APPENDIX 4 (REV.WRC-12)

Consolidated list and tables of characteristics for use in the application of the procedures of Chapter III

1 The substance of this Appendix is separated into two parts: one concerning data and their use for terrestrial radiocommunication services and another concerning data and their use for space radiocommunication services or the radio astronomy service. (WRC-12)

2 Both parts contain a list of characteristics and a table indicating the use of each of the characteristics in specific circumstances.

Annex 1: Characteristics of stations in the terrestrial services

Annex 2: Characteristics of satellite networks, earth stations or radio astronomy stations.

ANNEX 1

Characteristics of stations in the terrestrial services[1]

In application of Appendix **4** there are many cases when the data requirements involve the use of standard symbols in submissions to the Radiocommunication Bureau. These standard symbols may be found in the Preface to the BR International Frequency Information Circular (BR IFIC) (Terrestrial Services). In the Tables, this is referred to simply as "the Preface". Also additional information may be found in the guidelines published on the Bureau's website.

Key to the symbols used in Annex 1

X	Mandatory information
+	Mandatory under the conditions specified in Column 3 of Table 1 and Column 2 of Table 2
O	Optional information
C	Mandatory if used as a basis to effect coordination with another administration
	The data item is not applicable to the corresponding notice

[1] The Radiocommunication Bureau shall develop and keep up-to-date forms of notice to meet fully the statutory provisions of this Appendix and related decisions of future conferences. Additional information on the items listed in this Annex together with an explanation of the symbols is to be found in the Preface to the BR IFIC (Terrestrial Services).

Reading Appendix 4 Tables 1 and 2

The rules used to link the sign with the text are based on the Table column headings covering specific procedures, services and frequency bands.

1 If any data item has the indication "+", it shows that the data item is subject to a mandatory requirement under specific conditions. If these conditions are not met, the corresponding item is not applicable unless otherwise specified. These conditions are listed after the data item name and are normally presented as shown below.

2 "Required" without any reference to a column heading is used in the case that the associated condition is valid for every applicable column.

1.5.2	1B	the reference frequency, as defined in Article **1** Required if the modulation envelope is asymmetric	+	+	1B

"In the case of", followed by a reference to the column heading is used, as shown below, when the associated conditions are different for individual columns, or if the indication is not the same across all applicable columns.

7.1	7A	the class of emission In the case of a VHF/UHF broadcasting station, required for assignments subject to § 5.1.3 of the GE06 Regional Agreement	+	**X**	7A

3 A subheading title limits the range of procedures, services or frequency bands to which the data items grouped under that subheading are applicable. Unless further specific conditions apply, the data items grouped under that subheading have an "X" as the conditional nature is shown in the subheading title. (WRC-12)

1.4.3		**For assignments in the bands and services governed by the Geneva 06 Regional Agreement only**			
1.4.3.4	DAC	the digital broadcasting assignment code	**X**		DAC

Footnotes to Tables 1 and 2

1 The most recent version of Recommendation ITU-R SF.675 should be used to the extent applicable in calculating the maximum power density per Hz.

TABLE 1 (Rev. WRC-12)

Characteristics for terrestrial services

Column No.	Item identifier	Description of data items and requirements / Notice related to
1		**GENERAL INFORMATION AND FREQUENCY CHARACTERISTICS**
1.1	**B**	the symbol of the notifying administration (see the Preface)
1.2	**D**	the provision code of the Radio Regulations under which the notice has been submitted
1.3	**E**	the resubmission indicator In the case of a VHF/UHF broadcasting station, or a typical transmitting station, required for an assignment subject to the GE06 Regional Agreement if the notice is resubmitted in the application of Article **11** In the case of a transmitting station, or a receiving land station, required for an assignment subject to the GE06 Regional Agreement or Nos. **9.16**, **9.18** or **9.19** if the notice is resubmitted in the application of Article **11**
1.4		**Assignment and allotment identification information**
1.4.1	**SYNC**	the identification symbols for the synchronized, or single-frequency, network In the case of a VHF/UHF broadcasting station, required for a digital broadcasting assignment in a synchronized or single frequency network subject to the GE06 Regional Agreement In the case of an LF/MF broadcasting station, required for an assignment in a synchronized or single frequency network
1.4.2	**ID1**	the unique identification code given by the administration to the assignment or allotment Required for assignments subject to the GE06 Regional Agreement, and optional for assignments not subject to this Agreement
1.4.3		**For assignments in the bands and services governed by the GE06 Regional Agreement only:**
1.4.3.1	**ID2**	the unique identification code given by the administration for the associated allotment Required for a digital broadcasting assignment linked to an allotment, or converted from an allotment, within the GE06 Plan
1.4.3.2	**ID3**	the unique identification code given by the administration to the digital broadcasting Plan entry for which § 5.1.3 of the GE06 Agreement is to be applied Required if the notified assignment is to be operated under the mask of a digital broadcasting Plan entry in accordance with § 5.1.3 of the GE06 Regional Agreement
1.4.3.3	**DEC**	the digital broadcasting plan entry code that identifies the category of Plan entry to which the assignment belongs
1.4.3.4	**DAC**	the digital broadcasting assignment code

Broadcasting (sound and television) stations in the VHF/UHF bands up to 960 MHz, for the application of No. 11.2 and No. 9.21	Broadcasting (sound) stations in the LF/MF bands, for the application of No. 11.2	Transmitting stations (except broadcasting stations in the planned LF/MF bands, in the HF bands governed by Article 12, and in the VHF/UHF bands up to 960 MHz), for the application of No. 11.2 and No. 9.21	Receiving land stations, for the application of No. 11.9 and No. 9.21	Typical transmitting stations, for the application of No. 11.17	Maritime mobile frequency allotment, for the application of plan modification under Appendix 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Broadcasting stations in the HF bands, for the application of No. 12.16	Item identifier
X	X	X	X	X	X	X	B
X	X	X	X	X	X	X	D
+		+	+	+			E
+	+						SYNC
+	O	+	+	+	O		ID1
+							ID2
+		+	+				ID3
X							DEC
X							DAC

Column No.	Item identifier	Notice related to / Description of data items and requirements
1.5		**Frequency information**
1.5.1	**1A**	the assigned frequency, as defined in Article **1** In the case of a transmitting station, required for all services, except adaptive systems in the fixed or mobile service operating in the bands between 300 kHz and 28 MHz (see also Resolution **729 (Rev.WRC-07)**) In the case of an HF broadcasting station under Article **12**, required if neither the preferred band nor reference frequency is provided
1.5.2	**1B**	the reference frequency, as defined in Article **1** Required if the modulation envelope is asymmetric
1.5.3	**1G**	the alternative frequency
1.5.4	**1X**	the channel number of the proposed or allotted channel Required for submissions in accordance with Nos. **25**/1.1.1, **25**/1.1.2 or **25**/1.25 of Appendix **25** if the assistance of the Bureau is not requested under No. **25**/1.3.1 of Appendix **25**
1.5.5	**1Y**	the channel number of the alternative proposed channel
1.5.6	**1Z**	the channel number of the channel to be replaced Required if the administration needs to replace its existing allotted channel
1.5.7	**1AA**	the lower limit of the usable frequency range within which the carrier and the bandwidth of the emission will be located Required for adaptive systems in the fixed or mobile service operating in the bands between 300 kHz and 28 MHz (see also Resolution **729 (Rev.WRC-07**))
1.5.8	**1AB**	the upper limit of the usable frequency range within which the carrier and the bandwidth of the emission will be located Required for adaptive systems in the fixed or mobile service operating in the bands between 300 kHz and 28 MHz (see also Resolution **729 (Rev.WRC-07)**)
1.5.9	**1C**	the preferred band, in MHz In the case of maritime mobile frequency allotment, required if the assistance of the Bureau is requested under No. **25**/1.3.1 of Appendix **25** In the case of an HF broadcasting station under Article **12**, required for notices if assistance is requested in accordance with No. **7.6**
1.5.10		**For digital broadcasting (except assignments subject to § 5.1.3 of the GE06 Regional Agreement):**
1.5.10.1	**1EO**	the frequency offset, in kHz Required for an assignment subject to the GE06 Regional Agreement if the centre frequency of the emission is offset from the assigned frequency, and optional for assignments not subject to this Agreement

