RECOMMENDATION ITU-R SM.1413

RADIOCOMMUNICATION DATA DICTIONARY

for notification and coordination purposes

(Question ITU-R 65/1)

The ITU Radiocommunication Assembly,

considering

a) that the notification and coordination procedures cover a wide range of radio systems that have been developed over time;

b) that there is a need to develop and adopt more precise criteria for frequency sharing and coordination of new and existing systems in both space and terrestrial environments;

c) that the impact of rapidly changing technology and the introduction of new services will increase the number of data elements to be uniquely identified and will require a data dictionary to be both flexible and part of a managed system;

d) that administrations need to be able to adequately and correctly identify frequency management information and descriptions for many internal processes including staff training, conference and meeting preparations;

e) that the variations in data definitions and units across the different services and frequency bands complicate the unique identification of every data element;

f) that for electronic data exchange to be successful the data to be exchanged between administrations and the ITU Radiocommunication Bureau must first be agreed and uniquely identified;

g) that Appendix S4 of the Radio Regulations (RR) defines the data sets to be provided, at different stages or for different categories of services, to the ITU Radiocommunication Bureau by the administrations, but does not define in detail the data elements themselves or their formats;

h) that more detailed definitions and formats for data elements are spread over a number of ITU-R texts, including Circular Letters and the Preface to the International Frequency List (IFL), and that it would be advisable to concentrate all of this information into a single text;

j) that the introduction of a data dictionary containing the radiocommunication terms for uniquely defined data elements associated with the notification process would:

i) aid the introduction of Electronic Data Exchange;

ii) simplify the translation process for ITU-R texts and other texts into other languages;

iii) make it easier for all administrations to understand the definition of terms regardless of the original language used to define them;

iv) improve the accuracy of data supplied by administrations;

k) that a data dictionary would need to be maintained to allow for changing technology and future expansion in the number of data elements listed,

l) that the existence of a data dictionary would provide assistance to World Radiocommunication Conferences (WRCs) in updating and improving the RR, in particular Appendix S4,

recognizing

a) that a data dictionary will require an on-going procedure for making improvements and keeping it up-to-date with developments in radiocommunications,

recommends

1 that the Radiocommunication Data Dictionary (RDD) contained in Annex 1 should be used as a reference to supplement Appendix S4 of the RR for facilitating the advanced publication, coordination and notification processes of frequency assignments with the ITU Radiocommunication Bureau and in the coordination processes between administrations;

2 that Study Group 1 should ensure that the RDD is maintained on an on-going basis with the help of a Rapporteur group including participation by the ITU Radiocommunication Bureau.

ANNEX 1

RADIOCOMMUNICATION DATA DICTIONARY

Background

In developing guidelines for administrations on the electronic exchange of spectrum management information, it was recognised that notification and coordination data were the most common items of information exchanged between administrations, and between administrations and the Radiocommunication Bureau (BR). However, the information required to facilitate this exchange is contained in numerous documents often with inconsistent or inaccurate descriptions. In some documents this information, or the associated explanation, is so brief that its meaning is ambiguous or misleading. These problems make the notification and coordination of radio systems difficult for both administrations and the BR, introducing unnecessary delays and causing the whole process to take more effort. If the delays in the notification and coordination process result in delays to the introduction of services, this could increase the associated costs for both administrations and radio system operators.

Increasing congestion in the radio spectrum and the need for greater sharing will increase the volume of data to be exchanged. If data exchange, in paper form, is to be accomplished efficiently and effectively, it is important that the precise meaning of the data to be exchanged is understood by all parties involved in the process. If this data is to be exchanged electronically, then a precise understanding becomes essential. To resolve these problems it was proposed that a dictionary of radiocommunication data used in the notification and coordination processes should be developed. Such a document could also be useful to administrations in their own internal frequency management processes, particularly where computer-based systems are being implemented which by necessity must cover a multitude of functions such as licensing, engineering tools and applications, staff training, etc. It also has potential for assisting administrations in developing their various inputs to technical meetings and conferences both within the ITU structure and with other external organizations where technical issues may be discussed.

This is the first issue of the Radiocommunication Data Dictionary (RDD). This document is intended to serve as an authoritative reference for information concerning data used in the notification and coordination processes. It is also expected that the RDD will replace the data descriptions in the Preface to the IFL.

The RDD includes for each data element: an accurate, unambiguous description; data format information; and conditions of use. As well, tables are provided for each type of radio service which outline the information required when coordinating or notifying stations in those radio services.

It has also become apparent that there is a possible impact on sections of the Radio Regulations, particularly Appendix S4 which provides the current requirement and definitions of data items used for coordination and notification. Appendix S4 contains a number of items that can be better defined, and there is also potential to introduce new concepts and the separation of a number of existing items into sub-items. Such changes have the potential to provide a better description of the specific technical and service conditions. Administrations are invited to consider these possible changes since, if they are to be implemented, they will need to provide suitable proposals to an appropriate WRC.

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Section 1

INTRODUCTION

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1.0 Introduction

The Radiocommunication Data Dictionary (RDD) provides the definition of the information required for the notification of terrestrial and space radiocommunication systems. The RDD also describes the specific conditions under which notifications are required by Appendix S4 of the Radio Regulations (RR), other provisions of the RR and the various Regional Plans. In addition, the RDD contains the information required for the coordination of terrestrial and space services.

1.1 Purpose and Scope

The aim of the RDD is to improve the exchange of notification and coordination data between administrations and between administrations and the Radiocommunication Bureau (BR) by:

i) providing a single comprehensive reference source thus replacing other similar existing documents;

ii) presenting consistent, accurate and unambiguous descriptions for the data with, where appropriate, references to other ITU documentation containing additional relevant information;

iii) providing administrations with a resource for their internal frequency management processes which could include such items as staff training, exchange of technical data, upgrading of computer-based systems, and conference and meeting preparation.

1.2 Approach

The RDD has been developed in consideration of:

i) examinations of various editions of the Radio Regulations, Regional Plans, ITU-R Circular Letters and Recommendations, and the Preface to the IFL.

ii) interviews conducted by Rapporteurs (from administrations and the BR) with radio system operators and individuals within administrations and the BR responsible for providing and processing the notification and coordination data.

The result of this work forms the basis of this document.

1.3 Organization of Data Descriptions

The data in the RDD has been subdivided into different categories and these are described below. Each entry in these different categories is given a unique identification number and called the “RDD reference number”.

1.3.1 Data items

Individual units of meaningful information have been identified and are described in the RDD as “data items”, which form the basic component of the RDD. The names of data items appear in title case with bold typeface (e.g. the data item referenced as item 1A in Annex 1A to Appendix S4 is **Assigned Frequency**).

1.3.2 Data groups

Individual data items can be grouped under common headings known as “data groups”, e.g. ***Signal Configuration***. A data group may contain several different data items and the full data item’s name is read as ***Signal Configuration*** **Assigned Frequency**.

1.3.3 Relationships

Data groups may be connected together by relationships. These relationship represent the type of connection or association between data groups. Relationships are often ignored in analysing data but they can be extremely useful as they can be used, when correctly defined, to explain why certain information is used and required.

1.4 Section Summaries

The following summaries provide a brief description of the contents of the RDD.

Section 2: Terrestrial Notification Data

This section contains a series of tables. Each of them lists the data items for notification of the radio system together with the specific conditions under which it is required by the Radio Regulations, or Regional Plans. In addition each table contains a short description of the radio systems to which it is applicable and the associated main operational frequency ranges and any relevant RR provisions.

Section 3: Description of Terrestrial Data Items

This section contains a description of all the terrestrial system data items, data groups and relationships listed in Section 2 together with some additional data items that are not part of the specific notification data but may be of interest to administrations involved in the notification process.

Section 4: Space Notification Data

This section contains a series of tables describing the notification data for space radio systems. Each table lists the data items required in RR Appendix S4 for notification of the radio system together with the specific conditions under which it is required by the Radio Regulations or Regional Plans. In addition, each table contains a short description of the space systems to which it is applicable.

Section 5: Description of Space Data Items

This section contains a description of all the space system data items, data groups and relationships listed in Section 4 together with some additional data items that are not part of the specific notification data but may be of interest to administrations involved in the notification process.

Section 6: Data Item Formats

This section lists standard formats of data presentation, e.g. Long/Lat (dms). These standard formats are referrd to in the ‘data format’ statement at the end of the definition of each item in Sections 3 and 5.

Section 7: Diagrams

This section contains graphical representation of the structure of the data defined in Sections 3 and 5.

Section 8: Cross-Reference Tables between RR Appendix S4 and RDD

This section explains the difference between what is stated in Appendix S4 and what is represented in the RDD. Where a difference occurs, a reason is provided.

This section has two sub-sections, the first concerning terrestrial notification data and the second concerning space notification data. In each sub-section, information is presented in a table which associates each Appendix S4 data item to the RDD data item which most closely represents this information. Any significant variance is explained in the notes which follow each table.

Section 9: Appendices 1 to 14 to Sections 1 to 8

- Appendix 1: Codes Designating Notifying Administrations
- Appendix 2: List of Intergovernmental Satellite Organizations
- Appendix 3: Codes designating Geographical Areas
- Appendix 4: Radiocommunication Services
- Appendix 5: Table of Classes Of Station
- Appendix 6: Antenna Patterns
- Appendix 7: Standard Abbreviations for Site Name Compression
- Appendix 8: Standard Defined Areas
- Appendix 9: TV Systems
- Appendix 10: Symbols used for Coordination and Agreement
- Appendix 11: BR Favourable or Unfavourable Findings
- Appendix 12: BR Finding References, Remarks and Dates
- Appendix 13: A list of Nature of Service Code
- Appendix 14: Power Measurement Method Code for each Class of Emission

Section 10: Data Item Reference Index

A comprehensive index of all the information presented in alphabetic order and by RDD reference number categorised separately for both terrestrial and space services.

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Section 2

TERRESTRIAL NOTIFICATION DATA

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2.0 Introduction

This section contains a series of tables describing the notification data for a number of radio systems. Each table provides:

- clarification or expansion of the information contained in Annex 1B to RR Appendix S4;
- lists of the data items required for the notification and coordination of the radio system, together with the specific conditions under which it is required by the Radio Regulations, or the relevant Regional Plans; and,
- contains a short description of the radio systems it covers, the main operational frequency ranges and any relevant RR provisions.

The following sections provide some information on how to use the tables in Section 2 and where to locate any relevant supporting information.

2.0.1 Section 2 Table Structure

Each table presents the information required in the notification and coordination of one or more radio systems for one or more frequency bands as indicated in the title of each table. For example, Table 2.1 is entitled **Aeronautical Mobile Service, Base Transmit, MF, HF, VHF, UHF Bands** which describes the systems and frequency ranges applicable to the table. Where a table represents a single radio system the values listed in the column "Data Format" apply for that system only. For tables representing several radio systems the values cover all systems covered by the table. Further clarification regarding the requirement for each data item, with respect to the appropriate radio system is provided in the table. Each table has five columns structured as follows:

RDD ref: This column contains the RDD Reference Number. This RDD Reference Number is a unique identifier which is assigned to each data item, data group or relationship.

Data Item Name This column contains the Data Item Name as it appears in the RDD. Every data item contained in the tables is described in detail in Section 3.

Data Format This column contains information regarding the format in which the data is to be provided during the notification and coordination processes for the specific radio systems and frequency bands of that table.

Use: This column contains information which indicates under what conditions the data item is to be used. This column contains codes with meanings as follows.

M: Mandatory: the information must be submitted by the notifying ***Administration***; indicates the data item must be provided for the specific services and frequency bands covered by the table.

R: Required: the information must be submitted under a specific condition. This condition is specified in the "Conditions of Use" column. The notifying ***Administration*** will supply this information.

O: Optional: the information may be submitted by the notifying ***Administration*** at its discretion; indicates the data item may be provided at the discretion of the notifying administration for the specific services and frequency bands covered by the table.

C: Coordination: indicates the data item is mandatory if it has been used as a basis to effect coordination with another ***Administration*** for the specific services and frequency bands covered by the table.

BR: Radiocommunication Bureau: indicates the data item is provided by the BR.

Conditions of Use This column specifies how and when a data item should be supplied when "R" is used in the "Use" column. Information in this column is mandatory when "R" is used in the "Use" column. The column may also contain supplementary information relevant to notification of the data item.

Sample Data Table

The following is a sample from a Table in this section.

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	For the ***Signal Configuration*** which is the subject of the ***Terrestrial Service Notice***, provide the			
0345	• Assigned Frequency	Frequency	M	
0348	• Reference (Carrier) Frequency	Frequency	R	Mandatory if the modulation envelope is asymmetric.
0157	• Necessary Bandwidth Code	4 Char.	M	
0351	• Class Of Emission Code	Up to 5 Char.	M	
0546	• Two Dimensional Service Zone consisting of		M	
0069	either a ***Circular Zone***, defined by			Mandatory if the ***Class Of Station*** Code is "FA" or "FG" and the ***Zone Boundary Coordinates*** or the ***Geographical Areas*** are not provided. Mandatory if the ***Class Of Station*** is "FD" and the ***Zone Boundary Coordinates*** and the ***Aeronautical Zones*** are not provided.
0070	Centre Geographical Coordinates	Long/Lat(dm).	R	Mandatory as defined in RDD 0069.
0071	Radius	Int. in range 1 to 20000 in km.	R	Mandatory as defined in RDD 0069.
0328	or between 3 and 6 ***Zone Boundary Coordinates***, defined by			Mandatory if the ***Class Of Station*** Code is "FA" or "FG" and ***Circular Zone*** is not provided. Mandatory if the ***Class Of Station*** code is "FD" and the ***Circular Zone*** or the ***Aeronautical Zones*** are not provided.
0329	Geographical Coordinates	Long/Lat(dms).	R	Mandatory as defined in RDD 0328.
0511	Sequence Number	Int. in range 1 to 6.	R	Mandatory as defined in RDD 0328.
0173	or one or more ***Geographical Area***, using			Mandatory if the ***Class Of Station*** Code is "FA" or "FG" and ***Circular Zone*** or the ***Zone Boundary Coordinates*** are not provided.
0174	Code	Up to 3 Char.	R	Mandatory as defined in RDD 0173.
0032	or one or more ***Aeronautical Zone***, using			Mandatory if the ***Class Of Station*** Code is "FD" operating in exclusive bands between 2850 kHz and 22000 kHz and the ***Circular Zone*** or the ***Zone boundary Coordinates*** are not provided
0033	Code	Up to 9 Char.	R	Mandatory as defined in RDD 0032

2.0.2 Table Usage

Each data item that is required for notification is indicated by a "bullet" mark and the tables have been structured so that the information can be read in the form of a standard sentence. With respect to the Sample Data Table outlined above, this is demonstrated as follows:

> For the ***Signal Configuration*** which is the subject of the ***Terrestrial Service Notice***, provide the **Assigned Frequency**.

and

> For the ***Signal Configuration*** which is the subject of the ***Terrestrial Service Notice***, provide the **Reference (Carrier) Frequency**.

To determine how and when these data items are used, the columns "Use" and "Conditions of Use" must be consulted. In this example the **Assigned Frequency** is mandatory in all cases as indicated by the symbol "M" in the column "Use". The **Reference (Carrier) Frequency**, on the other hand, is only required under specified conditions, as indicated by the symbol "R" in the "Use" column, with the "Conditions of Use" column indicating that this data item is only required if the modulation envelope is asymmetric.

Some data items , as noted in the Sample Data Table above, contain one or more ways of describing them. For example **Two Dimensional Service Zone** contains several sub-levels and can be described by a **Circular Zone**, **Geographical Area** or **Aeronautical Zone.**

This can be demonstrated from the following extract from the Sample Data Table above:

> For the ***Signal Configuration*** which is the subject of the ***Terrestrial Service Notice***, provide the **Two Dimensional Service Zone**, consisting of either a ***Circular Zone***, defined by **Centre Geographical Coordinates**, **Radius**; or one or more ***Geographical Areas***, using **Code**; or one or more ***Aeronautical Zones***, using **Code**.

This example shows there is an option under the **Two Dimensional Service Zone**, which, depending on the constraints imposed in the "Conditions of Use" column, permits the **Two Dimensional Service Zone** to be provided in one of three formats. In this example, if the ***Class Of Station*** **Code** is "FD" then the **Two Dimensional Service Zone** must be identified by the use of the appropriate ***Aeronautical Zone*** **Code**.

The "Data Format" column provides useful information concerning the format in which the data must be provided and the allowable range of values for that data. The values which are not applicable to all systems are further clarified in the "Conditions of Use" column. Values in the "Data Format" column therefore indicate the likely range of values for all the radio systems covered in that table. Section 3 contains a data item's maximum possible range of values for all of the terrestrial radio systems in the RDD. The "Data Format" column also provides details on the units, form and precision required for the data items. These formats are shown in their full form in Section 3, but in Section 2 they have been abbreviated to reduce the space required in the table.

Abbreviations are used in the tables as follows:

Int. = Integer.

Char. = Character.

Dec. = Decimal.

Long/Lat(dm) = Long/Lat in degrees and minutes.

2.0.3 TerRaSys Notification

The BR is in the process of moving to "TerRaSys" and for modification and suppression of an existing assignment are considering how to identify the relevant information in the MIFR, as the **BR Identification Code** is not sufficient if a modification is submitted before the BR have had time to issue it to the ***Administration***. TerRaSys will therefore require additional data elements for modifications and suppressions of notified assignments, and for amendments to pending notices.

This information is:

the **Administration's Notice Code;**

or

sufficient parameters to clearly define the existing assignment to be modified or suppressed, or the pending notice to be amended or deleted.

For LF/MF Broadcasting, VHF Sound Broadcasting, and Television Broadcasting, these parameters are:

- The ***Antenna's*** **Geographical Coordinates** (RDD Ref: 0037);
- The frequency corresponding to the ***Signal Configuration's*** **Assigned Frequency** (RDD Ref: 0345) for LF, MF, and FM; and the ***Signal Configuration's*** **Vision Carrier Nominal Frequency** (RDD Ref: 0064) for analogue TV.

For the other services (Fixed, Mobile, Aeronautical, etc.), these parameters are:

- ***Signal Configuration's*** **Assigned Frequency** (RDD Ref: 0345)
- Hours of Operation (***Regular Operation Period*** **Start Time** (RDD Ref: 0307) and ***Regular Operation Period*** **Stop Time** (RDD Ref: 0308))
- ***Class Of Station*** **Code** (RDD Ref: 0277)
- ***Signal Configuration's*** **Class Of Operation Code** (RDD Ref: 0494)
- ***Signal Configuration's*** **Class Of Emission Code** (RDD Ref: 0351)
- Necessary Bandwidth corresponding to the ***Signal Configuration's*** **Necessary Bandwidth Code** (RDD Ref: 0157), although TerRaSys will probably use the actual bandwidth rather than a code

As the use of the above data for modification or suppression of an existing assignment is still only a proposal and there will be differences between paper and electronic notifications during the transition period to TerRaSys, this information has not been listed in the following tables but is provided for general information and reference.

2.1 Aeronautical Mobile Service, Base Transmit in the MF, HF, VHF, UHF Bands

This table covers an aeronautical station in the Aeronautical Mobile Service (including Terrestrial Flight Telecommunications System (TFTS)).

Aeronautical Station (Base Transmit)

Vertical Polarization.

A base to mobile (aircraft) transmission in the Aeronautical Mobile Service, which may not be used for public correspondence in the exclusive bands. The transmitting antenna may be directional or non-directional depending on the frequency range, the service area to be covered and whether the transmission is in the aeronautical on-route or off-route service. The service area therefore may be defined by circular areas, specific points or zones and a maximum height. The operational range is limited by the frequency range and the transmit power of the aircraft.

MF/HF

Frequency Range: 2850 kHz - 22000 kHz (in specific bands). The conditions for use of the bands allocated exclusively to the Aeronautical Mobile (OR) Service are contained in Appendix S26 to the Radio Regulations. The conditions for use of the bands allocated exclusively to the Aeronautical Mobile (R) Service are contained in Appendix S27 to the Radio Regulations.

Maximum range at MF is normally 500 km and at HF 20000 km. The system operates mainly in SSB mode using the upper sideband.

VHF

Frequency Range: 117.975 MHz - 137 MHz.
The VHF communications system is the fundamental tool of the Air Traffic Service (ATS) and Aeronautical Operational Control (AOC) in airspace that can be served by line-of-sight communications. The conditions for use of this band, by the Aeronautical Mobile (R) Service, and the recommended channelling arrangement are normally specified by the ICAO. The system currently operates mainly in DSB (A3E).

UHF

Frequency Range: Ground to Air 1670 MHz - 1675 MHz.

An aeronautical public correspondence system. The TFTS has a three dimensional reception volume or cell (the shape of the cell is basically cylindrical but the cell diameter may be reduced with increasing altitude to reduce interference into neighbouring cells). There are three types of cell, a standard cell for on-route service, an intermediate cell for close to intermediate range (during ascent and descent) and an airport cell for taxiing and take-off/landing. The airport cell shape may vary depending on the size and shape of the airport. Handover between cells is automatic.

Each assigned ground to air frequency is paired with a single air to ground frequency. With the codes in use initially, each frequency pair can support up to four simultaneous calls at a ground station. A ground station consists of one (or more) assigned transmit frequencies, the paired receive frequency plus an external system timing reference. For planning purposes, frequencies are grouped into interleaved blocks of four, each with an identification code.

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Terrestrial Service Notice***, provide the			
0205	• BR Identification Code	Up to 10 Char.	R	Mandatory if the notification is a modification or suppression of an existing assignment. Currently BR Identification Code is only 9 characters. It is proposed that should be increased to 10 characters.
0206	• Intended Action Code	1 Char.	M	
0204	• Date Sent	Date	O	
0202	• BR Date Received	Date	BR	
0201	• Administration's Notice Code	Up to 20 Char.	O	
	• Provision under which the ***Terrestrial Service Notice*** is notified, using			
0608	Code	Up to 12 Char.	M	
	For the ***Signal Configuration*** which is the subject of the ***Terrestrial Service Notice***, provide the			
0345	• Assigned Frequency	Frequency	M	
0348	• Reference (Carrier) Frequency	Frequency	R	Mandatory if the modulation envelope is asymmetric.
0157	• Necessary Bandwidth Code	4 Char.	M	
0351	• Class Of Emission Code	Up to 5 Char.	M	
0150	• Station Identification	Up to 20 Char.	R	Mandatory if a Call Sign is not allocated to the ***Signal Configuration***.

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
0347	• Call Sign	Up to 10 Char.	O	
0159	• Power Measurement Method Code	1 Char.	M	
0166	• Transmitter Output Power	Dec. in range 5.0 to 60.0 in dBW.	R	Mandatory in the bands below 28000 kHz as well as in those bands shared with space services which are listed in Article S21 with the indication of power limits. For other bands mandatory if Maximum Radiated Power is not supplied.
0155	• Maximum Radiated Power	Dec. in range 0.0 to 60.0 in dBW with Gain Reference Antenna Code.	R	Mandatory in those bands shared with space services which are listed in Article S21 with the indication of power limits. For other bands mandatory if Transmitter Output Power and the ***Transmitting Antenna's*** Maximum Gain are not supplied.
0141	• Date Of Bringing Into Use	Date.	M	
0144	• Period Of Validity	Int. in range to 1 to 30 in years.	O	
0161	• RR Conformity Indicator	True or False.	M	
0545	• Three Dimensional Service Zone consisting of a		O	
0001	***Three Dimensional Zones*** defined by			
0003	Maximum Operating Height	Int. in range 0 to 60000 in feet.	C	Only required above VHF.
0004	Minimum Operating Height	Int. in range 0 to 60000 in feet.	C	Only required for Aeronautical Public Correspondence systems.
0083	Altitude Radius Reduction	Int. in range 0 to 10 in metres/foot.	C	Only required for Aeronautical Public Correspondence systems.
0546	• Two Dimensional Service Zone consisting of		M	
0069	either a ***Circular Zone***, defined by			Mandatory if the ***Class Of Station*** Code is "FA" or "FG" and the ***Zone Boundary Coordinates*** or the ***Geographical Areas*** are not provided. Mandatory if the ***Class Of Station*** is "FD" and the ***Zone Boundary Coordinates*** and the ***Aeronautical Zones*** are not provided.
0070	Centre Geographical Coordinates	Long/Lat(dm).	R	Mandatory as defined in RDD 0069.
0071	Radius	Int. in range 1 to 20000 in km.	R	Mandatory as defined in RDD 0069.
0328	or between 3 and 6 ***Zone Boundary Coordinates***, defined by			Mandatory if the ***Class Of Station*** Code is "FA" or "FG" and ***Circular Zone*** is not provided. Mandatory if the ***Class Of Station*** Code is "FD" and the ***Circular Zone*** or the ***Aeronautical Zones*** are not provided.
0329	Geographical Coordinates	Long/Lat(dms).	R	Mandatory as defined in RDD 0328.
0511	Sequence Number	Int. in range 1 to 6.	R	Mandatory as defined in RDD 0328.
0173	or one or more ***Geographical Area***, using			Mandatory if the ***Class Of Station*** Code is "FA" or "FG" and ***Circular Zone*** or the ***Zone Boundary Coordinates*** are not provided.
0174	Code	Up to 3 Char.	R	Mandatory as defined in RDD 0173.
0032	or one or more ***Aeronautical Zone***, using			Mandatory if the ***Class Of Station*** Code is "FD" operating in exclusive bands between 2850 kHz and 22000 kHz and the ***Circular Zone*** or the ***Zone boundary Coordinates*** are not provided
0033	Code	Up to 9 Char.	R	Mandatory as defined in RDD 0032
0156	• Nature of Service Code	2 Char.	M	"CP" is not permitted in bands allocated exclusively to the Aeronautical Mobile Service RR S43.4.
	• ***Class Of Station*** of the ***Signal Configuration***, using			
0277	Code	2 Char.	M	Always "FA", "FD", or "FG".
	• ***Administration*** notifying the ***Signal Configuration***, using			
0011	Code	Up to 3 Char.	M	
	• ***Correspondence Address*** to contact regarding matters of interference, using			
0094	Code	Up to 2 Char.	M	
	• ***Operator*** of the ***Signal Configuration***, using			
0219	Code	3 Char. In range 001 to 999.	O	
	For each ***Coordination Agreement*** obtained for the ***Signal Configuration***, provide the			
0090	• Status Code	Up to 6 Char.	BR	
	• ***Provision*** the ***Coordination Agreement*** is in respect of, using			

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
0608	Code	Up to 12 Char.	R	Mandatory if any RR or Plan provisions are applicable.
	• ***Administration*** coordination is obtained with, using			
0011	Code	Up to 3 Char.	R	Mandatory if agreement is necessary and obtained.
	For each ***Regular Operation Period*** during which the ***Signal Configuration*** operates, provide the			
0307	• Start Time	Time in UTC.	M	
0308	• Stop Time	Time in UTC.	M	
	For the ***Transmitting Antenna*** emitting the ***Signal Configuration***, provide the			
0037	• Geographical Coordinates	Long/Lat(dms).	M	
0121	• Ground Altitude Above Mean Sea Level	Int. in range -1000 to 8848 in metres.	R	Mandatory if the ***Signal Configuration*** for this ***Transmitting Antenna*** is in a band shared with Space Services above 1 GHz.
0125	• Height Above Ground Level	Int. in range 0 to 1000 in metres.	R	Mandatory if the ***Signal Configuration*** for this ***Transmitting Antenna*** is in a band shared with Space Services above 1 GHz.
0131	• Polarization Code	Up to 2 Char.	R	Mandatory if the ***Signal Configuration*** for this ***Transmitting Antenna*** is in a band shared with Space Services above 1 GHz.
0122	• Directivity Indicator	True or False.	M	
0147	• Horizontal Beamwidth	Dec. in range 0.1 to 359.9 in degrees.	R	Mandatory if the ***Transmitting Antenna*** is directional.
0168	• Vertical Beamwidth	Dec. in range 0.1 to 180.0 in degrees.	O	
0509	• Rotational Antenna Beam Start Azimuth	Dec. in range 0.0 to 359.9 in degrees.	R	Mandatory if the ***Transmitting Antenna*** beam is rotational or swept.
0510	• Rotational Antenna Beam Finish Azimuth	Dec. in range 0.1 to 360.0 in degrees.	R	Mandatory if the ***Transmitting Antenna*** beam is rotational or swept.
0129	• Maximum Gain	Dec. in range -5.0 to 40.0 in dB with Gain Reference Antenna Code.	R	Mandatory if the ***Transmitting Antenna*** is directional. Mandatory in shared bands above 1 GHz.
0108	• Azimuth Of Maximum Gain	Dec. in range 0.0 to 359.9 in degrees.	R	Mandatory if the ***Transmitting Antenna*** is directional in the horizontal plane and the ***Transmitting Antenna*** beam is not rotating or swept.
0109	• Elevation Angle Of Maximum Gain	Dec. in range 0.0 to 90.0 in degrees.	R	Mandatory in the bands shared with space services above 1 GHz.
0110	• Reference Pattern consisting of		O	.
0110a	either an Antenna Gain Equation	Equation.	O	
0110b	or an Antenna Gain Polar Diagram	Diagram.	O	
0110c	or a ITU-R Antenna Characteristic Code,	Up to 10 Char.	O	
0507	or a Horizontal Gain Pattern consisting of			
	36 Vectors, defined by			
0507b	Azimuth and	Int. in range 0 to 350 in multiples of 10 in degrees.	O	
0507a	Gain	Dec. in range -5.0 to 40.0 in dB with Gain Reference Antenna Code.	O	
0502	and a Vertical Gain Pattern consisting of			
	10Vectors, defined by			
0502b	Elevation Angle	Int. in range 0 to 90 in multiples of 10 in degrees.	O	
0502a	Gain	Dec. in range -5.0 to 40.0 in dB with Gain Reference Antenna Code.	O	
	For the ***Site*** where the ***Transmitting Antenna*** is located, provide the			Note: RR S 21.1 - 21.2.
0267	• Name	Up to 30 Char.	M	Currently ***Site*** Name is only 20 characters. It is proposed this should be increased to 30 characters.
	• ***Geographical Area*** where the ***Site*** is located, using			
0174	Code	Up to 3 Char.	M	

2.2 Aeronautical Mobile Service, Base Receive in the MF, HF, VHF & UHF Bands and Meteorological Aids Service in the UHF Band

This table covers a receiving aeronautical station in the Aeronautical Mobile Service (including Terrestrial Flight Telecommunications System (TFTS)) and a meteorological receiving station (Sondes - air to ground) in the Meteorological Aids Service.

Aircraft Station (Transmit)

Vertical Polarization.

A mobile (aircraft) to base transmission in the Aeronautical Mobile Service that may not be used for public correspondence in the exclusive bands. Although the transmitting antenna is non-directional, the roaming area may be defined by specific points or zones and a maximum height, as a result of the use of a directive antenna at the receiving base station. The operational range is limited by the propagational properties of the frequency range and the transmit power of the aircraft. Frequency assignments to aircraft stations are not to be notified when the communications are made in a single frequency simplex mode of operation, as these assignments are covered by the notification of the frequency assignments related to the corresponding aeronautical stations.

MF/HF

Frequency Range: 2850 kHz - 22000 kHz (in specific bands).
The conditions for use of the bands allocated exclusively to the Aeronautical Mobile (OR) Service are contained in Appendix S26 to the Radio Regulations. The conditions for use of the bands allocated exclusively to the Aeronautical Mobile (R) Service are contained in Appendix S27 to the Radio Regulations. As the communications in these bands are almost always in a single frequency simplex mode of operation, there is rarely a need to notify a frequency assignment to a receiving aeronautical station in the bands governed by Appendices S26 and S27.

Maximum range at MF is normally 500 km and at HF 20000 km. The system operates mainly in SSB mode using the upper sideband.

VHF

Frequency Range: 117.975 MHz - 137 MHz.

UHF

Frequency Range: Air to Ground 1800 MHz - 1805 MHz.

An aeronautical public correspondence system. The TFTS has a three dimensional reception volume or cell (the shape of the cell is basically cylindrical but the cell diameter may be reduced with increasing altitude to reduce interference into neighbouring cells). There are three types of cell, a standard cell for on-route service, an intermediate cell for close to intermediate range (during ascent and descent) and an airport cell for taxiing and take-off/landing. The airport cell shape may vary depending on the size and shape of the airport. Handover between cells is automatic.

Each assigned ground to air frequency is paired with a single air to ground frequency. With the codes in use initially, each frequency pair can support up to four simultaneous calls at a ground station. A ground station consists of one (or more) assigned transmit frequencies, the paired receive frequency plus an external system timing reference. For planning purposes, frequencies are grouped into interleaved blocks of four, each with an identification code.

Meteorological Aids (Sondes)

Frequency Range: 400.15 - 406 MHz and 1668.4 - 1700 MHz.

Meteorological Aids Station the ground station receive antenna and the transmitting antenna on board the sonde (which is regarded as an aircraft station) are non-directional. The radius of the circular reception area is up to 300 km and notified stations normally operate intermittently over a 24 hours period. Flights may occur once or many times a day, with transmissions lasting for up to 1.5 hours. The **Assigned Frequency** is selected from a group of frequencies and is chosen on the basis that it is not in use at that time. The position of the sonde can be tracked by primary radar, or by the re-transmission by the sonde of signals received from international maritime navigation aids (e.g. Loran C).

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Terrestrial Service Notice***, provide the			
0205	• BR Identification Code	Up to 10 Char.	R	Mandatory if the notification is a modification or suppression of an existing assignment. Currently BR Identification Code is only 9 characters. It is proposed this should be increased to 10 characters.
0206	• Intended Action Code	1 Char.	M	
0204	• Date Sent	Date.	O	
0202	• BR Date Received	Date.	BR	
0201	• Administration's Notice Code	Up to 20 Char.	O	
	• ***Provision*** under which the ***Terrestrial Service Notice*** is notified, using			
0608	Code	Up to 12 Char.	M	
	For the ***Signal Configuration*** which is the subject of the ***Terrestrial Service Notice***, provide the			
0345	• Assigned Frequency	Frequency.	M	
0348	• Reference (Carrier) Frequency	Frequency.	R	Mandatory if the modulation envelope is asymmetric.
0157	• Necessary Bandwidth Code	4 Char.	M	
0351	• Class Of Emission Code	Up to 5 Char.	M	
	• Power Measurement Method Code	1 Char.	M	
	• Transmitter Output Power	Dec. in range - 0.0 to 30.0 in dBW	R	Mandatory in the bands below 28000 kHz. For other bands mandatory if Maximum Radiated Power is not supplied.
	• Maximum Radiated Power	Dec. in range 0.0 to 30.0 in dBW with Gain Reference Antenna Code.	R	Mandatory if Transmitter Output Power and ***Transmitting Antenna's*** Maximum Gain are not supplied.
	• Date Of Bringing Into Use	Date.	M	
	• Period Of Validity	Int. In range 1 to 30 in years.	O	
0161	• RR Conformity Indicator	True or False.	M	
0194	• Three Dimensional Roaming Zone consisting of a		O	
0001	one or more ***Three Dimensional Zones***, defined by			
0159	Maximum Operating Height	Int. in range 100 to 5000 in feet.	C	Mandatory above VHF.
0166	Minimum Operating Height	Int. in range 0 to 5000 in feet.	C	Only required for Aeronautical Public Correspondence systems.
0155	Altitude Radius Reduction	Int. in range 0 to 10 in metres/foot.	C	Only required for Aeronautical Public Correspondence systems.
0141	• Two Dimensional Roaming Zone consisting of		M	
0144	a ***Circular Zone***, defined by			
0070	Centre Geographical Coordinates	Long/Lat(dm).	M	
0071	Radius	Int. in range 1 to 20000 in km.	M	
0156	• Nature Of Service Code	2 Char.	M	"CP" is not permitted in bands allocated exclusively to the Aeronautical Mobile Service RR S43.4.
	• ***Class Of Station*** of the ***Signal Configuration***, using			
0277	Code	2 Char.	M	"MA" or "SA".
	• ***Administration*** notifying the ***Signal Configuration***, using			
0011	Code	Up to 3 Char.	M	
	• ***Correspondence Address*** to contact regarding matters of interference, using			
0094	Code	Up to 2 Char.	M	
	• ***Operator*** of the ***Signal Configuration***, using			
0219	Code	3 Char. in range 001 to 999.	O	
	For each ***Coordination Agreement*** obtained for the ***Signal Configuration***, provide the			
0090	• Status Code	Up to 6 Char.	BR	
	• ***Provision*** the ***Coordination Agreement*** is in respect of, using			
0608	Code	Up to 12 Char.	R	Mandatory if any RR or Plan provisions are applicable.
	• ***Administration*** coordination is obtained with, using			
0011	Code	Up to 3 Char.	R	Mandatory if agreement is necessary and obtained.
	For each ***Regular Operation Period*** during which the ***Signal Configuration*** operates, provide the			

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
0307	• Start Time	Time in UTC.	M	
0308	• Stop Time For the ***Receiving Antenna*** that is the target of the ***Signal Configuration***, provide the	Time in UTC.	M	
0037	• Geographical Coordinates	Long/Lat(dms).	M	
	For the ***Site*** where the ***Receiving Antenna*** is located, provide the			
0267	• Name	Up to 30 Char.	M	Currently ***Site*** Name is only 20 characters. It is proposed this should be increased to 30 characters.
	• ***Geographical Area*** where the ***Site*** is located, using			
0174	Code	Up to 3 Char.	M	

2.3 Aeronautical Radionavigation Service, ILS, MLS & VOR and En-route Marker Beacons in the VHF, UHF & SHF Bands

This table covers Aeronautical Radionavigation systems between 30 MHz and 10 GHz.

Instrument Landing System (ILS)

ILS Localizer

Frequency range: 108.000 - 111.975 MHz interleaved with VOR.

Horizontal polarization.
The radiation from the localizer antenna system produces a composite field pattern which is amplitude modulated by 90 Hz and a 150 Hz tone. The radiation field pattern produces a course sector with one tone predominating on one side of the course and with the other tone predominating on the opposite side. In addition, the transmission can carry Morse identification and speech, both of which are amplitude modulated. The ILS localizer operates on a frequency pairing basis with the glide path transmitter.

The localizer coverage sector extends from the centre of the localizer antenna system to distances of:

46.3 km (25 NM) within plus or minus 10 degrees from the front course line;

31.5 km (17 NM) between 10 degrees and 35 degrees from the front course line;

18.5 km (10 NM) outside of plus or minus 35 degrees if coverage is provided.

ILS Glide slope

Frequency range: 328.6 - 335.4 MHz.

Horizontal polarization.
The radiation from the glide path antenna produces a composite field pattern which is amplitude modulated by a 90 Hz and a 150 Hz tone. The pattern is arranged to provide a straight line descent path in the vertical plane containing the centre line of the runway, with the 150 Hz tone predominating below the path and the 90 Hz tone predominating above the path. The glide path transmitter operates on a frequency pairing basis with the ILS localizer.

Marker Beacon

Frequency Range: 75 MHz

Horizontal Polarization.
A beacon with a vertical radiation pattern which is used in conjunction with an ILS to indicate predetermined distances from the landing threshold along the ILS glide path. The beacon is amplitude modulated with an audio frequency that carries the beacon's identification. The system comprises two or three beacons which are known as the: Inner Marker (where installed) using a modulation frequency of 3,000 Hz; Middle Marker using a modulation frequency of 1,300 Hz; Outer Marker using a modulation frequency of 400 Hz. Normally, it is not notified because it is covered by common frequencies.

Microwave Landing Systems (MLS)

Frequency Range: 5000 - 5150 MHz.

Vertical Polarization.

MLS is a precision approach and landing guidance system that provides position information and various ground-to-air data. The position information is provided in a wide coverage sector and is determined by an azimuth angle measurement, an elevation angle measurement and a range (distance) measurement. The MLS equipment operates on a frequency pairing basis with the DME equipment.

A linear array of radiators are fed sequentially from a microwave power source which produces a Time Referenced Scanning Beam (TRSB), which is equivalent to the source moving along a linear track. An aircraft will receive the signal with a Doppler shift which depends on the component of the apparent velocity of the source towards the aircraft, and is proportional to the cosine of the angle between the aircraft and the line of the transmitting array. To eliminate effects of frequency drift and Doppler shift due to the movement of the aircraft, the same r.f. signal is simultaneously radiated from a antenna. Azimuth guidance is obtained from a horizontal transmitting array, while a vertical array gives guidance in the elevation plane. A measure of the distance to touchdown is obtained using a Precision DME in a frequency paired relationship with the MLS.

VHF Omnidirectional Range (VOR)

Frequency Range: 108.000 - 111.975 MHz interleaved with ILS/Localizer
111.975 - 117.975 MHz on an exclusive basis

Horizontal Polarization.

The VOR radiates a radio frequency carrier which has two separate 30 Hz modulations. One of these modulations is such that its phase is independent of the azimuth of the point of observation and is known as the reference phase. The other modulation, known as the variable phase, is arranged such that its phase at the point of observation differs from that of the reference phase by an angle equal to the bearing of the point of observation with respect to the VOR. The reference and variable phase modulations are in phase along the reference meridian through the station. In addition, the transmission can carry Morse identification and speech, both amplitude modulated. The VOR facility is usually associated with DME on a paired frequency basis and used together provides both range and bearing information.

En-Route Marker Beacon

Frequency Range: 75 MHz

Horizontal Polarization.

A beacon with a vertical radiation pattern that may be directional in the direction of the flight path. The beacon is amplitude modulated with a 3000 Hz tone. There are two types of beacon: fan marker beacon which is recommended for marking a position on any route; Z marker which is recommended for marking the position of a radionavigation aid giving directional or track guidance en-route.

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Terrestrial Service Notice***, provide the			
0205	• BR Identification Code	Up to 10 Char.	R	Mandatory if the notification is a modification or suppression of an existing assignment. Currently BR Identification Code is only 9 characters. It is proposed this should be increased to 10 characters.
0206	• Intended Action Code	1 Char.	M	
0204	• Date Sent	Date	O	
0202	• BR Date Received	Date	BR	
0201	• Administration's Notice Code	Up to 20 Char.	O	
	• ***Provision*** under which the ***Terrestrial Service Notice*** is notified, using			
0608	Code	Up to 12 Char.	M	
	For the ***Signal Configuration*** which is the subject of the ***Terrestrial Service Notice***, provide the			
0345	• Assigned Frequency	Frequency.	M	
0348	• Reference (Carrier) Frequency	Frequency.	R	Mandatory if the modulation envelope is asymmetric.
0157	• Necessary Bandwidth Code	4 Char.	M	
0351	• Class Of Emission Code	Up to 5 Char.	M	
0150	• Station Identification	Up to 20 Char.	M	
0159	• Power Measurement Method Code	1 Char.	M	
0166	• Transmitter Output Power	Dec. in range 0.0 to 60.0 in dBW.	R	Mandatory if the ***Signal Configuration*** is in a band shared with Space Services above 1 GHz. In other bands mandatory if the Maximum Radiated Power is not supplied.
0155	• Maximum Radiated Power	Dec. in range 0.0 to 70.0 in dBW with Gain Reference Antenna Code.	R	Mandatory if the ***Signal Configuration*** is in a band shared with Space Services above 1 GHz. In other bands mandatory if the Transmitter Output Power and the ***Transmitting Antenna***'s Maximum Gain is not supplied.
0141	• Date Of Bringing Into Use	Date.	M	
0144	• Period Of Validity	Int. in range 1 to 30 in years.	O	
0161	• RR Conformity Indicator	True or False.	M	
0545	• Three Dimensional Service Zone consisting of		O	
0001	one or more ***Three Dimensional Zones*** defined by			
0003	Maximum Operating Height	Int. in range 1 to 10000 in feet.	O	Required for VOR, in the coordination process.
0546	• Two Dimensional Service Zone consisting of		M	Identical to Two Dimensional Zone RDD ref:0527
0069	either a ***Circular Zone***, defined by			
0070	Centre Geographical Coordinates	Long/Lat(dm).	R	Mandatory for VOR.

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
0071	Radius	Int. in range 1 to 100 in km.	R	Mandatory for VOR.
0328	or between 3 and 6 ***Zone Boundary Coordinates***, defined by			
0329	Geographical Coordinates	Long/Lat(dms).	R	Mandatory if a ***Circular Zone*** is not provided.
0511	Sequence Number	Int. in range 1 to 6.	R	Mandatory if a ***Circular Zone*** is not provided.
0156	• Nature Of Service Code	2 Char.	R	Mandatory if "RC" or "RD" or "RG" or "RT".
	• ***Class Of Station*** of the ***Signal Configuration***, using			
0277	Code	2 Char.	M	Always "AL".
0226	• ***Protection Mask*** that defines the protection for the ***Signal Configuration*** using		C	
0231	Shape	Diagram.	C	
227	Signal to Interference Ratio	Dec. in range 10.0 to 25.0 in dB.	C	
0229	Minimum Protected Field Strength	Dec. in range 10.0 to 30.0 in dBμV/m.	C	
0230	Protection Margin	Dec. in range 5.0 to 25.0 in dB.	C	
	• ***Administration*** notifying the ***Signal Configuration***, using			
0011	Code	Up to 3 Char.	M	
	• ***Correspondence Address*** to contact regarding matters of interference, using			
0094	Code	Up to 2 Char.	M	
	• ***Operator*** of the ***Signal Configuration***, using			
0219	Code	3 Char in range 001 to 999.	O	
	For each ***Coordination Agreement*** obtained for the ***Signal Configuration***, provide the			
0090	• Status Code	Up to 6 Char.	BR	
	• ***Provision*** the ***Coordination Agreement*** is in respect of, using			
0608	Code	Up to 12 Char.	R	Mandatory if any RR provision is applicable.
	• ***Administration*** coordination is obtained with, using			
0011	Code	Up to 3 Char.	R	Mandatory if agreement is necessary and obtained.
	For each ***Regular Operation Period*** during which the ***Signal Configuration*** operates, provide the			
0307	• Start Time	Time in UTC.	M	
0308	• Stop Time	Time in UTC.	M	
	For the ***Transmitting Antenna*** emitting the ***Signal Configuration***, provide the			
0037	• Geographical Coordinates	Long/Lat(dms).	M	
0121	• Ground Altitude Above Mean Sea Level	Int. in range -1000 to 8848 in metres.	R	Mandatory if the ***Signal Configuration*** for this ***Transmitting Antenna*** is in a band shared with Space Services above 1 GHz.
0125	• Height Above Ground Level	Int. in range 0 to 1000 in metres.	R	Mandatory if the ***Signal Configuration*** for this ***Transmitting Antenna*** is in a band shared with Space Services above 1 GHz.
0131	• Polarization Code	Up to 2 Char.	R	Mandatory if the ***Signal Configuration*** for this ***Transmitting Antenna*** is in a band shared with Space Services above 1 GHz.
0122	• Directivity Indicator	True or False.	M	
0147	• Horizontal Beamwidth	Dec. in range 0.1 to 359.9 in degrees.	R	Mandatory if the ***Transmitting Antenna*** is directional.
0168	• Vertical Beamwidth	Dec. in range 0.1 to 180.0 in degrees.	O	
0509	• Rotational Antenna Beam Start Azimuth	Dec. in range 0.0 to 359.9 in degrees.	R	Mandatory if the ***Transmitting Antenna*** beam is rotational or swept.
0510	• Rotational Antenna Beam Finish Azimuth	Dec. in range 0.1 to 360.0 in degrees.	R	Mandatory if the ***Transmitting Antenna*** beam is rotational or swept.
0129	• Maximum Gain	Dec. in range 0.0 to 40.0 in dB with Gain Reference Antenna Code.	R	Mandatory if the ***Transmitting Antenna*** is directional.
0108	• Azimuth Of Maximum Gain	Dec. In range 0.0 to 359.9 in degrees.	R	Mandatory if the ***Transmitting Antenna*** is directional in the horizontal plane.

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
0109	• Elevation Angle Of Maximum Gain	Dec. in range 0.0 to 90.0 in degrees.	R	Mandatory if the ***Signal Configuration*** is in a band shared with Space Services above 1 GHz.
0110	• Reference Pattern consisting of		O	
0110a	either an Antenna Gain Equation	Equation.	O	
0110b	or an Antenna Gain Polar Diagram	Diagram.	O	
0110c	or a ITU-R Antenna Characteristic Code,	Up to 10 Char.	O	
0507	or a Horizontal Gain Pattern consisting of		O	VOR only.
	36 Vectors, defined by			
0507b	Azimuth	Int. in range 0 to 350 in multiples of 10 in degrees.	O	
0507a	Gain	Dec. in range 0.0 to 40.0 in dB with Gain Reference Antenna Code.	O	
0502	and a Vertical Gain Pattern consisting of		O	
	10 Vectors, defined by			
0502b	Elevation Angle	Int. in range 0 to 90 in multiples of 10 in degrees.	O	
0502a	Gain	Dec. in range 0.0 to 40.0 in dB with Gain Reference Antenna Code.	O	
	For the ***Site*** where the ***Transmitting Antenna*** is located, provide the			
0267	• Name	Up to 30 Char.	M	Currently ***Site*** Name is only 20 characters. It is proposed this should be increased to 30 characters.
	• ***Geographical Area*** where the ***Site*** is located, using			
0174	Code	Up to 3 Char.	M	

2.4 Maritime Radionavigation Service, Maritime Radio beacon, Hyperbolic Systems, in the MF Band DGPS and Aeronautical Radionavigation Service, Aeronautical Radio-beacons, in the LF/MF Bands

This table covers a non-directional radio beacon (NDB) in the Aeronautical Radionavigation Service and maritime radio beacons (MB) and hyperbolic systems in the Maritime Radionavigation Service.

Aeronautical Non-Directional Radio Beacon (NDB)

Parts of the Frequency Range: 160 kHz - 1750 kHz

Vertical Polarization.

A beacon used for obtaining a bearing within a designated service area. They are also used either wholly, or partly as holding, approach and landing aids. The beacons generally radiate an uninterrupted carrier. Identification is by on/off keying of an amplitude modulated tone (either a 1020 Hz or 400 Hz), although this does not preclude the use of other types of modulation in addition to those specified for identification, including simultaneous identification and voice modulation. In certain conditions (see ICAO International Standards and Recommended Practices) NDBs other than those wholly, or partly serving as holding, approach and landing aids may be identified by on/off keying of the unmodulated carrier.
The use of the bands 415-435 kHz and 510-526.5 kHz, in Region 1, by the Aeronautical Radionavigation Service (radio beacons) is governed by the Regional Agreement GE85-MM-R1.

Maritime Radio beacon

Frequency Band: 283.5 - 335 kHz

Vertical Polarization.
A beacon for direction finding purposes. The signal transmitted normally comprises an A1A identification signal, a long dash for direction finding purposes, and an optional transmission sequence for transmission of data to ships.
Some maritime radiobeacon stations also transmit supplementary navigational information (e.g., transmission of differential corrections for GNSS).
The use of the band 283.5 - 315 kHz, in the European Maritime Area, by the Maritime Radionavigation Service (radiobeacons), is governed by the Regional Agreement GE85-EMA.

Hyperbolic Maritime Radionavigation Systems

Frequency bands: 283.5 - 315 kHz and 405-415 kHz.

This is a multi-frequency system, operating by phase comparison between different unmodulated carriers emitted sequentially by at least three synchronous transmitters. In addition, each station constantly emits a characteristic unmodulated carrier, on a specific frequency, for purposes of identification and constant updating of bearings during intervals of the sequential rhythm.

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Terrestrial Service Notice***, provide the			
0205	• BR Identification Code	10 Char.	R	Mandatory if the notification is a modification or suppression of an existing assignment. Currently BR Identification Code is only 9 characters. It is proposed this should be increased to 10 characters.
0206	• Intended Action Code	1 Char.	M	
0204	• Date Sent	Date.	O	
0202	• BR Date Received	Date.	BR	
0201	• Administration's Notice Code	Up to 20 Char.	O	
	• Provision under which the ***Terrestrial Service Notice*** is notified, using			
0608	Code	Up to 12 Char.	M	
	For the ***Signal Configuration*** which is the subject of the ***Terrestrial Service Notice***, provide the			
0345	• Assigned Frequency	Frequency.	M	
0348	• Reference (Carrier) Frequency	Frequency.	R	Mandatory if the modulation envelope is asymmetric
0495	• Channel Number	Int. in range 401 to 2509.	C	Mandatory if part of the RARC 85 Plan (in the process of coordination).

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
0157	• Necessary Bandwidth Code	4 Char.	M	
0351	• Class Of Emission Code	Up to 5 Char.	M	
0150	• Station Identification	Up to 20 Char.	M	
0159	• Power Measurement Method Code	1 Char.	M	
0166	• Transmitter Output Power	Dec. in range -20.0 to 60.0 in dBW.	R	Mandatory if the Maximum Radiated Power is not supplied.
0155	• Maximum Radiated Power	Dec. in range -26.0 to 70.0 in dBW with Gain Reference Antenna Code.	R	Mandatory if the ***Signal Configuration*** is in a band governed by the GE85 Agreements and the administration is a party to the relevant Agreement. In other cases mandatory if Transmitter Output Power and ***Transmitting Antenna's*** Maximum Gain are not supplied.
0141	• Date Of Bringing Into Use	Date.	M	
0144	• Period Of Validity	Int. in range 1 to 30 in years.	O	
0161	• RR Conformity Indicator	True or False.	M	
0546	• Two Dimensional Service Zone consisting of		M	
0069	a ***Circular Zone***, defined by			
0070	Centre Geographical Coordinates	Long/Lat(dm).	M	
0071	Radius	Int. in range 1 to 20000 in km.	M	
0156	• Nature Of Service Code	2 Char.	R	Mandatory if "RC".
	• ***Class Of Station*** of the ***Signal Configuration***, using			
0277	Code	2 Char.	M	Always "AL" or "NL".
	• ***Administration*** notifying the ***Signal Configuration***, using			
0011	Code	Up to 3 Char.	M	
	• ***Correspondence Address*** to contact regarding matters of interference, using			
0094	Code	Up to 2 Char.	M	
	• ***Operator*** of the ***Signal Configuration***, using			
0219	Code	3 Char. in range 001 to 999.	O	
	For each ***Coordination Agreement*** obtained for the ***Signal Configuration***, provide the			
0090	• Status Code	Up to 6 Char.	BR	
	• ***Provision*** the ***Coordination Agreement*** is in respect of, using			
0608	Code	Up to 12 Char.	R	Mandatory if any RR or Plan provisions are applicable.
	• ***Administration*** coordination is obtained with, using			
0011	Code	Up to 3 Char.	R	Mandatory if agreement is necessary and obtained.
	For each ***Regular Operation Period*** during which the ***Signal Configuration*** operates, provide the			
0307	• Start Time	Time in UTC.	M	
0308	• Stop Time	Time in UTC.	M	
	For the ***Transmitting Antenna*** emitting the ***Signal Configuration***, provide the			
0037	• Geographical Coordinates	Long/Lat(dms).	M	
0122	• Directivity Indicator	True or False	M	Always False i.e. omni-directional.
0129	• Maximum Gain	Dec. in range -5.0 to 10.0 in dB with Gain Reference Antenna Code.	R	Mandatory if ***Signal Configuration's*** Maximum Radiated Power is not supplied.
	For the ***Site*** where the ***Transmitting Antenna*** is located, provide the			
0267	• Name	Up to 30 Char.	M	Currently ***Site*** Name is only 20 characters. It is proposed this should be increased to 30 characters.
	• ***Geographical Area*** where the ***Site*** is located, using			
0174	Code	Up to 3 Char.	M	

2.5 Aeronautical Radionavigation Service (DME, SSR) and Maritime Radionavigation Service (Radar Beacons), in the UHF and SHF Bands

This table covers radar systems involving a mobile transmitter in two-way communication with a fixed base station. Consequently, there may be a need to notify both the transmitting and receiving ground stations. The tables for these radio systems have been based on the assumption the mobile transmit signal would be more susceptible to interference and therefore the notifying administration would want to protect its reception.

Distance Measuring Equipment (DME)

Frequency Range: 960 - 1215 MHz

Vertical Polarization.

A system in which the aircraft interrogator transmits a series of coded pulses which are received at the ground transponder and retransmitted on a new frequency 50 microseconds later. By timing the period from transmission of the interrogating pulse to the reception of the transponder reply, a measure is obtained of the distance of the aircraft from the transponder. Usually associated with ILS, MLS or VOR facility. When associated with a VOR, the DME facility is co-located with the VOR facility.

Secondary Surveillance Radar (SSR)

Frequency Range: Ground to Air 1030 MHz; Air to Ground 1090 MHz

Vertical Polarization.

The SSR system is used as an aid to air traffic services and it consists of two components: a ground interrogator and an airborne transponder. The ground interrogator can operate in different modes (A, B, C, D). Mode A is used to initiate a response from the aircraft transponder for identification and tracking; Mode C is used to initiate automatic pressure altitude transmission. The interrogation and control transmissions are in the ground to air direction on the centre frequency 1030 MHz. The reply transmission, in the air to ground direction, is on the centre frequency 1090 MHz. The transponder antenna system, installed onboard aircraft has an omnidirectional antenna pattern in the horizontal plane.
The SSR system is intended to provide service under all weather conditions at all bearings and at all distances between 1.85 km and 370 km, and at all operational altitudes up to at least 30480 m above mean sea level between at least the angles of elevation of 0.5 degree and 45 degrees.

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Terrestrial Service Notice***, provide the			
0205	• BR Identification Code	10 Char.	R	Mandatory if the notification is a modification or suppression of an existing assignment. Currently BR Identification Code is only 9 characters. It is proposed this should be increased to 10 characters.
0206	• Intended Action Code	1 Char.	M	
0204	• Date Sent	Date.	O	
0202	• BR Date Received	Date.	BR	
0201	• Administration's Notice Code	Up to 20 Char.	O	
	• ***Provision*** under which the ***Terrestrial Service Notice*** is notified, using			
0608	Code	Up to 12 Char.	M	
	For the ***Signal Configuration*** which is the subject of the ***Terrestrial Service Notice***, provide the			
0345	• Assigned Frequency	Frequency.	M	
0348	• Reference (Carrier) Frequency	Frequency.	R	Mandatory if the modulation envelope is asymmetric.
0157	• Necessary Bandwidth Code	4 Char.	M	
0351	• Class Of Emission Code	Up to 5 Char.	M	
0159	• Power Measurement Method Code	1 Char.	M	
0166	• Transmitter Output Power	Dec. in range 0.0 to 25.0 in dBW.	R	Mandatory if Maximum Radiated Power is not supplied.
0155	• Maximum Radiated Power	Dec. in range 0.0 to 25.0 in dBW with Gain Reference Antenna Code.	R	Mandatory if Transmitter Output Power and ***Transmitting Antenna's*** Maximum Gain are not supplied.
0141	• Date Of Bringing Into Use	Date.	M	
0144	• Period Of Validity	Int. in range 1 to 30 in years.	O	
0161	• RR Conformity Indicator	True or False.	M	

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
0194	• Three Dimensional Roaming Zone consisting of		O	
0001	one or more ***Three Dimensional Zones***, defined by			
0003	Maximum Operating Height	Int. in range 1 to 20000 in feet.	C	Aeronautical Radionavigation Only.
0544	• Two Dimensional Roaming Zone consisting of		M	Identical to Two Dimensional Zone RDD ref:0527.
0069	either a ***Circular Zone***, defined by			
0070	Centre Geographical Coordinates	Long/Lat(dm).	R	Mandatory for DME.
0071	Radius	Int. in range 1 to 100 in km.	R	Mandatory for DME.
0173	or one or more ***Geographical Area***s, using			
0174	Code	Up to 3 Char.	R	Mandatory if a ***Circular Zone*** is not provided.
0156	• Nature Of Service Code	2 Char.	R	Mandatory if "RC" or "RD" or "RG" or "RT"
	• ***Class Of Station*** of the ***Signal Configuration***, using			
0277	Code	2 Char.	M	"AL" or "AM", "NL" or "MR"
0462	• ***Protection Mask*** that defines the protection for the ***Signal Configuration***, using		C	For DME only.
0231	Shape	Diagram.	C	
0227	Signal to Interference Ratio	Dec. in range 10.0 to 25.0 in dB.	C	
0229	Minimum Protected Field Strength	Dec. in range 10.0 to 30.0 in dBμV/m.	C	
0230	Protection Margin	Dec. in range 5.0 to 25.0 in dB.	C	
	• ***Administration*** notifying the ***Signal Configuration***, using			
0011	Code	Up to 3 Char.	M	
	• ***Correspondence Address*** to contact regarding matters of interference, using			
0094	Code	Up to 2 Char.	M	
	• ***Operator*** of the ***Signal Configuration***, using			
0219	Code	3 Char. in range 001 to 999.	O	
	For each ***Coordination Agreement*** obtained for the ***Signal Configuration***, provide the			
0090	• Status Code	Up to 6 Char.	BR	
	• ***Provision*** the ***Coordination Agreement*** is in respect of, using			
0608	Code	Up to 12 Char.	R	Mandatory if any RR provision is applicable.
	• ***Administration*** coordination is obtained with, using			
0011	Code	Up to 3 Char.	R	Mandatory if agreement is necessary and obtained.
	For each ***Regular Operation Period*** during which the ***Signal Configuration*** operates, provide the			
0307	• Start Time	Time in UTC.	M	
0308	• Stop Time	Time in UTC.	M	
	For the ***Receiving Antenna*** that is the target of the ***Signal Configuration***, provide the			
0037	• Geographical Coordinates	Long/Lat(dms)	M	
	For the ***Site*** where the ***Receiving Antenna*** is located, provide the			
0267	• Name	Up to 30 Char.	M	Currently ***Site*** Name is only 20 characters. It is proposed this should be increased to 30 characters.
	• ***Geographical Area*** where the ***Site*** is located, using			
0174	Code	Up to 3 Char.	M	

2.6 Meteorological Aids Service - Aeronautical Radionavigation Service, Radiolocation Radar in the VHF, UHF and SHF Bands

This table covers a Wind Profiler primary radar station in the Radiolocation Service and when notifying a primary radar station in the Radiolocation Service, Meteorological Aids Service or Radionavigation Service.

Wind Profiler Radar
Frequency Range: parts of the bands in the vicinity of 50 MHz, 400 MHz and 1000 MHz.

The wind profiler radars are important meteorological systems for measuring wind direction and speed as a function of altitude.

For a Wind Profiler radar station the transmitting antenna is an antenna array with a directional beam shape that is electronically moved through a range of azimuth angles at two different elevation angles. The radar system radiates five segments of the atmosphere: one segment in four different azimuths (90 degree steps) at the lower elevation angle (min 72 degrees) and one segment at an elevation angle of 90 degrees.

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Terrestrial Service Notice***, provide the			
0205	• BR Identification Code	10 Char.	R	Mandatory if the notification is a modification or suppression of an existing assignment. Currently BR Identification Code is only 9 characters. It is proposed this should be increased to 10 characters.
0206	• Intended Action Code	1 Char.	M	
0204	• Date Sent	Date.	O	
0202	• BR Date Received	Date.	BR	
0201	• Administration's Notice Code	Up to 20 Char.	O	
	• ***Provision*** under which the ***Terrestrial Service Notice*** is notified, using			
0608	Code	Up to 12 Char.	M	
	For the ***Signal Configuration*** which is the subject of the ***Terrestrial Service Notice***, provide the			
0345	• Assigned Frequency	Frequency.	M	
0348	• Reference (Carrier) Frequency	Frequency.	R	Mandatory if the modulation envelope is asymmetric.
0157	• Necessary Bandwidth Code	4 Char.	M	
0351	• Class Of Emission Code	Up to 5 Char.	M	
0150	• Station Identification	Up to 20 Char.	M	
0159	• Power Measurement Method Code	1 Char.	M	
0166	• Transmitter Output Power	Dec. in range 10.0 to 60.0 in dBW.	R	Mandatory if the ***Signal Configuration*** is in a band shared with Space services above 1 GHz. For other bands mandatory if the if the Maximum Radiated Power is not supplied.
0155	• Maximum Radiated Power	Dec. in range 10.0 to 60.0 in dBW with Gain Reference Antenna Code.	R	Mandatory if the ***Signal Configuration*** is in a band shared with Space services above 1 GHz. For other bands mandatory if the if Transmitter Output Power and ***Transmitting Antenna's*** Maximum Gain are not supplied.
0274	• Horizontal Radiation Pattern consisting of		C	
	36 Vectors, defined by			
0274b	Azimuth	Int. in range 0 to 350 in multiples of 10 in degrees.	C	
0274a	Radiated Power	Dec. in range 0.0 to 60.0 in dBW with Gain Reference Antenna Code.	C	
0275	• Vertical Radiation Pattern consisting of		C	
	10 Vectors, defined by			
0275b	Elevation Angle	Int. in range 0 to 90 in multiples of 10 in degrees.	C	
0275a	Radiated Power	Dec. in range 0.0 to 60.0 in dBW with Gain Reference Antenna Code.	C	
0141	• Date Of Bringing Into Use	Date.	M	

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
0144	• Period Of Validity	Int. in range 1 to 30 in years.	O	
0161	• RR Conformity Indicator	True or False.	M	
0545	• Three Dimensional Service Zone consisting of		O	
0001	one or more ***Three Dimensional Zones***, defined by			
0003	Maximum Operating Height	Int. in range 0 to 20000 in feet	C	
0546	• Two Dimensional Service Zone consisting of		M	Identical to Two Dimensional Zone RDD ref: 0527.
0069	either a ***Circular Zone***, defined by			
0070	Centre Geographical Coordinates	Long/Lat(dm).	R	Mandatory for Wind Profiler Radar.
0071	Radius	Int. in range 1 to 100 in km.	R	Mandatory for Wind Profiler Radar.
0328	or between 3 and 6 ***Zone Boundary Coordinates***, defined by			Mandatory if a ***Circular Zone*** is not provided.
0329	Geographical Coordinates	Long/Lat(dms).	R	Mandatory as defined in RDD 0328.
0511	Sequence Number	Int. in range 1 to 6.	R	Mandatory as defined in RDD 0328.
0156	• Nature Of Service Code	2 Char.	M	
	• ***Class Of Station*** of the ***Signal Configuration***, using			
0277	Code	2 Char.	M	"AL" or "AM", "LR" or "MR", "RN" or "NR", "SM" or "SA".
	• ***Administration*** notifying the ***Signal Configuration***, using			
0011	Code	Up to 3 Char.	M	
	• ***Correspondence Address*** to contact regarding matters of interference, using			
0094	Code	Up to 2 Char.	M	
	• ***Operator*** of the ***Signal Configuration***, using			
0219	Code	3 Char. in range 001 to 999.	O	
	For each ***Coordination Agreement*** obtained for the ***Signal Configuration***, provide the			
0090	• Status Code	Up to 6 Char.	BR	
	• ***Provision*** the ***Coordination Agreement*** is in respect of, using			
0608	Code	Up to 12 Char.	R	Mandatory if any RR provision is applicable.
	• ***Administration*** coordination is obtained with, using			
0011	Code	Up to 3 Char.	R	Mandatory if agreement is necessary and obtained.
	For each ***Regular Operation Period*** during which the ***Signal Configuration*** operates, provide the			
0307	• Start Time	Time in UTC.	M	
0308	• Stop Time	Time in UTC.	M	
	For the ***Transmitting Antenna*** emitting the ***Signal Configuration***, provide the			
0037	• Geographical Coordinates	Long/Lat(dms).	M	
0121	• Ground Altitude Above Mean Sea Level	Int. in range -1000 to 8848 in metres.	R	Mandatory if the ***Signal Configuration*** for this ***Transmitting Antenna*** is in a band shared with Space Services above 1 GHz.
0125	• Height Above Ground Level	Int. in range 0 to 1000 in metres.	R	Mandatory if the ***Signal Configuration*** for this ***Transmitting Antenna*** is in a band shared with Space Services above 1 GHz.
0131	• Polarization Code	Up to 2 Char.	R	Mandatory if the ***Signal Configuration*** for this ***Transmitting Antenna*** is in a band shared with Space Services above 1 GHz.
0122	• Directivity Indicator	True or False.	M	
0147	• Horizontal Beamwidth	Dec. in range 0.1 to 359.9 in degrees.	R	Mandatory if the ***Transmitting Antenna*** is directional.
0168	• Vertical Beamwidth	Dec. in range 0.1 to 180.0 in degrees.	C	
0509	• Rotational Antenna Beam Start Azimuth	Dec. in range 0.0 to 359.9 in degrees.	R	Mandatory if the ***Transmitting Antenna*** beam is rotational or swept.
0510	• Rotational Antenna Beam Finish Azimuth	Dec. in range 0.1 to 360.0 in degrees.	R	Mandatory if the ***Transmitting Antenna*** beam is rotational or swept.
0129	• Maximum Gain	Dec. in range 5.0 to 60.0 in dB with Gain Reference Antenna Code.	R	Mandatory if the ***Signal Configuration*** is in a band shared with Space Services above 1GHz as well as in all cases where the ***Transmitting Antenna*** is directional. In other cases mandatory if ***Signal Configuration's*** Maximum Radiated Power is not supplied.

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
0108	• Azimuth Of Maximum Gain	Dec. in range 0.0 to 359.9 in degrees.	R	Mandatory if the ***Transmitting Antenna*** is directional in the horizontal plane and the beam is not rotating or swept.
0109	• Elevation Angle Of Maximum Gain	Dec. in range 0.0 to 90.0 in degrees.	R	Mandatory if the ***Signal Configuration*** is in a band shared with Space Services above 1GHz.
	For the ***Site*** where the ***Transmitting Antenna*** is located, provide the			
0267	• Name	Up to 30 Char.	M	Currently ***Site*** Name is only 20 characters. It is proposed this should be increased to 30 characters.
	• ***Geographical Area*** where the ***Site*** is located, using			
0174	Code	Up to 3 Char.	M	

2.7 Broadcasting Service, FM sound, in the VHF band

This table covers FM sound broadcasting radio systems between 30 MHz and 300 MHz.

FM sound broadcasting in accordance with the Regional Agreements, including the related modification procedures:

- Stockholm, 1961 as modified by the Geneva 1985 Conference
- Geneva, 1984

Notification under Article S11 in the following bands:

- 87.5 - 108 MHz in Region 1, Afghanistan and Iran
- 76 - 108 MHz in Region 2
- 87 - 108 MHz in Region 3
- other bands allocated to the broadcasting service by footnotes in the Table of Frequency Allocations
- in any other frequency not covered above, when notification is made in accordance with Article S4.4.

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Terrestrial Service Notice***, provide the			
0205	• BR Identification Code	10 Char.	R	Mandatory if the notification is a modification or suppression of an existing assignment. Currently BR Identification Code is only 9 characters, it is proposed this should be increased to 10 characters.
0206	• Intended Action Code	1 Char.	M	
0204	• Date Sent	Date.	O	
0202	• BR Date Received	Date.	BR	
0201	• Administration's Notice Code	Up to 20 Char.	O	For TerRaSys this data item may be mandatory under specified conditions.
	• ***Provision*** under which the ***Terrestrial Service Notice*** is notified, using			
0608	Code	Up to 12 Char.	M	
	For the ***Signal Configuration*** which is the subject of the ***Terrestrial Service Notice***, provide the			
0345	• Assigned Frequency	Frequency.	M	
0157	• Necessary Bandwidth Code	4 Char.	O	
0351	• Class Of Emission Code	Up to 5 Char.	M	Either "F3E" for monophonic and "F8E--" or "F9E--" for stereophonic signals. The codes may include 1 or 2 optional characters.
0347	• Call Sign	Up to 10 Char.	O	Optional and providing Station Identification is not supplied.
0150	• Station Identification	Up to 20 Char.	O	Optional and providing Call Sign is not supplied.
0159	• Power Measurement Method Code	1 Char.	M	Always "Y".
0149	• Maximum Horizontally Polarised Radiated Power	Dec. In range 10.0 to 60.0 in dBW with Gain Reference Antenna Code.	R	Mandatory if the ***Transmitting Antenna's*** Polarization Code is "H" or "M".
0170	• Maximum Vertically Polarised Radiated Power	Dec. in range 10.0 to 60.0 in dBW with Gain Reference Antenna Code.	R	Mandatory if the ***Transmitting Antenna's*** Polarization Code is "V" or "M".
0141	• Date Of Bringing Into Use	Date.	R	Mandatory for notification under Article S11.
0144	• Period Of Validity	Int. in range 1 to 30 in years.	O	
0165	• FM Transmission System Code	1 Char. in range 1 to 5	M	
0161	• RR Conformity Indicator	True or False.	R	Mandatory for notification under Article S11. If not supplied it will be assumed to be " True".
	• ***Class Of Station*** of the ***Signal Configuration***, using			
0277	Code	2 Char.	M	Always "BC".
	• ***Administration*** notifying the ***Signal Configuration***, using			
0011	Code	Up to 3 Char.	M	
	• ***Correspondence Address*** to contact regarding matters of interference, using			
0094	Code	Up to 2 Char.	R	Mandatory for notification under Article S11.
	• ***Operator*** of the ***Signal Configuration***, using			

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
0219	Code	3 Char. in range 001 to 999.	O	
	For each ***Coordination Agreement*** obtained for the ***Signal Configuration***, provide the			
0090	• Status Code	Up to 6 Char.	BR	
	• ***Provision*** the ***Coordination Agreement*** is in respect of, using			
0608	Code	Up to 12 Char.	R	Mandatory if any RR or Plan provisions are applicable to Notification or Coordination.
	• ***Administration*** coordination is obtained with, using			
0011	Code	Up to 3 Char.	R	Mandatory if agreement is necessary and has been obtained.
	For each ***Regular Operation Period*** during which the ***Signal Configuration*** operates, provide the			
0307	• Start Time	Time in UTC.	O	
0308	• Stop Time	Time in UTC.	O	
	For the ***Transmitting Antenna*** emitting the ***Signal Configuration***, provide the			
0037	• Geographical Coordinates	Long/Lat(dms).	M	
0121	• Ground Altitude Above Mean Sea Level	Int. in range -1000 to 8848 in metres.	M	
0125	• Height Above Ground Level	Int. in range 0 to 1000 in metres.	M	
0060	• Vertically Polarised Component Horizontal Attenuation Pattern consisting of		R	Mandatory if the ***Transmitting Antenna*** is directional and its Polarization Code is "V" or "M".
	36 Vectors, defined by the			
0060a	Attenuation at the following	Int. in range 0 to 40 in dB.	R	Mandatory as defined in RDD 0060.
0060b	Azimuth	Int. in range 0 to 350 in multiples of 10 in degrees.	R	Mandatory as defined in RDD 0060.
0273	• Horizontally Polarised Component Horizontal Attenuation Pattern consisting of		R	Mandatory if the ***Transmitting Antenna*** is directional and its Polarization Code is "H" or "M".
	36 Vector**s**, defined by the			
0273a	Attenuation at the following	Int. in range 0 to 40 in dB.	R	Mandatory as defined in RDD 0273.
0273b	Azimuth	Int. in range 0 to 350 in multiples of 10 in degrees.	R	Mandatory as defined in RDD 0273.
0123	• Effective Height Pattern consisting of		M	
	36 vectors, defined by the			
0123a	Effective Antenna Height at the following	Int. in range -400 to 5000 in metres	M	
0123b	Azimuth	Int. in range 0 to 350 in multiples of 10 in degrees.	M	
0128	• Maximum Effective Height	Int. in range -400 to 5000 in metres	M	
0550	• Azimuth Of Maximum Effective Height	Int. in range 0 to 359 in degrees.	M	
0131	• Polarization Code	1 Char.	M	Always "H", "M" or "V".
0122	• Directivity Indicator	True or False.	M	
	For the ***Site*** where the ***Transmitting Antenna*** is located, provide the			
0267	• Name	Up to 30 Char.	M	Currently ***Site*** Name is only 20 characters. It is proposed should be increased to 30 characters.
	• ***Geographical Area*** where the ***Site*** is located, using			
0174	Code	Up to 3 Char.	M	

2.8 Broadcasting Service, Television, in the VHF and UHF Bands

This table covers television broadcasting radio systems between 30 MHz and 1000 MHz.

