



Radiocommunication Bureau

(Direct Fax N°. +41 22 730 57 85)

Circular Letter
CR/242

29 July 2005

To Administrations of Member States of the ITU*

Subject: Formats for electronic notification of digital broadcasting requirements to be used for the development of a draft plan for the second session of the Regional Radiocommunication Conference for the planning of digital terrestrial broadcasting service in parts of Regions 1 and 3, in the frequency bands 174-230 MHz and 470-862 MHz.

Reference: Resolutions of the first session of the Regional Radiocommunication Conference for the planning of digital terrestrial broadcasting service in parts of Regions 1 and 3, in the frequency bands 174-230 MHz and 470-862 MHz – (RRC-04), Geneva, 2004.

Report of the first meeting of the Intersessional Planning Group (IPG), Geneva, 4–8 July 2005.

To the Director General,

Dear Sir/Madam,

1 Pursuant to the decisions taken by the first session of the RRC, as detailed in Chapter 6 of the Report annexed to Resolution 1 of the first session of the RRC, the Radiocommunication Bureau developed formats for electronic notification of digital broadcasting requirements to be used for the first planning exercise and the development of a draft plan for the second session of the Regional Radiocommunication Conference for the planning of digital terrestrial broadcasting service in parts of Regions 1 and 3, in the frequency bands 174-230 MHz and 470-862 MHz (RRC). These formats were described in the Circular Letter CR/215 of 9 July 2004 and its Corrigendum 1 of 2 September 2004.

2 In accordance with the time-schedule indicated in Annex 2 to Resolution COM5/1, the first planning exercise was carried out using the requirements submitted in the described formats from Member States in the planning area. The results of the first planning exercise were presented to the first meeting of the Intersessional Planning Group (IPG), together with the working assumptions adopted by the Planning Exercise Team (PXT) for the purpose of the conduct of the first planning

* *This Circular Letter is primarily addressed to the Member States of Region 1 (except Mongolia) and to the Islamic Republic of Iran. It is for information only for other Member States.*

exercise. Some of the working assumptions were related to the data elements concerning the digital broadcasting requirements. The IPG considered the results of the first planning exercise, as well as the related working assumptions and, in almost all cases, it confirmed the working assumptions, including the ones related to the data elements. In addition, the IPG considered that further precision might be needed for the data items dealing with pre-coordination, and bearing in mind the related procedures for submitting administrative declarations.

3 With respect to data formats, the IPG conclusions are summarized below:

3.1 The IPG confirmed the view of the PXT that, for the requirements dealing with broadcasting assignments (see Tables 6.2-1 and 6.2-3 of the Report from the RRC-04), the data item “spectrum mask” is essential and has to be specified as mandatory. This field was already indicated as mandatory in Circular Letter CR/215, but some administrations questioned that indication, given the fact that, in the RRC-04 Report, this field was indicated as optional.

3.2 The IPG noted the difficulties arisen from the use of the item “successfully pre-coordinated with ...”, which appears in all Tables in Chapter 6 of the RRC-04 Report, especially its use in conjunction with the concept of administrative declarations, and consequently decided to restrict the use of this item, in the context of the RRC, only for indicating the results of pre-coordination between digital broadcasting requirements and analogue television assignments or assignments of other primary services of other administrations (see section 6 in Annex 21 of the IPG Report, [Document IPG-1/51](#)). Accordingly, the results of pre-coordination of the digital broadcasting requirements with respect to the digital broadcasting requirements of other administrations would need to be indicated using the concept of administrative declarations. The IPG further specified the following:

- In order to be taken into consideration in the planning process, this item will be effective only if the concerned digital broadcasting requirement is related to one specific channel or one specific frequency block. This information will be disregarded if the digital broadcasting requirement is related to more than one specific TV channel or frequency block;
- For avoiding any confusion, this item field will be replaced by two separate items: one dealing with successfully completed coordination of the given digital broadcasting requirement with respect to the analogue TV assignments of other administrations, and another one dealing with successfully completed coordination of the given digital broadcasting requirement with respect to the assignments of other primary services of other administrations;
- For indicating the internal compatibility (i.e. the compatibility of a given digital broadcasting requirement of one administration with its own analogue TV assignments and/or with its own assignments of other primary services) a new data element is to be introduced. However, for indicating the compatibility of a given digital broadcasting requirement of one administration with its own digital broadcasting requirements, the administration needs to use the concept of administrative declarations.

3.3 The IPG recommended to the administrations to use the concept of administrative declarations as the primary tool to declare compatibility of individual requirements in all cases (digital broadcasting with digital broadcasting, analogue broadcasting and other primary services), i.e. including the cases covered by the concept of successful pre-coordination. The implementation aspects of the concept of the administrative declarations, as suggested by the IPG, are under consideration within the Bureau and detailed information on its use for the production of the draft plan will be provided in due time.

4 Given this background, the Bureau consolidated the indications concerning the formats for electronic notification of digital broadcasting requirements to be used for the development of a draft plan in the attached Annexes, together with the relevant instructions. The relevant data capture and data validation software have been adapted accordingly (see Circular Letter CR/241 of 29 July 2005).