Broadcasting (sound and television) stations in the VHF/UHF bands up to 960 MHz, for the application of No. 11.2 and No. 9.21	Broadcasting (sound) stations in the LF/MF bands, for the application of No. 11.2	Transmitting stations (except broadcasting stations in the planned LF/MF bands, in the HF bands governed by Article 12, and in the VHF/UHF bands up to 960 MHz), for the application of No. 11.2 and No. 9.21	Receiving land stations, for the application of No. 11.9 and No. 9.21	Typical transmitting stations, for the application of No. 11.17	Maritime mobile frequency allotment, for the application of plan modification under Appendix 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Broadcasting stations in the HF bands, for the application of No. 12.16	Item identifier
X	X	+	X	X		+	1A
		+	+	+		+	1B
						O	1G
					+		1X
					O		1Y
					+		1Z
		+					1AA
		+					1AB
					+	+	1C
+							1EO

Column No.	Item identifier	Description of data items and requirements / Notice related to
1.5.11		**For analogue television broadcasting:**
1.5.11.1	**1E**	the vision carrier frequency offset, in multiples of 1/12 of the line frequency of the television system concerned, expressed by a number (positive or negative) Required if the vision carrier frequency offset, in kHz, (1E1) is not provided for assignments subject to the ST61, GE89 or GE06 Regional Agreements
1.5.11.2	**1E1**	the vision carrier frequency offset, in kHz, expressed by a number (positive or negative) Required if the vision carrier frequency offset, in multiples of 1/12 of the line frequency (1E) is not provided for assignments subject to the ST61, GE89 or GE06 Regional Agreements
1.5.11.3		**For the case where the sound carrier frequency offset is different from the vision carrier frequency offset:**
1.5.11.3.1	**1EA**	the sound carrier frequency offset, in multiples of 1/12 of the line frequency of the television system concerned, expressed by a number (positive or negative) Required if the sound carrier frequency offset, in kHz, (1E1A) is not provided for assignments subject to the ST61, GE89 or GE06 Regional Agreements
1.5.11.3.2	**1E1A**	the sound carrier frequency offset, in kHz, expressed by a number (positive or negative) Required if the sound carrier frequency offset, in multiples of 1/12 of the line frequency (1EA) is not provided for assignments subject to the ST61, GE89 or GE06 Regional Agreements
2		**DATE OF OPERATION**
2.1	**2C**	the date (actual or foreseen, as appropriate) of bringing the frequency assignment (new or modified) into use
2.2	**2E**	the date for the end of operation of a frequency assignment In the case of a VHF/UHF broadcasting station, required, in the application of Article **11**, when the operation of an assignment is limited to a specific period of time under § 4.1.5.4 of the GE06 Regional Agreement In the case of a transmitting station, a receiving land station, or a typical transmitting station, required, in the application of Article **11**, when the operation of an assignment is limited to a specific period of time under § 4.2.5.5 of the GE06 Regional Agreement
2.3	**2F**	the season of operation code
2.4	**10CA**	the start date for the transmission
2.5	**10CB**	the stop date for the transmission
2.6	**10CC**	the days of operation for the transmission during the HFBC schedule
3		**CALL SIGN AND STATION IDENTIFICATION**
3.1	**3A1**	the call sign used in accordance with Article **19** In the case of a transmitting station, for the fixed service below 28 MHz, mobile service, meteorological aids service, radiolocation service between 3 and 50 MHz (operating in accordance with Resolution **612 (Rev.WRC-12)**), or standard frequency and time signal service, in application of Article **11**, required if the station identification (3A2) is not provided

Broadcasting (sound and television) stations in the VHF/UHF bands up to 960 MHz, for the application of No. 11.2 and No. 9.21	Broadcasting (sound) stations in the LF/MF bands, for the application of No. 11.2	Transmitting stations (except broadcasting stations in the planned LF/MF bands, in the HF bands governed by Article 12, and in the VHF/UHF bands up to 960 MHz), for the application of No. 11.2 and No. 9.21	Receiving land stations, for the application of No. 11.9 and No. 9.21	Typical transmitting stations, for the application of No. 11.17	Maritime mobile frequency allotment, for the application of plan modification under Appendix 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Broadcasting stations in the HF bands, for the application of No. 12.16	Item identifier
+							1E
+							1E1
+							1EA
+							1E1A
X	X	X	X	X	X		2C
+		+	+	+			2E
						X	2F
						X	10CA
						X	10CB
						X	10CC
O	O	+				O	3A1

Column No.	Item identifier	Description of data items and requirements / Notice related to
3.2	**3A2**	the station identification used in accordance with Article **19** In the case of a transmitting station, for the fixed service below 28 MHz, mobile service, meteorological aids service, radiolocation service between 3 and 50 MHz (operating in accordance with Resolution **612 (Rev.WRC-12)**), or standard frequency and time signal service, in application of Article **11**, required if the call sign (3A1) is not provided
4		**LOCATION OF THE TRANSMITTING ANTENNA(S)**
4.1	**4A**	the name of the locality by which the transmitting station is known or in which it is situated
4.2	**4AA**	the name of the location of the intended coast station Required for submissions in accordance with No. **25**/1.1.1 of Appendix **25**
4.3	**4B**	the code of the geographical area in which the transmitting station is located (see the Preface)
4.4	**4C**	the geographical coordinates of the transmitter site Latitude and longitude are provided in degrees, minutes and seconds
4.5	**4CA**	the geographical coordinates of the intended coast station Latitude and longitude are provided in degrees, minutes and seconds Required for submissions in accordance with No. **25**/1.1.1 of Appendix **25**
4.6	**4H**	HFBC site code *Note* – The code is assigned by the Bureau prior to commencement of the Article **12** procedure and represents the location of the station, its geographical area and geographical coordinates
4.7		**For an area in which transmitting stations operate:**
4.7.1	**4CC**	the geographical coordinates of the centre of the circular zone, in which mobile transmitting stations associated with a receiving land station, or a typical transmitting station are operating Latitude and longitude are provided in degrees, minutes and seconds In the case of a receiving land station, required: – for the maritime radionavigation service; and – for other services if the code of a geographical area or standard defined area (4E) is not provided In the case of a typical transmitting station, required if a geographical area or standard defined area (4E) is not provided
4.7.2	**4D**	the nominal radius, in km, of the circular zone, in which mobile transmitting stations associated with a receiving land station, or a typical transmitting station are operating In the case of a receiving land station, required: – for the maritime radionavigation service; and – for other services if the code of a geographical area or standard defined area (4E) is not provided In the case of a typical transmitting station, required if a geographical area or standard defined area (4E) is not provided

Broadcasting (sound and television) stations in the VHF/UHF bands up to 960 MHz, for the application of No. 11.2 and No. 9.21	Broadcasting (sound) stations in the LF/MF bands, for the application of No. 11.2	Transmitting stations (except broadcasting stations in the planned LF/MF bands, in the HF bands governed by Article 12, and in the VHF/UHF bands up to 960 MHz), for the application of No. 11.2 and No. 9.21	Receiving land stations, for the application of No. 11.9 and No. 9.21	Typical transmitting stations, for the application of No. 11.17	Maritime mobile frequency allotment, for the application of plan modification under Appendix 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Broadcasting stations in the HF bands, for the application of No. 12.16	Item identifier
O	O	+				O	3A2
X	X	X					4A
					+		4AA
X	X	X					4B
X	X	X					4C
					+		4CA
						X	4H
			+	+			4CC
			+	+			4D