Television in accordance with the Regional Agreements, including the related modification procedures:

- Stockholm, 1961 as modified by the Geneva 1985 Conference
- Geneva, 1989

Notification under Article S11 in the following bands:

- 47 - 68 MHz, 88 - 100 MHz, 174 - 230 MHz and 470 - 960 MHz in Region 1
- 54 - 72 MHz, 174 - 216 MHz and 470 - 890 MHz in Region 2
- 47 - 50 MHz, 54 - 68 MHz, 174 - 230 MHz and 470 - 960 MHz in Region 3
- other bands allocated to the broadcasting service by footnotes in the Table of Frequency Allocations
- in any other frequency not covered above, when notification is made in accordance with Article S4.4

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Terrestrial Service Notice***, provide the			
0205	• BR Identification Code	10 Char.	R	Mandatory if the notification is a modification or suppression of an existing assignment. Currently BR Identification Code is only 9 characters, it is proposed this should be increased to 10 characters.
0206	• Intended Action Code	1 Char.	M	
0204	• Date Sent	Date.	O	
0202	• BR Date Received	Date.	BR	
0201	• Administration's Notice Code	Up to 20 Char.	O	For TerRaSys this data item may be mandatory under specified conditions.
	• ***Provision*** under which the ***Terrestrial Service Notice*** is notified, using			
0608	Code	Up to 12 Char.	M	
	For the ***Signal Configuration*** which is the subject of the ***Terrestrial Service Notice***, provide the			
0345	• Assigned Frequency	Frequency	R	Mandatory for digital television, supplied by the BR for analogue television.
0652	• Frequency Offset	Frequency in range -166.000 to +166.000 kHz.	R	Mandatory for digital television.
0064	• Vision Carrier Nominal Frequency	Frequency in range 40.0 to 999.9 in MHz	R	Mandatory for analogue television.
0065	• Vision Carrier Frequency Offset Code	Up to 4 Char.	R	Mandatory for analogue television in GE89 and for ST61 if Vision Carrier Frequency Offset is not supplied.
0482	• Sound Carrier Frequency Offset Code	Up to 4 Char.	R	Mandatory for analogue television in GE89 and for ST61 if Sound Carrier Frequency Offset is not supplied and is not equal to Vision Carrier Frequency Offset Code.
0551	• Vision Carrier Frequency Offset	Frequency in range -300.000 to 300.000 kHz.	R	Mandatory for analogue television in North America and if Vision Carrier Frequency Offset Code is not supplied.
0552	• Sound Carrier Frequency Offset	Frequency in range -300.000 to 300.000 kHz.	R	Mandatory for analogue television in North America if Sound Carrier Frequency Offset Code is not supplied and is not equal to Vision Carrier Frequency Offset.
0553	• Frequency Offset Stability Indicator	Up to 9 Char.	C	Either "Precision" or "Normal"
0347	• Call Sign	Up to 10 Char.	O	If Station Identification is not supplied.
0150	• Station Identification	Up to 20 Char.	O	If Call Sign is not supplied.
0159	• Power Measurement Method Code	1 Char.	M	Always "X" for the Vision Carrier Nominal Frequency.
0149	• Maximum Horizontally Polarised Radiated Power	Dec. in range 0.0 to 70.0 in dBW with Gain Reference Antenna Code.	R	Mandatory if the ***Transmitting Antenna***'s Polarization Code is "H".
0170	• Maximum Vertically Polarised Radiated Power	Dec. in range 0.0 to 70.0 in dBW with Gain Reference Antenna Code.	R	Mandatory if the ***Transmitting Antenna***'s Polarization Code is "V".

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
0066	• Vision To Sound Power Ratio	Int. in range 5 to 23 in dB.	R	Mandatory for analogue television.
0141	• Date Of Bringing Into Use	Date.	R	Mandatory for notification under Article S11.
0144	• Period Of Validity	Int. in range 1 to 30 in years.	O	
0132	• Synchronised Network Indicator	True or False.	R	Mandatory for Digital Television.
0535	• Synchronised Network Number	Int. in range 1 to 9999.	R	Mandatory for Digital Television if part of a single frequency network.
0161	• RR Conformity Indicator	True or False.	R	Mandatory for notification under Article S11. If not supplied it will be assumed to be "True".
	• ***Class Of Station*** of the ***Signal Configuration***, using			
0277	Code	2 Char.	M	Always "BT".
	• ***Television System*** used by the ***Signal Configuration***, using			
0283	Code	Up to 2 Char.	R	Mandatory for analogue television. For digital television although there are several different bit rates, a common system has been agreed for the purpose of coordination.
	• ***Colour System*** used by the ***Signal Configuration***, using			
0078	Code	Up to 5 Char.	R	Mandatory for analogue television.
	• ***Administration*** notifying the ***Signal Configuration***, using			
0011	Code	Up to 3 Char.	M	
	• ***Correspondence Address*** to contact regarding matters of interference, using			
0094	Code	Up to 2 Char.	R	Mandatory for notification under Article S11.
	• ***Operator*** of the ***Signal Configuration***, using			
0219	Code	3 Char. in range 001 to 999.	O	
	For each ***Coordination Agreement*** obtained for the ***Signal Configuration***, provide the			
0090	• Status Code	Up to 6 Char.	BR	
	• ***Provision*** the ***Coordination Agreement*** is in respect of, using			
0608	Code	Up to 12 Char.	R	Mandatory if any RR or Plan provisions are applicable to Notification or Coordination.
	• ***Administration*** coordination is obtained with, using			
0011	Code	Up to 3 Char.	R	Mandatory if agreement is necessary and has been obtained.
	For each ***Regular Operation Period*** during which the ***Signal Configuration*** operates, provide the			
0307	• Start Time	Time in UTC.	O	
0308	• Stop Time	Time in UTC.	O	
	For the ***Transmitting Antenna*** emitting the ***Signal Configuration***, provide the			
0037	• Geographical Coordinates	Long/Lat(dms).	M	
0121	• Ground Altitude Above Mean Sea Level	Int. in range -1000 to 8848 in metres.	M	
0125	• Height Above Ground Level	Int. in range 0 to 1000 in metres.	M	
0060	• Vertically Polarised Component Horizontal Attenuation Pattern consisting of		R	Mandatory if the ***Transmitting Antenna*** is directional and its Polarization Code is "V".
	36 Vectors, defined by the			
0060a	Attenuation at the following	Int. in range 0 to 40 in dB.	R	Mandatory as defined in RDD 0060.
0060b	Azimuth	Int. in range 0 to 350 in multiples of 10 in degrees.	R	Mandatory as defined in RDD 0060.
0273	• Horizontally Polarised Component Horizontal Attenuation Pattern consisting of		R	Mandatory if the ***Transmitting Antenna*** is directional and its Polarization Code is "H".
0273a	Attenuation at the following	Int. in range 0 to 40 in dB.	R	Mandatory as defined in RDD 0273.
0273b	Azimuth	Int. in range 0 to 350 in multiples of 10 in degrees.	R	Mandatory as defined in RDD 0273.
0128	• Maximum Effective Height	Int. in range -400 to 5000 in metres.	M	

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
0550	• Azimuth Of Maximum Effective Height	Int. in range 0 to 359 in degrees.	M	
0123	• Effective Height Pattern consisting of		M	
	36 vectors, defined by			
0123a	Effective Antenna Height at the following	Int. in range -400 to 5,000 in metres.	M	
0123b	Azimuth	Int. in range 0 to 350 in multiples of 10 in degrees.	M	
0131	• Polarization Code	1 Char.	M	"V" or "H" or "M" ("V" or "H" digital television and GE89 only).
0122	• Directivity Indicator	True or False.	M	
	For the ***Site*** where the ***Transmitting Antenna*** is located, provide the			
0267	• Name	Up to 30 Char.	M	Currently ***Site*** Name is only 20 characters. It is proposed this should be increased to 30 characters.
	• ***Geographical Area*** where the ***Site*** is located, using			
0174	Code	Up to 3 Char.	M	

2.9 Broadcasting Service, Regions 1 and 3, in the LF and MF Bands

This table covers sound broadcasting radio systems between 150 kHz and 2000 kHz

Sound broadcasting in accordance with the Regional Agreement, Geneva, 1975, including the related modification procedure.

Notification under Article S11 in the following bands:

- 148.5 - 283.5 kHz and 526.5 - 1606.5 kHz in Region 1
- 526.5 - 1606.5 kHz in Region 3
- other bands allocated to the broadcasting service by footnotes in the Table of Frequency Allocations
- in any other frequency not covered above, when notification is made in accordance with Article S4.4

***Note**: For LF/MF Broadcasting in Regions 1 & 3 the BR have developed a notification system that permits both day-time and night-time **Signal Configurations** to be notified at the same time and thus avoiding the duplication of data. As described in the introduction to this Section the data items listed in the section represent the information required for the notification and coordination of a single radio transmission, reference to the BR Notice form will indicate which data items listed below should be supplied for both day-time and night-time operation.*

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Terrestrial Service Notice***, provide the			
0205	• BR Identification Code	10 Char.	R	Mandatory if the notification is a modification or suppression of an existing assignment. Currently BR Identification Code is only 9 characters. It is proposed this should be increased to 10 characters.
0206	• Intended Action Code	1 Char.	M	
0204	• Date Sent	Date.	O	
0202	• BR Date Received	Date.	BR	
0201	• Administration's Notice Code	Up to 20 Char.	O	For TerRaSys this data item may be mandatory under specified conditions.
	• ***Provision*** under which the ***Terrestrial Service Notice*** is notified, using			
0608	Code	Up to 12 Char.	M	
	For the ***Signal Configuration*** which is the subject of the ***Terrestrial Service Notice***, provide the			
0345	• Assigned Frequency	Frequency.	M	
0157	• Necessary Bandwidth Code	4 Char.	R	Mandatory for notification under Article S11.
0351	• Class of Emission Code	Up to 5 Char.	M	Either "A3E--" or "A8E--". The codes may include 1 or 2 optional characters.
0347	• Call Sign	Up to 10 Char.	O	Optional and providing the Station Identification is not supplied.
0150	• Station Identification	Up to 20 Char.	O	Optional and providing the Call Sign is not supplied.
0159	• Power Measurement Method Code	1 Char.	BR	Always "Z".
0554	• Antenna Input Power	Dec in range 0.01 to 1000.00 kW.	M	
0155	• Maximum Radiated Power	Dec. in range 10.0 to 60.0 in dBW with Gain Reference Antenna Code (M).	M	
0141	• Date Of Bringing Into Use	Date.	R	Mandatory for notification under Article S11.
0144	• Period Of Validity	Int. in range 1 to 30 in years.	O	
0161	• RR Conformity Indicator	True or False.	R	Mandatory for notification under Article S11.
0132	• Synchronised Network Indicator	True or False.	M	
0535	• Synchronised Network Number	Int. in range 1 to 9999.	R	Mandatory if Synchronised Network Indicator is "True" (GE75, P341).
0120	• Adjacent Channel Protection Ratio	1 Char.	M	Either "A" , "B", "C" or "D".
0183	• Local Operation Period Code	Up to 2 Char.	M	Either "HJ" or "HN" or "JN".
	• ***Class Of Station*** of the ***Signal Configuration***, using			
0277	Code	2 Char.	M	Always "BC".
	• ***Administration*** notifying the ***Signal Configuration***, using			
0011	Code	Up to 3 Char.	M	

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	• ***Correspondence Address*** to contact regarding matters of interference, using			
0094	Code	Up to 2 Char.	R	Mandatory for notification under Article S11.
	• ***Operator*** of the ***Signal Configuration***, using			
0219	Code	3 Char. in range 001 to 999.	O	
	For each ***Coordination Agreement*** obtained for the ***Signal Configuration***, provide the			
0090	• Status Code	Up to 6 Char.	BR	
	• ***Provision*** the ***Coordination Agreement*** is in respect of, using			
0608	Code	Up to 12 Char.	R	Mandatory if any RR or Plan provisions are applicable to Notification or Coordination.
	• ***Administration*** coordination is obtained with, using			
0011	Code	Up to 3 Char.	R	Mandatory if agreement is necessary and has been obtained.
	For the ***Transmitting Antenna*** emitting the ***Signal Configuration***, provide the			
0037	• Geographical Coordinates	Long/Lat(dms).	M	
0133	• Type Code	1 Char.	M	
0536	• Physical Height	Int. in range 10 to 300 in metres.	R	Mandatory if a ***Type A Transmitting Antenna.***
0507	• Horizontal Gain Pattern consisting of		R	Mandatory for a ***Type B Transmitting Antenna.***
	36 Vectors, defined by the			
0507a	Gain at the following	Dec. in range -5.0 to 10.0 in dB with Gain Reference Antenna Code (M).	R	Mandatory as defined in RDD 0507.
0507b	Azimuth	Int. in range 0 to 350 in multiples of 10 in degrees.	R	Mandatory as defined in RDD 0507.
0508	• Elevation Gain Pattern consisting of		O	For night-time operation only It is recommended that a Vertical Gain Pattern is supplied, if a full Elevation Gain Pattern is not available.
	up to 36 Vectors repeated for each one of nine			
0508c	Elevation Angles	Int. in range 10 to 90 in multiples of 10 in degrees.	O	
	with each Vector defined by the			
0508a	Gain at the following	Dec. in range -5.0 to 10.0 in dB with Gain Reference Antenna Code (M).	O	
0508b	Azimuth	Int. in range 0 to 350 in multiples of 10 in degrees.	O	
0502	or a Vertical Gain Pattern consisting		O	Recommended to be supplied for night-time operations only if an Elevation Gain Pattern is not supplied.
	9 Vectors, defined by the			
0502a	Gain at the following	Dec. in range -5.0 to 10.0 in dB with Gain Reference Antenna Code (M).	O	
0502b	Elevation Angle	Int. in range 10 to 90 in multiples of 10 in degrees.	O	
0124	• Ground Conductivity	1 Char.	M	The Ground Conductivity Code can be captured from maps and therefore it is proposed for deletion.
	For the ***Site*** where the ***Transmitting Antenna*** is located, provide the			
0267	• Name	Up to 30 Char.	M	Currently ***Site*** Name is only 20 characters. It is proposed this should be increased to 30 characters.
	• ***Geographical Area*** where the ***Site*** is located, using			
0174	Code	Up to 3 Char.	M	

2.10 Broadcasting Service, Region 2, in the MF Bands

This table covers sound broadcasting radio systems between 300 kHz and 2000 kHz.

Sound broadcasting in accordance with the Regional Agreement, Rio de Janeiro, 1981, including the related modification procedure.

Notification under Article S11 in the following bands:

- 525 - 535 kHz
- 535 - 1605 kHz
- 1605 - 1705 kHz
- in any other frequency not covered above, when notification is made in accordance with Article S4.4

***Note**: For MF Broadcasting in Region 2 the BR have developed a notification system that permits both day-time and night-time **Signal Configurations** to be notified at the same time and thus avoiding the duplication of data. As described in the introduction to this Section the data items listed in the section represent the information required for the notification and coordination of a single radio transmission, reference to the BR Notice form will indicate which data items listed below should be supplied for both day-time and night-time operation.*

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Terrestrial Service Notice***, provide the			
0205	• BR Identification Code	10 Char.	R	Mandatory if the notification is a modification or suppression of an existing assignment. Currently BR Identification Code is only 9 characters. It is proposed this should be increased to 10 characters.
0206	• Intended Action Code	1 Char.	M	
0204	• Date Sent	Date	O	
0202	• BR Date Received	Date	BR	
0201	• Administration's Notice Code	Up to 20 Char.	O	For TerRaSys this data item may be mandatory under specified conditions.
	• ***Provision*** under which the ***Terrestrial Service Notice*** is notified, using			
0608	Code	Up to 12 Char.	M	
	For the ***Signal Configuration*** which is the subject of the ***Terrestrial Service Notice***, provide the			
0345	• Assigned Frequency	Frequency	M	
0157	• Necessary Bandwidth Code	4 Characters	O	
0351	• Class Of Emission Code	Up to 5 Char.	M	Always "A3E--" The codes may include 1 or 2 optional characters.
0347	• Call Sign	Up to 10 Char.	O	Optional and providing RDD 0150 is not supplied.
0150	• Station Identification	Up to 20 Char.	O	Optional and providing RDD 0347 is not supplied.
0159	• Power Measurement Method Code	1 Char.	M	Always "Z".
0554	• Antenna Input Power	Dec in range 0.01 to 10.00 kW.	M	
0471	• RMS Radiation	Dec. in range 0.0 to 9999.99 in mV/m at 1km.	M	
0141	• Date Of Bringing Into Use	Date.	R	Mandatory for notification under Article S11.
0144	• Period Of Validity	Int. in range 1 to 30 in years.	O	
0161	• RR Conformity Indicator	True or False	R	Mandatory for notification under Article S11.
0360	• Station Coverage Code	1 Char.	M	
0132	• Synchronised Network Indicator	True or False.	M	
0535	• Synchronised Network Number	Int. in range 1 to 9999.	R	Mandatory if the Synchronised Network Indicator is "True" (RJ81, Annex 2 Section 1 Item 1.15).
0183	• Local Operation Period Code	Up to 2 Char.	M	Either "HJ" or "HN" or "JN".
	• ***Class Of Station*** of the ***Signal Configuration***, using			
0277	Code	2 Char.	M	Always "BC".
	• ***Administration*** notifying the ***Signal Configuration***, using			
0011	Code	Up to 3 Char.	M	
	• ***Correspondence Address*** to contact regarding matters of interference, using			
0094	Code	Up to 2 Char.	R	Mandatory for notification under Article S11.
	• ***Operator*** of the ***Signal Configuration***, using			

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
0219	Code	3 Char. in range 001 to 999.	O	
	For each ***Coordination Agreement*** obtained for the ***Signal Configuration***, provide the			
0090	• Status Code	Up to 6 Char.	BR	
	• ***Provision*** the ***Coordination Agreement*** is in respect of, using			
0608	Code	Up to 12 Char.	R	Mandatory if any RR or Plan provisions are applicable to Notification or Coordination.
	• ***Administration*** coordination is obtained with, using			
0011	Code	Up to 3 Char.	R	Mandatory if agreement is necessary and has been obtained.
	For the ***Transmitting Antenna*** emitting the ***Signal Configuration***, provide the			
0037	• Geographical Coordinates	Long/Lat(dms).	M	
0382	• Electrical Height	Dec. in range 50 to 250 in degrees.	R	Mandatory if a ***Type A Transmitting Antenna*** Identical to (RDD ref: 0394) ***Tower*** Electrical Height (Appendix S4 item 9T7).
0133	• Type Code	1 Char.	M	Either "A" or " B".
0383	• Pattern Type	1 Char.	R	Either " T" , " M" or " E". Mandatory if ***Type B Transmitting Antenna***
0359	• Special Quadrature Factor	Dec. in range 0.01 to 10.00 in mV/m.	O	If requested by the ***Administration*** for a ***Type B Transmitting Antenna*** with Pattern Type "M" or "E".
	For each ***Tower*** that forms a part of ***Type B Transmitting Antenna***, provide the			
0397	• Structure Code	1 Char.	M	Either "0", "1" or " 2".
0396	• Identification Number	Int. in range 1 to 12.	M	
0390	• Angular Orientation	Dec. in range 0.00 to 359.99 in degrees.	R	Mandatory for multiple ***Towers.***
0391	• Reference Number	Int. in range 1 to 12.	R	Mandatory for multiple ***Towers***. Currently the Reference Number is known as the "Reference Tower" and supplied as a binary character. It is proposed that this should be changed to the number of the ***Tower*** used as a reference.
0392	• Electrical Spacing	Dec. in range 40.0 to 1200.0 in degrees.	R	Mandatory for multiple ***Towers***.
0393	• Field Phase Difference	Dec. in range -359.99 to 359.99 in degrees.	R	Mandatory for multiple ***Towers***.
0394	• Electrical Height	Dec. in range 50.0 to 250.0 in degrees.	M	
0395	• Field Strength Ratio	Dec. in range 0.0000 to 10.0000.	R	Mandatory for multiple ***Towers***. Currently the Field Strength Ratio has a precision of 2 decimal places it is proposed that it should be increased to 4 decimal places.
0388	• Height Difference	Dec. in range 10.0 to 180.0 in degrees.	R	Mandatory for a ***Top Loaded Tower*** Identical to (RDD ref: 0379) ***Sectionalised Tower*** Height Difference (Appendix S4 item 9T9D).
0377	• Lower Section Electrical Height	Dec. in range 50.0 to 250.0 in degrees.	R	Mandatory for a ***Sectionalised Tower***.
0376	• Lower Section Height Difference	Dec. in range 0.0 to 180.0 in degrees	R	Mandatory for a ***Sectionalised Tower.***
0379	• Height Difference	Dec. in range 0.0 to 30.0 in degrees.	R	Mandatory for a ***Sectionalised Tower.*** Note: if the ***Sectionalised Tower*** is not itself top loaded the Height Difference is 0 degrees.
	For each ***Antenna Radiation Pattern Augmentation*** that describes a modification to the radiation pattern of a **Type B** ***Transmitting Antenna***, provide the			
0357	• Serial Number	Int. in range 1 to 99.	R	Mandatory if the Pattern Type is "M".
0356	• Central Azimuth	Dec. in range 0.0 to 359.9 in degrees.	R	Mandatory if the Pattern Type is "M".
0355	• Central Azimuth Radiation	Dec. in range 0.0 to 9999.9 in mV/m.	R	Mandatory if the Pattern Type is "M".
0358	• Total Span	Dec. in range 0.0 to 359.9 in degrees.	R	Mandatory if the Pattern Type is "M".
	For the ***Site*** where the ***Transmitting Antenna*** is located, provide the			
0267	• Name	Up to 30 Char.	M	Currently ***Site*** Name is only 20 characters. It is proposed this should be increased to 30 characters.
	• ***Geographical Area*** where the ***Site*** is located, using			

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
0174	Code	Up to 3 Char.	M	

2.11 Broadcasting Service, in the HF and Tropical Bands

This table covers sound broadcasting radio systems between 2.3 and 30 MHz:

Sound broadcasting in accordance with Article S12.

Notification under Article S11 in the following bands:

- 2300 - 2498 kHz, 3200 - 3400 kHz, 4750 - 4995 kHz and 5005 - 5060 kHz in the Tropical Zone
- in any other frequency not covered above, when notification is made in accordance with Article S4.4

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Terrestrial Service Notice***, provide the			
0205	• BR Identification Code	10 Char.	R	Mandatory if the notification is a modification or suppression of an existing assignment. Currently BR Identification Code is only 9 characters. It is proposed this should be increased to 10 characters.
0206	• Intended Action Code	1 Char.	M	
0204	• Date Sent	Date.	O	
0202	• BR Date Received	Date.	BR	
0201	• Administration's Notice Code	Up to 20 Char.	O	For TerRaSys this data item may be mandatory under specified conditions.
	• ***Provision*** under which the ***Terrestrial Service Notice*** is notified, using			
0608	Code	Up to 12 Char.	M	
	For the ***Signal Configuration*** which is the subject of the ***Terrestrial Service Notice***, provide the			
0345	• Assigned Frequency	Frequency.	M	
0348	• Reference (Carrier) Frequency	Frequency.	R	Mandatory if the modulation envelope is asymmetric
0371	• Alternative Frequency	Frequency.	O	Possibly more than one Alternative Frequency.
0374	• Preferred Frequency Band	Int. in range 3 to 30 in MHz	R	Mandatory if a frequency assignment is requested under Article S7.6.
0157	• Necessary Bandwidth Code	4 Char.	R	Mandatory if HF Transmission Code ="D".
0351	• Class Of Emission Code	Up to 5 Char.	R	Mandatory as defined in RDD 0157.
0347	• Call Sign	Up to 10 Char.	R	Mandatory when notifying under Article S11 or Article S12.
0159	• Power Measurement Method Code	1 Char.	M	Either "Z" for Double Side Band emissions or "X" for Single Side Band emissions.
0166	• Transmitter Output Power	Dec. in range 10.0 to 60.0 in dBW	M	
0141	• Date Of Bringing Into Use	Date	R	Mandatory if Start Date does not coincide with the ***Season Of Operation*** schedule periods.
0512	• HF Transmission System Code	1 Char.	M	Either "D", "T" or "S".
0132	• Synchronised Network Indicator	True or False.	O	
0546	• Two Dimensional Service Zone consisting of		M	
0366	either one or more ***CIRAF Zones***, using			
0368	Zone Number and	Int. in range 1 to 99.	R	Mandatory for Article S12 or if neither ***Circular Zone*** nor ***Geographical Area*** Code is used.
0367	Quadrant Code	Up to 2 Char.	R	Mandatory for Article S12 or if neither ***Circular Zone*** nor ***Geographical Area*** Code is used.
0069	or a ***Circular Zone***, defined by			
0070	Centre Geographical Coordinates and its	Long/Lat(dm).	R	Mandatory if neither a ***CIRAF Zone*** nor ***Geographical Area*** Code is used.
0071	Radius	Int. in range 1 to 20000 in km.	R	Mandatory if neither a ***CIRAF Zone*** nor ***Geographical Area*** Code is used.
0173	or one or more ***Geographical Area***, using			
0174	Code	Up to 3 Char.	R	Mandatory if neither a ***CIRAF Zone*** nor ***Circular Zone*** is used.
0161	• RR Conformity Indicator	True or False.	R	Mandatory for notification under Article S11.
	• ***Class Of Station*** of the ***Signal Configuration***, using			
0277	Code	2 Char.	M	Always "BC".
	• ***Administration*** notifying the ***Signal Configuration***, using			
0011	Code	Up to 3 Char.	M	
	• ***Correspondence Address*** to contact regarding matters of interference, using			
0094	Code	Up to 2 Char.	M	

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	• ***Operator*** of the ***Signal Configuration***, using			
0219	Code	3 Char. in range 001 to 999.	O	
	For each ***Coordination Agreement*** obtained for the ***Signal Configuration***, provide the			
0090	• Status Code	Up to 6 Char.	BR	
	• ***Provision*** the ***Coordination Agreement*** is in respect of, using			
0608	Code	Up to 12 Char.	R	Mandatory if any RR or Plan provisions are applicable to Notification or Coordination.
	• ***Administration*** coordination is obtained with, using			
0011	Code	Up to 3 Char.	R	Mandatory if agreement is necessary and has been obtained.
	For each ***Season of Operation*** during which the ***Signal Configuration*** operates, provide the			Note: deleted at WRC97 but still required for HFBC.
0247	• Code	Up to 5 Char.	R	Mandatory for Article S12.
0538	• Start Date	Date.	O	
0539	• Stop Date	Date.	O	
	For each ***Day Of Operation*** during which the ***Signal Configuration*** operates, provide the			
0500	• Indicator	Up to 9 Char.	R	Mandatory if not in operation seven days a week.
	For each ***Regular Operation Period*** during which the ***Signal Configuration*** operates, provide the			
0307	• Start Time	Time in UTC.	M	
0308	• Stop Time	Time in UTC.	M	
	For the ***Transmitting Antenna*** emitting the ***Signal Configuration***, provide the			
0037	• Geographical Coordinates	Long/Lat(dms).	M	
0122	• Directivity Indicator	True or False.	M	
0129	• Maximum Gain	Dec. in range 0.0 to 15.0 in dB with Gain Reference Antenna Code (i).	R	Mandatory if the Maximum Gain is different from the Maximum Gain associated with the relevant Reference Pattern (RDD 0110) in the ITU-R antenna handbook.
0108	• Azimuth of Maximum Gain	Dec. in range 0.0 to 359.9 in degrees.	R	Mandatory if the ***Transmitting Antenna*** is directional in the horizontal plane.
0109	• Elevation Angle of Maximum Gain	Dec. in range 0.0 to 90.0 in degrees.	R	Mandatory if ***Directional Transmitting Antenna*** is used.
0110	• Reference Pattern consisting of		M	
0110c	a ITU-R Antenna Characteristic Code	Up to 10 Char.	M	
0476	• Radiator Type	1 Char.	M	Either “E” or “C”.
0477	• Reflector Type	1 Char.	R	Mandatory if the ***Transmitting Antenna*** is equipped with reflectors; either “T” or "A”.
0478	• Design Frequency	Frequency.	O	
0480	• Slew Angle	Int. in range 0 to 30 in degrees.	R	Mandatory if the ***Directional Transmitting Antenna ‘s*** beam is slewed.
	For the ***Site*** where the ***Transmitting Antenna*** is located, provide the			
0267	• Name	Up to 30 Char.	M	Currently ***Site*** Name is only 20 characters. It is proposed this should be increased to 30 characters.
	• ***Geographical Area*** where the ***Site*** is located, using			
0174	Code	Up to 3 Char.	M	

2.12 Fixed Service, Fixed Links Point to Point in the HF, VHF, UHF, SHF and EHF Bands

This table covers fixed point to point stations in the Fixed Service.

For a HF Fixed Station the transmitting antenna may be directional or non-directional. The signal configuration from a transmitting antenna may be received at a number of different sites as the sky wave returns to earth. Propagation is affected by ionospheric variations and the frequency used and/or the distance from transmit site. Ionospheric conditions to receive site varies between night and day.

For HF Fixed Stations in the Fixed Service reference should be made to Article S24 of the Radio Regulations concerning the operation and restrictions on ***Signal Configuration***s described by this model.

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Terrestrial Service Notice***, provide the			
0205	• BR Identification Code	10 Char.	R	Mandatory if the notification is a modification or suppression of an existing assignment. Currently BR Identification Code is only 9 characters. It is proposed this should be increased to 10 characters.
0206	• Intended Action Code	1 Char.	M	
0204	• Date Sent	Date.	O	
0202	• BR Date Received	Date.	BR	
0201	• Administration's Notice Code	Up to 20 Char.	O	
	• ***Provision*** under which the ***Terrestrial Service Notice*** is notified, using			
0608	Code	Up to 12 Char.	M	
	For the ***Signal Configuration*** which is the subject of the ***Terrestrial Service Notice***, provide the			
0345	• Assigned Frequency	Frequency.	M	
0348	• Reference (Carrier) Frequency	Frequency.	R	Mandatory if the modulation envelope is asymmetric.
0374	• Preferred Frequency Band	Int. in range 3 to 30 in MHz.	R	Mandatory if a frequency assignment is requested under RR S7.6.
0157	• Necessary Bandwidth Code	4 Char.	M	
0351	• Class Of Emission Code	Up to 5 Char.	M	"F3E" and "G3E" emissions are prohibited below 30 MHz RR S24.2 Art S24.
0150	• Station Identification	Up to 20 Char.	R	Mandatory if a Call Sign is not required.
0347	• Call Sign	Up to 10 Char.	R	Mandatory below 28 MHz RR S19.7.
0159	• Power Measurement Method Code	1 Char.	M	
0166	• Transmitter Output Power	Dec. in range 10.0 to 40.0 in dBW.	R	Mandatory if the ***Signal Configuration*** is in a band shared with Space services above 1 GHz. In other bands mandatory if the Maximum Radiated Power is not supplied.
0155	• Maximum Radiated Power	Dec. in range 10.0 to 60.0 in dBW with Gain Reference Antenna Code.	R	Mandatory if the ***Signal Configuration*** is in a band shared with Space services above 1 GHz. In other bands mandatory if the Transmitter Output Power and the ***Transmitting Antenna***'s Maximum Gain is not supplied.
0570	• Power Control Range	Dec. in range 10.0 to 20.0 in dB.	R	Mandatory for HF fixed links if power control is used.
0484	• Energy Dispersal Description	Text.	C	
0485	• Pre-emphasis PP Frequency Deviation	Dec. in range 0.0 to 15.0 in MHz.	C	
0572	• Pre-emphasis RMS Frequency Deviation	Dec. in range 20.0 to 300.0 in kHz.	C	
0154	• Maximum Power Density Over 4kHz	Dec. in range -170 to 30.0 in dB(W/Hz).	C	
0571	• Maximum Power Density Over 1MHz	Dec. in range -200.0 to 20.0 in dB(W/Hz).	C	
0141	• Date Of Bringing Into Use	Date.	M	
0144	• Period Of Validity	Int. in range 1 to 30 in years.	O	
0161	• RR Conformity Indicator	True or False.	M	
0156	• Nature Of Service Code	2 Char.	O	Only "CO", "CP", "CR", "CV", "HP", "PX", "MX", "OT" and "ST" valid (also "AX" after 1 January 1999).
0494	• Class Of Operation Code	1 Char.	R	Mandatory for HF only.
	• ***Class Of Station*** of the ***Signal Configuration***, using			
0277	Code	2 Char.	M	Always "FX"("AX" is allowed until 1 January 1999).

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	• ***Administration*** notifying the ***Signal Configuration***, using			
0011	Code	Up to 3 Char.	M	
	• ***Correspondence Address*** to contact regarding matters of interference, using			
0094	Code	Up to 2 Char.	M	
	• ***Operator*** of the ***Signal Configuration***, using			
0219	Code	3 Char. in range 001 to 999.	O	
	For each ***Coordination Agreement*** obtained for the ***Signal Configuration***, provide the			
0090	• Status Code	Up to 6 Char.	BR	
	• ***Provision*** the ***Coordination Agreement*** is in respect of, using			
0608	Code	Up to 12 Char.	R	Mandatory if any RR provision is applicable.
	• ***Administration*** coordination is obtained with, using			
0011	Code	Up to 3 Char.	R	Mandatory if agreement is necessary and obtained.
	For each ***Regular Operation Period*** during which the ***Signal Configuration*** operates, provide the			
0307	• Start Time	Time in UTC.	M	
0308	• Stop Time	Time in UTC.	M	
	For the ***Transmitting Antenna*** emitting the ***Signal Configuration***, provide the			
0037	• Geographical Coordinates	Long/Lat(dms).	M	
0121	• Ground Altitude Above Mean Sea Level	Int. in range -1000 to 8848 in metres.	R	Mandatory if the ***Signal Configuration*** for this ***Transmitting Antenna*** is in a band shared with Space Services above 1 GHz.
0125	• Height Above Ground Level	Int. in range 0 to 1000 in metres.	R	Mandatory if the ***Signal Configuration*** for this ***Transmitting Antenna*** is in a band shared with Space Services above 1 GHz.
0131	• Polarization Code	Up to 2 Char.	R	Mandatory if the ***Signal Configuration*** for this ***Transmitting Antenna*** is in a band shared with Space Services above 1 GHz.
0122	• Directivity Indicator	True or False.	M	
0147	• Horizontal Beamwidth	Dec. in range 0.1 to 359.9 in degrees.	R	Mandatory if the ***Transmitting Antenna*** is directional.
0168	• Vertical Beamwidth	Dec. in range 0.1 to 180.0 in degrees.	C	
0509	• Rotational Antenna Beam Start Azimuth	Dec. in range 0.0 to 359.9 in degrees.	R	Mandatory if the ***Transmitting Antenna*** beam is rotational or swept.
0510	• Rotational Antenna Beam Finish Azimuth	Dec. in range 0.1 to 360.0 in degrees.	R	Mandatory if the ***Transmitting Antenna*** beam is rotational or swept.
0129	• Maximum Gain	Dec. in range -5.0 to 50.0 in dB with Gain Reference Antenna Code.	R	Mandatory if the ***Transmitting Antenna*** is directional. Mandatory in shared bands above 1 GHz.
0108	• Azimuth Of Maximum Gain	Dec. in range 0.0 to 359.9 in degrees.	R	Mandatory if the ***Transmitting Antenna*** is directional in the horizontal plane and the ***Transmitting Antenna*** beam is not rotating or swept.
0109	• Elevation Angle Of Maximum Gain	Dec. in range -90.0 to 90.0 in degrees.	R	Mandatory if the ***Signal Configuration*** for this ***Transmitting Antenna*** is in a band shared with Space Services above 1 GHz.
0110	• Reference Pattern consisting of		O	
0110a	either an Antenna Gain Equation	Equation.	O	
0110b	or an Antenna Gain Polar Diagram	Diagram.	O	
0110c	or a ITU-R Antenna Characteristic Code	Up to 10 Char.	O	
0507	or a Horizontal Gain Pattern consisting of			
	36 Vectors, defined by			
0507b	Azimuth	Int. in range 0 to 350 in multiples of 10 in degrees.	O	
0507a	Gain	Dec. In range -5.0 to 50.0 in dB with Gain Reference Antenna Code.	O	
0502	and a Vertical Gain Pattern consisting of			
	up to 19 Vectors, defined by			

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
0502b	Elevation Angle	Int. in range -90 to 90 in multiples of 10 in degrees.	O	
0502a	Gain	Dec. in range -5.0 to 50.0 in dB with Gain Reference Antenna Code.	O	
	For the ***Site*** where the ***Transmitting Antenna*** is located, provide the			Note: RR S 21.1 - 21.2.
0267	• Name	Up to 30 Char.	M	Currently ***Site*** Name is only 20 characters. It is proposed this should be increased to 30 characters.
	• ***Geographical Area*** where the ***Site*** is located, using			
0174	Code	Up to 3 Char.	M	
	For the ***Receiving Antenna*** that is the target of the ***Signal Configuration***, provide the			
0037	• Geographical Coordinates	Long/Lat(dms)	M	
0160	• Receiving System Noise Temperature	Int. in range 20 to 6000 in Kelvin.	C	
	For the ***Site*** where the ***Receiving Antenna*** is located, provide the			
0267	• Name	Up to 30 Char.	M	
	• ***Geographical Area*** where the ***Site*** is located, using			
0174	Code	Up to 3 Char.	M	

2.13 Fixed Service, Point to Multi-Point, in the HF, VHF, UHF, SHF and EHF Bands

This table covers the signal transmitted from a single ***Transmitting Antenna*** to two or more ***Receiving Antenna***.

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Terrestrial Service Notice***, provide the			
0205	• BR Identification Code	10 Char.	R	Mandatory if the notification is a modification or suppression of an existing assignment. Currently BR Identification Code is only 9 characters. It is proposed this should be increased to 10 characters.
	• Intended Action Code	1 Char.	M	
	• Date Sent	Date.	O	
	• BR Date Received	Date.	BR	
	• Administration's Notice Code	Up to 20 Char.	O	
	• Provision under which the ***Terrestrial Service Notice*** is notified, using			
	Code	Up to 12 Char.	M	
	For the ***Signal Configuration*** which is the subject of the ***Terrestrial Service Notice***, provide the			
	• Assigned Frequency	Frequency.	M	
	• Reference (Carrier) Frequency	Frequency.	R	Mandatory if the modulation envelope is asymmetric.
	• Necessary Bandwidth Code	4 Char.	M	
	• Class Of Emission Code	Up to 5 Char.	M	
	• Station Identification	Up to 20 Char.	R	Mandatory if a Call Sign is not supplied.
	• Call Sign	Up to 10 Char.	O	
	• Power Measurement Method Code	1 Char.	M	
	• Transmitter Output Power	Dec. in range 10.0 to 40.0 in dBW.	R	Mandatory if the ***Signal Configuration*** is in a band shared with Space services above 1 GHz. In other bands mandatory if the Maximum Radiated Power is not supplied.
0206	• Maximum Radiated Power	Dec. in range 10.0 to 60.0 in dBW with Gain Reference Antenna Code.	R	Mandatory if the ***Signal Configuration*** is in a band shared with Space services above 1 GHz. In other bands mandatory if the Transmitter Output Power and the ***Transmitting Antenna***'s Maximum Gain is not supplied.
0204	• Power Control Range	Dec. in range 10.0 to 20.0 in dB.	R	Mandatory for HF fixed links if power control is used.
0202	• Energy Dispersal Description	Text.	C	
0201	• Pre-emphasis PP Frequency Deviation	Dec. in range 0.0 to 15.0 in MHz.	C	
	• Pre-emphasis RMS Frequency Deviation	Dec. in range 20.0 to 300.0 in kHz.	C	
0608	• Maximum Power Density over 4kHz	Dec. in range -170.0 to 30.0 in dBW/Hz.	C	
	• Maximum Power Density over 1MHz	Dec. In range -200.0 to 20.0 in dBW/Hz.	C	
0345	• Date Of Bringing Into Use	Date.	M	
0348	• Period Of Validity	Int. in range 1 to 30 in years.	O	
0157	• RR Conformity Indicator	True or False.	M	
0351	• Two Dimensional Service Zone consisting of		R	Mandatory if the ***Sites*** for the individual ***Receiving Antenna*** are not known.
0150	either between 3 and 6 ***Zone Boundary Coordinates,*** defined by			Mandatory if the ***Circular Zone*** or the ***Geographical Areas*** are not provided.
0347	Geographical Coordinates	Long/Lat(dms).	R	Mandatory as defined in RDD 0328.
0159	Sequence Number	Int. in range 1 to 6.	R	Mandatory as defined in RDD 0328.
0166	or one or more ***Geographical Area***s, using			Mandatory if the ***Circular Zone*** or the ***Geographical Areas*** are not provided.
0174	Code	Up to 3 Char.	R	Mandatory as defined in RDD 0173.
0069	or a ***Circular Zone***, defined by			Mandatory if the ***Zone Boundary Coordinates*** or the ***Geographical Areas*** are not provided.
0070	Centre Geographical Coordinates	Long/Lat(dm)	R	Mandatory as defined in RDD 0069.
0071	Radius	Int. in range 1 to 20000 km.	R	Mandatory as defined in RDD 0069.
0156	• Nature Of Service Code	2 Char.	M	Only "CO", "CP", "CR", "CV", "HP", "PX", "MX", "OT" and "ST" valid (Also "AX" after 1 January 1999).

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	• ***Class Of Station*** of the ***Signal Configuration***, using			
0277	Code	2 Char.	M	Always "FX" ("AX" is allowed until 1 January 1999).
	• ***Administration*** notifying the ***Signal Configuration***, using			
0011	Code	Up to 3 Char.	M	
	• ***Correspondence Address*** to contact regarding matters of interference, using			
0094	Code	Up to 2 Char.	M	
	• ***Operator*** of the ***Signal Configuration***, using			
0219	Code	3 Char. in range 001 to 999.	O	
	For each ***Coordination Agreement*** obtained for the ***Signal Configuration***, provide the			
0090	• Status Code	Up to 6 Char.	BR	
	• ***Provision*** the ***Coordination Agreement*** is in respect of, using			
0608	Code	Up to 12 Char.	R	Mandatory if any RR provision is applicable.
	• ***Administration*** coordination is obtained with, using			
0011	Code	Up to 3 Char.	R	Mandatory if agreement is necessary and obtained.
	For each ***Regular Operation Period*** during which the ***Signal Configuration*** operates, provide the			
0307	• Start Time	Time in UTC.	M	
0308	• Stop Time	Time in UTC.	M	
	For the ***Transmitting Antenna*** emitting the ***Signal Configuration***, provide the			
0037	• Geographical Coordinates	Long/Lat(dms).	M	
0121	• Ground Altitude Above Mean Sea Level	Int. in range -1000 to 8848 in metres.	R	Mandatory if the ***Signal Configuration*** for this ***Transmitting Antenna*** is in a band shared with Space Services above 1 GHz.
0125	• Height Above Ground Level	Int. in range 0 to 1000 in metres.	R	Mandatory if the ***Signal Configuration*** for this ***Transmitting Antenna*** is in a band shared with Space Services above 1 GHz.
0131	• Polarization Code	Up to 2 Char.	R	Mandatory if in band shared with Space Services above 1 GHz.
0122	• Directivity Indicator	True or False.	M	
0147	• Horizontal Beamwidth	Dec. in range 0.1 to 359.9 in degrees.	R	Mandatory if the ***Transmitting Antenna*** is directional.
0168	• Vertical Beamwidth	Dec. in range 0.1 to 180.0 in degrees.	C	
0129	• Maximum Gain	Dec. in range -5.0 to 50.0 in dB with Gain Reference Antenna Code.	R	Mandatory if the ***Transmitting Antenna*** is directional. Mandatory in shared bands above 1 GHz.
0108	• Azimuth Of Maximum Gain	Dec. in range 0.0 to 359.9 in degrees.	R	Mandatory if the ***Transmitting Antenna*** is directional in the horizontal plane.
0109	• Elevation Angle Of Maximum Gain	Dec. in range -90.0 to 90.0 in degrees.	R	Mandatory if in band shared with Space Services above 1 GHz.
0110	• Reference Pattern consisting of		O	.
0110a	either an Antenna Gain Equation	Equation.	O	
0110b	or an Antenna Gain Polar Diagram	Diagram.	O	
0110c	or a ITU-R Antenna Characteristic Code,	Up to 10 Char.	O	
0507	or a Horizontal Gain Pattern consisting of			
	36 Vectors, defined by			
0507b	Azimuth	Int. in range 0 to 350 in multiples of 10 in degrees.	O	
0507a	Gain	Dec. In range -5.0 to 50.0 in dB with Gain Reference Antenna Code.	O	
0502	and a Vertical Gain Pattern consisting of			
	up to 19 Vectors, defined by			
0502b	Elevation Angle	Int. In range -90 to 90 in multiples of 10 in degrees.	O	

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
0502a	Gain	Dec. in range -5.0 to 50.0 in dB with Gain Reference Antenna Code.	O	
	For the ***Site*** where the ***Transmitting Antenna*** is located, provide the			Note: RR S 21.1 - 21.2.
0267	• Name	Up to 30 Char.	M	
	• ***Geographical Area*** where the ***Site*** is located, using			
0174	Code	Up to 3 Char.	M	
	For each ***Receiving Antenna*** that is the target of the ***Signal Configuration***, provide the			Mandatory if the ***Sites*** for the individual ***Receiving Antenna(s)*** are known.
0037	• Geographical Coordinates	Long/Lat(dms).	R	
0160	• Receiving System Noise Temperature	Int. in range 20 to 6000 in Kelvin.	C	
	For the ***Site*** where the ***Receiving Antenna*** is located, provide the			Note: RR S 21.1 - 21.2.
0267	• Name	Up to 30 Char.	R	Mandatory if the ***Site*** for the individual ***Receiving Antenna(s)*** are known. Currently ***Site*** Name is only 20 characters. It is proposed this should be increased to 30 characters.
	• ***Geographical Area*** where the ***Site*** is located, using			
0174	Code	Up to 3 Char.	R	Mandatory if the ***Site*** for the individual ***Receiving Antenna(s)*** are known.

2.14 Land Mobile Service, Base Receive, in the HF, VHF and UHF Bands

This table covers the signal transmitted from a mobile station for reception either by a known ***Receiving Antenna*** at a fixed location, or by a transportable ***Receiving Antenna*** where protection is sought for the Roaming Zone. Although the transmitting antenna is non-directional, the roaming zone may be defined by specific points as a result of the use of directive antenna at the receiving base station.

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Terrestrial Service Notice***, provide the			
0205	• BR Identification Code	10 Char.	R	Mandatory if the notification is a modification or suppression of an existing assignment. Currently BR Identification Code is only 9 characters. It is proposed this should be increased to 10 characters.
0206	• Intended Action Code	1 Char.	M	
0204	• Date Sent	Date.		
0202	• BR Date Received	Date.	BR	
0201	• Administration's Notice Code	Up to 20 Char.	O	
	• Provision under which the ***Terrestrial Service Notice*** is notified, using			
0608	Code	Up to 12 Char.	M	
	For the ***Signal Configuration*** which is the subject of the ***Terrestrial Service Notice***, provide the			
0345	• Assigned Frequency	Frequency.	M	
0348	• Reference (Carrier) Frequency	Frequency.	R	Mandatory if the modulation envelope is asymmetric.
0157	• Necessary Bandwidth Code	4 Char.	M	
0351	• Class Of Emission Code	Up to 5 Char.	M	
0159	• Power Measurement Method Code	1 Char.	M	
0166	• Transmitter Output Power	Dec. in range 0.0 to 30.0 in dBW.	R	Mandatory in the bands below 28000 kHz, For other bands mandatory if Maximum Radiated Power is not supplied.
0155	• Maximum Radiated Power	Dec. in range -10.0 to 40.0 in dBW with Gain Reference Antenna Code.	R	Mandatory if Transmitter Output Power and the ***Transmitting Antenna***'s Maximum Gain is not supplied.
0141	• Date Of Bringing Into Use	Date.	M	
0144	• Period Of Validity	Int. in range 1 to 30 in years.	O	
0350	• Channel Occupation Indicator	True or False.	O	CEPT, Vienna Agreement, not in APS4.
0145	• Frequency Category Code	1 Char. in range 1 to 5	O	CEPT, Vienna Agreement, not in APS4.
0161	• RR Conformity Indicator	True or False.	M	
0544	• Two Dimensional Roaming Zone consisting of		M	
0069	either a ***Circular Zone***, defined by			Mandatory if the ***Zone Boundary Coordinates*** or the ***Geographical Areas*** are not provided.
0070	Centre Geographical Coordinates	Long/Lat (dm).	R	Mandatory as defined in RDD 0069.
0071	Radius	Int. in range 1 to 20000 in km.	R	Mandatory as defined in RDD 0069.
0328	or between 3 and 6 ***Zone Boundary Coordinates,*** defined by			Mandatory if the ***Circular Zone*** or the ***Geographical Areas*** are not provided.
0329	Geographical Coordinates	Long/Lat (dms).	R	Mandatory as defined in RDD 0328.
0511	Sequence Number	Int. in range 1 to 6.	M	Mandatory as defined in RDD 0328.
0173	or one or more ***Geographical Area***s, using			Mandatory if the ***Circular Zone*** or the ***Zone Boundary Coordinates*** are not provided.
0174	Code	Up to 3 Char.	BR	Mandatory as defined in RDD 0173.
0156	• Nature of Service Code	2 Char.	O	Only "CO", "CP", "CR", "CV" and "OT" valid.
	• ***Class Of Station*** of the ***Signal Configuration***, using			
0277	Code	2 Char.	M	Always "ML".
	• ***Administration*** notifying the ***Signal Configuration***, using			
0011	Code	Up to 3 Char.	M	
	• ***Correspondence Address*** to contact regarding matters of interference, using		R	
0094	Code	Up to 2 Char.	M	
	• ***Operator*** of the ***Signal Configuration***, using		M	
0219	Code	3 Char. in range 001 to 999	M	
	For each ***Coordination Agreement*** obtained for the ***Signal Configuration***, provide the		R	

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
0090	• Status Code	Up to 6 Char.	R	
	• ***Provision*** the ***Coordination Agreement*** is in respect of, using		M	
0608	Code	Up to 12 Char.	O	Mandatory if any RR provision is applicable.
	• ***Administration*** coordination is obtained with, using		O	
0011	Code	Up to 3 Char.	O	Mandatory if agreement is necessary and obtained.
	For each ***Regular Operation Period*** during which the ***Signal Configuration*** operates, provide the		M	
0307	• Start Time	Time in UTC.	M	
0308	• Stop Time	Time in UTC.		
	For the ***Receiving Antenna*** that is the target of the ***Signal Configuration***, provide the		R	
0037	• Geographical Coordinates	Long/Lat(dms).	R	
	For the ***Site*** where the ***Receiving Antenna*** is located, provide the			Note: RR S 21.1 - 21.2.
0267	• Name	Up to 30 Char.	M	Currently ***Site*** Name is only 20 characters. It is proposed this should be increased to 30 characters.
	• For the ***Geographical Area*** where the ***Site*** is located, using			
0174	Code	Up to 3 Char.	M	

2.15 Land Mobile Service, Base Transmit, in the HF, VHF and UHF Bands

This table covers the signal transmitted from a ***Transmitting Antenna*** at a fixed location for reception either by a mobile station or by a transportable station where protection is sought for the transmitter and its Service Zone.

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Terrestrial Service Notice***, provide the			
0205	• BR Identification Code	10 Char.	R	Mandatory if the notification is a modification or suppression of an existing assignment. Currently the BR Identification Code is only 9 characters. It is proposed that this should be increased to 10 characters.
0206	• Intended Action Code	1 Char.	M	
0204	• Date Sent	Date.	O	
0202	• BR Date Received	Date.	BR	
0201	• Administration's Notice Code	Up to 20 Char.	O	
	• ***Provision*** under which the ***Terrestrial Service Notice*** is notified, using			
0608	Code	Up to 12 Char.	M	
	For the ***Signal Configuration*** which is the subject of the ***Terrestrial Service Notice***, provide the			
0345	• Assigned Frequency	Frequency.	M	
0348	• Reference (Carrier) Frequency	Frequency.	R	Mandatory if the modulation envelope is asymmetric.
0157	• Necessary Bandwidth Code	4 Characters	M	
0351	• Class Of Emission Code	Up to 5 Char.	M	
0150	• Station Identification	Up to 20 Char.	M	
0159	• Power Measurement Method Code	1 Char.	M	
0166	• Transmitter Output Power	Dec. in range -5.0 to 40.0 in dBW	R	Mandatory in the bands below 28000 kHz as well as in the bands above 1 GHz shared with space services. For other bands mandatory if Maximum Radiated Power is not supplied.
0155	• Maximum Radiated Power	Dec. in range 0.0 to 50.0 in dBW with Gain Reference Antenna Code.	R	Mandatory if the ***Signal Configuration*** is in a band shared with space services above 1 GHz. For other bands mandatory if the Transmitter Output Power and the ***Transmitting Antenna***'s Maximum Gain is not supplied.
0141	• Date Of Bringing Into Use	Date.	M	
0144	• Period Of Validity	Int. in range 1 to 30 in years.	O	
0350	• Channel Occupation Indicator	True or False.	O	CEPT, Vienna Agreement, not in APS4.
0145	• Frequency Category Code	1 Char. in range 1 to 5.	O	CEPT, Vienna Agreement, not in APS4.
0161	• RR Conformity Indicator	True or False.	M	
0546	• Two Dimensional Service Zone consisting of		M	
0069	either a ***Circular Zone***, defined by			Mandatory if the ***Zone Boundary Coordinates*** or the ***Geographical Areas*** are not provided.
0070	Centre Geographical Coordinates	Long/Lat(dm).	R	Mandatory as defined in RDD 0069.
0071	Radius	Int. in range 1 to 20000 in km.	R	Mandatory as defined in RDD 0069.
0328	or between 3 and 6 ***Zone Boundary Coordinates,*** defined by			Mandatory if the ***Circular Zone*** or the ***Geographical Areas*** are not provided.
0329	Geographical Coordinates	Long/Lat(dms).	R	Mandatory as defined in RDD 0328.
0511	Sequence Number	Int. in range 1 to 6.	R	Mandatory as defined in RDD 0328.
0173	or one or more ***Geographical Area***s, using			Mandatory if the ***Zone Boundary Coordinates*** or the ***Circular Zones*** are not provided.
0174	Code	Up to 3 Char.	R	Mandatory as defined in RDD 0173.
0156	• Nature of Service Code	2 Char.	M	Only "CO", "CP", "CR", "CV" and "OT" valid.
	• ***Class Of Station*** of the ***Signal Configuration***, using			
0277	Code	2 Char.	M	Always "FB".
	• ***Administration*** notifying the ***Signal Configuration***, using			
0011	Code	Up to 3 Char.	M	
	• ***Correspondence Address*** to contact regarding matters of interference, using			
0094	Code	Up to 2 Char.	M	
	• ***Operator*** of the ***Signal Configuration***, using			
0219	Code	3 Char. in range 001 to 999	O	

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Coordination Agreement*** obtained for the ***Signal Configuration***, provide the			
0090	• Status Code	Up to 6 Char.	BR	
	• ***Provision*** the ***Coordination Agreement*** is in respect of, using			
0608	Code	Up to 12 Char.	R	Mandatory if any RR provision is applicable.
	• ***Administration*** coordination is obtained with, using			
0011	Code	Up to 3 Char.	R	Mandatory if agreement is necessary and obtained.
	For each ***Regular Operation Period*** during which the ***Signal Configuration*** operates, provide the			
0307	• Start Time	Time in UTC.	M	
0308	• Stop Time	Time in UTC.	M	
	For the ***Transmitting Antenna*** emitting the ***Signal Configuration***, provide the			
0037	• Geographical Coordinates	Long/Lat(dms).	M	
0121	• Ground Altitude Above Mean Sea Level	Int. in range -1000 to 8848 in metres.	R	Mandatory if the ***Signal Configuration*** for this ***Transmitting Antenna*** is in a band shared with Space Services above 1 GHz.
0125	• Height Above Ground Level	Int. in range 0 to 1000 in metres.	R	Mandatory if in band shared with Space Services above 1 GHz.
0131	• Polarization Code	Up to 2 Char.	R	Mandatory if in band shared with Space Services above 1 GHz.
0122	• Directivity Indicator	True or False.	M	
0147	• Horizontal Beamwidth	Dec. in range 0.1 to 359.9 in degrees.	R	Mandatory if the ***Transmitting Antenna*** is directional.
0129	• Maximum Gain	Dec. in range -5.0 to 20.0 in dB with Gain Reference Antenna Code.	R	Mandatory if the ***Transmitting Antenna*** is directional. Mandatory in shared bands above 1 GHz.
0108	• Azimuth of Maximum Gain	Dec. in range 0.0 to 359.9 in degrees.	R	Mandatory if the ***Transmitting Antenna*** is directional in the horizontal plane.
0109	• Elevation Angle Of Maximum Gain	Dec. in range 0.0 to 90.0 in degrees.	R	Mandatory if in a band shared with Space Services above 1 GHz.
0110	• Reference Pattern consisting of		O	.
0110a	either an Antenna Gain Equation	Equation.	O	
0110b	or an Antenna Gain Polar Diagram	Diagram.	O	
0110c	or a ITU-R Antenna Characteristic Code,	Up to 10 Char.	O	
0507	or a Horizontal Gain Pattern consisting of			
	36 Vectors, defined by			
0507b	Azimuth	Int. in range 0 to 350 in multiples of 10 in degrees.	O	
0507a	Gain	Dec. in range -5.0 to 20.0 in dB with Gain Reference Antenna Code.	O	
0502	and a Vertical Gain Pattern consisting of			
	10 Vectors, defined by			
0502b	Elevation Angle	Int. in range 0 to 90 in multiples of 10 in degree.	O	
0502a	Gain	Dec. in range -5.0 to 20.0 in dB with Gain Reference Antenna Code.	O	
	For the ***Site*** where the ***Transmitting Antenna*** is located, provide the			Note: RR S 21.1 - 21.2.
0267	• Name	Up to 30 Char.	M	Currently ***Site*** Name is only 20 characters. It is proposed this should be increased to 30 characters.
	• ***Geographical Area*** where the ***Site*** is located, using			
0174	Code	Up to 3 Char.	M	

2.16 Maritime Mobile Service, Coast Station (Transmit), in the VLF, LF, MF, HF and VHF Bands

This table covers a Coast Station in the Maritime Mobile service, (Including NAVTEX).

Coast Station (Transmit)

Vertical Polarization.

A Base to mobile (ship) transmission in the Maritime Mobile Service. The transmitting antenna is usually non-directional, but a directive antenna may be used to prevent interference into land based systems or, at VHF, to extend coverage into bays and inlets. The service area which is normally circular may be defined by specific points or zones, either as a result of the use of directive antenna, or site shielding. The operational range is limited by the frequency range and the transmit power of the ship.

Frequency Ranges:

VLF -LF;

MF Range is normally 500 km;

HF Range is normally 20000 km;

VHF 156-174 MHz. Range is normally 60 km.

NAVTEX

The international NAVTEX service is the system for the broadcast and automatic receipt of Maritime Safety Information by means of narrow band direct printing on 518 kHz using the English language to meet the requirements of the Safety of Life at Sea (SOLAS) convention. NAVTEX stations operate on a single frequency network. Each service covers a specific sea area and transmits for a period of MM minutes every HHMM hours and minutes, or at irregular periods. The transmission coverage area is identified by a B1 character (A-Z) and can be selected by setting the receiver to select only messages from certain stations.

Frequency Ranges:

518 kHz: International NAVTEX service, English language transmission only;
490 kHz: National language transmission (optional), may be implemented only after the full implementation of the GMDSS;

4209.5 kHz: Tropical zone alternative to 518 kHz.

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Terrestrial Service Notice***, provide the			
0205	• BR Identification Code	10 Char.	R	Mandatory if the notification is a modification or suppression of an existing assignment. Currently BR Identification Code is only 9 characters. It is proposed this should be increased to 10 characters.
0206	• Intended Action Code	1 Char.	M	
0204	• Date Sent	Date.	O	
0202	• BR Date Received	Date.	BR	
0201	• Administration's Notice Code	Up to 20 Char.	O	
	• ***Provision*** under which the ***Terrestrial Service Notice*** is notified, using			
0608	Code	Up to 12 Char.	M	
	For the ***Signal Configuration*** which is the subject of the ***Terrestrial Service Notice***, provide the			
0345	• Assigned Frequency	Frequency.	M	
0348	• Reference (Carrier) Frequency	Frequency.	R	Mandatory if the modulation envelope is asymmetric.
0349	• Plan Channel Number	Up to 10 Char.	C	Mandatory if part of the RARC 85 Plan (in the coordination process).
0157	• Necessary Bandwidth Code	4 Char.	M	
0351	• Class Of Emission Code	Up to 5 Char.	M	
0150	• Station Identification	Up to 20 Char.	R	Mandatory if a Call Sign is not required.
0347	• Call Sign	Up to 10 Char.	R	Mandatory if the assignment is used for Radiotelephony or NAVTEX.
0159	• Power Measurement Method Code	1 Char.	M	

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
0166	• Transmitter Output Power	Dec. in range 0.0 to 40.0 in dBW.	R	Mandatory in the bands below 28000 kHz. In other bands mandatory if the Maximum Radiated Power is not supplied.
0155	• Maximum Radiated Power	Dec. in range 0.0 to 45.0 in dBW with Gain Reference Antenna Code.	R	Mandatory in the bands below 28000 kHz. and if Transmitter Output Power and the ***Transmitting Antenna***'s Maximum Gain is not supplied.
0141	• Date Of Bringing Into Use	Date.	M	
0144	• Period Of Validity	Int. in years.	O	
0346	• Transmission Coverage Area Identifier	1 Char.	R	Mandatory if radio system is NAVTEX.
0161	• RR Conformity Indicator	True or False.	M	
0546	• Two Dimensional Service Zone consisting of			
0069	either a ***Circular Zone***, consisting of			Note: In the case of the NAVTEX system, this is known as the NAVTEX ground wave coverage area. Mandatory for NAVTEX. For other radio systems mandatory if the ***Zone Boundary Coordinates*** or ***Geographical Area*** are not provided.
0070	Centre Geographical Coordinates	Long/Lat(dm).	R	Mandatory as defined in RDD 0069.
0071	Radius	Int. in range 50 to 500 in km.	R	Mandatory as defined in RDD 0069.
0328	or between 3 and 6 ***Zone Boundary Coordinates,*** defined by			Mandatory in the ***Circular Zone*** or ***Geographical Area*** are not provided.
0329	Geographical Coordinates	Long/Lat(dms).	R	Mandatory as defined in RDD 0328.
0511	Sequence Number	Int. in range 1 to 6.	R	Mandatory as defined in RDD 0328.
0185	or one or more ***Maritime Zones***, using			
0187	Code	5 Char.	R	Allowed in the bands below 28000 kHz.
0156	• Nature of Service Code	2 Char.	M	Always "CO", "CP", "CR", "CV", "FS" or "OT".
	• ***Class Of Station*** of the ***Signal Configuration***, using			
0277	Code	2 Char.	M	Always "FC" or "FP".
	• ***Administration*** notifying the ***Signal Configuration***, using			
0011	Code	Up to 3 Char.	M	
	• ***Correspondence Address*** to contact regarding matters of interference, using			
0094	Code	Up to 2 Char.	M	
	• ***Operator*** of the ***Signal Configuration***, using			
0219	Code	3 Char. in range 001 to 999.	O	
	For each ***Coordination Agreement*** obtained for the ***Signal Configuration***, provide the			
0090	• Status Code	Up to 6 Char.	BR	
	• ***Provision*** the ***Coordination Agreement*** is in respect of, using			
0608	Code	Up to 12 Char.	R	Mandatory if any RR provision is applicable.
	• ***Administration*** coordination is obtained with, using			
0011	Code	Up to 3 Char.	R	Mandatory if agreement is necessary and obtained.
	For each ***Regular Operation Period*** during which the ***Signal Configuration*** operates, provide the			
0307	• Start Time	Time in UTC.	M	
0308	• Stop Time	Time in UTC.	M	
0142	• NAVTEX Transmission Duration	Int. in range 5 to 30 in minutes.	R	Mandatory for NAVTEX.
0549	• NAVTEX Transmission Interval	Int. in range 10 to 240 in minutes.	R	Mandatory for NAVTEX.
	For the ***Transmitting Antenna*** emitting the ***Signal Configuration***, provide the			
0037	• Geographical Coordinates	Long/Lat(dms).	M	
0122	• Directivity Indicator	True or False.	M	
0147	• Horizontal Beamwidth	Dec. in range 0.1 to 359.9 in degrees.	R	Mandatory if the ***Transmitting Antenna*** is directional.
0509	• Rotational Antenna Beam Start Azimuth	Dec. in range 0.0 to 359.9 in degrees.	R	Mandatory if the ***Transmitting Antenna*** beam is rotational or swept.
0510	• Rotational Antenna Beam Finish Azimuth	Dec. in range 0.1 to 360.0 in degrees.	R	Mandatory if the ***Transmitting Antenna*** beam is rotational or swept.

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
0129	• Maximum Gain	Dec. in range -5.0 to 20.0 in dB with Gain Reference Antenna Code.	R	Mandatory if the ***Transmitting Antenna*** is directional.
0108	• Azimuth of Maximum Gain	Dec. in range 0.0 to 359.9 in degrees.	R	Mandatory if the ***Transmitting Antenna*** is directional in the horizontal plane.
0110	• Reference Pattern consisting of		O	
0110c	a ITU-R Antenna Characteristic Code	Up to 10 Char.		
	For the ***Site*** where the ***Transmitting Antenna*** is located, provide the			
0267	• Name	Up to 30 Char.	M	Currently ***Site*** Name is only 20 characters. It is proposed this should be increased to 30 characters.
	• ***Geographical Area*** where the ***Site*** is located, using			
0174	Code	Up to 3 Char.	M	

2.17 Maritime Mobile Service, Coast Station (Receive), in the VLF, LF, MF and VHF Band

This table covers a receiving Coast Station in the Maritime Mobile Service in the MF band.

Ship Station (Transmit)

A mobile (ship) to Base transmission in the Maritime Mobile Service. Although the ***Transmitting Antenna*** is non-directional, the roaming area may be defined by specific points or zones, as a result of the use of directive antenna (e.g. to extend coverage into bays and inlets) at the receiving base station. The operational range is limited by the frequency range and the transmit power of the ship station.

Frequency Ranges:

VLF -LF;

MF Range is normally 500 km;

HF Range is normally 20000 km;

VHF 156-174 MHz Range is normally 60 km.

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Terrestrial Service Notice***, provide the			
0205	• BR Identification Code	10 Char.	R	Mandatory if the notification is a modification or suppression of an existing assignment. Currently BR Identification Code is only 9 characters. It is proposed this should be increased to 10 characters.
0206	• Intended Action Code	1 Char.	M	
0204	• Date Sent	Date.	O	
0202	• BR Date Received	Date.	BR	
0201	• Administration's Notice Code	Up to 20 Char.	O	
	• ***Provision*** under which the ***Terrestrial Service Notice*** is notified, using			
0608	Code	Up to 12 Char.	M	
	For the ***Signal Configuration*** which is the subject of the ***Terrestrial Service Notice***, provide the			
0345	• Assigned Frequency	Frequency.	M	
0348	• Reference (Carrier) Frequency	Frequency.	R	Mandatory if the modulation envelope is asymmetric.
0157	• Necessary Bandwidth Code	4 Char.	M	
0351	• Class Of Emission Code	Up to 5 Char.	M	
0159	• Power Measurement Method Code	1 Char.	M	
0166	• Transmitter Output Power	Dec. in range -5.0 to 30.0 in dBW.	R	Mandatory in the bands below 28000 kHz. For VHF maximum power is 25 w carrier power.
0155	• Maximum Radiated Power	Dec. in range 0.0 to 30.0 in dBW with Gain Reference Antenna Code.	R	Mandatory if in band above 28000 kHz and if Transmitter Output Power and ***Transmitting Antenna's*** Maximum Gain are not supplied.
0141	• Date Of Bringing Into Use	Date.	M	
0144	• Period Of Validity	Int. in range 1 to 30 in years.	O	
0161	• RR Conformity Indicator	True or False.	M	
0544	• Two Dimensional Roaming Zone consisting of		M	
0069	either a ***Circular Zone***, defined by			
0070	Centre Geographical Coordinates	Long/Lat(dm).	R	Mandatory if a ***Maritime Zone*** is not provided.
0071	Radius	Int. in range 1 to 20000 in km.	R	For VHF 5 to 60 km; MF 50 to 500 km; HF/LF/VLF to 20000 km. Mandatory as defined in RDD 0070.
0185	or one or more ***Maritime Zones***, using			
0187	Code	5 Char.	R	Allowed only in the bands below 28000 kHz.
0156	• Nature Of Service Code	2 Char.	M	Always "CO", "CP", "CR", "CV" or "OT".
	• ***Class Of Station*** of the ***Signal Configuration***, using			
0277	Code	2 Char.	M	Always "MS".
	• ***Administration*** notifying the ***Signal Configuration***, using			
0011	Code	Up to 3 Char.	M	
	• ***Correspondence Address*** to contact regarding matters of interference, using			
0094	Code	Up to 2 Char.	M	
	• ***Operator*** of the ***Signal Configuration***, using			

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
0219	Code	3 Char. in range 001 to 999	O	
	For each ***Coordination Agreement*** obtained for the ***Signal Configuration***, provide the			
0090	• Status Code	Up to 6 Char.	BR	
	• ***Provision*** the ***Coordination Agreement*** is in respect of, using			
0608	Code	Up to 12 Char.	R	Mandatory if any RR provision is applicable.
	• ***Administration*** coordination is obtained with, using			
0011	Code	Up to 3 Char.	R	Mandatory if agreement is necessary and obtained.
	For each ***Regular Operation Period*** during which the ***Signal Configuration*** operates, provide the			
0307	• Start Time	Time in UTC.	M	
0308	• Stop Time	Time in UTC.	M	
	For the ***Receiving Antenna*** that is the target of the ***Signal Configuration***, provide the			
0037	• Geographical Coordinates	Long/Lat(dms).	M	
	For the ***Site*** where the ***Receiving Antenna*** is located, provide the			
0267	• Name	Up to 30 Char.	M	Currently ***Site*** Name is only 20 characters. It is proposed this should be increased to 30 characters.
	• ***Geographical Area*** where the ***Site*** is located, using			
0174	Code	Up to 3 Char.	M	

2.18 Maritime Mobile Service, Coast AP S25, in the HF Bands

This table covers the application of the procedure for updating the frequency allotment plan contained in Appendix S25.

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Terrestrial Service Notice***, provide the			
0205	• BR Identification Code	10 Char.	R	Mandatory if the notification is a modification or suppression of an existing assignment. Currently BR Identification Code is only 9 characters. It is proposed this should be increased to 10 characters.
0206	• Intended Action Code	1 Char.	M	"I" for initial allotment, "A" for additional allotment, "R" for replacement allotment.
0204	• Date Sent	Date.	O	
0202	• BR Date Received	Date.	BR	
0201	• Administration's Notice Code	Up to 20 Char.	O	
	• ***Provision*** under which the ***Terrestrial Service Notice*** is notified, using			
0608	Code	Up to 12 Char.	M	
	For the ***Signal Configuration*** which is the subject of the ***Terrestrial Service Notice***, provide the			
0495	• Channel Number	Int. in range 401 to 2509.	M	
0496	• Alternative Channel Number	Int. in range 401 to 2509.	O	
0497	• Channel Number to Be Replaced	Int. in range 401 to 2509.	R	
0374	• Preferred Frequency Band	Int. in range 3 to 30 in MHz.	R	Mandatory when an ***Administration*** requests the assistance of the Bureau under Article S7.6.
0157	• Necessary Bandwidth Code	4 Char.	M	Always "2K80".
0351	• Class Of Emission Code	Up to 5 Char.	M	Always "J3E".
0159	• Power Measurement Method Code	1 Char.	M	Always "X".
0166	• Transmitter Output Power	Dec. in range -10.0 to 40.0 in dBW.	M	
0446	• Maximum Length Of Circuit	Int. in range 0 to 20000 in km.	M	
0141	• Date Of Bringing Into Use	Date.	M	
0546	• Two Dimensional Service Zone consisting of		M	
0069	either a ***Circular Zone***, defined by			
0070	Centre Geographical Coordinates	Long/Lat(dm).	R	Mandatory if the Two Dimensional Service Zone is smaller than the pre-defined ***Maritime Zone***.
0071	Radius	Int. in range 500 to 20000 in km.	R	Mandatory if the Two Dimensional Service Zone is smaller than the pre-defined ***Maritime Zone***.
0185	one or more ***Maritime Zones***, using			
0187	Code	5 Char.	R	Mandatory unless the Two Dimensional Service Zone is smaller than the pre-defined ***Maritime Zone***.
0156	• Nature Of Service Code	2 Char.	M	
	• ***Class Of Station*** of the ***Signal Configuration***, using			
0277	Code	2 Char.	M	Always "FC".
	• ***Administration*** notifying the ***Signal Configuration***, using			
0011	Code	Up to 3 Char.	M	
	• ***Correspondence Address*** to contact regarding matters of interference, using			
0094	Code	Up to 2 Char.	M	
	• ***Operator*** of the ***Signal Configuration***, using			
0219	Code	3 Char. in range 001 to 999.	O	
	For each ***Coordination Agreement*** obtained for the ***Signal Configuration***, provide the			
0090	• Status Code	Up to 6 Char.	BR	
	• ***Provision*** the ***Coordination Agreement*** is in respect of, using			
0608	Code	Up to 12 Char.	R	Mandatory if any RR provision is applicable.
	• ***Administration*** coordination is obtained with, using			
0011	Code	Up to 3 Char.	R	Mandatory if agreement is necessary and obtained.
	For each ***Regular Operation Period*** during which the ***Signal Configuration*** operates, provide the			

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
0307	• Start Time	Time in UTC.	M	
0308	• Stop Time	Time in UTC.	M	
	For each ***Traffic Characteristics*** that further defines the ***Signal Configuration***, provide the			
0465	• Start Peak Hours	Time.	M	
0466	• Stop Peak Hours	Time.	M	
0467	• Daily Volume	Int. in range 0 to 1440 in minutes.	M	
	For the ***Transmitting Antenna*** emitting the ***Signal Configuration***, provide the			
0037	• Geographical Coordinates	Long/Lat(dms).	R	Mandatory for initial allotments.
0122	• Directivity Indicator	True or False.	M	
0509	• Rotational Antenna Beam Start Azimuth	Dec. in range 0.0 to 359.9 in degrees.	R	Mandatory if the ***Transmitting Antenna*** beam is rotational or swept.
0510	• Rotational Antenna Beam Finish Azimuth	Dec. in range 0.1 to 360.0 in degrees.	R	Mandatory if the ***Transmitting Antenna*** beam is rotational or swept.
0147	• Horizontal Beamwidth	Dec. in range 0.1 to 359.9 in degrees.	R	Mandatory if the ***Transmitting Antenna*** is directional in the horizontal plane.
0129	• Maximum Gain	Dec. in range -5.0 to 10.0 in dB with Gain Reference Antenna Code.	R	Mandatory if ***Signal Configuration's*** Maximum Radiated Power is not supplied.
0108	• Azimuth Of Maximum Gain	Dec. in range 0.0 to 359.9 in degrees.	R	Mandatory if the ***Transmitting Antenna*** is directional in the horizontal plane.
0110	• Reference Pattern consisting of		O	
0110c	a ITU-R Antenna Characteristic Code	Up to 10 Char.		
	For the ***Site*** where the ***Transmitting Antenna*** may be located, provide the			
0267	• Name	Up to 30 Char.	R	Mandatory for initial allotments. Currently ***Site*** Name is only 20 characters. It is proposed this should be increased to 30 characters.
	• ***Maritime HF Allotment Area*** where the ***Site*** may be located, using			
0578	Code	Up to 6 Char.	M	Use symbols from Appendix 8 to the RDD.

