a single identifier.

Field	Key							Description
t_trg_adm_ref_id=	Yes	I	R	R	R	R	R	Unique within administration and t_fragment
t_plan_adm_ref_id=	Yes	I	I	I	I	I	I	Unique within administration and t_plan
t_freq_assgn=		M	I	I	I	I	I	in MHz (…on paper forms in kHz)
t_trg_freq_assgn=	Yes	R	R	R	R	R	R	in MHz (…on paper forms in kHz)
t_plan_freq_assgn=	Yes	I	I	I	R	I	I	in MHz (…on paper forms in kHz)
t_sync_net=		R	R	R	R	R	R	BR assigned number (or your own identifier)
t_gnd_cond=		R	R	I	I	I	I	T03 only:4000, 30, 10, 3, 0.3, 0.1, 0.03, 0.01
t_rj81_cls=		R	R	I	I	I	I	T04 only: A, B, C
t_ctry=		M	M	I	I	I	I	ITU code of geographical area
t_site_name=		M	M	I	I	I	I	Use letters A to Z, digits 0 to 9 and spaces
t_long=		M	M	I	I	I	I	+/-DDDMMSS (+ for EAST, - for WEST)
t_lat=		M	M	I	I	I	I	+/-DDMMSS (+ for NORTH, - for SOUTH)
t_trg_long=	Yes	R	R	R	R	R	R	+/-DDDMMSS (+ for EAST, - for WEST)
t_trg_lat=	Yes	R	R	R	R	R	R	+/-DDMMSS (+ for NORTH, - for SOUTH)
t_plan_long=	Yes	I	I	R	I	I	I	+/-DDDMMSS (+ for EAST, - for WEST)
t_plan_lat=	Yes	I	I	R	I	I	I	+/-DDMMSS (+ for NORTH, - for SOUTH)
t_op_agcy=		O	O	I	O	O	I	Article S11 only
t_addr_code=		R	R	I	R	R	I	Article S11 only
t_d_inuse=		R	R	I	R	R	I	Article S11 only
t_remarks=		O	O	O	O	O	O	t_remarks=text can be repeated many times
<COORDINATION>		R	I	I	I	I	R	Use once within <NOTICE> section
t_adm=		R	I	I	I	I	R	t_adm=ADM can be repeated many times
</COORDINATION>		R	I	I	I	I	R	Article S11 only
<OPERATION>		M	I	I	I	I	I	Use once (HJ or HN) or twice (HJ and HN)
t_op_prd_cde=		M	I	I	I	I	I	HJ or HN
t_bdwdth=		R	R	I	I	I	I	Provide for T03; default 10 kHz for T04
t_pwr_kw=		M	I	I	I	I	I	in kW

t_op_hh_fr=	O	O	I	O	O	I	hh:mm (hh= 00-24, mm=00-59); start in UTC
t_op_hh_to=	O	O	I	O	O	I	hh:mm (hh= 00-24, mm=00-59); stop in UTC
t_adj_ratio=	R	R	I	R	R	I	T03 only: 9,7,5,0 (adj. channel prot. ratio, dB)
t_e_max=	R	R	I	R	R	I	T03 only: maximum field strength at 1 km in the horizontal plane [dB relative to 300 mV/m]
t_hgt_agl=	R	R	I	R	R	I	T03 only: height in metres of A type antenna; skip it for B type antenna
<PATTERN>	R	R	I	R	R	I	Once in <OPERATION> if T03 & ant. type B
<GAIN>	R	R	I	R	R	I	Once for HJ; 1 or 10 times for HN
t_elev=	R	R	I	R	R	I	0 for HJ; 0 and optionally 10,20,…,90 for HN
t_gain@azmxxx=	R	R	I	R	R	I	Gain [dB] at azimuth xxx and elevation t_elev
</GAIN>	R	R	I	R	R	I	
</PATTERN>	R	R	I	R	R	I	
t_e_rms=	R	R	I	R	R	I	T04 only; rms value of field strength at 1 km in the horizontal plane [mV/m]
t_ptrn_type=	R	R	I	R	R	I	T04 only; T, E, M (type of pattern)
t_q_fact=	R	R	I	R	R	I	T04 only and if t_ptrn_type= E or M
<TOWER>	R	R	I	R	R	I	T04 only; as many as number of towers
t_fld_ratio=	R	R	I	R	R	I	T04 only if nr of towers >1 (relative field)
t_phase_diff=	R	R	I	R	R	I	T04 only if nr of towers >1 (relative phase)
t_spacing=	R	R	I	R	R	I	T04 only if nr of towers >1 (spacing [deg] from the reference point, common for all towers)
t_orient=	R	R	I	R	R	I	T04 only if nr of towers >1 (azimuth from the reference point, common for all towers)
t_hgt_elec=	R	R	I	R	R	I	T04 only: height in deg of tower of structure 0 (including A type antenna), otherwise skip it
t_structure=	R	R	I	R	R	I	T04 only: use 0 (default, simple tower), 1 or 2; (3, 4, 5, 6, 7, 8 , 9 are not recommended)
t_tls_a=	R	R	I	R	R	I	T04 only and if t_structure= 1 or 2
t_tls_b=	R	R	I	R	R	I	T04 only and if t_structure= 1 or 2