Column No.	Item identifier	Description of data items and requirements / Notice related to
4.7.3	**4E**	the code of the geographical area or standard defined area (see the Preface) *Note* – The standard defined area for a receiving land station in the maritime mobile service may be a maritime zone. The standard defined area for a maritime mobile frequency allotment is the allotment area In the case of a receiving land station, for all services, except the maritime radionavigation service, required if a circular zone (4CC and 4D) is not provided In the case of a typical transmitting station, required if a circular zone (4CC and 4D) is not provided
4.8	**4G**	the ground conductivity Required for an assignment subject to the GE75 Regional Agreement
5		**LOCATION OF THE RECEIVING ANTENNA(S)**
5.1	**5A**	the name of the locality by which the receiving station is known or in which it is situated In the case of a transmitting station, required for an associated receiving station in the fixed service if the geographical coordinates of a given reception zone (5CA) are not provided
5.2	**5B**	the code of the geographical area in which the receiving station(s) is located (see the Preface) In the case of a transmitting station, required for an associated receiving station in the fixed service if the geographical coordinates of a given reception zone (5CA) are not provided
5.3	**5C**	the geographical coordinates of the site of the receiving station Latitude and longitude are provided in degrees, minutes and seconds In the case of a transmitting station, required for an associated receiving station in the fixed service if the geographical coordinates of a given reception zone (5CA) are not provided
5.4		**For an area in which receiving stations operate:**
5.4.1	**5CA**	the geographical coordinates of a given reception zone A minimum of 3 geographical coordinates are to be provided. All geographical coordinates (latitude and longitude) are provided in degrees, minutes and seconds For an associated receiving station in the fixed service, required if the name of the locality (5A), geographical area (5B) and geographical coordinates (5C) are not provided For all other services, except where the assignment is subject to the GE06 Agreement, required if neither a circular area (5E and 5F) nor a geographical area or standard defined area of reception (5D) is provided

Broadcasting (sound and television) stations in the VHF/UHF bands up to 960 MHz, for the application of No. 11.2 and No. 9.21	Broadcasting (sound) stations in the LF/MF bands, for the application of No. 11.2	Transmitting stations (except broadcasting stations in the planned LF/MF bands, in the HF bands governed by Article 12, and in the VHF/UHF bands up to 960 MHz), for the application of No. 11.2 and No. 9.21	Receiving land stations, for the application of No. 11.9 and No. 9.21	Typical transmitting stations, for the application of No. 11.17	Maritime mobile frequency allotment, for the application of plan modification under Appendix 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Broadcasting stations in the HF bands, for the application of No. 12.16	Item identifier
			+	+	X		4E
	+						4G
		+	X				5A
		+	X				5B
		+	X				5C
		+					5CA

Column No.	Item identifier	Description of data items and requirements / Notice related to
5.4.2	**5D**	the code of the geographical area or standard defined area of reception (see the Preface) *Note* – The standard defined area of a transmitting station may be represented by a maritime zone or aeronautical zone. The standard defined area of a maritime mobile frequency allotment is a maritime zone. The standard defined area of an HF broadcasting station subject to Article **12** is represented by a CIRAF zone In the case of a transmitting station, except transmitting stations in the fixed service, maritime radionavigation service, aeronautical radionavigation service subject to the GE85-MM-R1 Regional Agreement or the maritime mobile service subject to the GE85-MM-R1 Regional Agreement, required if neither a circular receiving area (5E and 5F) nor geographical coordinates of a given reception zone (5CA) is provided
5.4.3	**5E**	the geographical coordinates of the centre of the circular receiving area Latitude and longitude are provided in degrees, minutes and seconds Required: – for the maritime radionavigation service, aeronautical radionavigation service subject to the GE85-MM-R1 Regional Agreement or the maritime mobile service subject to the GE85-MM-R1 Regional Agreement; and – for all other services, except the fixed service, if neither a geographical area or standard defined area of reception (5D) nor the geographical coordinates of a given reception zone (5CA) is provided
5.4.4	**5F**	the radius, in km, of the circular receiving area Required: – for the maritime radionavigation service, aeronautical radionavigation service subject to the GE85-MM-R1 Regional Agreement or the maritime mobile service subject to the GE85-MM-R1 Regional Agreement; and – for all other services, except the fixed service, if neither the geographical area or standard defined area of reception (5D) nor the geographical coordinates of a given reception zone (5CA) is provided
5.5	**5G**	the maximum length of the circuit, in km, for non-circular receiving areas Stations in the HF bands only
6		**CLASS OF STATION AND NATURE OF SERVICE**
6.1	**6A**	the class of station, using the symbols from the Preface
6.2	**6B**	the nature of service, using the symbols from the Preface In the case of a transmitting station, required for all services, except the broadcasting service
7		**CLASS OF EMISSION AND NECESSARY BANDWIDTH** *(in accordance with Article **2** and Appendix **1**)*
7.1	**7A**	the class of emission In the case of a VHF/UHF broadcasting station, required for assignments subject to § 5.1.3 of the GE06 Regional Agreement
7.2	**7AB**	the necessary bandwidth In the case of a VHF/UHF broadcasting station, required for analogue sound broadcasting assignments and for assignments subject to § 5.1.3 of the GE06 Regional Agreement

Broadcasting (sound and television) stations in the VHF/UHF bands up to 960 MHz, for the application of No. 11.2 and No. 9.21	Broadcasting (sound) stations in the LF/MF bands, for the application of No. 11.2	Transmitting stations (except broadcasting stations in the planned LF/MF bands, in the HF bands governed by Article 12, and in the VHF/UHF bands up to 960 MHz), for the application of No. 11.2 and No. 9.21	Receiving land stations, for the application of No. 11.9 and No. 9.21	Typical transmitting stations, for the application of No. 11.17	Maritime mobile frequency allotment, for the application of plan modification under Appendix 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Broadcasting stations in the HF bands, for the application of No. 12.16	Item identifier
		+			X	X	5D
		+					5E
		+					5F
		O			O		5G
X	X	X	X	X	X	X	6A
		+	X	X	X		6B
+	X	X	X	X	X		7A
+	X	X	X	X	X	X	7AB

Column No.	Item identifier	Description of data items and requirements / Notice related to
7.3		**System characteristics:**
7.3.1	**7A1**	the code describing the frequency stability (RELAXED, NORMAL or PRECISION) Required for analogue television broadcasting
7.3.2	**7AA**	the code for the type of modulation The type of modulation denotes the use of DSB, SSB or any new modulation techniques recommended by ITU-R
7.3.3	**7B1**	the adjacent channel protection ratio, in dB Required for the GE75 Regional Agreement
7.3.4	**7B2**	the "RJ 81 class" (A, B or C) Required for the RJ81 Regional Agreement
7.3.5	**7G**	the system code *Note* – The code identifies the category of system to which the station belongs and hence its protection requirements In the VHF band two codes are required for protection from T-DAB and DVB-T In the UHF band only one code is required for protection from DVB-T Required for an assignment subject to the GE06 Regional Agreement
7.3.6	**7C1**	the code identifying the television system (see the Preface) Required for television broadcasting assignments, except assignments subject to § 5.1.3 of the GE06 Regional Agreement
7.3.7	**7C2**	the code corresponding to the colour system (see the Preface) Required for analogue television broadcasting
7.3.8	**7D**	the code corresponding to the sound broadcasting transmission system (see the Preface) *Note* – For LF/MF systems, the signal may consist of analogue or digital modulation or data or some combination of them: the latter case is referred to as hybrid modulation In the case of a VHF/UHF broadcasting station, required for sound broadcasting assignments, except assignments subject to the GE06 Regional Agreement In the case of an LF/MF broadcasting station, required for an assignment with digital or hybrid modulation
7.3.9		**For the GE06 Regional Agreement (except notices subject to § 5.1.3 of the GE06 Regional Agreement):**
7.3.9.1	**7H**	the reference planning configuration (see the Preface) Required for digital sound broadcasting
7.3.9.2	**7J**	the type of spectrum mask
7.3.9.3	**7K**	the reception mode (see the Preface) Required for digital television broadcasting
7.3.10		**For the fixed service in the bands shared with space services and any type of modulation as applicable:**
7.3.10.1	**7E**	the peak to peak frequency deviation, in MHz
7.3.10.2	**7F**	the sweep frequency, in kHz, of the energy dispersal waveform