2.19 Typical Transmitting Stations above 28 MHz

When a given frequency above 28 MHz is used by a large number of terrestrial transmitting stations of the same service, such a land mobile, with identical characteristics so that they can be represented by a typical station and notified under S11.17. This type of notification is not authorised for broadcasting stations (S11.19); nor for terrestrial transmitting stations in the same frequency band as an earth station (RR1225); nor for terrestrial transmitting stations operating in the frequency bands defined in Table II of Appendix S7 when their equivalent isotropically radiated power exceeds the limits given in this Table II (S11.21); nor for terrestrial transmitting stations in the frequency bands shared with space services listed in S21.7 and S21.6.

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Terrestrial Service Notice***, provide the			
0205	• BR Identification Code	10 Char.	R	Mandatory if the notification is a modification or suppression of an existing assignment. Currently BR Identification Code is only 9 characters. It is proposed this should be increased to 10 characters.
0206	• Intended Action Code	1 Char.	M	
0204	• Date Sent	Date.	O	
0202	• BR Date Received	Date.	BR	
0201	• Administration's Notice Code	Up to 20 Char.	O	
	• ***Provision*** under which the ***Terrestrial Service Notice*** is notified, using			
0608	Code	Up to 12 Char.	M	
	For the ***Signal Configuration*** which is the subject of the ***Terrestrial Service Notice***, provide the			
0345	• Assigned Frequency	Frequency.	M	
0348	• Reference (Carrier) Frequency	Frequency.	R	Mandatory if the modulation envelope is asymmetric.
0157	• Necessary Bandwidth Code	4 Char.	M	
0351	• Class Of Emission Code	Up to 5 Char.	M	
0159	• Power Measurement Method Code	1 Char.	M	
0166	• Transmitter Output Power	Dec. in range -5.0 to 40.0 in dBW.	R	Mandatory if Maximum Radiated Power is not supplied.
0155	• Maximum Radiated Power	Dec. in range 0.0 to 70.0 in dBW with Gain Reference Antenna Code.	R	Mandatory if the Transmitter Output Power and the ***Transmitting Antenna***'s Maximum Gain is not supplied.
0141	• Date Of Bringing Into Use	Date.	M	
0144	• Period Of Validity	Int. in range 1 to 30 in years.	O	
0161	• RR Conformity Indicator	True or False.	M	
0544	• Two Dimensional Roaming Zone consisting of		M	
0069	either a ***Circular Zone***, defined by			Mandatory if the ***Zone Boundary Coordinates*** or the ***Geographical Areas*** are not provided.
0070	Centre Geographical Coordinates	Long/Lat(dm).	R	Mandatory as defined in RDD 0069.
0071	Radius	Int. in range 1 to 20000 in km.	R	Mandatory as defined in RDD 0069.
0328	or between 3 and 6 ***Zone Boundary Coordinates,*** defined by			Mandatory if the ***Circular Zone*** or the ***Geographical Areas*** are not provided.
0329	Geographical Coordinates	Long/Lat(dms).	R	Mandatory as defined in RDD 0328.
0511	Sequence Number	Int. in range 1 to 6.	R	Mandatory as defined in RDD 0328.
0173	or one or more ***Geographical Area***s, using			Mandatory if the ***Zone Boundary Coordinates*** or the ***Circular Zones*** are not provided.
0174	Code	Up to 3 Char.	R	Mandatory as defined in RDD 0173.
0156	• Nature of Service Code	2 Char.	M	
	• ***Class Of Station*** of the ***Signal Configuration***, using			
0277	Code	2 Char.	M	
	• ***Administration*** notifying the ***Signal Configuration***, using			
0011	Code	Up to 3 Char.	M	
	• ***Correspondence Address*** to contact regarding matters of interference, using			
0094	Code	Up to 2 Char.	M	
	• ***Operator*** of the ***Signal Configuration***, using			
0219	Code	3 Char. in range 001 to 999.	O	

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Coordination Agreement*** obtained for the ***Signal Configuration***, provide the			
0090	• Status Code	Up to 6 Char.	BR	
	• ***Provision*** the ***Coordination Agreement*** is in respect of, using			
0608	Code	Up to 12 Char.	R	Mandatory if any RR provision is applicable.
	• ***Administration*** coordination is obtained with, using			
0011	Code	Up to 3 Char.	R	Mandatory if agreement is necessary and obtained.
	For each ***Regular Operation Period*** during which the ***Signal Configuration*** operates, provide the			
0307	• Start Time	Time in UTC	M	
0308	• Stop Time	Time in UTC	M	
	For the ***Transmitting Antenna*** emitting the ***Signal Configuration***, provide the			
0129	• Maximum Gain	Dec. in range -5.0 to 40.0 in dB with Gain Reference Antenna Code.	R	Mandatory if ***Transmitting Antenna*** is directional and the Maximum Radiated Power is not supplied.
	For the ***Site*** where the ***Transmitting Antenna*** is located, provide the			
0267	• Name	7 Char.	M	Always “Typical”.
	• ***Geographical Area*** where the ***Site*** is located, using			
0174	Code	Up to 3 Char.	M	

RADIOCOMMUNICATION DATA DICTIONARY

Section 3

DESCRIPTION OF TERRESTRIAL DATA ITEMS

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3.0 Introduction

This section lists all the data items required for notification and coordination. Provided for each data item are a description, the units of measurement and the likely range of values covering all radiosystems described in Section 2.

Each data item is a property of something that is known as a "data group" in the RDD. Each data group may have several data items. The names of many data groups are familiar (e.g. ***Antenna, Site, Terrestrial Service Notice***), however for some data groups there has been no identifiable name suitable and for these new names have had to be created (e.g. ***Signal Configuration***). If the reader is uncertain in which group a particular data item appears, it is listed by both name and RDD reference number in Section 10.

To make finding information easier, this section has been divided into a number of topics (e.g. Antenna Data). Each topic contains a number of data groups and its own table of contents, showing the data groups and the individual data items, referenced by page and RDD reference number.

3.0.1 Section 3 Structure and Usage

All topics within Section 3 are similarly structured with the data group being followed by the unique identifie statement, relationships to associated data groups, and its data items and their formats. It is important to understand this structure in order to obtain information accurately from this section.

More detailed information concerning the structure of Section 3 is shown in the example below. For the purposes of explanation, subsection 3.1 of the RDD has been copied below. This subsection contains the ***Administration*** data group along with some of the data items pertinent to an ***Administration.***

Example:

3.1 *Administration* **RDD ref: 0010**

A governmental department, or service, of a member state of the ITU responsible for discharging the obligations undertaken in the Constitution, the Convention and the Regulations of the ITU.

◊ An ***Administration*** is identified by its **Code**.

An ***Administration*** may be party to one or more ***Coordination Agreements*** **RDD ref: 0017**

An ***Administration*** may notify one or more ***Signal Configurations*** **RDD ref: 0016**

An ***Administration*** may submit one or more ***Correspondence Addresses*** **RDD ref: 0556**

An ***Administration*** may inform the BR of the address of one or more ***Operators*** **RDD ref: 0557**

An ***Administration*** may nominate one or more ***Sites*** **RDD ref: 0559**

- **Code** **RDD ref: 0011**

The code used to identify an ***Administration***.

A list of ***Administration* Codes** can be found in Appendix 1 to the RDD.

Recordings in the Master Register which do not result from a notification, such as allotments and frequencies for common use which are entered by the BR in accordance with the provisions of the Radio Regulations, are indicated by the symbol "ITU" in this column. This symbol now stands for the Radiocommunication Bureau (formerly International Frequency Registration Board).

Format: Up to 3 characters.

- **Name** **RDD ref: 0012**

The name of the member state.

Format: Text.

- **Official Postal Address** **RDD ref: 0013**

The postal address officially nominated by the ***Administration*** for the receipt of correspondence relating to radiocommunication matters.

Format: Text

- **Official Telex Address** **RDD ref: 0014**

The telex address officially nominated by the ***Administration*** for the receipt of correspondence relating to radiocommunication matters.

Format: Text.

- **Official Facsimile Address** **RDD ref: 0560**

The facsimile address officially nominated by the ***Administration*** for the receipt of correspondence relating to radiocommunication matters.

For the transmission of notification data the use of an **Official Facsimile Address** may be acceptable providing there is independent or automatic confirmation of origin of the fax. However, in some countries facsimile transmissions do not have the same legal status as telex transmissions.

Format: Text.

- **Official E-mail Address** **RDD ref: 0561**

The e-mail address officially nominated by the ***Administration*** for the receipt of correspondence relating to radiocommunication matters.

For the transmission of notification data the use of an **Official E-mail Address** may be acceptable providing there is independent or automatic confirmation of origin of the e-mail. However, in some countries facsimile transmissions do not have the same legal status as telex transmissions.

Format: Text.

- **ITU Language Code** **RDD ref: 0562**

An indication of an ITU officially recognised working language, chosen by the ***Administration*** for communication of notification data with the ITU.

Format: 1 character.

Code	Meaning
E	English
F	French
S	Spanish

In the example above:

"Administration" represents the data group name. All data group names in the RDD are presented in italics and bold typeface.

"**RDD ref: 0010**" represents the RDD reference number. All RDD reference numbers are presented in bold typeface.

Immediately below the data group name is the data group definition. This is presented in normal typeface and serves to uniquely define the data group.

Immediately below the data group definition is the data group's unique identifier statement. This statement identifies which properties of the data group are required to uniquely identify the data group. In this example, this identification statement states: "An ***Administration*** is identified by its **Code**." This means that by only knowing the ***Administration's*** **Code** the administration itself can be identified.

Below the unique identifier statement is a list of the relationships relevant to the data group. Relationships describe how this data group relates to other data groups. In this example, the relationships pertinent to ***Administration*** are: "An ***Administration*** may be party to many ***Coordination Agreements***;" "An ***Administration*** may notify many ***Signal Configurations***." This demonstrates that ***Administration*** is related to, or is related by, both ***Coordination Agreement*** and ***Signal Configuration***. Each relationship possesses its own RDD reference number for the purpose of identification.

Below the relationships are listed the data items belonging to each data group. Data items are individual pieces of data which form a part of each data group. Each data item is presented as bullets and the name is in title case and bold typeface. In this example, the data items associated with ***Administration*** are: "**Code**"; "**Name**"; "**Official Postal**

Address"; "**Official Telex Address**". The full data item name is read as ***Administration's* Code** or ***Administration's* Official Postal Address**.

By convention, if reference is made to a data item within the same data group, only the short data item name (e.g. **Code**) is used. If reference is made to a data item of another data group the full name is used.

Each data items is identified by an RDD reference number, a definition and a format statement. The format statement describes the format in which the data must be presented, the size of the field, and, in most cases its possible level of accuracy. In this example, the format statement for **Code** indicates that "Up to 3 characters" are permissible for supplying information concerning an ***Administration's* Code**.

All other topics within Section 3 of the RDD are structured in the same manner.

3.0.2 Notes

Note: *Indented and italicised notes appear in this section to draw attention to specific issues arising at the introduction of the RDD. It is expected that these notes will be removed from a later version of the RDD.*

REFERENCE DATA

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3.1	***Administration***	**RDD ref: 0010**	**79**
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3.2	***Coordination Agreement***	**RDD ref: 0088**	**81**
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3.3	***Correspondence Address***	**RDD ref: 0093**	**82**
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3.4	***Operator***	**RDD ref: 0218**	**83**
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3.5	***Terrestrial Service Notice***	**RDD ref: 0200**	**84**
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3.6	***Provision***	**RDD ref: 0605**	**85**
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3.1 *Administration* **RDD ref: 0010**

A governmental department, or service, of a member state of the ITU responsible for discharging the obligations undertaken in the Constitution, the Convention and the Regulations of the ITU.

◊ An ***Administration*** is identified by its **Code**.

An ***Administration*** may be party to one or more ***Coordination Agreements*** **RDD ref: 0017**

An ***Administration*** may notify one or more ***Signal Configurations*** **RDD ref: 0016**

An ***Administration*** may submit one or more ***Correspondence Addresses*** **RDD ref: 0556**

An ***Administration*** may inform the BR of the address of one or more ***Operators*** **RDD ref: 0557**

An ***Administration*** may nominate one or more ***Sites*** **RDD ref: 0559**

- **Code** **RDD ref: 0011**

The code used to identify an ***Administration***.

A list of ***Administration*** **Codes** can be found in Appendix 1 to the RDD.

Recordings in the Master Register which do not result from a notification, such as allotments and frequencies for common use which are entered by the BR in accordance with the provisions of the Radio Regulations, are indicated by the symbol "ITU" in this column. This symbol now stands for the Radiocommunication Bureau (formerly International Frequency Registration Board).

Format: Up to 3 characters.

- **Name** **RDD ref: 0012**

The name of the member state.

Format: Text.

- **Official Postal Address** **RDD ref: 0013**

The postal address officially nominated by the ***Administration*** for the receipt of correspondence relating to radiocommunication matters.

Format: Text

- **Official Telex Address** **RDD ref: 0014**

The telex address officially nominated by the ***Administration*** for the receipt of correspondence relating to radiocommunication matters.

Format: Text.

- **Official Facsimile Address** **RDD ref: 0560**

The facsimile address officially nominated by the ***Administration*** for the receipt of correspondence relating to radiocommunication matters.

For the transmission of notification data the use of an **Official Facsimile Address** may be acceptable providing there is independent or automatic confirmation of origin of the fax. However, in some countries facsimile transmissions do not have the same legal status as telex transmissions.

Format: Text.

- **Official E-mail Address** **RDD ref: 0561**

The e-mail address officially nominated by the ***Administration*** for the receipt of correspondence relating to radiocommunication matters.

For the transmission of notification data the use of an **Official E-mail Address** may be acceptable providing there is independent or automatic confirmation of origin of the e-mail. However, in some countries facsimile transmissions do not have the same legal status as telex transmissions.

Format: Text.

- **ITU Language Code** **RDD ref: 0562**

An indication of an ITU officially recognised working language, chosen by the ***Administration*** for communication of notification data with the ITU.

Format: 1 character.

Code	Meaning
E	English
F	French
S	Spanish

3.2 *Coordination Agreement* **RDD ref: 0088**

An agreement between two ***Administrations*** regarding the operation of a particular ***Signal Configuration*** and its maximum acceptable field strength at named test points under specified conditions. The named test points may be part of a designated contour, or a geographic or national boundary. A ***Coordination Agreement*** is required for each ***Administration*** that is adversely affected by the operation of the ***Signal Configuration***.

◊ A ***Coordination Agreement*** is identified by the **Provision** and the ***Signal Configuration*** that it is in respect of and the ***Administration*** with which it must be sought.

A ***Coordination Agreement*** must be sought with a single ***Administration*** **RDD ref: 0092**

A ***Coordination Agreement*** must be in respect of a single ***Signal Configuration*** **RDD ref: 0091**

A ***Coordination Agreement*** must be in respect of a single ***Provision*** **RDD ref: 0609**

- **Status Code** **RDD ref: 0090**

A code allocated by the BR to indicate progress on the ***Coordination Agreement***.

Format: Up to 6 characters.

Code	**Meaning**
COORD	Coordination requested by notifying ***Administration***
AFFECT	An ***Administration*** has been identified as potentially being affected by the ***Signal Configuration***
REFUSE	Agreement on the ***Signal Configuration*** has been refused by one or both ***Administrations***
AGREED	Agreement on the ***Signal Configuration*** has been given by an ***Administration***

3.3 *Correspondence Address* **RDD ref: 0093**

***Note**: In Appendix S4 this data item appears as optional, it is recommended that in future it should either be mandatory, or it should be deleted and the address of the notifying **Administration** appearing in the ITU Global Directory used instead.*

For a specific ***Geographical Area*** an alternative address to that of the 'Official' address of an ***Administration*** where communication should be sent (when requested by the notifying ***Administration***) on matters regarding interference, quality of emissions and questions referring to the notification of a specific ***Signal Configuration***.

◊ A ***Correspondence Address*** is identified by its **Code** and the notifying ***Administration*** by which it has been nominated.

A ***Correspondence Address*** must be nominated by a single ***Administration*** **RDD ref: 0563**

A ***Correspondence Address*** must have validity in one or more ***Geographical Areas*** **RDD ref: 0097**

A ***Correspondence Address*** may be used for one or more ***Signal Configurations*** **RDD ref: 0098**

- **Code** **RDD ref: 0094**

A code allocated by the BR to uniquely identify a ***Correspondence Address*** of an ***Administration***. Currently the **Code** used by the BR for identifying the ***Correspondence Address*** has been implemented in a manner that makes it specific to a single ***Geographical Area***. Hence if the same ***Correspondence Address*** appears in two ***Geographical Areas***, it is likely they will be identified by a different **Code**. This difference in **Code** applies even if the two ***Geographical Areas***, are the responsibility (under the Convention of the ITU and the Regulations) of the same ***Administration*** and the address is that of the notifying ***Administration***.

Format: Up to 2 characters.

- **Postal Address** **RDD ref: 0095**

The postal address nominated by the notifying ***Administration*** as the address to which correspondence relating to radiocommunication matters concerning a specific ***Terrestrial Service Notice*** should be sent.

Format: Text.

- **Telex Address** **RDD ref: 0096**

The telex address nominated by the notifying ***Administration*** as the address to which correspondence relating to radiocommunication matters concerning a specific ***Terrestrial Service Notice*** should be sent.

Format: Text.

- **Facsimile Address** **RDD ref: 0564**

The facsimile address nominated by the notifying ***Administration*** as the address to which correspondence relating to radiocommunication matters concerning a specific ***Terrestrial Service Notice*** should be sent.

Format: Number.

- **E-mail Address** **RDD ref: 0565**

The e-mail address nominated by the notifying ***Administration*** as the address to which correspondence relating to radiocommunication matters concerning a specific ***Terrestrial Service Notice*** should be sent.

Format: Text.

3.4 *Operator* **RDD ref: 0218**

An organization that is responsible for the operation of radio systems in a specific ***Geographical Area***. The **Code** used by the BR for identifying the ***Operator*** is specific to the ***Geographical Area.*** Hence if the same organization appears in two or more ***Geographical Areas,*** each occurrence is treated as a different ***Operator*** and it is likely they will be identified by a different **Code.**

◊ An ***Operator*** is identified by its **Code** and the ***Geographical Area*** within which it operates.

An ***Operator*** may operate within a single ***Geographical Area*** **RDD ref: 0221**

An ***Operator*** may be responsible for the operation of one or more ***Signal Configurations*** **RDD ref: 0222**

An ***Operator*** must have been registered with the BR by a single ***Administration*** **RDD ref: 0603**

- **Code** **RDD ref: 0219**

The code used to identify an ***Operator***. The **Code** is assigned to the ***Operator*** by the BR.

Format: 3 characters (in the numeric range 001 to 999).

- **Name** **RDD ref: 0220**

The name of the ***Operator,*** as submitted by the ***Administration***

Format: Text.

3.5 *Terrestrial Service Notice* **RDD ref: 0200**

A request, by an ***Administration*** to the Radiocommunication Bureau (BR) to register the details of a specific existing or proposed ***Signal Configuration*** in the Master International Frequency Register (MIFR).

Each ***Terrestrial Service Notice*** received by the BR is given a unique identification code (**BR identification Code**) which includes the year in four digits in which the ***Terrestrial Service Notice*** is received by the BR and a unique number**.**

◊ A ***Terrestrial Service Notice*** is identified by its **Identification Code**.

A ***Terrestrial Service Notice*** must be submitted in respect of a single ***Signal Configuration*** **RDD ref: 0208**

A ***Terrestrial Service Notice*** must be submitted according to the requirements of one or more ***Provisions*** **RDD ref: 0610**

- **BR Date Received** **RDD ref: 0202**

The date on which the ***Terrestrial Service Notice*** is received by the BR and as recorded by the BR. This date determines the seniority accorded to a specific ***Terrestrial Service Notice*** and is the date from which it must be taken into consideration, as a potential entry in the MIFR, by all subsequent ***Terrestrial Service Notices***.

Format: Date.

- **BR Identification Code.** **RDD ref: 0205**

A code used to uniquely identify a ***Terrestrial Service Notice***. The code is constructed from four digits for the year and six digits allocated sequentially within the year of receipt of the ***Terrestrial Service Notice*** by the BR.

If this is a new notification (i.e. the **Intended Action Code** is "A") then the **BR Identification Code** is supplied by the BR. However, if the notification concerns an existing entry in the MIFR for this ***Signal Configuration*** (i.e. the **Intended Action Code** is "M" or "S" or "R") then the notifying ***Administration*** must provide the **BR Identification Code** relating to the ***Signal Configuration***.

Example: 1998001234 (which represents notification 1234 within 1998)

Format: 10 characters.

Note: *Currently the* **BR Identification Code** *only records the last two numbers of the year of receipt preceded by a zero. It is considered essential to show the year in full. The RDD defines format as 10 characters as above.*

- **Intended Action Code** **RDD ref: 0206**

The reason why the ***Administration*** sent the ***Terrestrial Service Notice*** to the BR. There are five valid intended actions.

Format: 1 character.

Code	Meaning
A	Add: either a new notification or for Appendix S25 to the RR an additional allotment.
M	Modify: modification of an existing entry in the MIFR.
S	Suppress: deletion of an existing entry in the MIFR.
R	Replace: either replacement of an existing entry in the MIFR (Currently this only applies to electronic notification) or for Appendix S25 to the RR a replacement allotment
I	Initial: for Appendix S25 to the RR an initial allotment

- **Administration's Notice Code** **RDD ref: 0201**

A national identification code which may be used by an ***Administration*** to uniquely identify a ***Terrestrial Service Notice*** for its own purposes to aid its data management.

Format: Up to 20 characters.

- **Date Sent** **RDD ref: 0204**

The date on which the ***Administration*** sent the ***Terrestrial Service Notice*** to the BR.

Format: Date.

3.6 *Provision* **RDD ref: 0605**

The regulatory provisions under which notification or coordination has been requested or successfully completed, or agreement sought or reached (see Appendix 10 to the RDD).

◊ A ***Provision*** may be identified by its **Code**.

A ***Provision*** may determine the requirements for one or more ***Coordination Agreements*** **RDD ref: 0606**

A ***Provision*** may determine the requirements for one or more ***Terrestrial Service Notices*** **RDD ref: 0607**

- **Code** **RDD ref: 0608**

The means of identifying the regulatory ***Provision*** under which the ***Terrestrial Service Notice*** or ***Coordination Agreement*** is required.

Format: Up to 12 characters.

ANTENNA DATA

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3.12 *Type A Transmitting Antenna*	**RDD ref: 0380**	**98**
Electrical Height	**RDD ref: 0382**	**98**
3.13 *Type B Transmitting Antenna*	**RDD ref: 0381**	**99**
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3.14 ***Tower***	**RDD ref: 0389**	**101**
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Total Span	**RDD ref: 0358**	**105**
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3.7 *Site* **RDD ref: 0265**

A name used for the purpose of conveying the general position of ***Antennas*** without having to refer to the ***Antenna*'s Geographical Coordinates**.

◊ A ***Site*** is identified by its **Name** and the ***Administration*** by which it is submitted.

A ***Site*** must be submitted by a single ***Administration*** **RDD ref: 0567**

A ***Site*** may be the location of one or more ***Antennas*** **RDD ref: 0268**

A ***Site*** must be located within a single ***Geographical Area*** **RDD ref: 0040**

A *Site* may be used for transmission or reception during one or more ***Maximum Hours Of Operation*** **RDD ref: 0575**

- **Name** **RDD ref: 0267**

The name by which the ***Site*** is known e.g. the locality in which the ***Site*** is situated, as provided by the notifying ***Administration***. Appendix 7 to the RDD contains the list of standard abbreviations used to compress the ***Site*** names to 30 characters when the complete names are longer.

The name may consist of one or more words and may be structured similar to an address, with a number of 'locations' each becoming more generic than its predecessor

Note: *Despite the use of standard abbreviation, the current limitation to 20 characters appears insufficient. It is proposed to increase the size of this field to 30 characters*

Format: Up to 30 characters.

3.8 *Antenna* RDD ref: 0035

A device used for radiating, or receiving, electromagnetic waves. An ***Antenna*** may consist of a single element**,** or an array of radiating elements that are linked physically, or electronically, to form a single gain pattern. An ***Antenna*** includes both omni-directional and directional ***Antenna***.

An ***Antenna*** may be either one of the following types, a ***Transmitting Antenna*** or a ***Receiving Antenna*** or in some radio systems, both a ***Transmitting Antenna*** and a ***Receiving Antenna***.

Detailed information on ***Antenna*** (specifically for the HF, VHF and UHF frequency bands) can be found in Recommendations ITU-R BS.80, ITU-R BS.705 and ITU-R BS.1195. Formulae for Radio Relay Systems ***Antenna*** patterns in the range 1-40 GHz can be found in Recommendation ITU-R F.699.

The information presented in the following sections on ***Antenna*** is structured almost exclusively to the requirements of notification, where the location (i.e. the ***Antenna's*** **Geographical Coordinates**) and its effective performance are needed but not its precise identification. For coordination purposes those data items that describe the performance of a transmitting ***Antenna*** may theoretically be applied to a receiving ***Antenna***, due to the principle of reciprocity. However, in practice, due to size and cost limitations many receiving ***Antennas*** may be less sophisticated than the transmitting ***Antenna***, for example, at frequencies below 2 GHz - two common types of receiving antenna are a telescopic short monopole or whip antenna.

◊ An ***Antenna*** is for the purposes of notification and coordination, identified by its **Geographical Coordinates** and additionally for: a ***Receiving Antenna*** by its **Receiving System Noise Temperature**; a ***Transmitting Antenna*** by its **Height Above Ground Level**; a ***Type A Transmitting Antenna*** by its **Electrical Height**; a ***Directional Transmitting Antenna*** by its **Azimuth Of Maximum Gain**.

An ***Antenna*** must be located at a single ***Site*** **RDD ref: 0039**

- **Geographical Coordinates** **RDD ref: 0037**

Note: *Currently the* **Geographical Coordinates** *are recorded in either degrees and minutes or degrees minutes and seconds, depending on frequency band and sharing requirements. In the future it is proposed that the* **Geographical Coordinates** *are always recorded in degrees minutes and seconds.*

The geographical position of the physical centre of the ***Antenna***.

Format: Long/Lat in degrees, minutes and seconds.

- **Mast Identification** **RDD ref: 0038**

A code used for the identification of the mast on which the ***Antenna*** is mounted. It is used by the ***Administration*** for the identification of the ***Antenna's*** location within a ***Site*** and it may also be used for more precise identification of the ***Antenna*** location in the coordination process.

Format: Up to 20 characters.

- **Operator's Identification Code** **RDD ref: 0130**

A code notified by the ***Administration*** as the code used by the ***Operator*** for the identification of the ***Antenna*** and also optionally within the coordination process.

Format: Up to 20 characters.

3.9 *Receiving Antenna* **RDD ref: 0114**

A receiving antenna is a type of ***Antenna*** used for receiving electromagnetic waves at a fixed location.

◊ A ***Receiving Antenna*** is identified in the same way as its generic type (***Antenna***) i.e. ***Antenna's*** **Geographical Coordinates** and additionally its **Receiving System Noise Temperature**.

A ***Receiving Antenna*** may receive a signal from one or more ***Transmitting Antennas*** **RDD ref: 0117**

A ***Receiving Antenna*** may be the intended point of reception for one or more ***Signal Configurations*** **RDD ref: 0118**

- **Receiving System Noise Temperature** **RDD ref: 0160**

The temperature above absolute zero which is equivalent to the noise associated with the receiving system. The noise is generated from the ***Antenna's*** environment, the ***Receiving Antenna*** and from within the receiving system.

Format: Integer (in the range 20 to 6000) in Kelvin.

3.10 *Transmitting Antenna* RDD ref: 0119

A ***Transmitting Antenna*** is a type of ***Antenna*** (which may be omni-directional) used for radiating electromagnetic waves from a fixed location.

A ***Transmitting Antenna*** may be one of the following types: a ***Directional Transmitting Antenna***, ***Type A Transmitting Antenna***, or a ***Type B Transmitting Antenna***.

◊ A ***Transmitting Antenna*** is identified in the same way as its generic type (***Antenna***) i.e. ***Antenna's*** **Geographical Coordinates** and its **Height Above Ground Level**.

A ***Transmitting Antenna*** may transmit a signal to one or more ***Receiving Antennas*** **RDD ref: 0137**

A ***Transmitting Antenna*** must produce signals described by one or more ***Signal Configurations*** **RDD ref: 0136**

- **Directivity Indicator** **RDD ref: 0122**

An indicator used to identify if the ***Transmitting Antenna*** is directional.

Format: True or False.

- **Maximum Gain** **RDD ref: 0129**

Note: *The* **Maximum Gain** *is currently determined at the* ***Signal Configuration's Assigned*** **Frequency**, *however it is proposed that in future it should be determined at the mid-band point for the range of frequencies for which the* ***Antenna*** *is designed.*

The ratio of the power required at the input of a loss-free reference antenna (gain reference antenna code) to the power supplied to the input of the ***Transmitting Antenna*** to produce, in the direction of maximum radiation, the same field strength, or the same power flux-density at the same distance. The gain may be considered for a specified polarization. Whether the **Maximum Gain** is relative to a dipole, an isotrope or a short vertical ***Antenna*** is determined by the type of reference ***Antenna*** (e.g. dipole) used to determine the relative value of ***Antenna*** gain, this is described by the gain reference antenna code. The gain reference antenna code applies to ***Transmitting Antenna*** gain and ***Signal Configuration*** radiated power. The same gain reference antenna code must apply to both.

Format: A complex format comprised of

a) Decimal (in the range -5.0 to 60.0) to 1 decimal place in dB

and

b) Gain Reference Antenna Code.

- **Vertical Beamwidth** **RDD ref: 0168**

The angular width of the main lobe of radiation, measured in the vertical plane containing the direction of the **Maximum Gain**, within which the off-axis gain in any direction does not fall more than 3 dB below the value of the **Maximum Gain**.

Format: Decimal (in the range 0.1 to 180.0) to 1 decimal place in degrees.

- **Polarization Code** **RDD ref: 0131**

The code for representing the angular relationship between the plane of the electric field vector and the vertical, or horizontal plane. The angular relationship is observed in any fixed plane normal to the direction of propagation and whilst looking in the direction of propagation.

Format: Up to 2 characters.

Code	Meaning
CL	Left hand circular or indirect: the electric field vector rotates anti-clockwise.
CR	Right hand circular or direct: the electric field vector rotates clockwise.
D	Dual: when substantially equal-amplitude vertically and horizontally polarized components are radiated without particular control of the phase relation between them. Typically, the vertically and horizontally polarized sources may be displaced one from the other so that the resultant polarization varies between circular and slant, according to azimuth angle.
H	Horizontal linear: the electric field vector is in the horizontal plane.

M Mixed: the collective term applied when both vertical and horizontal components are radiated, embracing slant, circular and dual polarization.

SL Left hand slant: the electric field vector is in the plane rotated 45 degrees anti-clockwise from the vertical plane.

SR Right hand slant: the electric field vector is in the plane rotated 45 degrees clockwise from the vertical plane.

V Vertical linear: the electric field vector is in the vertical plane.

- **Physical Height** **RDD ref: 0536**

The distance from the base to the top of the ***Transmitting Antenna***. For an omni-directional monopole ***Antenna*** e.g.: LF/MF Broadcasting Region 1 and 3.

Format: Integer (in the range 10 to 300) in metres.

- **Height Above Ground Level** **RDD ref: 0125**

The height of the centre of the ***Transmitting Antenna*** above the level of the ground.

Format: Integer (in the range 0 to 1000) in metres.

- **Ground Altitude Above Mean Sea Level** **RDD ref: 0121**

The altitude of the ground above mean sea level where the ***Transmitting Antenna*** is located. The altitude is measured at the ***Antenna's*** **Geographical Coordinates** and may be positive or negative (i.e. it may be below sea level).

Format: Integer (in the range -1000 to 8848) in metres.

- **Effective Height Pattern** **RDD ref: 0123**

The pattern of the ***Transmitting Antenna's*** effective height for equally spaced angles of azimuth around the ***Antenna's*** **Geographical Coordinates**. The effective height of the ***Transmitting Antenna*** is defined as its height over the average level of the ground between distances of 3 and 15 km from the ***Transmitting Antenna*** in the direction of the receiver. Detailed information on effective height and the "VHF and UHF Propagation Curves For The Frequency Range 30 - 1000 MHz" can be found in Recommendation ITU-R P.370.

Format: 36 vectors defined by

Effective Antenna Height (RDD ref: 0123a); the effective height value at the specified Azimuth; integer (in the range -400 to 5000) in metres and

Azimuth (RDD ref: 0123b); the angle of the direction of the Effective Height value, measured in the horizontal plane from True North in a clockwise direction; integer (in the range 0 to 350 in multiples of 10) in degrees.

- **Maximum Effective Height** **RDD ref: 0128**

Note: *This data item is of no practical use without the azimuth at which the* **Maximum Effective Height** *occurs. It is therefore proposed that either the* **Azimuth Of Maximum Effective Height** *is recorded or the requirement for the* **Maximum Effective Height** *is deleted.*

The maximum value of the ***Transmitting Antenna's*** **Effective Height**.

VHF/UHF Broadcasting only.

Format: Integer (in the range -400 to 5000) in metres.

- **Azimuth Of Maximum Effective Height** **RDD ref: 0550**

Note: *The* **Maximum Effective Height** *is of no practical use without the azimuth at which the* **Maximum Effective Height** *occurs. It is therefore proposed that either the* **Azimuth Of Maximum Effective Height** *is recorded or the requirement for the* **Maximum Effective Height** *and this data item are deleted.*

The angle of the direction of the **Maximum Effective Height**, measured in the horizontal plane from True North in a clockwise direction.

VHF/UHF Broadcasting only.

Format: Integer (in the range 0 to 359) in degrees.

- **Ground Conductivity** **RDD ref: 0124**

Note: *The* **Ground Conductivity** *can be identified from a map and therefore it is proposed that in the future the requirement for supplying this data item is deleted. If not accepted, the basic requirement should be to align this information to its meaning, avoiding additional coding, namely the information should be notified in milli-siemens/m.*

A code used to identify a value of **Ground Conductivity** in the service area and determining which set of ground wave propagation curves contained in Section 2 of Annex 2 to the LF/MF Broadcasting Agreement, Geneva, 1975 are applicable.

Used for LF/MF Broadcasting.

Format: 1 character.

Code	Meaning
1	4000 milli-siemens/m.
2	30 milli-siemens/m.
3	10 milli-siemens/m.
4	3 milli-siemens/m.
5	1 milli-siemens/m.
6	0.3 milli-siemens/m.
7	0.1 milli-siemens/m.
8	0.03 milli-siemens/m.
9	0.01 milli-siemens/m.

- **Type Code** **RDD ref: 0133**

The code used to identify whether the ***Transmitting Antenna*** is a simple vertical antenna (e.g. a whip), or of a more complex construction (e.g. a ***Top-Loaded Tower***) and perhaps consisting of multiple ***Towers***.

LF/MF Broadcasting

Format: 1 character.

Code	Meaning
A	Simple vertical antenna.
B	Complex antenna construction: LF/MF Region 1 & 3 - a directional ***Antenna***; MF Region 2 - directional or omni-directional ***Antenna*** (including a ***Top-Loaded Tower*** or ***Sectionalised Tower***).

- **Design Frequency** **RDD ref: 0478**

The frequency at which the antenna construction is designed to be used. The **Design Frequency** is not necessarily the operating frequency.

HFBC only.

Format: Frequency (in the range 3.950 to 26.100) to 3 decimal places in MHz.

3.11 *Directional Transmitting Antenna* RDD ref: 0107

A ***Directional Transmitting Antenna*** is a type of ***Transmitting Antenna*** with a non uniform gain in the horizontal plane.

◊ A ***Directional Transmitting Antenna*** is identified in the same way as its generic type (***Antenna***) i.e. ***Antenna's*** **Geographical Coordinates** and additionally for a ***Transmitting Antenna*** by its **Height Above Ground Level** and its **Azimuth of Maximum Gain**.

- **Horizontal Beamwidth** **RDD ref: 0147**

The angular width of the main lobe of radiation, measured in the horizontal plane containing the direction of the ***Transmitting Antenna's*** **Maximum Gain,** within which the off-axis gain in any direction does not fall more than 3 dB below the value of the ***Transmitting Antenna's*** **Maximum Gain**.

Format: Decimal (in the range 0.1 to 359.9) to 1 decimal place in degrees.

- **Elevation Angle Of Maximum Gain** **RDD ref: 0109**

The angle measured in the vertical plane between the direction of the ***Transmitting Antenna*** **Maximum Gain** and the horizontal plane. The angle may be negative i.e. some ***Directional Transmitting Antennas*** may be pointing towards the ground.

Format: Decimal (in the range -90.0 to 90.0) to 1 decimal place in degrees.

- **Azimuth Of Maximum Gain** **RDD ref: 0108**

The angle of the direction of the ***Transmitting Antenna's*** **Maximum Gain**, measured in the horizontal plane from True North in a clockwise direction.

Format: Decimal (in the range 0.0 to 359.9) to 1 decimal place in degrees.

- **Azimuth To The Normal Of The Plane Of The Radiating Elements** **RDD ref: 0479**

The angle of the direction of maximum radiation for an unslewed beam, measured from True North in a clockwise direction in the horizontal plane. For an unslewed beam the normal of the plane of the radiating elements is the direction in which the ***Directional Transmitting Antenna*** is pointing.

Used in HF bands.

Format: Integer (in the range 0 and 359) in degrees.

- **Slew Angle** **RDD ref: 0480**

The angular difference between the **Azimuth Of The Normal To The Plane Of The Radiating Elements** (i.e. the direction of the maximum radiation of the unslewed beam), and the azimuth of the slewed beam. A positive slew angle is measured clockwise with respect to the **Azimuth Of The Normal To The Plane Of The Radiating Elements** and a negative slew angle is measured counter clockwise. The actual angle of slew may vary with operating frequency.

When an antenna beam is slewed horizontally, the horizontal radiation pattern is not symmetrical with respect to the azimuth of maximum radiation. The degree of the asymmetry increases as the magnitude of the slew angle increases. In addition as the slew angle increases, side-lobe gain also increases and the gain of the main lobe decreases.

The slew angle does not always precisely define the centre of the horizontal radiation pattern (see Recommendations ITU-R BS.80 and ITU-R BS.705). Slewing is usually effected by phase-shifting the feeds of horizontally displaced radiating elements and a consequence of this process is that the rearward directed side-lobes are rotated in the opposite direction to the main lobe.

Used in HF bands.

Format: Integer (in the range -30 to 30) in degrees.

- **Rotational Antenna Beam Start Azimuth** **RDD ref: 0509**

The angle of the direction of the ***Transmitting Antenna's*** **Maximum Gain** at the left hand edge of the sector swept by the rotational antenna beam, measured in the horizontal plane from True North in a clockwise direction.

Format: Decimal (in the range 0.0 to 359.9) to 1 decimal place in degrees.

- **Rotational Antenna Beam Finish Azimuth** **RDD ref: 0510**

The angle of the direction of the ***Transmitting Antenna's*** **Maximum Gain** at the right hand edge of the sector swept by the rotational antenna beam, measured in the horizontal plane from True North in a clockwise direction.

Format: Decimal (in the range 0.1 to 360.0) to 1 decimal place in degrees.

- **Radiator Type** **RDD ref: 0476**

An agreed set of characters used to identify the feeding arrangement for a horizontal dipole array. The dipole array may be centre-fed or end-fed.

In centre-fed arrays, each dipole element has its own feeding point. ***Directional Transmitting Antennas*** with two or more half-wavelength dipoles in a row of dipoles can be slewed. Centre-fed feeds are more complex but allow a greater slewing angle than an end-fed array for the same type of ***Directional Transmitting Antenna***.

In the end-fed array, two adjacent dipoles offer a common feeding point connected to a single transmission line. Slewing capability is provided when the number of the pairs of half-wavelength dipoles in a row is even.

Used in HF bands.

Format: 1 character.

Code	Meaning
C	Centre-fed antenna array.
E	End-fed antenna array.

- **Reflector Type** **RDD ref: 0477**

An agreed set of characters used to identify the type of reflector used in a horizontal dipole array. The reflector may be either a tuned reflector or an untuned reflector (aperiodic reflector).

Tuned reflectors have, in practice, a maximum operating frequency range which covers two adjacent broadcasting bands, giving a frequency range from the lowest to the highest frequency of approximately 1.25:1.

This type of reflector is generally tuned to provide the optimum front-to-back electric field ratio for a single frequency within the required frequency band and the front-to-back ratio can be expected to decrease if the ***Directional Transmitting Antenna*** is operated at any other frequency. This type of reflector is known as either a "tuned dipole" or a "parasitic reflector".

Untuned reflectors can be operated over a maximum of five consecutive broadcasting bands, giving an operating frequency range of up to 2:1. The range is limited by the performance of the radiating elements. This type of reflector is known as an "aperiodic reflector" or "screen reflector".

Used in HF bands.

Format: 1 character.

Code	Meaning
T	Tuned reflector: an identical array of dipoles tuned to provide an optimum front-to-back ratio over a limited range of operating frequencies.
A	Aperiodic reflector: a screen consisting of horizontal wires which act as an untuned reflector.

- **Horizontally Polarized Component Horizontal Attenuation Pattern** **RDD ref: 0273**

The pattern of the attenuation values for a horizontally polarized ***Antenna*** measured with respect to 0 dB in the horizontal plane at equally spaced azimuths around the ***Antenna's*** **Geographical Coordinates**. The point of 0 dB is taken in the direction of the ***Transmitting Antenna*** **Maximum Gain**.

Format: 36 vectors defined by

Attenuation (RDD ref: 0273a); the attenuation at the specified Azimuth; Decimal (in the range 0.0 to 40.0) to 1 decimal place in dB and

Azimuth (RDD ref: 0273b); the angle, measured in the horizontal plane from True North in a clockwise direction; Integer (in the range 0 to 350 in multiples of 10) in degrees.

- **Vertically Polarized Component Horizontal Attenuation Pattern** **RDD ref: 0060**

The pattern of the attenuation values for a vertically polarized ***Antenna*** measured with respect to 0 dB in the horizontal plane at equally spaced azimuths around the ***Antenna's*** **Geographical Coordinates**. The point of 0 dB is taken in the direction of the ***Transmitting Antennas*** **Maximum Gain**.

Format: 36 vectors defined by

Attenuation (RDD ref: 0060a); the attenuation at the specified Azimuth; Decimal (in the range 0.0 to 40.0) to 1 decimal place in dB and

Azimuth (RDD ref: 0060b); the angle, measured in the horizontal plane from True North in a clockwise direction; Integer (in the range 0 to 350 in multiples of 10) in degrees.

- **Horizontal Gain Pattern** **RDD ref: 0507**

The pattern of the ***Directional Transmitting Antenna*** gain measured in the horizontal plane for equally spaced azimuths around the ***Antenna's*** **Geographical Coordinates**. The gain reference antenna code applies to ***Transmitting Antenna*** gain and ***Signal Configuration*** radiated power. The same gain reference antenna code must apply to both.

Format: A complex format comprised of :

a) 36 vectors defined by

Gain (RDD ref: 0507a); the value of gain at the specified Azimuth; Decimal (in the range -5.0 to 50.0) to 1 decimal place in dB and

Azimuth (RDD ref: 0507b); the angle, measured in the horizontal plane, from True North in a clockwise direction; Integer (in the range 0 to 350 in multiples of 10) in degrees.

and

b) gain reference antenna code.

- **Vertical Gain Pattern** **RDD ref: 0502**

The pattern of the ***Directional Transmitting Antenna*** gain values measured in the vertical plane containing the direction of the ***Transmitting Antennas*** **Maximum Gain**. The gain values are measured for equally spaced elevation angles with the ***Directional Transmitting Antenna's*** direction of pointing equal to zero degrees elevation angle. Depending on the operational circumstances the elevation angle may include negative angles. The gain may be considered for a specified polarization. The gain reference antenna code applies to ***Transmitting Antenna*** gain and ***Signal Configuration*** radiated power. The same gain reference antenna code must apply to both.

Format: A complex format comprised of :

a) up to 19 vectors defined by

Gain (RDD ref: 0502a); the value of gain at the specified Elevation Angle; Decimal (in the range -5.0 to 60.0) to 1 decimal place in dB and

Elevation Angle (RDD ref: 0502b); the angle measured in the vertical plane between the direction of the gain value and the horizontal plane; Integer (in the range -90 to 90 in multiples of 10) in degrees.

and

b) Gain Reference Antenna Code.

- **Elevation Gain Pattern** **RDD ref: 0508**

The pattern of the ***Directional Transmitting Antenna*** gain values measured in the vertical plane at equally spaced azimuths, for each of nine elevation angles, around the ***Antenna's*** **Geographical Coordinates**. The gain may be considered for a specified polarization. The **Horizontal Gain Pattern** provides the gain values at zero degrees elevation angle. The gain reference antenna code applies to ***Transmitting Antenna*** gain and ***Signal Configuration*** radiated power. The same gain reference antenna code must apply to both.

Format: A complex format comprised of :

a) up to 36 vectors repeated for each one of 9 Elevation Angles.

Elevation Angle (RDD ref: 0508c); the angle measured in the vertical plane between the direction of the gain value and the horizontal plane; Integer (in the range 10 to 90 in multiples of 10) in degrees, with each vector defined by the Gain (RDD ref: 0508a); the value of gain at the specified Azimuth; Decimal (in the range -5.0 to 60.0) to 1 decimal place in dB and

Azimuth (RDD ref: 0508b); the angle of the direction of the gain value, measured in the horizontal plane from True North in a clockwise direction; Integer (in the range 0 to 350 in multiples of 10) in degrees for each

and

b) gain reference antenna code.

- **Reference Pattern** **RDD ref: 0110**

A description of the ***Directional Transmitting Antenna's*** horizontal and vertical gain patterns recorded with the BR as a reference for reuse on many notifications.

Format: a full horizontal and vertical gain pattern defined by either

Antenna Gain Equation (RDD ref: 0110a); one or more mathematical expression(s) that define the gain characteristics of the antenna e.g. Radio Relay systems 1-40 GHz in Recommendation ITU-R F.699-2; Formula,

or

Antenna Gain Polar Diagram (RDD ref: 0110b); the graphical representation in polar form of an ***Antenna***'s gain against off-axis angle; Diagram,

or

ITU-R Antenna Characteristic Code (RDD ref: 0110c); a code identifying a standard description of antenna characteristics in Recommendations ITU-R BS.705-1 and ITU-R BS.1195; Up to 10 characters.

3.12 *Type A Transmitting Antenna* **RDD ref: 0380**

A ***Type A Transmitting Antenna*** is a type of ***Transmitting Antenna*** of simple construction (e.g. a vertical monopole) with a uniform gain in the horizontal plane.

For very tall ***Type A Transmitting Antennas*** the propagation velocity within the ***Antenna*** may be lower than that of free space thus reducing the wavelength within the ***Antenna***. This difference in propagation velocity occurs due to the ***Antenna*** having a finite thickness and may result in a difference between the physical height and the **Electrical Height**, however for the ***Type A Transmitting Antenna*** no distinction is made for the impact of this effect.

To obtain efficient radiation from the ***Type A Transmitting Antenna***, an Earth system (e.g. a number of radial wires) may be used on poorly conducting ground. The vertical radiation pattern is significantly affected by the ground constants (e.g. ***Transmitting Antenna's*** **Ground Conductivity**) as well as other physical parameters (e.g. **Electrical Height**).

Used for MF Broadcasting.

◊ A ***Type A Transmitting Antenna*** is identified in the same way as its generic type (***Antenna***) i.e. ***Antenna***'s **Geographical Coordinates** and additionally by its **Electrical Height**.

- **Electrical Height** **RDD ref: 0382**

The physical height of the ***Type A Transmitting Antenna*** above the level of the ground, measured as a portion of a wavelength and expressed in degrees. The height of the ***Type A Transmitting Antenna*** is determined at the ***Signal Configuration's*** **Assigned Frequency**. The **Electrical Height** for a ***Type A Transmitting Antenna*** is "G" in the diagram of a simple ***Tower*** (see Figure 1).

This data item is identical to ***Tower*** **Electrical Height** (RR Appendix S4 item 9T7).

Format: Decimal (in the range 50.0 to 250.0) to 1 decimal place in degrees.

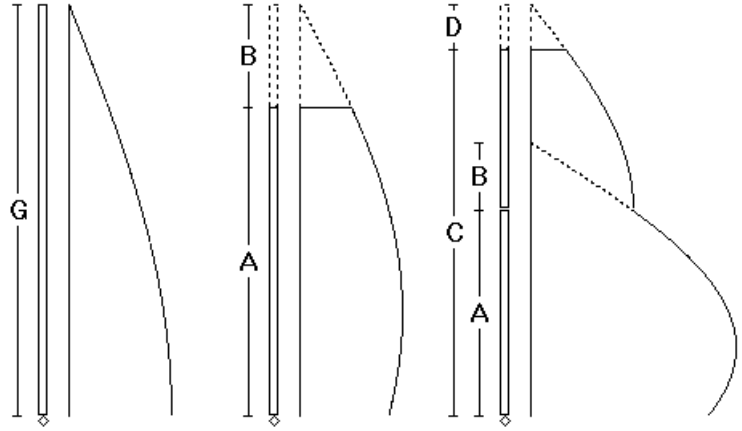
3.13 *Type B Transmitting Antenna* RDD ref: 0381

A ***Type B Transmitting Antenna*** is a type of ***Transmitting Antenna*** that is of complex construction (e.g. multiple ***Towers***) which may, or may not, have a uniform gain in the horizontal plane.

The ***Type B Transmitting Antenna*** consists of one or more ***Towers.*** The construction of the individual ***Towers*** may comprise a simple vertical ***Tower,*** a ***Top Loaded Tower*** or a ***Sectionalised Tower*** which may also have top loading. A single ***Top Loaded Tower*** or a ***Sectionalised Tower*** may be used to provide an omni-directional pattern, either because of space limitations or to improve the radiation characteristics from those of simple vertical ***Antenna***.

Used for MF Broadcasting.

FIGURE 1 **Current distribution in the tower**



Simple Top Loaded Tower Sectionalized Tower Tower

In Figure 1 to the right of each ***Tower*** is a diagram showing the current distribution in the ***Tower***; it is assumed to be sinusoidal. To the left of each ***Tower*** is the labelling for the various dimensions. The letters correspond to the values used in the formulas in Appendices 3 and 4 to Annex 2 of *Final Acts of the Regional Administrative MF Broadcasting Conference (Region 2)*, Rio de Janeiro, 1981. The solid lines show the actual construction, while the dotted lines show apparent values, based on the assumed sinusoidal current distribution.

The value shown as **G** is the **Electrical Height** of a simple vertical ***Tower*** (***e.g. Type A Transmitting Antenna***). For this type of ***Tower***, the physical height and the apparent electrical height (based on the assumed sinusoidal current distribution) are equal. Generally, there is no need to distinguish between them; in fact, use of the term "apparent" leads to confusion because it implies a difference between them.

For the ***Top-Loaded Tower***: **A** is the physical height of the ***Tower***; **B** is the difference between the apparent electrical height (based on the assumed sinusoidal current distribution) and the actual (physical) height of the ***Tower***, **A**. In other words, the apparent electrical height of the ***Tower*** is **A** + **B**.

For the ***Sectionalized Tower***: **A** is the physical height of the lower section of the ***Tower;*** **B** is the difference between the apparent height of the lower section of the ***Tower*** and the actual height of the lower section of the ***Tower***; **C** is the physical height of the entire ***Tower*** (both lower and upper sections); **D** is the difference between the apparent height of the entire ***Tower*** and the actual height of the entire ***Tower***. In other words, the apparent electrical height of the lower section of the ***Tower*** is **A** + **B**, and the apparent electrical height of the entire ***Tower*** is **C** + **D**. Note that this is the general case where the ***Sectionalized Tower*** is itself top-loaded. If the ***Sectionalized Tower*** is not top loaded, then **D** is zero.

◊ A ***Type B Transmitting Antenna*** is identified in the same way as its generic form (***Antenna***) i.e. ***Antenna's*** **Geographical Coordinates**.

A ***Type B Transmitting Antenna*** must have its radiation pattern modified by the use of one or more ***Antenna Radiation Pattern Augmentations***
(This only applies when ***Pattern Type*** is M) **RDD ref: 0384**

A ***Type B Transmitting Antenna*** must consist of one or more ***Towers*** **RDD ref: 0385**

- **Pattern Type** **RDD ref: 0383**

An agreed set of characters used to identify the type of ***Type B Transmitting Antenna*** gain pattern.

Format: 1 character.

Code	Meaning
T	Theoretical pattern: calculated using the information on the ***Tower*** location, the phase of the electric field and the field strength radiated by each ***Tower***. A theoretical pattern may be omni-directional or directional.
E	Expanded pattern: produced by the quadrature addition of the theoretical pattern field strength in a specific direction and the field strength required to allow for inaccuracies in ***Antenna*** feeding and terrain conditions. The resulting combined field strength is known as the expanded quadrature factor or the normal quadrature factor and is one of the methods used to map the theoretical radiation pattern to the actual radiation pattern produced by the ***Antenna***.
M	Augmented (a modified expanded) pattern: an expanded pattern that has been modified by one or more ***Antenna Radiation Pattern Augmentations***. Augmentation may also be used to map the theoretical radiation pattern to the actual radiation pattern produced by the ***Antenna***.

- **Special Quadrature Factor** **RDD ref: 0359**

The value of field strength produced by the quadrature addition of the theoretical pattern field strength in the specified direction and a compensating field strength required to allow for inaccuracies in ***Antenna*** feeding and terrain conditions. The **Special Quadrature Factor** is used to replace the field strength known as the expanded pattern quadrature factor for both expanded radiation patterns and augmented radiation patterns, when the expanded pattern quadrature factor cannot compensate for inaccuracies in ***Antenna*** feeding and terrain conditions and which may result in instability in the radiated pattern. The **Special Quadrature Factor** is measured at 1 km from the ***Antenna's*** **Geographical Coordinates**.

The expanded pattern quadrature factor is calculated from the standardised quadrature factor in the horizontal plane (see RJ81 Annex 2, Appendix 3 section 2.7) for the antenna pattern. The modification of an expanded antenna pattern (i.e. augmentation) does not automatically require a change in the value of the expanded pattern quadrature factor for the resulting augmented pattern.

Format: Decimal (in the range 0.01 to 10.00) to 2 decimal places in mV/m.

3.14 *Tower* **RDD ref: 0389**

A physical support for the radiating elements which form part of a ***Type B Transmitting Antenna***. A ***Tower*** may be of standard construction and known simply as a ***Tower*** or it may also be one of the following types: a ***Sectionalised Tower,*** or a ***Top Loaded Tower***.

For frequencies below HF a number of ***Towers***, perhaps supporting several radiating elements, are often used to form a single ***Antenna***. The ***Tower*** may simply be a support for the radiating elements, or it may form part, if not all of, the radiating element itself.

For MF assignments in Region 2 different reference points are often used for different types of measurement, i.e. one reference point is used for determining the **Electrical Spacing** and the **Angular Orientation** and another reference point for determining the **Field Phase Difference** and **Field Strength Ratio**. Different reference points are often used when the common reference point for determining the **Electrical Spacing** and the **Angular Orientation** is not a ***Tower*** but a set of geographical coordinates within or external to the ***Antenna*** array. The reference point for the **Field Phase Difference** and **Field Strength Ratio** should always be a ***Tower*** and where it is not, this can be easily recognised and corrected during paper notification. It is proposed that the same reference point should be used for all measurements and that this reference point should be one of the ***Towers***.

Used for MF Broadcasting.

◊ A ***Tower*** is identified by the ***Type B Transmitting Antenna*** of which it forms part and its ***Tower*** **Identification Number**

A ***Tower*** must form a part of a single ***Type B Transmitting Antenna*** **RDD ref: 0398**

- **Reference Number** **RDD ref: 0391**

The number of the ***Tower*** to be used as the reference point for the measurement of the **Electrical Spacing**, **Angular Orientation**, **Field Phase Difference** and **Field Strength Ratio** to the ***Tower*** under consideration.

Format: Integer (in the range 1 to 12).

Note: *The current BR practice is based on RJ81 Plan. It is proposed that in future the definition of this data item should be changed to "The number of the* ***Tower*** *to be used as the reference point for the measurement of the* **Electrical Spacing, Angular Orientation, Field Phase Difference** *and* **Field Strength Ratio** *to the* ***Tower*** *under consideration." The name has therefore been changed for compatibility with this proposed revision of the definition.*

The current BR practice is as follows. An agreed set of characters used to identify the location of the ***Tower*** *to be used as the reference point for the measurement of the* **Electrical Spacing** and **Angular Orientation** *to the* ***Tower*** *under consideration. The reference point may not be a physical* ***Tower*** *and sometimes the centre of the* ***Antenna*** *array is used or even a reference point outside the* ***Antenna*** *array. For the purpose of recording the reference point and standardising the definition, this reference point may be considered as a dummy* ***Tower*** *with no electrical properties.*

Currently the reference ***Tower*** *is supplied with a code as indicated below.*

Format: 1 Character (in the numeric range 0 to 1).

Code	***Meaning***
0	*The* ***Electrical Spacing*** *and* ***Angular Orientation*** *are determined with respect to a common reference point, which is generally the first* ***Tower***
1	*The* ***Electrical Spacing*** *and* ***Angular Orientation*** *are determined with respect to the previous* ***Tower***

- **Identification Number** **RDD ref: 0396**

The number identifying the ***Tower*** under consideration.

Format: Integer (in the range 1 to 12).

- **Structure Code** **RDD ref: 0397**

The code used to identify the electrical characteristics of the ***Tower*** structure.

Format: 1 character (in the numeric range 0 to 2).

Code	Meaning
0	a **Tower** (simple vertical)
1	a **Top Loaded Tower**
2	a **Sectionalised Tower**

- **Angular Orientation** **RDD ref: 0390**

The angle measured at the point of location of the reference ***Tower*** (identified by the **Reference Number**) in a clockwise direction in the horizontal plane from True North to the direction of the ***Tower*** under consideration.

Format: Decimal (in the range 0.00 to 359.99) to 2 decimal places in degrees.

- **Electrical Spacing** **RDD ref: 0392**

The distance between to the ***Tower*** under consideration and the reference ***Tower*** (identified by the **Reference Number**) measured in wavelengths at the ***Signal Configuration's*** **Assigned Frequency**.

Note: *Definition is in accordance with* **Reference Number RDD ref: 0391**.

Format: Decimal (in the range 40.00 to 1200.00) to 2 decimal places in degrees.

- **Electrical Height** **RDD ref: 0394**

The physical height of the ***Tower*** (see Fig. 1) above the level of the ground as a portion of a wavelength and expressed in degrees. The height of the ***Tower*** is determined at the ***Signal Configuration's*** **Assigned Frequency**.

Note: *Definition is in accordance with* **Reference Number RDD ref: 0391**.

Format: Decimal (in the range 50.0 to 250.0) to 1 decimal place in degrees.

- **Field Phase Difference** **RDD ref: 0393**

The phase angle, measured at the respective ***Towers,*** between the field radiated from the ***Tower*** under consideration and the field radiated from the reference ***Tower*** (identified by the **Reference Number**). A positive phase difference means the field leads the reference ***Tower*** field and a negative phase angle means that it lags the reference ***Tower*** field.

Note: *Definition is in accordance with* **Reference Number RDD ref: 0391**.

Format: Decimal (in the range -359.99 to 359.99) to 2 decimal places in degrees.

- **Field Strength Ratio** **RDD ref: 0395**

Note 1: *This data is currently recorded to an accuracy of 2 decimal places, it is proposed in the future to increase this to 4 decimal places as the* ***Antenna*** *patterns generated by computer are sometimes very sensitive to very small changes in* **Field Strength Ratio**.

Note 2: *Definition is in accordance with* **Reference Number RDD ref: 0391**.

The ratio measured at the respective ***Towers*** of the field strength from the ***Tower*** under consideration and the field strength from the reference ***Tower*** (identified by the **Reference Number**).

Format: Decimal (in the range 0.0000 to 10.0000) to 4 decimal places.

3.15 *Sectionalised Tower* RDD ref: 0375

A ***Sectionalised Tower*** is a type of ***Tower*** that is constructed with electrically isolated sections each of which is fed independently.

Constructing the ***Tower*** in electrically isolated sections increases the radiation resistance of the ***Sectionalised Tower's*** lower section, reducing the propagation velocity within the ***Antenna*** to less than the value of free space and shortening the wavelength within the lower section of the ***Sectionalised Tower*** by an equivalent amount. Hence the lower section of the ***Sectionalised Tower*** appears to the transmitter to be longer than its actual physical height. The upper section of a ***Sectionalised Tower*** may itself be top loaded. For a ***Sectionalised Tower*** that is not top loaded the **Height Difference** is zero.

Used for MF Broadcasting.

◊ A ***Sectionalised Tower*** is identified by the ***Type B Transmitting Antenna*** of which it forms part and its ***Tower*** **Identification Number**.

- **Lower Section Height Difference** **RDD ref: 0376**

The difference between the apparent electrical height (based on current distribution) of the lower section and the **Lower Section Electrical Height** (i.e. the physical height of the lower section). The **Lower Section Height Difference** is measured as a portion of wavelength at the ***Signal Configuration*** **Assigned Frequency** and expressed in degrees. The **Lower Section Height Difference** for a ***Type B Transmitting Antenna*** is "B" in the diagram of a ***Sectionalised Tower*** (see Fig. 1).

Format: Decimal (in the range 0.0 to 180.0) to 1 decimal place in degrees.

- **Lower Section Electrical Height** **RDD ref: 0377**

The physical height in wavelength of the lower section of the ***Sectionalised Tower***, above the level of the ground. The **Lower Section Electrical Height** is measured as a portion of wavelength at the ***Signal Configuration*** **Assigned Frequency** and expressed in degrees. The **Lower Section Electrical Height** for a ***Type B Transmitting Antenna*** is "A" in the diagram of a ***Sectionalised Tower*** (see Fig. 1).

Format: Decimal (in the range 50.0 to 250.0) to 1 decimal place in degrees.

- **Height Difference** **RDD ref: 0379**

The difference between the apparent electrical height, based on current distribution, of the total ***Sectionalised Tower*** and the ***Tower*** **Electrical Height** (i.e. the physical height of the complete ***Sectionalised Tower)***. The **Height Difference** is measured as a portion of wavelength at the ***Signal Configuration*** **Assigned Frequency** and expressed in degrees (see Fig. 1). The **Height Difference** for a ***Type B Transmitting Antenna*** is "D" in the diagram of a ***Sectionalised Tower***. For a ***Sectionalised Tower*** that is itself not top loaded this value is zero.

Format: Decimal (in the range 0.0 to 30.0) to 1 decimal place in degrees.

3.16 *Top Loaded Tower* RDD ref: 0386

A ***Top Loaded Tower*** is a type of ***Tower*** with a physical height of less than a half wavelength which has had its radiation resistance increased by the use of top-loading (e.g. a horizontal section at the top of the antenna). One of the effects of top-loading is to reduce the propagation velocity within the ***Antenna*** to less than the value of free space and this shortens the wavelength within the ***Antenna*** by an equivalent amount. Hence the ***Antenna*** appears to the transmitter to be longer than its actual physical height.

Used for MF Broadcasting.

◊ A ***Top Loaded Tower*** is identified by the ***Type B Transmitting Antenna*** of which it forms part and its ***Tower*** **Identification Number**.

- **Height Difference** **RDD ref: 0388**

The difference between the apparent electrical height based on current distribution of the total top loaded tower and the ***Tower*** **Electrical Height** (i.e. the physical height of the complete ***Top Loaded Tower)***. The ***Height Difference*** is measured as a portion of wavelength at the ***Signal Configuration*** **Assigned Frequency** and expressed in degrees. The ***Height Difference*** for a ***Type B Fixed Transmitting Antenna*** is "B" in the diagram of ***Top Loaded Tower*** (see Fig. 1). If this value is zero then the ***Tower*** is not ***Top Loaded***.

This data item is identical to ***Sectionalised Tower*** **Height Difference** (**RDD ref: 0379**) RR Appendix S4 item 9T9D.

Format: Decimal (in the range 10.0 to 180.0) to 1 decimal place in degrees.

3.17 *Antenna Radiation Pattern Augmentation* **RDD ref: 0354**

An ***Antenna Radiation Pattern Augmentation*** forms part of a ***Type B Transmitting Antenna*** radiation pattern where the pattern has been augmented (modification of an expanded pattern). A single ***Type B Transmitting Antenna*** pattern can have one or more than one augmentation or "patch".

The purpose of augmentation is to modify an expanded pattern between two azimuth angles. Augmentation may be positive (resulting in a higher level of radiation than an expanded pattern) or negative (resulting in a lower level of radiation than an expanded pattern). However, in no case shall the augmentation be so negative that the field strength represented by the augmented radiation pattern is less than the field strength produced by the theoretical radiation pattern. Augmentation may be used for the intended modification of the existing radiation pattern to increase the coverage area or to decrease interference into neighbouring radio systems. It may also be used to more accurately define the existing radiation pattern when inaccuracies in ***Antenna*** feeding and terrain conditions have caused the field strength in a particular area to deviate from the previously predicted pattern.

Spans of individual augmentations may overlap. That is an augmentation may itself be modified by a subsequent augmentation. To ensure that the calculations are consistently made, the augmentations are calculated in increasing order of central azimuth of augmentation starting at True North. If several augmentations have the same **Central Azimuth**, then the largest **Total Span** is handled first. If more than one augmentation has the same **Central Azimuth** and the same **Total Span**, then they are considered in ascending order of their effect on the radiation pattern.

Used only where ***Type B Transmitting Antenna***'s **Pattern Type** = 'M'.

Used for MF Broadcasting.

◊ An ***Antenna Radiation Pattern Augmentation*** is identified by its **Serial Number** and the ***Type B Transmitting Antenna*** whose pattern it has modified.

An ***Antenna Radiation Pattern Augmentation*** must modify the radiation pattern for a single ***Type B Transmitting Antenna*** **RDD ref: 0054**

- **Serial Number** **RDD ref: 0357**

The number identifying the ***Antenna Radiation Pattern Augmentation.***

Format: Integer (in the range 1 to 99).

- **Central Azimuth** **RDD ref: 0356**

The angle of the centre of the augmentation (i.e. the centre of the **Total Span**) measured, from True North in a clockwise direction in the horizontal plane.

Format: Decimal (in the range 0.00 to 359.99) to 2 decimal places in degrees.

- **Total Span** **RDD ref: 0358**

The angular range of the augmentation pattern.

Format: Decimal (in the range 0.0 to 359.9) to 1 decimal place in degrees.

- **Central Azimuth Field Strength** **RDD ref: 0355**

The value of wanted field strength at the **Central Azimuth** of augmentation measured at 1 km from the ***Antenna*** **Geographical Coordinates**. This value should always be equal to, or greater than, the value from the theoretical pattern.

Format: Decimal (in the range 0.0 to 9999.9) to 1 decimal place in mV/m.

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3.18 *Day Of Operation* RDD ref: 0498

A 24 hour period from midnight to midnight when the ***Signal Configuration*** is emitted. The ***Day Of Operation*** is required when the ***Signal Configuration*** is not broadcast on each day of the week.

Note: *For reference to satellite operations it may be necessary to use the sidereal day which is approximately 23 hours 56 minutes.*

Used in HF bands.

◊ A ***Day Of Operation*** is identified by its **Name**.

A ***Day Of Operation*** may be the emission period for one or more ***Signal Configurations***. **RDD ref: 0499**

- **Name** **RDD ref: 0531**

The name of the ***Day Of Operation***.

Format: Up to 9 Characters (i.e.: Monday, Tuesday, Wednesday, Thursday, Friday, Saturday or Sunday).

3.19 *Season Of Operation* **RDD ref: 0246**

Note: *The **Season Of Operation** was deleted at WRC97 however it is still required for HFBC and it is therefore proposed that these data items should be included in the notification requirements in Appendix S4.*

A period of time during a year in which a HF Broadcasting station is expected to transmit the notified ***Signal Configuration*** to its identified service zone.

Administrations shall normally submit their projected broadcasting schedules in the relevant frequency bands to the BR twice a year. If an ***Administration*** considers it necessary to take account of propagation changes during the schedule period, it is recommended, for reasons of spectrum efficiency, that such requirements should be implemented in May and September.

A **Start Date** and **Stop Date** within a schedule period may be used to cater for requirements that have different dates to the ***Season Of Operation*** for example: special events, clock changes on different dates not coincident with the ***Season Of Operation*** schedule period.

Administrations may include in their schedules for assignments up to one year in advance of their use.

◊ A ***Season Of Operation*** is identified by its **Code**.

A ***Season Of Operation*** may be the emission period for one or more ***Signal Configurations*** **RDD ref: 0248**

- **Code** **RDD ref: 0247**

The code used to identify the ***Season Of Operation***. A new ***Season Of Operation*** shall start at 0100 UTC.

The two main ***Seasons Of Operation*** are from March to October (***Season Of Operation*** A) and from October to March (***Season Of Operation*** B). The additional ***Seasons Of Operation*** periods are produced by subdividing ***Season Of Operation*** A.

Format: Up to 5 characters.

Code	**Meaning**
A	Last Sunday of March to last Sunday of October
B	Last Sunday of October to last Sunday of March
A1	Last Sunday of March to First Sunday in May
A2	First Sunday in May to first Sunday in September
A3	First Sunday in September to the last Sunday in October
YXXXX	Full year, from last Sunday of March (1st year) to last Sunday of March (2nd year) Where XXXX represents the 1st year.

- **Start Date** **RDD ref: 0538**

The date within the ***Season Of Operation*** on which the ***Signal Configuration*** commences operation.

Format: Date.

- **Stop Date** **RDD ref: 0539**

The date within the ***Season Of Operation*** on which the ***Signal Configuration*** ends operation.

Format: Date.

3.20 ***Regular Operation Period*** **RDD ref: 0306**

A time period during a continuous 24 hour period (up to and including 24 hours per 24 hour period), when a specific ***Signal Configuration*** is usually emitted. The time period is measured using Coordinated Universal Time (UTC).

If the ***Signal Configuration*** has more than one ***Regular Operation Period*** in any 24 hour period, then each ***Regular Operation Period*** must not overlap.

For NAVTEX stations the ***Regular Operation Period*** is referred to as the transmission schedule derived from the **Start Time**, the **NAVTEX Transmission Interval** and the **Stop Time** when the ***Antenna*** is emitting the ***Signal Configuration***. Proposals for the allocation of Transmission Schedules should be submitted to the International Maritime Organisation (IMO) for approval as per Resolution 339 (WRC97).

Note: *The Annex to Resolution 339 (WRC95) was deleted at WRC97 and although there is still a requirement to notify NAVTEX stations under Article S11 as the frequency band around 518kHz is shared with Aeronautical Radionavigation Beacons, the data items associated with coordination are no longer required. It is therefore proposed that they should be deleted from Appendix S4.*

◊ A ***Regular Operation Period*** is identified by its **Start Time** and the ***Signal Configuration*** for which it defines the operating time.

A ***Regular Operation Period*** must be the operating time for a single ***Signal Configuration*** (***Regular Operation Periods*** paired with the same ***Signal Configuration*** may not overlap) **RDD ref: 0309**

A ***Regular Operation Period*** may be further defined by one or more ***Traffic Characteristics*** **RDD ref: 0469**

- **Start Time** **RDD ref: 0307**

The time of day measured in UTC at which the transmission of the ***Signal Configuration*** usually commences.

Where a **Start Time** is the same time (or later time of day) as the **Stop Time,** then the **Stop Time** is considered to be on the next calendar day, immediately following the **Start Time**.

Format: Time.

- **Stop Time** **RDD ref: 0308**

The time of day measured in UTC at which the transmission of the ***Signal Configuration*** usually ends.

Where a **Stop Time** is the same time (or earlier time of day) as the **Start Time,** then the **Stop Time** is considered to be on the next calendar day, immediately following the **Start Time**.

For NAVTEX stations the transmission will continue for a period equal to the **NAVTEX Transmission Duration** after the designated **Stop Time**.

Format: Time.

- **NAVTEX Transmission Duration** **RDD ref: 0142**

Note: *The Annex to Resolution 339 (WRC95) was deleted at WRC97 and the data items associated with coordination are no longer required. It is therefore proposed that the NAVTEX Transmission Duration should be deleted from Appendix S4.*

The duration of transmission specified in minutes commencing at the **Start Time** and after each **NAVTEX Transmission Interval** up to and including the **Stop Time**.

NAVTEX only.

Format: Integer (in the range 5 to 30) in minutes.

- **NAVTEX Transmission Interval** **RDD ref: 0549**

Note: *The Annex to Resolution 339 (WRC95) was deleted at WRC97 and the data items associated with coordination are no longer required. It is therefore proposed that the NAVTEX Transmission Interval should be deleted from Appendix S4.*

The lapse of time expressed in minutes between the beginning of two successive transmissions of the NAVTEX signal to the transmission coverage area.