5 The Bureau remains at the disposal of your administration for any clarification you may require with respect to the subjects covered in this Circular Letter.

Yours faithfully,

V. Timofeev
Director, Radiocommunication Bureau

Annexes: 7

Distribution:

- Administrations of Member States of the ITU
- Members of the Radio Regulations Board

ANNEX 1

A general description of the format for electronic notification

1 General file structure

The file 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 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 sub-sections; at this time, only the **NOTICE** section may contain sub-sections.

For each section there is a defined beginning: the start-tag, and a defined end: the end-tag. 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 sub-sections. The sub-sections are also defined using start-tags and end-tags, using the formats `<sub-section_name>` and `</sub-section_name>`.

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

Sub-sections are grouped at the end of the section.

Within a section or sub-section, each value is preceded by a key, like in the example below:

```
t_action = ADD
```

Within each section or sub-section, each key shall be unique, except for specific keys, these keys are `rrc_contour_id` and `t_remarks` in the `<NOTICE>` section and `t_adm` in the `<COORD_A>` and `<COORD_O>` sub-sections.

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 files 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 sub-section may be in any order within that section or sub-section; they are referenced by name - within this section or sub-section - 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, nor within a key name.

Each key is composed of alphanumeric text and must be unique within its section. 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.

2 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 separator - 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.

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 element names are prefixed with **t_** for data items already in **TerRaSys** and **rrc_** for those related to RRC planning activities.

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

Dates in the electronic notices are to be specified using the ISO 8601 standard. That is, they must be in the format **yyyy-mm-dd**, where:

- yyyy** is the full year (4 digits)
- mm** is the month, from 01 through 12
- dd** is the day, from 01 through 31

For example, 06 July 2004 would be represented as 2004-07-06.

Geographic coordinates contain the longitude and latitude of the transmitting or receiving sites. The seconds of the longitude and latitude are recommended.

The **longitude** must be submitted in one of the two following formats, depending on whether seconds are submitted:

- ±DDMMSS or
- ±DDMM

where:

- East Longitude is represented by a mandatory plus sign; West Longitude is represented by a minus sign;
- DDD refers to the degrees portion of the longitude, with one or two leading zeros if this is less than 100;
- MM refers to the minutes portion of the longitude, with a leading zero if this is less than 10;
- SS refers to the seconds portion of the longitude, with a leading zero if this is less than 10.

Examples are:

- 0750015
- 07500

The **latitude** must be submitted in one of the two following formats, depending on whether seconds are submitted:

- ±DDMMSS or
- ±DDMM

where:

- North Latitude is represented by a mandatory plus sign; South Latitude is represented by a minus sign;
- DD refers to the degrees portion of the latitude, with a leading zero if this is less than 10;
- MM refers to the minutes portion of the latitude, with a leading zero if this is less than 10;
- SS refers to the seconds portion of the latitude, with a leading zero if this is less than 10.

Examples are:

+401213

+4012

ANNEX 2

**DT1 – Format of electronic notification
for a digital television broadcasting (DVB-T) assignment requirement**

DT1 Notice ¹	M/O ²	Comments
<HEAD>	M	Beginning of the HEAD section containing general data elements related to all notices.
t_char_set = ISO-8859-1	O	The character set used in the file.
t_adm = SUI	M	The three-character code for the name of the administration submitting the notice.
t_email_addr = mail@ofcom.ch	O	The electronic mail address.
</HEAD>	M	End of the HEAD section.
<NOTICE>	M	Beginning of NOTICE section containing data elements related to one notice.
t_notice_type = DT1	M	The type of notice is DT1 for DVB-T assignment.
t_fragment = RC06	M	The part of the database to be updated.
t_action = ADD	M	The action to be taken regarding this notice (ADD, MODIFY or SUPPRESS).
t_adm_ref_id = SUI00001	M	Unique identifier of the requirement, assigned by the administration.
t_trg_adm_ref_id =	(M)	Unique Identifier of the notice under treatment to be modified or withdrawn.
t_ctry = SUI	M	The three-character code for the name of the geographic area where the transmitting antenna is located.
t_site_name = GRUYERES	M	The name of the site where the transmitting antenna is located.
t_long = +0070600	M	The longitude of the transmitting antenna site.
t_lat = +463500	M	The latitude of the transmitting antenna site.
t_site_alt = +500	M	Altitude of site (metres above sea level, a sign followed by a number).
rrc_sys_var =	(M)	Digital television system variant including modulation scheme and code rate.
rrc_rx_mode =	(M)	Reception mode.
rrc_nb_carr =	(M)	Number of carriers (2k or 8k).
rrc_guard_interval	(M)	Guard interval.
rrc_ref_plan_cfg = RPC2	(M)	Reference Planning Configuration (RPC1, RPC2 or RPC3).
t_erp_h_dbw = 30	(M)	The maximum horizontally polarized Effective Radiated Power (dBW).
t_erp_v_dbw =	(M)	The maximum vertically polarized Effective Radiated Power (dBW).
rrc_sfn_id =	(M)	Identifier for SFN.
rrc_sfn_tx_tim =	(M)	Relative timing of transmitter within an SFN.
rrc_adm_allot_id =	O	Unique identifier of DVB-T allotment to which this assignment is related (assigned by the administration).
t_polar = H	M	Polarization (H, V, M or U).