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+							7A1
						X	7AA
	+						7B1
	+						7B2
		+	+	+			7G
+							7C1
+							7C2
+	+						7D
+							7H
X							7J
+							7K
		C					7E
		C					7F

Column No.	Item identifier	Description of data items and requirements / Notice related to
8		**POWER CHARACTERISTICS**
8.1	**8**	the symbol (X, Y or Z, as appropriate) describing the type of power (see Article **1**) corresponding to the class of emission
8.2	**8A**	the power delivered to the antenna transmission line, in kW
8.3	**8AA**	the power delivered to the antenna, in dBW In the case of a transmitting station, required for an assignment: – in the bands below 28 MHz, in all services except the radionavigation service; or – in the bands above 28 MHz shared with space services; or – in the bands above 28 MHz not shared with space services: • in the aeronautical mobile service, meteorological aids service; or • in all other services, if the radiated power is not supplied In the case of a receiving land station, required if the associated transmitting station's radiated power is not supplied In the case of a typical transmitting station, required if the radiated power is not supplied
8.4	**8AB**	the maximum power density[1] (dB(W/Hz)) for each carrier type averaged over the worst 4 kHz band for carriers below 15 GHz, or averaged over the worst 1 MHz band for carriers above 15 GHz, supplied to the antenna transmission line For the fixed service in the bands shared with space services
8.5	**8AC**	the maximum power density (dB(W/Hz)) averaged over the worst 4 kHz band, calculated for the maximum effective radiated power *Note* – For a receiving land station, the maximum power density refers to the associated transmitting station In the case of a VHF/UHF broadcasting station, required for assignments subject to § 5.1.3 of the GE06 Regional Agreement In the case of a transmitting station, a receiving land station, or a typical transmitting station, required for assignments subject to the GE06 Regional Agreement
8.6	**8B**	the radiated power, in dBW, in one of the forms described in Nos. **1.161** to **1.163** *Note* – Where adaptive systems in the fixed or mobile service operating in the bands between 300 kHz and 28 MHz (see also Resolution **729 (Rev.WRC-07)**) use automatic power control, the radiated power includes the level of power control listed under 8BA For assignments in all services and frequency bands, except assignments subject to the GE06 Regional Agreement, required if the power delivered to the antenna (8AA), or the maximum antenna gain (9G), is not provided For an assignment subject to the GE06 Regional Agreement, required if the power delivered to the antenna (8AA) is not provided
8.7	**8BA**	the range of power control, in dB Required for adaptive systems in the fixed or mobile service operating in the bands between 300 kHz and 28 MHz (see also Resolution **729 (Rev.WRC-07)**), if automatic power control is used
8.8	**8BH**	the maximum effective radiated power, in dBW, of the horizontally polarized component Required for horizontal or mixed polarization

Broadcasting (sound and television) stations in the VHF/UHF bands up to 960 MHz, for the application of No. 11.2 and No. 9.21	Broadcasting (sound) stations in the LF/MF bands, for the application of No. 11.2	Transmitting stations (except broadcasting stations in the planned LF/MF bands, in the HF bands governed by Article 12, and in the VHF/UHF bands up to 960 MHz), for the application of No. 11.2 and No. 9.21	Receiving land stations, for the application of No. 11.9 and No. 9.21	Typical transmitting stations, for the application of No. 11.17	Maritime mobile frequency allotment, for the application of plan modification under Appendix 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Broadcasting stations in the HF bands, for the application of No. 12.16	Item identifier
X	X	X	X	X	X	X	8
	X					X	8A
		+	+	+	X		8AA
		C					8AB
+		+	+	+			8AC
		+	+	+			8B
		+					8BA
+							8BH

Column No.	Item identifier	Description of data items and requirements / Notice related to
8.9	**8BV**	the maximum effective radiated power, in dBW, of the vertically polarized component Required for vertical or mixed polarization
8.10	**8BT**	the maximum effective radiated power, in dBW, in the plane defined by the beam tilt angle For a digital broadcasting assignment in the UHF band subject to the GE06 Regional Agreement only
8.11	**8D**	the vision-to-sound carrier power ratio, in dB Required for analogue television broadcasting
8.12	**9L**	the maximum effective monopole radiated power, in dB(kW) Required for the GE75 Regional Agreement
8.13		**For the RJ81 and RJ88 Regional Agreements:**
8.13.1	**9I**	the r.m.s. value of radiation The product of the r.m.s. characteristic field strength in the horizontal plane and the square root of the power
8.13.2	**9IA**	the value of the radiation at the central azimuth of the augmentation, in mV/m at 1 km Required for antenna radiation pattern type "M" (see 9O)
8.13.3	**9P**	the value of the special quadrature factor, in mV/m at 1 km *Note* – A special quadrature factor may be used with antenna pattern type "M" or "E" to replace the normal expanded quadrature factor when special precautions are taken to ensure pattern stability
9		**ANTENNA CHARACTERISTICS**
9.1		**For a transmitting or receiving antenna:**
9.1.1	**9**	the indicator showing whether the antenna is directional (D) or non-directional (ND) In the case of a receiving land station, required for an assignment subject to the GE06 Regional Agreement
9.1.2	**9D**	the code indicating the type of polarization (see the Preface) In the case of a transmitting station, required for an assignment: – in the fixed service in the bands shared with space services; or – subject to the GE06 Regional Agreement In the case of a receiving land station, required for an assignment subject to the GE06 Regional Agreement
9.1.3	**9E**	the height of the antenna above ground level, in metres In the case of a VHF/UHF broadcasting station, required for the ST61, GE84, GE89 or GE06 Regional Agreements, and optional for assignments not subject to these Agreements In the case of a transmitting station, required for an assignment: – in the bands shared with space services; or – subject to the GE06 Regional Agreement In the case of a receiving land station, required for an assignment subject to the GE06 Regional Agreement

Item identifier	Broadcasting stations in the HF bands, for the application of No. 12.16	Maritime mobile frequency allotment, for the application of plan modification under Appendix 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Typical transmitting stations, for the application of No. 11.17	Receiving land stations, for the application of No. 11.9 and No. 9.21	Transmitting stations (except broadcasting stations in the planned LF/MF bands, in the HF bands governed by Article 12, and in the VHF/UHF bands up to 960 MHz), for the application of No. 11.2 and No. 9.21	Broadcasting (sound) stations in the LF/MF bands, for the application of No. 11.2	Broadcasting (sound and television) stations in the VHF/UHF bands up to 960 MHz, for the application of No. 11.2 and No. 9.21
8BV							+
8BT							O
8D							+
9L						+	
9I						X	
9IA						+	
9P						O	
9	X	X		+	X		X
9D				+	+		X
9E				+	+		+