NAVTEX only.

Format: Integer (in the range 10 to 240) in minutes.

3.21 *Traffic Characteristic* **RDD ref: 0464**

The peak traffic loading in the channel (as identified by the ***Signal Configuration*** **Channel Number**) for the proposed allotment in Appendix S25 Plan during the ***Regular Operation Period***.

◊ A ***Traffic Characteristic*** is identified by its **Start Peak Hours** and ***Regular Operation Period*** for which it defines the peak hours of traffic loading.

HF Coast Stations - Appendix S25 only.

A ***Traffic Characteristic*** must further define a single ***Regular Operation Period*** **RDD ref: 0468**

- **Daily Volume** **RDD ref: 0467**

The estimated daily volume of traffic during the peak hours of operation.

Format: Integer (in the range 0 to 1440) in minutes.

- **Start Peak Hours** **RDD ref: 0465**

The time of day measured in UTC at which the peak hours of operation of the ***Signal Configuration*** usually commences.

Format: Time.

- **Stop Peak Hours** **RDD ref: 0466**

The time of day measured in UTC at which the peak hours of operation of the ***Signal Configuration*** usually ends.

Format: Time.

3.22 *Maximum Hours Of Operation* **RDD ref: 0524**

Note: *The requirement for this information was deleted at WRC 95 and it is therefore proposed that the* ***Maximum Hours Of Operation*** *and its associated data items can be deleted.*

The maximum time period during a continuous 24 hour period (up to and including 24 hours per 24 hour period), when a specific ***Signal Configuration*** will be emitted. This information is required for each ***Geographical Area***, or ***Site***, served by the transmitting station. The time period is measured using Coordinated Universal Time (UTC).

HF Fixed Service only.

◊ A ***Maximum Hours Of Operation*** is identified by its **Start Time**, **Stop Time** and the ***Signal Configuration*** for which it defines the maximum operating time.

A ***Maximum Hours Of Operation*** must be the maximum operating time of a single ***Signal Configuration*** **RDD ref: 0542**

A **Maximum Hours Of Operation** must be the maximum operating time for a single ***Site*** **RDD ref: 0574**

- **Start Time** **RDD ref: 0525**

The time of day measured in UTC at which the transmission of the ***Signal Configuration*** commences.

Where a **Start Time** is the same time (or later time of day) as the **Stop Time,** then the **Stop Time** is considered to be on the next calendar day, immediately following the **Start Time**.

Format: Time.

- **Stop Time** **RDD ref: 0526**

The time of day measured in UTC at which the transmission of the ***Signal Configuration*** ends.

Where a **Stop Time** is the same time (or earlier time of day) as the **Start Time,** then the **Stop Time** is considered to be on the next calendar day, immediately following the **Start Time**.

Format: Time.

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3.23 *Colour System* RDD ref: 0077

A method for encoding the colour information of a visual image into an electromagnetic waveform for television broadcast. The ***Colour System*** is associated with the ***Television System***.

◊ A ***Colour System*** is identified by its **Code**.

Broadcasting - Television only.

A ***Colour System*** may be used by one or more ***Signal Configurations*** **RDD ref: 0081**

A ***Colour System*** may be available to one or more ***Television Systems*** **RDD ref: 0080**

- **Code** **RDD ref: 0078**

The code used to identify a ***Colour System***.

Format: Up to 5 characters.

Code	Meaning
NTSC	Abbreviation for National Television Standards Committee standard. The North American standard (525-line interlaced raster-scanned video) for the generation, transmission, and reception of television signals. The picture information is transmitted in vestigial-sideband AM and sound information is transmitted in FM. In addition to North America, the NTSC standard is used in Central America, a number of South American countries, and some Asian countries, including Japan.
PAL	Acronym for Phase Alternation by Line. A television signal standard (625 lines, 50 Hz, 220 V primary power) used in the United Kingdom, much of the rest of western Europe, several South American countries, some Middle East and Asian countries, several African countries, Australia, New Zealand, and other Pacific island countries.
SECAM	Acronym for Système Électronique Couleur Avec Mémoire. A television signal standard (625 lines, 50 Hz, 220 V primary power) used in France, eastern European countries, the former USSR, and some African countries.

Note: *Current BR practice is to use a single-character code taken from the first letter of the colour system acronyms. The RDD defines the actual acronyms as the code.*

3.24 *Class Of Station* **RDD ref: 0276**

A classification of a station by the ***Radiocommunication Service*** in which it operates and its mode of operation, content of signal or other characteristic considered significant to the notification and or coordination process. Sometimes the classification only gives the generic ***Radiocommunication Service***.

◊ A ***Class Of Station*** is identified by its **Code**.

A ***Class Of Station*** may classify the operation of one or more ***Signal Configurations*** **RDD ref: 0279**

A ***Class Of Station*** must identify one or more ***Radiocommunication Services*** **RDD ref: 0280**

- **Code** **RDD ref: 0277**

The code used to identify a ***Class Of Station***.

A list of ***Classes of Station*** is contained in Appendix 5 to the RDD.

Format: 2 characters.

- **Name** **RDD ref: 0278**

The name of the ***Class Of Station***.

Format: Text.

3.25 *Protection Mask* RDD ref: 0226

An agreed set of limits which define the protection that can be afforded to ***Signal Configurations*** operating within a ***Radiocommunication Service***.

◊ A ***Protection Mask*** is identified by its Description.

A ***Protection Mask*** may provide protection limits for one or more ***Signal Configurations*** **RDD ref: 0463**

A ***Protection Mask*** must be defined for a single ***Radiocommunication Service*** **RDD ref: 0580**

- **Description** **RDD ref: 0228**

Text describing the ***Protection Mask***.

Format: Text.

- **Shape** **RDD ref: 0231**

The outline of the ***Protection Mask***. The ***Protection Mask's*** **Shape** may be two or three dimensional.

Format: Diagram.

- **Minimum Protected Field Strength** **RDD ref: 0229**

The minimum value of field strength at the boundary of the **Protection Mask** that can be protected and still permit the desired reception quality, under specified receiving conditions, in the presence of natural and man made noise and interference, either in an existing situation or as determined by agreements or frequency plans.

Format: Decimal (in the range 10.0 to 30.0) to 1 decimal place in dBμV/m.

- **Protection Margin** **RDD ref: 0230**

The difference between the **Signal To Interference Ratio** and the **Protection Ratio** at the boundary of the ***Protection Mask***.

Format: Decimal (in the range 5.0 to 25.0) to 1 decimal place in dB.

- **Signal To Interference Ratio** **RDD ref: 0227**

The ratio of the wanted-to-unwanted signal power at the boundary of the ***Protection Mask***.

Format: Decimal (in the range 10.0 to 25.0) to 1 decimal place in dB.

- **Protection Ratio** **RDD ref: 0232**

The minimum value of the wanted-to-unwanted signal ratio required at the input of a receiver, located at the boundary of the ***Protection Mask*** and determined under specified conditions, that is necessary so that a specified reception quality of the wanted signal is achieved at the receiver output.

Format: Decimal (in the range 5.0 to 30.0) to 1 decimal place in dB.

3.26 *Radiocommunication Service* **RDD ref: 0241**

A service involving the transmission, emission and/or reception of radio waves for specific telecommunication purposes. ***Radiocommunication Services*** are a categorisation of the different types of use as defined in the Radio Regulations. The purpose of the categorisation of ***Radiocommunication Services*** is to enable effective management of the radio spectrum.

Examples: Fixed Service, Mobile Service, Standard Frequency and Time Signal Service, Safety Service.

A full list of ***Radiocommunication Services*** can be found in Appendix 4 to the RDD.

◊ A ***Radiocommunication Service*** is identified by its **Name**.

A ***Radiocommunication Service*** must be qualified by one or more ***Classes Of Station*** **RDD ref: 0245**

A ***Radiocommunication Service*** may include one or more other ***Radiocommunication Services*** **RDD ref: 0581**

A ***Radiocommunication Service*** may be protected by one or more ***Protection Masks*** **RDD ref: 0582**

- **Name** **RDD ref: 0243**

The name of the ***Radiocommunication Service*** and assigned by the ITU through the RR.

Radiodetermination is defined in the RR, but not used directly in Article S5 of the RR (Table of Frequency Allocations). Instead, Radiolocation and Radionavigation are used, as subsets of Radiodetermination.

Format: Text.

- **Code** **RDD ref: 0604**

It is proposed that a code is developed.

Note: *Various contributions for a coding of the **Radiocommunication Services** have been submitted to Study Group 1 by administrations. Appendix 4 to the RDD, in addition to the full list of **Radiocommunication Services** contains a similar proposal for coding.*

3.27 *Sector Of Limited Radiation* **RDD ref: 0421**

Note: *It is proposed that in future a full attenuation pattern, or a full radiation pattern should be supplied and therefore the* ***Sector Of Limited Radiation*** *and its associated data items are no longer required.*

An area of the ***Signal Configuration's*** **Two Dimensional Service Zone** in which the **Radiated Power** is reduced to avoid interference into other radio systems.

◊ A ***Sector Of Limited Radiation*** is identified by its **Start Azimuth** and its **Finish Azimuth** and the ***Signal Configuration*** for which it defines part of the radiation pattern.

A ***Sector Of Limited Radiation*** must define part of the radiation pattern for a single ***Signal Configuration*** **RDD ref: 0425**

- **Start Azimuth** **RDD ref: 0424**

The angle of the left hand edge of the ***Sector Of Limited Radiation*** measured, from True North in a clockwise direction in the horizontal plane.

Format: Decimal (in the range 0.0 to 359.9) to 1 decimal place in degrees.

- **Finish Azimuth** **RDD ref: 0422**

The angle of the right hand edge of the ***Sector Of Limited Radiation*** measured, from True North in a clockwise direction in the horizontal plane.

Format: Decimal (in the range 0.1 to 360.0) to 1 decimal place in degrees.

- **Radiated Power** **RDD ref: 0423**

The maximum value of **Radiated Power** within the **Start Azimuth** and **Finish Azimuth** defining the ***Sector Of Limited Radiation***.

The product of the power supplied to the ***Antenna*** and the ***Transmitting Antenna's*** **Maximum Gain**. The radiated power is determined using the method indicated by the ***Signal Configuration*** **Power Measurement Method Code**.

Whether the power is Effective Radiated Power (erp), Equivalent Isotropically Radiated Power (eirp) or Effective Monopole Radiated Power (emrp) is determined by the type of reference ***Antenna*** (e.g. dipole) used to determine the relative value of ***Antenna*** gain, this is described by the Gain Reference Antenna Code. The Gain Reference Antenna Code applies to the ***Transmitting Antenna*** gain and the ***Signal Configuration*** radiated power. The same Gain Reference Antenna Code must apply to both.

Format: A complex format comprise of :

a) Decimal (in the range -26.0 and 60.0) to 1 decimal place in dBW

and

b) Gain Reference Antenna Code**.**

3.28 *Signal Configuration* **RDD ref: 0140**

The characteristics that describe the modulation, and operation of a radio wave, that is carrying intelligible information to provide a ***Radiocommunication Service*** and emitted or intended to be received by a specific ***Antenna***.

◊ A ***Signal Configuration*** is identified by its **Assigned Frequency**, its ***Class Of Emission Code*** and its **Necessary Bandwidth Code** and additionally for: fixed stations - the ***Transmitting Antenna*** it is emitted by; or mobile stations - the ***Receiving Antenna*** at which it is intended to be received ; or mobile stations - the ***Signal Configuration's*** **Three Dimensional Roaming Zone** (or ***Two Dimensional Roaming Zone***) in which it is transmitted.

A ***Signal Configuration*** must be notified by a single ***Administration*** **RDD ref: 0261**

A ***Signal Configuration*** may use a single ***Colour System*** **RDD ref: 0067**

A ***Signal Configuration*** may require one or more ***Coordination Agreements*** **RDD ref: 0255**

A ***Signal Configuration*** may have correspondence relating to interference matters addressed to a single ***Correspondence Address*** **RDD ref: 0260**

A ***Signal Configuration*** may be transmitted to one or more ***Receiving Antennas***
(A ***Signal Configuration*** emitted from mobile stations are assumed at any instant in time to be received at a single ***Receiving Antenna***.) **RDD ref: 0195**

A ***Signal Configuration*** may be produced by a single ***Transmitting Antenna*** **RDD ref: 0139**

A ***Signal Configuration*** may have its radiation pattern defined by one or more ***Sectors Of Limited Radiation*** **RDD ref: 0429**

A ***Signal Configuration*** must be the subject of one or more ***Terrestrial Service Notices*** **RDD ref: 0257**

A ***Signal Configuration*** may be the responsibility of a single ***Operator*** **RDD ref: 0259**

A ***Signal Configuration*** may have its protection limits defined by one or more ***Protection Masks*** **RDD ref: 0462**

A ***Signal Configuration*** may be emitted in one or more ***Season Of Operation*** **RDD ref: 0252**

A ***Signal Configuration*** must belong to a single ***Class Of Station*** **RDD ref: 0263**

A ***Signal Configuration*** may use a single ***Television System*** **RDD ref: 0068**

A ***Signal Configuration*** may be operating during one or more ***Regular Operation Periods*** **RDD ref: 0254**

A ***Signal Configuration*** may be emitted on one or more ***Days Of Operation*** **RDD ref: 0541**

A ***Signal Configuration*** may be operating within one or more ***Maximum Hours Of Operation*** **RDD ref: 0543**

- **Assigned Frequency** **RDD ref: 0345**

The centre frequency of the band occupied by the ***Signal Configuration***.

Format: Frequency.

- **Frequency Offset** **RDD ref: 0652**

The displacement of the **Assigned Frequency** from its stated value for a digital broadcasting signal.

Format: Decimal (in the range -166.000 to 166.000) to 3 decimal place in kHz.

- **Reference (Carrier) Frequency** **RDD ref: 0348**

A frequency having a fixed and specified position with respect to the **Assigned frequency**, required for unambiguous description of the frequency band occupied by the emission, especially in the case of asymmetric modulation envelope. For the purpose of notification, and where the emission contains a carrier, the reference frequency coincides with the carrier frequency, i.e., the radio frequency on which the information is modulated. Normally the **Reference (Carrier) Frequency** and **Assigned Frequency** are the same value however, if the modulation envelope is asymmetric then the **Reference (Carrier) Frequency** and **Assigned Frequency** values will be different.

Format: Frequency.

- **Alternative Frequency** **RDD ref: 0371**

A frequency suggested by the notifying ***Administration*** as an alternative **Assigned Frequency** for the operation of the ***Signal Configuration***, if the proposed **Assigned Frequency** is not acceptable to the BR and other ***administrations***. This data item is not required when a **Preferred Frequency Band** is indicated.

Used by HFBC.

Format: Frequency (in the range 3000 to 26100) in kHz.

- **Other Simultaneous Frequencies Used** **RDD ref: 0373**

Any other **Assigned Frequency** used to broadcast the same programme simultaneously to the same reception area(s).

Used for HF bands.

Format: Frequency (in the range 3000 to 26100) in kHz.

- **Preferred Frequency Band** **RDD ref: 0374**

The Frequency Band, within which the ***Administration*** would prefer to operate the station when no specific **Assigned Frequency** has been identified. This is used when the BR is requested to help select a frequency.

Fixed Service and Broadcasting Service in the HF Bands only.

Format: Frequency (in the range 3 to 30) in MHz.

- **Frequency Category Code** **RDD ref: 0145**

The code representing a classification of the frequency status between neighbouring countries who have predefined agreement for the sharing of frequencies in their border areas.

Vienna Agreement Countries only.

Format: 1 character (in the numeric range 1 to 5).

Code	Meaning
1	Preferential frequency.
2	Frequencies requiring coordination
3	Frequency belonging to a geographical network.
4	Frequencies intended for a planned radiocommunication network.
5	Shared frequencies.

- **Pre-emphasis P-P Frequency Deviation** **RDD ref: 0485**

For a FM television signal the peak to peak frequency deviation produced by a 1 volt peak to peak video signal at 0 dB relative deviation (the cross over frequency) in the pre-emphasis characteristic. Pre-emphasis is applied to television signals to reduce the high level low frequency components present in an FM television signal and which inhibit interchangeability with the modulators and demodulators used for FDM telephony. (See Recommendations ITU-R F. 276-2 and ITU-R F. 405-1).

Format: Decimal (in the range 0.0 to 15.0) to 1 decimal place in MHz.

- **Pre-emphasis RMS Frequency Deviation** **RDD ref: 0572**

For a FDM telephony channel the rms deviation in frequency per channel produced by a 800 Hz test tone of 1mW power at the 0 dB relative deviation (the cross over frequency) in the pre-emphasis characteristic. The rms frequency deviation is determined for a specific number of multiplexed channels.

In FDM telephony signals the noise level in the top channels is higher than in the bottom channels. Pre-emphasis allows a more even distribution of the signal to noise ratio across the FDM baseband. (See Recommendations ITU-R F.275-3, ITU-R F.404-2 and ITU-R S.464-2).

Format: Decimal (in the range 20.0 to 300.0) to 1 decimal place in kHz.

- **Sound Carrier Nominal Frequency** **RDD ref: 0481**

The centre frequency of the band occupied by the sound carrier prior to a frequency offset being applied to the sound carrier.

Format: Frequency (in the range 40.0 to 999.9) to 1 decimal place in MHz.

- **Sound Carrier Frequency Offset Code** **RDD ref: 0482**

The code indicating the displacement of the **Sound Carrier Nominal Frequency** in a television broadcast signal and measured as multiples of 1/12 of the line frequency. A frequency offset is applied to the sound carrier to reduce the interference from the sound signal onto the vision signal. (For a list of the codes refer to the table under **Vision Carrier Frequency Offset Code**).

Format: Up to 4 characters.

Note: *The* **Sound Carrier Frequency Offset Code** *currently has a field size of 3 characters and is supplied with a "P" representing a positive frequency offset and "M" representing a negative frequency offset. However the field size is too small for some broadcast systems and therefore the field size should be increased to 4 characters. It is also proposed to replace the "P" and "M" with "+" and "-" respectively. These new codes will also be used by* TerRaSys.

- **Sound Carrier Frequency Offset** **RDD ref: 0551**

The frequency displacement of the **Sound Carrier Nominal Frequency** in a broadcasting signal. In the case of television a frequency offset is applied to the sound carrier to reduce the interference from the sound signal onto the vision signal.

Format: Frequency (in the range -300.000 to 300.000) to 3 decimal place in kHz.

Note: *The* **Sound Carrier Frequency Offset** *is not currently notified as a frequency but it is required for North American television, digital television under ST61 and Terrestrial Digital Audio Broadcasting. This offset is distinct from the* **Sound Carrier Frequency Offset Code** *and therefore this data item should be added to the notification requirements in Appendix S4.*

- **Vision Carrier Nominal Frequency** **RDD ref: 0064**

The centre frequency of the band occupied by the vision carrier prior to at frequency offset being applied to the vision carrier.

Format: Frequency (in the range 40.0 to 999.9) to 1 decimal place in MHz.

- **Vision Carrier Frequency Offset Code** **RDD ref: 0065**

The code indicating the displacement of the **Vision Carrier Nominal Frequency** in a television broadcast signal and measured as multiples of 1/12 of the line frequency. A frequency offset is applied to reduce interference between co-channel signals.

Format: Up to 4 characters.

Code	Meaning	Code	Meaning
0	0		
+1	+ 1/12	-1	- 1/12
+2	+ 2/12	-2	- 2/12
+3	+ 3/12	-3	- 3/12
+4	+ 4/12	-4	- 4/12
+5	+ 5/12	-5	- 5/12
+6	+ 6/12	-6	- 6/12
+7	+ 7/12	-7	- 7/12
+8	+ 8/12	-8	- 8/12
+9	+ 9/12	-9	- 9/12
+10	+ 10/12	-10	- 10/12

+11	+ 11/12	-11	- 11/12
+12	+ 12/12	-12	- 12/12
+13	+ 13/12	-13	- 13/12
+14	+ 14/12	-14	- 14/12
+15	+ 15/12	-15	- 15/12
+16	+ 16/12	-16	- 16/12
+17	+ 17/12	-17	- 17/12
+18	+ 18/12	-18	- 18/12
+19	+ 19/12	-19	- 19/12
+20	+ 20/12	-20	- 20/12
~	~	~	~
+100	+100/12	-100	-100/12
+101	+101/12	-101	-101/12
~	~	~	~
+300	+300/12	-300	-300/12

Note: *The* **Vision Carrier Frequency Offset Code** *currently has a field size of 3 characters and is supplied with a "P" representing a positive frequency offset and "M" representing a negative frequency offset. However the field size is too small for some broadcast systems and therefore the field size should be increased to 4 characters. It is also proposed to replace the "P" and "M" with "+" and "-" respectively. These new codes will also be used by* TerRaSys.

- **Vision Carrier Frequency Offset** **RDD ref: 0552**

Note: *The* **Vision Carrier Frequency Offset** *is not currently notified as a frequency but it is required for North American television and digital television under ST61. This offset is distinct from the* **Sound Carrier Frequency Offset Cod***e and it is therefore proposed this data item should be added to the notification requirements in Appendix S4.*

The displacement of the **Vision Carrier Nominal Frequency** in a television broadcast signal. For analogue television a frequency offset is applied to reduce interference between co-channel signals.

Format: Frequency (in the range -300.000 to 300.000) to 3 decimal place in kHz.

- **Frequency Offset Stability Indicator** **RDD ref: 0553**

An indicator used to identify the stability of the frequency offset.

Format: Up to 9 Characters.

Code	**Meaning**
Normal	Normal frequency stability.
Precision	Precision frequency stability.

Note: *The* **Frequency Offset Stability Indicator** *is not currently notified but it is required for coordination and therefore this data item should be added to the notification requirements in Appendix S4 as an item for coordination only.*

- **FM Transmission System Code** **RDD ref: 0165**

The code identifying the type of the FM radio transmission and the maximum frequency deviation used.

Format: 1 character (in the numeric range 1 to 5).

Code	Meaning
1	Monophonic (maximum frequency deviation +/- 75 kHz).
2	Monophonic (maximum frequency deviation +/- 50 kHz).
3	Stereophonic, polar modulation system (maximum frequency deviation +/- 50 kHz).
4	Stereophonic, pilot-tone system (maximum frequency deviation +/- 75 kHz).
5	Stereophonic, pilot-tone system (maximum frequency deviation +/- 50 kHz).

- **HF Transmission System Code** **RDD ref: 0512**

The code identifying the type of modulation used and the value of attenuation in the peak carrier power.

Used in the HF bands.

Format: 1 character.

Code	Meaning
D	Double sideband: No reduction in carrier power
T	Single sideband with the carrier power reduced by 6 dB
S	Single sideband with the carrier power reduced by 12 dB

- **Channel Number** **RDD ref: 0495**

The number of the channel within the HF Coast Stations Plan (Appendix S25) which the notifying ***Administration*** is proposing to use for the operation of the **Signal Configuration**. In Appendix S25, the **Channel Number** defines the **Assigned Frequency** and the **Reference (Carrier) Frequency** through the technical provisions of the Plan.

The **Channel Number** may optionally be provided for Plans other than Appendix S25, in addition to the required basic characteristics.

Format: Integer (in the range 401 to 2509).

- **Alternative Channel Number** **RDD ref: 0496**

The number of an alternative channel within the HF Coast Stations Plan (Appendix S25) suggested by the notifying ***Administration*** for the operation of the **Signal Configuration** , if the proposed **Channel Number** is not acceptable to the BR and other ***administrations***.

Format: Integer (in the range 401 to 2509).

- **Channel Number To Be Replaced** **RDD ref: 0497**

The number of a channel within the HF Coast Stations Plan (Appendix S25) which has been allotted to the notifying ***Administration*** and which they wish to replace with a new **Channel Number** so that they may improve or extend their service.

Format: Integer (in the range 401 to 2509).

- **Channel Occupation Indicator** **RDD ref: 0350**

An indicator used to identify if the emission described by the **Signal Configuration** is continuous.

Vienna Agreement Countries only.

Format: True or False.

- **Adjacent Channel Protection Ratio** **RDD ref: 0120**

The difference between the wanted ***Signal Configuration*** power and the power from an interfering ***Signal Configuration*** in the adjacent channel. These figures are only valid when the same level of compression is applied to the wanted and unwanted ***Signal Configurations***. When two ***Signal Configurations*** operating in adjacent channels use different

bandwidths, or different degrees of compression, the higher of the two corresponding protection ratios shall be used, unless the two ***Administrations*** concerned agree to use the ratio corresponding to the interfering signal.

Used for LF/MF Broadcasting.

Format: 1 character.

Code	Meaning
A	9 dB when a limited degree of modulation compression is applied at the transmitter input and when the bandwidth of the audio-frequency signal is of the order of 10 kHz.
B	7 dB when a high degree of modulation compression (at least 10 dB greater than for Code A) is applied by means of an automatic device and when the bandwidth of the audio-frequency signal is of the order of 10 kHz.
C	5 dB when a limited degree of modulation compression is applied at the transmitter input and when the bandwidth of the audio-frequency signal is of the order of 4.5 kHz.
D	0 dB when a high degree of modulation compression is applied by means of an automatic device and when the bandwidth of the audio-frequency signal is of the order of 10 kHz.

- **Necessary Bandwidth Code** **RDD ref: 0157**

For a given **Class Of Emission Code**, the width of the frequency band which is just sufficient to ensure the transmission of the information at the rate and with the quality required under specified conditions.

The necessary bandwidth, is expressed by three numerals and one letter. The letter occupies the position of the decimal point and represents the unit of bandwidth. The first character shall be neither zero nor K, M or G.

Format: 4 Characters

between 0.001 and 999 Hz the units shall be expressed in Hz (letter H);

between 1.00 and 999 kHz the units shall be expressed in kHz (letter K);

between 1.00 and 999 MHz the units shall be expressed in MHz (letter M);

between 1.00 and 999 GHz the units shall be expressed in GHz (letter G).

Examples:

400 Hz = 400H	2.4 kHz = 2K40	12.5 kHz = 12K5
180.4 kHz = 180K	180.7 kHz = 181K	1.25 MHz = 1M25
2 MHz = 2M00	10 MHz = 10M0	202 MHz = 202M

- **Class Of Emission Code** **RDD ref: 0351**

The set of five codes used to describe the type of modulation and information format of the ***Signal Configuration***. The first three code are mandatory. The **Class Of Emission Codes** are contained in Appendix S1 to the Radio Regulations.

Format: Up to 5 characters.

- **Nature Of Service Code** **RDD ref: 0156**

The code indicating the purpose for performing the ***Radiocommunication Service*** identified in ***Class Of Station*** as defined in the Radio Regulations. For some ***Classes of Station*** and frequency bands the **Nature Of Service Code** sets limitations on specific characteristics of the emission (e.g. ***Signal Configuration's*** **Transmitter Output Power**). It may also be limited to a specific "purpose". See Section 2 for information on detailed conditions.

Format: 2 characters.

A list of Nature of Service Code is contained In Appendix 13 to the RDD.

- **Synchronised Network Indicator** **RDD ref: 0132**

An indicator used to identify if the ***Signal Configuration*** is part of a synchronised network.

A synchronised network is a group of transmitters intended primarily for ground wave coverage radiating the same programme at a common frequency. In a synchronised network the difference in the **Reference (Carrier) Frequency**

between any two transmitters in the network shall not exceed 0.1 Hz. The modulation delay between any two transmitters in the network shall not exceed 100 μs when measured at the ***Site*** of the ***Transmitting Antenna***.

Used by the Broadcasting Services.

Format: True or False.

- **Synchronised Network Number** **RDD ref: 0535**

The network number identifying the other transmitters in a synchronised network.

Used by the Broadcasting Services.

Format: Integer in the range 1 to 9999

- **Call Sign** **RDD ref: 0347**

A group of characters which uniquely identify a particular radio station. RR Article S19 outlines the procedure to be followed in the assignment of **Call Signs**.

Format: Up to 10 characters.

- **Station Identification** **RDD ref: 0150**

Information transmitted by the radio station to aid identification of the source of its emission. All transmissions shall be capable of being identified either by identification signals or by other means (RR Article S19.1).

The ***Signal Configuration*** is identified by a Maritime Mobile Service identity or by other recognised means of identification which may be one or more of the following: name of station, location of station, operating agency, official registration mark, flight identification number, selective call number or signal, selective call identification number or signal, characteristic signal, characteristic of the ***Signal Configuration*** or other clearly distinguishing features readily recognised internationally (RR Article S19.16).

Format: Up to 20 characters.

- **RR Conformity Indicator** **RDD ref: 0161**

An indicator if the notification is being submitted in compliance with RR Article S4.4. i.e. Administrations of the Members shall not assign to a station any frequency in derogation of either the Table of Frequency Allocations in this chapter or the other provisions of these Regulations, except on the express condition that such a station, when using such a frequency assignment, shall not cause harmful interference to, and shall not claim protection from harmful interference caused by, a station operating in accordance with the provisions of the Constitution, the Convention and these Regulations.

Format: True or False.

- **Class Of Operation Code** **RDD ref: 0494**

The code for indicating the notifying ***Administrations*** intended level of usage and the purpose for the ***Signal Configuration***. For assignments in the Fixed Service in frequency bands between 3 000 kHz and 27 500 kHz.

Used in the HF bands.

Format: 1 character.

Code	Meaning
A	For regular operational use which is not provided by another satisfactory means of telecommunication.
B	For use as a standby to some other means of telecommunication.
C	For occasional use on a reserve basis and not requiring internationally recognised protection from harmful interference.

Note: *This data item is to be suppressed following completion of the work described in Resolution 21 (WRC95) but not later than 1 April 2007.*

- **Date Of Bringing Into Use** **RDD ref: 0141**

The date the ***Signal Configuration*** is brought into operational use.

Format: Date.

- **Period Of Validity** **RDD ref: 0144**

The number of years the notifying ***Administration*** expect the operational use of the ***Signal Configuration*** will continue to be required. The period begins on the ***Signal Configuration's*** **Date of Bringing Into Use** is brought into use.

Format: Integer (in the range 1 to 30) in years.

- **Local Operation Period Code** **RDD ref: 0183**

The code identifying the part of a 24 hour day during which a ***Signal Configuration*** may be emitted. The parts of a day are based on local daylight hours, night hours.

In some frequency bands daylight and night operation have a significant impact on the operation and even use of particular frequencies e.g. MF Broadcasting Region 2 and LF/MF Broadcasting Region 1.

Format: 2 characters.

Code	Meaning
HJ	Local daylight hours.
HN	Local night time hours.
JN	Local daylight and night time hours.

Note: *The local operation time has been set in the Rules of Procedure to fixed times HJ=0600-1800, HN=1800-0600. These fixed times do not represent daylight and night time hours nor allow for any variation due to latitude and hence do not provide for the requirements in the LF/MF Broadcasting Plans, therefore the* **Local Operation Period Code** *should revert to local daylight and night-time hours.*

- **Power Measurement Method Code** **RDD ref: 0159**

The code indicating the method to be used when measuring the **Maximum Radiated Power** and the **Transmitter Output Power**. The power designation to be used for each **Class Of Emission Code** is listed in Appendix 14 to the RDD.

Format: 1 character.

Code	Meaning
X	Peak envelope power: the average power supplied to the ***antenna*** by a transmitter during one radio frequency cycle at the crest of the modulation envelope taken under normal operating conditions.
Y	Mean power: the average power supplied to the ***antenna*** by a transmitter during an interval of time sufficiently long compared with the lowest frequency encountered in the modulation taken under normal operating conditions.
Z	Carrier power: the average power supplied to the ***antenna*** by a transmitter during one radio frequency cycle taken under the condition of no modulation.

- **Transmitter Output Power** **RDD ref: 0166**

The power available at the output terminals of the transmitter. The **Transmitter Output Power** is measured using the method indicated by the **Power Measurement Method Code**.

Format: Decimal (in the range -20.0 to 60.0) to 1 decimal place in dBW.

- **Antenna Input Power** **RDD ref: 0554**

The power available at the input terminals to the ***Antenna***. The **Antenna Input Power** is the **Transmitter Output Power** minus the transmission line losses and is measured using the method indicated by the **Power Measurement Method Code**.

Used for LF/MF Broadcasting.

Format: Decimal (in the range 0.01 to 1000.00) to 2 decimal places in kW.

- **Maximum Radiated Power** **RDD ref: 0155**

The product of the power supplied to the ***Antenna*** and the ***Transmitting Antenna's*** **Maximum Gain**. The radiated power is determined using the method indicated by the **Power Measurement Method Code**.

Whether the power is Effective Radiated Power (e.r.p.), Equivalent Isotropically Radiated Power (e.i.r.p.) or Effective Monopole Radiated Power (e.m.r.p.) is determined by the type of reference ***Antenna*** (e.g. dipole) used to determine the relative value of ***Antenna*** gain, this is described by the Gain Reference Antenna Code. The Gain Reference Antenna Code applies to ***Transmitting Antenna*** gain and ***Signal Configuration*** radiated power. The same Gain Reference Antenna Code must apply to both.

Format: A complex format comprised of :

a) Decimal (in the range -26.0 and 70.0) to 1 decimal place in dBW

and

b) Gain Reference Antenna Code.

- **Power Control Range** **RDD ref: 0570**

The extent by which the **Transmitter Output Power** can be increased to raise the **Maximum Radiated Power** above its nominal value. Power control is used to offset additional propagation losses caused, for example, by rain scatter.

Format: Decimal (in the range 10.0 to 20.0) to 1 decimal place in dB.

- **Maximum Horizontally Polarized Radiated Power** **RDD ref: 0149**

The product of the power supplied to the ***Antenna*** and the ***Transmitting Antenna's*** **Maximum Gain** for the horizontally polarized component. The Gain Reference Antenna Code applies to ***Transmitting Antenna*** gain and ***Signal Configuration*** radiated power. The same Gain Reference Antenna Code must apply to both.

Format: A complex format comprised of :

a) Decimal (in the range 0 to 70.0) to 1 decimal place in dBW

and

b) Gain Reference Antenna Code**.**

- **Maximum Vertically Polarized Radiated Power** **RDD ref: 0170**

The product of the power supplied to the ***Antenna*** and the ***Transmitting Antenna's*** **Maximum Gain** for the vertically polarized component. The Gain Reference Antenna Code applies to ***Transmitting Antenna*** gain and ***Signal Configuration*** radiated power. The same Gain Reference Antenna Code must apply to both.

Format: A complex format comprised of :

a) Decimal (in the range 0.0 to 70.0) to 1 decimal place in dBW

and

b) Gain Reference Antenna Code.

- **Total Radiated Power** **RDD ref: 0163**

The sum of the **Maximum Vertically** Polarised **Radiated Power** and the **Maximum Horizontal**ly Polarised **Radiated Power.** The Gain Reference Antenna Code applies to ***Transmitting Antenna*** gain and ***Signal Configuration*** radiated power. The same Gain Reference Antenna Code must apply to both.

Format: A complex format comprised of :

a) Decimal (in the range 0.0 to 73.0) to 1 decimal place in dBW

and

b) Gain Reference Antenna Code.

Note: *In future the* **Total Radiated Power** *should not be recorded as it can be calculated from the* **Maximum Vertically Polarised Radiated Power** *and the* **Maximum Horizontally Polarised Radiated Power**.

- **RMS Radiation** **RDD ref: 0471**

The total RMS field strength of the theoretical antenna pattern. It is the product of the RMS value of the characteristic field strength in mV/m, in the horizontal plane, produced by a 1kW transmitter at a distance of 1km and the square root of the power.

Used for MF Broadcasting Region 2.

Format: Decimal (in the range 0.00 to 9999.99) to 2 decimal places in mV/m.

- **Vision To Sound Power Ratio** **RDD ref: 0066**

The ratio of the vision signal's Peak Envelope Power to the primary sound signal's mean power.

Format: Integer (in the range 5 to 23) in dB.

- **Maximum Power Density Over 4kHz** **RDD ref: 0154**

The maximum power density at the output of the transmitter for each carrier type and averaged over the worst 4 kHz for carriers below 15 GHz.

Format: Decimal (in the range -170.0 to 30.0) to 1 decimal place in dB(W/Hz).

- **Maximum Power Density Over 1MHz** **RDD ref: 0571**

The maximum power density at the output of the transmitter for each carrier type averaged over the worst 1 MHz for carriers above 15 GHz.

Format: Decimal (in the range -200.0 to 20.0) to 1decimal place in dB(W/Hz).

- **Energy Dispersal Description** **RDD ref: 0484**

A textual description of the energy dispersal systems characteristics. Typically this would include the frequency deviation, the sweep frequency and the shape of the waveform added to the baseband signal prior to the FM modulator to prevent high levels of energy concentration on the **Reference (Carrier) Frequency** during periods of no, or small levels of modulation signal.

When no modulation or a very small modulation signal is applied, the energy concentrates at the **Reference (Carrier) Frequency** and interference can be caused to other terrestrial and satellite systems. Also multiple carrier intermodulation products become excessive in the types of amplifiers that are commonly used. In order to reduce these effects and to comply with Recommendations ITU-R S.446 and ITU-R S.524, a low-frequency waveform (e.g. triangular) is added to the baseband signal. The level of the triangular wave is set between the following limits:

lower limit: controls the maximum carrier energy per 4 kHz to a level 2 dB above (1.58 times) the maximum energy density at full telephone channel load;

upper limit: determined by distortion noise in the channel and interference to the adjacent channel. It usually makes the carrier energy per 4 kHz equal to the maximum energy density at full telephone channel load.

Format: Text.

- **Horizontal Radiation Pattern** **RDD ref: 0274**

The pattern of the ***Signal Configuration's*** radiated power values measured in the horizontal plane, at equally spaced azimuths around the ***Antenna's*** **Geographical Coordinates**.

Format: A complex format comprised of:

a) 36 vectors defined by

Radiated Power (RDD ref: 0274a); radiated power at the specified azimuth; Decimal (in the range 0.0 to 70.0) to 1 decimal place in dBW

and

Azimuth (RDD ref: 0274b); the angle, measured in the horizontal plane from True North in a clockwise direction; Integer (in the range 0 to 350 in multiples of 10) in degrees.

and

b) Gain Reference Antenna Code.

- **Vertical Radiation Pattern** **RDD ref: 0275**

The pattern of the ***Signal Configuration's*** radiated power values measured in the vertical plane, containing the direction of the ***Transmitting Antenna's*** **Maximum Gain** at equally spaced elevation angles at the ***Antenna's*** **Geographical Coordinates**.

Format: A complex format comprised of:

a) Up to 19 vectors defined by
Radiated Power (RDD ref: 0275a); radiated power at the specified elevation angle; Decimal (in the range 0.0 to 70.0) to 1 decimal place in dBW
and
Elevation Angle (RDD ref: 0275b); the angle measured in the vertical plane between the direction of the Radiated Power value and the horizontal plane; Integer (in the range -90 to 90 in multiples of 10) in degrees.

and

b) Gain Reference Antenna Code.

- **Three Dimensional Roaming Zone** **RDD ref: 0194**

The area in which the mobile or transportable station is intended to be located during transmission.

Format: A compound structure presented as the value of the properties of a ***Three Dimensional Zone***.

- **Two Dimensional Roaming Zone** **RDD ref: 0544**

The area in which the mobile or transportable station is intended to be located during transmission.

Format: A compound structure presented as the value of the properties of either…
one or more ***Segment Zones***,
or one or more ***Aeronautical Zones***,
or one or more ***Circular Zones***,
or one or more ***Geographical Areas***,
or one or more ***Maritime Zones***,
or between 3 and 6 ***Zone Boundary Coordinates***.

- **Three Dimensional Service Zone** **RDD ref: 0545**

The area where a ***Signal Configuration*** is intended to be received by receiving stations and within which protection from harmful interference would be offered.

Format: A compound structure presented as the values of the properties of a ***Three Dimensional Zone***

- **Two Dimensional Service Zone** **RDD ref: 0546**

The area where a ***Signal Configuration*** is intended to be received by receiving stations and within which protection from harmful interference would be offered.

Format: A compound structure presented as the values of the properties of either…
one or more ***Segment Zones***,
or one or more ***Aeronautical Zones***,
or one or more ***Circular Zones***,
or one or more ***CIRAF Zones***,
or one or more ***Geographical Areas***,
or one or more ***Maritime Zones***,
or between 3 and 6 ***Zone Boundary Coordinates***.

- **Maximum Length Of Circuit** **RDD ref: 0446**

The maximum geographical distance over which the ***Signal Configuration*** is intended to provide service.

Format: Integer (in the range 0 to 20000) in km.

- **Station Coverage Code** **RDD ref: 0360**

The code indicating the nature of the service area covered by the ***Signal Configuration*** in accordance with items 1.10, 1.11 and 1.12 of Section 1 of Annex 2 to the RJ81 Regional Agreement.

Format: 1 character.

Code	Meaning
A	a station intended to provide coverage over extensive primary and secondary service areas.
B	a station intended to provide coverage over one or more population centres and the contiguous rural areas located in its primary service areas.
C	a station intended to provide coverage over a city or town and the contiguous suburban areas located in its primary service area.

- **Transmission Coverage Area Identifier** **RDD ref: 0346**

The code assigned to uniquely identify each transmitter in a region to allow mariners to select only the broadcast station(s) serving their region of interest. The **Transmission Coverage Area Identifier** is also known as the B1 Character (see Recommendation ITU-R M.540)**.**

The B1 Character (in the range A-Z) is directly related to the ***Regular Operation Period*** (referred to as transmission schedule for NAVTEX systems). It is assigned by the International Maritime Organisation (IMO).

NAVTEX only.

Format: 1 character.

Note*: The Annex to Resolution 339 (WRC95) was deleted at WRC97 and the data items associated with coordination are no longer required. It is therefore proposed that the* **Transmission Coverage Area Identifier** *should be deleted from Appendix S4.*

3.29 *Television System* RDD ref: 0281

A description of the parameters that define the format, or type of system, used for encoding a visual image and an audible sound, into an electromagnetic waveform that forms a television broadcast signal. For further information see Recommendation ITU-R BT.470.

◊ A ***Television System*** is identified by its **Code**.

Broadcasting Television only.

A ***Television System*** may be designed to use a single ***Colour System*** **RDD ref: 0301**

A ***Television System*** may be used by one or more ***Signal Configurations*** **RDD ref: 0300**

- **Code** **RDD ref: 0283**

The code used to identify the type of ***Television System*** (see Appendix 9 to the RDD). Once the information represented by the **Code** has been internationally agreed all of the other parameters in the ***Television System*** are known and can be identified by providing the **Code**.

Format: Up to 2 characters.

ZONE DATA

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3.30 *Three Dimensional Zone* **RDD ref: 0001**

Three dimensional shape used to describe a ***Signal Configuration's*** **Three Dimensional Service Zone** or **Three Dimensional Roaming Zone**.

A ***Three Dimensional Zone*** is described by a **Maximum Operating Height** and a **Two Dimensional Zone** defined by either an, ***Aeronautical Zone***, a ***Circular Zone***, a ***Geographical Area***, a ***Maritime Zone,*** a ***Segment Zone***, or between 3 and 6 ***Zone Boundary Coordinates***.

◊ A ***Three Dimensional Zone*** is identified by its **Maximum Operating Height, Minimum Operating Height** and its **Two Dimensional Zone.**

- **Maximum Operating Height** **RDD ref: 0003**

The altitude above mean sea level, indicating the highest point of the ***Three Dimensional Zone*** and below which the operator of the radio system can expect to receive protection from harmful interference.

Format: Integer (in the range 0 to 60000) in feet.

- **Minimum Operating Height** **RDD ref: 0004**

The altitude above mean sea level, indicating the lowest point of the ***Three Dimensional Zone*** and above which the operator of the radio system can expect to receive protection from harmful interference. For many radio systems the **Minimum Operating Height** will be ground level but for some systems, e.g. public aeronautical mobile the minimum operating height may be 10000 to 15000 feet.

Format: : Integer (in the range 0 to 60000) in feet.

- **Altitude Radius Reduction** **RDD ref: 0083**

The amount by which the horizontal distance between the vertical sides of the ***Three Dimensional Zone*** are reduced for an increase in altitude. Due to the curvature of the Earth the sides of the ***Three Dimensional Zone*** will naturally diverge with increasing altitude. The degree of divergence is dependent on the size of the base of the ***Three Dimensional Zone.*** **Altitude Radius Reduction** may be used to counteract this natural divergence, or it may be used to reduce the interference between neighbouring ***Three Dimensional Zones*** caused by the increase in the line of sight distance with altitude.

Altitude Radius Reduction is a ratio in metres per foot where the horizontal distance is measured in metres and the altitude is measured in feet. These parameters are used because the radio systems that use ***Three Dimensional Zones*** are primarily aeronautical and the international standard is measured in feet. For aircraft altitude in feet is also a safety of life issue.

Format: Integer (in the range 0 to 10) in metres per foot.

- **Two Dimensional Zone** **RDD ref: 0527**

A part of the Earth's surface describing the shape of the base of the ***Three Dimensional Zone***.

Format: A compound structure presented as the values of the properties of either…

one or more ***Segment Zones***,
or one or more ***Aeronautical Zones***,
or one or more ***Circular Zones***,
or one or more ***Geographical Areas***,
or one or more ***Maritime Zones***,
or between 3 and 6 ***Zone Boundary Coordinates***.

3.31 *Aeronautical Zone* RDD ref: 0032

An ITU pre-defined zone applicable to the Aeronautical Mobile (R) Service in the bands governed by Appendix S27, which identifies a specific geographical area.

◊ An ***Aeronautical Zone*** is identified by its **Code**.

- **Description** **RDD ref: 0601**

Text which describes the boundaries of the Major Air Route Areas, Regional and Domestic Air Route Areas and the VOLMET Allotment and Reception Areas. See provisions 27/80 to 27/185I of Appendix S27 to the Radio Regulations.

Format: Text.

- **Code** **RDD ref: 0033**

The code used to identify a pre-defined ***Aeronautical Zone***.

The full list is contained in Appendix 8 to the RDD.

The only ***Aeronautical Zones*** that will be used after 15 December 1997 are those described in Appendix S27.

Format: Up to 9 characters.

3.32 *CIRAF Zone* RDD ref: 0366

A pre-defined zone applicable to the Broadcasting Service in the HF bands which identifies a specific geographical area. Each ***CIRAF Zone*** may be divided into quadrants.

◊ A ***CIRAF Zone*** is identified by its **Zone Number**.

- **Quadrant Code** **RDD ref: 0367**

The code which identifies a quadrant of a ***CIRAF Zone***. For example, the North West quadrant of ***CIRAF Zone*** 14 would be identified as 14NW.

Format: Up to 4 characters.

- **Zone Number** **RDD ref: 0368**

The number which identifies the appropriate ***CIRAF Zone***.

The full list is contained in Appendix 8 to the RDD.

Format: Integer (in the range 1 to 99).

3.33 *Circular Zone* RDD ref: 0069

A circular geographical area. This area is described using the **Centre Geographical Coordinates** and a **Radius**.

◊ A ***Circular Zone*** is identified by its **Centre Geographical Coordinates** and **Radius**.

- **Centre Geographical Coordinates** **RDD ref: 0070**

The point on the Earth's surface where the centre of the ***Circular Zone*** lies.

Format: Long/Lat in degrees and minutes.

- **Radius** **RDD ref: 0071**

The Great Circle distance between the **Centre Geographical Coordinates** and the circumference of ***Circular Zone***.

Format: Integer (in the range 1 to 20000) in km.

3.34 *Geographical Area* **RDD ref: 0173**

An area of the Earth's surface whose borders are recorded by the ITU for radiocommunication purposes. The use of a country name, or of a geographical area by the ITU does not imply the expression of any opinion whatsoever on the part of the Union concerning the sovereignty or the legal status of any country, territory or geographical region.

Many ***Geographical Areas*** are countries for example, 'Poland' and 'Hungary' or formed from contiguous areas of one country e.g. 'The 48 contiguous States of the United States of America', others e.g. 'Antarctic' are not formed from countries.

◊ A ***Geographical Area*** is identified by its **Code**.

A ***Geographical Area*** may be an area of operation for one or more ***Operators*** **RDD ref: 0540**

A ***Geographical Area*** may be a valid area for one or more ***Correspondence Addresses*** **RDD ref: 0018**

A ***Geographical Area*** may be the location of one or more ***Sites*** **RDD ref: 0176**

- **Code** **RDD ref: 0174**

The code used to identify a ***Geographical Area*** as assigned by the ITU. All new codes are assigned by the ITU in conformity with ISO three character coding.

Format: Up to 3 characters.

The codes are defined in Appendix 3 to the RDD.

- **Name** **RDD ref: 0175**

The name by which a ***Geographical Area*** is known at the ITU.

A full list is contained in Appendix 3 to the RDD.

Format: Text.

The names are defined in Appendix 3 to the RDD.

- **Radiocommunication Region Code** **RDD ref: 0653**

An indication of the ITU Region where the ***Geographical Area*** is located. For the allocation of frequencies the Earth's surface has been divided into three Regions. The complete definition of the three Radiocommunication Regions can be found in Article S5 to the Radio Regulations. A list of ***Geographical Areas*** and their corresponding **Radiocommunication Region Code** are contained in Appendix 3 to the RDD.

Format: 1 character.

Code	**Meaning**
1	Radiocommunication Region 1
2	Radiocommunication Region 2
3	Radiocommunication Region 3

3.35 *Maritime Zone* RDD ref: 0185

An ITU pre-defined zone applicable to the Maritime Mobile Service, only in the bands below 28000 kHz which identifies a specific geographical area.

◊ A ***Maritime Zone*** is identified by its **Code**.

- **Description** **RDD ref: 0186**

Text which describes the boundaries and location of a ***Maritime Zone***.

Format: Text.

- **Code** **RDD ref: 0187**

The code used to identify a ***Maritime Zone***.

The full list is contained in Appendix 8 to the RDD.

Format: 5 characters.

3.36 *Segment Zone* RDD ref: 0451

An area of the Earth's surface defined by two azimuth values and two radii. The radii describe the **Start Radius** and **Finish Radius** of the ***Segment Zone***. The ***Segment Zone*** may be used to define the reception zone for a sky wave and may form part of a ***CIRAF Zone***, in which case both the **Start Radius** and **Finish Radius** will have non zero values; or it may be used to indicate the coverage area for a ground wave, in which case the **Start Radius** will always be zero.

◊ An ***Segment Zone*** is identified by its **Start Azimuth**, its **Finish Azimuth**, its **Finish Radius** and the ***Transmitting Antenna***'s **Geographical Coordinates**.

- **Start Azimuth** **RDD ref: 0452**

The angle of the left hand edge of the ***Segment Zone*** measured, in the horizontal plane, from True North in a clockwise direction.

Format: Decimal (in the range between 0.0 to 359.9 to 1 decimal place) in degrees.

- **Finish Azimuth** **RDD ref: 0453**

The angle of the right hand edge of the ***Segment Zone*** measured, in the horizontal plane, from True North in a clockwise direction.

Format: Decimal (in the range between 0.1 to 360.0) to 1 decimal place in degrees.

- **Start Radius** **RDD ref: 0454**

The Great Circle distance from the ***Transmitting Antenna's*** **Geographical Coordinates** to the start of the ***Segment Zone***.

Format: Integer (in the range 0 to 20000) in metres.

- **Finish Radius** **RDD ref: 0475**

The Great Circle distance from the ***Transmitting Antenna's*** **Geographical Coordinates** to the end of the ***Segment Zone***.

Format: Integer (in the range 0 to 20000) in metres.

3.37 *Zone Boundary Coordinate* **RDD ref: 0328**

A point on the Earth's surface that along with between 2 and 5 other points, connected using arcs of Great Circles, which define a geographical area.

◊ A ***Zone Boundary Coordinate*** is identified by its **Geographical Coordinates** and the ***Zone*** it is used to define.

- **Geographical Coordinates** **RDD ref: 0329**

A point on the Earth's surface.

Format: Long/Lat in degrees, minutes and seconds.

- **Sequence Number** **RDD ref: 0511**

The number used to identify the order in which the ***Zone Boundary Coordinate*** must be connected together.

Format: Integer (in the range 1 to 6).

3.38 *Maritime HF Allotment Area* RDD ref: 0576

An ITU pre-defined zone, applicable to the Maritime Mobile Service in the HF bands governed by Appendix S25. It comprises part of a geographical area, in which a ***Transmitting Antenna*** may be located.

◊ A ***Maritime HF Allotment Area*** is identified by its **Code**.

- **Description** **RDD ref: 0577**

Text which describes the boundaries of a ***Maritime HF Allotment*** area in the maritime mobile service.

Format: Text.

- **Code** **RDD ref: 0578**

The code used to identify a pre-defined ***Maritime HF Allotment*** area in the maritime mobile service**.**

A full list is contained in Appendix 8 to the RDD.

Format: Up to 6 characters.

RADIOCOMMUNICATION DATA DICTIONARY

Section 4

SPACE ADVANCE PUBLICATION, NOTIFICATION AND COORDINATION DATA

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4.0 Introduction

This section contains a series of tables describing the notification data for space radio systems. Each table provides:

- clarification or expansion of the information contained in Annex 2B to RR Appendix S4; and,
- lists of the data items required for the advance publication, notification and coordination of the radio system, together with the specific conditions under which it is required by the Radio Regulations.

The following sections provide some information on how to use the tables in Section 4 and where to locate any relevant supporting information.

4.0.1 Section 4 Table Structure

Each table presents the information required in the advance publication, notification and coordination of space or Earth stations as indicated in the title of each table. For example, Table 4.2 is entitled "Advance publication of non-Geostationary Space Stations (under Resolution 46)" which describes the data required for the advance publication of information concerning these stations.

Each table has five columns structured as follows:

RDD ref: This column contains the RDD Reference Number. This number is a unique identifier which is assigned to each data item, data group or relationship.

Data Item Name This column contains the Data Item Name as it appears in the RDD. Every data item contained in the tables is described in detail in Section 5.

Data Format This column contains information regarding the format in which the data is to be provided during the advance publication, coordination and notification processes for the specific type of station covered by that table.

Use: This column contains information which indicates under what conditions the data item is to be used. This column contains codes with meanings as follows.

- **M:** Mandatory: the information must be submitted by the notifying ***Administration***; indicates the data item must be provided for the specific services and frequency bands covered by the table.
- **R:** Required: the information must be submitted under a specific condition. This condition is specified in the "Conditions of Use" column. The notifying ***Administration*** will supply this information.
- **O:** Optional: the information may be submitted by the notifying ***Administration*** at its discretion; indicates the data item may be provided at the discretion of the notifying ***Administration*** for the specific services and frequency bands covered by the table.
- **C:** Coordination: indicates the data item is mandatory if it has been used as a basis to effect coordination with another ***Administration*** for the specific services and frequency bands covered by the table.
- **BR:** Radiocommunication Bureau: indicates the data item is provided by the BR.

Conditions of Use This column specifies how and when a data item should be supplied when "R" is used in the "Use" column. Information in this column is mandatory when "R" is used in the "Use" column. The column may also contain supplementary information relevant to notification of the data item.

Sample Data Table

The following is a sample from a Table in this section:

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Space Service Notice*** provide the			
S011	• Code of the ***Administration*** notifying the Earth Station or ***Space Station***	Up to 3 Char.	M	
S034	• Code of the ***Intergovernmental Satellite Organization*** on whose behalf a submission is made for the ***Space Station***	Up to 3 Char	R	Mandatory if an ***Intergovernmental Satellite Organization*** is responsible for the ***Space Station.***
S295	• Administration Notice Code	Up to 20 Char.	O	
S296	• Date Sent	Date.	O	
S297	• BR Identification Code	10 Char.	BR	
S298	• BR Date Received	Date.	BR	
S300	• Occurrence Code	1 Char.	M	
S301	• Purpose Code	1 Char.	M	
S337	• Intended Action Code	1 Char.	M	
S767	• Special Section Reference For Publication	Up to 8 Char.	M	
S605	• Special Section Number For Publication	4 Char.	BR	
S299	• Weekly Circular Part For Publication	1 Char.	BR	
S302	• Weekly Circular Date For Publication	Date.	BR	
S303	• Weekly Circular Number For Publication	Int. in range 1 to 9999.	BR	

4.0.2 Table Usage

Each data item that is required for notification, coordination or advance publication processes is indicated by a "bullet" mark and the tables have been structured so that the information can be read in the form of a standard sentence. With respect to the Sample Data Table outlined above, this is demonstrated as follows:

> For each ***Space Service Notice*** provide the **Code** of the ***Administration*** notifying the Earth Station or ***Space Station***.

and

> For each ***Space Service Notice*** provide the **Code** of the ***Intergovernmental Satellite Organization*** on whose behalf a submission is made for the ***Space Station***.

To determine how and when these data items are used, the columns "Use" and "Conditions of Use**"** must be consulted. In this example the **Code** of the ***Administration*** notifying the ***Earth Station*** or ***Space Station*** is mandatory in all cases as indicated by the symbol "M" in the column "Use". The **Code** of the ***Intergovernmental Satellite Organization*** on whose behalf a submission is made for the ***Space Station***, on the other hand, is only required under specified conditions, as indicated by the symbol "R" in the "Use" column, with the "Conditions of Use" column indicating that this data item is only required if an ***Inter governmental Satellite Organization*** is responsible for the ***Space Station***.

The "Data Format" column provides useful information concerning the format in which the data must be provided and the allowable range of values for that data. The values which are not applicable in all cases are further clarified in the "Conditions of Use" column. Values in the "Data Format" column therefore indicate the likely range of values for all the radio systems covered by that table. Section 5 contains a data item's maximum possible range of values for all of the radio systems in the RDD. The "Data Format" column also provides details on the units, form and precision required for the data items. These formats are shown in their full form in Section 5, but in Section 4 they have been abbreviated to reduce the space required in the table

Abbreviations are used in the tables as follows:

Int. = Integer.

Char. = Character.

Dec. = Decimal.

Long/Lat (dm) = Long/Lat in degrees and minutes.

4.1 Advance Publication of Geostationary Space Stations

This table shows the information which must be supplied for the advance publication of geostationary space stations and space networks together with the specific conditions under which it is required by the Radio Regulations.

The table applies to all geostationary space stations and space networks with the exception of those used for the Broadcasting Satellite Service which are notified in accordance with the procedures contained in APS30/30A and those used in the Fixed Satellite Service which are notified in accordance with the procedures contained in APS30B.

RDD Ref:	**Data Item Name**	**Data Format**	**Use**	**Conditions of Use**
	For each ***Space Service Notice*** provide the			
S011	• Code of the ***Administration*** notifying the Earth Station or ***Space Station***	Up to 3 Char.	M	
S034	• Code of the ***Intergovernmental Satellite Organization*** on whose behalf a submission is made for the ***Space Station***	Up to 3 Char.	R	Mandatory if an ***Intergovernmental Satellite Organization*** is responsible for the ***Space Station.***
S295	• Administration Notice Code	Up to 20 Char.	O	
S296	• Date Sent	Date.	O	
S297	• BR Identification Code	10 Char.	BR	
S298	• BR Date Received	Date.	BR	
S300	• Occurrence Code	1 Char.	M	
S301	• Purpose Code	1 Char.	M	
S337	• Intended Action Code	1 Char.	M	
S767	• Special Section Reference For Publication	Up to 8 Char.	M	
S605	• Special Section Number For Publication	4 Char.	BR	
S299	• Weekly Circular Part For Publication	1 Char.	BR	
S302	• Weekly Circular Date For Publication	Date.	BR	
S303	• Weekly Circular Number For Publication	Int. in range 1 to 9999.	BR	
S304	• Code of each ***Provision*** the ***Space Service Notice*** is notified under	Up to 12 Char.	M	
S307	• Identifier of each ***Notice Attachment*** which supplements the ***Space Service Notice***	Int. in range 1 to 999.	M	
S360	• Code of each ***Intended Action*** included with the ***Space Service Notice***	1 Char.	M	If the ***Space Service Notice's*** **Intended Action Code** = "A" all ***Intended Actions'*** **Codes** = "A". Similarly, if the ***Space Service Notice's*** **Intended Action Code** = "S" all ***Intended Actions'*** **Codes** = "S" and do not need to be notified as such. If the ***Space Service Notice's*** **Intended Action Code** = "M", ***Intended Actions'*** **Codes** can be "A", "M", "S" or "R".
	Where the ***Intended Action*** refers to an ***Assignment Coordination Group*** also provide the			
S519	• Weekly Circular Date For Last Advance Publication	Date.	BR	
S520	• Weekly Circular Number For Last Advance Publication	Int. in range 1 to 9999.	BR	
S768	• Special Section Reference For Last Advance Publication	Up to 8 Char.	M	The special section reference under which the ***Space Services Notice*** is published, e.g. AR11. In the special event of modification or suppresion.
S606	• Special Section Number For Last Advance Publication	4 Char.	M	The special section reference under which the ***Space Services Notice*** is published, e.g. AR11. In the special event of modification or suppresion.
	For the ***Space Station*** that is the subject of the ***Space Service Notice*** provide the			
S067	• BR Identification Code	10 Char.	R	Mandatory if ***Space Service Notice's*** **Intended Action Code**="M" or "S". Provided by BR the if ***Space Service Notice's*** **Intended Action Code**="A".
S069	• Name	Up to 20 Char.	M	
S619	• Date Of Bringing Into Use	Date.	M	
S624	• Period Of Validity	Int. in range 1 to 30 in years.	M	
S021	• Code of the ***Correspondence Address*** where interference issues should be addressed to regarding the ***Space Station***	Up to 2 Char.	M	
S011	• Code of each ***Administration*** with a participating interest in the ***Space Station***	Up to 3 Char.	R	Mandatory if more than one ***Administration*** has a participating interest in the ***Space Station.***

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
	For the ***Geostationary Orbital Position*** that is the subject of the ***Intended Action*** provide the			
S072	• Nominal Longitude	Dec. in range -180.00 to 180.00 in degrees.	M	
	For each ***Frequency Range*** defining the spectrum limits of a ***Beam*** that is the subject of an ***Intended Action*** provide the			
S247	• Lower Limit	Frequency.	M	
S248	• Upper Limit	Frequency.	M	
	For the ***Assignment Coordination Group (ACG)*** that is the subject of the ***Intended Action*** provide the following information, including only one of the options from **C** or **D**.			
S186	• BR Identification Code	10 Char.	R	Mandatory if ***Space Service Notice's*** **Intended Action Code**="M" or "S". Provided by BR if ***Space Service Notice's*** **Intended Action Code**="A".
S052/ S617	• The Codes for each ***Class Of Station/Nature Of Service Pair*** used to classify the operation of the ***ACG***	2 Char. for each Code.	M	
	Option **C**: if the ***Intended Action*** is for a ***Receiving Space Station's ACG*** provide the			
S384	• Uplink Service Area	A compound structure presented in one of the ways described in Section 5.	M	
	Option **D**: if the ***Intended Action*** is for a ***Transmitting Space Station's ACG*** provide the			
S276	• Downlink Service Area	A compound structure presented in one of the ways described in Section 5.	M	

4.2 Advance Publication of Non-geostationary Space Stations (Under Resolution 46)

This table shows the information which must be supplied for the advance publication of non-geostationary space stations and space networks which are subject to the procedures contained in Resolution 46. It also shows the specific conditions under which it is required by the Radio Regulations.

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Space Service Notice*** provide the			
S011	• Code of the ***Administration*** notifying the Earth Station or ***Space Station***	Up to 3 Char.	M	
S034	• Code of the ***Intergovernmental Satellite Organization*** on whose behalf a submission is made for the ***Space Station***	Up to 3 Char.	R	Mandatory if an ***Intergovernmental Satellite Organization*** is responsible for the ***Space Station.***
S295	• Administration Notice Code	Up to 20 Char.	O	
S296	• Date Sent	Date.	O	
S297	• BR Identification Code	10 Char.	BR	
S298	• BR Date Received	Date.	BR	
S300	• Occurrence Code	1 Char.	M	
S301	• Purpose Code	1 Char.	M	
S337	• Intended Action Code	1 Char.	M	
S767	• Special Section Reference For Publication	Up to 8 Char.	M	
S605	• Special Section Number For Publication	4 Char.	BR	
S299	• Weekly Circular Part For Publication	1 Char.	BR	
S302	• Weekly Circular Date For Publication	Date.	BR	
S303	• Weekly Circular Number For Publication	Int. in range 1 to 9999.	BR	
S304	• Code of each ***Provision*** the ***Space Service Notice*** is notified under	Up to 12 Char.	M	
S307	• Identifier of each ***Notice Attachment*** which supplements the ***Space Service Notice***	Int. in range 1 to 999.	M	
S360	• Code of each ***Intended Action included*** with the ***Space Service Notice***	1 Char.	M	If the ***Space Service Notice's*** **Intended Action Code** = "A" all ***Intended Actions'*** **Codes** = "A". Similarly, if the ***Space Service Notice's*** **Intended Action Code** = "S" all ***Intended Actions'*** **Codes** = "S" and do not need to be notified as such. If the ***Space Service Notice's*** **Intended Action Code** = "M", ***Intended Actions'*** **Codes** can be "A", "M", "S" or "R".
	Where the ***Intended Action*** refers to an ***Assignment Coordination Group*** also provide the			
S519	• Weekly Circular Date For Last Advance Publication	Date.	BR	
S520	• Weekly Circular Number For Last Advance Publication	Int. in range 1 to 9999.	BR	
S768	• Special Section Reference For Last Advance Publication	Up to 8 Char.	M	The special section reference under which the ***Space Services Notice*** is published,. e.g. RES46. In the event of modification or suppresion.
S606	• Special Section Number For Last Advance Publication	4 Char.	M	The special section reference under which the ***Space Services Notice*** is published,. e.g. RES46. In the event of modification or suppresion.
	For the ***Space Station*** that is the subject of the ***Space Service Notice*** provide the			
S067	• BR Identification Code	10 Char.	R	Mandatory if ***Space Service Notice's*** **Intended Action Code** = "M" or "S". Provided by BR if ***Space Service Notice's*** **Intended Action Code** = "A".
S069	• Name	Up to 20 Char.	M	
S619	• Date Of Bringing Into Use	Date.	M	
S085	• Total Number Of Satellites	Int. in range 1 to 999.	M	
S086	• Total Number Of Non-geostationary Orbits	Int. in range 1 to 99.	M	
S021	• Code of the ***Correspondence Address*** where interference issues should be addressed to regarding the ***Space Station***	Up to 2 Char.	M	
S011	• Code of each ***Administration*** with a participating interest in the ***Space Station***	Up to 3 Char.	R	Mandatory if more than one ***Administration*** has a participating interest in the ***Space Station.***
	For the ***Non-geostationary Orbit*** that is the subject of the ***Intended Action*** provide the			
S084	• Reference Body Code	1 Char.	M	

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
S096	• Inclination Angle	Dec. in range 0.00 to 180.00 in degrees.	M	
S098	• Apogee Altitude	Int. in range 500 to 99999999 in km.	M	
S099	• Perigee Altitude	Int. in range 500 to 99999999 in km.	M	
S103	• Satellite Period	Hrs and Mins.	M	
	For each ***Frequency Range*** defining the spectrum limits of a ***Beam*** that is the subject of an ***Intended Action*** provide the			
S247	• Lower Limit	Frequency.	M	
S248	• Upper Limit	Frequency.	M	
	For the ***Assignment Coordination Group (ACG)*** that is the subject of the ***Intended Action*** provide the following information, including only one of the options from **C or D**.			
S186	• BR Identification Code	10 Char.	R	Mandatory if ***Space Service Notice's*** **Intended Action Code** = "M" or "S". Provided by BR if ***Space Service Notice's*** **Intended Action Code** = "A".
S052/ S617	• The Codes for each ***Class Of Station/Nature Of Service Pair*** used to classify the operation of the ***ACG***	2 Char. for each Code.	M	
	Option **C**: if the ***Intended Action*** is for a ***Receiving Space Station's ACG***			
S384	• Uplink Service Area	A compound structure presented in one of the ways described in section 5.	M	
	Option **D**: if the Intended Action is for a ***Transmitting Space Station's ACG***			
S276	• Downlink Service Area	A compound structure presented in one of the ways described in section 5.	M	

4.3 Advance Publication of Non-geostationary Space Stations (Not Under Resolution 46)

This table shows the information which must be supplied for the advance publication of non-geostationary space stations and space networks which are not subject to the procedures contained in Resolution 46. It also shows the specific conditions under which it is required by the Radio Regulations.

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Space Service Notice*** provide the			
S011	• Code of the ***Administration*** notifying the Earth Station or ***Space Station***	Up to 3 Char.	M	
S034	• Code of the ***Intergovernmental Satellite Organization*** on whose behalf a submission is made for the ***Space Station***	Up to 3 Char.	R	Mandatory if an ***Intergovernmental Satellite Organization*** is responsible for the ***Space Station***.
S295	• Administration Notice Code	Up to 20 Char.	O	
S296	• Date Sent	Date.	O	
S297	• BR Identification Code	10 Char.	BR	
S298	• BR Date Received	Date.	BR	
S300	• Occurrence Code	1 Char.	M	
S301	• Purpose Code	1 Char.	M	
S337	• Intended Action Code	1 Char.	M	
S767	• Special Section Reference For Publication	Up to 8 Char.	M	
S605	• Special Section Number For Publication	4 Char.	BR	
S299	• Weekly Circular Part For Publication	1 Char.	BR	
S302	• Weekly Circular Date For Publication	Date.	BR	
S303	• Weekly Circular Number For Publication	Int. in range 1 to 9999.	BR	
S304	• Code of each ***Provision*** the ***Space Service Notice*** is notified under	Up to 12 Char.	M	
S307	• Identifier of each ***Notice Attachment*** which supplements the ***Space Service Notice***	Int. in range 1 to 999.	M	
S360	• Code of each ***Intended Action*** included with the ***Space Service Notice***	1 Char.	M	If the ***Space Service Notice's*** **Intended Action Code** = "A" all ***Intended Actions'*** **Codes** = "A". Similarly, if the ***Space Service Notice's*** **Intended Action Code** = "S" all ***Intended Actions'*** **Codes** = "S" and do not need to be notified as such. If the ***Space Service Notice's*** **Intended Action Code** = "M", ***Intended Actions'*** **Codes** can be "A", "M", "S" or "R".
	Where the ***Intended Action*** refers to an ***Assignment Coordination Group*** also provide the			
S519	• Weekly Circular Date For Last Advance Publication	Date.	BR	
S520	• Weekly Circular Number For Last Advance Publication	Int. in range 1 to 9999.	BR	
S768	• Special Section Reference For Last Advance Publication	Up to 8 Char.	M	The special section reference under which the ***Space Services Notice*** is published,. e.g. AR11. In the event of modification or suppresion.
S606	• Special Section Number For Last Advance Publication	4 Char.	M	The special section reference under which the ***Space Services Notice*** is published,. e.g. AR11. In the event of modification or suppresion.
	For the ***Space Station*** that is the subject of the ***Space Service Notice*** provide the			
S067	• BR Identification Code	10 Char.	R	Mandatory if ***Space Service Notice's*** **Intended Action Code** = "M" or "S". Provided by BR if ***Space Service Notice's*** **Intended Action Code** = "A".
S069	• Name	Up to 20 Char.	M	
S619	• Date Of Bringing Into Use	Date.	M	
S085	• Total Number Of Satellites	Int. in range 1 to 999.	M	
S086	• Total Number Of Non-geostationary Orbits	Int. in range 1 to 99.	M	
S034	• Code of the ***Intergovernmental Satellite Organization*** that has operational control of the ***Space Station***	Up to 3 Char.	R	Mandatory if an ***Operator's*** **Code** is not supplied.
S029	• Code of the ***Operator*** providing the operational control of the ***Space Station***	3 Char. in numeric range 001 to 999.	R	Mandatory if an ***Intergovernmental Satellite Organization's*** **Code** is not supplied.
S021	• Code of the ***Correspondence Address*** where interference issues should be addressed to regarding the ***Space Station***	Up to 2 Char.	M	

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
S011	• Code of each ***Administration*** with a participating interest in the ***Space Station***	Up to 3 Char.	R	Mandatory if more than one ***Administration*** has a participating interest in the ***Space Station.***
	For the ***Non-geostationary Orbit*** that is the subject of the ***Intended Action*** provide the			
S084	• Reference Body Code	1 Char.	M	
S096	• Inclination Angle	Dec. in range 0.00 to 179.99 in degrees.	M	
S098	• Apogee Altitude	Int. in range 500 to 99999999 in km.	M	
S099	• Perigee Altitude	Int. in range 500 to 99999999 in km.	M	
S103	• Satellite Period	Hrs and Mins.	M	
	For each ***Beam*** that is the subject of an ***Intended Action*** provide the			
S116	• Designation	Up to 4 Char.	M	
S118	• Steerable Indicator	True or False.	M	
S115	• Emission/Reception Indicator	1 Char.	M	
S124	• Maximum Co-polar Gain	Dec. in range 0.0 to 50.0 in dBi.	M	
S122	• Co-polar Gain Pattern	A compound structure presented in one of the ways described in section 5.	M	
	For each ***Frequency Range*** defining the spectrum limits of the ***Beam*** provide the			
S247	• Lower Limit	Frequency.	M	
S248	• Upper Limit	Frequency.	M	
	For the ***Assignment Coordination Group (ACG)*** that is the subject of the ***Intended Action*** provide the following information, including only one of the options from **C, D, E** or **F**.			
S186	• BR Identification Code	10 char	R	Mandatory if ***Space Service Notice's*** **Intended Action Code**="M" or "S". Provided by BR if ***Space Service Notice's*** **Intended Action Code** = "A"
S189	• Polarization Code	Up to 2 Char.	M	
S364	• Polarization Linear Angle	Dec. in range 0.0 to 359.0 in degrees.	R	Mandatory if the **Polarisation Code** = "L"
S196	• Baseband Lower Frequency Limit	Dec. in range 0.000 to 9999999.999 in kHz.	O	
S197	• Baseband Upper Frequency Limit	Dec. in range 0.000 to 9999999.999 in kHz.	O	
S640	• Type of Modulation	Text.	O	
S641	• Type of Amplitude Modulation	Text.	O	
S642	• Interference Study Information	Text.	O	
S199	• Multiplex Type (Video/Sound)	Text.	O	
S327	• TV System and Colour Standard Description	Text.	O	
S204	• Digital Signal Transmitted Bit Rate	Dec. in range 0.0 to 9999999.9 in kBit/s.	O	
S205	• Digital Signal Number Of Phases	Int. in range 1 to 10.	O	
S201	• Pre-emphasis P-P Frequency Deviation	Dec. in range 5.0 to 15.0 in MHz.	O	
S326	• Pre-emphasis RMS Frequency Deviation	Dec. in range 20.0 to 300.0 in kHz.	O	
S202	• Pre-emphasis Characteristics	Diagram.	O	
S200	• Energy Dispersal Frequency Deviation	Dec. in range 0.1 to 4.0 in MHz.	O	
S324	• Energy Dispersal Sweep Frequency	Int. in range 10 to 2000 in Hz.	O	
S325	• Energy Dispersal Waveform	Text.	O	
S052/ S617	• The Codes for each ***Class Of Station/Nature Of Service Pair*** used to classify the operation of the ***ACG***	2 Char for each Code.	M	
S723	• Value of each ***ACG Frequency*** the ***ACG*** utilises	Frequency.	O	
	Option **C:** if the ***Intended Action*** is for a ***Receiving Space Station's ACG***			
S671	• Notified Identifying Code of each ***Associated Earth Station Antenna*** transmitting the ***ACG***	Up to 20 Char.	M	
S116	• Designation of the ***Beam*** receiving the ***ACG***	Up to 4 Char.	M	

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
S192	• Receiving System Noise Temperature	Int. in range 300 to 6000 in Kelvins.	M	
S384	• Uplink Service Area	A compound structure presented in one of the ways described in section 5.	M	
	Option **D**: if the **Intended Action** is for a ***Transmitting Space Station's ACG***			
S671	• Notified Identifying Code of each ***Associated Earth Station Antenna*** receiving the ***ACG***	up to 20 Char.	M	
S116	• Designation of the ***Beam*** transmitting the ***ACG***	Up to 4 Char.	M	
S276	• Downlink Service Area	A compound structure presented in one of the ways described in section 5.	M	
	Option **E**: if the **Intended Action** is for a ***Transmitting Space Station's Space to Space ACG***			
S116	• Designation of the ***Beam*** transmitting the ***ACG***	Up to 4 Char.	M	
S652	• Maximum Radiated Power	Dec. in range 0.0 to 60.0 dBW.	M	
	For each ***Associated Space Station Position*** receiving the ***ACG***, provide the			
S067	• BR Identification Code of the ***Space Station*** that represents the ***Associated Space Station Position***	10 Char.	M	If the ***Space Station's*** BR Identification Code is not known provide the ***Space Station's*** Name (up to 20 Char.)
S507	• Anticipated Nominal Longitude	Dec. in range -180.00 to 180.00 in degrees.	R	Mandatory if the ***Beam*** is aimed at a ***Space Station*** in a ***Geostationary Orbital Position***
	Option **F**: if the **Intended Action** is for a ***Receiving Space Station's Space to Space ACG***			
S116	• Designation of the Beam receiving the ACG	Up to 4 Char.	M	
S653	• Maximum Radiated Power	Dec. in range 0.0 to 60.0 dBW.	M	
	For each ***Associated Space Station Position*** transmitting the ***ACG***, provide the			
S067	• BR Identification Code of the ***Space Station*** that represents the ***Associated Space Station Position***	10 Char.	M	If the ***Space Station's*** BR Identification Code is not known provide the ***Space Station's*** Name (up to 20 Char.)
S507	• Anticipated Nominal Longitude	Dec. in range -180.00 to 180.00 in degrees.	R	Mandatory if the ***Beam*** originates from a ***Space Station*** in a ***Geostationary Orbital Position***
	For each ***Emission Characteristic Set*** that further defines the ***Assignment Coordination Group*** provide the			
S262	• Class Of Emission Code	Up to 5 Char.	O	
S334	• Necessary Bandwidth Code	4 Char.	O	
S263	• Total Peak Envelope Power	Dec. in range -10.0 to 40.0 in dBW.	O	Provided the **Maximum Peak Envelope Power Per Carrier** is not supplied
S264	• Maximum Peak Envelope Power Per Carrier	Dec. in range -10.0 to 40.0 in dBW.	O	Provided the **Total Peak Envelope Power** is not supplied
S265	• Minimum Peak Envelope Power Per Carrier	Dec. in range -10.0 to 40.0 in dBW.	O	
S267	• Maximum Power Density Per Carrier - Averaged Over 4 kHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory in frequency bands below 15 GHz if the **Maximum Power Density Averaged Over 4kHz** is not supplied
S266	• Maximum Power Density - Averaged Over 4 kHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory in frequency bands below 15GHz if the **Maximum Power Density Per Carrier Averaged Over 4kHz** is not supplied
S268	• Minimum Power Density Per Carrier Averaged Over 4 kHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	O	
S336	• Maximum Power Density Per Carrier - Averaged Over 1 MHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory in frequency bands above 15GHz if the **Maximum Power Density Averaged Over 1MHz** is not supplied
S335	• Maximum Power Density - Averaged Over 1 MHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory in frequency bands above 15GHz if the **Maximum Power Density Per Carrier Averaged Over 1MHz** is not supplied
S371	• Minimum Power Density Per Carrier - Averaged Over 1 MHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	O	
S270	• Carrier To Noise Objective	Dec. in range -10.0 to 25.0 in dB.	O	

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
	For the ***Associated Earth Station Antenna*** that is the subject of the ***Intended Action*** provide the			
S671	• Notified Identifying Code	Up to 20 Char.	M	
S559	• Typical/Specific Indicator	1 Char.	M	
S673	• Geographical Coordinates	Long/Lat (dms).	R	Mandatory if the ***Associated Earth Station Antenna*** is not a typical antenna
S763	• Receiving System Noise Temperature	Int. in range 20 to 6000 in Kelvins.	R	Mandatory for a receiving ***Associated Earth Station Antenna***
S676	• Maximum Gain	Dec. in range 0.00 to 70.00 in dBi.	M	
S677	• Beamwidth	Dec. in range 0.00 to 100.00 in degrees.	O	
S678	• Co-polar Gain Pattern	A compound structure presented in one of the ways described in section 5	M	
S052/ S617	• Codes for each ***Class Of Station/Nature Of Service Pair*** of the ***Associated Earth Station Antenna***	2 Char. for each code	M	
S380	• Name of the ***Site*** that is the location of the specific ***Associated Earth Station Antenna***	Up to 30 Char.	R	Mandatory if the ***Associated Earth Station Antenna*** is not a typical antenna.
	• Code of the ***Geographical Area*** in which the ***Site*** is located	Up to 3 Char	R	Mandatory if the ***Associated Earth Station Antenna*** is not a typical antenna.