¹ Detailed descriptions of data items, listed in alphabetical order, can be found in Annex 7.
Values of data items are given as examples only.

² M = Mandatory, O = Optional and (M) = conditionally mandatory – depending on the data in one or more other related field(s).

The above footnotes apply to all tables that follow.

DT1 Notice ¹	M/O ²	Comments
t_hgt_agl = 30	M	The height (metres) above ground level of the centre of radiation.
rrc_ant_dir = D	M	Directivity (D/ND).
t_eff_hgtmax = 229	M	The maximum effective height (metres).
rrc_spect_mask = N	M	Spectrum mask.
t_d_adm_ntc = 2004-07-06	O	The date that the administration gives to this notice.
rrc_conv_freq_assgn =	O	Assigned frequency of the origin analogue assignment for conversion.
rrc_conv_lat =	O	Latitude of the origin analogue assignment for conversion.
rrc_conv_long =	O	Longitude of the origin analogue assignment for conversion.
t_remarks = 1.7.1	O	The requirement corresponds to an existing digital broadcasting assignment.
t_remarks =	O	Other remarks to be stored in database. Multiple t_remarks data items are allowed.
rrc_channel = UHF	M	One, many or a range of acceptable channels. For example UHF, VHF, 5-9 (channels 5 to 9) or 45, 47, 49.
rrc_coord_self = TRUE	O	Indicator concerning the internal compatibility of the requirement with respect to all other assignments/requirements of the notifying administration.
<ANT_HGT>	M	Beginning of ANT_HGT sub-section containing effective antenna heights.
t_eff_hgt@azmzzz = 300	M	Effective antenna height at azimuth zzz degrees from the True North (zzz from 0 to 350 step 10).
</ANT_HGT>	M	End of ANT_HGT sub-section.
<ANT_DIAGR_H>	(M)	Beginning of ANT_DIAGR_H sub-section containing attenuation of the horizontal polarized component (dB).
t_attn@azmzzz = 3	(M)	Antenna attenuation (normalized to 0 dB) at azimuth zzz degrees from the True North (zzz from 0 to 350 step 10).
</ANT_DIAGR_H>	(M)	End of ANT_DIAGR_H sub-section.
<ANT_DIAGR_V>	(M)	Beginning of ANT_DIAGR_V sub-section containing attenuation of the vertical polarized component (dB).
t_attn@azmzzz = 3	(M)	Antenna attenuation (normalized to 0 dB) at azimuth zzz degrees from the True North (zzz from 0 to 350 step 10).
</ANT_DIAGR_V>	(M)	End of ANT_DIAGR_V sub-section.
<COORD_A>	O	Beginning of COORD_A sub-section concerning successful pre-coordination with analogue broadcasting service of other administrations.
t_adm = F	O	Administration that gives agreement (the requirement is compatible with all analogue broadcasting services of the Administration of F). Repeat as appropriate.
</COORD_A>	O	End of COORD_A sub-section.
<COORD_O>	O	Beginning of COORD_O sub-section concerning successful pre-coordination with primary services other than broadcasting of other administrations.
t_adm = F	O	Administration that gives agreement (the requirement is compatible with all primary services other than broadcasting of the Administration of F). Repeat as appropriate.
</COORD_O>	O	End of COORD_O sub-section.
</NOTICE>	M	End of NOTICE section.
<NOTICE>	M	Beginning of NOTICE section for Notice 2.
		Data items for Notice 2.
</NOTICE>	M	End of NOTICE section for Notice 2.

DT1 Notice¹	M/O²	Comments
<TAIL>	M	Beginning of TAIL section indicating the total number of notices in the notification file.
t_num_notices = 2	M	The number of notices contained in the file.
</TAIL>	M	End of TAIL section. End of the notification file.