Column No.	Item identifier	Description of data items and requirements / Notice related to
9.2		**For a directional transmitting or receiving antenna:**
9.2.1	**9C**	the total angular width of the radiation main lobe (beamwidth) measured horizontally in a plane containing the direction of maximum radiation, in degrees, within which the power radiated in any direction does not fall more than 3 dB below the power radiated in the direction of maximum radiation In the case of a transmitting station, required for all assignments, except assignments subject to GE06 Regional Agreement where it is optional In the case of a receiving land station, for an assignment subject to the GE06 Regional Agreement only
9.2.2	**9GL**	the antenna gain towards the local horizon For an assignment subject to the GE06 Regional Agreement only
9.2.3	**9K**	the lowest total receiving system noise temperature, in kelvins For an associated receiving antenna in the fixed service operating in the bands shared with space services only
9.3		**For a transmitting antenna:**
9.3.1	**9EA**	the altitude of the site above mean sea level, in metres In the case of a VHF/UHF broadcasting station, required for assignments subject to the ST61, GE84, GE89, or GE06 Regional Agreements, and optional for assignments not subject to these Agreements In the case of a transmitting station, required for an assignment: – in the fixed or mobile service in the bands shared with space services; or – subject to the GE06 Regional Agreement
9.3.2	**9EB**	the maximum effective height of the antenna, in metres, above the mean level of the ground between 3 and 15 km from the transmitting antenna In the case of a transmitting station, required for an assignment subject to the GE06 Regional Agreement
9.3.3	**9EC**	the effective height of the antenna, in metres, above the mean level of the ground between 3 and 15 km from the transmitting antenna, at 36 different azimuths in 10° intervals (i.e. 0°, 10°, ..., 350°), measured in the horizontal plane from True North in a clockwise direction In the case of a VHF/UHF broadcasting station, required for an assignment subject to the ST61, GE84, GE89 or GE06 Regional Agreements In the case of a transmitting station, required for an assignment subject to the GE06 Regional Agreement

Broadcasting (sound and television) stations in the VHF/UHF bands up to 960 MHz, for the application of No. 11.2 and No. 9.21	Broadcasting (sound) stations in the LF/MF bands, for the application of No. 11.2	Transmitting stations (except broadcasting stations in the planned LF/MF bands, in the HF bands governed by Article 12, and in the VHF/UHF bands up to 960 MHz), for the application of No. 11.2 and No. 9.21	Receiving land stations, for the application of No. 11.9 and No. 9.21	Typical transmitting stations, for the application of No. 11.17	Maritime mobile frequency allotment, for the application of plan modification under Appendix 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Broadcasting stations in the HF bands, for the application of No. 12.16	Item identifier
		+	**O**		**X**		**9C**
		O	**O**				**9GL**
		C					**9K**
+		+					**9EA**
X		+					**9EB**
+		+					**9EC**

Column No.	Item identifier	Description of data items and requirements / Notice related to
9.3.4	**9G**	the maximum antenna gain (isotropic, relative to a short vertical antenna or relative to a half-wave dipole, as appropriate) of the transmitting antenna (see No. **1.160**) For a directional antenna, the gain is in the direction of maximum radiation In the case of a transmitting station, or a typical transmitting station: – for all frequency bands and services, except assignments subject to the GE06 Regional Agreement, required if the antenna is: – directional, including where the antenna beam is rotating or swept; or – non-directional, and the power to the antenna (8A[α]) or the radiated power (8B) is not provided – for an assignment subject to the GE06 Regional Agreement required if the radiated power (8B) is not provided In the case of a maritime mobile frequency allotment, required if the antenna is directional, including where the antenna beam is rotating or swept
9.3.5	**9M**	the transmitting antenna design frequency
9.3.6	**9S**	the beam tilt angle, in degrees The beam tilt angle is measured from the horizontal plane towards ground and the sign of the angle is negative *Note* – In some broadcasting definitions, the angle may have the opposite sign For a digital broadcasting assignment in the UHF band subject to the GE06 Regional Agreement only
9.3.7	**9J**	the measured radiation pattern of the antenna, the reference radiation pattern or the symbols in standard references to be used for coordination
9.4		**For a directional transmitting antenna where the antenna beam is rotating or swept:**
9.4.1	**9AB1**	the start azimuth for the range of operational angles for the antenna's main beam axis, measured in the horizontal plane from True North in a clockwise direction
9.4.2	**9AB2**	the end azimuth for the range of operational angles for the antenna's main beam axis, measured in the horizontal plane from True North in a clockwise direction
9.5		**For a directional transmitting antenna where the antenna beam is not rotating or swept:**
9.5.1	**9A**	the azimuth of maximum radiation of the transmitting antenna, measured in the horizontal plane from True North in a clockwise direction
9.5.2	**9B**	the elevation angle of maximum directivity, in degrees Required for an assignment in the bands shared with space services
9.5.3	**9R**	the slew angle measured between the azimuth of maximum radiation and the direction of unslewed radiation
9.5.4	**9NH**	the value of attenuation of the horizontally polarized component, at 36 different azimuths in 10° intervals (i.e. 0°, 10°, ..., 350°), measured in the horizontal plane from True North in a clockwise direction, with respect to the maximum effective radiated power of this component, in dB For all assignments, except digital broadcasting assignments subject to the GE06 Regional Agreement and broadcasting assignments subject to § 5.1.3 of the GE06 Regional Agreement, required if the polarization is horizontal or mixed

Broadcasting (sound and television) stations in the VHF/UHF bands up to 960 MHz, for the application of No. 11.2 and No. 9.21	Broadcasting (sound) stations in the LF/MF bands, for the application of No. 11.2	Transmitting stations (except broadcasting stations in the planned LF/MF bands, in the HF bands governed by Article 12, and in the VHF/UHF bands up to 960 MHz), for the application of No. 11.2 and No. 9.21	Receiving land stations, for the application of No. 11.9 and No. 9.21	Typical transmitting stations, for the application of No. 11.17	Maritime mobile frequency allotment, for the application of plan modification under Appendix 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Broadcasting stations in the HF bands, for the application of No. 12.16	Item identifier
		+		+	+		9G
						X	9M
O						X	9S
		O				X	9J
		X			X		9AB1
		X			X		9AB2
		X			X	X	9A
		+					9B
						X	9R
+							9NH

Column No.	Item identifier	Description of data items and requirements / Notice related to
9.5.5	**9NV**	the value of attenuation of the vertically polarized component, at 36 different azimuths in 10° intervals (i.e. 0°, 10°, ..., 350°), measured in the horizontal plane from True North in a clockwise direction, with respect to the maximum effective radiated power of this component, in dB For all assignments, except digital broadcasting assignments subject to the GE06 Regional Agreement and broadcasting assignments subject to § 5.1.3 of the GE06 Regional Agreement, required if the polarization is vertical or mixed
9.5.6	**9UH**	the value of attenuation of the horizontally polarized component in the horizontal plane, normalized to 0 dB, at 36 different azimuths in 10° intervals (i.e. 0°, 10°, ..., 350°), measured in the horizontal plane from True North in a clockwise direction, with respect to the maximum radiated power of this component, in dB In the case of a VHF/UHF broadcasting station, for a digital broadcasting assignment subject to the GE06 Regional Agreement and an assignment subject to § 5.1.3 of the GE06 Regional Agreement, required if the polarization is horizontal or mixed In the case of a transmitting station, for an assignment subject to § 5.1.3 of the GE06 Regional Agreement, required if the polarization is horizontal or mixed
9.5.7	**9UV**	the value of attenuation of the vertically polarized component in the horizontal plane, normalized to 0 dB, at 36 different azimuths in 10° intervals (i.e. 0°, 10°, ..., 350°), measured in the horizontal plane from True North in a clockwise direction, with respect to the maximum radiated power of this component, in dB In the case of a VHF/UHF broadcasting station, for a digital broadcasting assignment subject to the GE06 Regional Agreement and an assignment subject to § 5.1.3 of the GE06 Regional Agreement, required if the polarization is vertical or mixed In the case of a transmitting station, for an assignment subject to § 5.1.3 of the GE06 Regional Agreement, required if the polarization is vertical or mixed
9.6	**9Q**	the symbol identifying the type of antenna Type A – a simple vertical antenna Type B – a directional or omnidirectional antenna of complex construction
9.7		**For a type A antenna (simple vertical antenna):**
9.7.1	**9EP**	the transmitting antenna's physical length in metres Required for the GE75 Regional Agreement
9.7.2	**9F**	the electrical height of the antenna, in degrees Required for the RJ81 or RJ88 Regional Agreements
9.8		**For a station subject to the GE75 Regional Agreement with a type B antenna (a directional antenna, or omnidirectional antenna of complex construction):**
9.8.1	**9GH**	the antenna gain, in dB, in the horizontal plane, at 36 different azimuths in 10° intervals (i.e. 0°, 10°, ..., 350°), measured in the horizontal plane from True North in a clockwise direction

