CHAPTER 6

Requirements for digital broadcasting and data for analogue television and other primary services submitted by administrations

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6.1 Introduction

Administrations shall collate data for requirements for digital broadcasting services for the planning exercises during the intersessional period and for the second session of the conference.

Paragraph 6.2 specifies the necessary data for the digital broadcasting requirements.

As a general principle, data for existing and planned broadcasting stations and existing and planned assignments of other primary services are to be taken into account in the planning process and shall be retrieved from the relevant files as indicated in Chapter 1, § 1.7.

It is essential that the records contained in the relevant plans or the MIFR be up to date. If this is not the case, administrations should update these records via the appropriate procedures prior to the reference date.

In addition, for bilateral or multilateral negotiations between administrations, more detailed information on the existing stations may be needed. Paragraphs 6.3 and 6.4 define the data elements that administrations might use for these negotiations.

All data regarding the digital broadcasting requirements shall be submitted in electronic form.

The term “data element” is used to describe the set of individual data items which, taken together, constitute one requirement from an administration.

Geographical longitude and latitude coordinates in the requirements should preferably be based on the World Geodetic System 1984 (WGS84). If this is the case, the administration concerned has to confirm this in the “Remarks” item.

On the basis of the tables in § 6.2 and 6.4, BR will produce a circular letter to administrations with explanatory notes and examples.

6.2 Requirements for digital broadcasting

This section specifies the data elements for four types of requirements:

– a digital television broadcasting assignment requirement;
– a digital television broadcasting allotment requirement;
– a digital sound broadcasting assignment requirement;
– a digital sound broadcasting allotment requirement.

For the first planning exercise, administrations have to submit their requirements. For the subsequent planning exercises, the administrations have the option of submitting a new set or only the modifications to the list by using item No. 1 in each table. The Intersessional Planning Group (IPG) will always use the latest set of requirements. All requirements have the same status in the planning process, irrespective of the date they were submitted.

Each requirement may have a channel or a range of acceptable channels (DVB-T) or acceptable frequency blocks (T-DAB) in the appropriate field. If such information is not supplied, it is assumed that all channels or frequency blocks are acceptable.

Existing and planned digital broadcasting assignments/allotments should be submitted as digital requirements using the following tables, as appropriate.

The planning exercise team will take the necessary information for the protection of these assignments/allotments, as indicated in Chapter 1, § 1.7.

The requirements related to existing and planned digital television assignments which already appear in the ST61 or GE89 Plans, or for which the relevant plan modification procedure has been successfully applied, need to be identified accordingly, and their conformity with the corresponding T02 forms verified.

Legend:

TerRaBase ref: field exists in TerRaBase and (in principle) contains necessary data

M: mandatory

(M): conditionally mandatory – depends on the data in one or more other related field(s)

O: optional

The same legend applies to all tables in this Chapter.

TABLE 6.2-1

Data for a digital television broadcasting assignment requirement

No	Item	Mand. /Opt.	App. 4 ref.	TerRaBase ref.
1	Add, modify, suppress	M		t_action
2	ITU symbol for administration responsible	M	B	t_adm
3	Unique identifier given by the administration for the assignment (AdminRefId)	M		t_adm_ref_id
3a	Unique identifier given by the administration for the target assignment, only for MOD or SUP	(M)		t_trg_adm_ref_id
4	ITU symbol for country in which transmitter is sited	M	4B	t_ctry
5	Name of the location of the transmitting station	M	4A	t_site_name
6	Geographical coordinate, latitude	M	4C	t_lat
7	Geographical coordinate, longitude	M	4C	t_long
8	Altitude of site (metres above sea level, as a sign followed by a number)	M	9EA	t_site_alt
	Enter either 9a + 9b or 10			
9a	Digital television system (including DVB-T variant)[1]	(M)		
9b	Reception mode (e.g. fixed, portable)	(M)		
10	Reference planning configuration (RPC 1, RPC 2 or RPC 3)	(M)		
11	List of acceptable channels	O		
	Complete 12 and/or 13, based on the value given in field 17			
12	Maximum e.r.p. of horizontally polarized component (dBW), as a sign followed by a number including a decimal point	(M)	8BH	t_erp_h_dbw
13	Maximum e.r.p. of vertically polarized component (dBW), as a sign followed by a number including a decimal point	(M)	8BV	t_erp_v_dbw

TABLE 6.2-1 (*end*)