ANNEX 3

**DT2 – Format of electronic notification
for a digital television broadcasting (DVB-T) allotment requirement**

DT2 Notice ¹	M/O ²	Comments
<HEAD>	M	Beginning of the HEAD section containing general data elements related to all notices.
t_char_set = ISO-8859-1	O	The character set used in the file.
t_adm = SUI	M	The three-character code for the name of the administration submitting the notice.
t_email_addr = mail@ofcom.ch	O	The electronic mail address.
</HEAD>	M	End of the HEAD section.
<NOTICE>	M	Beginning of NOTICE section containing data elements related to one notice.
t_notice_type = DT2	M	The type of notice DT2 for DVB-T allotment.
t_fragment = RC06	M	The part of the database to be updated.
t_action = ADD	M	The action to be taken regarding this notice (ADD, MODIFY or SUPPRESS).
t_adm_ref_id = SUI00002	M	Unique identifier of the requirement, assigned by the administration.
t_trg_adm_ref_id =	(M)	Unique Identifier of the notice under treatment to be modified or withdrawn.
t_ctry = SUI	M	The three-character code for the name of the geographic area where the transmitting antenna is located.
rrc_allot_name = GRUYERES	M	Digital broadcasting allotment name.
rrc_sys_var =	(M)	Digital television system variant including modulation scheme and code rate.
rrc_rx_mode =	(M)	Reception mode.
rrc_nb_carr =	(M)	Number of carriers (2k or 8k).
rrc_guard_interval	(M)	Guard interval.
rrc_ref_plan_cfg = RPC2	(M)	Reference Planning Configuration (RPC1, RPC2 or RPC3).
rrc_typ_ref_netwk = RN1	M	Type of Reference Network (RN1, RN2, RN3 or RN4).
rrc_sfn_id =	O	Identifier for SFN.
t_polar = H	M	Polarization (H, V, M or U).
rrc_geo_area =	(M)	Geographical area code. If all test points are on the country boundary, enter the identifier for the national boundary otherwise blank.
rrc_nb_sub_areas = 1	(M)	Number of sub-areas. If field rrc_geo_area is blank, enter number of sub-areas (9 maximum).
t_d_adm_ntc = 2004-07-06	O	The date that the administration gives to this notice.
rrc_conv_freq_assgn =	O	Assigned frequency of the origin analogue assignment for conversion.
rrc_conv_lat =	O	Latitude of the origin analogue assignment for conversion.
rrc_conv_long =	O	Longitude of the origin analogue assignment for conversion.
t_remarks =	O	Remarks to be stored in database. Multiple t_remarks data items are allowed.
rrc_channel = 6-8	M	One, many or a range of acceptable channels. For example UHF, VHF, 5-9 (channels 5 to 9) or 45, 47, 49.
rrc_contour_id = 0001	(M)	Unique contour number of sub-area, repeating for all contours that make up the allotment area.

DT2 Notice ¹	M/O ²	Comments
rrc_coord_self = TRUE	O	Indicator concerning the internal compatibility of the requirement with respect to all other assignments/requirements of the notifying administration.
<COORD_A>	O	Beginning of COORD_A sub-section concerning successful pre-coordination with analogue broadcasting service of other administrations.
t_adm = F	O	Administration that gives agreement (the requirement is compatible with all analogue broadcasting services of the Administration of F). Repeat as appropriate.
</COORD_A>	O	End of COORD_A sub-section.
<COORD_O>	O	Beginning of COORD_O sub-section concerning successful pre-coordination with “primary services other than broadcasting” of other administrations.
t_adm = F	O	Administration that gives agreement (the requirement is compatible with all “primary services other than broadcasting” of the Administration of F). Repeat as appropriate.
</COORD_O>	O	End of COORD_O sub-section.
</NOTICE>	M	End of NOTICE section.
<NOTICE>	M	Beginning of NOTICE section for Notice 2.
		Data items for Notice 2.
</NOTICE>	M	End of NOTICE section for Notice 2.
<TAIL>	M	Beginning of TAIL section indicating the total number of notices in the notification file.
t_num_notices = 2	M	The number of notices contained in the file.
</TAIL>	M	End of TAIL section. End of the notification file.

ANNEX 4

**DS1 – Format of electronic notification
for a digital sound broadcasting (T-DAB) assignment requirement**

DS1 Notice ¹	M/O ²	Comments
<HEAD>	M	Beginning of the HEAD section containing general data elements related to all notices.
t_char_set = ISO-8859-1	O	The character set used in the file.
t_adm = SUI	M	The three-character code for the name of the administration submitting the notice.
t_email_addr = mail@ofcom.ch	O	The electronic mail address.
</HEAD>	M	End of the HEAD section.
<NOTICE>	M	Beginning of NOTICE section containing data elements related to one notice.
t_notice_type = DS1	M	The type of notice DS1 for T-DAB assignment.
t_fragment = RC06	M	The part of the database to be updated.
t_action = ADD	M	The action to be taken regarding this notice (ADD, MODIFY or SUPPRESS).
t_adm_ref_id = SUI00003	M	Unique identifier of the requirement, assigned by the administration.
t_trg_adm_ref_id =	(M)	Unique Identifier of the notice under treatment to be modified or withdrawn.
t_ctry = SUI	M	The three-character code for the name of the geographic area where the transmitting antenna is located.
t_site_name = GRUYERES	M	The name of the site where the transmitting antenna is located.
t_long = +0070600	M	The longitude of the transmitting antenna site.
t_lat = +463700	M	The latitude of the transmitting antenna site.
t_site_alt = +500	M	Altitude of site (metres above sea level, a sign followed by a number).
rrc_ref_plan_cfg = RPC4	M	Reference Planning Configuration (RPC4 or RPC5).
t_erp_h_dbw = 30	(M)	The maximum horizontally polarized Effective Radiated Power (dBW).
t_erp_v_dbw =	(M)	The maximum vertically polarized Effective Radiated Power (dBW).
rrc_sfn_id =	(M)	Identifier for SFN.
rrc_sfn_tx_tim =	(M)	Relative timing of transmitter within an SFN.
rrc_adm_allot_id =	O	Unique identifier of T-DAB allotment to which this assignment is related.
t_polar = H	M	Polarization (H, V, M or U).
t_hgt_agl = 30	M	The height (metres) above ground level of the centre of radiation.
rrc_ant_dir = D	M	Antenna directivity (D/ND).
t_eff_hgtmax = 229	M	The maximum effective height (metres).
rrc_spect_mask = 1	M	Spectrum mask.
t_d_adm_ntc = 2004-07-07	O	The date that the administration gives to this notice.
rrc_freq_block = 5A	M	One or many acceptable frequency blocks, separated by commas. For example: 5A, 5B, 5C, 5D or VHF.
rrc_coord_self = TRUE	O	Indicator concerning the internal compatibility of the requirement with respect to other assignments/requirements of the notifying administration.
<ANT_HGT>	M	Beginning of ANT_HGT sub-section for effective antenna heights.
t_eff_hgt@azmzzz = 200	M	Effective antenna height at azimuth zzz degrees from the True North (zzz from 0 to 350 step 10).