t_tls_c=	R	R	I	I	I	T04 only and if t_structure= 2
t_tls_d=	R	R	I	I	I	T04 only and if t_structure= 2
</TOWER>	R	R	I	I	I	
<AUGMENTATION>	R	R	I	I	I	T04 only and only if t_ptm_type= M: as many as number of augmentations
t_aug_azm=	R	R	I	I	I	Central azimuth of augmentation [deg]
t_aug_span=	R	R	I	I	I	Span of augmentation [deg]
t_aug_e=	R	R	I	I	I	Field strength at 1 km at the centre of augmentation [mV/m]
</AUGMENTATION>	R	R	I	I	I	
</OPERATION>	M	M	I	I	I	
</NOTICE>	M	M	M	M	M	
<TAIL>	M	M	M	M	M	Use only once this section in the file
t_num_notices=	M	M	M	M	M	N umber of <NOTICE> sections in the file
</TAIL>	M	M	M	M	M	

A sample file containing one T03 (Region 1 and 3) notice, and one T04 (Region 2) notice might have this structure:

```
<HEAD>
(keys and data for heading)
</HEAD>
<NOTICE>
t_notice_type = T03
(general keys and data for T03 assignment)
<OPERATION>
(keys for daytime operation of this assignment)
<PATTERN>
<GAIN>
(horizontal plane antenna pattern for this daytime operation)
</GAIN>
</PATTERN>
</OPERATION>
<OPERATION>
(keys for night-time operation of this assignment)
<PATTERN>
<GAIN>
(horizontal plane antenna pattern for this night-time operation)
</GAIN>
<GAIN>
(antenna pattern at 10 degrees vertical elevation for this night-time operation)
</GAIN>
<GAIN>
(antenna pattern at 20 degrees vertical elevation for this night-time operation)
</GAIN>
…
<GAIN>
(antenna pattern at 90 degrees vertical elevation for this night-time operation)
</GAIN>
</PATTERN>
</OPERATION>
<COORDINATION>
(t_adm for each administration with which coordination has been completed)
</COORDINATION>
</NOTICE>
<NOTICE>
t_notice_type = T04
(general keys and data for T04 assignment)
<OPERATION>
(keys for night-time operation of this assignment)
<TOWER>
(keys for Tower 1 of this night-time operation)
</TOWER>
<TOWER>
(keys for Tower 2 of this night-time operation)
</TOWER>
<TOWER>
(keys for Tower 3 of this night-time operation)
</TOWER>
<AUGMENTATION>
(keys for Augmentation 1 of this night-time operation)
</AUGMENTATION>
<AUGMENTATION>
```

(keys for Augmentation 2 of this night-time operation)
</AUGMENATION>
</OPERATION>
<OPERATION>
(keys for daytime operation of this assignment)
<TOWER>
(keys for only Tower of this non-directional daytime operation)
</TOWER>
</OPERATION>
<COORDINATION>
(**t_adm** for each administration with which coordination has been completed)
</COORDINATION>
</NOTICE>
<TAIL>
t_num_notices=2
</TAIL>

ANNEX 4 TO CIRCULAR LETTER CR/125

Detailed data information and validation rules

This annex gives detailed information on the data to be notified, validation principles that will be applied and further explanations when necessary.