No	Item	Mand. /Opt.	App. 4 ref.	TerRaBase ref.
14	Identifier for SFN	(M)		
15	Relative timing of transmitter within an SFN (μs)	(M)		
16	Unique DVB-T allotment identifier given by the administration for the allotment to which this assignment is related	O		
17	Polarization (H-horizontal/V-vertical/M-mixed/U-unspecified)	M	9D	t_polar
18	Height of antenna (metres above ground level)	M	9E	t_hgt_agl
19	Directivity (directional/non-directional)	M	9	
20	36 values of e.r.p. reduction (dB) of the horizontally-polarized component in the horizontal plane relative to the maximum e.r.p. of the horizontally-polarized component as given above (at 10° intervals, starting at North), mandatory if field 19 = D	(M)	9NH	t_attn@azmxx0 in ANT_DIAGR_H subsection
21	36 values of e.r.p. reduction (dB) of the vertically-polarized component in the horizontal plane relative to the maximum e.r.p. of the vertically-polarized component as given above (at 10° intervals, starting at North), mandatory if field 19 = D	(M)	9NV	t_attn@azmxx0 in ANT_DIAGR_V sub-section
22	Maximum effective antenna height (m)	M	9EB	t_eff_hgtmax
23	36 values of effective antenna height (metres, at 10° intervals, starting at North); if not provided, the value of the maximum effective antenna height should be used for all 36 values	M	9EC	t_eff_hgt@azmxx0 in ANT_HGT sub-section
24	Spectrum mask	O		
25	Date of notification by administrations	O		t_d_adm_ntc
26	Origin: conversion of an analogue assignment[2]	O		
27	Successfully pre-coordinated with ...	O	11	t_adm in COORD sub-section
28	Remarks	O		t_remarks

[1] The DVB-T variant should fully identify the system used (e.g. modulation mode, number of carriers, FEC, guard interval).

[2] BR will determine a suitable way to identify the corresponding analogue assignment (if any) and inform the IPG if there is a need for advice.

TABLE 6.2-2

Data for a digital television broadcasting allotment requirement

No	Item	Mand. /Opt.	App. 4 ref.	TerRaBase ref.
1	Add, modify, suppress	M		t_action
2	ITU symbol for administration responsible	M	B	t_adm
3	Unique DVB-T identifier for the allotment given by the administration (AdminRefId)	M		t_admin_ref_id
3a	Unique identifier given by the administration for the target allotment, only for MOD or SUP	(M)		t_trg_adm_ref_id
4	ITU symbol for country in which allotment is sited	M	4B	t_ctry
5	Digital broadcasting allotment name	M		
	Enter either 6a + 6b or 7			
6a	Digital television system (including DVB-T variant)[1]	(M)		
6b	Reception mode (e.g. portable, mobile...)	(M)		
7	Reference planning configuration (RPC 1, RPC 2 or RPC 3)	(M)		
8	Type of the reference network (RN 1, RN 2, RN 3 or RN 4)	M		
9	Identifier for SFN	(M)		
10	Polarization (H-horizontal/V-vertical/M-mixed/U-unspecified)	M	9D	t_polar
11	List of acceptable channels	O		
12	If all the test points are on the country boundary for this allotment, enter the identifier for national boundary	(M)		
13	If previous field is blank, enter number (up to 9) of sub-areas within this allotment (if there is no subdivision, enter 1)	(M)		
14	Enter for each sub-area (up to 9) a unique contour number, its number of boundary test points (up to 99) and the coordinates of its associated allotment test points	(M)		
15	Date of notification by administrations	O		t_d_adm_ntc
16	Origin: conversion of an analogue assignment[2]	O		
17	Successfully pre-coordinated with …	O	11	t_adm in COORD sub-section
18	Remarks	O		t_remarks

[1] The DVB-T variant should fully identify the system used (e.g. modulation mode, number of carriers, FEC, guard interval).

[2] BR will determine a suitable way to identify the corresponding analogue assignment (if any) and inform the IPG if there is a need for advice.