DSI Notice¹	M/O²	Comments
</ANT_HGT>	M	End of ANT_HGT sub-section.
<ANT_DIAGR_H>	(M)	Beginning of ANT_DIAGR_H sub-section for attenuation of the horizontal polarized component (dB).
t_attn@azmzzz = 3	(M)	Antenna attenuation (normalized to 0 dB) at azimuth zzz degrees from the True North (zzz from 0 to 350 step 10).
</ANT_DIAGR_H>	(M)	End of ANT_DIAGR_H sub-section
<ANT_DIAGR_V>	(M)	Beginning of ANT_DIAGR_V sub-section attenuation of the vertical polarized component (dB).
t_attn@azmzzz = 3	(M)	Antenna attenuation (normalized to 0 dB) at azimuth zzz degrees from the True North (zzz from 0 to 350 step 10).
</ANT_DIAGR_V>	(M)	End of ANT_DIAGR_V sub-section.
<COORD_A>	O	Beginning of COORD_A sub-section concerning successful pre-coordination with analogue broadcasting service of other administrations.
t_adm = F	O	Administration that gives agreement (the requirement is compatible with all analogue broadcasting services of the Administration of F). Repeat as appropriate.
</COORD_A>	O	End of COORD_A sub-section.
<COORD_O>	O	Beginning of COORD_O sub-section concerning successful pre-coordination with primary services other than broadcasting of other administrations.
t_adm = F	O	Administration that gives agreement (the requirement is compatible with all primary services other than broadcasting of the Administration of F). Repeat as appropriate.
</COORD_O>	O	End of COORD_O sub-section.
</NOTICE>	M	End of NOTICE section.
<NOTICE>	M	Beginning of NOTICE section of Notice 2.
		Data items for Notice 2.
</NOTICE>	M	End of NOTICE section of Notice 2.
<TAIL>	M	Beginning of TAIL section indicating the total number of notices in the notification file.
t_num_notices = 2	M	The number of notices contained in the file.
</TAIL>	M	End of TAIL section. End of the notification file.

ANNEX 5

**DS2 – Format of electronic notification
for a digital sound broadcasting (T-DAB) allotment requirement**

DS2 Notice¹	M/O²	Comments
<HEAD>	M	Beginning of the HEAD section containing general data elements related to all notices.
t_char_set = ISO-8859-1	O	The character set used in the file.
t_adm = SUI	M	The three-character code for the name of the administration submitting the notice.
t_email_addr = mail@ofcom.ch	O	The electronic mail address.
</HEAD>	M	End of the HEAD section.
<NOTICE>	M	Beginning of NOTICE section containing data elements related to one notice.
t_notice_type = DS2	M	The type of notice DS2 for T-DAB allotment
t_fragment = RC06	M	The part of the database to be updated.
t_action = ADD	M	The action to be taken regarding this notice (ADD, MODIFY or SUPPRESS).
t_adm_ref_id = SUI00004	M	Unique identifier of the requirement, assigned by the administration.
t_trg_adm_ref_id =	(M)	Unique Identifier of the notice under treatment to be modified or withdrawn.
t_pty = SUI	M	The three-character code for the name of the geographic area where the transmitting antenna is located.
rrc_allot_name = GRUYERES	M	Digital broadcasting T-DAB allotment name.
rrc_ref_plan_cfg = RPC4	M	Reference Planning Configuration (RPC4 or RPC5).
rrc_sfn_id =	O	Identifier for SFN.
t_polar = H	M	Polarization (H, V, M or U).
rrc_geo_area =	(M)	Geographical area. If all test points are on the country boundary, enter the identifier for the national boundary otherwise blank.
rrc_nb_sub_areas = 2	(M)	Number of sub-areas. If field rrc_geo_area is blank, enter number of sub-areas (9 maximum).
t_d_adm_ntc = 2004-07-06	O	The date that the administration gives to this notice.
t_remarks =	O	Remarks to be stored in database.
rrc_freq_block = 5A	M	One or many acceptable frequency blocks, separated by commas. For example: 5A, 5B, 5C, 5D or VHF.
rrc_contour_id = 0003	(M)	Unique contour number of sub-area 1.
rrc_contour_id = 0004	(M)	Unique contour number of sub-area 2, repeating for all contours that make up the allotment area.
rrc_coord_self = TRUE	O	Indicator concerning the internal compatibility of the requirement with respect to other assignments/requirements of the notifying administration.
<COORD_A>	O	Beginning of COORD_A sub-section concerning successful pre-coordination with all analogue broadcasting service of other administrations.
t_adm = F	O	Administration that gives agreement (the requirement is compatible with all analogue broadcasting services of the Administration of F). Repeat as appropriate.
</COORD_A>	O	End of COORD_A sub-section