1   t_char-set (only for electronic notification)

This information is optional. If not specified, the default value is ISO-8859-1. This is also currently the only acceptable value.

2   t_d_sent (only for electronic notification)

This information is optional. It is equivalent to the date of the covering letter accompanying paper notices. It shall be a valid date. This field shall not be mixed up with the Date of the notice (**t_d_adm_ntc**) that also appears on individual paper notices.

3   t_email_addr (only for electronic notification)

This information is optional. If notified, it will be used by the Bureau for any correspondence related to the completeness and validity of the notices included in the file.

**4   Item B: Notifying administration
         t_adm in HEAD section**

This information is mandatory. It shall correspond to the code of the notifying administration. Note that this information is in the header of electronic notices and therefore applies to all notices in the file, whereas it appears on each individual paper notice.

5   t_notice_type (only for an electronic notice)

This information is mandatory. It corresponds to the type of paper notices that could be used. The allowed values are T03, T04, TB6,TB7, TB8 and TB9.

**6   Date of notice
         t_d_adm_ntc**

The date that the administration gives to the notice. It may be different from the date at which the file or the covering letter is sent. This information is optional.

**7   Modification to a Plan or notification under Article S11
         t_fragment**

This information is mandatory for addition, modification, suppression and update of Administration Unique Identifier. For notification in conformity to a Plan and for request for publication in Part B, this is replaced by the Plan name, **t_plan**. On the paper notices for addition and modification, one box and only one shall be checked.

On electronic notices, allowed values are GE75, RJ81 and NTFD_RR for notification in accordance with the Radio Regulations;

8   Plan name
**   t_plan**

This information is mandatory for notification of assignments with all technical characteristics as in the Plan (**CONFORM** action) and for requests for publication in Part B (**PARTB** action). It may have the following values: GE75 or RJ81.

9   Add/Modify indicator
**   t_action**

On the paper notices for additions and modifications, one box and only one shall be checked. The action is explicitly indicated on the simplified paper notices.

On electronic notices, t_action may have the following values:

ADD   to add an assignment

MODIFY   to modify an assignment

SUPPRESS   to suppress an assignment

CONFORM   to add or modify an Article S11 assignment which conforms to a Plan assignment

ADMINID   to insert or update the Administration Unique Identifier for an assignment

PARTB   to request publication of a notice in Part B of Special Section, once the coordination procedure of the Plan has been completed

WITHDRAW   to withdraw a notice still under treatment

Please note that a modification notice should contain all necessary information, as it will completely replace the existing assignment in the concerned fragment.

10   Administration Unique Identifier
**   t_adm_ref_id**

This field is optional for actions **ADD**, **MODIFY** and **CONFORM**, mandatory for **ADMINID** and shall not be notified in the other cases. The allowed characters for this field are limited to upper-case letters A to Z, digits 0 to 9, space, parenthesis, dash and forward slash for both electronic and paper notices. If notified, it may be used in the future for modifying, deleting or, generally for making reference to this particular assignment. However, if notified, this field shall be unique for the notifying administration in the given fragment.

Administrations should take care not to confuse this new field with the older, and now obsolete, field named "Administration Serial Number". Duplicate values are *not* allowed in this new field. An administration should not use this new field unless it intends to use this field as its *unique* identifier.

The Bureau anticipates that this new field will be used primarily with electronic notices, and that, most frequently, it will represent an internal key in the administration's data base. However, administrations who wish to use this field on paper notices are free to do so, providing that the field, when specified, is *unique*.

**11   Administration Unique Identifier of the target
        t_trg_adm_ref_id**

This field may be used to uniquely identify the assignment to be modified or suppressed, or the notice under treatment to be updated or withdrawn. For an addition notice, this field shall not be notified. For a modification notice, if the Administration Unique Identifier of the target is notified and the same identifier does not exist for the same administration in the same fragment, it will be considered as an error.