4.4 Notification/Coordination of Geostationary Space Stations Including Notification Under APS30B

This table shows the information which must be supplied for the notification and coordination of geostationary space stations and space networks together with the specific conditions under which it is required by the Radio Regulations and applicable Plans.

This table is applicable to all geostationary space stations and space networks including those which are subject to the procedures contained in APS30B with the exception of geostationary space stations and space networks for the BSS (APS30/S30A)

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Space Service Notice*** provide the			
S011	• Code of the ***Administration*** notifying the Earth Station or ***Space Station***	Up to 3 Char.	M	
S034	• Code of the ***Intergovernmental Satellite Organization*** on whose behalf a submission is made for the ***Space Station***	Up to 3 Char	R	Mandatory if an ***Intergovernmental Satellite Organization*** is responsible for the ***Space Station***
S295	• Administration Notice Code	Up to 20 Char.	O	
S296	• Date Sent	Date.	O	
S297	• BR Identification Code	10 Char.	BR	
S298	• BR Date Received	Date.	BR	
S300	• Occurrence Code	1 Char.	M	
S301	• Purpose Code	1 Char.	M	
S337	• Intended Action Code	1 Char.	M	
S767	• Special Section Reference For Publication	Up to 8 Char.	M	
S605	• Special Section Number For Publication	4 Char.	BR	
S299	• Weekly Circular Part For Publication	1 Char.	BR	
S302	• Weekly Circular Date For Publication	Date.	BR	
S303	• Weekly Circular Number For Publication	Int. in range 1 to 9999.	BR	
S304	• Code of each ***Provision*** the ***Space Service Notice*** is notified under	Up to 12 Char.	M	
S307	• Identifier of each ***Notice Attachment*** which supplements the ***Space Service Notice***	Int. in range 1 to 999.	M	
S360	• Code of each ***Intended Action*** included with the ***Space Service Notice***	1 Char.	M	I the ***Space Service Notice's*** **Intended Action Code** = "A" all ***Intended Actions'*** **Codes** = "A". Similarly, if the ***Space Service Notice's*** **Intended Action Code** = "S" all ***Intended Actions'*** **Codes** = "S" and do not need to be notified as such. If the ***Space Service Notice's*** **Intended Action Code** = "M", ***Intended Actions'*** **Codes** can be "A", "M", "S" or "R".
	Where the ***Intended Action*** refers to an ***Assignment Coordination Group*** also provide the			
S768	• Special Section Reference For Last Advance Publication	Up to 8 Char.	M	The special section reference under which the ***Space Services Notice*** is published,. e.g. AR11.
S606	• Special Section Number For Last Advance Publication	4 Char.	M	
S521	• Weekly Circular Date For Last Coordination	Date.	R	Mandatory if notification. If coordination, it is provided by the BR.
S522	• Weekly Circular Number For Last Coordination	Int. in range 1 to 9999.	R	Mandatory if notification. If coordination, it is provided by the BR.
S769	• Special Section Reference For Last Coordination	Up to 8 Char.	R	Mandatory if the provisions of Nos. S9.7, S9.8, S9.9, S9.11, S9.11A, S9.21 or Article 6 of Appendix S30B apply.
S607	• Special Section Number For Last Coordination	Int. in range 1 to 9999.	R	Mandatory if the provisions of Nos. S9.7, S9.8, S9.9, S9.11, S9.11A, S9.21 or Article 6 of Appendix S30B apply.
S775	• Weekly Circular Part For Notification	1 Char.	BR	
S523	• Weekly Circular Date For Last Notification	Date.	BR	
S524	• Weekly Circular Number For Last Notification	Int. in range 1 to 9999.	BR	
	For the ***Space Station*** that is the subject of the ***Space Service Notice*** provide the			
S067	• BR Identification Code	10 Char.	R	Mandatory if ***Space Service Notice's*** **Intended Action Code** = "M" or "S". Provided by BR if ***Space Service Notice's*** **Intended Action Code** = "A".

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
S069	• Name	Up to 20 Char.	M	
S034	• Code of the ***Intergovernmental Satellite Organization*** that has operational control of the ***Space Station***	Up to 3 Char.	R	Mandatory if an ***Operator's* Code** is not supplied
S029	• Code of the ***Operator*** providing the operational control of the ***Space Station***	3 Char. in numeric range 001 to 999.	R	Mandatory if an ***Intergovernmental Satellite Organization's* Code** is not supplied.
S021	• Code of the ***Correspondence Address*** where interference issues should be addressed to regarding the ***Space Station***	Up to 2 Char.	M	
	For the ***Geostationary Orbital Position*** that is the subject of the ***Intended Action*** provide the			
S072	• Nominal Longitude	Dec. in range -180.00 to 180.00 in degrees.	M	
S074	• Longitude Tolerance Easterly Limit	Dec. in range 0.10 to 1.00 in degrees.	M	
S075	• Longitude Tolerance Westerly Limit	Dec. in range 0.10 to 1.00 in degrees.	M	
S076	• Inclination Excursion	Dec. in range 0.10 to 5.00 in degrees.	M	
S079	• Service Arc's Easterly Limit	Int. in range -180 to 180 in degrees.	M	
S080	• Service Arc's Westerly Limit	Int. in range -180 to 180 in degrees.	M	
S077	• Visibility Arc's Easterly Limit	Int. in range -180 to 180 in degrees.	M	
S078	• Visibility Arc's Westerly Limit	Int. in range -180 to 180 in degrees.	M	
S081	• Arc Difference Explanation	Text.	R	Mandatory if the service arc is less than the visibility arc.
	For each ***Beam*** that is the subject of an ***Intended Action*** provide the			
S116	• Designation	Up to 4 Char.	M	
S118	• Steerable Indicator	True or False.	M	
S115	• Emission/Reception Indicator	1 Char.	M	
S120	• Pointing Accuracy	Dec. in range 0.10 to 5.00 in degrees.	M	
S124	• Maximum Co-polar Gain	Dec. in range 0.0 to 50.0 in dBi.	M	
S122	• Co-polar Gain Pattern	A compound structure presented in one of the ways described in section 5.	R	Mandatory for Space to Space ***Beam..***
S369	• Effective Co-polar Gain Contour	Diagram	R	Mandatory for Space to Earth ***Beams***.
S125	• Gain Versus GSO Diagram	A compound structure presented in one of the ways described in section 5.	R	Mandatory if the ***Beam*** is operating in a band with both a space to Earth and Earth to space frequency allocation.
S333	• Value of each ***Beam Frequency*** in which the ***Beam*** operates	Frequency.	M	
	For the ***Assignment Coordination Group (ACG)*** that is the subject of the ***Intended Action*** provide the following information, including only one of the options from **C, D, E** or **F**.			
S186	• BR Identification Code	10 Char	R	Mandatory if ***Space Service Notice's* Intended Action Code** = "M" or "S". Provided by BR if ***Space Service Notice's* Intended Action Code** = "A".
S187	• Date Of Bringing Into Use	Date.	M	
S188	• Period Of Validity	Int. in range 10 to 20 in years.	M	
S190	• Bandwidth	Int. in range 50 to 99999999 in kHz.	M	
S250	• Peak To Average Power Ratio Upper Frequency Limit	Frequency	R	Mandatory if a notification for Appendix S30B.
S189	• Polarization Code	Up to 2 Char.	M	
S364	• Polarization Linear Angle	Dec. in range 0.0 to 359.0 in degrees.	R	Mandatory if the **Polarisation Code** = "L".
S196	• Baseband Lower Frequency Limit	Dec. in range 0.000 to 9999999.999 in kHz.	C	

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
S197	• Baseband Upper Frequency Limit	Dec. in range 0.000 to 9999999.999 in kHz.	C	
S640	• Type Of Modulation	Text.	C	
S641	• Type Of Amplitude Modulation	Text.	C	
S642	• Interference Study Information	Text.	C	
S199	• Multiplex Type (Video/Sound)	Text.	C	
S327	• TV System and Colour Standard Description	Text.	C	
S204	• Digital Signal Transmitted Bit Rate	Dec. in range 0.0 to 9999999.9 in kBit/s.	C	
S205	• Digital Signal Number Of Phases	Int. in range 1 to 10.	C	
S201	• Pre-emphasis P-P Frequency Deviation	Dec. in range 5.0 to 15.0 in MHz.	C	
S326	• Pre-emphasis RMS Frequency Deviation	Dec. in range 20.0 to 300.0 in kHz	C	
S202	• Pre-emphasis Characteristics	Diagram.	C	
S200	• Energy Dispersal Frequency Deviation	Dec. in range 0.1 to 4.0 in MHz.	C	
S324	• Energy Dispersal Sweep Frequency	Int. in range 10 to 2000 in Hz.	C	
S325	• Energy Dispersal Waveform	Text.	C	
S052/ S617	• The Codes for each ***Class Of Station/Nature Of Service Pair*** used to classify the operation of the ***ACG***	2 Char for each Code.	M	
S723	• Value of each ***ACG Frequency Assignment*** the ***ACG*** utilises	Frequency.	M	
	Option **C**: if the ***Intended Action*** is for a ***Receiving Space Station's ACG***			
S192	• Receiving System Noise Temperature	Int. in range 300 to 6000 in Kelvins.	M	
S384	• Uplink Service Area	A compound structure presented in one of the ways described in section 5.	M	
S116	• Designation of the ***Beam*** receiving the ***ACG***	Up to 4 Char.	M	
S671	• Notified Identifying Code of each ***Associated Earth Station Antenna*** transmitting the ***ACG***	Up to 20 Char.	M	
S600	• Maximum Aggregate Power	Dec. in range 0.0 to 40 in dBW.	C	
S646	• Aggregate Bandwidth	Int. in the range 50 to 99999999 in kHz.	C	
S765	• AB Transponder Bandwidth Indicator	True or False.	C	
	Option **D**: if the ***Intended Action*** is for a ***Transmitting Space Station's ACG***			
S671	• Notified Identifying Code of each ***Associated Earth Station Antenna*** receiving the ACG	Up to 20 Char.	M	
S116	• Designation of the ***Beam*** transmitting the ***ACG***	Up to 4 Char.	M	
S193	• Maximum Total Peak Envelope Power Per Transponder	Dec. in range -10.0 to 30.0 in dBW.	M	
S249	• Transponder Bandwidth Indicator	True or False.	M	
S276	• Downlink Service Area	A compound structure presented in one of the ways described in section 5.	M	
	Option **E**, if the ***Intended Action*** is for a ***Transmitting Space Station's Space to Space ACG***			
S116	• Designation of the ***Beam*** transmitting the ***ACG***	Up to 4 Char.	M	
S776	• Maximum Total Peak Envelope Power Per Transponder	Dec. in range -10.0 to 30.0 in dBW.	M	
S777	• Transponder Bandwidth Indicator	True or False.	M	
	• For each ***Associated Space Station Position*** receiving the ***ACG***, provide the			
S067	• BR Identification Code of the ***Space Station*** that represents the ***Associated Space Station Position***	10 Char.	M	If the ***Space Station's*** BR Identification Code is not known provide the ***Space Station's*** Name (up to 20 Char.).
S507	• Anticipated Nominal Longitude	Dec. in range -180.00 to 180.00 in degrees.	R	Mandatory if the ***Beam*** is aimed at a ***Space Station*** in a ***eostationary Orbital Position.***
	Option **F**, if the ***Intended Action*** is for a ***Receiving Space Station's Space to Space ACG***			
S116	• Designation of the ***Beam*** receiving the ***ACG***	4 Char.	M	

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
	• For each ***Associated Space Station Position*** transmitting the ***ACG***, provide the			
S067	• BR Identification Code of the ***Space Station*** that represents the ***Associated Space Station Position***	10 Char.	M	If the ***Space Station's*** BR Identification Code is not known provide the ***Space Station's*** Name (up to 20 Char.).
S507	• Anticipated Nominal Longitude	Dec. in range -180.00 to 180.00 in degrees.	R	Mandatory if the ***Beam*** originates from a ***Space Station*** in a ***Geostationary Orbital Position.***
	For each ***Emission Characteristic Set*** that further defines the ***Assignment Coordination Group*** provide the			
S262	• Class Of Emission Code	Up to 5 Char.	M	
S334	• Necessary Bandwidth Code	4 Char.	M	
S263	• Total Peak Envelope Power	Dec. in range -10.0 to 40.0 in dBW.	R	Mandatory if the ***Assignment Coordination Group*** does not contain individual carriers e.g. spread spectrum.
S264	• Maximum Peak Envelope Power Per Carrier	Dec. in range -10.0 to 40.0 in dBW.	R	Mandatory if the ***Assignment Coordination Group*** contains individual carriers.
S265	• Minimum Peak Envelope Power Per Carrier	Dec. in range -10.0 to 40.0 in dBW.	R	Mandatory unless the **Reason For Absence Of Minimum Power** is provided.
S267	• Maximum Power Density Per Carrier - Averaged Over 4 kHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory in frequency bands below 15 GHz if the **Maximum Peak Envelope Power Per Carrier** is supplied.
S266	• Maximum Power Density - Averaged Over 4 kHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory in frequency bands below 15GHz if the **Total Peak Envelope Power** is supplied.
S268	• Minimum Power Density Per Carrier - Averaged Over 4 kHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory unless the **Reason For Absence Of Minimum Power Density** is provided.
S336	• Maximum Power Density Per Carrier - Averaged Over 1 MHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory in frequency bands above 15GHz if the **Maximum Peak Envelope Power Per Carrier** is supplied.
S335	• Maximum Power Density - Averaged Over 1 MHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory in frequency bands above 15GHz if the **Total Peak Envelope Power** is supplied.
S371	• Minimum Power Density Per Carrier - Averaged Over 1 MHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory unless the **Reason For Absence Of Minimum Power Density** is provided.
S618	• Maximum Power Density Over The Necessary Bandwidth	Dec. in range -120.0 to 0.0 in dB(W/Hz)	R	Mandatory if the notification is for AP30B.
S270	• Carrier To Noise Objective	Dec. in range -10.0 to 25.0 in dB.	R	Mandatory unless the **Reason For Absence Of C/N** is provided.
S269	• Reason For Absence Of Minimum Power	Text	R	Mandatory if the **Minimum Peak Envelope Power Per Carrier** is not provided.
S372	• Reason For Absence Of Minimum Power Density	Text.	R	Mandatory if the minimum power density is not provided.
S373	• Reason For Absence Of C/N	Text.	R	Mandatory if the **Carrier To Noise Objective** is not provided.
	For each ***Coordination Agreement*** sought or reached with respect to the ***ACG*** provide the following			
S275	• Status Code	Up to 6 Char.	BR	
S304	• Code of the ***Provision*** under which the ***Coordination Agreement*** is sought or reached	Up to 12 Char.	R	Mandatory if the ***Assignment Coordination Group*** is in a band subject to coordination adn/or agreement procedures.
S011	• Code of the ***Administration*** under which the ***Coordination Agreement*** is sought or reached	Up to 3 Char.	R	Mandatory if the ***Assignment Coordination Group*** is in a band subject to coordination adn/or agreement procedures.
	For the ***Beam Frequency Strap*** that is the subject of the ***Intended Action*** provide the			
S610	• Notified Identification Code	Up to 8 Char.	M	
	Uplink aspect			
S333	• Value of the ***Beam Frequency***	Frequency.	M	
S116	• Designation of the ***Beam*** the ***Beam Frequency*** is for	Up to 4 Char.	M	
	Downlink aspect			
S333	• Value of the ***Beam Frequency***	Frequency	M	
S116	• Designation of the ***Beam*** the ***Beam Frequency*** is for	Up to 4 Char.	M	
	For the ***Strap Characteristic Set*** that is the subject of the ***Intended Action*** provide the			
S671	• Notified Identifying Code of the ***Associated Earth Station Antenna*** the ***Strap Characteristic Set*** is based on	Up to 20 Char.	M	

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
S610	• Notified Identification Code for each ***Beam Frequency Strap*** to which the ***Strap Characteristic Set*** is applicable	Up to 8 Char.	M	
S286	• ESLNT For Highest Ratio Of Transmission Gain To ESLNT	Int. in range 20 to 9999999 in Kelvins.	M	
S287	• ESLNT Lowest Value	Int. in range 20 to 9999999 in Kelvins.	M	
S288	• Transmission Gain For Highest Ratio Of Transmission Gain To ESLNT	Dec. in range -100.0 to 20.0 in dB.	M	
S289	• Transmission Gain For Lowest ESLNT	Dec. in range -100.0 to 20.0 in dB.	M	
	For the ***Associated Earth Station Antenna*** that is the subject of the ***Intended Action*** provide the			
S671	• Notified Identifying Code	Up to 20 Char.	M	
S559	• Typical/Specific Indicator	1 Char.	M	
S673	• Geographical Coordinates	Long/Lat (dms).	R	Mandatory if the ***Associated Earth Station Antenna*** is not a typical antenna
S676	• Maximum Gain	Dec. in range 0.00 to 70.00 in dBi.	M	
S677	• Beamwidth	Dec. in range 0.00 to 100.0 in degrees.	M	
S763	• Receiving System Noise Temperature	Int. in range 20 to 6000 in Kelvins.	R	Mandatory for a receiving ***Associated Earth Station Antenna***
S678	• Co-polar Gain Pattern	A compound structure presented in one of the ways described in section 5.	M	
S052/ S617	• Codes for each ***Class Of Station/Nature Of Service Pair*** of the ***Associated Earth Station Antenna***	2 Char. for each Code.	M	
S380	• Name of the ***Site*** that is the location of the specific ***Associated Earth Station Antenna***	Up to 30 Char.	R	Mandatory if the ***Associated Earth Station Antenna*** is not a typical antenna
S041	• Code of the ***Geographical Area*** in which the ***Site*** is located	Up to 3 Char.	R	Mandatory if the ***Associated Earth Station Antenna*** is not a typical antenna.

4.5 Notification/Coordination Of Non-Geostationary Space Stations (Notified Under Resolution 46)

This table shows the information which must be supplied for the notification and coordination of non-geostationary space stations and space networks which are subject to the procedures contained in Resolution 46. It also shows the specific conditions under which it is required by the Radio Regulations.

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Space Service Notice*** provide the			
S011	• Code of the ***Administration*** notifying the Earth Station or ***Space Station***	Up to 3 Char.	M	
S034	• Code of the ***Intergovernmental Satellite Organization*** on whose behalf a submission is made for the ***Space Station***	Up to 3 Char	R	Mandatory if an ***Intergovernmental Satellite Organization*** is responsible for the ***Space Station.***
S295	• Administration Notice Code	Up to 20 Char.	O	
S296	• Date Sent	Date.	O	
S297	• BR Identification Code	10 Char.	BR	
S298	• BR Date Received	Date.	BR	
S300	• Occurrence Code	1 Char.	M	
S301	• Purpose Code	1 Char.	M	
S337	• Intended Action Code	1 Char.	M	
S767	• Special Section Reference for Publication	Up to 8 Char.	M	
S605	• Special Section Number for Publication	4 Char.	BR	
S299	• Weekly Circular Part for Publication	1 Char.	BR	
S302	• Weekly Circular Date for Publication	Date.	BR	
S303	• Weekly Circular Number for Publication	Int. in range 1 to 9999.	BR	
S304	• Code of each ***Provision*** the ***Space Service Notice*** is notified under	Up to 12 Char.	M	
S307	• Identifier of each ***Notice Attachment*** which supplements the ***Space Service Notice***	Int. in range 1 to 999.	M	
S360	• Code of each ***Intended Action*** included with the ***Space Service Notice***	1 Char.	M	If the ***Space Service Notice's*** **Intended Action Code** = "A" all ***Intended Actions'*** **Codes** = "A". Similarly, if the ***Space Service Notice's*** **Intended Action Code** = "S" all ***Intended Actions'*** **Codes** = "S" and do not need to be notified as such. If the ***Space Service Notice's*** **Intended Action Code** = "M", ***Intended Actions'*** **Codes** can be "A", "M", "S" or "R".
	Where the ***Intended Action*** refers to an ***Assignment Coordination Group*** also provide the			
S768	• Special Section Reference for Last Advance Publication	Up to 8 Char.	M	The special section reference under which the ***Space Services Notice*** is published,. e.g. Res46.
S606	• Special Section Number for Last Advance Publication	4 Char.	M	
S521	• Weekly Circular Date for Last Coordination	Date.	R	Mandatory if notification. If coordination, it is provided by the BR.
S522	• Weekly Circular Number for Last Coordination	Int. in range 1 to 9999.	R	Mandatory if notification. If coordination, it is provided by the BR.
S769	• Special Section Reference for Last Coordination	Up to 8 Char.	R	Mandatory if notification. The special section reference under which the ***Space Services Notice*** is published,. e.g. Res46.
S607	• Special Section Number for Last Coordination	Int. in range 1 to 9999.	R	Mandatory if notification. If coordination, it is provided by the BR.
S775	• Weekly Circular Part For Last Notification	1 Char.	BR	
S523	• Weekly Circular Date For Last Notification	Date.	BR	
S524	• Weekly Circular Number For Last Notification	Int. in range 1 to 9999.	BR	
	For the ***Space Station*** that is the subject of the ***Space Service Notice*** provide the			
S067	• BR Identification Code	10 Char.	R	Mandatory if ***Space Service Notice's*** **Intended Action Code** = "M" or "S". Provided by BR if ***Space Service Notice's*** **Intended Action Code** = "A".
S069	• Name	Up to 20 Char	M	
S085	• Total Number Of Satellites	Int. in range 1 to 999.	M	
S086	• Total Number Of Non-geostationary Orbits	Int. in range 1 to 99.	M	
S034	• Code of the ***Intergovernmental Satellite Organization*** that has operational control of the ***Space Station***	Up to 3 Char.	R	Mandatory if an ***Operator's*** **Code** is not supplied
S029	• Code of the ***Operator*** providing the operational control of the ***Space Station***	3 Char. in numeric range 001 to 999.	R	Mandatory if an ***Intergovernmental Satellite Organization's*** **Code** is not supplied.

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
S021	• Code of the ***Correspondence Address*** where interference issues should be addressed to regarding the ***Space Station***	Up to 2 Char.	M	
	For the ***Non-geostationary Orbit*** that is the subject of the ***Intended Action*** provide the			
S084	• Reference Body Code	1 Char.	M	
S087	• Number Of Satellites Per Orbit	Int. in range 1 to 99.	M	
S096	• Inclination Angle	Dec. in range 0.00 to 179.99 in degrees.	M	
S097	• Right Ascension Of The Ascending Node	Dec. in range 0.00 to 359.99 in degrees.	M	
S098	• Apogee Altitude	Int. in range 500 to 99999999 in km.	M	
S099	• Perigee Altitude	Int. in range 500 to 99999999 in km.	M	
S100	• Perigee Argument	Dec. in range 0.0 to 359.9 in degrees.	M	
S101	• Eccentricity	Dec. in range 0.00 to 0.90.	M	
S102	• Semi Major Axis	Int. in range 6900 to 49999999 in km.	M	
S103	• Satellite Period	Hrs and Mins.	M	
S104	For each ***Non-Geostationary Satellite Position*** of a ***Non-geostationary Orbit*** provide the			
S106	• Initial Phase Angle	Dec. in range 0.0 to 359.9 in degrees.	M	
	For each ***Beam*** that is the subject of an ***Intended Action*** provide the			
S116	• Designation	Up to 4 Char.	M	
S118	• Steerable Indicator	True or False.	M	
S115	• Emission/Reception Indicator	1 Char.	M	
S121	• Orientation Angle Alpha	Dec. in range 0.0 to 359.9 in degrees.	M	
S368	• Orientation Angle Beta	Dec. in range 0.0 to 90.0 in degrees.	M	
S124	• Maximum Co-polar Gain	Dec. in range 0.0 to 50.0 in dBi.	M	
S122	• Co-polar Gain Pattern	A compound structure presented in one of the ways described in section 5.	M	
S126	• Gain Versus Elevation Angle Diagram	Diagram.	M	
S127	• Spreading Loss Versus Elevation Angle	Either as an equation or diagram.	M	
S601	• Maximum Beam Peak EIRP - 4 kHz	Dec in range -30.0 to 10.0 in dB(W/4kHz).	M	
S602	• Maximum Beam Peak EIRP - 1 MHz	Dec in range -10.0 to 30.0 in dB(W/1MHz).	M	
S603	• Average Beam Peak EIRP - 4 kHz	Dec in range -30.0 to 10.0 in dB(W/4kHz).	M	
S604	• Average Beam Peak EIRP - 1 MHz	Dec in range -10.0 to 30.0 in dB(W/1MHz).	M	
S728	• Calculated Peak PFD	Dec in range -140.0 to -180.0 in dBW/m^2/4kHz	R	Mandatory if the ***Beam*** is within 5^o inclination of the GSO for the band 6700-7075 MHz.
	For the ***Assignment Coordination Group (ACG)*** that is the subject of the ***Intended Action*** provide the following information, including only one of the options from **C, D, E** or **F**.			
S186	• BR Identification Code	10 char	R	Mandatory if ***Space Service Notice's*** **Intended Action Code = "**M" or "S". Provided by BR if ***Space Service Notice's*** **Intended Action Code** = "A".
S187	• Date Of Bringing Into Use	Date.	M	
S190	• Bandwidth	Int. in range 50 to 99999999 in kHz.	M	
S189	• Polarization Code	Up to 2 Char.	M	
S364	• Polarization Linear Angle	Dec. in range 0.0 to 359.0 in degrees.	R	Mandatory if the **Polarisation Code** = "L".

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
S195	• Spectrum Mask	Diagram.	M	
S196	• Baseband Lower Frequency Limit	Dec. in range 0.000 to 9999999.999 in kHz.	C	
S197	• Baseband Upper Frequency Limit	Dec. in range 0.000 to 9999999.999 in kHz.	C	
S640	• Type Of Modulation	Text.	M	
S641	• Type Of Amplitude Modulation	Text.	C	
S642	• Interference Study Information	Text.	C	
S199	• Multiplex Type (Video/Sound)	Text.	C	
S327	• TV System And Colour Standard Description	Text.	C	
S204	• Digital Signal Transmitted Bit Rate	Dec. in range 0.0 to 9999999.9 in kBit/s.	C	
S205	• Digital Signal Number Of Phases	Int. in range 1 to 10.	C	
S201	• Pre-emphasis P-P Frequency Deviation	Dec. in range 5.0 to 15.0 in MHz.	C	
S326	• Pre-emphasis RMS Frequency Deviation	Dec. in range 20.0 to 300.0 in kHz.	C	
S202	• Pre-emphasis Characteristics	Diagram.	C	
S200	• Energy Dispersal Frequency Deviation	Dec. in range 0.1 to 4.0 in MHz.	C	
S324	• Energy Dispersal Sweep Frequency	Int. in range 10 to 2000 in Hz.	C	
S325	• Energy Dispersal Waveform	Text.	C	
S052/ S617	• The Codes for each ***Class Of Station/Nature Of Service Pair*** used to classify the operation of the ***ACG***	2 Char for each Code.	M	
S723	• Value of each ***ACG Frequency*** the ***ACG*** utilises	Frequency.	M	
	Option **C**, if the ***Intended Action*** is for a ***Receiving Space Station's ACG***			
S116	• Designation of the ***Beam*** receiving the *ACG*	Up to 4 Char.	M	
S192	• Receiving System Noise Temperature	Int. in range 300 to 6000 in Kelvins.	M	
S329	• Multiple Access Indicator	1 Char.	M	
S384	• Uplink Service Area	A compound structure presented in one of the ways described in section 5.	M	
S671	• Notified Identifying Code of each ***Associated Earth Station Antenna*** transmitting the ***ACG***	Up to 20 Char.	M	
S600	• Maximum Aggregate Power	Dec. in range 0.0 to 40.0 in dBW.	C	
S646	• Aggregate Bandwidth	Int. in the range 50 to 99999999 in kHz.	C	
S765	• AB Transponder Bandwidth Indicator	True or False.	C	
	Option **D**, if the ***Intended Action*** is for a ***Transmitting Space Station's ACG***			
S671	• Notified Identifying Code of the each ***Associated Earth Station Antenna*** receiving the ***ACG***	Up to 20 Char.	M	
S116	• Designation of the ***Beam*** transmitting the ***ACG***	Up to 4 Char.	M	
S193	• Maximum Total Peak Envelope Power Per Transponder	Dec. in range 0.0 to 30.0 in dBW.	M	
S249	• Transponder Bandwidth Indicator	True or False	M	
S276	• Downlink Service Area	A compound structure presented in one of the ways described in section 5.	M	
S214	• Affected Area	Diagram.	M	
	Option **E**, if the ***Intended Action*** is for a ***Transmitting Space Station's Space to Space ACG***			
S116	• Designation of the ***Beam*** transmitting the ***ACG***	Up to 4 Char.	M	
S776	• Maximum Total Peak Envelope Power Per Transponder	Dec. in range -10.0 to 30.0 in dBW.	M	
S777	• Transponder Bandwidth Indicator	True or False.	M	
	For each ***Associated Space Station Position*** receiving the ***ACG***, provide the			
S067	• BR Identification Code of the ***Space Station*** that represents the ***Associated Space Station Position***	10 Char.	M	If the ***Space Station's*** BR Identification Code is not known provide the ***Space Station's*** Name (up to 20 Char.).

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
S507	• Anticipated Nominal Longitude	Dec. in range -180.00 to 180.00 in degrees.	R	Mandatory if the ***Beam*** is aimed at a ***Space Station*** in a ***Geostationary Orbital Position.***
	F, if the ***Intended Action*** is for a ***Receiving Space Station's Space to Space ACG***			
S116	• Designation of the ***Beam*** receiving the ***ACG***	Up to 4 Char.	M	
	For each ***Associated Space Station Position*** transmitting the ***ACG***, provide the			
S067	• BR Identification Code of the ***Space Station*** that represents the ***Associated Space Station Position***	10 Char.	M	If the ***Space Station's*** BR Identification Code is not known provide the ***Space Station's*** Name (up to 20 Char.).
S507	• Anticipated Nominal Longitude	Dec. in range -180.00 to 180.00 in degrees.	R	Mandatory if the ***Beam*** originates from a ***Space Station*** in a ***Geostationary Orbital Position.***
	For each ***Emission Characteristic Set*** that further defines the ***Assignment Coordination Group*** provide the			
S262	• Class Of Emission Code	Up to 5 Char.	M	
S334	• Necessary Bandwidth Code	4 Char.	M	
S263	• Total Peak Envelope Power	Dec. in range -10.0 to 40.0 in dBW.	R	Mandatory if the ***Assignment Coordination Group*** does not contain individual carriers e.g. spread spectrum.
S264	• Maximum Peak Envelope Power Per Carrier	Dec. in range -10.0 to 40.0 in dBW.	R	Mandatory if the ***Assignment Coordination Group*** contains individual carriers.
S265	• Minimum Peak Envelope Power Per Carrier	Dec. in range -10.0 to 40.0 in dBW.	R	Mandatory unless the **Reason For Absence Of Minimum Power** is provided.
S267	• Maximum Power Density Per Carrier - Averaged Over 4 kHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory in frequency bands below 15 GHz if the **Maximum Peak Envelope Power Per Carrier** is supplied.
S266	• Maximum Power Density - Averaged Over 4 kHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory in frequency bands below 15GHz if the **Total Peak Envelope Power** is supplied.
S268	• Minimum Power Density Per Carrier - Averaged Over 4 kHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory unless the **Reason For Absence Of Minimum Power Density** is provided.
S336	• Maximum Power Density Per Carrier - Averaged Over 1 MHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory in frequency bands above 15GHz if the **Maximum Peak Envelope Power Per Carrier** is supplied
S335	• Maximum Power Density - Averaged Over 1 MHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory in frequency bands above 15GHz if the **Total Peak Envelope Power** is supplied
S371	• Minimum Power Density Per Carrier - Averaged Over 1 MHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory unless the **Reason For Absence Of Minimum Power Density** is provided.
S270	• Carrier To Noise Objective	Dec. in range -10.0 to 25.0 in dB.	R	Mandatory unless the **Reason For Absence Of C/N** is provided.
S269	• Reason For Absence Of Minimum Power	Text.	R	Mandatory unless the **Minimum Peak Envelope Power Per Carrier** is provided.
S372	• Reason For Absence Of Minimum Power Density	Text.	R	Mandatory unless the minimum power density is provided.
S373	• Reason For Absence Of C/N	Text.	R	Mandatory unless the **Carrier To Noise Objective** is provided.
	For each ***Coordination Agreement*** sought or reached with respect to the ***ACG*** provide the following			
S275	• Status Code	Up to 6 Char.	BR	
S304	• Code of the ***Provision*** under which the ***Coordination Agreement*** is sought or reached	Up to 12 Char.	R	Mandatory if the ***Assignment Coordination Group*** is in a band subject to coordination and/or agreement procedures.
S011	• Code of the ***Administration*** under which the ***Coordination Agreement*** is sought or reached	Up to 3 Char.	R	Mandatory if the ***Assignment Coordination Group*** is in a band subject to coordination and/or agreement procedures.
	For the ***Associated Earth Station Antenna*** that is the subject of the ***Intended Action*** provide the			
S671	• Notified Identifying Code	Up to 20 Char.	M	
S559	• Typical/Specific Indicator	1 Char.	M	
S673	• Geographical Coordinates	Long/Lat (dms).	R	Mandatory if the ***Associated Earth Station Antenna*** is not a typical antenna
S763	• Receiving System Noise Temperature	Int. in range 20 to 6000 in Kelvins.	R	Mandatory for a receiving ***Associated Earth Station Antenna***
S676	• Maximum Gain	Dec. in range 0.00 to 70.00 in dBi.	M	
S677	• Beamwidth	Dec. in range 0.00 to 100.0 in degrees.	M	

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
S678	• Co-polar Gain Pattern	A compound structure presented in one of the ways described in section 5.	M	
S052/ S617	• Codes for each ***Class Of Station/Nature Of Service Pair*** of the ***Associated Earth Station Antenna***	2 Char. for each Code.	M	
S380	• Name of the ***Site*** that is the location of the specific associated ***Earth Station Antenna***	Up to 30 Char.	R	Mandatory if the ***Associated Earth Station Antenna*** is not a typical antenna.
S041	• Code of the ***Geographical Area*** in which the ***Site*** is located	Up to 3 Char.	R	Mandatory if the ***Associated Earth Station Antenna*** is not a typical antenna.

4.6 Notification Of Non-geostationary Space Stations (Not Notified Under Resolution 46)

This table shows the information which must be supplied for the notification and coordination of non-geostationary space stations and space networks which are not subject to the procedures contained in Resolution 46. It also shows the specific conditions under which it is required by the Radio Regulations.

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Space Service Notice*** provide the			
S011	• Code of the ***Administration*** notifying the Earth Station or ***Space Station***	Up to 3 Char.	M	
S034	• Code of the ***Intergovernmental Satellite Organization*** on whose behalf a submission is made for the ***Space Station***	Up to 3 Char.	R	Mandatory if an ***Intergovernmental Satellite Organization*** is responsible for the ***Space Station***
S295	• Administration Notice Code	Up to 20 Char.	O	
S296	• Date Sent	Date.	O	
S297	• BR Identification Code	10 Char.	BR	
S298	• BR Date Received	Date.	BR	
S300	• Occurrence Code	1 Char.	M	
S301	• Purpose Code	1 Char.	M	
S337	• Intended Action Code	1 Char.	M	
S767	• Special Section Reference For Publication	Up to 8 Char.	M	
S605	• Special Section Number For Publication	4 Char.	BR	
S299	• Weekly Circular Part For Publication	1 Char.	BR	
S302	• Weekly Circular Date For Publication	Date.	BR	
S303	• Weekly Circular Number For Publication	Int. in range 1 to 9999.	BR	
S304	• Code of each ***Provision*** the ***Space Service Notice*** is notified under	Up to 12 Char.	M	
S307	• Identifier of each ***Notice Attachment*** which supplements the ***Space Service Notice***	Int. in range 1 to 999.	M	
S360	• Code of each ***Intended Action*** included with the ***Space Service Notice***	1 Char.	M	If the ***Space Service Notice's*** **Intended Action Code** = "A" all ***Intended Actions'*** **Codes** = "A". Similarly, if the ***Space Service Notice's*** **Intended Action Code** = "S" all ***Intended Actions'*** **Codes** = "S" and do not need to be notified as such. If the ***Space Service Notice's*** **Intended Action Code** = "M", ***Intended Actions'*** **Codes** can be "A", "M", "S" or "R".
	Where the ***Intended Action*** refers to an ***Assignment Coordination Group*** also provide the			
S768	• Special Section Reference For Last Advance Publication	Up to 8 Char.	M	The special section reference under which the ***Space Services Notice*** is published,. e.g. AR11.
S606	• Special Section Number For Last Advance Publication	4 Char.	M	
S521	• Weekly Circular Date For Last Coordination	Date.	R	Mandatory if notification. If coordination, it is provided by the BR
S522	• Weekly Circular Number For Last Coordination	Int. in range 1 to 9999.	R	Mandatory if notification. If coordination, it is provided by the BR
S769	• Special Section Reference For Last Coordination	Up to 8 Char.	R	Mandatory if the provisions of No. S9.21 apply.
S607	• Special Section Number For Last Coordination	Int. in range 1 to 9999.	R	Mandatory if the provisions of No. S9.21 apply.
S775	• Weekly Circular Part For Last Notification	1 Char.	BR	
S523	• Weekly Circular Date For Last Notification	Date.	BR	
S524	• Weekly Circular Number For Last Notification	Int. in range 1 to 9999.	BR	
	For the ***Space Station*** that is the subject of the ***Space Service Notice*** provide the			
S067	• BR Identification Code	10 Char.	R	Mandatory if ***Space Service Notice's*** **Intended Action Code** = "M" or "'S". Provided by BR if ***Space Service Notice's*** **Intended Action Code** = "A".
S069	• Name	Up to 20 Char.	M	
S085	• Total Number Of Satellites	Int. in range 1 to 999.	M	
S086	• Total Number Of Non-geostationary Orbits	Int. in range 1 to 99.	M	
S034	• Code of the ***Intergovernmental Satellite Organization*** that has operational control of the ***Space Station***	Up to 3 Char.	R	Mandatory if an ***Operator's*** **Code** is not supplied.
S029	• Code of the ***Operator*** providing the operational control of the ***Space Station***	3 Char. in numeric range 001 to 999.	R	Mandatory if an ***Intergovernmental Satellite Organization's*** **Code** is not supplied.

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
S021	• Code of the ***Correspondence Address*** where interference issues should be addressed to regarding the ***Space Station***	Up to 2 Char.	M	
	For the ***Non-geostationary Orbit*** that is the subject of the ***Intended Action*** provide the			
S084	• Reference Body Code	1 Char.	M	
S096	• Inclination Angle	Dec. in range 0.00 to 179.99 in degrees.	M	
S098	• Apogee Altitude	Int. in range 500 to 99999999 in km.	M	
S099	• Perigee Altitude	Int. in range 500 to 99999999 in km.	M	
S103	• Satellite Period	Hrs and Mins.	M	
	For each ***Beam*** that is the subject of an ***Intended Action*** provide the			
S116	• Designation	Up to 4 Char.	M	
S118	• Steerable Indicator	True or False.	M	
S115	• Emission/Reception Indicator	1 Char.	M	
S124	• Maximum Co-polar Gain	Dec. in range 0.0 to 50.0 in dBi.	M	
S122	• Co-polar Gain Pattern	A compound structure presented in one of the ways described in section 5.	M	
	For the ***Assignment Coordination Group (ACG)*** that is the subject of the ***Intended Action*** provide the following information, including only one of the options from **C, D, E** or **F**.			
S186	• BR Identification Code	10 Char	R	Mandatory if ***Space Service Notice's*** **Intended Action Code** = "M" or "S". Provided by BR if ***Space Service Notice's*** **Intended Action Code** = "A".
S187	• Date Of Bringing Into Use	Date.	M	
S190	• Bandwidth	Int. in range 50 to 99999999 in kHz.	M	
S189	• Polarization Code	Up to 2 Char.	M	
S364	• Polarization Linear Angle	Dec. in range 0.0 to 359.0 in degrees.	R	Mandatory if the **Polarisation Code** = "L".
S196	• Baseband Lower Frequency Limit	Dec. in range 0.000 to 9999999.999 in kHz.	C	
S197	• Baseband Upper Frequency Limit	Dec. in range 0.000 to 9999999.999 in kHz.	C	
S640	• Type Of Modulation	Text.	C	
S641	• Type Of Amplitude Modulation	Text.	C	
S642	• Interference Study Information	Text.	C	
S199	• Multiplex Type (Video/Sound)	Text.	C	
S327	• TV System and Colour Standard Description	Text.	C	
S204	• Digital Signal Transmitted Bit Rate	Dec. in range 0.0 to 9999999.9 in kBit/s.	C	
S205	• Digital Signal Number Of Phases	Int. in range 1 to 10.	C	
S201	• Pre-emphasis P-P Frequency Deviation	Dec. in range 5.0 to 15.0 in MHz.	C	
S326	• Pre-emphasis RMS Frequency Deviation	Dec. in range 20.0 to 300.0 in kHz.	C	
S202	• Pre-emphasis Characteristics	Diagram.	C	
S200	• Energy Dispersal Frequency Deviation	Dec. in range 0.1 to 4.0 in MHz.	C	
S324	• Energy Dispersal Sweep Frequency	Int. in range 10 to 2000 in Hz.	C	
S325	• Energy Dispersal Waveform	Text.	C	
S052/ S617	• The Codes for each ***Class Of Station/Nature Of Service Pair*** used to classify the operation of the ***ACG***	2 Char for each Code.	M	
S723	• Value of each ***ACG Frequency*** the ***ACG*** utilises	Frequency.	M	
	Option **C**: if the ***Intended Action*** is for a ***Receiving Space Station's ACG***			
S192	• Receiving System Noise Temperature	Int. in range 300 to 6000 in Kelvins.	M	

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
S384	• Uplink Service Area	A compound structure presented in one of the ways described in section 5.	M	
S116	• Designation of the ***Beam*** receiving the *ACG*	Up to 4 Char.	M	
S671	• Notified Identifying Code of each ***Associated Earth Station Antenna*** transmitting the *ACG*	Up to 20 Char.	M	
S600	• Maximum Aggregate Power	Dec. in range 0.0 to 40.0 in dBW.	C	Required if the ***Assignment Coordination Group*** is in a band subject to coordination procedures.
S646	• Aggregate Bandwidth	Int. in the range 50 to 99999999 in kHz	C	Required if the ***Assignment Coordination Group*** is in a band subject to coordination procedures.
S765	• AB Transponder Bandwidth Indicator	True or False	C	Required if the ***Assignment Coordination Group*** is in a band subject to coordination procedures.
	Option **D**: if the ***Intended Action*** is for a ***Transmitting Space Station's ACG***			
S671	• Notified Identifying Code of the each ***Associated Earth Station Antenna*** receiving the ***ACG***	Up to 20 Char.	M	
S116	• Designation of the ***Beam*** transmitting the ***ACG***	Up to 4 Char.	M	
S193	• Maximum Total Peak Envelope Power Per Transponder	Dec. in range 0.0 to 30.0 in dBW.	M	
S249	• Transponder Bandwidth Indicator	True or False.	M	
S276	• Downlink Service Area	A compound structure presented in one of the ways described in section 5.	M	
	Option **E**: if the ***Intended Action*** is for a ***Transmitting Space Station's Space to Space ACG***			
S116	• Designation of the ***Beam*** transmitting the ***ACG***	Up to 4 Char.	M	
S776	• Maximum Total Peak Envelope Power Per Transponder	Dec. in range -10.0 to 30.0 in dBW.	M	
S777	• Transponder Bandwidth Indicator	True or False.	M	
	For each ***Associated Space Station Position*** receiving the ***ACG***, provide either the			
S067	• BR Identification Code of the ***Space Station*** that represents the ***Associated Space Station Position***	10 Char.	M	If the ***Space Station's*** BR Identification Code is not known provide the ***Space Station's*** Name (up to 20 Char.).
S507	• Anticipated Nominal Longitude	Dec. in range -180.00 to 180.00 in degrees.	R	Mandatory if the ***Beam*** is aimed at a ***Space Station*** in a ***Geostationary Orbital Position.***
	Option **F**: if the **Intended Action** is for a ***Receiving Space Station's Space to Space ACG***			
S116	• Designation of the ***Beam*** receiving the ***ACG***	Up to 4 Char.	M	
	For each ***Associated Space Station Position*** transmitting the ***ACG***, provide either the			
S067	• BR Identification Code of the ***Space Station*** that represents the ***Associated Space Station Position***	10 Char.	M	If the ***Space Station's*** BR Identification Code is not known provide the ***Space Station's*** Name (up to 20 Char.).
S507	• Anticipated Nominal Longitude	Dec. in range -180.00 to 180.00 in degrees.	R	Mandatory if the ***Beam*** originates from a ***Space Station*** in a ***Geostationary Orbital Position.***
	For each ***Emission Characteristic Set*** that further defines the ***Assignment Coordination Group*** provide the			
S262	• Class Of Emission Code	Up to 5 Char.	M	
S334	• Necessary Bandwidth Code	4 Char.	M	
S263	• Total Peak Envelope Power	Dec. in range -10.0 to 40.0 in dBW.	R	Mandatory if the ***Assignment Coordination Group*** does not contain individual carriers e.g. spread spectrum.
S264	• Maximum Peak Envelope Power Per Carrier	Dec. in range -10.0 to 40.0 in dBW.	R	Mandatory if the ***Assignment Coordination Group*** contains individual carriers.
S265	• Minimum Peak Envelope Power Per Carrier	Dec. in range -10.0 to 40.0 in dBW.	R	Mandatory unless the **Reason For Absence Of Minimum Power** is provided.
S267	• Maximum Power Density Per Carrier - Averaged Over 4 kHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory in frequency bands below 15 GHz if the **Maximum Peak Envelope Power Per Carrier** is supplied.
S266	• Maximum Power Density - Averaged Over 4 kHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory in frequency bands below 15GHz if the **Total Peak Envelope Power** is supplied.
S268	• Minimum Power Density Per Carrier - Averaged Over 4 kHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory unless the **Reason For Absence Of Minimum Power Density** is provided.

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
S336	• Maximum Power Density Per Carrier - Averaged Over 1 MHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory in frequency bands above 15GHz if the **Maximum Peak Envelope Power Per Carrier** is supplied.
S335	• Maximum Power Density - Averaged Over 1 MHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory in frequency bands above 15GHz if the **Total Peak Envelope Power** is supplied.
S371	• Minimum Power Density Per Carrier - Averaged Over 1 MHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory unless the **Reason For Absence Of Minimum Power Density** is provided.
S270	• Carrier To Noise Objective	Dec. in range -10.0 to 25.0 in dB.	R	Mandatory unless the **Reason For Absence Of C/N** is provided.
S269	• Reason For Absence Of Minimum Power	Text.	R	Mandatory unless the **Minimum Peak Envelope Power Per Carrier** is provided.
S372	• Reason For Absence Of Minimum Power Density	Text.	R	Mandatory unless the minimum power density is provided.
S373	• Reason For Absence Of C/N	Text.	R	Mandatory unless the **Carrier To Noise Objective** is provided.
	For each ***Coordination Agreement*** sought or reached with respect to the ***ACG*** provide the following			
S275	• Status Code	Up to 6 Char.	BR	
S304	• Code of the ***Provision*** under which the ***Coordination Agreement*** is sought or reached	Up to 12 Char.	R	Mandatory if the ***Assignment Coordination Group*** is in a band subject to coordination and/or agreement procedures.
S011	• Code of the ***Administration*** under which the ***Coordination Agreement*** is sought or reached	Up to 3 Char.	R	Mandatory if the ***Assignment Coordination Group*** is in a band subject to coordination and/or agreement procedures.
	For the ***Associated Earth Station Antenna*** that is the subject of the ***Intended Action*** provide the			
S671	• Notified Identifying Code	Up to 20 Char.	M	
S559	• Typical/Specific Indicator	1 Char.	M	
S673	• Geographical Coordinates	Lat/Long (dms).	R	Mandatory if the ***Associated Earth Station Antenna*** is not a typical antenna.
S676	• Maximum Gain	Dec. in range 0.00 to 70.00 in dBi.	M	
S677	• Beamwidth	Dec. in range 0.00 to 100.00 in degrees.	M	
S678	• Co-polar Gain Pattern	A compound structure presented In one of the ways described in section 5.	M	
S763	• Receiving System Noise Temperature	Int. in range 20 to 6000 in Kelvins.	R	Mandatory for a receiving ***Associated Earth Station Antenna.***
S052/ S617	• Codes for each ***Class Of Station/Nature Of Service Pair*** of the ***Associated Earth Station Antenna***	2 Char. for each Code.	M	
S380	• Name of the ***Site*** that is the location of the ***Associated Earth Station Antenna***	Up to 30 Char.	R	Mandatory if the ***Associated Earth Station Antenna*** is not a typical antenna.
S041	• Code of the ***Geographical Area*** in which the ***Site*** is located	Up to 3 Char.	R	Mandatory if the ***Associated Earth Station Antenna*** is not a typical antenna.

4.7 Notification/Coordination Of ES Including Notification Under APS30B

This table shows the information which must be supplied for the notification and coordination of Earth stations together with the specific conditions under which it is required by the Radio Regulations and applicable Plans.
The table is applicable to all Earth stations including those in the Fixed Satellite Service Planned Bands which are subject to the procedures contained in APS30B.

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Space Service Notice*** provide the			
S011	Code of the ***Administration*** notifying the Earth Station or ***Space Station***	Up to 3 Char.	M	
S295	• Administration Notice Code	Up to 20 Char.	O	
S296	• Date Sent	Date.	O	
S297	• BR Identification Code	10 Char.	BR	
S298	• BR Date Received	Date.	BR	
S300	• Occurrence Code	1 Char.	M	
S301	• Purpose Code	1 Char.	M	
S337	• Intended Action Code	1 Char.	M	
S767	• Special Section Reference For Publication	Up to 8 Char.	M	
S605	• Special Section Number For Publication	4 Char.	BR	
S299	• Weekly Circular Part For Publication	1 Char.	BR	
S302	• Weekly Circular Date For Publication	Date.	BR	
S303	• Weekly Circular Number For Publication	Int. in range 1 to 9999.	BR	
S304	• Code of each ***Provision*** the ***Space Service Notice*** is notified under	Up to 12 Char.	M	
S307	• Identifier of each ***Notice Attachment*** which supplements the ***Space Service Notice***	Int. in range 1 to 999.	M	
S360	• Code of each ***Intended Action*** included with the ***Space Service Notice***	1 Char.	M	If the ***Space Service Notice's*** **Intended Action Code** = "A" all ***Intended Actions'*** **Codes** = "A". Similarly, if the ***Space Service Notice's*** **Intended Action Code** = "S" all ***Intended Actions'*** **Codes** = S and do not need to be notified as such. If the ***Space Service Notice's*** **Intended Action Code** = "M", ***Intended Actions'*** **Codes** can be "A", "M", "S" or "R".
	Where the ***Intended Action*** refers to an ***Assignment Coordination Group*** also provide the			
S768	• Special Section Reference For Last Advance Publication	Up to 8 Char.	M	The special section reference under which the ***Space Services Notice*** is published,. e.g. AR11/A.
S606	• Special Section Number For Last Advance Publication	4 Char.	M	
S769	• Special Section Reference For Last Coordination	Up to 8 Char.	R	Mandatory if the provisions of Nos. S9.7, S9.11A, S9.21 or Article 6 of Appendix S30B apply.
S607	• Special Section Number For Last Coordination	Int. in range 1 to 9999.	R	Mandatory if the provisions of Nos. S9.7, S9.11A, S9.21 or Article 6 of Appendix S30B apply.
S775	• Weekly Circular Part For Last Notification	1 Char.	BR	
S523	• Weekly Circular Date For Last Notification	Date.	BR	
S524	• Weekly Circular Number For Last Notification	Int. in range 1 to 9999.	BR	
	For the ***Earth Station Antenna*** that is the subject of the ***Space Service Notice*** provide the			
S148	• BR Identification Code	10 Char.	R	Mandatory if ***Space Service Notice's*** **Intended Action Code** = "M" or "S". Provided by BR if ***Space Service Notice's*** **Intended Action Code** = "A".
S149	• National Identification Code	Up to 20 Char.	M	
S159	• Geographical Coordinates	Long/Lat (dms).	R	Mandatory if the ***Earth Station Antenna*** is not a typical antenna.
S161	• Ground Altitude Above Mean Sea Level	Int. in range -1000 to 8848 in metres.	R	Mandatory if the ***Earth Station Antenna*** is not a typical antenna.
S162	• Height Above Ground Level	Int. in range 0 to 1000 in metres.	R	Mandatory if the ***Earth Station Antenna*** is not a typical antenna.
S163	• Maximum Gain	Dec. in range 0.0 to 70.0 dBi.	M	
S164	• Beamwidth	Dec. in range 0.00 to 10.00 in degrees.	M	

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
S167	• Co-polar Gain Pattern	A compound structure presented in one of the ways described in section 5.	M	
S169	• Operational Sector's Start Azimuth	Dec. in range 0.0 to 359.9 in degrees.	R	Mandatory if the ***Earth Station Antenna*** is not a typical antenna.
S170	• Operational Sector's End Azimuth	Dec. in range 0.1 to 360.0 in degrees.	R	Mandatory if the ***Earth Station Antenna*** is not a typical antenna.
S168	• Planned Minimum Elevation Angle	Dec. in range 0.0 to 90.0 in degrees.	R	Mandatory if the ***Earth Station Antenna*** is not a typical antenna.
S171	• Horizon Elevation Pattern	A compound structure presented in one of the ways described in section 5	R	Mandatory if the ***Earth Station Antenna*** is not a typical antenna.
S157	• Typical/Specific Indicator	1 Char.	M	
S173	• Clear Sky Coordination Contour	A compound structure presented in one of the ways described in section 5.	M	
S322	• Rain Scatter Coordination Contour	A compound structure presented in one of the ways described in section 5.	M	
S616	• Associated Space Station Longitude	Dec. in range -180.00 to 180.00 in degrees.	R	Mandatory if the ***Beam*** originates from a ***Space Station*** in a ***Geostationary Orbital Position***.
S069	• Name of the ***Space Station*** that is associated with the ***Earth Station Antenna***	Up to 20 Char.	M	
S029	• Code of the ***Operator*** providing the operational control of the ***Earth Station Antenna***	3 Char. in numeric range 001 to 999.	M	
S021	• Code of the ***Correspondence Address*** where interference issues should be addressed to regarding the ***Earth Station Antenna***	Up to 2 Char.	M	
S380	• Name of the ***Site*** that is the location of the ***Earth Station Antenna***	Up to 30 Char.	R	Mandatory if the ***Earth Station Antenna*** is not a typical antenna.
S041	• Code of the ***Geographical Area*** in which the ***Site*** is located	Up to 3 Char.	R	Mandatory if the ***Earth Station Antenna*** is not a typical antenna.
	For each ***Beam*** that is the subject of an ***Intended Action*** provide the			
S116	• Designation	Up to 4 Char.	M	
S115	• Emission/Reception Indicator	1 Char.	M	
	For the ***Assignment Coordination Group (ACG)*** that is the subject of the ***Intended Action*** provide the following information, including only one of the options from **A**,**B**.			
S186	• BR Identification Code	10 Char.	R	Mandatory if ***Space Service Notice's*** **Intended Action Code** = "M" or "S". Provided by BR if ***Space Service Notice's*** **Intended Action Code** = "A".
S187	• Date Of Bringing Into Use	Date.	M	
S190	• Bandwidth	Int. in range 50 to 99999999 in kHz.	M	
S250	• Peak To Average Power Ratio Upper Frequency Limit	Frequency.	R	Mandatory if a notification for Appendix S30B.
S189	• Polarization Code	Up to 2 Char.	M	
S364	• Polarization Linear Angle	Dec. in range 0.0 to 359.0 in degrees.	R	Mandatory if the **Polarisation Code** = "L".
S052/ S617	• The Codes for each ***Class Of Station/Nature Of Service Pair*** used to classify the operation of the ***ACG***	2 Char for each Code.	M	
S723	• Value of each ***ACG Frequency*** the ***ACG*** utilises	Frequency.	M	
	Option **A**: if the ***Intended Action*** is for a ***Transmitting Earth Station's ACG***			
S771	• Maximum Aggregate Power	Dec. in range 0.0 to 40.0 in dBW.	C	.
S770	• Aggregate Bandwidth	Int. in the range 50 to 99999999 in kHz.	C	.
S736	• AB Transponder Bandwidth Indicator	True or False.	C	.
S116	• Designation of the ***Beam*** receiving the ***ACG***	Up to 4 Char.	M	
	Option **B**: if the ***Intended Action*** is for a ***Receiving Earth Station's ACG***			
S764	• Receiving System Noise Temperature	Int. in range 20 to 6000 in Kelvins.	M	

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
S116	• Designation of the ***Beam*** transmitting the ***ACG***	Up to 4 Char.	M	
	For each ***Emission Characteristic Set*** that further defines the ***Assignment Coordination Group*** provide the			
S262	• Class Of Emission Code	Up to 5 Char.	M	
S334	• Necessary Bandwidth Code	4 Char.	M	
S263	• Total Peak Envelope Power	Dec. in range -10.0 to 40.0 in dBW.	M	
S264	• Maximum Peak Envelope Power Per Carrier	Dec. in range -10.0 to 40.0 in dBW.	C	
S265	• Minimum Peak Envelope Power Per Carrier	Dec. in range -10.0 to 40.0 in dBW.	R	Mandatory unless the **Reason For Absence Of Minimum Power** is provided.
S267	• Maximum Power Density Per Carrier - Averaged Over 4 kHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	O	In frequency bands below 15 GHz if the **Maximum Peak Envelope Power Per Carrier** is supplied.
S266	• Maximum Power Density - Averaged Over 4 kHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory in frequency bands below 15GHz if the **Total Peak Envelope Power** is supplied.
S268	• Minimum Power Density Per Carrier - Averaged Over 4 kHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory unless the **Reason For Absence Of Minimum Power Density** is provided.
S336	• Maximum Power Density Per Carrier - Averaged Over 1 MHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	O	In frequency bands above 15GHz if the **Maximum Peak Envelope Power Per Carrier** is supplied.
S335	• Maximum Power Density - Averaged Over 1 MHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory in frequency bands above 15GHz if the **Total Peak Envelope Power** is supplied.
S371	• Minimum Power Density Per Carrier - Averaged Over 1 MHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory unless the **Reason For Absence Of Minimum Power Density** is provided.
S618	• Maximum Power Density Over the Necessary Bandwidth	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory if the notification is for AP30B Article.
S270	• Carrier To Noise Objective	Dec. in range -10.0 to 25.0 in dB.	R	Mandatory unless the **Reason For Absence Of C/N** is provided
S269	• Reason For Absence Of Minimum Power	Text.	R	Mandatory unless the **Minimum Peak Envelope Power Per Carrier** is provided.
S372	• Reason For Absence Of Minimum Power Density	Text.	R	Mandatory unless the minimum power density is provided.
S373	• Reason For Absence Of C/N	Text.	R	Mandatory unless the **Carrier To Noise Objective** is provided.
	For each ***Coordination Agreement*** sought or reached with respect to the ***ACG*** provide the following			
S275	• Status Code	Up to 6 Char.	BR	
S304	• Code of the ***Provision*** under which the ***Coordination Agreement*** is sought or reached	Up to 12 Char.	R	Mandatory if the ***Assignment Coordination Group*** is in a band subject to coordination and/or agreement procedures.
S011	• Code of the ***Administration*** under which the ***Coordination Agreement*** is sought or reached	Up to 3 Char.	R	Mandatory if the ***Assignment Coordination Group*** is in a band subject to coordination and/or agreement procedures.

4.8 Notification/Plan Modification Of Space Stations In BSS Under APS30

This table shows the information which must be supplied for the notification and plan modification of geostationary space stations which are subject to the procedures contained in APS30 together with the specific conditions under which it is required by the Radio Regulations and the Plans.

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Space Service Notice*** provide the			
S011	• Code of the ***Administration*** notifying the Earth Station or ***Space Station***	Up to 3 Char.	M	
S034	• Code of the ***Intergovernmental Satellite Organization*** on whose behalf a submission is made for the ***Space Station***	Up to 3 Char.	R	Mandatory if an ***Intergovernmental Satellite Organization*** is responsible for the ***Space Station.***
S295	• Administration Notice Code	Up to 20 Char.	O	
S296	• Date Sent	Date.	O	
S297	• BR Identification Code	10 Char.	BR	
S298	• BR Date Received	Date.	BR	
S300	• Occurrence Code	1 Char.	M	
S301	• Purpose Code	1 Char.	M	
S337	• Intended Action Code	1 Char.	M	
S767	• Special Section Reference For Publication	Up to 8 Char.	M	
S605	• Special Section Number For Publication	4 Char.	BR	
S299	• Weekly Circular Part For Publication	1 Char.	BR	
S302	• Weekly Circular Date For Publication	Date.	BR	
S303	• Weekly Circular Number For Publication	Int. in range 1 to 9999.	BR	
S304	• Code of each ***Provision*** the ***Space Service Notice*** is notified under	Up to 12 Char.	M	
S307	• Identifier of each ***Notice Attachment*** which supplements the ***Space Service Notice***	Int. in range 1 to 999.	M	
S360	• Code of each ***Intended Action*** included with the ***Space Service Notice***	1 Char.	M	If the ***Space Service Notice's*** **Intended Action Code** = "A" all ***Intended Actions'*** **Codes** = "A". Similarly, if the ***Space Service Notice's*** **Intended Action Code** = "S" all ***Intended Actions'*** **Codes** = "S" and do not need to be notified as such. If the ***Space Service Notice's*** **Intended Action Code** = "M", ***Intended Actions'*** **Codes** can be "A", "M", "S" or "R".
	Where the ***Intended Action*** refers to an ***Assignment Coordination Group*** also provide the			
S521	• Weekly Circular Date For Last Coordination	Date.	BR	
S522	• Weekly Circular Number For Last Coordination	Int. in range 1 to 9999.	BR	
S769	• Special Section Reference For Last Coordination	Up to 8 Char.	BR	
S607	• Special Section Number For Last Coordination	Int. in range 1 to 9999.	BR	
S775	• Weekly Circular Part For Last Notification	1 Char.	BR	
S523	• Weekly Circular Date For Last Notification	Date.	BR	
S524	• Weekly Circular Number For Last Notification	Int. in range 1 to 9999.	BR	
	For the ***Space Station*** that is the subject of the ***Space Service Notice*** provide the			
S067	• BR Identification Code	10 Char.	R	Mandatory if ***Space Service Notice's*** **Intended Action Code**="M" or "S". Provided by BR if ***Space Service Notice's*** **Intended Action Code**= "A".
S069	• Name	Up to 20 Char.	M	
S034	• Code of the ***Intergovernmental Satellite Organization*** that has operational control of the ***Space Station***	Up to 3 Char.	R	Mandatory if an ***Operator's*** **Code** is not supplied.
S029	• Code of the ***Operator*** providing the operational control of the ***Space Station***	3 Char. in numeric range 001 to 999.	R	Mandatory if an ***Intergovernmental Satellite Organization's*** **Code** is not supplied.
S021	• Code of the ***Correspondence Address*** where interference issues should be addressed to regarding the ***Space Station***	Up to 2 Char.	M	
S712	• Notified Identifying Code of each ***Exclusive Operational Group*** that applies to the ***Space Station***	Up to 10 Char.	R	Mandatory if the ***Exclusive Operational Groups*** have been specified for the ***Space Station.***
	For the ***Geostationary Orbital Position*** that is the subject of the ***Intended Action*** provide the			
S072	• Nominal Longitude	Dec. in range -180.00 to 180.00 in degrees.	M	

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
S074	• Longitude Tolerance Easterly Limit	Dec. in range 0.10 to 1.00 in degrees.	M	
S075	• Longitude Tolerance Westerly Limit	Dec. in range 0.10 to 1.00 in degrees.	M	
S076	• Inclination Excursion	Dec. in range 0.10 to 5.00 in degrees.	O	
	For each ***Beam*** that is the subject of an ***Intended Action*** provide the			
S116	• Designation	Up to 4 Char.	M	
S118	• Steerable Indicator	True or False.	M	
S119	• Boresight Geographical Coordinates	Lat/Long (dms).	M	
S120	• Pointing Accuracy	Dec. in range 0.10 to 5.00 in degrees.	M	
S124	• Maximum Co-polar Gain	Dec. in range 0.0 to 50.0 in dBi.	M	
S621	• Maximum Cross-polar Gain	Dec. in range 0.0 to 40.0 in dBi.	R	Mandatory if an **Effective Boresight Area** is not a single point.
S122	• Co-polar Gain Pattern	A compound structure presented in one of the ways described in section 5.	R	Mandatory, if **Effective Co-polar Gain Contour** is not provided.
S123	• Cross-polar Gain Pattern	A compound structure presented in one of the ways described in section 5.	R	Mandatory if **Effective Cross-polar Gain Contour** is not provided.
S369	• Effective Co-polar Gain Contour	Diagram.	R	Mandatory if **Co-polar Gain Pattern** is not provided
S370	• Effective Cross-polar Gain Contour	Diagram.	R	Mandatory if **Cross-polar Gain Pattern** is not provided.
S314	If an ***Elliptical Beam*** provide the:			
S130	• Major Axis Beamwidth	Dec. in range 0.50 to 12.00 in degrees.	R	Mandatory if an ***Elliptical Beam.***
S131	• Minor Axis Beamwidth	Dec. in range 0.50 to 8.00 in degrees.	R	Mandatory if an ***Elliptical Beam.***
S132	• Major Axis Orientation	Dec. in range 0.0 to 179.9 in degrees.	R	Mandatory if an ***Elliptical Beam.***
S133	• Rotational Accuracy	Dec. in range 0.00 to 2.00 in degrees.	R	Mandatory if an ***Elliptical Beam.***
	For the ***Transmitting Space Station ACG*** that is the subject of the ***Intended Action*** provide the following information,.			
S671	• Notified Identifying Code of each type of ***Associated Earth Station Antenna*** receiving the ***ACG***	Up to 20 Char.	M	
S116	• Designation of the ***Beam*** transmitting the ***ACG***	Up to 4 Char.	M	
S276	• Downlink Service Area	A compound structure presented in one of the ways described in section 5.	M	
S212	• Minimum Angle Of Elevation In The Service Area	Dec. in range 0.0 to 90.0 in degrees.	R	Mandatory if the ***Space Station*** is in Region 1 or 3.
S544	• Power To The Antenna	Dec in range 0.0 to 40.0 dBW.	M	
S186	• BR Identification Code	10 Char.	R	Mandatory if ***Space Service Notice's*** **Intended Action Code** = "M" or "S". Provided by BR if ***Space Service Notice's*** **Intended Action Code** = "A".
S187	• Date Of Bringing Into Use	Date.	M	
S190	• Bandwidth	Int. in range 50 to 99999999 in kHz.	M	
S189	• Polarization Code	Up to 2 Char.	M	
S364	• Polarization Linear Angle	Dec. in range 0.0 to 359.0 in degrees.	R	Mandatory if the **Polarisation Code** ="L".
S198	• Baseband Composition	Text.	M	
S640	• Type Of Modulation	Text.	M	
S643	• Frequency Deviation	Dec. in range 1.0 to 12.0 in MHz.	M	
S199	• Multiplex Type (Video/Sound)	Text.	M	
S203	• Sound Broadcasting Characteristics	Text.	M	
S327	• TV System And Colour Standard Description	Text.	M	

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
S204	• Digital Signal Transmitted Bit Rate	Dec. in range 0.0 to 9999999.9 in kBit/s.	R	Mandatory if the signal is digitally modulated.
S644	• Digital Signal Effective Bit Rate	Dec. in range 0.0 to 9999999.9 in kBit/s.	R	Mandatory if the signal is digitally modulated.
S201	• Pre-emphasis P-P Frequency Deviation	Dec. in range 5.0 to 15.0 in MHz.	M	
S202	• Pre-emphasis Characteristics	Diagram.	M	
S200	• Energy Dispersal Frequency Deviation	Dec. in range 0.1 to 4.0 in MHz.	M	
S324	• Energy Dispersal Sweep Frequency	Int. in range 10 to 2000 in Hz.	M	
S325	• Energy Dispersal Waveform	Text	M	
S091	• Start Time	Time in range 0000 to 2359.	M	
S092	• Stop Time	Time in range 0001 to 24.00.	M	
S052/ S617	• The Codes for each ***Class Of Station/Nature Of Service Pair*** used to classify the operation of the ***ACG***	2 char for each code.	M	Note FSS operation permitted in Region 2.
S723	• Value of each ***ACG Frequency*** the ***ACG*** utilises	Frequency.	M	
S712	• Notified ***Identifying Code*** of the ***Exclusive Operational Group*** of which the ***Assignment Coordination Group*** is a member	Up to 10 Char.	R	Mandatory if the Assignment Coordination Group is a member of an ***Exclusive Operational Group.***
	For each ***Emission Characteristic Set*** that further defines the ***Assignment Coordination Group*** provide the			
S262	• Class Of Emission Code	Up to 5 Char.	M	
S334	• Necessary Bandwidth Code	4 Char.	M	
S266	• Maximum Power Density - Averaged Over 4 kHz	Dec. in range-120.0 to 0.0 in dB(W/Hz).	M	
S207	• Maximum Power Density Averaged Over 40 kHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory if the ***Space Station*** is in Region 2.
S208	• Maximum Power Density Averaged Over 5 MHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	M	
S647	• Maximum Power Density Averaged Over 27 MHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	M	
	For each ***Coordination Agreement*** sought or reached with respect to the ***ACG*** provide the following			
S275	• Status Code	Up to 6 Char.	BR	
S304	• Code of the ***Provision*** under which the ***Coordination Agreement*** is sought or reached	Up to 12 Char.	R	Mandatory if the ***Assignment Coordination Group*** is in a band subject to coordination and/or agreement procedures.
S011	• Code of the ***Administration*** under which the ***Coordination Agreement*** is sought or reached	Up to 3 Char.	R	Mandatory if the ***Assignment Coordination Group*** is in a band subject to coordination and/or agreement procedures.
	For the ***ACG Frequency Strap*** that is the subject of the ***Intended Action*** provide the			
S774	• Notified Identification Code	Up to 4 Char.	R	Mandatory in Region 2.
	Uplink aspect			
S723	• Value of the ***ACG Frequency***	Frequency.	R	Mandatory if the ***Space Service Notice*** is for a ***Space Station*** in Region 2.
S186	• BR Identification Code of the ***ACG*** the ***ACG Frequency*** is for	10 Char.	R	Mandatory if the ***Space Service Notice*** is for a ***Space Station*** in Region 2.
	Downlink aspect			
S723	• Value of the ***ACG Frequency***	Frequency.	R	Mandatory if the ***Space Service Notice*** is for a ***Space Station*** in Region 2.
S186	• BR Identification Code of the ***ACG*** the ***ACG Frequency*** is for	10 Char.	R	Mandatory if the ***Space Service Notice*** is for a ***Space Station*** in Region 2.
	For the ***Associated Earth Station Antenna*** that is the subject of the ***Intended Action*** provide the			
S156	• BSS Community Reception Indicator	1 Char.	M	
S676	• Maximum Gain	Dec. in range 20.00 to 50.00 in dBi.	M	
S677	• Beamwidth	Dec. in range 0.00 to 10.00 in degrees.	M	
S650	• Equivalent Antenna Diameter	Dec. in range 2.5 to 3.0 in metres.	R	Mandatory if the ***Associated Earth Station Antenna*** is not a parabolic antenna.