DS2 Notice ¹	M/O ²	Comments
<COORD_O>	O	Beginning of COORD_O sub-section concerning successful pre-coordination with all primary services other than broadcasting of other administrations.
t_adm = F	O	Administration that gives agreement (the requirement is compatible with all primary services other than broadcasting of the Administration of F). Repeat as appropriate.
</COORD_O>	O	End of COORD_O sub-section.
</NOTICE>	M	End of NOTICE section.
<NOTICE>	M	Beginning of NOTICE section of Notice 2.
		Data items for Notice 2.
</NOTICE>	M	End of NOTICE section of Notice 2.
<TAIL>	M	Beginning of TAIL section indicating the total number of notices in the notification file.
t_num_notices = 2	M	The number of notices contained in the file.
</TAIL>	M	End of TAIL section. End of the notification file.

ANNEX 6

**DA1 – Format of electronic notification
for a Sub Allotment Area for digital broadcasting requirement (DVB-T or T-DAB)**

DA1 Notice ¹	M/O ²	Comments
<HEAD>	M	Beginning of the HEAD section containing general data elements related to all notices.
t_char_set = ISO-8859-1	O	The character set used in the file.
t_adm = SUI	M	The three-character code for the name of the administration submitting the notice.
t_email_addr = mail@ofcom.ch	O	The electronic mail address.
</HEAD>	M	End of the HEAD section.
<NOTICE>	M	Beginning of NOTICE section for sub-allotment area 1.
t_notice_type = DA1	M	The type of notice DA1 for sub-allotment area notification.
t_fragment = RC06	M	The part of the database to be updated.
t_ctry = SUI	M	The three-character code for the name of the geographic area where test points are located.
rrc_contour_id = 0001	M	Unique contour ID number.
rrc_nb_test_pts = 60	M	Number of test points (maximum of 99).
t_remarks =	O	Remarks.
<POINT>	M	Beginning of POINT sub-section for test point 1.
rrc_lat = +453700	M	The latitude of the test point 1.
rrc_long = +0070700	M	The longitude of the test point 1.
</POINT >	M	End of POINT sub-section for test point 1.
<POINT>	M	Beginning of POINT sub-section for test point 2. Repeat for next test point in correct sequence.
rrc_lat = +453710	M	The latitude of the test point 2.
rrc_long = +0070710	M	The longitude of the test point 2.
</POINT >	M	End of POINT sub-section for test point 2.
<POINT>	M	Beginning of POINT sub-section for test point n. Repeat for next test point in correct sequence.
rrc_lat =	M	The latitude of the test point n.
rrc_long =	M	The longitude of the test point n.
</POINT>	M	End of POINT sub-section for test point n.
</NOTICE>	M	End of NOTICE section for sub-allotment area 1.
<NOTICE>	M	Beginning of NOTICE section for Notice 2.
		Data items for Notice 2.
</NOTICE>	M	End of NOTICE section for Notice 2.
<TAIL>	M	Beginning of TAIL section indicating the total number of notices in the notification file.
t_num_notices = 2	M	The number of notices contained in the file.
</TAIL>	M	End of TAIL section. End of the notification file.

ANNEX 7

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. Data items are listed in alphabetical order.

Data item	Description and validation rules
rrc_adm_allot_id	Optional (DT1 and DS1 only). Unique identifier of digital allotment to which this assignment is related (assigned by the administration). Maximum of 20 characters limited to upper-case letters A to Z, digits 0 to 9, parenthesis, dash and forward slash. The field shall be unique for the notifying administration.
rrc_allot_name	Mandatory (DT2 and DS2 only). Digital allotment name. The field allows a maximum of 30 characters of the printable characters in the ISO 8859-1 coded character set. However, it is recommended to use upper-case letters A to Z, digits 0 to 9 and space.
rrc_ant_dir	Mandatory. Directivity of antenna - Item 9 of RR App. 4. Acceptable values are D if the antenna is directional and ND if it is non-directional.
rrc_channel	Mandatory. Acceptable DVB-T channels. A band or one or many acceptable channels in a band can be notified. The field allows a maximum of 60 characters. Acceptable values are given in Section 3.1 of the Report of RRC-04 and Appendix 2 to Annex 3 of the Report of the first meeting of the IPG where a channel number is given. For example: 5-9 for channels 5 to 9. 43, 45, 47 or VHF for Band III and UHF for Bands IV/V.
rrc_contour_id	Mandatory if all test points are not on the country boundary and therefore a number of sub-areas is notified. Unique contour number of a sub area that is a part of the allotment area. The field allows four-digit integer.
rrc_conv_freq_assgn	Optional. Assigned frequency of the origin analogue assignment for conversion in MHz and this must correspond to the acceptable channel notified for the requirement. If notified, rrc_conv_lat and rrc_conv_long must also be notified.
rrc_conv_lat	Optional. Latitude of the origin analogue assignment for conversion. The latitude may be different from that of the requirement. Acceptable format is described in Annex 1. If notified, rrc_conv_freq_assgn and rrc_conv_long must also be notified.
rrc_conv_long	Optional. Longitude of the origin analogue assignment for conversion. The longitude may be different from that of the requirement. Acceptable format is described in Annex 1. If notified, rrc_conv_freq_assgn and rrc_conv_lat must also be notified.
rrc_coord_self	Optional. Indicator concerning the internal compatibility of the requirement with respect to all other assignments/requirements of the notifying administration. Acceptable values are TRUE or FALSE.