**12   Plan Administration Unique Identifier
        t_plan_adm_ref_id**

This field may be used to uniquely identify the assignment of the Plan to be copied to the Master Register. It shall not be notified in the other cases.

**13   Items 3A1 and 3A2: Call sign and station identification
        t_call_sign and t_station_id**

These fields are optional for actions **ADD** and **MODIFY** and shall not be notified in the other cases.

If the station identification is present, there is no validation on this field.

The call sign, if present, shall follow the rules for the given administration.

**14   Item 1A: Assigned frequency
        t_freq_assgn**

This information is mandatory for actions **ADD** and **MODIFY** and shall not be notified in the other cases. The Regional Plans (GE75 and RJ81) cover limited frequency bands, therefore notices related to the update of these Plans shall bear assigned frequencies within these frequency bands. The assigned frequency is expressed in kHz on the paper form, but must be expressed in MHz in the electronic notification

**15   Assigned frequency of the target
        t_trg_freq_assgn**

Together with the geographical coordinates of the target, this field shall be used to uniquely identify the assignment to be modified or suppressed, or the notice under treatment to be updated or withdrawn, if the Administration Unique Identifier of the target is not given. For an addition notice, this field shall not be notified. For a modification notice, if there is no assignment for the same administration in the same fragment with the given assigned frequency and coordinates, it will be considered as an error. Like the assigned frequency, it is expressed in kHz on the paper form, but must be expressed in MHz in the electronic notification

**16   Plan assigned frequency
        t_plan_freq_assgn**

Together with the plan geographical coordinates, this field shall be used to uniquely identify the assignment to be copied (through a **CONFORM** action), if the plan Administration Unique Identifier is not given. It shall not be notified in the other cases. Like the assigned frequency, it is expressed in kHz on the paper form, but must be expressed in MHz in the electronic notification

17   Synchronization
t_sync_net

This field shall be notified only for **ADD**, **MODIFY** and **CONFORM** actions, and if the assignment pertains to a synchronized network. If the synchronized network is already recorded and has been assigned a number by the BR, and if you know this number, indicate it. Otherwise, give your own identification of the synchronized network, that shall be unique for your administration.

18   Item 4B: Geographical area
t_ctry

The code of the geographical area where the antenna site is located. This field is mandatory for actions **ADD** and **MODIFY** and shall not be notified in the other cases.

Allowed values are in the list of country or geographical area symbols (Table 'Areas' of the Preface to the BR International Frequency Information Circular, BR IFIC).

For Plan fragments, the geographical area shall be within the list of geographical areas in the Planning area.

19   Item 4A: Transmitting antenna site name
t_site_name

The field is mandatory for actions **ADD** and **MODIFY** and shall not be notified in the other cases. The allowable characters are the printable characters in the ISO 8859-1 coded character set. However, for both electronic and paper notices, it is recommended to use upper-case letters A to Z, digits 0 to 9 and space.

20   Item 4C: Geographical coordinates
t_long and t_lat

These fields are mandatory for actions **ADD** and **MODIFY** and shall not be notified in the other cases. The geographical coordinates are checked vis-à-vis the ITU geographical borders database (IDWM) to verify that the corresponding point does not fall in another geographical area than the one notified or in the sea at the distance more than 10 km from the border.

Please note that the format of coordinates for paper notices and electronic ones is different as indicated below. Leading zeros have to be provided in all cases. Notification of seconds is optional. However, if seconds are notified for longitude, they shall also be notified for latitude and vice-versa.

<div align="center">

Format of geographical coordinates

</div>

	Paper notices	**Electronic notices**
Longitude	DDDMMSSE(W) or DDDMME(W) Examples: 0123454W 01234W	+(-)DDDMMSS or +(-)DDDMM Examples: -0123454 -01234
Latitude	DDMMSSN(S) or DDMMN(S) Examples: 452314N 4523N	+(-)DDMMSS or +(-)DDMM Examples: +452314 +4523

21   Geographical coordinates of the target
        t_trg_long and t_trg_lat

Together with the assigned frequency of the target, these fields shall be used to uniquely identify the assignment to be modified or suppressed, or the notice under treatment to be updated or withdrawn, if the Administration Unique Identifier of the target is not given. For an addition notice, these fields shall not be notified. For a modification notice, if there is no assignment for the same administration in the same fragment with the given assigned frequency and coordinates, it will be considered as an error. When notified, these fields are subject to the same rules as the geographical coordinates in paragraph 20 above.