Item identifier	Broadcasting stations in the HF bands, for the application of No. 12.16	Maritime mobile frequency allotment, for the application of plan modification under Appendix 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Typical transmitting stations, for the application of No. 11.17	Receiving land stations, for the application of No. 11.9 and No. 9.21	Transmitting stations (except broadcasting stations in the planned LF/MF bands, in the HF bands governed by Article 12, and in the VHF/UHF bands up to 960 MHz), for the application of No. 11.2 and No. 9.21	Broadcasting (sound) stations in the LF/MF bands, for the application of No. 11.2	Broadcasting (sound and television) stations in the VHF/UHF bands up to 960 MHz, for the application of No. 11.2 and No. 9.21
9NV							+
9UH					+		+
9UV					+		+
9Q						X	
9EP						+	
9F						+	
9GH						X	

Column No.	Item identifier	Description of data items and requirements / Notice related to
9.8.2	**9GV**	the antenna gain, in dB, in the vertical plane, at 36 different azimuths in 10° intervals (i.e. 0°, 10°, ..., 350°) measured in the horizontal plane from True North in a clockwise direction, and at ten different elevations in 10° intervals (i.e. 0°, 10°, ..., 90°) measured in the vertical plane *Note* – If administrations have difficulty in providing this information, they can provide a reference to any other information that may be of assistance (e.g. ITU-R Recommendation, antenna pattern) Required for an assignment to be used for night-time operation
9.9		**For a station subject to the RJ81 or RJ88 Regional Agreements with a type B antenna (a directional antenna, or omnidirectional antenna of complex construction):**
9.9.1	**9O**	the symbol identifying the type of antenna radiation pattern (T, M, or E)
9.9.2		**For antenna radiation pattern type M:**
9.9.2.1	**9NA**	the serial number of the augmentation as described by items 9IA, 9AA and 9CA
9.9.2.2	**9AA**	the central azimuth of the augmentation (centre of the span) in degrees
9.9.2.3	**9CA**	the total span of the augmentation, in degrees
9.9.3		**For each tower of a type B antenna in the RJ81 or RJ88 Regional Agreements:**
9.9.3.1	**9T1**	the serial number of each of the towers whose characteristics are described in items 9T2 to 9T8
9.9.3.2	**9T8**	the symbol corresponding to the tower structure
9.9.3.3	**9T7**	the electrical height, in degrees, of the tower under consideration Required if the tower is not top-loaded nor sectionalized (see 9.9.4)
9.9.3.4	**9T2**	the ratio of the tower field to the field of the reference tower Required if the antenna consists of two or more towers
9.9.3.5	**9T3**	the positive or negative phase difference in the tower field with respect to the field of the reference tower, in degrees Required if the antenna consists of two or more towers
9.9.3.6	**9T4**	the electrical spacing of the tower from the reference point, in degrees Required if the antenna consists of two or more towers
9.9.3.7	**9T5**	the angular orientation of the tower from the reference point, in degrees (clockwise) from True North Required if the antenna consists of two or more towers
9.9.4		**For each tower of a type B antenna that is top-loaded or sectionalized in accordance with the Regional Administrative MF Broadcasting Conference (Region 2) Rio de Janeiro, 1981 or 1988 Agreements:**
9.9.4.1	**9T9A**	the description of a top-loaded or sectionalized tower
9.9.4.2	**9T9B**	the description of a top-loaded or sectionalized tower Required if tower structure symbol (9T8) is 1, 2, 5, 6, 7, 8 or 9

Broadcasting (sound and television) stations in the VHF/UHF bands up to 960 MHz, for the application of No. 11.2 and No. 9.21	Broadcasting (sound) stations in the LF/MF bands, for the application of No. 11.2	Transmitting stations (except broadcasting stations in the planned LF/MF bands, in the HF bands governed by Article 12, and in the VHF/UHF bands up to 960 MHz), for the application of No. 11.2 and No. 9.21	Receiving land stations, for the application of No. 11.9 and No. 9.21	Typical transmitting stations, for the application of No. 11.17	Maritime mobile frequency allotment, for the application of plan modification under Appendix 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Broadcasting stations in the HF bands, for the application of No. 12.16	Item identifier
	+						9GV
	X						9O
	X						9NA
	X						9AA
	X						9CA
	X						9T1
	X						9T8
	+						9T7
	+						9T2
	+						9T3
	+						9T4
	+						9T5
	X						9T9A
	+						9T9B

Column No.	Item identifier	Description of data items and requirements / Notice related to
9.9.4.3	**9T9C**	the description of a top-loaded or sectionalized tower Required if the tower structure symbol (9T8) is 2, 5, 7 or 8
9.9.4.4	**9T9D**	the description of a top-loaded or sectionalized tower Required if tower structures symbol (9T8) is 2, 5 or 8
10		**HOURS OF OPERATION**
10.1	**10B**	the regular hours of operation (in hours and minutes from ... to ...) of the frequency assignment, in UTC
10.2	**10BA**	the local operation period code (see the Preface)
10.3	**10D**	the estimated peak hours of traffic
10.4	**10E**	the estimated daily volume of traffic
11		**COORDINATION AND AGREEMENT**
11.1	**11**	the symbol of each administration with which coordination has been successfully effected Required if coordination is necessary and has been obtained pursuant to the relevant provisions of the Radio Regulations
11.2	**11D**	a declaration by the notifying administration that all conditions associated with the remark are fully met for recording the submitted assignment in the Master International Frequency Register Required for a digital broadcasting assignment subject to § 5.1.2 of the GE06 Regional Agreement and for the broadcasting and other primary services assignments notified pursuant to No. 5.1.3 of the Agreement
11.3	**11C**	a signed commitment from the notifying administration that the submitted assignment for recording in the Master International Frequency Register shall not cause unacceptable interference and shall not claim protection Required for an assignment subject to § 5.1.8 of the GE06 Regional Agreement
11.4	**11E**	a signed commitment from the notifying administration that the submitted assignment for recording in the Master International Frequency Register shall not cause unacceptable interference and shall not claim protection Required for an assignment subject to § 5.2.6 of the GE06 Regional Agreement
11.5	**11F**	Recognition by the notifying administration that the registration of assignments in the aeronautical mobile (R) service in the 5 030-5 091 MHz frequency band accords with the purposes of ITU, including No. 7 of Article 1 of the ITU Constitution. Required for an assignment in aeronautical mobile (R) service in the frequency band 5 030-5 091 MHz
12		**OPERATING ADMINISTRATION OR AGENCY**
12.1	**12A**	the symbol for the operating agency
12.2	**12B**	the symbol for the address of the administration responsible for the station and to which communication should be sent on urgent matters regarding interference, quality of emissions and questions referring to the technical operation of the circuit (see Article **15**, also the Preface) In the case of a VHF/UHF broadcasting station, transmitting station, or a receiving land station, required for application of Article **11**
13		**REMARKS**
13.1	**13C**	Remarks for assisting the Bureau in processing the notice