Data item	Description and validation rules
rrc_freq_block	Mandatory. Acceptable T-DAB frequency blocks, separated by commas. The field allows for a maximum of 60 characters. Acceptable values are two to three-character string: a number from 5 to 12, followed by a character that is either A, B, C or D. Table A.3.1-10 of the Report of the RRC04 includes information on centre frequency, block bandwidth, etc. for all T-DAB frequency blocks.
rrc_geo_area	Mandatory if all test points are on the country boundary otherwise blank. The value shall be identical to the corresponding country code.
rrc_guard_interval	Mandatory if RPC is <i>not</i> notified. Guard interval. The field is an integer. Acceptable values are 4 (guard interval = 1/4), 8 (1/8), 16 (1/16) and 32 (1/32).
rrc_lat	Mandatory (DA1 only). Latitude of the test point N. Acceptable format is described in Annex 1.
rrc_long	Mandatory (DA1 only). Longitude of the test point N. Acceptable format is described in Annex 1.
rrc_nb_carr	Mandatory if RPC is <i>not</i> notified. Number of carriers. The field has two characters. Acceptable values are 2k or 8k.
rrc_nb_sub_areas	Mandatory if all test points are not on the country boundary. Acceptable values are from 1 to 9.
rrc_nb_test_pts	Mandatory. Number of test points. Maximum of 99 test points allowed. By default the processing system will join the last test point to the first in order to close the sub allotment area.
rrc_ref_plan_cfg	Mandatory if DVB-T system variant is not notified. Reference Planning Configuration (RPC) is a representative combination of criteria and parameters to be used for frequency planning purposes. For DVB-T notification, acceptable values are RPC1, RPC2 and RPC3. For T-DAB notification, acceptable values are RPC4 and RPC5.
rrc_rx_mode	Mandatory if RPC is not notified. Acceptable reception mode values are F for fixed, M for mobile, A and B for indoor and outdoor reception respectively.
rrc_sfn_id	Mandatory if SFN is used. Identifier for SFN allows a maximum of 30 characters limited to upper case letters A to Z, digits 0 to 9, parenthesis, dash and forward slash. The field shall be unique for the notifying administration over the whole set of requirements (all notice types together).
rrc_sfn_tx_tim	Mandatory if SFN is used. Relative timing of transmitter within an SFN(μ s), the field is an integer.
rrc_spect_mask	Mandatory (DT1 and DS1 only). Spectrum mask identifier – 1 character. For T-DAB, acceptable values are 1, 2 or 3 (Rec. ITU-R BS.1114-5) <ul style="list-style-type: none"> • 1 is for spectrum mask operating in critical cases • 2 is for spectrum mask operating in non-critical • 3 is for spectrum mask operating where 12D block is used For DVB-T, acceptable values are N (non-critical) or S (sensitive).
rrc_sys_var	Mandatory if RPC is not notified. Digital television system DVB-T variants. The field has two characters. The first indicates the modulation scheme: A for QPSK, B for 16-QAM and C for 64-QAM for 8 MHz channel width or D for QPSK, E for 16-QAM and F for 64-QAM for 7 MHz channel width. The second indicates the code rate: 1 for 1/2, 2 for 2/3, 3 for 3/4, 5 for 5/6 and 7 for 7/8.