22   Plan geographical coordinates
        t_plan_long and t_plan_lat

Together with the plan assigned frequency, these fields shall be used to uniquely identify the assignment to be copied (through a **CONFORM** action), if the plan Administration Unique Identifier is not given. When notified, these fields are subject to the same rules as the geographical coordinates in paragraph 20 above.

23   Item 4G: Ground conductivity
        t_gnd_cond

For notices T03 (**ADD** and **MODIFY**), this information is mandatory. It shall not be notified in the other cases. Note that the information shall now be given in mS/m. Allowable values are:

4000, 30, 10, 3, 1, 0.3, 0.1, 0.03 and 0.01.

In all other cases, it shall not be notified.

24   Item 7B: RJ81 Class
        t_rj81_cls

For notices T04 (**ADD** and **MODIFY**), this information is mandatory. It shall not be notified in the other cases. This information is the station class in accordance with RJ81 Agreement. Allowable values are A, B and C according to the definitions below:

Class A station

A station intended to provide coverage over extensive primary and secondary service areas, and which is protected against interference accordingly.

Class B station

A station intended to provide coverage over one or more population centres and the contiguous rural areas located in its primary service areas, and which is protected against interference accordingly.

Class C station

A station intended to provide coverage over a city or town and the contiguous suburban areas located in its primary service area, and which is protected against interference accordingly.

In all other cases, it shall not be notified.

25   Item 12B: Address code
       t_addr_code

For Article S11 notifications (t_fragment=**NTFD_RR**), the field is mandatory for actions **ADD, MODIFY** and **CONFORM** and shall not be notified in the other cases. If the geographical area is valid, the address code shall be found in the Table of Administrations and operating Agencies of the Preface to BR IFIC, for this geographical area.

For all plan notifications the field shall be blank. If a value is present, it will be ignored.

26   Item 12A: Operating agency
       t_op_agcy

For Article S11 notifications (t_fragment=**NTFD_RR**), the field is optional for actions **ADD, MODIFY** and **CONFORM** and shall not be notified in the other cases.

If the geographical area is valid and operating agency symbol is present it shall be found in the table of Administrations and operating agencies symbols in the Preface to BR IFIC.

For all plan notifications the field shall be blank. If a value is present it will be ignored.

27   Item 2C: Date of bringing into use of frequency assignment
       t_d_inuse

For Article S11 notifications (t_fragment=NTFD_RR), the field is mandatory for actions **ADD, MODIFY** and **CONFORM** and shall not be notified in the other cases. According to Article S11.24, the notification form shall not reach the Bureau more than three months before the date of bringing into use.

For all GE75 notifications the field shall be blank. If a value is present it will be ignored. This field is optional for RJ81 notifications.

Operation subsection

28   Day or night-time operation
       t_op_prd_cde

This field is mandatory for actions **ADD** and **MODIFY** and shall not be notified in the other cases.

Allowable values are HJ and HN. There shall be at least one operation, and no more than one HJ and one HN.

29   Item 10B: Regular hours of operation (From and To)
       t_op_hh_fr and t_op_hh_to

These fields are optional for actions **ADD, MODIFY** and **CONFORM** and shall not be notified in the other cases. Please note that the hours are expressed in hours and minutes, UTC.

30   Item 8A: Power to antenna (kW)
        t_pwr_kw

This field is mandatory for actions **ADD** and **MODIFY** and shall not be notified in the other cases.

Note that earlier forms requested the power in kW for Plan modifications and power in dBW for Article S11 notifications.

31   Item 9L: Maximum effective monopole radiated power, dB(kW)
        t_e_max

This field is mandatory for T03 notices (**ADD** and **MODIFY**) and shall not be notified in all other cases. It is the *Maximum radiation* in dB relative to a c.m.f. of 300 V or an e.m.r.p. of 1 kW, determined from the nominal power of the transmitter and the theoretical gain of the antenna without allowing for miscellaneous losses.