Broadcasting (sound and television) stations in the VHF/UHF bands up to 960 MHz, for the application of No. 11.2 and No. 9.21	Broadcasting (sound) stations in the LF/MF bands, for the application of No. 11.2	Transmitting stations (except broadcasting stations in the planned LF/MF bands, in the HF bands governed by Article 12, and in the VHF/UHF bands up to 960 MHz), for the application of No. 11.2 and No. 9.21	Receiving land stations, for the application of No. 11.9 and No. 9.21	Typical transmitting stations, for the application of No. 11.17	Maritime mobile frequency allotment, for the application of plan modification under Appendix 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Broadcasting stations in the HF bands, for the application of No. 12.16	Item identifier
	+						9T9C
	+						9T9D
X	O	X	X	X	X	X	10B
	X						10BA
					X		10D
					X		10E
+	O	+	+	O	+		11
+		+	+				11D
+							11C
		+	+	+			11E
		+	+	+			11F
O	O	O	O	O		O	12A
+	X	+	+	X		X	12B
O	O	O	O	O	O	O	13C

TABLE 2

Characteristics for high altitude platform stations (HAPS) frequency assignments in the terrestrial services

Item identifier	*1 – GENERAL CHARACTERISTICS OF THE HAPS*	Transmitting station in the bands listed in No. 5.388A for the application of No. 11.2	Receiving station in the bands listed in No. 5.388A for the application of No. 11.9	Transmitting station in the bands listed in Nos. 5.537A and 5.552A for the application of No. 11.2	Receiving station in the bands listed in Nos. 5.543A and 5.552A for the application of No. 11.9	Item identifier
	GENERAL INFORMATION					
1.B	the symbol of the notifying administration (see the Preface)	X	X	X	X	1.B
1.D	the provision code of the Radio Regulations under which the notice has been submitted	X	X	X	X	1.D
1.ID1	the unique identifier given by the administration to the station	X	X	X	X	1.ID1
	LOCATION OF THE STATION					
1.4.a	the name by which the station is known	X	X	X	X	1.4.a
1.4.b	the code of the geographical area, above which the station is located (see the Preface)	X	X	X	X	1.4.b
1.4.c	the nominal geographical coordinates of the station Latitude and longitude are provided in degrees, minutes and seconds	X	X	X	X	1.4.c
1.4.h	the nominal altitude of the station above mean sea level, in metres	X	X	X	X	1.4.h
1.4.t	**Station location tolerances:**					1.4.t
1.4.t.1.a	the planned latitudinal tolerance northerly limit, using d.m.s units	X	X	X	X	1.4.t.1.a
1.4.t.1.b	the planned latitudinal tolerance southerly limit, using d.m.s units	X	X	X	X	1.4.t.1.b
1.4.t.2.a	the planned longitudinal tolerance easterly limit, using d.m.s units	X	X	X	X	1.4.t.2.a
1.4.t.2.b	the planned longitudinal tolerance westerly limit, using d.m.s units	X	X	X	X	1.4.t.2.b
1.4.t.3	the planned altitudinal tolerance, in metres	X	X	X	X	1.4.t.3
	COMPLIANCE WITH TECHNICAL OR OPERATIONAL LIMITS					
1.14.b	a commitment that the HAPS does not exceed an out-of-band pfd of –165 dB(W/(m^2 · 4 kHz)) at the Earth's surface in the bands 2 160-2 200 MHz in Region 2 and 2 170-2 200 MHz in Regions 1 and 3 (see Resolution **221 (Rev.WRC-07)**)	X				1.14.b
1.14.c	a commitment that the HAPS does not exceed the out-of-band pfd limits of –165 dB(W/(m^2 · MHz)) for angles of arrival (θ) less than 5° above the horizontal plane, −165 + 1.75 (θ – 5) dB(W/(m^2 · MHz)) for angles of arrival between 5° and 25° and –130 dB(W/(m^2 · MHz)) for angles of arrival between 25° and 90° (see Resolution **221 (Rev.WRC-07)**)	X				1.14.c
1.14.d	a commitment that the unwanted power density into the HAPS ground station antenna in the band 31.3-31.8 GHz shall not exceed –106 dB(W/MHz) under clear-sky conditions and –100 dB(W/MHz) under rainy conditions (see Resolution **145 (Rev.WRC-07)**) Required in the band 31-31.3 GHz				+	1.14.d

Item identifier	*1 – GENERAL CHARACTERISTICS OF THE HAPS*	Transmitting station in the bands listed in No. 5.388A for the application of No. 11.2	Receiving station in the bands listed in No. 5.388A for the application of No. 11.9	Transmitting station in the bands listed in Nos. 5.537A and 5.552A for the application of No. 11.2	Receiving station in the bands listed in Nos. 5.543A and 5.552A for the application of No. 11.9	Item identifier
1.14.e	a commitment that the maximum power density into an ubiquitous HAPS ground station antenna in the Urban Area Coverage (UAC) shall not exceed 6.4 dB(W/MHz) for elevation angles of ground station antenna greater than 30° and less than or equal to 90° (see Resolution **122 (Rev.WRC-07)**) Required in the bands 47.2-47.5 GHz and 47.9-48.2 GHz				+	1.14.e
1.14.f	a commitment that the maximum power density into an ubiquitous HAPS ground station antenna in the Suburban Area Coverage (SAC) shall not exceed 22.57 dB(W/MHz) for elevation angles of ground station antenna greater than 15° and less than or equal to 30° (see Resolution **122 (Rev.WRC-07)**) Required in the bands 47.2-47.5 GHz and 47.9-48.2 GHz				+	1.14.f
1.14.g	a commitment that the maximum power density into an ubiquitous HAPS ground station antenna in the Rural Area Coverage (RAC) shall not exceed 28 dB(W/MHz) for elevation angles of ground station antenna greater than 5° and less than or equal to 15° (see Resolution **122 (Rev.WRC-07)**) Required in the bands 47.2-47.5 GHz and 47.9-48.2 GHz				+	1.14.g
1.14.h	a commitment that the separation distance between the nadir of the HAPS and a radio astronomy station operating in the band 48.94-49.04 GHz within the territory of another administration shall exceed 50 km (see Resolution **122 (Rev.WRC-07)**) Required in the bands 47.2-47.5 GHz and 47.9-48.2 GHz			+		1.14.h
	COORDINATION AND AGREEMENT					
1.11.a	the symbol of each administration with which coordination has been successfully effected, including where the agreement is to exceed the limits prescribed in the Radio Regulations Required if coordination is necessary and has been obtained pursuant to the relevant provisions of the Radio Regulations	+	+	+	+	1.11.a
	OPERATING ADMINISTRATION OR AGENCY					
1.12.a	the symbol for the operating agency	**O**	**O**	**O**	**O**	1.12.a
1.12.b	the symbol for the address of the administration responsible for the station and to which communication should be sent on urgent matters regarding interference, quality of emissions and questions referring to the technical operation of the circuit (see Article **15**)	**X**	**X**	**X**	**X**	1.12.b
	REMARKS					
1.13.c	Remarks for assisting the Bureau in processing the notice	**O**	**O**	**O**	**O**	1.13.c