TABLE 6.2-3

Data for a digital sound broadcasting assignment requirement

No	Item	Mand. /Opt.	App. 4 ref.	TerRaBase ref.
1	Add, modify, suppress	M		t_action
2	ITU symbol for administration responsible	M	B	t_adm
3	Unique identifier given by the administration for the assignment (AdminRefId)	M		t_adm_ref_id
3a	Unique identifier of the target given by the administration for the target assignment, only for MOD or SUP	(M)		t_trg_adm_ref_id
4	ITU symbol for country in which transmitter is sited	M	4B	t_ctry
5	Name of the location of the transmitting station	M	4A	t_site_name
6	Geographical coordinate, latitude	M	4C	t_lat
7	Geographical coordinate, longitude	M	4C	t_long
8	Altitude of site (metres above sea level, as a sign followed by a number)	M	9EA	t_site_alt
9	Reference planning configuration (RPC 4 or RPC 5)	M		
10	List of acceptable frequency blocks	O		
	Complete 11 and/or 12, based on the value given in field 16			
11	Maximum e.r.p. of horizontally polarized component (dBW), as a sign followed by a number including a decimal point	(M)	8BH	t_erp_h_dbw
12	Maximum e.r.p. of vertically polarized component (dBW), as a sign followed by a number including a decimal point	(M)	8BV	t_erp_v_dbw
13	Identifier for SFN	(M)		
14	Unique T-DAB allotment identifier given by the administration for the allotment to which this assignment is related	O		
15	Relative timing of transmitter within an SFN (µs)	(M)		
16	Polarization (H-horizontal/V-vertical/M-mixed/U-unspecified)	M	9D	t_polar
17	Height of transmitting antenna (metres above ground level)	M	9E	t_hgt_agl
18	Directivity (directional/non-directional)	M	9	
19	Antenna attenuation – horizontal. 36 values of e.r.p. reduction (dB) of the horizontally-polarized component in the horizontal plane relative to the maximum e.r.p. component as given above (at 10° intervals, starting at North, clockwise), mandatory if field 18 = D	(M)	9NH	t_attn@azmxx0 in ANT_DIAGR_H subsection
20	Antenna attenuation – vertical. 36 values of e.r.p. reduction (dB) of the vertically-polarized component in the horizontal plane relative to the maximum e.r.p. as given above (at 10° intervals, starting at North, clockwise), mandatory if field 18 = D	(M)	9NV	t_attn@azmxx0 in ANT_DIAGR_V sub-section
21	Maximum effective antenna height (m)	M	9EB	t_eff_hgtmax
22	36 values of effective antenna height (metres, at 10° intervals, starting at North); if not provided, the value of the maximum effective antenna height should be used for all 36 values	M	9EC	t_eff_hgt@azmxx 0 in ANT_HGT sub-section
23	Spectrum mask	O		
24	Date of notification by administration	O		t_d_adm_ntc
25	Successfully pre-coordinated with …	O	11	t_adm in COORD sub-section
26	Remarks	O		t_remarks

TABLE 6.2-4

Data for a digital sound broadcasting allotment requirement

No	Item	Mand. /Opt.	App. 4 ref.	TerRaBase ref.
1	Add, modify, suppress	M		t_action
2	ITU symbol for administration responsible	M		t_adm
3	Unique T-DAB allotment identifier given by the administration (AdminRefId)	M		t_adm_ref_id
3a	Unique identifier given by the administration for the target allotment, only for MOD or SUP	(M)		t_trg_adm_ref_id
4	ITU symbol for country in which allotment is sited	M	4B	t_ctry
5	Digital broadcasting allotment name	M		
6	Type of the reference network	M		
7	Reference planning configuration (RPC 4 or RPC 5)	M		
8	List of acceptable frequency blocks	O		
9	Identifier for SFN	(M)		
10	Polarization (H-horizontal/V-vertical/M-mixed/U-unspecified)	M	9D	t_polar
11	If the test points on country boundary for the allotment are to be used, enter the identifier for national boundary or sub-boundary	(M)		
12	If previous field is blank, enter number (up to 9) of sub-areas within this allotment (if there is no subdivision, enter 1)	(M)		
13	Enter for each sub-area (up to 9) a unique contour number, its number of boundary test points (up to 99) and the coordinates of its associated allotment test points	(M)		
14	Date of notification by administration	O		t_d_adm_ntc
15	Successfully pre-coordinated with …	O	11	t_adm in COORD sub-section
16	Remarks	O		t_remarks

6.3 Data for existing and planned analogue television

The planning exercise team will take the necessary data for the protection of the existing and planned analogue television assignments from the relevant files as indicated in Chapter 1, § 1.7. Administrations wishing to update these records should use BR form T02 and apply the existing rules prior to the reference date.