32   Item 9I: r.m.s value of radiation, mV/m
        t_e_rms

This field is mandatory for **T04** notices (**ADD** and **MODIFY**) and shall not be notified in all other cases. It is the r.m.s. value of radiation (mV/m at 1 km) in the horizontal plane.

33   Item 7B: Adjacent channel protection ratio
        t_adj_ratio

For notice type T03, the field is mandatory for actions **ADD** and **MODIFY** and shall not be notified in all other cases.

This is the protection ration, in dB, to be used for adjacent channel interference calculations. It may have one of the following four values: 9, 7, 5, 0, corresponding to the four cases in the GE75 Agreement:

Case A: 9 dB when a limited degree of modulation compression is applied at the transmitter input, such as in good quality transmissions, and when the bandwidth of the audio-frequency modulating signal is of the order of 10 kHz;

Case B: 7 dB when a high degree of modulation compression (at least 10 dB greater than in the preceding case) is applied by means of an automatic device and when the bandwidth of the audio-frequency modulating signal is of the order of 10 kHz;

Case C: 5 dB when a limited degree of modulation compression is applied and when the bandwidth of the audio-frequency modulating signal is of the order of 4.5 kHz;

Case D: 0 dB when a high degree of modulation compression is applied by means of an automatic device and when the bandwidth of the audio-frequency modulating signal is of the order of 4.5 kHz.

34   Item 7A1: Necessary bandwidth
        t_bdwdth

For notice type T03, the field is mandatory for actions **ADD** and **MODIFY** and shall not be notified in the other cases.

For notice type T04, the default value is 10 kHz. The field is optional for actions **ADD** and **MODIFY** and shall not be notified in the other cases.

35   Item 9Q: Type of antenna

This field is mandatory for actions **ADD** and **MODIFY for paper notices only. The field is deduced from notified data for electronic notices**. It shall bear either A if the antenna is a simple vertical antenna or B in all other cases.

36   Item 9E: Height of antenna above ground level
t_hgt_agl

The height (metres) of the antenna. This information is mandatory for notices **T03**, for actions **ADD** and **MODIFY**, when the **Type of antenna** is A. It shall not be notified in all other cases.

37   Item 9F: Electrical antenna height, degrees (for paper notices only)

For **T04** notices (**ADD** and **MODIFY**), this information is mandatory on paper notices if the antenna type is A. In all other cases, it shall not be notified. Note that, in BR's database, even in the case of a simple vertical antenna, the information is recorded like a directional antenna, with only one tower. This structure is also used for electronic notices.

38   Additional remarks
t_remarks

This field is optional. It is not validated. Any information in this field will be captured as is. On paper forms, the field may also be used for data capture particularities.

39   Item 9O: Type of pattern
t_ptrn_type

For **T04** notices (**ADD** and **MODIFY**), this information is mandatory if the antenna type is B. In all other cases, it shall not be notified. It may have the following values: T for theoretical pattern, E for expanded pattern or M for modified expanded pattern. For further explanations, please refer to the Regional Agreement, Rio de Janeiro, 1981.

40   Item 9P: Special quadrature factor
t_q_fact

For **T04** notices (**ADD** and **MODIFY**), this information is optional if the antenna type is B and the type of pattern is E or M. In all other cases, it shall not be notified. If not notified, the standard quadrature factor, calculated in accordance with the RJ81 Agreement, is used by the Bureau. For further explanations, please refer to the Regional Agreement, Rio de Janeiro, 1981.

Coordination subsection

41   Item 11: Coordination successfully completed
t_adm in COORDINATION subsection

The coordination subsection contains multiple occurrence of administration codes. The paper forms contains 12 such boxes. On electronic forms, any number of administration codes is possible. Administration codes shall correspond to administration symbols in Table "Administrations" of the Preface to the BR IFIC.