Data item	Description and validation rules
rrc_typ_ref_netwk	Mandatory (DT2). Type of reference network. Acceptable values are RN1, RN2, RN3 and RN4 for DVB-T allotments. For T-DAB allotments the field is not required because the information can be deduced from the RPC used: RPC4 corresponds to RN5 and RPC5, RN6.
t_action	Mandatory. Acceptable values are ADD, MODIFY or SUPPRESS.
t_adm (in HEAD section)	Mandatory. Notifying administration – Item B of RR App. 4. It shall correspond to the code of the notifying administration.
t_adm in COORD_A sub-section	Optional. Administration with which coordination in relation to analogue assignments to broadcasting services was successfully completed for the requirement with one specific channel/frequency block identified. The coordination sub-section contains multiple occurrences of administration codes. Administration codes shall correspond to ITU's administration symbols.
t_adm in COORD_O sub-section	Optional. Administration with which coordination in relation with assignments to primary services "other than broadcasting" was successfully completed for the requirement with one specific channel/frequency block identified. The coordination sub-section contains multiple occurrences of administration codes. Administration codes shall correspond to ITU's administration symbols
t_adm_ref_id	Mandatory. Unique Identifier of the requirement (given by the administration). The field allows a maximum of 20 characters limited to upper case letters A to Z, digits 0 to 9, space, parenthesis, dash and forward slash. This field shall be unique for the notifying administration.
t_attn@azmzzz in ANT_DIAGR_H and the ANT_DIAGR_V sub-sections	Mandatory if antenna is directional. Attenuation, normalized to 0 dB, of the horizontal and vertical components sub-sections Items 9NH and 9NV of RR App. 4. The sub-section of attenuation of the horizontal component shall be filled if the antenna is directional and the polarization is horizontal or mixed. Similarly, the sub-section of attenuation of the vertical component shall be filled if the antenna is directional and the polarization is vertical or mixed. The attenuation sub-sections contain 36 values of attenuation (dB), in azimuths 0, 10, ... 350 degrees. Duplication of keys for a given azimuth will be considered as an error, and a key corresponding to an azimuth not multiple of 10 degrees will be ignored.
t_char_set	Optional. If not specified, the default value is ISO-8859-1. This is also currently the only acceptable value.
t_ctry	Mandatory. The code of the geographical area where the antenna site is located – Item 4B of of RR App. 4. Acceptable values shall be within the list of geographical areas in the planning area.
t_d_adm_ntc	Optional. Date of Notice. The date that the administration gives to the notice. Acceptable format is given in Annex 1.
t_eff_hgt@azmzzz in ANT_HGT sub-section	Mandatory. Effective antenna height at different azimuths – Item 9EC of RR App. 4. The effective antenna height sub-section contains 36 values of effective antenna heights (m), in azimuths 0, 10, ... 350 degrees. The value of effective antenna height in azimuth zzz degrees shall be preceded by the key t_eff_hgt@azmzzz. Duplication of keys for a given azimuth will be considered as an error, and a key corresponding to an azimuth not multiple of 10 degrees will be ignored.
t_eff_hgtmax	Mandatory. Maximum effective antenna height in metres – Item 9EB of of RR App. 4.

Data item	Description and validation rules
t_email_addr	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.
t_erp_h_dbw	Mandatory if polarization is H or M and shall not be notified if polarization is V. Maximum effective radiated power of the horizontally polarized component Item 8BH of RR App. 4. This is the maximum effective radiated power of the horizontally polarized component independent of azimuth and beam tilt.
t_erp_v_dbw	Mandatory if polarization is V or M and shall not be notified if polarization is H. Maximum effective radiated power of the vertically polarized component Item 8BV of of RR App. 4. This is the maximum effective radiated power vertically polarized component independent of azimuth and beam tilt.
t_fragment	Mandatory. The fragment of the database to be updated. The only acceptable value is RC06
t_hgt_agl	Mandatory. Height of antenna above ground level – Item 9E of of RR App. 4. The height (metres) of the centre of radiation above ground level.
t_long and t_lat	Mandatory. Geographical Coordinates – Item 4C of RR App. 4. The geographical coordinates are checked vis-à-vis the ITU geographical borders database (IDWM) to verify that the corresponding point falls inside the notified geographical area with a tolerance of 10 km.
t_notice_type	Mandatory. Acceptable values are DT1 for DVB-T assignment, DT2 for DVB-T allotment, DS1 for T-DAB assignment, DS2 for T-DAB allotment and DA1 for sub allotment area notification.
t_num_notices	Mandatory. The number of notices contained in the file. If the number of notices in the file differs from this value, the file is presumed corrupted, and will be returned to the notifying administration.
t_polar	Mandatory. Polarization – Item 9D of RR App. 4. Acceptable values are H for horizontal, V for vertical, M for mixed and U for unspecified.
t_remarks	Optional. Remarks. Maximum length 80 characters. Multiple remarks are allowed. Notified information in this field is not validated. The convention "t_remarks = 1.7.1" is used to indicate that the notified requirement corresponds to an existing digital broadcasting assignment (applies only to DT1 notices).
t_site_alt	Mandatory. Altitude of the site (metres above sea level, a sign followed by a number) – Item 9EA of RR App. 4.
t_site_name	Mandatory. Transmitting Antenna Site Name – Item 4A of RR App. 4. The field allows a maximum of 30 characters of the printable characters in the ISO 8859-1 coded character set. However, it is recommended to use upper-case letters A to Z, digits 0 to 9 and space.
t_trg_adm_ref_id	Mandatory if t_action is MODIFY or SUPPRESS. Unique Identifier of the target. The field allows a maximum of 20 characters limited to upper case letters A to Z, digits 0 to 9, space, parenthesis, dash and forward slash. This field is used to uniquely identify the requirement to be modified or suppressed. For an addition notice, this field shall not be notified.