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
S678	• Co-polar Gain Pattern	A compound structure presented in one of the ways described in section 5.	M	
S321	• Cross-polar Gain Pattern	A compound structure presented in one of the ways described in section 5.	M	

4.9 Notification/Plan Modification Of Feeder Link Earth Stations Under APS30A

This table shows the information which must be supplied for the notification and plan modification of Feeder Link (Uplink) Earth stations in the Broadcasting Satellite Service which are subject to the procedures contained in APS30A together with the specific conditions under which it is required by the Radio Regulations and the Plans.

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Space Service Notice*** provide the			
S011	Code of the ***Administration*** notifying the ***Earth Station*** or ***Space Station***	Up to 3 Char.	M	
S034	• Code of the ***Intergovernmental Satellite Organization*** on whose behalf a submission is made for the ***Space Station***	Up to 3 Char.	R	Mandatory if an ***Intergovernmental Satellite Organization*** is responsible for the ***Space Station.***
S295	• Administration Notice Code	Up to 20 Char.	O	
S296	• Date Sent	Date.	O	
S297	• BR Identification Code	10 Char.	BR	
S298	• BR Date Received	Date.	BR	
S300	• Occurrence Code	1 Char.	M	
S301	• Purpose Code	1 Char.	M	
S337	• Intended Action Code	1 Char.	M	
S767	• Special Section Reference For Publication	Up to 8 Char.	M	
S605	• Special Section Number For Publication	4 Char.	BR	
S299	• Weekly Circular Part For Publication	1 Char.	BR	
S302	• Weekly Circular Date For Publication	Date.	BR	
S303	• Weekly Circular Number For Publication	Int. in range 1 to 9999.	BR	
S304	• Code of each ***Provision*** the ***Space Service Notice*** is notified under	Up to 12 Char.	M	
S307	• Identifier of each ***Notice Attachment*** which supplements the ***Space Service Notice***	Int. in range 1 to 999.	M	
S360	• Code of each ***Intended Action*** included with the ***Space Service Notice***	1 Char.	M	Mandatory if the ***Space Service Notice's*** **Intended Action Code** = "A" all ***Intended Actions'*** **Codes** = "A". Similarly, if the ***Space Service Notice's*** **Intended Action Code** = "S" all ***Intended Actions'*** **Codes** = "S" and do not need to be notified as such. If the ***Space Service Notice's*** **Intended Action Code** = "M", ***Intended Actions'*** **Codes** can be "A", "M", "S" or "R".
	Where the ***Intended Action*** refers to an ***Assignment Coordination Group*** also provide the			
S521	• Weekly Circular Date For Last Coordination	Date.	BR	
S522	• Weekly Circular Number For Last Coordination	Int. in range 1 to 9999.	BR	
S769	• Special Section Reference For Last Coordination	Up to 8 Char.	BR	
S607	• Special Section Number For Last Coordination	Int. in range 1 to 9999.	BR	
S775	• Weekly Circular Part For Last Notification	1 Char.	BR	
S523	• Weekly Circular Date For Last Notification	Date.	BR	
S524	• Weekly Circular Number For Last Notification	Int. in range 1 to 9999.	BR	
	For the ***Space Station*** that is the subject of the ***Space Service Notice*** provide the			
S067	• BR Identification Code	10 Char.	R	Mandatory if ***Space Service Notice's*** **Intended Action Code**= "M" or "S". Provided by BR if ***Space Service Notice's*** **Intended Action Code** = "A".
S069	• Name	Text.	M	
S034	• Code of the ***Intergovernmental Satellite Organization*** that has operational control of the ***Space Station***	Up to 3 Char.	R	Mandatory if an ***Operator's*** **Code** is not supplied.
S029	• Code of the ***Operator*** providing the operational control of the ***Space Station***	3 Char. in numeric range 001 to 999.	R	Mandatory if an ***Intergovernmental Satellite Organization's*** **Code** is not supplied.
S021	• Code of the ***Correspondence Address*** where interference issues should be addressed to regarding the ***Space Station***	Up to 2 Char.	M	
S712	• Notified Identifying Code of each ***Exclusive Operational Group*** that applies to the ***Space Station***	Up to 10 Char.	R	Mandatory if the ***Exclusive Operational Groups*** have been specified for the ***Space Station.***
	For the ***Geostationary Orbital Position*** that is the subject of the ***Intended Action*** provide the			
S072	• Nominal Longitude	Dec. in range -180.00 to 180.00 in degrees.	M	

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
S074	• Longitude Tolerance Easterly Limit	Dec. in range 0.10 to 1.00 in degrees.	M	
S075	• Longitude Tolerance Westerly Limit	Dec. in range 0.10 to 1.00 in degrees.	M	
S076	• Inclination Excursion	Dec. in range 0.10 to 5.00 in degrees.	O	
S116	For each ***Beam*** that is the subject of an ***Intended Action*** provide the • Designation	Up to 4 Char.	M	
S118	• Steerable Indicator	True or False.	M	
S119	• Boresight Geographical Coordinates	Lat/Long (dms).	M	
S120	• Pointing Accuracy	Dec. in range 0.10 to 5.00 in degrees.	M	
S124	• Maximum Co-polar Gain	Dec. in range 0.0 to 50.0 in dBi.	M	
S621	• Maximum Cross-polar Gain	Dec. in range 0.0 to 50.0 in dBi.	R	Mandatory if an **Effective Boresight Area** is not a single point.
S122	• Co-polar Gain Pattern	A compound structure presented in one of the ways described in section 5.	R	Mandatory if **Effective Co-polar Gain Contour** is not provided.
S123	• Cross-polar Gain Pattern	A compound structure presented in one of the ways described in section 5.	R	Mandatory if **Effective Cross-polar Gain Contour** is not provided.
S369	• Effective Co-polar Gain Contour	Diagram.	R	Mandatory if **Co-polar Gain Pattern** is not provided.
S370	• Effective Cross-polar Gain Contour	Diagram.	R	Mandatory if **Cross-polar Gain Pattern** is not provided.
S125	• Gain Versus GSO Diagram	A compound structure presented in one of the ways described in Section 5.	R	Mandatory if the ***Beam*** is operating in a band with both a space to Earth and Earth to space frequency allocation. band has bi-directional allocation.
S314	If an ***Elliptical Beam*** provide the:			
S130	• Major Axis Beamwidth	Dec. in range 0.50 to 12.00 in degrees.	R	Mandatory if an ***Elliptical Beam.***
S131	• Minor Axis Beamwidth	Dec. in range 0.50 to 8.00 in degrees.	R	Mandatory if an ***Elliptical Beam.***
S132	• Major Axis Orientation	Dec. in range 0.0 to 179.9 in degrees.	R	Mandatory if an ***Elliptical Beam.***
S133	• Rotational Accuracy	Dec. in range 0.00 to 2.00 in degrees.	R	Mandatory if an ***Elliptical Beam.***
	For the ***Receiving Space Station's ACG*** that is the subject of the ***Intended Action*** provide the following information.			
S192	• Receiving System Noise Temperature	Int. in range 300 to 6000 in Kelvins.	M	
S671	• Notified Identifying Code of each ***Associated Earth Station Antenna*** transmitting the ***ACG***	Up to 20 Char.	M	
S116	• Designation of the ***Beam*** receiving the ***ACG***	Up to 4 Char.	M	
S330	• Earth Station's Power Control Range	Dec in range 0.0 to 10.0 in dB	R	Mandatory if power control is used.
S331	• Space Station's Automatic Gain Control Range	Dec in range 0.0 to 15.0 in dB	M	
S384	• Uplink Service Area	A compound structure presented in one of the ways described in section 5.	M	
S625	• Total Transmitting Power	Dec in the range 0.0 to 40 dBW.	M	
S186	• BR Identification Code	10 Char.	R	Mandatory if ***Space Service Notice's*** **Intended Action Code** = "M" or "'S". Provided by BR if ***Space Service Notice's*** **Intended Action Code** = "A".
S187	• Date Of Bringing Into Use	Date.	M	
S190	• Bandwidth	Int. in range 50 to 99999999 in kHz.	M	
S189	• Polarization Code	Up to 2 Char.	M	

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
S364	• Polarization Linear Angle	Dec. in range 0.0 to 359.0 in degrees.	R	Mandatory if the **Polarisation Code** = "L".
S198	• Baseband Composition	Text.	M	
S640	• Type of Modulation	Text.	M	
S643	• Frequency Deviation	Dec. in range 1.0 to 12.0 in MHz.	M	
S199	• Multiplex Type (Video/Sound)	Text.	M	
S203	• Sound Broadcasting Characteristics	Text.	M	
S327	• TV System And Colour Standard Description	Text.	M	
S204	• Digital Signal Transmitted Bit Rate	Dec. in range 0.0 to 9999999.9 in kBit/s.	R	Mandatory if the signal is digitally modulated.
S644	• Digital Signal Effective Bit Rate	Dec. in range 0.0 to 9999999.9 in kBit/s.	R	Mandatory if the signal is digitally modulated.
S201	• Pre-emphasis P-P Frequency Deviation	Dec. in range 5.0 to 15.0 in MHz.	M	
S202	• Pre-emphasis Characteristics	Diagram.	M	
S200	• Energy Dispersal Frequency Deviation	Dec. in range 0.1 to 4.0 in MHz.	M	
S324	• Energy Dispersal Sweep Frequency	Int. in range 10 to 2000 in Hz.	M	
S325	• Energy Dispersal Waveform	Text	M	
S091	• Start Time	Time in range 0000 to 2359.	M	
S092	• Stop Time	Time in range 0001 to 2400.	M	
S052/ S617	• The Codes for each ***Class Of Station/Nature Of Service Pair*** used to classify the operation of the ***ACG***	2 Char for each Code.	M	
S723	• Value of each ***ACG Frequency*** the ***ACG*** utilises	Frequency.	M	
S712	• Notified Identifying Code of the ***Exclusive Operational Group*** of which the ***Assignment Coordination Group*** is a member	Up to 10 Char.	R	Mandatory if the Assignment Coordination Group is a member of an ***Exclusive Operational Group.***
	For each ***Emission Characteristic Set*** that further defines the ***Assignment Coordination Group*** provide the			
S262	• Class Of Emission Code	Up to 5 Char.	M	
S334	• Necessary Bandwidth Code	4 Char.	M	
S266	• Maximum Power Density - Averaged Over 4 kHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory if the Uplink is in the frequency band 14.5 to 14.8 GHz.
S335	• Maximum Power Density - Averaged Over 1 MHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory if the Uplink is in the frequency band 17.3 to 18.1 GHz.
S209	• Maximum Power Density Averaged Over The Total RF Bandwidth	Dec. in range -120.0 to 0.0 in dB(W/Hz).	R	Mandatory if the Uplink is in the frequency band 17.3 to 17.8 GHz.
	For each ***Coordination Agreement*** sought or reached with respect to the ***ACG*** provide the following			
S275	• Status Code	Up to 6 Char.	BR	
S304	• Code of the ***Provision*** under which the ***Coordination Agreement*** is sought or reached	Up to 12 Char.	R	Mandatory if the ***Assignment Coordination Group*** is in a band subject to coordination and/or agreement procedures.
S011	• Code of the ***Administration*** under which the ***Coordination Agreement*** is sought or reached	Up to 3 Char.	R	Mandatory if the ***Assignment Coordination Group*** is in a band subject to coordination and/or agreement procedures.
	For the ***ACG Frequency Strap*** that is the subject of the ***Intended Action*** provide the			
S774	• Notified Identification Code	Up to 4 Char.	R	Mandatory in Region 2.
	Uplink aspect			
S723	• Value of the ***ACG Frequency***	Frequency.	R	Mandatory if the ***Space Station*** is in Region 2
S186	• BR Identification Code of the ***ACG*** the ***ACG Frequency*** is for	10 Char.	R	Mandatory if the ***Space Station*** is in Region 2
	Downlink aspect			
S723	• Value of the ***ACG Frequency***	Frequency.	R	Mandatory if the ***Space Station*** is in Region 2
S186	• BR Identification Code of the ***ACG*** the ***ACG Frequency*** is for	10 Char.	R	Mandatory if the ***Space Station*** is in Region 2
	For the ***Associated Earth Station Antenna*** that is the subject of the ***Intended Action*** provide the			
S671	• Notified Identification Code	Up to 20 Char.	M	
S559	• Typical/Specific Indicator	1 Char.	M	
S673	• Geographical Coordinates	Long/ Lat (dms).	R	Mandatory if the ***Associated Earth Station Antenna*** is not a typical antenna

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
S676	• Maximum Gain	Dec. in range 0.00 to 70.00 in dBi.	M	
S677	• Beamwidth	Dec. in range 0.00 to 10.00 in degrees.	M	
S165	• Diameter	Dec. in range 2.5 to 10.0 in metres.	M	
S678	• Co-polar Gain Pattern	A compound structure presented in one of the ways described in section 5.	M	
S321	• Cross-polar Gain Pattern	A compound structure presented in one of the ways described in section 5.	M	
S674	• Ground Altitude Above Mean Sea Level	Int. in range -1000 to 8848 in metres.	R	Mandatory if the ***Associated Earth Station Antenna*** is not a typical antenna.
S675	• Height Above Ground Level	Int. in range 0 to 1000 in metres.	R	Mandatory if the ***Associated Earth Station Antenna*** is not a typical antenna.
S680	• Planned Minimum Elevation Angle	Dec. in range 0.0 to 90.0 in degrees.	R	Mandatory if the ***Associated Earth Station Antenna*** is not a typical antenna.
S679	• Horizon Elevation Pattern	A compound structure presented in one of the ways described in section 5.	R	Mandatory if the ***Associated Earth Station Antenna*** is not a typical antenna.
S172	• Horizon Gain Pattern	A compound structure presented in one of the ways described in section 5.	R	Mandatory if the ***Associated Earth Station Antenna*** is not a typical antenna.
S052/ S617	• Codes for each ***Class Of Station/Nature of Service Pair*** of the ***Associated Earth Station Antenna***	2 Char. for each Code	M	
S380	• ***Name*** of the ***Site*** that is the location of the specific ***Associated Earth Station Antenna***	Up to 30 Char.	R	Mandatory if the ***Associated Earth Station Antenna*** is not a typical antenna.
S041	• Code of the ***Geographical Area*** in which the ***Site*** is located	Up to 3 Char.	R	Mandatory if the ***Associated Earth Station Antenna*** is not a typical antenna.

4.10 Plan Modification/Coordination Of Space Stations In FSS Under APS30B

This table shows the information which must be supplied for plan modification and coordination of geostationary space stations and space networks in the Fixed Satellite Planned Bands which are subject to the procedures contained in APS30B together with the specific conditions under which it is required by the Radio Regulations and the Plans.

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Space Service Notice*** provide the			
S011	• Code of the ***Administration*** notifying the Earth Station or ***Space Station***	Up to 3 Char.	M	
S295	• Administration Notice Code	Up to 20 Char.	O	
S296	• Date Sent	Date.	O	
S297	• BR Identification Code	10 Char.	BR	
S298	• BR Date Received	Date.	BR	
S300	• Occurrence Code	1 Char.	M	
S301	• Purpose Code	1 Char.	M	
S337	• Intended Action Code	1 Char.	M	
S767	• Special Section Reference For Publication	Up to 8 Char.	M	
S605	• Special Section Number For Publication	Int. in range 1 to 9999.	BR	
S302	• Weekly Circular Date For Publication	Date.	BR	
S303	• Weekly Circular Number For Publication	Int. in range 1 to 9999.	BR	
S304	• Code of each ***Provision*** the ***Space Service Notice*** is notified under	Up to 12 Char.	M	
S307	• Identifier of each ***Notice Attachment*** which supplements the ***Space Service Notice***	Int. in range 1 to 999.	M	
S360	• Code of each ***Intended Action*** included with the ***Space Service Notice***	1 Char.	M	Mandatory if the ***Space Service Notice's*** **Intended Action Code** = "A" all ***Intended Actions'*** **Codes** = "A". Similarly, if the ***Space Service Notice's*** **Intended Action Code** = "S" all ***Intended Actions'*** **Codes** = "S" and do not need to be notified as such. If the ***Space Service Notice's*** **Intended Action Code** = "M", ***Intended Actions'*** **Codes** can be "A", "M", "S" or "R".
	Where the ***Intended Action*** refers to an ***Assignment Coordination Group*** also provide the			
S521	• Weekly Circular Date For Last Coordination	Date.	BR	
S522	• Weekly Circular Number For Last Coordination	Int. in range 1 to 9999.	BR	
S769	• Special Section Reference For Last Coordination	Up to 8 Char.	BR	
S607	• Special Section Number For Last Coordination	Int. in range 1 to 9999.	BR	
	For the ***Space Station*** that is the subject of the ***Space Service Notice*** provide the			
S067	• BR Identification Code	10 Char.	R	Mandatory if ***Space Service Notice's*** **Intended Action Code**='M' or 'S'. Provided by BR if ***Space Service Notice's*** **Intended Action Code**='A'
S069	• Name	Up to 20 Char.	R	Mandatory if the assignment is not in the allotment plan.
S070	• Subregional System Indicator	True or False.	R	Mandatory if a subregional ***Beam***.
S011	• Code of each ***Administration*** with a participating interest in the ***Space Station***	Up to 3 Char.	R	Mandatory if more than one administration has a participating interest in the space station
	For the ***Geostationary Orbital Position*** that is the subject of the ***Intended Action*** provide the			
S072	• Nominal Longitude	Dec. in range -180.00 to 180.00 in degrees.	M	
S074	• Longitude Tolerance Easterly Limit	Dec. in range 0.10 to 1.00 in degrees.	M	
S075	• Longitude Tolerance Westerly Limit	Dec. in range 0.10 to 1.00 in degrees.	M	
S076	• Inclination Excursion	Dec. in range 0.10 to 5.00 in degrees.	M	
S079	• Service Arc's Easterly Limit	Int. in range -180 to 180 in degrees.	R	Mandatory if the assignment is not in the allotment plan.
S080	• Service Arc's Westerly Limit	Int. in range -180 to 180 in degrees.	R	Mandatory if the assignment is not in the allotment plan.
	For each ***Beam*** that is the subject of an ***Intended Action*** provide the			
S116	• Designation	Up to 4 Char.	M	
S118	• Steerable Indicator	True or False.	M	
S115	• Emission/Reception Indicator	1 Char.	M	

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
S119	• Boresight Geographical Coordinates	Long/lat (dms).	M	
S120	• Pointing Accuracy	Dec. in range 0.10 to 5.00 in degrees.	M	
S124	• Maximum Co-polar Gain	Dec. in range 0.0 to 50.0 in dBi.	M	
S122	• Co-polar Gain Pattern	A compound structure presented in one of the ways described in section 5.	R	Mandatory, if **Effective Co-polar Gain Contour** is not provided.
S369	• Effective Co-polar Gain Contour	Diagram.	R	Mandatory, if **Co-polar Gain Pattern** is not provided.
S128	If a ***Circular Beam*** provide the:			
S129	• Beamwidth	Dec. in range 0.50 to 12.00 in degrees.	R	Mandatory if a ***Circular Beam***.
S314	If an ***Elliptical Beam*** provide the:			
S130	• Major Axis Beamwidth	Dec. in range 0.50 to 12.00 in degrees.	R	Mandatory if an ***Elliptical Beam***.
S131	• Minor Axis Beamwidth	Dec. in range 0.50 to 8.00 in degrees.	R	Mandatory if an ***Elliptical Beam***.
S132	• Major Axis Orientation	Dec. in range 0.0 to 179.9 in degrees.	R	Mandatory if an ***Elliptical Beam***.
S133	• Rotational Accuracy	Dec. in range 0.00 to 2.00 in degrees.	R	Mandatory if an ***Elliptical Beam***.
	For each ***Frequency Range*** defining the spectrum limits of a ***Beam*** provide the	.		
S247	• Lower Limit	Frequency.	M	
S248	• Upper Limit	Frequency.	M	
	For the ***Assignment Coordination Group (ACG)*** that is the subject of the ***Intended Action*** provide the following information, including only one of the options from **C** or **D**			
S186	• BR Identification Code	10 Char.	R	Mandatory if ***Space Service Notice's*** **Intended Action Code** = "M" or "S". Provided by BR if ***Space Service Notice's*** **Intended Action Code** = "A".
S187	• Date Of Bringing Into Use	Date.	M	
S250	• Peak To Average Power Ratio Upper Frequency Limit	Frequency.	M	
	Option **C**: if the ***Intended Action*** is for a ***Receiving Space Station's ACG***			
S671	• Notified Identifying Code of each ***Associated Earth Station Antenna*** transmitting the *ACG*	Up to 20 Char.	M	
S384	• Uplink Service Area	A compound structure presented in one of the ways described in section 5.	M	
S192	• Receiving System Noise Temperature	Int. in range 300 to 6000 in Kelvins.	M	
S116	• Designation of the ***Beam*** receiving the ***ACG***	Up to 4 Char.	M	
	Option **D**: if the **Intended Action** is for a ***Transmitting Space Station's ACG***			
S671	• Notified Identifying Code of the each ***Associated Earth Station Antenna*** receiving the ***ACG***	Up to 20 Char.	M	
S116	• Designation of the ***Beam*** transmitting the ***ACG***	Up to 4 Char.	M	
S276	• Downlink Service Area	A compound structure presented in one of the ways described in section 5.	M	
	For each ***Emission Characteristic Set*** that further defines the ***Assignment Coordination Group*** provide the			
S266	• Maximum Power Density - Averaged Over 4 kHz	Dec. in range -120.0 to 0.0 in dB(W/Hz).	M	
S618	• Maximum Power Density Over the Necessary Bandwidth	Dec. in range -120.0 to 0.0 in dB(W/Hz).	M	
S210	• Required Protection Ratio (Minimum C/I	Dec. in range 8.0 to 25.9 in dB.	M	
	For each ***Coordination Agreement*** sought or reached with respect to the ***ACG*** provide the following			
S275	• Status Code	Up to 6 Char.	BR	

RDD Ref:	Data Item Name	Data Format	Use	Conditions of Use
S304	• Code of the ***Provision*** under which the ***Coordination Agreement*** is sought or reached	Up to 12 Char.	R	Mandatory if the ***Assignment Coordination Group*** is in a band subject to coordination and/or agreement procedures.
S011	• Code of the ***Administration*** under which the ***Coordination Agreement*** is sought or reached	Up to 3 Char.	R	Mandatory if the ***Assignment Coordination Group*** is in a band subject to coordination and/or agreement procedures.
	For the ***Associated Earth Station Antenna*** that is the subject of the ***Intended Action*** provide the			
S676	• Maximum Gain	Dec. in range 0.0 to 70.00 in dBi.	M	
S763	• Receiving System Noise Temperature	Int. in range 20 to 6000 in Kelvins.	R	Mandatory for a receiving ***Associated Earth Station Antenna***
S677	• Beamwidth	Dec. in range 0.0 to 100.00 in degrees.	M	
S678	• Co-polar Gain Pattern	A compound structure presented in one of the ways described in section 5	M	
S052/ S617	• Codes for each ***Class of Station/Nature of Service Pair*** of the ***Associated Earth Station Antenna***	2 Char. for each Code.	M	

4.11 Notification Of Radioastronomy

This table shows the information which must be supplied for the notification of radioastronomy stations in the radioastronomy service together with the specific conditions under which it is required by the Radio Regulations.

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
	For each ***Space Service Notice*** provide the			
S011	• Code of the ***Administration*** notifying the Earth Station or ***Space Station***	Up to 3 Char.	M	
S295	• Administration Notice Code	Up to 20 Char.	O	
S296	• Date Sent	Date.	O	
S297	• BR Identification Code	10 Char.	BR	
S298	• BR Date Received	Date.	BR	
S300	• Occurrence Code	1 Char.	M	
S301	• Purpose Code	1 Char.	M	
S337	• Intended Action Code	1 Char.	M	
S299	• Weekly Circular Part For Publication	1 Char.	BR	
S302	• Weekly Circular Date For Publication	Date.	BR	
S303	• Weekly Circular Number For Publication	Int. in range 1 to 9999.	BR	
S304	• Code of each ***Provision*** the ***Space Service Notice*** is notified under	Up to 12 Char.	M	
S307	• Identifier of each ***Notice Attachment*** which supplements the ***Space Service Notice***	Int. in range 1 to 999.	M	
S360	• Code of each Intended Action included with the Space Service Notice	1 Char.	M	If the ***Space Service Notice's*** **Intended Action Code** = "A" all ***Intended Actions'*** **Codes** = "A". Similarly, if the ***Space Service Notice's*** **Intended Action Code** = "S" all ***Intended Actions'*** **Codes** = "S" and do not need to be notified as such. If the ***Space Service Notice's*** **Intended Action Code** = "M", ***Intended Actions'*** **Codes** can be "A", "M", "S" or "R".
	Where the Intended Action refers to an Assignment Coordination Group also provide the			
S775	• Weekly Circular Part For Last Notification	Date.	BR	
S523	• Weekly Circular Date For Last Notification	Date.	BR	
S524	• Weekly Circular Number For Last Notification	Int. in range 1 to 9999.	BR	
	For the ***Earth Station Antenna*** that is the subject of the ***Space Service Notice*** provide the			
S148	• BR Identification Code	10 Char	R	Mandatory if the ***Space Services Notice's*** **Intended Action Code** = "A".
S149	• National Identification Code	Up to 20 Char.	M	
S159	• Geographical Coordinates	Long/ Lat (dms).	M	
S166	• Radioastronomy Antenna Description	Text.	M	
S169	• Operational Sector's Start Azimuth	Dec. in range 0.0 to 359.9 in degrees.	M	
S170	• Operational Sector's End Azimuth	Dec. in range 0.1 to 360.0 in degrees.	M	
S168	• Planned Minimum Elevation Angle	Dec. in range 0.0 to 90.0 in degrees.	M	
S381	• Planned Maximum Elevation Angle	Dec. in range 0.1 to 90.0 in degrees.	M	
S029	• Code of the ***Operator*** providing the operational control of the ***Earth Station Antenna***	3 Char. in numeric range 001 to 999.	M	
S021	• Code of the ***Correspondence Address*** where interference issues should be addressed to regarding the ***Earth Station Antenna***	Up to 2 Char.	M	
S380	• Name of the ***Site*** that is the location of the ***Earth Station Antenna***	Up to 30 Char.	M	
S041	• Code of the ***Geographical Area*** in which the ***Site*** is located	Up to 3 Char.	M	
	For the ***Assignment Coordination Group (ACG)*** that is the subject of the ***Intended Action*** provide the following information.			
S374	• Bandwidth of Frequency Band Observed	Int. in range 0 to 99999999 in kHz.	M	
S332	• Receiver Sensitivity Indicator	1 Char.	M	
S256	• Centre Of The Frequency Band Observed	Frequency.	M	

RDD Ref.	Data Item Name	Data Format	Use	Conditions of Use
S186	• BR Identification Code	10 Char.	R	Mandatory if ***Space Service Notice's*** **Intended Action Code**="M" or "S". Provided by BR if ***Space Service Notice's*** **Intended Action Code**="A"
S187	• Date Of Bringing Into Use	Date.	M	
S764	• Receiving System Noise Temperature	Int. in range 20 to 6000 in Kelvins.	M	
S052/ S617	• The Codes for each ***Class Of Station/NatureOf Service Pair*** used to classify the operation of the ***ACG***	2 Char for each Code.	M	

RADIOCOMMUNICATION DATA DICTIONARY

Section 5

DESCRIPTION OF SPACE DATA ITEMS

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5.0 Introduction

This section contains the description of data items required for advance publication, notification and coordination of frequency assignments to space service stations. Provided for each data item are a description, an optional further explanation, the units of measurement and the maximum range of values covering all radio systems described in Section 4.

Each data item exists as a property of something known as a "data group" in the RDD. Each data group may have several different properties know as data items. If the reader is uncertain in which group a particular data item appears, it is listed by both name and RDD reference number in Section 10.

To make finding information easier, this section has been divided into a number of topics (e.g. Beam Data). Each topic contains a number of data groups with its own table of contents, showing the data groups and the individual data items, referenced by page and RDD reference number.

To further simplify usage, all data items within each data group that relate to the same type of information are collated (e.g. **Boresight Geographical Coordination**, **Effective Boresight Area**).

5.0.1 Section 5 Structure and Usage

All topics within Section 5 are similarly structured with the data group being followed by the unique identifier statement, relationships to associated data groups, and its data items and their formats. It is important to understand this structure in order to obtain information accurately from this section.

More detailed information concerning the structure of Section 5 is shown in the example below. For the purposes of explanation, subsection 5.1 of the RDD has been copied below. This subsection contains the ***Administration*** data group along with some of the data items pertinent to an ***Administration***.

Example:

5.1 Administration **RDD ref: S001**

A governmental department, or service, of a member state of the ITU responsible for discharging the obligations undertaken in the Constitution, the Convention and the Regulations of the ITU.

In the case of notification of a satellite network, the notifying ***Administration*** addresses may be complemented by the address of an ***Intergovernmental Satellite Organization*** (Intelsat, Interspoutnik, etc.).

◊ An ***Administration*** is identified by its **Code**

An ***Administration*** may nominate one or more ***Sites*** **RDD ref: S388**

An ***Administration*** may be party to one or more ***Coordination Agreements*** **RDD ref: S002**

An ***Administration*** may notify one or more ***Space Stations*** **RDD ref: S389**

An ***Administration*** may submit one or more ***Correspondence Addresses*** **RDD ref: S006**

An ***Administration*** may have joint notification interest in one or more ***Space Stations*** **RDD ref: S007**

An ***Administration*** may be responsible for notifying on behalf of one or more ***Intergovernmental Satellite Organizations*** **RDD ref: S009**

- **Code** **RDD ref: S011**

The code used to identify an ***Administration.***

A list of ***Administration* Codes** can be found in Appendix 1.

Recordings in the Master Register which do not result from a notification, such as allotments and frequencies for common use which are entered by the BR in accordance with the provisions of the Radio Regulations, are indicated by the symbol "ITU" in this column. This symbol now stands for the Radiocommunication Bureau (formerly International Frequency Registration Board).

Format: Up to 3 characters.

- **Name** **RDD ref: S012**

The name of the member state.

Format: Text.

- **Official Postal Address** **RDD ref: S014**

The postal address officially nominated by the ***Administration*** for the receipt of correspondence relating to radiocommunication matters.

Format: Text.

- **Official Telex Address** **RDD ref: S015**

The telex address officially nominated by the ***Administration*** for the receipt of correspondence relating to radiocommunication matters.

Format: Text.

- **Official Facsimile Address** **RDD ref: S401**

The facsimile address officially nominated by the ***Administration*** for the receipt of correspondence relating to radiocommunication matters.

For the transmission of notification data the use of an ***Official Facsimile Address*** may be acceptable providing there is independent or automatic confirmation of origin of the fax. However, in some countries facsimile transmissions do not have the same legal status as telex transmissions.

Format: Text.

- **Official E-mail Address** **RDD ref: S402**

The e-mail address officially nominated by the ***Administration*** for the receipt of correspondence relating to radiocommunication matters.

For the transmission of notification data the use of an ***Official E-mail Address*** may be acceptable providing there is independent or automatic confirmation of origin of the e-mail. However, in some countries e-mail transmissions do not have the same legal status as telex transmissions.

Format: Text.

- **ITU Language Code** **RDD ref: S013**

An indication of an ITU officially recognised working language, chosen by the ***Administration*** for communication of notification data with the ITU.

Format: 1 character.

Code	Meaning
E	English
F	French
S	Spanish

In the above example:

Administration represents the data group name. All data group names in the RDD are presented in italics and bold typeface.

RDD ref: S001 represents the RDD reference number. All RDD reference numbers are presented in bold typeface.

Immediately below the data group name is the data group definition. This is presented in normal typeface and serves to uniquely define the data group.

Immediately below the data group definition is the data group's unique identifier statement. This statement identifies which properties of the data group are required to uniquely identify the data group. In this example, this identification

statement states: An ***Administration*** is identified by its **Code**. This means that by only knowing the ***Administration's*** **Code** the ***Administration*** itself could be identified.

Below the unique identifier statement is any relationships pertinent to the data group. Relationships describe how this data group relates to, or is related by, other data groups. In this example, several of the relationships pertinent to ***Administration*** are: An ***Administration*** may nominate one or more ***Sites;***. An ***Administration*** may be party to one or more ***Coordination Agreements***. This demonstrates that ***Administration*** is related to, or is related by, both ***Site and Coordination Agreement***. Each relationship possesses its own RDD reference number for the purpose of identification.

Below the relationships are listed the data items belonging to each data group. Data items are individual pieces of data which form a part of each data group. Each data item are presented as bullets and are in title case and bold typeface. In this example, the data items associated with ***Administration*** are: **Code**; **Name**; **Official Postal Address**; **Official Telex Address**; **Official Facsimile Address**; **Official E-mail Address**; and **ITU Language Code**. The full data item name is read as ***Administration's*** **Code** or ***Administration's*** **Official Postal Address**.

By convention, if reference is made to a data item within the same data group, only the short data item name (e.g. **Code**) is used. If reference is made to a data item of another data group the full name is used.

Each data item is identified by an RDD reference number, a definition and a format statement. The format statement describes the format in which the data must be presented, the size of the field, and, in most cases its possible level of accuracy. In this example, the format statement for **Code** indicates that "Up to 3 characters" are permissible for supplying information concerning an ***Administration's*** **Code**.

All other topics within Section 5 of the RDD are structured in the same manner.

5.0.2 Notes

Note: *Indented and italicised notes appear in this section to draw attention to specific issues arising at the introduction of the RDD. It is expected that these notes will be removed from a later version of the RDD.*

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Code	**RDD ref: S052**	**202**
Name	**RDD ref: S054**	**202**
5.8 ***Class Of Station Nature Of Service Pair***	**RDD ref: S580**	**203**
5.9 ***Nature Of Service***	**RDD ref: S614**	**204**
Code	**RDD ref: S617**	**204**
Name	**RDD ref: S734**	**204**

5.1 *Administration* **RDD ref: S001**

A governmental department, or service, of a member state of the ITU responsible for discharging the obligations undertaken in the Constitution, the Convention and the Regulations of the ITU.

In the case of notification of a satellite network, the notifying administration addresses may be complemented by the address of an ***Intergovernmental Satellite Organization*** (Intelsat, Interspoutnik, etc.).

◊ An ***Administration*** is identified by its **Code**

An ***Administration*** may nominate one or more ***Sites*** **RDD ref: S388**

An ***Administration*** may be party to one or more ***Coordination Agreements*** **RDD ref: S002**

An ***Administration*** may notify one or more ***Space Stations*** **RDD ref: S389**

An ***Administration*** may submit one or more ***Correspondence Addresses*** **RDD ref: S006**

An ***Administration*** may have joint notification interest in one or more ***Space Stations*** **RDD ref: S007**

An ***Administration*** may be responsible for notifying on behalf of one or more ***Intergovernmental Satellite Organizations*** **RDD ref: S009**

- **Code** **RDD ref: S011**

The code used to identify an ***Administration.***

A list of ***Administration*** **Codes** can be found in Appendix 1.

Recordings in the Master Register which do not result from a notification, such as allotments and frequencies for common use which are entered by the BR in accordance with the provisions of the Radio Regulations, are indicated by the symbol "ITU" in this column. This symbol now stands for the Radiocommunication Bureau (formerly International Frequency Registration Board).

Format: Up to 3 characters.

- **Name** **RDD ref: S012**

The name of the member state.

Format: Text.

- **Official Postal Address** **RDD ref: S014**

The postal address officially nominated by the ***Administration*** for the receipt of correspondence relating to radiocommunication matters.

Format: Text.

- **Official Telex Address** **RDD ref: S015**

The telex address officially nominated by the ***Administration*** for the receipt of correspondence relating to radiocommunication matters.

Format: Text.

- **Official Facsimile Address** **RDD ref: S401**

The facsimile address officially nominated by the ***Administration*** for the receipt of correspondence relating to radiocommunication matters.

For the transmission of notification data the use of an ***Official Facsimile Address*** may be acceptable providing there is independent or automatic confirmation of origin of the fax. However, in some countries facsimile transmissions do not have the same legal status as telex transmissions.

Format: Text.

- **Official E-mail Address** **RDD ref: S402**

The e-mail address officially nominated by the ***Administration*** for the receipt of correspondence relating to radiocommunication matters.

For the transmission of notification data the use of an ***Official E-mail Address*** may be acceptable providing there is independent or automatic confirmation of origin of the e-mail. However, in some countries e-mail transmissions do not have the same legal status as telex transmissions.

Format: Text.

- **ITU Language Code** **RDD ref: S013**

An indication of an ITU officially recognised working language, chosen by the ***Administration*** for communication of notification data with the ITU.

Format: 1 character.

Code	Meaning
E	English
F	French
S	Spanish

5.2 *Correspondence Address* **RDD ref: S016**

For a specific ***Geographical Area*** an alternative address to that of the 'Official' address of an ***Administration*** where communication should be sent (when requested by the notifying ***Administration***) on matters regarding interference, quality of emissions and questions referring to the notification of a specific satellite system.

Note: *In Appendix S4 this data item appears as optional, in future it should either be mandatory, or it should be deleted and the address of the notifying* ***Administration*** *appearing in the ITU Global Directory used instead.*

◊ A ***Correspondence Address*** is identified by its **Code** and the notifying ***Administration*** by which it has been nominated.

A ***Correspondence Address*** must be nominated by a single ***Administration*** **RDD ref: S017**

A ***Correspondence Address*** may be used for one or more ***Space Stations*** **RDD ref: S018**

A ***Correspondence Address*** may be used for one or more ***Earth Station Antennas*** **RDD ref: S019**

A ***Correspondence Address*** must have validity in one or more ***Geographical Areas*** **RDD ref: S020**

- **Code** **RDD ref: S021**

A code allocated by the BR to uniquely identify a ***Correspondence Address*** of an ***Administration***.

Currently the **Code** used by the BR for identifying the ***Correspondence Address*** has been implemented in a manner that makes it specific to a single ***Geographical Area***. Hence if the same address is valid for two ***Geographical Areas***, it is likely they will be identified by a different **Code**. This difference in **Code** applies even if the two ***Geographical Areas*** are the responsibility (under the Convention of the ITU and the Regulations) of the same ***Administration*** and the address is that of the notifying ***Administration***.

Format: Up to 2 characters.

- **Postal Address** **RDD ref: S022**

The postal address nominated by the notifying ***Administration*** as the address to which correspondence relating to radiocommunication matters concerning a specific ***Space Service Notice*** should be sent.

Format: Text.

- **Telex Address** **RDD ref: S023**

The telex address nominated by the notifying ***Administration*** as the address to which correspondence relating to radiocommunication matters concerning a specific ***Space Service Notice*** should be sent.

Format: Text.

- **Facsimile Address** **RDD ref: S390**

The facsimile address nominated by the notifying ***Administration*** as the address to which correspondence relating to radiocommunication matters concerning a specific ***Space Service Notice*** should be sent.

Format: Number.

- **E-mail Address** **RDD ref: S403**

The e-mail address nominated by the notifying ***Administration*** as the address to which correspondence relating to radiocommunication matters concerning a specific ***Space Service Notice*** should be sent.

Format: Text.

5.3 *Operator* RDD ref: S024

An Organization responsible for the operation of radio systems in a specific ***Geographical Area***. The **Code** used by the BR for identifying the ***Operator*** is specific to the ***Geographical Area***. Hence if the same organisation appears in two or more ***Geographical Areas***, each occurrence is treated as a different organisation and each is likely to be identified by a different **Code**.

◊ An ***Operator*** is identified by its **Code** and the ***Geographical Area*** within which it operates.

An ***Operator*** must operate within a single ***Geographical Area*** **RDD ref: S025**

An ***Operator*** may be responsible for the operation of one or more ***Space Stations*** **RDD ref: S026**

An ***Operator*** may be responsible for the operation of one or more ***Earth Station Antennas*** **RDD ref: S027**

- **Code** **RDD ref: S029**

The code used to identify an ***Operator***. The **Code** is assigned to the ***Operator*** by the BR.

Format: 3 characters (in the numeric range 001 to 999).

- **Name** **RDD ref: S030**

The name of the ***Operator***, as submitted by the ***Administration***.

Format: Text.

5.4 *Intergovernmental Satellite Organization* **RDD ref: S031**

An ITU registered intergovernmental organisation formed from a group of ***Administrations*** to provide regional or global space station (satellite) based radiocommunication systems.

When notifying a network the notifying ***Administration*** may be complemented by a symbol indicating the ***Intergovernmental Satellite Organization*** (e.g. Intelsat, Intersputnik, etc.) operating the network, to which communication should be sent on technical and operational matters of the stations or networks.

◊ An ***Intergovernmental Satellite Organization*** is identified by its **Code**.

An ***Intergovernmental Satellite Organization*** may be the operator of one or more ***Space Stations*** **RDD ref: S032**

An ***Intergovernmental Satellite Organization*** may be the operator of one or more ***Earth Station Antennas*** **RDD ref: S377**

An ***Intergovernmental Satellite Organization*** must have all its satellite systems notified by a single ***Administration*** **RDD ref: S033**

An ***Intergovernmental Satellite Organization*** may have submitted on their behalf one or more ***Space Service Notices*** **RDD ref: S772**

- **Code** **RDD ref: S034**

The code allocated by the ITU for identifying an ***Intergovernmental Satellite Organization***.

A list of ***Intergovernmental Satellite Organization*** **Codes** are contained in Appendix 2 to the RDD.

Format: Up to 3 characters.

- **Name** **RDD ref: S035**

Name of the ***Intergovernmental Satellite Organization*** operating the satellite network**,** as submitted by the ***Administration***.

Example: Inmarsat.

Format: Text.

- **Address** **RDD ref: S762**

Address of the ***Intergovernmental Satellite Organization*** operating the satellite network, as submitted by the ***Administration***.

Format: Text

5.5 *Geographical Area* **RDD ref: S036**

An area of the Earth's surface whose borders are recorded by the ITU for radiocommunication purposes. The use of a country name, or of a geographical area by the ITU does not imply the expression of any opinion whatsoever on the part of the Union concerning the sovereignty or the legal status of any country, territory or geographical region.

Geographical Areas are countries for example, "Poland", and "Hungary", or formed from areas of one country e.g. "The 48 contiguous States of the United States of America"; others e.g. "Antarctic" are not countries.

◊ A ***Geographical Area*** is identified by its **Code**.

A ***Geographical Area*** may be an area of operation for one or more ***Operators*** **RDD ref: S037**

A ***Geographical Area*** may be the location of one or more ***Sites*** **RDD ref: S038**

A ***Geographical Area*** may be valid for one or more ***Correspondence Addresses*** **RDD ref: S039**

- **Code** **RDD ref: S041**

The code used to identify a ***Geographical Area***, as assigned by the ITU. All new codes are assigned by the ITU in conformity with ISO three character coding.

Format: Up to 3 characters.

The codes are defined in Appendix 3 to the RDD.

- **Name** **RDD ref: S042**

The name by which a ***Geographical Area*** is known at the ITU.

The names are defined in Appendix 3 to the RDD.

Format: Text.

- **Radiocommunication Region Code** **RDD ref: S043**

An indication of the ITU Region where the ***Geographical Area*** is located. For the allocation of frequencies the Earth's surface has been divided into three Regions. The complete definition of the three Radiocommunication Regions can be found in Article S5 of the Radio Regulations. A list of ***Geographical Areas*** and their corresponding **Radiocommunication Region Codes** are listed in Appendix 3 to the RDD.

Format: 1 character.

Code	Meaning
1	Radiocommunication Region 1
2	Radiocommunication Region 2
3	Radiocommunication Region 3

5.6 *Radiocommunication Service* RDD ref: S044

A service involving the transmission, emission and/or reception of radio waves for specific telecommunication purposes. ***Radiocommunication Services*** are a categorisation of the different types of use as defined in the Radio Regulations. The purpose of the categorisation of ***Radiocommunication Services*** is to enable effective management of the radio spectrum.

A full list of ***Radiocommunication Services*** can be found in Appendix 4 to the RDD.

◊ A ***Radiocommunication Service*** is identified by its **Name**.

A ***Radiocommunication Service*** must be qualified by one or more ***Classes Of Station*** **RDD ref: S046**

A ***Radiocommunication Service*** may include one or more other ***Radiocommunication Services*** **RDD ref: S405**

- **Name** **RDD ref: S047**

The name of the ***Radiocommunication Service*** and assigned by the ITU through the RR.

Radiodetermination is defined in the RR, but not used directly in Article S5 of the RR (Table of Frequency Allocations). Instead, Radiolocation and Radionavigation are used, as subsets of Radiodetermination.

Format: Text.

- **Code** **RDD ref: S404**

It is proposed that a code is developed.

Note: *Various contributions for a coding of the **Radiocommunication Services** have been submitted to Study Group 1 by Administrations. Appendix 4, in addition to the full list of **Radiocommunication Services** contains a similar proposal for coding.*

5.7 *Class Of Station* **RDD ref: S048**

A classification of a station by the ***Radiocommunication Service*** in which it operates and its mode of operation, content of signal or other characteristic considered significant to the notification and or coordination process. Sometimes the classification only gives the generic ***Radiocommunication Service***.

◊ A ***Class Of Station*** is identified by its **Code**.

A ***Class Of Station*** may be the subject of one or more ***Class Of Station Nature Of Service Pairs*** **RDD ref: S700**

A ***Class Of Station*** must identify a single ***Radiocommunication Service*** **RDD ref: S051**

- **Code** **RDD ref: S052**

The code used to identify a ***Class Of Station***.

Format: 2 characters.

A list of ***Classes Of Station*** is contained in Appendix 5 to the RDD.

- **Name** **RDD ref: S054**

The name of the ***Class Of Station***.

Format: Text.

5.8 *Class Of Station Nature Of Service Pair* **RDD ref: S580**

A valid combination of a single ***Nature Of Service*** and a single ***Class Of Station***. It is a valid combination if the BR recognise its use in classifying either an ***Assignment Coordination Group*** or an ***Associated Earth Station Antenna***.

◊ A ***Class Of Station Nature Of Service Pair*** is identified by the **Class Of Station Code** and the ***Nature Of Service* Code** for which it is a valid pairing.

A ***Class Of Station Nature Of Service Pair*** may further define the operational limitations of one or more ***Assignment Coordination Groups*** **RDD ref: S375**

A ***Class Of Station Nature Of Service Pair*** may further define the operational limitations of one or more ***Associated Earth Station Antennas*** **RDD ref: S742**

A ***Class Of Station Nature Of Service Pair*** must be a valid pairing for a single ***Nature Of Service*** **RDD ref: S701**

A ***Class Of Station Nature Of Service Pair*** must be a valid pairing for a single ***Class Of Station*** **RDD ref: S702**

5.9 *Nature Of Service* RDD ref: S614

A classification of a service or other characteristic considered significant to the notification and or coordination process.

◊ A ***Nature Of Service*** is identified by its **Code**.

A ***Nature Of Service*** may be the subject of one or more ***Class Of Station Nature Of Service Pairs*** **RDD ref: S622**

- **Code** **RDD ref: S617**

The code used to identify a ***Nature Of Service***.

Format: 2 characters.

A list of ***Nature Of Services*** is contained in Appendix 13 to the RDD.

- **Name** **RDD ref: S734**

The name of the ***Nature Of Service***, as assigned by the BR.

Format: Text.

SPACE STATION DATA

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5.10 *Space Station* **RDD ref: S055**

The combined aspects of either a single spacecraft, or more than one spacecraft which are recognised by its/their notifying ***Administration*** as the space components of the same satellite based radiocommunication system(s). If the ***Space Station*** is comprised of multiple satellites then the ***Beams*** each satellite transmits and receives must be common to every satellite. If the ***Beams*** are not common to every satellite then the satellites are considered by the BR to be part of a different space network. A space network is the full Earth to space and space to Earth path (comprising the ***Space Station*** and its (***Associated***) ***Earth Station Antenna***) where the space component may comprise many inter-satellite links.

Where a ***Space Station*** of a GSO network , or all the ***Space Stations*** in a constellation of a NGSO network is not under the operational control of either an ***Operator*** or an ***Intergovernmental Satellite Organization***, then its notifying ***Administration*** is considered to be responsible for its operational control.

A ***Space Station*** and the ***Earth Station Antenna*** may be considered as the two principle subjects of the notification of a satellite network for the purposes of this document.

◊ A ***Space Station*** is identified by the ***Administration*** that notified it and its **Name**.

A ***Space Station*** must be notified by a single ***Administration*** **RDD ref: S393**

A ***Space Station*** must be the subject of one or more ***Space Service Notices*** **RDD ref: S057**

A ***Space Station*** must emit or receive one or more ***Beams*** **RDD ref: S058**

A ***Space Station*** may be under the operational control of a single ***Intergovernmental Satellite Organization*** **RDD ref: S315**

A ***Space Station*** may be under the operational control of a single ***Operator*** **RDD ref: S060**

A ***Space Station*** may be of “participating interest" to one or more ***Administrations*** **RDD ref: S061**

A ***Space Station*** may have interference issues addressed to a single ***Correspondence Address*** **RDD ref: S062**

A ***Space Station*** may be communicating with one or more ***Earth Station Antennas*** **RDD ref: S065**

One and only one of the following two relationships must apply:

> A ***Space Station*** must have its astrodynamics defined as one or more ***Non-geostationary Orbits*** **RDD ref: S442**
>
> A ***Space Station*** must be located at a single ***Geostationary Orbital Position*** **RDD ref: S444**

A ***Space Station*** may be the subject of one or more ***Associated Space Station Positions*** **RDD ref: S738**

A ***Space Station*** may be associated with one or more ***Associated Earth Station Antennas*** **RDD ref: S714**

A ***Space Station*** may be the subject of one or more ***Exclusive Operational Groups*** **RDD ref: S779**

- **BR Identification Code** **RDD ref: S067**

A code used to uniquely identify the ***Space Station*** allocated by the BR. The code is not assigned to the ***Space Station*** until after the BR receive the notice which first “adds” the ***Space Station***. Thus, it is not possible for an ***Administration*** to refer to this code until after the ***Space Station’s*** first notification has been processed by the BR, although the BR has the means to identify this code for any previously notified ***Space Station***.

The BR uses a coding system to uniquely identify ***Space Service Notices***. The ***Space Service Notice*** transaction number which first includes details of the ***Space Station*** (i.e. when the ***Space Station’s*** **Intended Action Code** = “A”) is used as the **BR Identification Code**.

Format: 10 characters.

Note: *Currently the* **BR Identification Code** *only records the last two numbers of the year of receipt preceded by a zero. It is considered essential to show year in full. The RDD defines format as 10 characters as above.*

- **Notified Identification Code** **RDD ref: S068**

An ***Administration's*** code used to identify the space station. The **Notified Identification Code** may be used by an ***Administration*** to uniquely identify a ***Space Station,*** prior to the BR issuing an international identifier, for its own purposes and to aid its data management.

Format: Up to 20 characters.

- **Name** **RDD ref: S069**

The name of the ***Space Station*** assigned by the ***Administration***.

Format: Up to 20 characters.

- **Subregional System Indicator** **RDD ref: S070**

An indicator used to identify if the ***Space Station*** is part of a sub-regional radiocommunication system.

Used for the Fixed Satellite Service plan.

Format: True or False.

- **Date Of Bringing Into Use** **RDD ref: S619**

The date the ***Space Station*** is brought into operational use.

Format: Date.

- **Period Of Validity** **RDD ref: S624**

The number of years that the notifying ***Administration*** expect the operational use of the ***Space Station*** will continue to be required. The period begins on the date the ***Space Station*** is brought into operation.

Format: Integer (in the range 10 to 20) in years.

- **Total Number Of Satellites** **RDD ref: S085**

The number of satellites, in all the ***Non-geostationary Orbits***, that define the astrodynamics of the ***Space Station***.

Format: Integer (in the range 1 to 999).

- **Total Number Of Non-geostationary Orbits** **RDD ref: S086**

The number of orbital planes in which all the satellites that comprise the non-geostationary ***Space Station*** have their orbits.

Format: Integer (in the range 1 to 999).

5.11 *Geostationary Orbital Position* **RDD ref: S071**

A point on a circular and direct orbit that lies in the plane of the Earth's equator and which thus remains fixed relative to the Earth; so the satellite remains in approximately the same position relative to an observer on the Earth.

Forces acting on the satellite will make it oscillate around its nominal position in the North-South and East-West directions. As it is impossible to keep the satellite absolutely stationary, the degree of oscillation is limited to a station keeping window in the North-South and East-West directions. This North-South movement is known as **Inclination Excursion** and the East-West movement is known as "longitudinal tolerance".

A satellite revolving around a body other than the Earth is categorised as a ***Space Station*** with a ***Non-geostationary Orbit.***

◊ A ***Geostationary Orbital Position*** is identified by its **Nominal Longitude** and the ***Space Station*** for which it is a location.

A ***Geostationary Orbital Position*** must be the subject of one or more ***Intended Actions*** **RDD ref: S483**

A ***Geostationary Orbital Position*** must be the location of a single ***Space Station*** **RDD ref: S445**

- **Nominal Longitude** **RDD ref: S072**

The angular distance East from the Standard Meridian, i.e. that of Greenwich, England, to the meridian of the point on the equator above which it is planned to locate the ***Space Station***. During the lifetime of the ***Space Station*** it will deviate from its **Nominal Longitude** by a tolerance determined by the **Inclination Excursion** and the "longitudinal tolerance".

Format: Decimal (in the range -180.0 to 180.00) to 2 decimal places in degrees.

- **Preferred Longitude** **RDD ref: S073**

The angular distance from the Standard Meridian, i.e. that of Greenwich, England, to the meridian of the point on the equator above which it is planned to locate the ***Space Station***. During the design stage this longitude is nominated by the notifying ***Administration*** as the most desired orbital position for the satellite.

Appendix S30B only.

Format: Decimal (in the range -180.00 to 180.00) to 2 decimal places in degrees.

- **Longitude Tolerance Easterly Limit** **RDD ref: S074**

The declared maximum angular deviation in the position of the ***Space Station***, relative to its **Nominal Longitude**, in a Easterly direction throughout the lifetime of the ***Space Station.*** The Longitudinal Tolerance may not be symmetrical around the **Nominal Longitude**.

In the Appendices S30, S30A & S30B Longitudinal Tolerance and **Inclination Excursion** are jointly referred to as station keeping accuracy.

Format: Decimal (in the range 0.10 to 1.00) to 2 decimal places in degrees.

- **Longitude Tolerance Westerly Limit** **RDD ref: S075**

The declared maximum angular deviation in the position of the ***Space Station***, relative to its **Nominal Longitude**, in a Westerly direction throughout the lifetime of the ***Space Station.*** The Longitudinal Tolerance may not be symmetrical around the **Nominal Longitude**.

In the Appendices S30, S30A & S30B Longitudinal Tolerance and **Inclination Excursion** are jointly referred to as station keeping accuracy.

Format: Decimal (in the range 0.10 to 1.00) to 2 decimal places in degrees.

- **Inclination Excursion** **RDD ref: S076**

The maximum permitted angular deviation in the position of the ***Space Station***, relative to the Earth's equatorial plane, in the North - South direction, throughout the lifetime of the ***Space Station***.

In the Appendices S30, S30A & S30B Longitudinal Tolerance and **Inclination Excursion** are combined and are called station keeping accuracy.

Format: Decimal (in the range 0.10 to 5.00) to 2 decimal places in degrees.

- **Service Arc's Easterly Limit** **RDD ref: S079**

The longitude of the furthest point to the East of the geostationary satellite orbit from which the ***Space Station*** can provide the required service to its ***Associated Earth Station Antennas*** in the the ***Assignment Coordination Groups*** service area.

The East and West longitudes that define the service arc, delineate a portion of the geostationary-satellite orbit within which a ***Space Station*** can provide the required service to its ***Associated Earth Station Antennas*** in the ***Assignment Coordination Groups*** service area(s).

Format: Integer (in the range -180 to 180) in degrees.

- **Service Arc's Westerly Limit** **RDD ref: S080**

The longitude of the furthest point to the West of the geostationary satellite orbit from which the ***Space Station*** can provide the required service to its ***Associated Earth Station Antennas*** in the the ***Assignment Coordination Groups*** service area.

The East and West longitudes that define the service arc,delineate a portion of the geostationary satellite orbit within which a ***Space Station*** can provide the required service to its ***Associated Earth Station Antennas*** in the the ***Assignment Coordination Groups*** service area(s).

Format: Integer (in the range -180 to 180) in degrees.

- **Visibility Arc's Easterly Limit** **RDD ref: S077**

The longitude of the furthest point to the East of the geostationary satellite orbit at which the ***Space Station*** is visible, at a minimum angle of elevation of 10 degrees, at the Earth's surface from any point in all ***Assignment Coordination Group's*** service areas.

The East and West longitudes that define the visibility arc delineate a portion of the geostationary satellite orbit within which a satellite will always have an angle of beam arrival within ***Assignment Coordination Group's*** service area of ≥ 10 degrees and can thus, from a propagation point of view, provide an adequate quality of service to the area. In some cases, such as service areas in high latitudes or very large service areas, the visibility arc may be zero, since the ***Assignment Coordination Group's*** service areas may include points on the Earth's surface at which the beam arrival angle is less than 10 degrees.

Format: Integer (in the range -180 to 180) in degrees.

- **Visibility Arc's Westerly Limit** **RDD ref: S078**

The longitude of the furthest point to the West of the geostationary satellite orbit at which the ***Space Station*** is visible at a minimum angle of elevation of 10 degrees at the Earth's surface from all points in all ***Assignment Coordination Group's*** service areas.

The East and West longitudes that define the visibility arc delineate a portion of the geostationary-satellite orbit within which a satellite will always have an angle of beam arrival within the ***Assignment Coordination Group's*** service area of ≥ 10 degrees and can thus, from a propagation point of view, provide an adequate quality of service to the area. In some cases, such as service areas in high latitudes or very large service areas, the visibility arc may be zero, since the ***Assignment Coordination Group's*** service area may include points on the Earth's surface at which the beam arrival angle is less than 10 degrees.

Format: Integer (in the range -180 to 180) in degrees.

- **Arc Difference Explanation** **RDD ref: S081**

The reason why the service arc is less than the visibility arc.

Provision of this information is mandatory if the ***Space Station*** is on board a geostationary satellite operating with ***Associated Earth Station Antennas*** and if the service arc is less than the visibility arc. These reasons may be one of the following:

- the ***Space Station*** is on board a satellite together with another ***Space Station*** for which the ***Geostationary Orbital Position*** was established by a Plan or is restricted by other conditions;

- the design of the ***Space Station*** antenna system is too complex to permit large variations in the ***Geostationary Orbital Position***;
- time of day of the satellite eclipse is important;
- specific propagation conditions may require a higher arrival angle of the signal at the ***Associated Earth Station Antenna***.

Format: Text.

5.12 *Non-geostationary Orbit* **RDD ref: S093**

The set of characteristics that describe the path around a reference body, relative to a specified frame of reference, described by the centre of mass of a satellite or other object in space that is subjected primarily to natural forces, mainly the force of gravity. There may be one or more satellites from the same ***Space Station*** in a single ***Non-geostationary Orbit***.

The choice of a coordinate system used for the specified frame of reference may be affected by several factors and particularly the reference body. The geometry of the non-geostationary orbit is illustrated in Figure 2. For notification of satellites orbiting the Earth the coordinate system is based on the "geocentric-equatorial coordinate system". In this system the X and Y coordinates are in the equatorial plane with the X axis pointing in the direction of the Constellation of Aries (Vernal point). The Z axis points in the direction of the North Pole and the origin of the coordinates is at the Earth's centre. The coordinate system is static and does not rotate with the Earth but it does include precession of the equinoxes which arises from the variation in the Earth's rotational axis with time.

The following data item definitions are based on the Earth being the reference body.

◊ A ***Non-geostationary Orbit*** is identified by its **Inclination Angle**, **Right Ascension Of The Ascending Node**, **Perigee Altitude**, **Perigee Argument** and the ***Non-geostationary Space Station*** for which it defines the astrodynamics.

A ***Non-geostationary Orbit*** must be the subject of one or more ***Intended Actions*** **RDD ref: S485**

A ***Non-geostationary Orbit*** must define the astrodynamics of a single ***Space Station*** **RDD ref: S094**

A ***Non-geostationary Orbit*** must contain one or more ***Non-geostationary Satellite Positions*** **RDD ref: S095**

- **Reference Body Code** **RDD ref: S084**

The indication of the attracting celestial body which primarily determines the ***Non-geostationary Orbit***.

Format: 1 character.

Code	Meaning
T	for Earth (Terra)
L	for Moon (Lunar)
M	for Mars
J	for Jupiter
V	for Venus
S	for Sun

- **Number Of Satellites Per Orbit** **RDD ref: S087**

The total number of satellites from the same ***Space Station*** in the ***Non-geostationary Orbit***.

Format: Integer (in the range 1 to 99).

- **Inclination Angle** **RDD ref: S096**

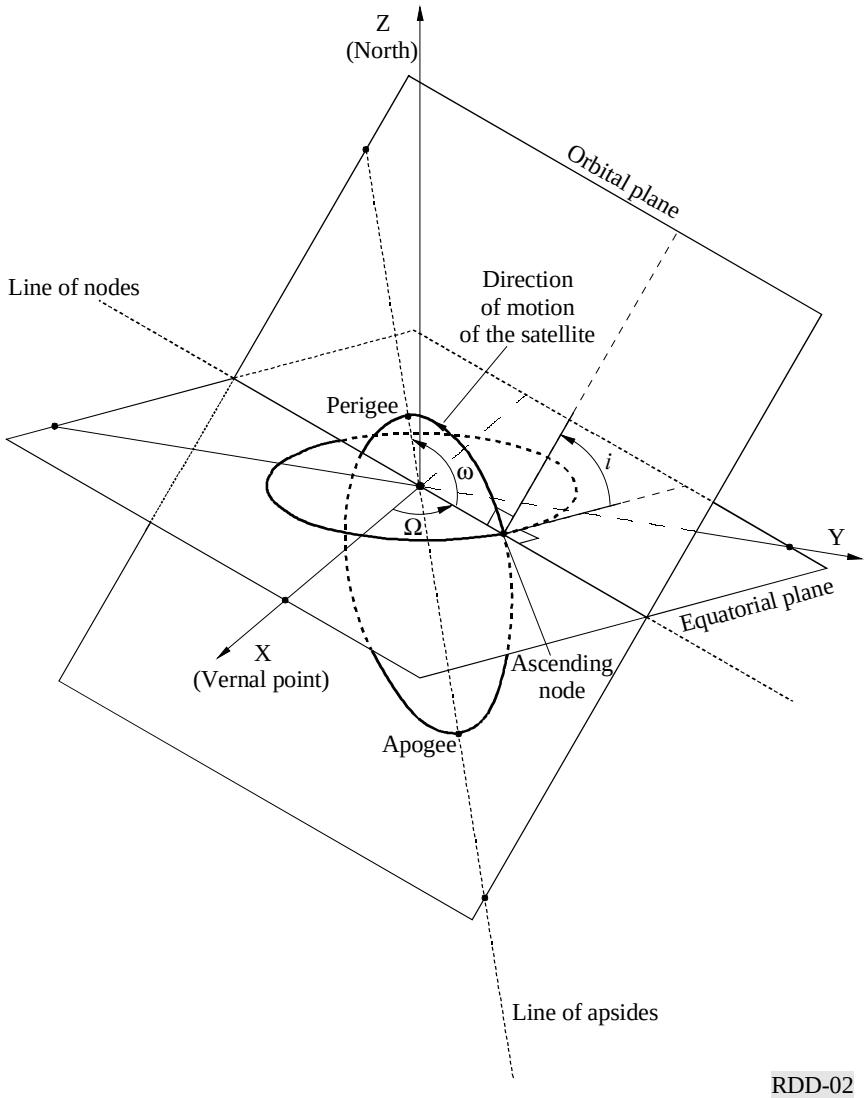
The angle at the ascending node between the normal to the line of nodes in the equatorial plane (directed towards the East) and the normal to the line of nodes in the orbital plane (directed in the direction of the satellite's velocity). See Figure 2.

Format: Decimal (in the range 0.00 to 179.99) to 2 decimal places in degrees.

Examples: The inclination angle of a polar orbit is 90.00 degrees. The inclination is less than 90 degrees if the satellite's direction of movement at the ascending node inclines to the East, and greater than 90 degrees if it inclines to the West.

FIGURE 2

Non-geostationary orbital parameters



- **Right Ascension Of The Ascending Node** **RDD ref: S097**

The angle (Ω) of the direction of the ascending node measured, in the equatorial plane, from the vernal equinox (X Axis) in an anti-clockwise direction when viewed from above the equatorial plane. The intersection of the orbital and equatorial planes is known as the line of nodes and the point at which the satellite orbit makes a South to North crossing of the Earth's equatorial plane is called the ascending node.

The Ascending Node is the point where the satellite crosses the equatorial plane in a South to North direction.

Format: Decimal (in the range 0.00 to 359.99) to 2 decimal places in degrees.

- **Apogee Altitude** **RDD ref: S098**

The longest distance from a point on the ***Non-geostationary Orbit*** to the sub-satellite point on the Earth's surface. For the purpose of this measurement the Earth is considered to be a spherical body with no height variation and a nominal radius of 6378 km. The sub satellite point is the point on a line between the apogee and the Earth's centre where it passes through the earth's surface.

The term "apogee" is commonly used when the Earth is the reference body and may vary if a different reference body is used e.g. "aphelion" when the reference body is the sun. A more generic term that may also be used is "apoapsis".

Format: Integer (in the range 500 to 99999999) in km.

- **Perigee Altitude** **RDD ref: S099**

The shortest distance from a point on the ***Non-geostationary Orbit*** to the sub-satellite point on the Earth's surface. For the purpose of this measurement the Earth is considered to be a spherical body with no height variation and a nominal radius of 6378 km. The sub satellite point is the point on a line between perigee and the Earth's centre where it passes through the Earth's surface.

The term "perigee" is commonly used when the Earth is the reference body and may vary if a different reference body is used e.g. "perihelion" when the reference body is the sun. A more generic term that may also be used is "periapsis".

Format: Integer (in the range 500 to 99999999) in km.

- **Perigee Argument** **RDD ref: S100**

The angle (ω) of the direction of the perigee measured, in the ***Non-geostationary Orbits***, from the point at which the satellite makes a South to North crossing of the Earth's equatorial plane (ascending node) in the direction of the satellite's motion.

Format: Decimal (in the range 0.0 to 359.9) to 1 decimal place in degrees.

- **Eccentricity** **RDD ref: S101**

The ratio of the distance between the foci of the elliptical orbit and the length of its major axis. This parameter is a constant for a specific ***Non-geostationary Orbit*** and defines its shape. A circular orbit is a special case of an ellipse when the eccentricity equals zero.

Format: Decimal (in the range 0.00 to 0.90) to 2 decimal places.

- **Semi Major Axis** **RDD ref: S102**

One half of the distance from the apogee to the perigee. This parameter is a constant for a specific ***Non-geostationary Orbit*** and defines its **Satellite Period**.

The distance between apogee and perigee is not the summation of the apogee and perigee altitudes.

Format: Integer (in the range 6900 to 49999999) in km.

- **Satellite Period** **RDD ref: S103**

The time elapsing between two consecutive passages of the satellite through the same point on its ***Non-geostationary Orbit***.

Format: A complex format comprising of
Integer (in the range 1 to 1000) in hours and
Integer (in the range 0 to 59) in minutes.

5.13 *Non-geostationary Satellite Position* **RDD ref: S104**

The identification and location of a satellite in a specific ***Non-geostationary Orbit*** at a reference time t=0.

◊ A ***Non-geostationary Satellite Position*** is identified by its **Initial Phase Angle** and the ***Non-geostationary Orbit*** within which it is located.

A ***Non-geostationary Satellite Position*** must be located in a single ***Non-geostationary Orbit*** **RDD ref: S105**

- **Initial Phase Angle** **RDD ref: S106**

The angle of the direction of the satellite at a reference instant in time measured, in the satellite's orbital plane, from the ascending node (point at which the satellite orbit makes a South to North crossing of the Earth's equatorial plane) in the direction of motion of the satellite in the orbit.

Format: Decimal (in the range 0.0 to 359.9) to 1 decimal place in degrees.

5.14 *Exclusive Operational Group* **RDD ref: S729**

An ***Exclusive Operational Group*** identifies ***Assignment Coordination Groups*** intended not to be used simultaneously.

It implies that no interference would be considered between ***Assignment Coordination Groups*** belonging to the same ***Exclusive Operational Group***.

The interferences created by ***Assignment Coordination Groups*** belonging to the same ***Exclusive Operational Group*** will not be aggregated. It is only the worst case of interference for each ***ACG Frequency*** which will be considered for co-ordination purposes.

The Region 2 Satellite Broadcasting Plan permits the operation of one or more configurations if their aggregate interference does not exceed the worst case of interference considered for coordination purposes.

The ***Exclusive Operational Group*** is specific to a single ***Space Station*** even though its membership may include ***Assignment Coordination Groups*** from other ***Space Stations***. Thus an ***Exclusive Operational Group*** is notified from the perspective of one ***Space Station***, indicating that only the notifying ***Administration*** enters into the undertaking to conform with the operational constraint.

◊ An ***Exclusive Operational Group*** is identified by its **Notified Identifying Code** and the ***Space Station*** to which it belongs.

An ***Exclusive Operational Group*** must apply to a single ***Space Station*** **RDD ref: S704**

An ***Exclusive Operational Group*** must consist of one or more ***Assignment Coordination Groups*** **RDD ref: S730**

- **Notified Identifying Code** **RDD ref: S712**

A code provided by the notifying ***Administration*** in order to assist with the identification of ***Exclusive Operational Groups.***

Format: Up to 10 characters.

BEAM DATA

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5.15 Beam **RDD ref: S107**

The set of general characteristics that describe the shape and direction of the solid angle within which the ***Space Station*** antenna can emit or receive energy. A ***Beam*** may be pointing at the Earth, or towards another satellite which may or may not be part of the same ***Space Station***. The shape of the ***Beam*** is determined in a plane normal to the ***Beam*** axis.

The ***Beam*** is a common method used for describing a ***Space Station*** antenna performance.

A ***Beam*** may optionally be one of the following types: a ***Circular Beam;*** an ***Elliptical Beam***.

◊ A ***Beam*** is identified by its ***Designation*** and the ***Space Station*** to which it belongs.

One and only one of the following 6 relationships must apply:

A ***Beam*** may describe the properties of satellite antennas to radiate energy that is characterised by one or more ***Transmitting Space Station's ACGs*** **RDD ref: S108**
(This relationship is only applicable if the **Emission/Reception Indicator** has the value E)

A ***Beam*** may describe the properties of satellite antennas to radiate energy that is characterised by one or more ***Receiving Earth Station's ACGs*** **RDD ref: S446**
(This relationship is only applicable if the **Emission/Reception Indicator** has the value E)

A ***Beam*** may describe the properties of satellite antennas to receive energy that is characterised by one or more ***Receiving Space Station's ACGs*** **RDD ref: S109**
(This relationship is only applicable if the **Emission/Reception Indicator** has the value R)

A ***Beam*** may describe the properties of satellite antennas to receive energy that is characterised by one or more ***Transmitting Earth Station's ACGs*** **RDD ref: S447**
(This relationship is only applicable if the **Emission/Reception Indicator** has the value R)

A ***Beam*** may describe the properties of satellite antennas to radiate energy that is characterised by one or more ***Transmitting Space Station's Space to Space ACGs*** **RDD ref: S110**
(This relationship is only applicable if the **Emission/Reception Indicator** has the value E)

A ***Beam*** may describe the properties of satellite antennas to receive energy that is characterised by one or more ***Receiving Space Station's Space to Space ACGs*** **RDD ref: S111**
(This relationship is only applicable if the **Emission/Reception Indicator** has the value R)

A ***Beam*** must belong to a single ***Space Station*** **RDD ref: S112**

A ***Beam*** must be the subject of one or more ***Intended Actions*** **RDD ref: S113**

A ***Beam*** may consist of one or more ***Beam Frequencies*** **RDD ref: S449**

A ***Beam*** may operate in one or more ***Frequency Ranges*** **RDD ref: S064**

- **Designation** **RDD ref: S116**

A name/code/designation submitted by the notifying ***Administration*** which is unique within the ***Space Station*** to which it belongs. In the case of the notification of planned ***Beams,*** i.e. those under AP-S30/30A/30B the **Designation** must match the 4 relevant characters in the beam identifier in AP-S30/30A/30B.

Format: Up to 4 characters.