Items 9GH and 9GV: Antenna gain in the horizontal and vertical planes
PATTERN sub-subsection in OPERATION subsection of T03 notices

This subsection is mandatory for T03 notices, for each operation with antenna type B. It shall not exist in the other cases. If it exists it shall contain one subsection **GAIN** for the daytime operation and one or ten subsections **GAIN** for the night-time operation. Each subsection gain contains the following keys:

42   t_elev

The elevation at which the antenna gain is given. For day-time operation, the only allowed value is 0. For night-time operation, values may only be multiples of 10 degrees, starting at 0 and ending at 90. For antenna type B in T03 notices, the GAIN sub-sub-subsection with t_elev equal to 0 is mandatory. On the paper forms, the pattern in the horizontal plane is separated.

43   t_gain@azmxxx

The antenna gain, in dB, compared to a short vertical tower, at the azimuth xxx degrees for the elevation t_elev.

Annex to Form T04
TOWER sub-sub section in OPERATION subsection of T04 notices

This subsection is mandatory for T04 notices, for each operation. It shall not exist in the other cases. It contains the following keys: Note that, on paper notices, the annex shall not be filled up if the antenna type is A. In that case, the field 9F, Electrical antenna height, degrees for the concerned **OPERATION** is to be filled instead. See paragraph 37 above.

44   Item 9T2: Field ratio of the tower
t_fld_ratio

This field is requested for each **TOWER** if the number of towers is greater than 1. If the tower is unique for the concerned **OPERATION**, it will be disconsidered.

45   Item 9T3: Relative phase, degrees
t_phase_diff

This field is requested for each **TOWER** if the number of towers is greater than 1. If the tower is unique for the concerned **OPERATION**, it will be disconsidered. Any value between -360 and +360 degrees is acceptable, however they will be converted to values between 0 (included) and 360 (excluded). Therefore values between 0 and 360 degrees only are recommended.

46   Item 9T4: Electrical spacing, degrees
t_spacing

This field is requested for each **TOWER** if the number of towers is greater than 1. If the tower is unique for the concerned **OPERATION**, it will be disconsidered.

47   Item 9T5: Relative orientation, degrees
t_orient

This field is requested for each **TOWER** if the number of towers is greater than 1. If the tower is unique for the concerned **OPERATION**, it will be disconsidered.

48   Item 9T7: Electrical height, degrees
t_hgt_elec

This field is requested for simple vertical towers, i.e. if the tower structure is 0 (see paragraph 49 below), and shall not be notified in the other cases.

49   Item 9T8: Tower structure
t_structure

This field's default value is 0, corresponding to a simple vertical tower. Its value is 1 for a top-loaded tower and 2 for a sectionalized tower. Other values are possible, but not recommended. See Appendix 6 to Annex 2 of the Final Acts, RJ81.

50   Item 9T9A: Tower parameter A
t_tls_a

This field is requested if the tower structure is 1 or 2. It shall not be notified when the structure is 0.

51   Item 9T9B: Tower parameter B
t_tls_b

This field is requested if the tower structure is 1 or 2. It shall not be notified when the structure is 0.

52   Item 9T9C: Tower parameter C
t_tls_c

This field is requested if the tower structure is 2. It shall not be notified when the structure is 0 or 1.

53   Item 9T9D: Tower parameter D
t_tls_d

This field is requested if the tower structure is 2. It shall not be notified when the structure is 0 or 1.

Annex to Form T04
AUGMENTATION sub-subsection in OPERATION subsection of T04 notices

This subsection is required for T04 notices, for each operation, if the type of pattern is "modified expanded" (t_ptrn_type = M). It shall not exist in the other cases.

The complete explanations of the augmentations is given in RJ81 Final Acts, paragraph 2.8 of Appendix 3 in Annex 2. The **AUGMENTATION** subsection contains the following keys:

54   Item 9IA: Radiation in the central azimuth of augmentation, mV/m at 1 km
**   t_aug_e**

This field is required in each **AUGMENTATION** sub-subsection.

55   Item 9AA: Central azimuth of augmentation, degrees
**   t_aug_azm**

This field is required in each **AUGMENTATION** sub-subsection.

56   Item 9CA: Span of augmentation, degrees
**   t_aug_span**

This field is required in each **AUGMENTATION** sub-subsection.

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