Item identifier	*2 – CHARACTERISTICS TO BE PROVIDED FOR EACH INDIVIDUAL OR COMPOSITE HAPS ANTENNA BEAM*	Transmitting station in the bands listed in No. 5.388A for the application of No. 11.2	Receiving station in the bands listed in No. 5.388A for the application of No. 11.9	Transmitting station in the bands listed in Nos. 5.537A and 5.552A for the application of No. 11.2	Receiving station in the bands listed in Nos. 5.543A and 5.552A for the application of No. 11.9	Item identifier
	IDENTIFICATION AND DIRECTION OF THE HAPS ANTENNA BEAM					
2.1.a	the designation of the HAPS antenna beam	X	X	X	X	2.1.a
2.1.b	an indicator showing whether the antenna beam, under 2.1.a, is fixed or whether it is steerable and/or reconfigurable	X	X	X	X	2.1.b
2.1.c	an indicator showing whether the HAPS antenna tracks the service area	X		X		2.1.c
2.1.d	an indicator showing whether the antenna beam is individual or composite beam	X	X	X	X	2.1.d
	ANTENNA CHARACTERISTICS					
2.9.g	the maximum co-polar isotropic gain	X	X	X	X	2.9.g
2.9.j	the measured radiation pattern of the antenna, the reference radiation pattern or the symbols in standard references to be used for coordination	X	X			2.9.j
2.9.gp	the co-polar antenna gain contours plotted on a map of the Earth's surface, preferably in a radial projection from the HAPS onto a plane perpendicular to the axis from the centre of the Earth to the HAPS The HAPS antenna gain contours shall be drawn as isolines of the isotropic gain, relative to the maximum antenna gain, when any of these contours is located either totally or partially outside the territory of the notifying administration The antenna gain contours shall include the effects of the planned longitudinal and latitudinal tolerance, planned altitudinal tolerance and the pointing accuracy of the antenna, taking into consideration the movement of the HAPS antenna boresight around the effective boresight area	X	X	X	X	2.9.gp

Item identifier	*3 – CHARACTERISTICS TO BE PROVIDED FOR EACH FREQUENCY ASSIGNMENT FOR EACH INDIVIDUAL OR COMPOSITE HAPS ANTENNA BEAM*	Transmitting station in the bands listed in No. 5.388A for the application of No. 11.2	Receiving station in the bands listed in No. 5.388A for the application of No. 11.9	Transmitting station in the bands listed in Nos. 5.537A and 5.552Afor the application of No. 11.2	Receiving station in the bands listed in Nos. 5.543A and 5.552A for the application of No. 11.9	Item identifier
	ASSIGNED FREQUENCY					
3.1.a	the assigned frequency, as defined in No. **1.148**	**X**	**X**	**X**	**X**	3.1.a
3.1.b	the reference frequency, as defined in Article **1** Required if the modulation envelope is asymmetric	+	+	+	+	3.1.b
	DATE OF OPERATION					
3.2.c	the date (actual or foreseen, as appropriate) of bringing the frequency assignment (new or modified) into use	**X**	**X**	**X**	**X**	3.2.c
	LOCATION OF THE ASSOCIATED ANTENNA(S)					
	For an area in which associated transmitting/receiving ground station(s) operate:					
3.5.c.a	the geographical coordinates of a given zone A minimum of six geographical coordinates are required, in degrees, minutes and seconds NOTE – For the fixed service in the bands 47.2-47.5 GHz and 47.9-48.2 GHz the geographical coordinates are provided for each of the UAC, SAC and if applicable RAC (see the most recent version of Recommendation ITU-R F.1500) Required if neither a circular area (3.5.e and 3.5.f) nor a geographical area (3.5.d) are provided	+	+	+	+	3.5.c.a
3.5.d	the code of the geographical area (see the Preface) NOTE – For the fixed service in the bands 47.2-47.5 GHz and 47.9-48.2 GHz separate geographical areas are provided for each of the UAC, SAC and if applicable RAC (see the most recent version of Recommendation ITU-R F.1500) Required if neither a circular area (3.5.e and 3.5.f) nor the geographical coordinates of a given zone (3.5.c.a) are provided	+	+	+	+	3.5.d
3.5.e	the geographical coordinates of the centre of the circular area in which the associated ground station(s) are operating The latitude and longitude are provided in degrees, minutes and seconds NOTE – For the fixed service in the bands 47.2-47.5 GHz and 47.9-48.2 GHz different centres of the circular area may be provided for the UAC, SAC and if applicable RAC (see the most recent version of Recommendation ITU-R F.1500) Required if neither a geographical area (3.5.d) or geographical coordinates of a given zone (3.5.c.a) are provided	+	+	+	+	3.5.e
3.5.f	the radius, in km, of the circular area NOTE – For the fixed service in the bands 47.2-47.5 GHz and 47.9-48.2 GHz, a separate radius is provided for each of the UAC, SAC and if applicable RAC (see the most recent version of Recommendation ITU-R F.1500) Required if neither a geographical area (3.5.d) nor geographical coordinates of a given zone (3.5.c.a) are provided	+	+	+	+	3.5.f

Item identifier	*3 - CHARACTERISTICS TO BE PROVIDED FOR EACH FREQUENCY ASSIGNMENT FOR EACH INDIVIDUAL OR COMPOSITE HAPS ANTENNA BEAM*	Transmitting station in the bands listed in No. 5.388A for the application of No. 11.2	Receiving station in the bands listed in No. 5.388A for the application of No. 11.9	Transmitting station in the bands listed in Nos. 5.537A and 5.552Afor the application of No. 11.2	Receiving station in the bands listed in Nos. 5.543A and 5.552A for the application of No. 11.9	Item identifier
	CLASS OF STATION AND NATURE OF SERVICE					
3.6.a	the class of station, using the symbols from the Preface	**X**	**X**	**X**	**X**	3.6.a
3.6.b	the nature of service, using the symbols from the Preface	**X**	**X**	**X**	**X**	3.6.b
	CLASS OF EMISSION AND NECESSARY BANDWIDTH *(in accordance with Article **2** and Appendix **1**)*					
3.7.a	the class of emission	**X**	**X**	**X**	**X**	3.7.a
3.7.b	the necessary bandwidth	**X**	**X**	**X**	**X**	3.7.b
	POWER CHARACTERISTICS OF THE TRANSMISSION					
3.8	the symbol (X, Y or Z, as appropriate) describing the type of power (see Article **1**) corresponding to the class of emission	**X**	**X**	**X**	**X**	3.8.
3.8.aa	the power delivered to the antenna, in dBW, including the level of power control in 3.8.BA NOTE – For a receiving HAPS, the power delivered to the antenna refers to the associated transmitting ground station(s)	**X**		**X**	**X**	3.8.aa
3.8.AB	the maximum power density[1] averaged over the worst 1 MHz band delivered to the antenna	**X**		**X**		3.8AB
3.8.BA	the range of power control, in dB NOTE – For a receiving HAPS, the power control refers to its use by the associated transmitting ground station(s) In the case of a receiving HAPS, required in the bands 47.2-47.5 GHz and 47.9-48.2 GHz	**X**			+	3.8.BA
	POLARIZATION AND RECEIVING SYSTEM NOISE TEMPERATURE					
3.9.d	the code indicating the type of polarization (see the Preface)	**X**	**X**	**X**	**X**	3.9.d
3.9.j	the reference radiation pattern of the associated ground station(s) Required in the bands 47.2-47.5 GHz and 47.9-48.2 GHz			+	+	3.9.j
3.9.k	the lowest total receiving system noise temperature, in kelvins, referred to the output of the receiving antenna		**X**		**X**	3.9.k
	HOURS OF OPERATION					
3.10.b	the regular hours of operation (in hours and minutes from ... to ...) of the frequency assignment, in UTC	**X**	**X**	**X**	**X**	3.10.b