- **Emission/Reception Indicator** **RDD ref: S115**

An indicator identifying if the ***Beam*** is intended for reception or emission.

Format: 1 character.

Code	**Meaning**
E	if used for emission.
R	if used for reception.

- **Steerable Indicator** **RDD ref: S118**

An indicator used to identify if the ***Beam*** is intended to be reconfigured or redirected .

Format: True or False.

- **Boresight Geographical Coordinates** **RDD ref: S119**

The geographical position of the nominal intersection of the antenna beam axis with the Earth.

The **Boresight Geographical Coordinates** can also be provided for non-planned ***Space Stations***.

Format: Long/Lat in degrees, minutes and seconds.

- **Effective Boresight Area** **RDD ref: S363**

An area of the Earth's surface within which the boresight of the ***Beam*** is intended to be pointed. This area may be formed from non-contiguous sections. For **Elliptical Beams** and non-steerable **Circular Beams** the **Effective Boresight Area** may be a single point.

Format: Diagram.

- **Pointing Accuracy** **RDD ref: S120**

The maximum permitted angular deviation of the ***Beam*** axis from the **Boresight Geographical Coordinates**.

Geostationary ***Space Stations*** only.

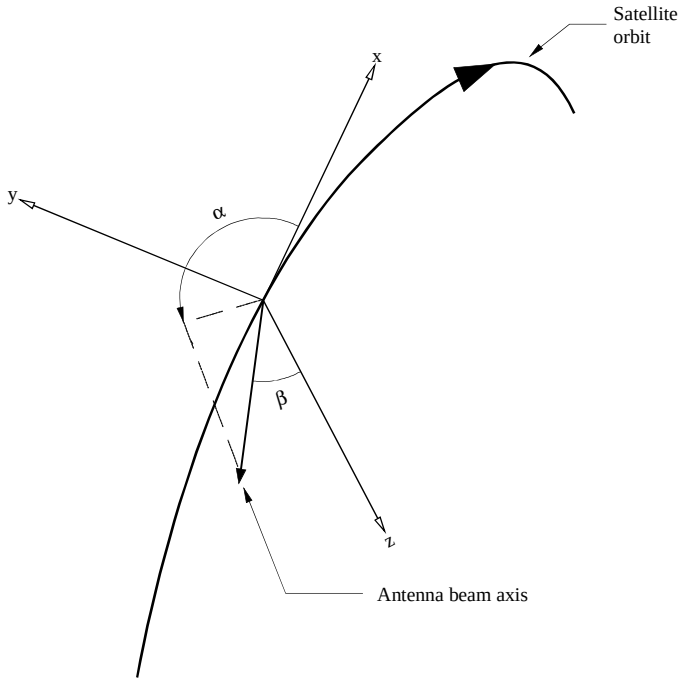
Format: Decimal (in the range 0.10 to 5.00) to 2 decimal places in degrees.

- **Orientation Angle Alpha** **RDD ref: S121**

The angle of the projection of the ***Beam*** axis onto the XY reference plane, measured from the X axis in an anticlockwise direction when looking in the direction of the Earth from the satellite, see Figure 3.

FIGURE 3

Orientation angles



Two angles (alpha and beta) are required to identify the direction in which the non-geostationary satellite ***Beam*** axis is pointing. These angles are based on the orientation of the ***Beams*** axis with respect to a three dimensional rectangular reference coordinate system, where the x-axis (roll axis) is in the direction of the satellite orbit, the y-axis (pitch axis) is at the same altitude as the x-axis and at right angles to it and the z-axis (yaw axis) is at right angles to both and in the direction of the centre of the Earth. Angle beta is the angle between the antenna ***Beam*** axis and the z-axis ($0° \leq$ beta $< 90°$). When beta=0°, the ***Beam*** axis is pointing directly at the centre of the Earth and angle alpha=0°. If the orientation cannot be described by use of the angles alpha and beta, give the relevant information in an attachment.

Format: Decimal (in the range 0.0 to 359.9) to 1 decimal place in degrees.

- **Orientation Angle Beta** **RDD ref: S368**

The modulus of the angle between the ***Beam*** axis and the Z reference axis when looking in the direction of the Earth from the satellite, see Figure 3.

Two angles (alpha and beta) are required to identify the direction in which the non-geostationary satellite ***Beam*** axis is pointing. These angles are based on the orientation of the antenna ***Beam***'s axis with respect to a three dimensional rectangular reference coordinate system, where the x-axis (roll axis) is in the direction of the satellite orbit, the y-axis (pitch axis) is at the same altitude as the x-axis and at right angles to it and the z-axis (yaw axis) is at right angles to both and in the direction of the centre of the Earth. Angle alpha is the angle in the x-y plane between the x-axis and the projection of the antenna ***Beam*** axis on that plane ($0° \leq$ alpha $< 360°$). When beta=0°, the ***Beam*** axis is pointing directly at the centre of the Earth and angle alpha=0°. If the orientation cannot be described by use of the angles alpha and beta, give the relevant information in an attachment.

Format: Decimal (in the range 0.0 to 90.0) to 1 decimal place in degrees.

- **Maximum Co-polar Gain** **RDD ref: S124**

The ratio of the power required at the input of a loss-free isotropic antenna to the power supplied to the input of the antenna to produce, in the direction of maximum radiation, the same field strength for the co-polar component, or the same power flux-density at the same distance

Format: Decimal (in the range 0.0 to 70.0) to 1 decimal place in dBi.

- **Maximum Cross-polar Gain** **RDD ref: S621**

The ratio of the power required at the input of a loss-free isotropic antenna to the power supplied to the input of the antenna to produce, in the direction of maximum radiation, the same field strength for the cross-polar component, or the same power flux-density at the same distance.

Format: Decimal (in the range 0.0 to 40.0) to 1 decimal place in dBi.

- **Co-polar Gain Pattern** **RDD ref: S122**

The variation of the antenna gain with the direction of radiation (in 3-dimensions) when the field strength is measured with an antenna having the same polarization as the transmitting antenna. Whenever practicable a table of the values should also be provided to allow radiation pattern to be plotted.

A basic distinction in presenting this data should be made regarding the maximum gain and the side-lobe performance. For high gain antennas sufficient data (say in steps of 0.1 degree) should be provided for off-axis angles less than 1 degree, whereas for off-axis angles greater than 50 degrees the gain pattern is rather flat, and much less resolution could suffice. For low gain antennas less data is necessary about 1 degree, and more data may be needed for the region of off-axis angle greater than 40 degrees.

In general, the gain pattern is assumed to be rotationally symmetrical and should be an envelope of peaks for all 360 degrees in a plane containing the direction of maximum gain (axis of the antenna); however, some antennas are designed with nulls in predetermined directions in order to reduce interference and this should also be indicated with sufficient clarity and identification of the plane. If available, indicate the actual measured gain pattern (relative to isotropic), rather than the reference gain pattern. For rotationally non-symmetrical patterns, the diagram should be presented for the most important directions, such as that of the geostationary satellite orbit.

Format: For any relevant plane containing the direction of maximum gain (axis of the antenna), the 2 dimensional pattern can be expressed as:

a) A Gain Pattern Angular Diagram, i.e. a curve giving the gain as a function of the off-axis angle.

or

b) A Gain Pattern List

for approximately spaced angular values, gain values presented as decimals (in the range -20.0 to 50.0) to 1 decimal place in dB

or

c) A Gain Pattern Equation

if the gain pattern can be described by the following expression: $G = a - b \log_{10}(phi)$

or

d) An ITU-R Gain Pattern Code

- **Cross-polar Gain Pattern** **RDD ref: S123**

The variation of the antenna gain with the direction of radiation (in 3 dimensions), when the field-strength is measured with an antenna having a polarization orthogonal to that of the transmitting antenna. The **Cross-Polar Gain Pattern** may also be provided by a non-standard mathematical expression.

Format: for any relevant off-axis angle the appropriate pattern can be expressed as:

a) A Gain Pattern Angular Diagram, i.e. a curve giving the cross-polar gain as a function of the off-axis angle.

or

b) A Gain Pattern Equation

or

c) An ITU-R Gain Pattern Code

- **Effective Co-polar Gain Contour** **RDD ref: S369**

A set of lines of equal co-polar gain produced by moving the boresight of a ***Beam*** along the limits of the **Effective Boresight Area**, plotted on a map of the Earth's surface. These gain values are usually expressed as attenuations (in dB) from the **Maximum Co-polar Gain**. Whenever practicable a table of the values should also be provided.

The gain contours should take account of the antenna pointing error (***Geostationary Orbit*** longitudinal tolerance, ***Geostationary Orbit*** **Inclination Excursion** and ***Beam*** **Pointing Accuracy**) so that the worst-case interference situation may be identified. If the antenna pointing error is not included this should be specified.

If the maximum antenna gain varies by less than 2 dB over the whole visible part of the Earth the ***Beam*** **Effective Co-polar Gain Contour** can be replaced by a statement to this effect.

If the **Effective Boresight Area** is identical with the global, or nearly global service area, no contours need be provided. The ***Beam's*** **Maximum Co-polar Gain** will be applicable to all points on the Earth's visible surface.

If the **Effective Boresight Area** is less than the global or nearly global service area the effective antenna gain contours must be provided.

An example where effective antenna gain contours would be required is for space-to-Earth transmissions in the bands between 11.7 and 12.75 GHz where the allocations to services in the Table of Frequency Allocations (Article S5 of the Radio Regulations differ from Region to Region, this implying, in consequence, that the service area of a steerable beam would be limited to the visible part of the Region concerned.

The **Effective Co-polar Gain Contour** may be provided by in electronic format; see ITU-R CR/65 and CR/58 for further information.

Format: Diagram.

- **Effective Cross-polar Gain Contour** **RDD ref: S370**

A set of lines of equal cross-polar gain produced by moving the boresight of a ***Beam*** along the limits of the **Effective Boresight Area**, plotted on a map of the Earth's surface. These values are usually expressed as attenuations (in dB from the **Maximum Cross-polar Gain**. Whenever practicable a table of the values should also be provided.

The gain contours should take account of the antenna pointing error (***Geostationary Orbit*** longitudinal tolerance, ***Geostationary Orbit*** **Inclination Excursion** and ***Beam*** **Pointing Accuracy**) so that the worst-case interference situation may be identified. If the antenna pointing error is not included this should be specified.

If the maximum antenna gain varies by less than 2 dB over the whole visible part of the Earth the ***Beam*** **Effective Cross-polar Gain Contour** can be replaced by a statement to this effect.

If the **Effective Boresight Area** is identical with the global, or nearly global service area, no contours need be provided. The ***Beam's*** **Maximum Cross-polar Gain** will be applicable to all points on the Earth's visible surface.

If the **Effective Boresight Area** is less than the global or nearly global service area the effective antenna gain contours must be provided.

An example where effective antenna gain contours would be required is for space-to-Earth transmissions in the bands between 11.7 and 12.75 GHz where the allocations to services in the Table of Frequency Allocations (Article S5 of the Radio Regulations) differ from Region to Region, this implying, in consequence, that the service area of a steerable beam would be limited to the visible part of the Region concerned.

The **Cross-polar Gain Contour** may be provided by in electronic format; see ITU-R CR/65 and CR/58 for further information.

Format: Diagram.

- **Gain Versus GSO Diagram** **RDD ref: S125**

The pattern of the ***Beam's*** off-axis gain in the equatorial plane at different longitudes around the geostationary orbit in directions not obstructed by the Earth.

This information is used if the assignments associated with this ***Beam*** are to a ***Space Station*** on board a geostationary satellite and in a frequency band allocated for bi-directional use (i.e. Earth-to-space and space-to-Earth).

Format:
a) Gain Pattern List, for equally spaced angular values,

or

b) Gain Angular Diagram.

- **Gain Versus Elevation Angle Diagram** **RDD ref: S126**

Satellite antenna gain $G(\Theta_e)$ as a function of elevation angle at a fixed point on the Earth.

Format:
a) Gain Pattern List

or

b) Gain Angular Diagram.

- **Spreading Loss Versus Elevation Angle** **RDD ref: S127**

Spreading loss as a function of elevation angle at a fixed point on the Earth.

Format:
a) Gain Vector Pattern
or
b) Gain Angular Diagram.

- **Maximum Beam Peak EIRP 4kHz** **RDD ref: S601**

The maximum equivalent isotropically radiated peak envelope power in the ***Beam*** averaged over 4kHz.

Format: Decimal (in the range -30.0 to 10.0) to 1 decimal place in dB(W/4kHz).

- **Maximum Beam Peak EIRP 1MHz** **RDD ref: S602**

The maximum equivalent isotropically radiated peak envelope power in the ***Beam*** averaged over 1MHz.

Format: Decimal (in the range -10.0 to 30.0) to 1 decimal place in dB(W/1MHz).

- **Average Beam Peak EIRP 4kHz** **RDD ref: S603**

The average equivalent isotropically radiated peak envelope power in the ***Beam*** averaged over 4kHz.

Format: Decimal (in the range -10.0 to 30.0) to 1 decimal place in dB(W/4kHz).

- **Average Beam Peak EIRP 1MHz** **RDD ref: S604**

The average equivalent isotropically radiated peak envelope power in the ***Beam*** averaged over 1MHz.

Format: Decimal (in the range -30.0 to 10.0) to 1 decimal place in dB(W/1MHz).

- **Calculated Peak PFD** **RDD ref: S728**

The ***Beam's*** maximum aggregate power flux-density produced in any 4kHz band at the geostationary-satellite orbit and within ± 5° of inclination around the geostationary satellite orbit by a non-geostationary satellite system. Applicable only in the frequency band 6700 - 7075 MHz.

Format: Decimal (in the range -10.0 to 30.0) to 1 decimal place in dB(W/m^2/4kHz).

5.16 *Circular Beam* RDD ref: S128

A ***Circular Beam*** is a type of a ***Beam*** whose cross section normal to the ***Beam*** axis is circular.

◊ A ***Circular Beam*** is identified in the same way as its generic type (***Beam***) i.e. ***Beam's*** **Designation** and the ***Space Station*** to which it belongs.

- **Beamwidth** **RDD ref: S129**

The angular width of the ***Circular Beam***, measured at the mean half-power points of the main lobe.

Format: Decimal (in the range 0.50 to 12.00) to 2 decimal places in degrees.

5.17 *Elliptical Beam* **RDD ref: S314**

An ***Elliptical Beam*** is a type of ***Beam*** whose cross section normal to the ***Beam*** axis is elliptical, but not circular.

◊ A ***Elliptical Beam*** is identified in the same way as its generic type (***Beam***) i.e. ***Beam's*** **Designation** and the ***Space Station*** to which it belongs.

- **Major Axis Beamwidth** **RDD ref: S130**

The angular width of the main lobe of radiation measured in the plane of the ***Elliptical Beam's*** major axis, within which the off-axis gain does not fall more than 3dB below the value of the ***Beam's*** **Maximum Co-polar Gain**.

Format: Decimal (in the range 0.50 to 12.00) to 2 decimal places in degrees.

- **Minor Axis Beamwidth** **RDD ref: S131**

The angular width of the main lobe of radiation measured in the plane of the ***Elliptical Beam's*** minor axis, within which the off-axis gain does not fall more than 3dB below the value of the ***Beam's*** **Maximum Co-polar Gain**.

Format: Decimal (in the range 0.50 to 8.00) to 2 decimal places in degrees.

- **Major Axis Orientation** **RDD ref: S132**

The angle of the major axis of the ***Elliptical Beam*** main lobe of radiation measured in the plane normal to the ***Beam*** axis from a line parallel to the Earth's equatorial plane in an anticlockwise direction.

Format: Decimal (in the range 0.0 to 179.9) to 1 decimal place in degrees.

- **Rotational Accuracy** **RDD ref: S133**

The maximum permitted angular deviation in the ***Elliptical Beam*** major axis from the **Major Axis Orientation**.

Format: Decimal (in the range 0.00 to 2.00) to 2 decimal places in degrees.

EARTH STATION ANTENNA DATA

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5.18 *Site* RDD ref: S376

A name used for the purpose of conveying the general position of an ***Earth Station Antenna*** without having to refer to the **Geographical Coordinates**.

◊ A ***Site*** is identified by its **Name** and the ***Administration*** by which it has been submitted.

A ***Site*** must be submitted by a single ***Administration*** **RDD ref: S407**

A ***Site*** may be the location of one or more ***Earth Station Antennas*** **RDD ref: S408**

A ***Site*** may be the location of one or more ***Associated Earth Station Antennas*** **RDD ref: S703**

A ***Site*** must be located within a single ***Geographical Area*** **RDD ref: S409**

- **Name** **RDD ref: S380**

The name by which the ***Site*** is known, e.g. the locality in which the ***Site*** is situated, as provided by the submitting ***Administration***. Appendix 7 to the RDD contains the list of standard abbreviations used to compress the ***Site*** names to 30 characters when the names are longer.

The name may consist of one or more words and may be structured similar to an address, i.e. comprised of a number of 'locations' where each location represents an area smaller than and within its successor.

Format: Up to 30 characters.

Note: *The current limit is 20 characters, which is insufficient in a number of cases; it is proposed to extend the length of this field to 30 characters.*

5.19 *Earth Station Antenna* RDD ref: S151

A device used for radiating, or receiving, electromagnetic waves. An ***Earth Station Antenna*** may consist of a single element, or an array of radiating elements that are linked physically, or electronically, to form a single gain pattern.

◊ An ***Earth Station Antenna*** is identified by its **Geographical Coordinates** for those ***Earth Station Antenna*** whose **Typical/Specific Indicator** = "S".

An ***Earth Station Antenna*** may be under the operational control of a single ***Operator*** **RDD ref: S142**

An ***Earth Station Antenna*** may be under the operational control of a single ***Intergovernmental Satellite Organization*** **RDD ref: S346**

An ***Earth Station Antenna*** may have interference issues addressed to a single ***Correspondence Address*** **RDD ref: S143**

An ***Earth Station Antenna*** may form a space network with a single ***Space Station*** **RDD ref: S145**

An ***Earth Station Antenna*** must be the subject of one or more ***Space Service Notices*** **RDD ref: S147**

An ***Earth Station Antenna*** may be the point of reception for one or more ***Receiving Earth Station's ACGs*** **RDD ref: S152**

An ***Earth Station Antenna*** may be the emitting source of one or more ***Transmitting Earth Station's ACGs*** **RDD ref: S153**

An ***Earth Station Antenna*** must be located at a single ***Site*** **RDD ref: S154**
(This relationship is only applicable if the **Typical/Specific Indicator** has the value "S".)

- **BR Identification Code** **RDD ref: S148**

A code used to uniquely identify the ***Earth Station Antenna*** allocated by the BR. The code is not assigned to the ***Earth Station Antenna*** until after the BR receive the notice which first "adds" the ***Earth Station Antenna***. Thus, it is not possible for an ***Administration*** to refer to this code until after the ***Earth Station Antenna's*** first notification has been processed by the BR, although the BR has the means to identify this code for any previously notified ***Earth Station Antenna***.

The BR uses a coding system to uniquely identify ***Space Service Notices***. The ***Space Service Notice*** transaction number which first includes details of the ***Earth Station Antenna*** (i.e. when the ***Earth Station Antenna's*** **Intended Action Code** ="A") is used as the **BR Identification Code**.

Format: 10 characters.

Note: *Currently the* **BR Identification Code** *only records the last two numbers of the year of receipt preceded by a zero. It is considered essential to show the year in full. The RDD defines format as 10 characters as above.*

- **Notified Identification Code** **RDD ref: S149**

An ***Administration's*** code used to identify the ***Earth Station Antenna***.

This is considered as being useful before the BR has given an international identifier.

Format: Up to 20 characters.

- **Typical/Specific Indicator** **RDD ref: S157**

An indicator identifying if the ***Earth Station Antenna*** has a fixed location that can be defined by a set of **Geographical Coordinates**.

Format: 1 character.

Code	**Meaning**
S	if the ***Space Service Notice*** concerns a specific ***Earth Station Antenna***
T	if the ***Space Service Notice*** concerns a typical ***Earth Station Antenna***

- **Geographical Coordinates** **RDD ref: S159**

The geographical position of the physical centre of the ***Earth Station Antenna***. If the coordination area of the ***Earth Station Antenna*** overlaps the territory of another ***Administration***, the precision required is to six seconds.

Format: Long/Lat in degrees, minutes and seconds.

- **Ground Altitude Above Mean Sea Level** **RDD ref: S161**

The altitude of the ground above mean sea level at the base of the ***Earth Station Antenna***. The altitude is measured at the **Geographical Coordinates** and may be positive or negative (i.e. it may be above or below sea level).

Format: Integer (in the range -1000 to 8848) in metres.

- **Height Above Ground Level** **RDD ref: S162**

The height of the physical centre of the ***Earth Station Antenna*** above the level of the ground.

Format: Integer (in the range 0 to 1000) in metres.

- **Maximum Gain** **RDD ref: S163**

The ratio of the power required at the input of a loss-free isotropic antenna isolated in space (reference antenna) to the power supplied to the input of the ***Earth Station Antenna*** to produce, in the direction of maximum radiation, the same field strength, or the same power flux-density at the same distance. The gain may be considered for a specific polarization.

Format: Decimal (in the range 0.00 to 70.00) to 2 decimal places in dBi.

- **Beamwidth** **RDD ref: S164**

The angular width of the main lobe of radiation, measured in the plane containing the direction of the **Maximum Gain,** within which the off-axis gain does not fall more than 3 dB below the value of the **Maximum Gain**. This definition assumes the radiation pattern is not shaped and if the antenna **Beamwidth** is non-symmetrical it should be described by the use of a complete gain pattern.

Format: Decimal (in the range 0.00 to 10.00) to 2 decimal places in degrees.

- **Radioastronomy Antenna Description** **RDD ref: S166**

The textual description of the ***Earth Station Antenna's*** type, dimensions and effective area.

There are only a few ***Earth Station Antennas*** notified for radioastronomy, each of which may be considerably different in composition from the others and as such it is not considered necessary to break this data item into its elementary components at this stage.

Format: text.

- **Co-polar Gain Pattern** **RDD ref: S167**

The variation of the antenna gain with the direction of radiation (3 dimensional), when the field-strength is measured with an antenna having the same polarization as the transmitting antenna.

A basic distinction in presenting this data should be made regarding the maximum antenna gain and the side-lobe performance. For high gain antennas sufficient data (say in steps of 0.1 degree) should be provided for off-axis angles less than 1 degree, whereas for off-axis angles greater than 50 degrees the radiation pattern is rather flat, and much lower resolution could suffice. For low gain antennas less data is necessary around 1 degree, and more data may be needed for the region of off-axis angle greater than 40 degrees.

In general, the gain pattern is assumed to be rotationally symmetrical and should be an envelope of peaks for all 360 degrees in a plane; however, some antennas are designed with nulls in predetermined directions in order to reduce interference and this should also be indicated with sufficient clarity and identification of the plane. If available, indicate the actual measured gain pattern (relative to isotropic), rather than the reference gain pattern. For rotationally non-symmetrical patterns, the diagram should be presented for the most important directions, such as that of the geostationary satellite orbit.

Format: For any relevant plane containing the direction of maximum gain (axis of the antenna) the 2 dimensional pattern can be expressed as:

a) A Gain Pattern Angular Diagram, i.e. a curve giving the gain as a function of the off-axis angle

or

b) A Gain Angular Pattern List

for appropriately spaced angular values, gain values presented as decimals (in the range -20.0 to 50.0) to 1 decimal place in dB

or

c) A Gain Pattern Equation

if the gain pattern can be described by the set of following expressions.

G = Gmax for PHI<1°

$G = a - b * LOG_{10}(PHI)$ for 1°≤ PHI ≤ phi1

$G = MAX (MIN (G(phi1), c-d* LOG_{10}(PHI)), -10)$ for PHI >phi1

or

d) An ITU-R Gain Pattern Code

- **Operational Sector's Start Azimuth** **RDD ref: S169**

The angle of the direction of **Maximum Gain** at the left hand edge of the sector swept by the ***Earth Station Antenna***, measured in the horizontal plane from True North in a clockwise direction.

In the case of a geostationary satellite network, this angle is to be calculated for the ***Geostationary Orbital Position*** **Nominal Longitude**, taking into account the tolerances. Allowance should also be made for the operation of the associated ***Earth Station Antenna*** in an inclined orbit.

Format: Decimal (in the range 0.0 to 359.9) to 1 decimal place in degrees.

- **Operational Sector's End Azimuth** **RDD ref: S170**

The angle of the direction of **Maximum Gain** at the right hand edge of the sector swept by the ***Earth Station Antenna***, measured in the horizontal plane from True North in a clockwise direction.

In the case of a geostationary satellite network, this angle is to be calculated for the ***Geostationary Orbital Position*** **Nominal Longitude**, taking into account the tolerances. Allowance should also be made for the operation of the associated ***Space Station*** in an inclined orbit.

Format: Decimal (in the range 0.1 to 360.0) to 1 decimal place in degrees.

- **Planned Minimum Elevation Angle** **RDD ref: S168**

The intended minimum operating angle of elevation of the ***Earth Station Antenna*** between the direction of **Maximum Gain** and the horizontal plane.

Format: Decimal (in the range 0.0 to 90.0) to 1 decimal place in degrees.

- **Planned Maximum Elevation Angle** **RDD ref: S381**

The intended maximum operating angle of elevation of the radioastronomy ***Earth Station Antenna*** between the direction of **Maximum Gain** and the horizontal plane.

Format: Decimal (in the range 0.0 to 90.0) to 1 decimal place in degrees.

- **Horizon Elevation Pattern** **RDD ref: S171**

The pattern of the ***Earth Station Antenna*** horizon elevation, measured in the vertical plane, around the ***Earth Station Antenna's*** **Geographical Coordinates**.

Format: a full **Horizon Elevation Pattern** presented in one of the following ways:

a) a Horizon Elevation Diagram (**RDD ref: S171a**); the graphical representation of the Horizon elevation angle against azimuth;

or

b) Horizon Elevation Angle (**RDD ref: S171b**); the angle measured in the vertical plane between the direction of the ray that grazes the visible physical horizon and the horizontal plane at the specified Azimuth; Decimal (in the range -20.0 to 90.0) to 1 decimal place in degrees and

Azimuth (**RDD ref: S171c**); the value, measured in the horizontal plane from True North in a clockwise direction; Integer in the range 0 to 355 in multiples of 5 in degrees.

- **Clear Sky Coordination Contour** **RDD ref: S173**

The line on the Earth's surface, determined under clear sky conditions, that delineates the area around an ***Earth Station Antenna*** within which coordination is needed between the notifying ***Administration*** and other ***Administrations*** operating radiocommunication systems in the same frequency range. If the ***Earth Station Antenna*** is mobile, the coordination area is based on the service area of the mobile antenna.

The **Clear Sky Coordination Contour** and the **Rain Scatter Coordination Contour** are normally contained on the same plot using the same azimuth values.

Format: a clear sky coordination contour presented in one of the following ways:

a) a Clear Sky Coordination Diagram (**RDD ref: S173a**); the graphical representation of the clear sky coordination distance at each azimuth;

or

b) Distance (**RDD ref: S173b**); the distance to the **Clear Sky Coordination Contour** at the specified Azimuth; Decimal (in the range 100.0 to 1400.0) to 1 decimal place in km and

Azimuth (**RDD ref: S173c**); the value, measured in the horizontal plane from True North in a clockwise direction; Integer in the range 0 to 355 in multiples of 5 in degrees.

- **Rain Scatter Coordination Contour** **RDD ref: S322**

The line on the Earth's surface, determined under rain fade conditions, that delineates the area around an ***Earth Station Antenna*** within which coordination is needed between the notifying ***Administration*** and other ***Administrations*** operating radiocommunication systems in the same frequency range. If the ***Earth Station Antenna*** is mobile, the coordination area is based on the service area of the mobile antenna.

The **Clear Sky Coordination Contour** and the **Rain Scatter Coordination Contour** are normally contained on the same plot using the same azimuth values.

Format: a rain fade coordination contour presented in one of the following ways:

a) a Rain Fade Coordination Diagram (**RDD ref: S322a**); the graphical representation of the rain fade coordination distance at each azimuth;

or

b) Distance (**RDD ref: S322b**); the distance to the **Rain Scatter Coordination Contour** at the specified Azimuth; Decimal (in the range 100.0 to 540.0) to 1 decimal place in km and

Azimuth (**RDD ref: S322c**); the value, measured in the horizontal plane from True North in a clockwise direction; Integer in the range 0 to 355 in multiples of 5 in degrees.

- **Associated Space Station's Longitude** **RDD ref: S616**

The angular distance from the Standard Meridian, i.e. that of Greenwich, England, to the meridian of the point on the equator above which it is anticipated that the ***Space Station*** (to which the ***Earth Station Antenna*** is associated) is or will be located.

Format: Decimal (in the range -180.00 to 180.00) to 2 decimal places in degrees.

5.20 *Associated Earth Station Antenna* **RDD ref: S493**

The anticipated source of, or target for a ***Space Station*** transmission.

◊ An ***Associated Earth Station Antenna*** may be identified by its **Notified Identifying Code** and the ***Space Station*** to which it belongs.

An ***Associated Earth Station Antenna*** must be the subject of one or more ***Intended Actions*** **RDD ref: S741**

An ***Associated Earth Station Antenna*** must be located within a single ***Site*** **RDD ref: S707**
(This relationship is only applicable if the **Typical/Specific Indicator** has the value "S".)

An ***Associated Earth Station Antenna*** may be classified by one or more ***Classes of Station Nature Of Service Pairs*** **RDD ref: S626**

One and only one of the following two relationships must apply:

An ***Associated Earth Station Antenna*** must be the point of reception for one or more ***Transmitting Space Station's ACG*** **RDD ref: S623**

An ***Associated Earth Station Antenna*** must be the transmitting source for one or more ***Receiving Space Station's ACG*** **RDD ref: S740**

An ***Associated Earth Station Antenna*** must belong to a single ***Space Station*** **RDD ref: S737**

An ***Associated Earth Station Antenna*** may be the subject of one or more ***Strap Characteristic Sets*** **RDD ref: S778**

- **Notified Identifying Code** **RDD ref: S671**

National unique identifier for the ***Associated Earth Station Antenna***.

Format: Up to 20 characters.

- **Typical/Specific Indicator** **RDD ref: S559**

An indicator identifying if the ***Associated Earth Station Antenna*** has a specific fixed location that is defined by its **Geographical Coordinates**.

Format: 1 character.

Code	Meaning
S	if the ***Associated Earth Station Antenna*** is a specific antenna
T	if the ***Associated Earth Station Antenna*** is a typical antenna

- **Geographical Coordinates** **RDD ref: S673**

The geographical position of the physical centre of the ***Associated Earth Station Antenna***. If the coordination area of the ***Associated Earth Station Antenna*** overlaps the territory of another ***Administration***, the precision required is to six seconds.

Format: Long/Lat in degrees, minutes and seconds.

- **Ground Altitude Above Mean Sea Level** **RDD ref: S674**

The altitude of the ground above mean sea level at the base of the ***Associated Earth Station Antenna***. The altitude is measured at the ***Associated Earth Station Antenna's*** **Geographical Coordinates** and may be positive or negative (i.e. it may be above or below sea level).

Format: Integer (in the range -1000 to 8848) in metres.

- **Height Above Ground Level** **RDD ref: S675**

The height of the physical centre of the ***Associated Earth Station Antenna*** above the level of the ground.

Format: Integer (in the range 0 to 1000) in metres.

- **BSS Community Reception Indicator** **RDD ref: S156**

An indicator identifying the **Beamwidth** that implicitly indicates the minimum diameter of the receiving ***Associated Earth Station Antenna*** in the Broadcasting Satellite Service. The **Beamwidth** is defined for either individual or community reception.

Format: 1 character.

Code	Meaning
I	Individual: 2° - Region 1 & 3; 1.7° - Region 2
C	Community: 1° - Region 1 & 3

- **Receiving System Noise Temperature** **RDD ref: S763**

The temperature above absolute zero which is equivalent to the noise associated with the receiving system. The noise temperature is the lowest total value arising from the antenna's environment, the receiving antenna and from within the receiving system.

For radio waves the Earth is considered to be a "grey" body and for an ***Associated Earth Station Antenna*** the sidelobe performance and elevation angle may both be significant factors in the level of environmental noise (ITU-R Satellite Communications Handbook).

For ***Associated Earth Station Antennas*** the **Receiving System Noise Temperature** is determined under clear sky conditions and at the ***Associated Earth Station Antenna's*** **Planned Minimum Elevation Angle**, excluding tolerances for geostationary satellite operation.

Format: Integer (in the range 20 to 6000) in Kelvins.

- **Maximum Gain** **RDD ref: S676**

The ratio of the power required at the input of a loss-free isotropic antenna isolated in space (reference antenna) to the power supplied to the input of the ***Associated Earth Station Antenna*** to produce, in the direction of maximum radiation, the same field strength, or the same power flux-density at the same distance. The gain may be considered for a specified polarization.

Format: Decimal (in the range 0.00 to 70.00) to 2 decimal places in dBi.

- **Beamwidth** **RDD ref: S677**

The angular width of the main lobe of radiation, measured in the plane containing the direction of the **Maximum Gain,** within which the off-axis gain does not fall more than 3 dB below the value of the **Maximum Gain**. This definition assumes the radiation pattern is not shaped and if the antenna **Beamwidth** is non-symmetrical it should be described by the use of a complete gain pattern.

Format: Decimal (in the range 0.00 to 10.00) to 2 decimal places in degrees.

- **Diameter** **RDD ref: S165**

The diameter of the feeder link ***Associated Earth Station Antenna*** used in the BSS Plans.

The BSS feeder link Plan is based on a 5 metre antenna for the 17.3 - 18.1 GHz band and 6 metre antenna for the 14.5 - 14.8 GHz band. If the ***Associated Earth Station Antenna*** diameter is below these figures it must conform to specific off-axis limits defined in Section 3.5.3 of Annex 3 to Appendix S30A. The minimum permitted antenna diameter in the Plan is 2.5 metres.

Broadcasting Satellite Service only.

Format: Decimal (in the range 2.5 to 10.0) to 1 decimal place in metres.

- **Equivalent Antenna Diameter** **RDD ref: S650**

The diameter of a parabolic antenna that has the same maximum gain at the same operating frequency the receiving ***Associated Earth Station Antenna***. This parameter is used when the receiving ***Associated Earth Station Antenna*** is not a standard parabolic antenna for example a flat plate antenna.

Broadcasting Satellite Service only.

Format: Decimal (in the range 2.5 to 10.0) to 1 decimal place in metres.

- **Co-polar Gain Pattern** **RDD ref: S678**

The variation of the antenna gain with the direction of radiation (3 dimensional), when the field-strength is measured with an antenna having the same polarization as the transmitting antenna.

A basic distinction in presenting this data should be made regarding the maximum antenna gain and the side-lobe performance. For high gain antennas sufficient data (say in steps of 0.1 degree) should be provided for off-axis angles less than 1 degree, whereas for off-axis angles greater than 50 degrees the radiation pattern is rather flat, and much lower resolution could suffice. For low gain antennas less data is necessary around 1 degree, and more data may be needed for the region of off-axis angle greater than 40 degrees.

In general, the gain pattern is assumed to be rotationally symmetrical and should be an envelope of peaks for all 360 degrees in a plane; however, some antennas are designed with nulls in predetermined directions in order to reduce interference and this should also be indicated with sufficient clarity and identification of the plane. If available, indicate the actual measured gain pattern (relative to isotropic), rather than the reference gain pattern. For rotationally non-symmetrical patterns, the diagram should be presented for the most important directions, such as that of the geostationary-satellite orbit.

Format: For any relevant plane containing the direction of maximum gain (axis of the antenna) the 2 dimensional pattern can be expressed as:

a) A Gain Pattern Angular Diagram, i.e. a curve giving the gain as a function of the off-axis angle

or

b) A Gain Pattern List

for appropriately spaced angular values, gain values presented as decimals (in the range -20.0 to 50.0) to 1 decimal place in dB

or

c) A Gain Pattern Equation

if the gain pattern can be described by the set of following expressions.

$G = Gmax$ for $PHI<1°$

$G = a - b * LOG_{10}(PHI)$ for $1° \leq PHI \leq phi1$

$G = MAX (MIN (G(phi1), c-d* LOG_{10}(PHI)), -10)$ for $PHI > phi1$

or

d) An ITU-R Gain Pattern Code

- **Cross-polar Gain Pattern** **RDD ref: S321**

The variation of the antenna gain with the direction of radiation (3 dimensional), when the field-strength is measured with an antenna having a polarization orthogonal to that of the transmitting antenna.

Format: For any relevant plane containing the direction of maximum gain (axis of the antenna) the 2 dimensional pattern pattern can be expressed as:

a) A Gain Pattern Angular Diagram, i.e. a curve giving the cross-polar gain as a function of the off-axis angle.

or

b) A Gain Pattern List

for appropriately spaced angular values, gain values presented as decimals (in the range -20.0 to 50.0) to 1 decimal place in dB

or

c) A Gain Pattern Equation

if the gain pattern can be described by the set of following expressions.

G = Gmax for PHI<1°

G = a - b * LOG_{10} (PHI) for 1°≤ PHI ≤ phi1

G = MAX (MIN (G(phi1), c-d* LOG_{10} (PHI)), -10) for PHI >phi1

or

d) An ITU-R Gain Pattern Code

- **Planned Minimum Elevation Angle** **RDD ref: S680**

The intended minimum operating angle of elevation of the ***Associated Earth Station Antenna*** measured between the direction of **Maximum Gain** and the horizontal plane. In the case of a geostationary satellite network, this angle is to be calculated for the ***Geostationary Orbital Position*** **Nominal Longitude**, taking into account the tolerances. Allowance should also be made for the operation of the associated ***Space Station*** in an inclined orbit.

Format: Decimal (in the range 0.0 to 90.0) to 1 decimal place in degrees.

- **Horizon Elevation Pattern** **RDD ref: S679**

The pattern of the ***Associated Earth Station Antenna*** horizon elevation, measured in the vertical plane, around the ***Associated Earth Station Antenna's*** **Geographical Coordinates**. The pattern may also be provided in tabular form.

Format: a full **Horizon Elevation Pattern** presented in one of the following ways:

a) a Horizon Elevation Diagram (**RDD ref: S679a**); the graphical representation of the Horizon elevation angle against azimuth;

or

b) Horizon Elevation Angle (**RDD ref: S679b**); the angle measured in the vertical plane between the direction of the ray that grazes the visible physical horizon and the horizontal plane at the specified Azimuth; Decimal (in the range -20.0 to 90.0) to 1 decimal place in degrees and

Azimuth (**RDD ref: S679c**); the value, measured in the horizontal plane from True North in a clockwise direction; Integer in the range 0 to 355 in multiples of 5 in degrees.

- **Horizon Gain Pattern** **RDD ref: S172**

The antenna gain in the direction of the horizon around the ***Associated Earth Station Antenna***'s **Geographical Coordinates**.

Used for the Broadcasting Satellite Service

Format: a full **Horizon Gain Pattern** presented in one of the following ways:

a) Horizon Gain Diagram (**RDD ref: S172a**); the graphical representation of the Horizon gain value at each azimuth;

or

b) Gain Pattern List: gain value expressed as a decimal in the range -20.0 to 60.0 to 1 decimal place in dBi and Azimuth value expressed as an integer in the range 0 to 355 in multiples of 5 in degrees.

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5.21 *Assignment Coordination Group (ACG)* **RDD ref: S174**

An ***Assignment Coordination Group (ACG)*** exists to define the set of common properties of a set of ***ACG Frequencies*** applicable to a number of ***Emission Characteristics Sets*** for the purpose of facilitating coordination. During the detailed coordination process there may be changes required which result in the need to reconfigure ***ACG Frequencies*** and ***Emission Characteristics Sets*** to form a new set of ***Assignment Coordination Groups***. Thus, the formation of ***Assignment Coordination Groups*** is, to some extent, arbitrary. This enables the ***Assignment Coordination Groups*** to be created for a specific purpose, e.g. as a member of an ***Exclusive Operational Group*** comprising them of appropriate sets of ***ACG Frequencies*** and ***Emission Characteristics Sets***.

For a transmitting ***Space Station***, the maximum bandwidth of the transponder and the **Maximum Total Peak Envelope Power Per Transponder** characterise the maximum technical availability of a transponder. More ***ACG Frequencies*** may be coordinated for use in the ***Assignment Coordination Group*** than can operate simultaneously within the ***ACG*** **Bandwidth** or within the power limitations set by the **Maximum Total Peak Envelope Power Per Transponder** which limits the power available for individual carriers. These two parameters determine the mixture of emissions and number of carriers that can be used at any one time and hence set the envelope for the operational limits of the different ***Assignment Coordination Groups*** emitted or received at the ***Space Station***.

For a transmitting Earth station, the **Aggregate Bandwidth** and the **Maximum Aggregate Power** characterise the technical availability of an Earth station and set the envelope for the operational limits of the different ***Assignment Coordination Groups*** transmitting into a single transponder at any one time from the Earth station.

An ***Assignment Coordination Group*** may by either one of the following types, an ***Earth To Space ACG,*** a ***Space To Earth ACG*** or a ***Space To Space ACG***.

◊ An ***Assignment Coordination Group*** is identified by its **BR Identification Code**.

An ***Assignment Coordination Group*** may have its characteristics further defined by one or more ***Emission Characteristic Sets*** **RDD ref: S731**

An ***Assignment Coordination Group*** must be the subject of one or more ***ACG Intended Actions*** **RDD ref: S452**

An ***Assignment Coordination Group*** may be the subject of one or more ***Coordination Agreements*** **RDD ref: S177**

An ***Assignment Coordination Group*** may contain one or more ***ACG Frequencies*** **RDD ref: S453**

An ***Assignment Coordination Group*** must be classified by a single ***Class Of Station Nature Of Service Pair*** **RDD ref: S382**

An ***Assignment Coordination Group*** may be a member of one or more ***Exclusive Operational Groups*** **RDD ref: S732**

An ***Assignment Coordination Group*** may be found under BR procedures to require coordination with one or more other ***Assignment Coordination Groups*** **RDD ref: S180**

- **BR Identification Code** **RDD ref: S186**

A code used to uniquely identify the ***Assignment Coordination Group*** allocated by the BR. The code is not assigned to the ***Assignment Coordination Group*** until after the BR receive the notice which first "adds" the ***Assignment Coordination Group***. Thus, it is not possible for an ***Administration*** to refer to this code until after the ***Assignment Coordination Group's*** first notification has been processed by the BR, although the BR has the means to identify this code for any previously notified ***Assignment Coordination Group***.

The BR uses a coding system to uniquely identify ***Space Service Notices***. The ***Space Service Notice*** transaction number which first includes details of the ***Assignment Coordination Group*** (i.e. when the ***Assignment Coordination Group's*** **Intended Action Code** = A) is used as the **BR Identification Code**.

Format: 10 characters.

Note: *Currently the* **BR Identification Code** *only records the last two numbers of the year of receipt preceded by a zero. It is considered essential to show year in full. The RDD defines format as 10 characters as above.*

- **Date Of Bringing Into Use** **RDD ref: S187**

The date the ***Assignment Coordination Group*** might be brought into operational use. Although there may be variations in the operational date for individual frequency assignments due to coordination requirements, in practice the **Date of**

Bringing Into Use is generally based on the operational date for the majority of frequencies in the ***Assignment Coordination Group***.

Format: Date.

- **Period Of Validity** **RDD ref: S188**

The number of years the notifying ***Administration*** expect the operational use of the geostationary ***Space Station*** frequency assignment will continue to be required. The period begins on the date the frequency assignment comes into service.

Geostationary satellite orbits only.

Format: Integer (in the range 10 to 20) in years.

- **Bandwidth** **RDD ref: S190**

The width of the frequency band that contains the ***Assignment Coordination Group*** and within which the individual ***ACG Frequencies*** can operate at any one time.

The **Bandwidth** equals the necessary bandwidth of the ***Assignment Coordination Group*** plus twice the absolute value of the frequency tolerance.

Where non-geostationary ***Space Stations*** are concerned, the **Bandwidth** includes twice the maximum Doppler shift that may occur in relation to any point of the Earth's surface. The **Bandwidth** should in no case exceed the bandwidth of a single satellite transponder.

Format: Integer (in the range 50 to 99999999) in kHz.

- **Polarization Code** **RDD ref: S189**

The code for representing the angular relationship between the plane of the electric field vector and the equatorial plane. The angular relationship is observed counter-clockwise in any fixed plane normal to the ***Beam*** axis, from the equatorial plane to the electric field vector of the waves, as seen from the satellite.

Format: Up to 2 characters.

Code	Meaning
CL	Left hand circular or indirect: the electric field vector rotates anti-clockwise.
CR	Right hand circular or direct: the electric field vector rotates clockwise.
D	Dual: when substantially equal-amplitude vertically and horizontally polarized components are radiated without particular control of the phase relation between them. Typically, the vertically and horizontally polarized sources may be displaced one from the other so that the resultant polarization varies between circular and slant, according to azimuth angle.
H	Horizontal linear: the electric field vector is in a plane parallel to the equatorial plane.
L	Linear: the electric field vector remains in the direction specified by the **Polarization Linear Angle**.
M	Mixed: the collective term applied when both vertical and horizontal components are radiated, embracing slant, circular and dual polarization.
SL	Left hand slant: the electric field vector is in the plane rotated 45 degrees anti-clockwise from the vertical plane.
SR	Right hand slant: the electric field vector is in the plane rotated 45 degrees clockwise from the vertical plane.
V	Vertical linear: the electric field vector is in the plane normal to the equatorial plane.

- **Polarization Linear Angle** **RDD ref: S364**

The angle measured in an anti-clockwise direction, in a plane normal to the beam axis, between the direction of the electric field and a line parallel to the equatorial plane as seen from the satellite.

Format: Integer (in the range 0 to 359) in degrees.

- **Spectrum Mask** **RDD ref: S195**

The pattern showing the distribution of the signal power across the **Bandwidth**.

Format: Diagram.

- **Baseband Lower Frequency Limit** **RDD ref: S196**

The lowest frequency of the baseband used to modulate the carrier frequencies applicable to the ***Assignment Coordination Group***. This is only meaningful if the baseband either corresponds to a multichannel telephony baseband or a signal that can be represented by a multichannel telephony baseband.

Format: Decimal (in the range 0.000 to 9999999.999) to 3 decimal places in kHz.

- **Baseband Upper Frequency Limit** **RDD ref: S197**

The highest frequency of the baseband used to modulate the carrier frequencies applicable to the ***Assignment Coordination Group***. This is only meaningful if the baseband either corresponds to a multichannel telephony baseband or a signal that can be represented by a multichannel telephony baseband.

Format: Decimal (in the range 0.000 to 9999999.999) to 3 decimal places in kHz.

- **Baseband Composition** **RDD ref: S198**

The textual description of the type and format of the individual components within the signal modulating the carrier frequencies applicable to the ***Assignment Coordination Group***.

Appendices S30 & S30A only.

Format: Text.

- **Multiplex Type (Video/Sound)** **RDD ref: S199**

A textual description of the form of multiplexing used to combine the video and sound components into a single baseband signal.

Used for the Broadcasting Satellite Service.

Format: Text.

- **Sound Broadcasting Characteristics** **RDD ref: S203**

The textual description of the type and format of the sound components of a BSS channel.

Appendix S30 & S30A only

Format: Text.

- **TV Standard And Colour Standard Description** **RDD ref: S327**

A textual description of the parameters that define the format, or type of system, used for encoding a visual image and an audible sound, into an electromagnetic waveform that forms a television broadcast signal. The **TV Standard And Colour Standard Description** may include the television system code contained in Recommendation ITU-R BT.470.

Format: Text.

- **Digital Signal Transmitted Bit Rate** **RDD ref: S204**

The digitised information rate with error correction for each carrier.

Format: Decimal (in the range 0.0 to 9999999.9) to 1 decimal place in kBit/s.

- **Digital Signal Number Of Phases** **RDD ref: S205**

The number of phase states used by the modulation encoding system.

Format: Integer (in the range 1 to 10).

- **Pre-emphasis P-P Frequency Deviation** **RDD ref: S201**

For a FM television signal the peak to peak frequency deviation produced by a 1 volt peak to peak video signal at 0 dB relative deviation (the cross over frequency) in the **Pre-emphasis Characteristics**. Pre-emphasis is applied to television signals to reduce the high level low frequency components present in an FM television signal and which inhibit inter-

changeability with the modulators and demodulators used for FDM telephony. (See Recommendations ITU-R F.276 and ITU-R F.405).

Format: Decimal (in the range 5.0 to 15.0) to 1 decimal place in MHz.

- **Pre-emphasis RMS Frequency Deviation** **RDD ref: S326**

For a FDM telephony channel the r.m.s. deviation in frequency per channel produced by a 800 Hz test tone of 1mW power at the 0 dB relative deviation (the cross over frequency) in the **Pre-emphasis Characteristics**. The r.m.s. frequency deviation is determined for a specific number of multiplexed channels.

In FDM telephony signals the noise level in the top channels is higher than in the bottom channels. Pre-emphasis allows a more even distribution of the signal to noise ratio across the FDM baseband. (See Recommendations ITU-R F.275, ITU-R F.404 and ITU-R S.464).

Format: Decimal (in the range 20.0 to 300.0) to 1 decimal place in kHz.

- **Pre-emphasis Characteristics** **RDD ref: S202**

The reference to the characteristics of the filter used to reduce the level of the low frequency components with respect to the high frequency components of the baseband signal.

Format: Diagram.

- **Energy Dispersal Frequency Deviation** **RDD ref: S200**

The peak to peak deviation in the carrier frequencies applicable to the ***Assignment Coordination Group*** resulting from the application of the **Energy Dispersal Waveform**. The **Energy Dispersal Waveform** is added to the baseband signal prior to the modulator to prevent high levels of energy concentration on the carrier frequency during periods of no, or small levels of modulation signal.

When no modulation or a very small modulation signal is applied, the energy concentrates at the carrier frequency and interference can be caused to other terrestrial and satellite systems. Also multiple carrier intermodulation products become excessive in the types of amplifiers that are commonly used. In order to reduce these effects and to comply with Recommendations ITU-R S.446 and ITU-R S.524, a low-frequency waveform (e.g. triangular) is added to the baseband signal. The value of the **Energy Dispersal Waveform** is set between the following limits:

- lower limit: controls the maximum carrier energy per 4 kHz to a level 2 dB above (1.58 times) the maximum energy density at full telephone channel load;
- upper limit: determined by distortion noise in the channel and interference to the adjacent channel. It usually makes the carrier energy per 4 kHz equal to the maximum energy density at full telephone channel load.

Format: Decimal (in the range 0.1 to 4.0) to 1 decimal place in MHz.

- **Energy Dispersal Sweep Frequency** **RDD ref: S324**

The frequency of the **Energy Dispersal Waveform** added to the baseband signal prior to the modulator to prevent high levels of energy concentration on the carrier frequency during periods of no, or small levels of modulation signal. For television systems the frequency of the **Energy Dispersal Waveform** has to be synchronised to the television system field frequency.

See **Energy Dispersal Frequency Deviation** for more information on energy dispersal.

Format: Integer (in the range 10 to 2000) in Hz.

- **Energy Dispersal Waveform** **RDD ref: S325**

The textual description of the shape of the waveform added to the baseband signal prior to the modulator to prevent high levels of energy concentration on the carrier frequency during periods of no, or small levels of modulation signal.

See **Energy Dispersal Frequency Deviation** for more information on energy dispersal.

Format: Text

- **Start Time** **RDD ref: S091**

The time of day measured in UTC at which the transmission/reception to/from the ***Space Station,*** or ***Associated Earth Station Antenna*** usually commences.

Where a **Start Time** is the same time (or later time of day) as the **Stop Time,** then the **Stop Time** is considered to be on the next calendar day, immediately following the **Start Time**.

Format: Time (in the range 0000 and 2359).

- **Stop Time** **RDD ref: S092**

The time of day measured in UTC at which the transmission/reception to/from the ***Space Station,*** or ***Associated Earth Station Antenna*** usually ends.

Where a **Stop Time** is the same time (or earlier time of day) as the **Start Time,** then the **Stop Time** is considered to be on the next calendar day, immediately following the **Start Time**.

Format: Time (in the range 0001 and 2400).

- **Digital Signal Effective Bit Rate** **RDD ref: S644**

The digitised information rate without error correction for each carrier.

Format: Decimal (in the range 0.0 to 9999999.9) to 1 decimal place in kBit/s.

- **Frequency Deviation** **RDD ref: S643**

The peak to peak frequency deviation of the wanted modulating signal.

Format: Decimal (in the range 1.0 to 12.0) to 1 decimal place in MHz.

- **Interference Study Information** **RDD ref: S642**

A description of any additional relevant information required for conduction a detailed interference study.

Format: Text.

- **Peak To Average Power Ratio Upper Frequency Limit** **RDD ref: S250**

The frequency below which carrier frequencies with a ratio of peak to average power density of less than 5dB are located. The peak power density is taken as an average over the worst 4kHz and the average power density is taken over the necessary bandwidth of the modulated carrier.

In the Appendix S30B plan there is a concept of macro-segmentation of proposed frequency assignments. The upper 60% of each allotment band is used for carriers where the ratio of peak to average power density is greater than 5dB and these are known as high density carriers. The lower 40% of each allotment band is used for carriers where the ratio of peak to average power density is less than 5dB and these are known as low density carriers.

Appendix S30B only.

Format: Frequency.

- **Type Of Amplitude Modulation** **RDD ref: S641**

A description of the form of amplitude modulation that provides more detailed information than can be provided by the ***Emission Characteristic Set's*** **Class Of Emission**.

Format: Text.

- **Type Of Modulation** **RDD ref: S640**

A description of the form of modulation that provides more detailed information than can be provided by the ***Emission Characteristic Set's*** **Class Of Emission**.

Format: Text.

5.22 *Transmitting Earth Station's ACG* **RDD ref: S215**

A ***Transmitting Earth Station's ACG*** is a type of ***Assignment Coordination Group*** whose transmission source is Earth based and whose reception point is based in space.

◊ A ***Transmitting Earth Station's ACG*** is identified by its common properties inherited from its generic type (***Assignment Coordination Group***) i.e. ***Assignment Coordination Group's*** **BR Identification Code**.

A ***Transmitting Earth Station's ACG*** must describe the emission characteristic for a single ***Earth Station Antenna*** **RDD ref: S216**

A ***Transmitting Earth Station's ACG*** must characterise the energy received within a single ***Beam*** **RDD ref: S217**

- **Aggregate Bandwidth** **RDD ref: S770**

The width of the frequency band, at the transmitting ***Earth Station Antenna***, that contains the carriers (***ACG Frequencies***) in the ***Assignment Coordination Groups*** **Bandwidth**.

Format: Integer (in the range 50 to 99999999) in kHz.

- **Maximum Aggregate Power** **RDD ref: S771**

The maximum value of the peak envelope power supplied to the input of the ***Earth Station Antenna*** in the ***Assignment Coordination Group*** is **Bandwidth**.

Format: Decimal (in the range 0.0 to 40.0) to 1 decimal place in dBW.

- **(AB) Transponder Bandwidth Indicator** **RDD ref: S736**

An indicator identifying if the **Aggregate Bandwidth** is equal to the transponder bandwidth.

Format: True or False.

5.23 *Receiving Earth Station's ACG* **RDD ref: S218**

A ***Receiving Earth Station's ACG*** is a type of ***Assignment Coordination Group*** whose transmission source is based in space and whose reception source is Earth based.

◊ A ***Receiving Earth Station's ACG*** is identified by its common properties inherited from its generic type (***Assignment Coordination Group***) i.e. ***Assignment Coordination Group's*** **BR Identification Code**.

A ***Receiving Earth Station's ACG*** must describe the reception characteristic for one or more ***Earth Station Antennas*** **RDD ref: S219**

A ***Receiving Earth Station's ACG*** must characterise the energy radiated within a single ***Beam*** **RDD ref: S220**

- **Bandwidth Of The Frequency Band Observed** **RDD ref: S374**

The width of the frequency range in which the emissions observed by the radioastronomy station occur.

Format: Integer (in the range 0 to 99999999) in kHz.

- **Receiving System Noise Temperature** **RDD ref: S764**

The temperature above absolute zero which is equivalent to the noise associated with the receiving system. The noise temperature is the lowest total value arising from the antenna's environment, the receiving antenna and from within the receiving system.

For radio waves the Earth is considered to be a "grey" body and for ***Earth Station Antenna*** the sidelobe performance and elevation angle may both be significant factors in the level of environmental noise.

For ***Earth Station Antennas*** the **Receiving System Noise Temperature** is determined under clear sky conditions and at the ***Earth Station Antenna's*** **Planned Minimum Elevation Angle**, excluding tolerances for geostationary satellite operation.

Format: Integer (in the range 20 to 6000) in Kelvins.

- **Receiver Sensitivity Indicator** **RDD ref: S332**

An indicator for identifying the sensitivity of the radioastronomy station's receiver in the **Bandwidth Of The Frequency Band Observed**.

This is referred to as "Class of Operation" in the APS4 form.

Format: 1 character.

Code	Meaning
A	The sensitivity of the receiving equipment is not a primary factor in the observations.
B	Advanced low-noise receivers using the best techniques are required if the observations are to be made.

- **Centre Of The Frequency Band Observed** **RDD ref: S256**

The frequency at the centre of the frequency range containing the emissions observed by the radioastronomy station.

Format: Frequency.

5.24 Receiving Space Station's ACG **RDD ref: S456**

A ***Receiving Space Station's ACG*** is a type of ***Assignment Coordination Group*** whose transmission source is Earth based and whose reception point is based in space.

◊ A ***Receiving Space Station's ACG*** is identified by its common properties inherited from its generic type (***Assignment Coordination Group***) i.e. ***Assignment Coordination Group's*** **BR Identification Code**.

A ***Receiving Space Station's ACG*** must describe the emission characteristic for one or more ***Associated Earth Station Antennas*** **RDD ref: S457**

A ***Receiving Space Station's ACG*** must characterise the energy received by a satellite antenna within a single ***Beam*** **RDD ref: S458**

- **Space Station's Automatic Gain Control Range** **RDD ref: S331**

The amount by which the ***Space Station*** transponder gain can be increased to maintain a constant signal level at the transponder output.

For Region 1 & 3 see Section 3.10 of Annex 3 to Appendix S30A. For Region 2 see Section 4.9 of Annex 3 to Appendix S30A.

Broadcasting Satellite Service only.

Format: Decimal (in the range 0.0 to 15.0) to 1 decimal place in dB.

- **Receiving System Noise Temperature** **RDD ref: S192**

The temperature above absolute zero which is equivalent to the noise associated with the ***Space Station's*** receiving system. The noise temperature is the lowest total value arising from the Antenna's environment, the receiving antenna and from within the receiving system.

For radio waves the Earth is considered to be a "grey" body and for ***Space Station*** antenna it will determine the lower limit for any antenna pointing at the Earth.

Format: Integer (in the range 300 to 6000) in Kelvins.

- **Uplink Service Area** **RDD ref: S384**

The area on the surface of the Earth in which the ***Administration*** responsible for the service may be able to position transmitting ***Earth Station Antenna*** for the purpose of providing Earth to space transmissions.

The actual location of any Earth Station Antenna, either typical or specific, will only be determined following coordination with any other affected services or **Administrations**.

The **Uplink Service Area** is distinct from the ***Space Station*** receiving ***Beam*** area. The ***Space Station*** receiving ***Beam*** area is the area delineated by the intersection of the half-power beam of the ***Space Station*** receiving antenna with the surface of the Earth and this may include many **Uplink Service Areas**.

The service area may be provided in electronic format; see ITU-R CR/58 and CR/65.

Format: a compound structure presented in one of the following forms:

a) one or more ***Geographical Area's*** **Codes**;

or

b) a Diagram;

or

c) three to twenty Test Points using Lat/Long in degrees, minutes and seconds.

- **Multiple Access Indicator** **RDD ref: S329**

An indicator identifying the method used for sharing access to the ***Space Station*** transponder. Multiple access allows several transmitting stations to share the same space station transponder simultaneously.

Format: 1 character.

Code	Meaning
F	FDMA: Frequency Division Multiple Access; each transmitting station has its own assigned frequency within the ***ACG* Bandwidth**.
T	TDMA: Time Division Multiple Access; all transmitting station use the full ***ACG* Bandwidth** and share access on a time basis.
C	CDMA: Code Division Multiple Access; all transmitting station use the full ***ACG* Bandwidth** simultaneously and share access by using a code and spread spectrum techniques.

- **Earth Station's Power Control Range** **RDD ref: S330**

The amount by which the ***Earth Station Antenna*** transmitting power may be increased above the **Total Transmitting Power** to allow for rain fading. The extent to which the power may be increased depends on the level of rain fade and whether adjacent channels are cross-polarized. For Region 1 & 3 see Section 3.11 of Annex 3 to Appendix S30A which contains the required calculation method. For Region 2 see Section 4.10 of Annex 3 to Appendix S30A.

Appendix S30A only

Format: Decimal (in the range 0.0 to 10.0) to 1 decimal place in dB.

- **Total Transmitting Power** **RDD ref: S625**

The maximum power supplied to the input of the transmitting ***Associated Earth Station Antenna*** in the ***ACG* Bandwidth**.

Format: Decimal (in the range 0.0 to 40.0) to 1 decimal place in dBW.

- **Aggregate Bandwidth** **RDD ref: S646**

The width of the frequency band, at the transmitting ***Associated Earth Station Antenna***, that contains the carriers (***ACG Frequencies***) in ***ACG* Bandwidth**.

The **Aggregate Bandwidth** should in no case exceed the bandwidth of a single satellite transponder.

Format: Integer (in the range 50 to 99999999) in kHz.

- **Maximum Aggregate Power** **RDD ref: S600**

The maximum value of the peak envelope power supplied to the input of the ***Associated Earth Station Antenna*** in the ***ACG* Bandwidth**.

Format: Decimal (in the range 0.0 to 40.0) to 1 decimal place in dBW.

- **(AB) Transponder Bandwidth Indicator** **RDD ref: S765**

An indicator identifying if the **Aggregate Bandwidth** is equal to the transponder bandwidth.

Format: True or False.

5.25 *Transmitting Space Station's ACG* **RDD ref: S463**

A ***Transmitting Space Station's ACG*** is a type of ***Assignment Coordination Group*** whose transmission source is based in space and whose reception source is Earth based.

◊ A ***Transmitting Space Station's ACG*** is identified by its common properties inherited from its generic type (***Assignment Coordination Group***) i.e. ***Assignment Coordination Group's*** **BR Identification Code**.

A ***Transmitting Space Station's ACG*** may describe the reception characteristic for one or more ***Associated Earth Station Antennas*** **RDD ref: S464**

A ***Transmitting Space Station's ACG*** must characterise the energy radiated by satellite antenna within a single ***Beam*** **RDD ref: S465**

- **Downlink Service Area** **RDD ref: S276**

The area on the surface of the Earth in which the ***Administration*** responsible for the service has the right to demand that the agreed protection conditions be provided for the reception of the space to Earth signal.

The **Downlink Service Area** is distinct from the coverage area. Coverage area is the area on the surface of the Earth delineated by a contour of a constant given value of power flux-density which would permit the wanted quality of reception in the absence of interference.

The area delineated by the intersection of the half-power beam of the **Space Station** transmitting antenna with the surface of the Earth is the **Space Station** transmitting **Beam** area.

The **Downlink Service Area** may be provided in electronic format; see ITU-R CR/58 and CR/65 for further information.

Format: a compound structure presented in one of the following forms:

a) one or more ***Geographical Areas*** **Code**;

or

b) a Diagram;

or

c) three to twenty Test Points using Lat/Long in degrees, minutes and seconds and where applicable the ***Rain Climatic Zone*** (see RDD S386) for each test point.

- **Minimum Angle Of Elevation In The Service Area** **RDD ref: S212**

The minimum angle measured in the vertical plane at any point within the service area between the ***Beam*** from the ***Space Station*** incident at that point and the horizontal plane. The measurement is made with the ***Beam*** pointing at the ***Beam's*** **Boresight Geographical Coordinates**.

Appendix S30 Regions 1 & 3 Only. In this case the service area is defined by a set of test points (see below).

Format: Decimal (in the range 0.0 to 90.0) to 1 decimal place in degrees.

- **Affected Area** **RDD ref: S214**

The maximum area of the Earth's surface which can be seen from the satellites of a non-geostationary ***Space Station*** when they are operating. The **Affected Area** encloses the active sub-satellite area (see Rec. ITU-R M.1187).

Format: Diagram.

- **Power To The Antenna** **RDD ref: S544**

The maximum power supplied to the input of the transmitting ***Space Station*** antenna in the ***ACG*** **Bandwidth**.

Format: Decimal (in the range 10.0 to 40.0) to 1 decimal place in dBW.

- **Maximum Total Peak Envelope Power Per Transponder** **RDD ref: S193**

The maximum value of the peak envelope power available for supply to the input of the antenna in the ***Assignment Coordination Group*** **Bandwidth** (consisting of different combinations of the ***ACG Assignments***) for the ***Transmitting Space Station's ACG*** at any one time.

If the **Bandwidth** is equal to the transponder bandwidth the **Maximum Total Peak Envelope Power Per Transponder** corresponds to the maximum saturated peak envelope power.

In the case of individual carriers the **Maximum Total Peak Envelope Power Per Transponder** represents an upper limit on the maximum power available and that will not be exceeded by the summation of the individual emissions in the ***Assignment Coordination Group*** **Bandwidth** at any one time.

Format: Decimal (in the range 0.0 to 30.0) to 1 decimal place in dBW.

- **Transponder Bandwidth Indicator** **RDD ref: S249**

An indicator identifying if the **Bandwidth** for the ***Transmitting Space Station's ACG*** is equal to the bandwidth of the transponder.

Format: True or false.

5.26 *Transmitting Space Station's Space To Space ACG* **RDD ref: S472**

A ***Transmitting Space Station's Space To Space ACG*** is a type of ***Assignment Coordination Group*** whose transmission and reception sources are both based in space.

◊ A ***Transmitting Space Station's Space To Space ACG*** is identified by its common properties inherited from its generic type (***Assignment Coordination Group***) i.e. ***Assignment Coordination Group's*** **BR Identification Code**.

A ***Transmitting Space Station's Space To Space ACG*** must characterise the energy radiated by a satellite antenna within a single ***Beam*** **RDD ref: S473**

A ***Transmitting Space Station's Space To Space ACG*** must have its beam associations described by one or more ***Associated Space Station Positions*** **RDD ref: S527**

- **Maximum Radiated Power** **RDD ref: S652**

The maximum isotropic radiated power produced by the transmitting ***Space Station***.

Format: Decimal (in the range 0.0 to 60.0) to 1 decimal place in dBW.

- **Maximum Total Peak Envelope Power Per Transponder** **RDD ref: S776**

The maximum value of the peak envelope power available for supply to the input of the antenna in the ***Assignment Coordination Group*** **Bandwidth** (consisting of different combinations of the ***ACG Assignments***) for the ***Transmitting Space Station's Space to Space ACG*** at any one time.

If the **Bandwidth** is equal to the transponder bandwidth the **Maximum Total Peak Envelope Power Per Transponder** corresponds to the maximum saturated peak envelope power.

In the case of individual carriers the **Maximum Total Peak Envelope Power Per Transponder** represents an upper limit on the maximum power available and that will not be exceeded by the summation of the individual emissions in the ***Assignment Coordination Group*** **Bandwidth** at any one time.

Format: Decimal (in the range 0.0 to 30.0) to 1 decimal place in dBW.

- **Transponder Bandwidth Indicator** **RDD ref: S777**

An indicator identifying if the **Bandwidth** for the ***Transmitting Space Station's Space to Space ACG*** is equal to the bandwidth of the transponder.

Format: True or False.

5.27 *Receiving Space Station's Space To Space ACG* **RDD ref: S476**

A ***Receiving Space Station's Space To Space ACG*** is a type of ***Assignment Coordination Group*** whose transmission and reception sources are both based in space.

◊ A ***Receiving Space Station's Space To Space ACG*** is identified by its common properties inherited from its generic type (***Assignment Coordination Group***) i.e. ***Assignment Coordination Group's*** **BR Identification Code.**

A ***Receiving Space Station's Space To Space ACG*** must characterise the energy received by a satellite antenna within a single ***Beam*** **RDD ref: S478**

A ***Receiving Space Station's Space To Space ACG*** must have its beam associations described by one or more ***Associated Space Station Positions*** **RDD ref: S526**

- **Maximum Radiated Power** **RDD ref: S653**

The maximum isotropic radiated power produced by the transmitting ***Space Station***.

Format: Decimal (in the range 0.0 to 60.0) to 1 decimal place in dBW.

5.28 *Emission Characteristic Set* **RDD ref: S733**

A set of emission characteristics that are applicable to all frequencies in the ***Assignment Coordination Group*** for which it has been defined. An ***Assignment Coordination Group*** may contain a number of frequencies with different modulation schemes each of which may have its own ***Emission Characteristic Set***.

The specific data items for this data group that are applicable depend on the type of ***Assignment Coordination Group*** to which the ***Emission Characteristic Set*** is related. In the following table an X indicates if the data item is applicable to the ***Emission Characteristic Set*** for each of the types of ***Assignment Coordination Group***.

Data Item Name	RDD ref:	Tx Earth Stn	Rx Earth Stn	Tx Space Stn	Rx Space Stn	Tx Space to Space	Rx Space to Space
Class Of Emission Code	S262	X	X	X	X	X	X
Necessary Bandwidth Code	S334	X	X	X	X	X	X
Total Peak Envelope Power	S263	X		X	X	X	X
Maximum Peak Envelope Power Per Carrier	S264	X		X	X	X	X
Minimum Peak Envelope Power Per Carrier	S265	X		X	X	X	X
Maximum Power Density Per Carrier Averaged Over 4 kHz	S267	X		X	X	X	X
Maximum Power Density Averaged Over 4 kHz	S266	X		X	X	X	X
Minimum Power Density Per Carrier Averaged Over 4 kHz	S268	X		X	X	X	X
Maximum Power Density Averaged Over 40 kHz	S207			X[1]			
Maximum Power Density Per Carrier Averaged Over 1 MHz	S336	X		X	X	X	X
Maximum Power Density Averaged Over 1 MHz	S335	X		X	X	X	X
Maximum Power Density Per Carrier Averaged Over 1 MHz	S371	X		X	X	X	X
Maximum Power Density Averaged Over 5 MHz	S208			X[1]			
Maximum Power Density Averaged Over The Total RF Bandwidth	S209				X[1]		
Maximum Power Density Averaged Over The Necessary Bandwidth	S618	X[2]		X[2]	X[2]		
Maximum Power Density Averaged Over 27 MHz	S647			X[1]			
Required Protection Ration (Minimum C/I)	S210		X[2]	X[2]			
Carrier To Noise Objective	S270		X	X	X		X
Reason For Absence Of C/N	S373		X	X	X		X
Reason For Absence Of Minimum Power	S269	X		X	X	X	X
Reason For Absence Of Minimum Power Density	S372	X		X	X	X	X

1 BSS Plans APS30 APS30A,
2 APS30B

For maximum peak power and power density values, supply information contained in one of the two options outlined below. Option A applies when individual carriers are used in the ***Assignment Coordination Group***; Option B applies when there are no individual carriers (i.e. spread spectrum).

Option A:

Maximum Peak Envelope Power Per Carrier
Maximum Power Density Per Carrier Averaged Over 4kHz
Maximum Power Density Per Carrier Averaged Over 1MHz

Option B:

Total Peak Envelope Power
Maximum Power Density Averaged Over 4kHz
Maximum Power Density Averaged Over 1MHz

◊ An ***Emission Characteristic Set*** is identified by all of the following data items that are applicable for a specific modulation characteristic and the spectral power density of the ***Assignment Coordination Group*** frequencies it defines.

An ***Emission Characteristic Set*** must further define a single ***Assignment Coordination Group*** **RDD ref**: **S760**

- **Class Of Emission Code** **RDD ref: S262**

The code used to describe the type of modulation and information applicable to the frequencies in the ***Emission Characteristic Set***. Although there may be small variations in the **Class Of Emission Code** for individual frequency assignments (i.e. the last two characters) the first three characters are mandatory and will describe the basic modulation characteristics of all frequencies in the ***Emission Characteristic Set***.

Format: Up to 5 characters as described in Appendix S1 to the Radio Regulations.

- **Necessary Bandwidth Code** **RDD ref: S334**

For a given **Class Of Emission Code**, the width of the frequency band which is just sufficient to ensure the transmission of the information at the rate and with the quality required under specified conditions.

The necessary bandwidth, is expressed by three numerals and one letter. The letter occupies the position of the decimal point and represents the unit of bandwidth. The first character shall be neither zero nor K, M or G.

Format: 4 characters.

between 0.001 and 999 Hz shall be expressed in Hz (letter H);
between 1.00 and 999 kHz shall be expressed in kHz (letter K);
between 1.00 and 999 MHz shall be expressed in MHz (letter M);
between 1.00 and 999 GHz shall be expressed in GHz (letter G).

Examples:

400 Hz = 400H	2.4 kHz = 2K40	12.5 kHz = 12K5
180.4 kHz = 180K	180.7 kHz = 181K	1.25 MHz = 1M25
2 MHz = 2M00	10 MHz = 10M0	202 MHz = 202M

- **Total Peak Envelope Power** **RDD ref: S263**

The total peak envelope power supplied to the input of the antenna in the ***Assignment Coordination Group's*** **Bandwidth.** (Option B).

This method of power measurement is used for the case where there are no individual carriers in the ***ACG*** **Bandwidth** e.g. Spread Spectrum).

Format: Decimal (in the range -10.0 to 40.0) to 1 decimal place in dBW.

- **Maximum Peak Envelope Power Per Carrier** **RDD ref: S264**

The maximum value of the peak envelope power supplied to the input of the antenna for an individual ***ACG Frequency***. (Option B).

Format: Decimal (in the range -10.0 to 40.0) to 1 decimal place in dBW.

- **Minimum Peak Envelope Power Per Carrier** **RDD ref: S265**

The minimum value of the peak envelope power supplied to the input of the for an individual ***ACG Frequency***.

Format: Decimal (in the range -10.0 to 40.0) to 1 decimal place in dBW.

- **Maximum Power Density Per Carrier Averaged Over 4 kHz** **RDD ref: S267**

The maximum power density in the worst 4kHz supplied to the input of the antenna for an individual ***ACG Frequency*** averaged over 4 kHz. (Option A).

The 4 kHz reference bandwidth is used for carrier frequencies less than 15 GHz. If the necessary bandwidth is less than 4 kHz (i.e. narrow band carriers) the peak power should be averaged over 4 kHz.

Format: Decimal (in the range -100.0 to 0.0) to 1 decimal place in dB(W/Hz).

- **Maximum Power Density Averaged Over 4 kHz** **RDD ref: S266**

The maximum power density in the worst 4 kHz in the ***Assignment Coordination Group's*** **Bandwidth** supplied to the input of the antenna averaged over 4 kHz. (Option B).