6.4 Data for existing and planned assignments of other primary services

The planning exercise team will take the data necessary for the protection of the existing and planned assignments of other primary services as defined in Chapter 1, § 1.7. It is essential that the administrations wishing to complete or update these records use BR form T11, T12, T13 or T14 and apply the existing rules.

In addition, for bilateral or multilateral negotiations between administrations, more detailed information on the existing and planned assignments of other primary services may be needed as provided in Table 6.4-1 below.

TABLE 6.4-1

Data for assignments in other primary services

No.	Item	Mand-atory/ Opt-ional	App.4 ref.	TerRaBase ref.
1	ITU symbol for the notifying administration	M	B	t_adm in HEAD sub-section
2	Other service type code	O		
3	Record for Transmit/Receive/Both operations. The same identification code for a given station if described in two records	O		
4	Intent (ADD/MOD/SUP)	M		t_action
5	Unique identifier given by the administration for the assignment (AdminRefId)	O		t_adm_ref_id
5a	Unique identifier given by the administration for the target assignment, only for MOD or SUP and only if previously notified	(M)		t_trg_adm_ref_id
6	ITU symbol for the geographical area where the transmitter is situated	M	4B	t_ctry
7	Field strength to be protected (dB(μV/m)). Use value 999 for transmitting-only service where reception parameters are specified in a separate record	O		
8	Percentage of the time for which protection is sought	O		
9	Transmitting antenna site name	M	4A	t_site_name
10	Assigned frequency	M	1A	t_freq_assgn
10a	Assigned frequency of the target assignment, only for MOD or SUP and only if AdminRefId of the target assignment not notified	M	O-1A	t_trg_freq_assgn
11	Geographical coordinate, latitude	M	4C	t_lat
11a	Geographical coordinate, latitude of the target assignment, only for MOD or SUP and only if AdminRefId of the target assignment not notified	(M)	O-4C	t_trg_lat
12	Geographical coordinate, longitude	M	4C	t_long
12a	Geographical coordinate of the target assignment, longitude, only for MOD or SUP and only if AdminRefId of the target assignment not notified	(M)	O-4C	t_trg_long
13	Class of station	M	6A	t_stn_cls
13a	Class of station of the target assignment, only for MOD or SUP and only if AdminRefId of the target assignment not notified	(M)	O-6A	t_trg_stn_cls
14	Necessary bandwidth code	M	7A	t_bdwdth_cde
14a	Necessary bandwidth code of the target assignment, only for MOD or SUP and only if AdminRefId of the target assignment not notified	(M)	O-7A	t_trg_bdwdth_cde
15	Class of emission	M	7A	t_emi_cls
15a	Class of emission of the target assignment, only for MOD or SUP and only if AdminRefId of the target assignment not notified	M	O-7A	t_trg_emi_cls
16	Maximum effective radiated power (e.r.p.) in dBW. Use value –99 for receive-only service where transmission parameters are specified in a separate record	M	8B	t_pwr_dbw

TABLE 6.4-1 (*Continued*)

No.	Item	Mand-atory/ Opt-ional	App.4 ref.	TerRaBase ref.
17	Altitude of the site above sea level (m)	O	9EA	t_site_alt
18	Height of the antenna above ground level (m)	O	9E	t_hgt_agl
19	Maximum effective antenna height (m)	O	9EB	t_eff_hgtmax
20	36 values of effective height (in m), at 10° intervals starting at North; if not provided, the value of the maximum effective height (9EB) should be used for all 36 values	O	9EC	t_eff_hgt@azmxx 0 in ANT_HGT sub-section
21	Polarization (H/V/M)	M	9D	t_polar
22	Antenna pattern 1: (D/ND) Put ND if the transmitting antenna is non-directional or the width of the main lobe is greater than 99°. Otherwise put D	M	9	-
23	Antenna pattern 2: 36 values of e.r.p. reduction (dB) of the e.r.p. relative to the maximum value, at 10° intervals starting from North, if previous field = D	O	9NH	t_attn@azmxx0 in ANT_DIAGR_H subsection
24	Test points 1: Enter B if test points for whole country are to be used	O		
25	Test points 2: If previous field is blank, enter number of test points (up to 99)	O		
26	Test points 3: Up to 99 coordinates	O		
27	Date of notification of this record	O		t_d_adm_ntc
28	Successfully pre-coordinated with ...	O	11	t_adm in COORD sub-section
29	Remarks	O		t_remarks

6.5 Output format for the planning exercises

The output format for the planning exercises will be determined by the planning exercise team and proposed to the IPG.