The 4 kHz reference bandwidth is used for carrier frequencies less than 15 GHz. This method of power measurement is used for the case where there are no individual carriers (e.g. Spread Spectrum).

Format: Decimal (in the range -120.0 to 0.0) to 1 decimal place in dB(W/Hz).

- **Minimum Power Density Per Carrier Averaged Over 4 kHz** **RDD ref: S268**

The minimum power density in the worst 4 kHz supplied to the input of the antenna of an individual ***ACG Frequency*** averaged over 4 kHz.

The 4 kHz reference bandwidth is used for carrier frequencies less than 15 GHz. If the necessary bandwidth is less than 4 kHz (i.e. narrow band carriers) the peak power should be averaged over 4 kHz.

Format: Decimal (in the range -120.0 to 0.0) to 1 decimal place in dB(W/Hz).

- **Maximum Power Density Averaged Over 40 kHz** **RDD ref: S207**

The maximum power density in the worst 40 kHz in the ***Assignment Coordination Group's*** **Bandwidth** supplied to the input of the antenna averaged over 40 kHz.

Used for the Broadcasting Satellite Service.

Format: Decimal (in the range -120.0 to 0.0) to 1 decimal place in dB(W/Hz).

- **Maximum Power Density Per Carrier Averaged Over 1 MHz** **RDD ref: S336**

The maximum power density in the worst 1 MHz supplied to the input of the antenna of an individual ***ACG Frequency*** averaged over 1 MHz. (Option A).

The 1 MHz reference bandwidth is used for carrier frequencies greater than 15 GHz. If the necessary bandwidth is less than 1 MHz the peak power should be averaged over 1 MHz. If the values of maximum power density are being provided for individual carriers, they should be of this type.

Format: Decimal (in the range -120.0 to 0.0) to 1 decimal place in dB(W/Hz).

- **Maximum Power Density Averaged Over 1MHz** **RDD ref: S335**

The maximum power density in the worst 1 MHz in the ***Assignment Coordination Group's*** **Bandwidth** supplied to the input of the antenna averaged over 1 MHz. (Option B).

The 1 MHz reference bandwidth is used for carrier frequencies greater than 15 GHz. This method of power measurement is used for the case where there are no individual carriers (e.g. Spread Spectrum).

Format: Decimal (in the range -120.0 to 0.0) to 1 decimal place in dB(W/Hz).

- **Minimum Power Density Per Carrier Averaged Over 1MHz** **RDD ref: S371**

The minimum value power density over the worst 1MHz supplied to the input of the antenna of an individual ***ACG Frequency*** averaged over 1 MHz.

The 1 MHz reference bandwidth is used for carrier frequencies greater than 15 GHz. If the necessary bandwidth is less than 1 MHz the peak power should be averaged over 1 MHz.

Format: Decimal (in the range -120.0 to 0.0) to 1 decimal place in dB(W/Hz).

- **Maximum Power Density Averaged Over 5 MHz** **RDD ref: S208**

The maximum power density over the worst 5 MHz in the ***Assignment Coordination Group's*** **Bandwidth** supplied to the input of the averaged over 5 MHz.

Used for the Broadcasting Satellite Service.

Format: Decimal (in the range -120.0 to 0.0) to 1 decimal place in dB(W/Hz).

- **Maximum Power Density Averaged Over The Total RF Bandwidth** **RDD ref: S209**

The maximum value of the peak envelope power supplied to the input of the antenna in the ***Assignment Coordination Group's*** **Bandwidth** averaged over the total RF Bandwidth.

Format: Decimal (in the range -120.0 to 0.0) to 1 decimal place in dB(W/Hz).

- **Maximum Power Density Averaged Over 27MHz** **RDD ref: S647**

The maximum value of the peak envelope power supplied to the input of the antenna in the ***Assignment Coordination Group's*** **Bandwidth** averaged over 27 MHz.

Used for the broadcasting satellite service.

Format: Decimal (in the range -120.0 to 0.0) to 1 decimal place in dB(W/Hz)

- **Maximum Power Density Averaged Over The Necessary Bandwidth** **RDD ref: S618**

The maximum signal power level averaged over the necessary bandwidth.

Format: Decimal (in the range -120.0 to 0.0) to 1 decimal place in dB(W/Hz)

- **Required Protection Ratio (Minimum C/I)** **RDD ref: S210**

The minimum aggregate Carrier-to-Interference ratio that is acceptable to the notifying ***Administration***, if the C/I ratio is less than 26 dB.

The Carrier-to-Interference ratio is to be expressed in terms of the power averaged over the necessary bandwidth of the modulated wanted and interfering signals.

Format: Decimal (in the range 8.0 to 25.9) to 1 decimal place in dB.

- **Carrier To Noise Objective** **RDD ref: S270**

The quality threshold level for the Carrier–to-Noise ratio, set in the appropriate ITU-R Recommendations, for the full ***Earth Station Antenna/ Space Station/Earth Station Antenna*** path under clear sky propagation conditions.

Format: Decimal (in the range -10.0 to 25.0) to 1 decimal place in dB.

- **Reason For Absence Of Minimum Power** **RDD ref: S269**

The textual explanation for an omission of minimum peak power, e.g. the signal power is constant in the ***ACG*** **Bandwidth**.

Format: Text.

- **Reason For Absence Of Minimum Power Density** **RDD ref: S372**

The textual explanation for an omission of minimum power density e.g. the signal power is constant in the ***ACG*** **Bandwidth**.

Format: Text.

- **Reason For Absence Of C/N** **RDD ref: S373**

The textual explanation for an omission of the ***Carrier To Noise Objective***, e.g. it is not applicable to the type of emission.

Format: Text.

5.29 *Frequency Range* RDD ref: S244

A contiguous range of frequencies of the ***Beam***.

◊ A ***Frequency Range*** is identified by its **Lower Limit** and the ***Beam*** with which it is associated.

A ***Frequency Range*** must describe the valid operational frequency limits for a single ***Beam*** **RDD Ref: S245**

- **Lower Limit** **RDD ref: S247**

The lowest frequency in the ***Frequency Range***.

Format: Frequency.

- **Upper Limit** **RDD ref: S248**

The highest frequency in the ***Frequency Range***.

Format: Frequency.

5.30 *Beam Frequency* **RDD ref: S251**

The individual frequencies that are contained within a ***Beam***.

◊ A ***Beam Frequency*** is identified by its **Value** and the ***Beam*** with which it is associated.

A ***Beam Frequency*** may represent the frequency used by a connection between space and Earth for one or more ***Beam Frequency Straps*** **RDD ref: S252**

A ***Beam Frequency*** may represent the frequency used by a connection between Earth and space for one or more ***Beam Frequency Straps*** **RDD ref: S253**

A ***Beam Frequency*** must define a frequency used by a single ***Beam*** **RDD ref: S480**

A ***Beam Frequency*** must be the subject of one or more ***Intended Actions*** **RDD ref: S743**

- **Value** **RDD ref: S333**

The centre frequency of the band occupied by the RF modulated signal.

Format: Frequency.

- **Carrier Frequency** **RDD ref: S257**

The radio frequency on which the information is modulated. Normally the **Carrier Frequency** and **Assigned Frequency** are the same value however, if the modulation envelope is asymmetric then the **Carrier Frequency** and **Assigned Frequency** values will be different. The **Carrier Frequency** is only used for coordination purposes.

Format: Frequency.

5.31 *Coordination Agreement* RDD ref: S271

An agreement between two ***Administrations*** regarding the operation of a particular ***Assignment Coordination Group*** and its maximum acceptable field strength at named test points under specified conditions. The named test points may be part of a designated contour, or a geographic or national boundary. A ***Coordination Agreement*** is required for each ***Administration*** that is adversely affected by the operation of the ***Assignment Coordination Group***.

◊ A ***Coordination Agreement*** is identified by**,** the ***Assignment Coordination Group*** for which it is in respect of the ***Administration*** with which it has been agreed and the ***Provision*** of which it is in respect.

A ***Coordination Agreement*** must be in respect of a single ***Assignment Coordination Group*** **RDD ref: S272**

A ***Coordination Agreement*** must be in respect of a single ***Provision*** **RDD ref: S710**

A ***Coordination Agreement*** must be reached with a single ***Administration*** **RDD ref: S273**

- **Status Code** **RDD ref: S275**

An indication of the position of the coordination or agreement, as follows.

Format: Up to 6 characters.

Code	**Meaning**
COORD	Coordination requested by notifying ***Administration***
AFFECT	An ***Administration*** has been identified as potentially being affected by the ***Assignment Coordination Group***
REFUSE	Agreement on the ***Assignment Coordination Group*** has been refused by an ***Administration***
AGREED	Agreement on the ***Assignment Coordination Group*** has been given by both ***Administrations***

5.32 *ACG Frequency* **RDD ref: S531**

The allocation of planned operational frequencies to a specific ***Assignment Coordination Group***. This allocation has to be individually specified in order to define specific strapping arrangements.

◊ An ***ACG Frequency*** can be identified by its **Value,** and the ***Assignment Coordination Group*** in which it is used.

An ***ACG Frequency*** must be the subject of a single ***Assignment Coordination Group*** **RDD ref: S501**

An ***ACG Frequency*** may be either the space to Earth component in by one or more ***ACG Frequency Straps*** **RDD ref: S705**

An ***ACG Frequency*** may be either the Earth to space component in by one or more ***ACG Frequency Straps*** **RDD ref: S706**

- **Value** **RDD ref: S723**

The centre frequency of the band occupied by the RF modulated signal.

Format: Frequency.

5.33 *Associated Space Station Position* **RDD ref: S533**

The source or target of a space to space communication. This can be the position of a ***Beam*** which has already been, or may, subsequently be notified separately.

◊ An ***Associated Space Station Position*** can be identified by:
1/ either the ***Transmitting Space Station's Space To Space ACG*** or the ***Receiving Space Station's Space To Space ACG.***
And
2/ either its **Anticipated Nominal Longitude** or the ***Space Station*** by which it is represented.

An ***Associated Space Station Position*** must be a source of the transmission to one or more ***Receiving Space Station's Space to Space ACGs*** **RDD ref: S505**

An ***Associated Space Station Position*** must be a target of the transmission from one or more ***Transmitting Space Station's Space To Space ACGs*** **RDD ref: S506**

An ***Associated Space Station Position*** may be represented by a single ***Space Station*** **RDD ref: S517**

- **Anticipated Nominal Longitude** **RDD ref: S507**

The angular distance East from the Standard Meridian, i.e. that of Greenwich, England, to the meridian of the point on the equator above which the ***Space Station*** of the associated ***Beam*** is positioned. The angle is measured in degrees from 0 to 180 East or West of the Standard Meridian, when the angle is West of the Standard Meridian it is recorded as a negative value. During the lifetime of the ***Space Station*** it will deviate from its **Nominal Longitude** by a tolerance determined by the **Inclination Excursion** and the Longitudinal Tolerance.

Format: Decimal (in the range -180.00 to 180.00) to 2 decimal places in degrees.

STRAPPING DATA

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5.36 ***ACG Frequency Strap***	**RDD ref: S532**	**263**

5.34 *Beam Frequency Strap* RDD ref: S632

A connection between two different ***Beam Frequencies***. One ***Beam Frequency*** must define the frequency used by an emitting ***Beam*** the other must define the frequency used by a receiving ***Beam***. Thus it describes the means by which transmit and receive ***Associated Earth Station Antennas*** may be connected in terms of specific ***Beam Frequencies***.

A ***Beam Frequency Strap*** is a connection, within a satellite station, between an up-link and a down-link assignment pertaining to receiving and emitting satellite beams.

◊ A ***Beam Frequency Strap*** is identified by both the Earth to space and space to Earth ***Beam Frequencies*** it provides a connection between.

A ***Beam Frequency Strap*** must be the subject of one or more ***Intended Actions*** **RDD ref: S489**

A ***Beam Frequency Strap*** must represent the connection between space and Earth for a single ***Beam Frequency*** **RDD ref: S278**

A ***Beam Frequency Strap*** must represent the connection between Earth and space for a single ***Beam Frequency*** **RDD ref: S279**

A ***Beam Frequency Strap*** must conform to one or more ***Strap Characteristic Sets*** **RDD ref: S280**
(Each of these ***Strap Characteristics Sets*** must belong to a different ***Associated Earth Station Antenna***.)

- **Notified Identification Code** **RDD ref: S610**

A national code used to identify the ***Beam Frequency Strap***.

Format: Up to 8 characters.

5.35 *Strap Characteristic Set* **RDD ref: S282**

The set of properties which may be applicable to a number of ***Beam Frequency Straps*** of the same ***Associated Earth Station Antenna.***

These properties are concerned with equivalent satellite link noise temperature (ESLNT) i.e. the noise temperature referred to the output of the receiving ***Associated Earth Station Antenna*** corresponding to the radio frequency noise power which produces the total observed noise at the output of the satellite link excluding noise due to interference coming from satellite links using other satellites and from terrestrial systems" (RR-S1.174).

◊ A ***Strap Characteristic Set*** is identified by its **National Code**, and the ***Associated Earth Station Antenna*** for which it is valid.

A ***Strap Characteristic Set*** must be the subject of one or more ***Intended Actions*** **RDD ref: S490**

A ***Strap Characteristic Set*** must characterise one or more ***Beam Frequency Straps*** **RDD ref: S283**

A ***Strap Characteristic Set*** must be valid for use with a single ***Associated Earth Station Antenna*** **RDD ref: S391**

- **ESLNT For Highest Ratio Of Transmission Gain To ESLNT** **RDD ref: S286**

The value of ESLNT that corresponds to the highest ratio between the transmission gain and ESLNT for the full ***Associated Earth Station Antenna/ Space Station/ Associated Earth Station Antenna*** path.

Format: Integer (in the range 20 to 9999999) in Kelvins.

- **ESLNT Lowest Value** **RDD ref: S287**

The lowest value of ESLNT for the full ***Associated Earth Station Antenna/ Space Station/ Associated Earth Station Antenna*** path. The **ESLNT Lowest Value** is determined for the nominal angle of ***Associated Earth Station Antenna*** elevation angle**.**

Format: Integer (in the range 20 to 9999999) in Kelvins.

- **Transmission Gain For Highest Ratio Of Transmission Gain To ESLNT** **RDD ref: S288**

The value of transmission gain used in determining the **ESLNT For Highest Ratio Of Transmission Gain To ESLNT**.

Format: Decimal (in the range -100.0 to 20.0) to 1 decimal place in dB.

- **Transmission Gain For Lowest ESLNT** **RDD ref: S289**

The value of transmission gain associated with the **ESLNT Lowest Value**.

Format: Decimal (in the range -100.0 to 20.0) to 1 decimal place in dB.

- **National Code** **RDD ref: S715**

The code used to assist in the identification of the ***Strap Characteristic Set*** provided by the notifying ***Administration.***

Format: Up to 20 characters.

5.36 *ACG Frequency Strap* **RDD ref: S532**

A connection between two different ***ACG Frequencies.*** One ***ACG Frequency*** must define the frequency used by an emitting ***Beam.*** The other must define the frequency used by a receiving Earth ***Beam.*** Thus it describes the means by which a transmit and receive ***Associated Earth Station Antenna*** may be connected in terms of specific ***ACG Frequencies.***

◊ An ***ACG Frequency Strap*** is identified by both the Earth to space and space to Earth ***ACG Frequencies*** it provides a connection between.

An ***ACG Frequency Strap*** must be notified by one or more ***Intended Actions*** **RDD ref: S488**

An ***ACG Frequency Strap*** must have an Earth to space component defined as a single ***ACG Frequency*** **RDD ref: S502**

An ***ACG Frequency Strap*** must have a space to Earth component defined as a single ***ACG Frequency*** **RDD ref: S503**

- **Notified Identification Code** **RDD ref: S774**

A national Code used to identify the ***ACG Frequency Strap***.

Format: Up to 4 characters.

NOTICE DATA

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5.37 ***Space Service Notice*** **RDD ref: S290**

A request by an ***Administration*** made to the Radiocommunication Bureau (BR), to register for notification and coordination the details of a specific existing or proposed ***Space Station*** or Earth Station in the Master International Frequency Register (MIFR).

Each ***Space Service Notice*** received by the BR is given a unique identification code which includes the date the ***Space Service Notice*** is received by the BR and the **BR Identification Code**.

◊ A ***Space Service Notice*** is identified by its **BR Identification Code**.

A ***Space Service Notice*** may be supplemented by one or more ***Notice Attachments*** **RDD ref: S293**

One and only one of the following two must apply:

A ***Space Service Notice*** must be submitted in respect of a single ***Space Station*** **RDD ref: S353**

A ***Space Service Notice*** must be submitted in respect of a single ***Earth Station Antenna*** **RDD ref: S739**

A ***Space Service Notice*** may be submitted on behalf of a single ***Intergovernmental Satellite Organization*** **RDD ref: S773**

A ***Space Service Notice*** must be submitted according to the requirements of one or more ***Provisions*** **RDD ref: S711**

A ***Space Service Notice*** may include one or more ***Intended Actions*** **RDD ref: S378**

- **Administration Notice Code** **RDD ref: S295**

A national identification code which may be used by an ***Administration*** to uniquely identify a ***Space Service Notice*** for its own purposes to aid its data management.

Format: Up to 20 characters.

- **Date Sent** **RDD ref: S296**

The date on which the ***Administration*** sent the ***Space Service Notice*** to the BR.

Format: Date.

- **BR Identification Code** **RDD ref: S297**

A code used to uniquely identify the ***Space Service Notice*** allocated by the BR. The code is not assigned to the ***Space Service Notice*** until after the BR receives it. Thus, it is not possible for an ***Administration*** to refer to this code until after the ***Space Service Notice's*** has been processed by the BR.

Format: A compound format comprised of:

a) 4 characters representing the year in which the ***Space Service Notice*** is received by the BR;

followed by

b) 6 characters starting at 000001 and subsequently allocated sequentially within the year of receipt of the ***Space Service Notice*** by the BR

Note: *Currently the* **BR Identification Code** *only records the last two numbers of the year of receipt preceded by a zero. It is considered essential to show year in full. The RDD defines format as 10 characters as above.*

- **BR Date Received** **RDD ref: S298**

The date on which the ***Space Service Notice*** is received by the BR and as recorded by the BR. This date determines the seniority accorded to a specific ***Space Service Notice*** and is the date from which it must be taken into consideration, as a potential entry in the MIFR, by all subsequent ***Space Station Notices***.

Format: Date.

- **Occurrence Code** **RDD ref: S300**

A code indicating that the particular information is being submitted for the first time on a space network. The space network may itself be new or it may have several occurrence codes, each one for a particular set of information that has been submitted.

Format: 1 character.

Code	Meaning
F	first notification (any notification other than resubmission)
R	resubmission of a notice under Article 13 after its return by the BR with an unfavourable finding with respect to coordination or the probability of harmful interference;

- **Purpose Code** **RDD ref: S301**

Code indicating the purpose of the ***Space Service Notice***:

In this context, "existing ***Space Station*** " is taken to mean either:

a) a satellite network for which a Special Section AR11/C, RES33/C or RES46/C has already been published, if the notice form is forwarded under RR1060 or RES46 (request for coordination); or

b) a satellite network for which a Special Section AR14/C has already been published, if the notice form is forwarded under RR1610 (agreement under Article 14); or

c) a satellite network for which the relevant details are already recorded in the Master International Frequency Register if the notice form is forwarded under RR1488 (notification under Article 13).

In this context, "existing ***Earth Station Antenna***" is taken to mean either:

a) an ***Earth Station Antenna*** for which details of the request for coordination were forwarded under RR1107/1113 or RES46 (request for coordination); or

b) an ***Earth Station Antenna*** for which a Special Section AR14/C has already been published, if the notice form is forwarded under RR1610 (agreement under Article 14); or

c) an ***Earth Station Antenna*** for which the relevant details are already recorded in the Master International Frequency Register if the notice form is forwarded under RR1488 (notification under Article 13).

Format: 1 character.

Code	Meaning	
A	advance publication	[RRS9.1]
C	coordination, according to RR1060 or RR1107	[RRS9.6]
N	notification, according to RR1488	[RRS11.2]
E	agreement, according to RR1610 (Article 14)	
H	assistance of the BR for RR1060 or RR1107 and/or RR1610	
R	request for coordination according to Res.46	

- **Intended Action Code** **RDD ref: S337**

The reason why the ***Administration*** sent the ***Space Service Notice*** to the BR. There are four valid intended actions.

Action to be taken at the satellite network level:

In the case of modification or suppression provide the **BR Identification Code** of the satellite network to be modified or suppressed.

Format: 1 character.

Code	Meaning
A	add a new ***Space Station*** or ***Earth Station Antenna***;
M	modify an existing ***Space Station*** or ***Earth Station Antenna***;
S	suppress an existing ***Space Station*** or ***Earth Station Antenna***;
R	replace an existing ***Space Station*** or ***Earth Station Antenna***

- **Special Section Reference For Publication** **RDD ref: S767**

Reference to the special section under which information on the ***Space Station*** or ***Earth Station Antenna*** has been published.

Format: Up to 8 characters.

- **Special Section Number For Publication** **RDD ref: S605**

The special section number the ***Space Station*** or ***Earth Station Antenna*** will appear in, in the Weekly Circular.

Format: 4 characters.

- **Weekly Circular Part For Publication** **RDD ref: S299**

The part of the Weekly Circular where the ***Space Service Notice*** is published.

Format: 1 character.

- **Weekly Circular Date For Publication** **RDD ref: S302**

Date of publication of the ***Space Service Notice*** in Part 1A of the Weekly Circular

Format: Date.

- **Weekly Circular Number For Publication** **RDD ref: S303**

The number of the Weekly Circular in which the information pertaining to the ***Space Service Notice*** has been published.

Format: Integer (in the range 1 to 9999).

5.38 *Notice Attachment* RDD ref: S305

A set of information supplied separately and in addition to the Notice form.

◊ A ***Notice Attachment*** is identified by its **Identifier** and the ***Space Service Notice*** it accompanies.

A ***Notice Attachment*** must accompany a single ***Space Service Notice*** **RDD ref: S306**

- **Identifier** **RDD ref: S307**

Identifier of the ***Notice Attachment***, as assigned by the ***Administration***.

Format: Integer (in the range 1 to 999).

- **Description** **RDD ref: S308**

A description of the ***Notice Attachment***.

Format: Text.

- **Type** **RDD ref: S309**

The form in which the information is supplied.

Format: 1 character.

Code	Meaning
P	on paper
G	electronic file accepted by GIMS (ITU BR's Graphical Interference Management System)
F	file (DOS)
T	tabular

5.39 *Intended Action* **RDD ref: S357**

The method of indicating changes required to the components of either an ***Earth Station Antenna*** or a ***Space Station***.

◊ An ***Intended Action*** is identified by its **Code,** the identifiers of both the ***Space Service Notice*** it applies to, and the object it refers to i.e. either a ***Beam, Beam Frequency, Beam Frequency Strap, Strap Characteristic Set, Associated Earth Station Antenna, ACG Frequency Strap, Geostationary Orbital Position*** or a ***Non-geostationary Orbit .***

An ***Intended Action*** must apply to a single ***Space Service Notice*** **RDD ref: S358**

One and only one of the following eight must apply:

An ***Intended Action*** must refer to a single ***Geostationary Orbital Position*** **RDD ref: S720**

An ***Intended Action*** must refer to a single ***Non-geostationary Orbit*** **RDD ref: S721**

An ***Intended Action*** must refer to a single ***Beam*** **RDD ref: S722**

An ***Intended Action*** must refer to a single ***Beam Frequency*** **RDD ref: S724**

An ***Intended Action*** must refer to a single ***Beam Frequency Strap*** **RDD ref: S727**

An ***Intended Action*** must refer to a single ***Strap Characteristic Set*** **RDD ref: S292**

An ***Intended Action*** must refer to a single ***Associated Earth Station Antenna*** **RDD ref: S725**

An ***Intended Action*** must refer to a single ***ACG Frequency Strap*** **RDD ref: S726**

- **Code** **RDD ref: S360**

The ***Administration's*** purpose for submitting the proposed change to:
Geostationary Orbit Position
Non Geostationary Orbit
Beam
Beam Frequency
Beam Frequency Strap
Strap Characteristics Set
Associated Earth Station Antenna
ACG Assignment Strap
Assignment Coordination Group

Format: 1 character.

Code	Meaning
A	add a new ***Assignment Coordination Group, Beam, Beam Frequency, Beam Frequency Strap, Strap Characteristic Set, Associated Earth Station Antenna, ACG Frequency Strap, Geostationary Orbital Position*** or a ***Non-geostationary Orbit***;
M	modify an existing ***Assignment Coordination Group, Beam, Beam Frequency, Beam Frequency Strap, Strap Characteristic Set, Associated Earth Station Antenna, ACG Frequency Strap, Geostationary Orbital Position*** or a ***Non-geostationary Orbit***;
S	suppress an existing ***Assignment Coordination Group, Beam, Beam Frequency, Beam Frequency Strap, Strap Characteristic Set, Associated Earth Station Antenna, ACG Frequency Strap, Geostationary Orbital Position*** or a ***Non-geostationary Orbit***;
R	replace an existing ***Assignment Coordination Group, Beam, Beam Frequency, Beam Frequency Strap, Strap Characteristic Set, Associated Earth Station Antenna, ACG Frequency Strap, Geostationary Orbital Position*** or a ***Non-geostationary Orbit***

5.40 *ACG Intended Action* **RDD ref: S536**

An ***ACG Intended Action*** is a type of intended action specific to an ***Assignment Coordination Group.***

◊ An ***ACG Intended Action*** is identified by its common properties inherited from its generic type ***Intended Action*** i.e. by its **Code** and the identifier of the ***Space Service Notice*** it applies, and the identifier of the ***Assignment Coordination Group*** to which it refers.

An ***ACG Intended Action*** must be in respect of a single ***Assignment Coordination Group*** **RDD ref: S518**

- **Weekly Circular Date For Last Advance Publication** **RDD ref: S519**

The Weekly Circular date of the last appearance of the ***Assignment Coordination Group*** under advance notification in the Weekly Circular.

Format: Date.

- **Weekly Circular Number For Last Advance Publication** **RDD ref: S520**

The Weekly Circular number of the last appearance of the ***Assignment Coordination Group*** under advance notification in the Weekly Circular.

Format: Integer (in the range 1 to 9999).

- **Special Section Reference For Advance Publication** **RDD ref: S768**

Reference to the RR special section under which information on the ***Assignment Coordination Group*** is published.

Format: Up to 8 characters.

- **Special Section Number For Last Advance Publication** **RDD ref: S606**

The special section number of the last appearance of the ***Assignment Coordination Group*** under advance notification in the Weekly Circular.

Format: 4 characters.

- **Weekly Circular Date For Last Coordination** **RDD ref: S521**

The Weekly Circular date of the last appearance of the ***Assignment Coordination Group*** under coordination in the Weekly Circular.

Format: Date.

- **Weekly Circular Number For Last Coordination** **RDD ref: S522**

The Weekly Circular number of the last appearance of the ***Assignment Coordination Group*** under coordination in the Weekly Circular.

Format: Integer (in the range 1 to 9999).

- **Special Section Reference For Last Coordination** **RDD ref: S769**

Reference to the RR special section under which information on the ***Assignment Coordination Group*** is published.

Format: Up to 8 characters.

- **Special Section Number For Last Coordination** **RDD ref: S607**

The special section number of the last appearance of the ***Assignment Coordination Group*** under coordination in the Weekly Circular.

Format: 4 characters.

- **Weekly Circular Part for Last Notification** **RDD ref: S775**

The part of the Weekly Circular part of the last appearance of the ***Assignment Coordination Group*** under notification in the Weekly Circular.

Format: 1 character.

- **Weekly Circular Date For Last Notification** **RDD ref: S523**

The Weekly Circular date of the last appearance of the ***Assignment Coordination Group*** under notification in the Weekly Circular.

Format: Date.

- **Weekly Circular Number For Last Notification** **RDD ref: S524**

The Weekly Circular number of the last appearance of the ***Assignment Coordination Group*** under notification in the Weekly Circular.

Format: Integer (in the range 1 to 9999).

5.41 ***Provision*** **RDD ref: S615**

The regulatory provisions under which notification or coordination has been requested or successfully completed, or agreement sought or reached.

That coordination under RR1060 is required only if the ***Space Station*** concerned belongs to a geostationary satellite network.

◊ A ***Provision*** may be identified by its **Code**.

A ***Provision*** may determine the requirements for one or more ***Coordination Agreements*** **RDD ref: S708**

A ***Provision*** may determine the requirements for one or more ***Space Service Notices*** **RDD ref: S709**

- **Code** **RDD ref: S304**

The means of identifying the regulatory provision under which the ***Space Service Notice*** or ***Coordination Agreement*** is required.

Whenever there is a requirement to effect more than one form of coordination in accordance with No S9.30 (requests for coordination which are to be sent directly to the BR), the requests shall be appropriately identified by reference to Nos. S9.7 to S9.14 and S9.21 (agreement) and they shall as far as possible be sent to the BR and, where appropriate, shall be published simultaneously (see RR S9.23)

Format: Up to 12 characters.

RADIOCOMMUNICATION DATA DICTIONARY

Section 6

DATA ITEM FORMATS

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6.0 Introduction

Contemporary computer environments store data internally in different formats from those which they present to the users. The presentation format may be differently defined even for different users of the same computer. It is therefore easy to implement different presentation standards through the software. The real need for establishing a common standard of data presentation may concern only the passing of information to another party. Although the information passed to another party may not take into account the recipient's cultural background and convention, it is wise to adopt some common standards. In multi-cultural environments it should be a common standard based on the prevailing "business" tradition or on an international standard. It is the policy of the ITU to conform with ISO standards wherever possible to do so.

The submission of the paper-written information should be based on pre-designed (pre-printed) forms, which should follow first of all, the Radio Regulations if they define such standards, and secondly, ITU conventions - if widespread and firmly established - or ISO standards. For electronic submission of data an explicit format (definition) is required. However, some minimal common standards should be adopted to avoid misunderstanding. For example, the use of Latin non-accented characters is a well established practice within the ITU community as well as decimal digits for representing numbers and positional representation of decimal fractions by using a decimal separator. The RDD assumes that these can be regarded as non-disputable standards. The form of a decimal separator is irrelevant from this point of view, as well as the format in which the date is written, provided it unambiguously represents a particular day in the framework of the Gregorian Calendar. The RDD does not impose any particular standards on presentation of simple data except the above mentioned assumptions. However in the radiocommunication society there is a need to use some complex structure for information exchange (e.g. geographical coordinates, radiation patterns etc.). These should be defined unambiguously.

All data, simple and complex, must of course have some presentation format in the RDD itself. The presentation format chosen by the RDD can be seen in the supplied examples of the data items.

This section lists standard formats of data presentation. A standard format is referred by a "data format" statement at the end of the definition of each data item in sections 3 and 5.

It is recognized that sometimes the accuracy of data obtainable is less than that required. In this case, the data should be communicated with the precision corresponding to the obtainable data.

6.1 Character

An elementary symbol of any of the ITU's officially recognised languages, including letters, digits, punctuation marks etc, but limited to those characters represented in the ASCII (7 bit) Character Set, which is fully defined in the ITU-T (CCITT) Recommendations.

A data item defined as format "character" may be in one of the following forms:

- a fixed field size of specified length (in the form "Format: 'n' characters" where 'n' is the field size);
- a variable field size of specified maximum length (in the form "Format: Up to 'n' characters." where 'n' is the maximum field size).

6.2 Date

A unique identification of a specific day based on the Gregorian calendar. When all-numeric form is required this is a compound format consisting of 3 components:

1) The sequential number of the year, always represented as four digits.

2) The sequential number of month of the year, always represented as two digits using a leading 0 where necessary.

3) The sequential number of the day of the month, always represented as two digits using a leading 0 where necessary.

Note: *Currently the* **BR Identification Code** *only records the last two numbers of the year of receipt preceded by a zero. It is considered essential to show the year in full. The RDD defines format as 10 characters as above.*

E.g. In the RDD 19601026 represents the 26th day of October 1960.

6.3 Decimal

A sequence of decimal digits, using a decimal separator. The decimal separator in the form of a dot is used for the examples given in the RDD. For decimal data the RDD defines the permissible range of values and the number of decimal places to be supplied.

E.g. Decimal in the range -179.9 to 180.0 to one decimal place.

6.4 Diagram

A pictorial representation of information.

6.5 Equation

A mathematical formula or set of formulas used for calculating a set of values.

6.6 Frequency

A frequency within the radio spectrum.

This is represented as a compound format consisting of 2 components provided in the sequence stated:

1) A decimal number with up to 5 decimal places expressing frequency value in kHz, MHz or GHz according to the following rule:

- in kHz for frequencies up to 28000.0 kHz inclusive;
- in MHz for frequencies above 28000.0 kHz to 10500.0 MHz inclusive;
- in GHz for frequencies above 10500.0 MHz.

2) A single character code, which depicts how many hertz each unit of the number represents, consisting of only the following values:

Code	Meaning
k	kilohertz, 10^3 hertz (kHz)
M	megahertz, 10^6 hertz (MHz)
G	gigahertz, 10^9 hertz (GHz)

E.g. 1.23k; 28.0001M

6.7 Longitude/Latitude

The geographical coordinates are longitude and latitude (Long/Lat), which identify the position of a point on the Earth's surface (and any point above the Earth's surface that is directly above that point). It may be stated to various levels of precision, depending on the accuracy required when identifying the particular geographical coordinates.

It is recognised that the ISO recommend the use of Lat/Long rather than Long/Lat. However, it is considered that it would cause too great a level of confusion within the ITU to alter its convention to coform to ISO standards, immediately, and that it is likely to take several years for the decision to adopt the ISO standard by a future Conference. The RDD therefor in this initial version retains the existing format.

6.7.1 Meridian

A meridian is an imaginary circle, a Great Circle, passing through the North Pole, South Pole and a point of any place on the Earth's surface i.e. a circle of constant longitude, passing through a given place and the terrestrial poles.

6.7.2 Longitude

The angular distance East or West from the Standard Meridian, i.e. that of Greenwich England, to the meridian of the point measured in degrees from 0 to 180 East or West of the Standard Meridian.

6.7.3 Latitude

The measure of an angle between two imaginary lines originating at the Earth's centre, one drawn to the point on the Earth's surface, and the other drawn to the intersection of the point's meridian with the Earth's equator. It is measured from 0 to 90 degrees, North or South of the Earth's equator.

6.7.4 Long/Lat in degrees

A data format representing the format of data recorded to represent the coordinates of a position on the Earth's surface in terms of the point's longitude and latitude. The precision of this data format is to whole degrees.

E.g. 27 degrees West, 12 degrees North is represented as 027W12N.

6.7.5 Long/Lat in degrees and minutes

A data format representing the format of data recorded to represent the coordinates of a position on the Earth's surface in terms of the point's longitude and latitude. The precision of this data type is to whole minutes of a degree.

E.g. 130 degrees 59 minutes East, 3 degrees 3 minutes North is represented as 130E59N0303.

6.7.6 Long/Lat in degrees, minutes and seconds

A data type representing the format of data recorded to represent the coordinates of a position on the Earth's surface in terms of the point's longitude and latitude. The precision of this data type is to whole seconds of a degree.

E.g. 112 degrees 16 minutes, 23 seconds West, 13 degrees 46 minutes 3 seconds South is represented as 112W162313S4603.

6.8 Integer

A whole number (positive or negative) including zero, i.e. a multiple of 1.

E.g.: -3; 0; 46.

6.9 Text

A field consisting only of characters but with a variable number of them where the maximum field length cannot be determined.

6.10 Time

Time is expressed using 4 digits in the form HHMM.

Note: Where the data item represents the end of a time period, midnight shall be represented as 2400. However, where midnight represents the start of a time period, it shall be represented as 0000.

E.g. 2359; 0000; 0727.

6.11 True or False

An indicator expressing whether the condition of data item TRUE or FALSE.

RADIOCOMMUNICATION DATA DICTIONARY

Section 7

DIAGRAMS

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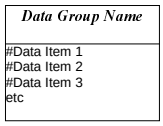
7.0 Introduction

This section includes three diagrams

1. Section 3 data elements (excluding the data items of ***Signal Configuration***)
2. ***Signal Configuration*** data items
3. Section 5 data elements

These diagrams are provided as a pictorial reference to the RDD's data elements (data groups, data items and relationships) defined in sections 3 and 5.

Each data group is represented as a single box, eg



The data group name is presented in the top section of the box.

The data group's data items are listed in the bottom section of the box. Long data item names may wrap onto the next line. The "#" symbol is used to denote the start of each data item.

Relationships are represented by linking the boxes of two data groups with a line. Eg:



NB Relationships are represented as dashed lines if they cross data group boxes.

The line represents the relationship from the prospective of both data groups and encompasses some of the properties of that relationship, eg:

The relationship:

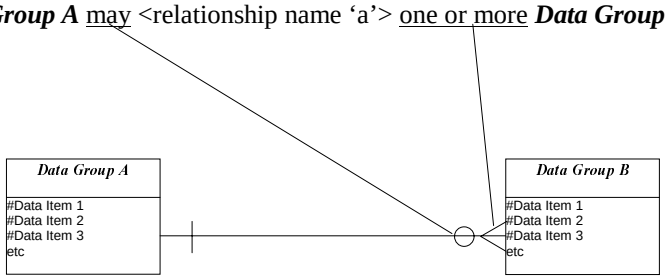
A ***Data Group A*** may <relationship name 'a'> one or more ***Data Group Bs***
A ***Data Group B*** must <relationship name 'b'> a single ***Data Group A***

Would be represented as:



The first part of relationship is represented as indicated:

A ***Data Group A*** may <relationship name 'a'> one or more ***Data Group Bs***



The optional nature of the relationship is shown as a:

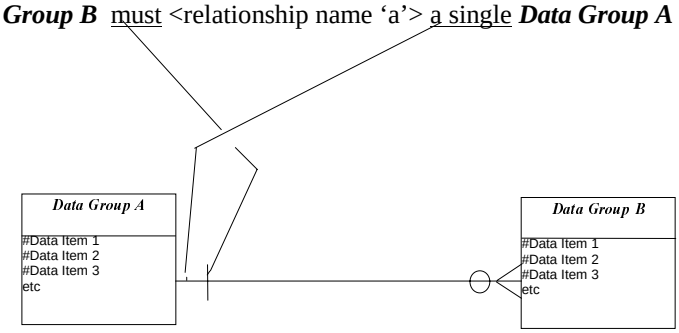


The multiplicity nature of the relationship is shown as a:



The second part of relationship is represented as indicated:

A ***Data Group B*** must <relationship name 'a'> a single ***Data Group A***



The mandatory nature of the relationship is shown as a:
The singular nature of the relationship is shown as a:

Every relationship can be represented as a permutation of the symbols described above, eg:

1. The relationship:
   A ***Data Group A*** may <relationship name 'a'> one or more ***Data Group Bs***
   A ***Data Group B*** may <relationship name 'b'> one or more ***Data Group A***

   Would be represented as:

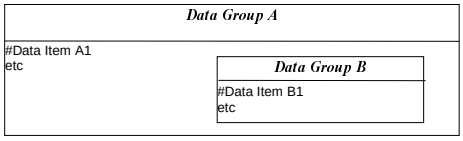


2. The relationship:
   A ***Data Group A*** must <relationship name 'a'> a single ***Data Group Bs***
   A ***Data Group B*** must <relationship name 'b'> one or more ***Data Group A***

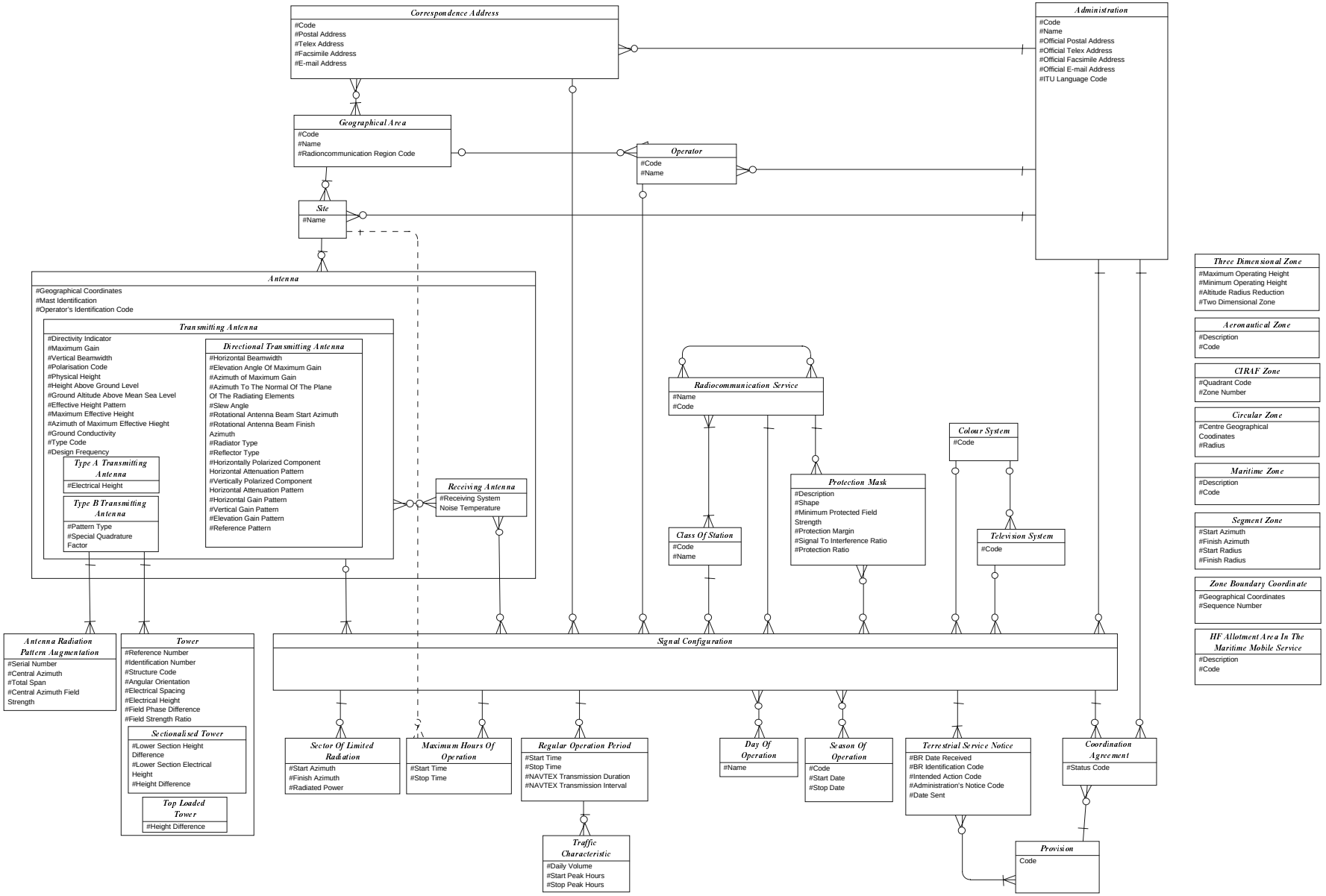
   Would be represented as:



Where a data group is a 'type of' some other data group it is shown within the box of this 'other' data group. Eg if ***Data Group B*** was a type of ***Data Group A*** they would be shown as follows:



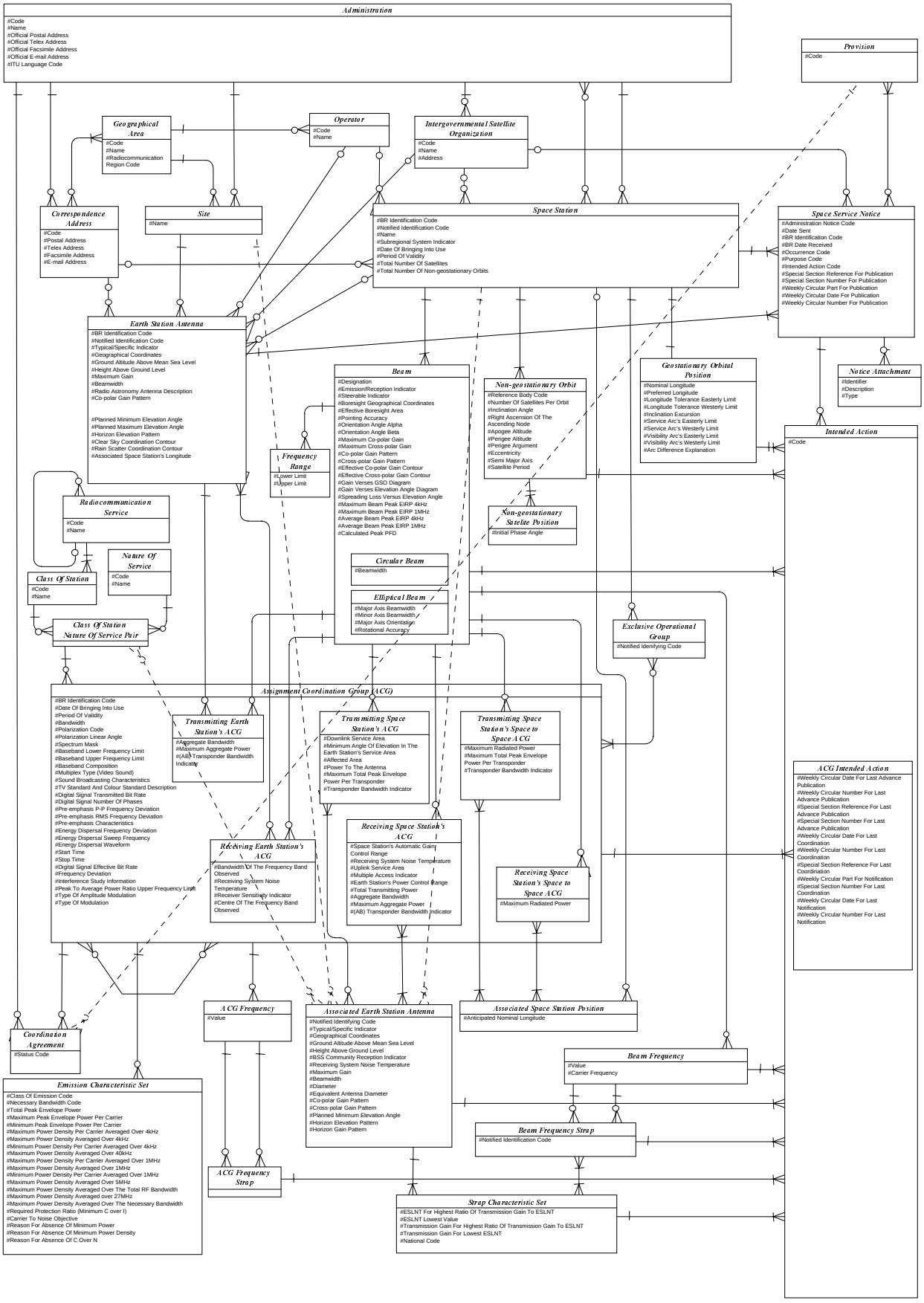
7.1 Terrestrial Service Diagram - Section 3 Data Elements



7.1.1 *Signal Configuration* Diagram - Data Items

Signal Configuration
#Assigned Frequency
#Frequency Offset
#Reference (Carrier) Frequency
#Alternative Frequency
#Other Simultaneous Frequencies Used
#Preferred Frequency Band
#Frequency Category Code
#Pre-emphasis P-P Frequency Deviation
#Pre-emphasis RMS Frequency Deviation
#Sound Carrier Nominal Frequency
#Sound Carrier Frequency Offset Code
#Sound Carrier Frequency Offset
#Vision Carrier Nominal Frequency
#Vision Carrier Frequency Offset Code
#Vision Carrier Frequency Offset
#Frequency Offset Stability Indicator
#FM Transmission System Code
#HF Transmission System Code
#Channel Number
#Alternative Channel Number
#Channel Number To Be Replaced
#Channel Occupation Indicator
#Adjacent Channel Protection Ratio
#Necessary Bandwidth Code
#Class Of Emission Code
#Nature Of Service Code
#Synchronised Network Indicator
#Synchronised Network Number
#Call Sign
#Station Identification
#RR Conformity Indicator
#Class Of Operation Code
#Date Of Bringing Into Use
#Period Of Validity
#Local Operation Period Code
#Power Measurement Method Code
#Transmitter Output Power
#Antenna Input Power
#Maximum Radiated Power
#Power Control Range
#Maximum Horizontally Polarized Radiated Power
#Maximum Vertically Polarized Radiated Power
#Total Radiated Power
#RMS Radiation
#Vision To Sound Power Ratio
#Maximum Power Density Over 4kHz
#Maximum Power Density Over 1MHz
#Energy Dispersal Description
#Horizontal Radiation Pattern
#Vertical Radiation Pattern
#Three Dimensional Roaming Zone
#Two Dimensional Roaming Zone
#Three Dimensional Service Zone
#Two Dimensional Service Zone
#Maximum Length of Circuit
#Station Coverage Code

7.2 Space Service Diagram - Section 5 Data Elements



RADIOCOMMUNICATION DATA DICTIONARY

Section 8

CROSS-REFERENCE TABLES BETWEEN RR APPENDIX S4 AND RDD

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8.1 Table of characteristics to be submitted for stations in the terrestrial services **296**

8.2 Table of characteristics to be submitted for space and radio astronomy services in Appendix S4 order **307**

8.0 Introduction

This section cross-refers between the data items described in the RDD and the notification data listed in Appendix S4 to the Radio Regulations. The presentation used is based on the tables contained in Annex 1B and 2B of Appendix S4 with the Appendix S4 data separated out into its individual elements so that they can be easily identified. A series of footnotes are provided to Tables 1 and 2 explaining any differences in the indicated requirements of the RDD and Appendix S4. Data items found in the RDD but not listed in Appendix S4 are clearly identified by the statement "Not in S4".

The section is divided into terrestrial and space systems. For terrestrial the listing of data is very similar to that found in Annex 1B to Appendix S4. For space there are differences arising in part from the structure of RR Appendix S4, i.e. in the RDD a data item's optionality is indicated by using a code for mandatory or required in specific circumstances, whereas in Annex 2B of Appendix S4, this optionality is either written into the textual description or provided through the use of footnotes.

8.1 Table of characteristics to be submitted for stations in the terrestrial services

Table 1 provides a cross-reference between the RDD reference numbers and the Appendix S4 item numbers. The notification data for terrestrial systems is presented in the style of Appendix S4 but with a number of modifications in format. For terrestrial data the principle modifications in format are:

The merging of tropical HF (previously listed under the AP1/A1 notice form) with HFBC (previously listed under the AP2 notice form).

The merging of ST61 for television broadcasting (previously recorded under the AP1/A4 notice form) with GE89 (previously recorded under the AP1/A6 notice form).

The merging of ST61 for sound broadcasting (previously recorded under the AP1/A4 notice form) with GE84 (previously recorded under the AP1/A5 notice form).

The merging of Navtex with the other Coast Station notification data (recorded on the AP1/A1 notice form).

Code: Not in S4 = a proposed new data item;

Del = a data item that is not considered to be necessary for notification;

Data items referenced with the same Appendix S4 code (e.g. Item 1E) are items which have been divided into sub-items to more accurately define their application.

TABLE 1

Characteristics to be submitted for stations in the terrestrial services

NOTICE TYPE			AP1/A1				AP1/B		AP1/C	AP1/A2	AP1/A5	AP1/A6	AP1/A7	AP2	AP5
			RDD Section 2												
Appendix S4 Item	**RDD ref:**		2.3 2.4 2.6	2.15 2.16	2.1	2.12 2.13	2.2	2.5 2.14 2.17	2.19	2.9	2.7	2.8	2.10	2.11	2.18
		Class of Station Code **RDD Data Item Name**	AL NL SM	FB FC FL FP	FA FD FG	FX	AM MA MO SA	ML MS RM	All except BC	BC	BC	BT	BC	BC	FC
Item B	0011	Notifying administration code	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**
Item sync	0132	Synchronised network indicator(2)								**X**		+ (78)	**X**	**O** (1)	
Item sync	0535	Synchronised network number (2)								+		+ (78)	+		
Item 1A	0345	Assigned frequency	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	+ (72)	**X**	**X**	
Item 1B	0348	Reference (carrier) frequency	+	+	+	+	+	+	+					+	
Item 1C	0374	Preferred frequency band				+								+ (4)	+
Not in APS4	0652	Frequency Offset (75)										+			
Item 1D	0064	Vision carrier nominal frequency										+ (3)			
Item 1E	0065	Vision carrier frequency offset code (2) (10)										+			
Item 1E	0482	Sound carrier frequency offset code (2) (10)										+			
Not in S4	0551	Vision carrier frequency offset (2) (10)										+			
Not in S4	0552	Sound carrier frequency offset (2) (10)										+			
Not in S4	0553	Frequency Offset Stability Indicator (11)										**C**			
Item 1G	0371	Alternative frequency												**O**	
Item 1H (DEL)	0373	Other simultaneous frequencies used (5)													
Item 1X	0495	Channel number	+	+											**X**
Item 1Y	0496	Alternative channel number													**O**
Item 1Z	0497	Channel number to be replaced													+
Item 2C	0141	Date of bringing into use	**X**	**X**	**X**	**X**	**X**	**X**	**X**	+	+	+	+	+	**X**
Not in S4	0144	Period of validity (6)	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**		
Item 3A	0347	Call sign (2)	(7)	+ (8)	**O** (8)	+ (8)				**O** (9)	**O**	**O**	**O** (12)	+	
Item 3A	0150	Station identification (2)	**X** (7)	+ (8)	+ (8)	+ (8)				**O**	**O**	**O**	**O** (12)		
Item 4A	0267	Transmitting antenna site name	**X**	**X**	**X**	**X**			**X** (62)	**X**	**X**	**X**	**X**	**X**	+
Item 4B	0174	Transmitting antenna geographical area code	**X**	**X**	**X**	**X**			**X**	**X**	**X**	**X**	**X**	**X**	
Item 4C	0037	Transmitting antenna geographical coordinate (2)	**X**	**X**	**X**	**X**				**X**	**X**	**X**	**X**	**X**	+
Not in S4	0194	Transmitting antenna three dimensional roaming zone (16)					**O**	**O**							
Not in S4	0544	Transmitting antenna two dimensional roaming zone (16)					**X**	**X**	**X**						
Item 4C	0070	Circular zone centre geographical coordinate (2) (14)(16)					**X**	+	+						
Item 4D	0071	Circular zone radius (16)					**X**	+	+						

NOTICE TYPE			AP1/A1				AP1/B		AP1/C	AP1/A2	AP1/A5	AP1/A6	AP1/A7	AP2	AP5
			RDD Section 2												
Appendix S4 Item	**RDD ref:**		2.3 2.4 2.6	2.15 2.16	2.1	2.12 2.13	2.2	2.5 2.14 2.17	2.19	2.9	2.7	2.8	2.10	2.11	2.18
		Class of Station Code **RDD Data Item Name**	AL NL SM	FB FC FL FP	FA FD FG	FX	AM MA MO SA	ML MS RM	All except BC	BC	BC	BT	BC	BC	FC
Item 4E	0174	Geographical area code (2) (16)						+	+						
Item 4E	0187	Maritime zone code (2) (16)						+							
Item 4E	0578	Allotment area code (2) (16)													**X**
Item 4F	0346	Transmission coverage area identifier (68)		+											
Item 4G	0124	Ground conductivity (22)								**X**					
Item 5A	0267	Receiving antenna site name				+ (17)	**X**	**X**							
Item 5B	0174	Receiving antenna geographical area code				+ (17)	**X**	**X**							
Item 5C	0037	Receiving antenna geographical coordinate				+ (17)	**X**	**X**							
Not in S4	0545	Three dimensional service zone (16)	**O**		**O**										
Not in S4	0546	Two dimensional service zone (16)	**X**	**X**	**X**	+ (18)								**X**	**X**
Item 5D	0033	Aeronautical zone code (2) (16)			+										
Item 5D	0367	Ciraf quadrant code (2) (16)												+	
Item 5D	0368	Ciraf zone number (2) (16)												+	
Item 5D	0174	Geographical area code (2) (16)		+	+	+								+	
Item 5D	0187	Maritime zone code (2) (16)		+											**X**
Item 5E	0070	Circular zone centre geographical coordinate (16)	+	+	+	+								+	+
Item 5F	0071	Circular zone radius (16)	+	+	+	+								+	+
Item 5G	0446	Maximum length of circuit	(19)	(19)	(19)	(19)									**X** (20)
Not in S4	0226	Protection mask (21)	**C**					**C**							
Item 6A	0277	Class of station code	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**
Item 6B	0156	Nature of service code	+	**X**	**X**	+	**X**	+	**X**						**X**
Item 7A	0351	Class of emission code	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X** (64)	(74)	**X**	+	**X**
Item 7A	0157	Necessary bandwidth code	**X**	**X**	**X**	**X**	**X**	**X**	**X**	+	**O**	(74)	**O**	+	**X**
Item 7AA	0512	HF Transmission System Code												**X**	
Item 7B	0494	Class of operation code (2) (23)				+									
Item 7B	0360	Station coverage code (2)											**X**		
Item 7B	0120	Adjacent channel protection ratio (2)								**X**					
Item 7C1	0283	Television system code										+ (76)			
Item 7C2	0078	Colour system code										+ (77)			
Item 7D	0165	FM transmission system code									**X**				
Item 7E	0485	Pre-emphasis PP frequency deviation				**C**									
Item 7E	0572	Pre-emphasis RMS frequency deviation				**C**									
Item 7F	0484	Energy dispersal description				**C**									
Item 8	0159	Power measurement method code	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**	**X**
Item 8A	0166	Transmitter output power (15)	+ (25)	+ (25) (26)	+ (25) (26)	+(25) (26)	+(25) (26)	+ (25) (26)	+ (25)					**X**	**X**
Not in S4	0554	Transmitting antenna input power (15) (52)								**X**			**X**		

NOTICE TYPE			AP1/A1				AP1/B		AP1/C	AP1/A2	AP1/A5	AP1/A6	AP1/A7	AP2	AP5
			RDD Section 2												
Appendix S4 Item	**RDD ref:**		2.3 2.4 2.6	2.15 2.16	2.1	2.12 2.13	2.2	2.5 2.14 2.17	2.19	2.9	2.7	2.8	2.10	2.11	2.18
		Class of Station Code **RDD Data Item Name**	AL NL SM	FB FC FL FP	FA FD FG	FX	AM MA MO SA	ML MS RM	All except BC	BC	BC	BT	BC	BC	FC
Item 8AB	0154	Maximum power density over 4kHz				**C**									
Item 8AB	0571	Maximum power density over 1MHz				**C**									
Item 8B	0155	Maximum radiated power (2) (28)	+ (27)	+ (27) (26)	+ (27) (26)	+(27) (26)	+(27) (26)	+ (27) (26)	+ (27)	**X** (29)	(30)	(30)			
Item 8B	0570	Power control range (2)				+									
Item 8BH (DEL)		Horizontally polarised component horizontal radiation pattern (31) (32)									+	+			
Item 8BV (DEL)		Vertically polarised component horizontal radiation pattern (32) (33)									+	+			
Not in S4	0149	Maximum horizontally polarised radiated power (28) (34)									+	+			
Not in S4	0170	Maximum vertically polarised radiated power (28) (34)									+	+			
Not in S4	0274	Horizontal radiation pattern (35)	**C**												
Not in S4	0275	Vertical radiation pattern (35)	**C**												
Item 8D	0066	Vision to sound power ratio										+ (77)			
Item 9	0122	Transmitting antenna directivity indicator	**X**	**X**	**X**	**X**					**X**	**X**		**X**	**X**
Item 9A	0108	Azimuth of maximum gain (38)	+	+	+	+				(37)	(39)	(39)		+	+
Item 9AA	0356	Transmitting antenna radiation pattern augmentation central azimuth											+ (41)		
Item 9AB	0509	Rotational antenna beam start azimuth (2)	+	+	+	+				(42)				(43)	+
Item 9AB	0510	Rotational antenna beam finish azimuth (2)	+	+	+	+				(42)				(43)	+
Item 9B	0109	Elevation angle of maximum gain	+ (44)	+ (44)	+ (44)	+								+(45)	
Item 9C	0147	Horizontal beamwidth (40)	+	+	+	+									+
Item 9CA	0358	Transmitting antenna radiation pattern augmentation total span											+ (41)		
Not in S4	0168	Vertical beamwidth (35)	**O**		**O**	**C**									
Item 9D	0131	Polarisation code	+ (44)	+ (44)	+ (44)	+					**X**	**X**			
Item 9E	0125	Transmitting antenna height above ground level	+	+	+	+				(46)	**X**	**X**			
Item 9EA	0121	Transmitting antenna ground altitude above mean sea level	+	+ (48)	+	+					**X**	**X**			
Item 9EB	0128	Transmitting antenna maximum effective height									**X**	**X**			
Not in S4	0550	Transmitting antenna azimuth of maximum effective height (49)									**X**	**X**			
Item 9EC	0123	Transmitting antenna effective height pattern									**X**	**X**			
Not in S4	0536	Transmitting antenna physical height (50)								+					
Item 9F	0382	Electrical height of the antenna											+ (51)		
Item 9G	0129	Transmitting antenna maximum gain (28) (53)	+	+	+	+			+					+	+
Item 9GH	0507	Transmitting antenna horizontal gain pattern	**O**	**O**		**O**				+					
Not in S4	0502	Transmitting antenna vertical gain pattern	**O**	**O**		**O**				**O**					
Item 9GV	0508	Transmitting antenna elevation gain pattern								**O**					
Item 9H (DEL)	0424	Sector of limited radiation start azimuth (2) (54)													

NOTICE TYPE			AP1/A1				AP1/B		AP1/C	AP1/A2	AP1/A5	AP1/A6	AP1/A7	AP2	AP5
			RDD Section 2												
Appendix S4 Item	**RDD ref:**		2.3 2.4 2.6	2.15 2.16	2.1	2.12 2.13	2.2	2.5 2.14 2.17	2.19	2.9	2.7	2.8	2.10	2.11	2.18
		Class of Station Code **RDD Data Item Name**	AL NL SM	FB FC FL FP	FA FD FG	FX	AM MA MO SA	ML MS RM	All except BC	BC	BC	BT	BC	BC	FC
Item 9H (DEL)	0422	Sector of limited radiation finish azimuth (2) (54)													
Item 9I (DEL)	0423	Sector of limited radiation radiated power (54)													
Item 9IA	0355	Transmitting antenna radiation pattern augmentation central azimuth field strength											+ (41)		
Not in S4	0471	RMS radiation (55)											**X**		
Item 9J	0110	Transmitting antenna reference pattern	**O** (56)	**O** (56)	**O** (56)	**O**								**X**	+
Item 9K	0160	Receiving system noise temperature				**C**									
Item 9N (DEL)	0548	Sector of limited radiation attenuation (54)													
Item 9NA	0357	Transmitting antenna radiation pattern augmentation serial number											+ (41)		
Item 9NH	0273	Horizontally polarised component horizontal attenuation pattern (31)									+	+			
Item 9NV	0060	Vertically polarised component horizontal attenuation pattern (33)									+	+			
Item 9O	0383	Transmitting antenna pattern type											+ (57)	(58)	(58)
Item 9P	0359	Transmitting antenna expanded pattern special quadrature factor											**O** (59)		
Item 9Q	0133	Transmitting antenna type code								**X**			**X**		
Not in S4	0476	Transmitting antenna radiator type (36)												**X**	
Not in S4	0477	Transmitting antenna reflector type (36)												+	
Not in S4	0478	Transmitting antenna design frequency (36)												**O**	
Item 9R	0480	Transmitting antenna slew angle												+	
Item 9T1	0396	Tower identification number (57)											+		
Item 9T2	0395	Tower field strength ratio (57)											+		
Item 9T3	0393	Tower field phase difference (57)											+		
Item 9T4	0392	Tower electrical spacing (57)											+		
Item 9T5	0390	Tower angular orientation (57)											+		
Item 9T6	0391	Tower reference number (57)											+		
Item 9T7	0394	Tower electrical height											+		
Item 9T8	0397	Tower structure code (57)											+		
Item 9T9A	0377	Tower lower section electrical height											+		
Item 9T9B	0376	Tower lower section height difference (60)											+		
Item 9T9C (DEL)	0378	(61)													
Item 9T9D	0379	Tower height difference											+		
Item 10A (DEL)	0525	Maximum hours of operation start time (19)													
Item 10A (DEL)	0526	Maximum hours of operation stop time (19)													
Item 10B	0307	Regular operation period start time (2)	**X**	**X**	**X**	**X**	**X**	**X**	**X** (63)		**O** (65)	**O** (65)		**X**	**X**
Item 10B	0308	Regular operation period stop time (2)	**X**	**X**	**X**	**X**	**X**	**X**	**X** (63)		**O**(65)	**O** (65)		**X**	**X**

NOTICE TYPE			AP1/A1				AP1/B		AP1/C	AP1/A2	AP1/A5	AP1/A6	AP1/A7	AP2	AP5
			RDD Section 2												
Appendix S4 Item	**RDD ref:**		2.3 2.4 2.6	2.15 2.16	2.1	2.12 2.13	2.2	2.5 2.14 2.17	2.19	2.9	2.7	2.8	2.10	2.11	2.18
		Class of Station Code **RDD Data Item Name**	AL NL SM	FB FC FL FP	FA FD FG	FX	AM MA MO SA	ML MS RM	All except BC	BC	BC	BT	BC	BC	FC
Item 10B	0183	Local operation period code (2) (66)								**X**			**X**		
Not in S4	0247	Season of operation code (67)												+	
Item 10CA	0538	Season in operation start date												**O**	
Item 10CB	0539	Season in operation stop date												**O**	
Item 10CC	0531	Days of operation name												+	
Item 10D	0465	Traffic characteristics start peak hours (2)													**X**
Item 10D	0466	Traffic characteristics stop peak hours (2)													**X**
Item 10E	0467	Traffic characteristics daily volume													**X**
Item 10F	0142	Navtex transmission duration (68) (69)		+											
Not in S4	0549	Navtex transmission interval (68) (69)		+											
Item 11	0011	Administration code with which coordination has been obtained (2)	+	+	+	+	+	+	+	+	+	+	+	+	+
Item 11	0608	Provision code (2)	+	+	+	+	+	+	+	+	+	+	+	+	+
Item 11	0161	RR conformity indicator (2)	**X**	**X**	**X**	**X**	**X**	**X**	**X**	+ (73)	+ (73)	+ (73)	+ (73)	+ (73)	
Item 12A	0219	Operator code	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**
Item 12B	0094	Correspondence address code for the notification (70)	**X**	**X**	**X**	**X**	**X**	**X**	**X**	+	+	+	+	**X**	**X**
Not in S4		Administration comments (71)	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**	**O**

AL Aeronautical radionavigation land station
AM Aeronautical radionavigation mobile station
BC Broadcasting station, sound
BT Broadcasting station, television
FA Aeronautical station
FB Base station
FC Coast station
FD Aeronautical station in the aeronautical mobile (R) service
FG Aeronautical station in the aeronautical mobile (OR) service
FL Land station
FP Port station
FX Fixed station
LR Radiolocation land station
MA Aircraft station
ML Land mobile station
MO Mobile station
MR Radiolocation mobile station
MS Ship station
NL Maritime radionavigation land station
NR Radionavigation mobile station
OD Oceanographic data station
OE Oceanographic data interrogation station
RM Maritime radionavigation mobile station
RN Radionavigation land station
SA Meteorological aids mobile station
SM Meteorological aids land station
SS Standard frequency and time signal station

X - Mandatory; + Mandatory under specified conditions; O - Optional; C- Mandatory if used as a basis to effect coordination with another administration

Notes to Table 1 (Variations from Appendix S4)

(1) Addition: currently not listed in Appendix S4: this data item is an optional requirement for HFBC if the station is part of a synchronised network.

(2) Explanation: separation of compound data items into individual data items to clarify the information required, improve identification and identify distinct and different data formats, e.g. for validation purposes.

(3) Modification: currently shown as mandatory in Appendix S4: this data item is only required for analogue TV and may only be an optional requirement with the introduction of TerRaSys.

(4) Modification: currently shown as mandatory in Appendix S4: however this data item is only required if a frequency assignment is requested under Article S7.6.

(5) Deletion: currently shown as mandatory in Appendix S4: this data item will no longer be required following the work of TG 10/5.

(6) Addition: currently not listed in Appendix S4 this new data item is included to help clean redundant information from the MIFR and to provide compatibility between terrestrial and space notification.

(7) Explanation: currently shown as mandatory in Appendix S4: Call sign and Station identification are recognised as different items of information within the Radio Regulations and therefore this data item has been divided into its component parts for station classes AL, NL and SM, where Station identification is a mandatory requirement and a Call sign is not required: this is equivalent to the requirements of Appendix S4.

(8) Explanation: currently shown as mandatory in Appendix S4: Call sign and Station identification are recognised as different items of information within the Radio Regulations and therefore this data item has been divided into its component parts and in most cases for these services either Call sign or Station identification is required, i.e. Station identification is either mandatory or mandatory if a Call sign is not required: this is equivalent to the requirements of Appendix S4.

(9) Modification: currently shown as mandatory in Appendix S4: however this data item is only optional in the GE75 plan.

(10) Addition: currently not listed in Appendix S4: the Sound carrier frequency offset and the Vision carrier frequency offset are required for Region 2 broadcasting. The addition of these two data items means that the Sound carrier frequency offset code and Vision carrier frequency offset code are now no longer a mandatory requirement.

(11) Addition: currently not listed in Appendix S4: this data item is required for coordination under ST61.

(12) Addition: currently not listed in Appendix S4: this data item is an optional requirement for notification under Article S11.

(13) Not used.

(14) Explanation: currently shown as one of the items in Appendix S4: this data item has been divided into its component parts and then the centre geographical coordinates are mandatory if a mobile transmitting station or a number of typical stations are notified as located within a circular area: this is equivalent to the requirements of Appendix S4.

(15) Comment: Administrations and operators are not clear if feeder losses should be included in the notification data when providing transmitter output power or power to the antenna. The Radiocommunication Bureau (BR) do not include antenna feeder losses in the notification data, except for GE85M (where transmission losses are included in the antenna gain). In addition, radiated power is often calculated on the simple addition of the transmitter output power and the antenna gain. If the Antenna feeder losses are not used in notification data, then the transmitter output power would always equate to the antenna input power

(16) The current requirements for notifying transmitting and receiving sites vary according to service and operational requirements. Some are quite complex and do not need to be explained in treaty type texts.

There are two ways in which this can be done which would enable administrations to submit such data in a more appropriate format and which would better describe the specific circumstances.

a) to take the existing provisions and identify them more specifically using zones to identify the service or roaming area, as is already the case for some notifications types; however this overcomplicates the process and does not necessarily provide the specific service and operational arrangement required for increasingly complex technologies.

b) as an alternative, the concept of transmit or receive 2 and 3 dimensional roaming and service zones could be used. The specific data to be provided will be found in the RDD and can be much more descriptive and representative of the technical and operational requirement. Such an approach only requires the minimum number of entries in the RR (Appendix S4) and as such is more appropriate to treaty type texts. It additionally provides for new technologies such as high altitude platforms.

Should the concepts in b) above be adopted into Appendix S4 then it will require the consequential suppression of items 4C (RDD ref. 0070), 4D, 4E, 5D, 5E and 5F.

(17) Modification: currently shown as mandatory in Appendix S4: this data item includes notification of point to multipoint fixed links and for these systems the exact location of the receiving antenna may not be known, or it may be optionally provided by other means, e.g. circular areas, zones defined by test points.

(18) Addition: currently not listed in Appendix S4: however this data item is a requirement for point to multipoint when the specific location of the receiving stations may not be known.

(19) Deletion: currently shown as required in specific cases in Appendix S4: this data item is no longer required following the decision at WRC95 to stop technical examination in the unplanned bands below 30 MHz.

(20) Modification: currently shown as required in specific cases in Appendix S4: this data item is mandatory for APS25.

(21) Addition: currently not listed in Appendix S4: this data item is included to allow for the use during coordination procedures of a protection mask for aeronautical radionavigation services with safety of life considerations.

(22) Comment: the Ground Conductivity can be determined from a map and therefore there is no need to supply this data.

(23) Modification: currently shown as mandatory in Appendix S4: the class of operation code is only mandatory if the fixed service station is operating below 30 MHz.

(24) Not used.

(25) Explanation: currently shown as one of the items in Appendix S4: this data item is required in specific cases (mandatory if the Maximum radiated power is not supplied): this is equivalent to the requirements of Appendix S4.

(26) Modification: currently shown as one of the items in Appendix S4: this data item is required in specific cases (mandatory for mobile or fixed services in shared bands above 1GHz to check conformity with the Radio Regulations).

(27) Explanation: currently shown as one of the items in Appendix S4: this data item is required in specific cases (mandatory if the Transmitter output power and the Transmitting antenna maximum gain are not supplied): this is equivalent to the requirements of Appendix S4.

(28) Comment: notification could be simplified and errors in the notification process reduced if all radiated power were expressed as equivalent isotropically radiated power.

The use of effective radiated power and effective monopole radiated power occurs in the same frequency bands and for the same types of radio system (e.g. MF Coast stations). Effective radiated power and equivalent isotropically radiated power are also used in the same frequency bands (e.g. HFBC-87 uses e.i.r.p). In addition standard conversions exist between the different forms of radiated power. The use of different reference antenna for the power causes problems in notification and coordination that can be avoided by moving to a single reference antenna for all radio systems in all frequency bands.

(29) Addition: currently not listed in Appendix S4: this data item is mandatory for LF/MF Broadcasting in Region 1 & 3.

(30) Deletion: currently shown as mandatory in Appendix S4: however this data item has been replaced with Maximum horizontal radiated power and Maximum vertical radiated power: see Note (34).

(31) Modification: currently shown as mandatory in Appendix S4: however this data item is not required if the polarization is vertical.

(32) Modification: the data supplied for the television frequency assignments in the Plans ST61 & GE89 and notifications under Article S11 can be aligned and both notified on a revised AP1/A6 form, this would allow the following data to be supplied: a full pattern covering 360 degrees for attenuation in the respective planes of radiation and full pattern covering 360 degrees for the effective height.

In addition the data supplied for sound broadcasting frequency assignments in accordance with the Plans ST61 & GE84 and notifications under Article S11 can be aligned and all notified on a revised AP1/A5 form, this would allow the following data to be supplied: a full pattern covering 360 degrees for attenuation in the respective planes of radiation and full pattern covering 360 degrees for the effective antenna height. These broadcasting plans require essentially the same data except for the form in which radiation and effective antenna heights are supplied. Currently, ST61 is notified on an AP1/A4, GE89 is notified on an AP1/A6 and GE84 is notified on an AP1/A5. The above improvements would make the data supplied for these five Regional agreements compatible and consistent.

(33) Modification: currently shown as mandatory in Appendix S4: however this data item is not required if the polarization is horizontal.

(34) Addition: currently not listed in Appendix S4: this data item is required under ST61, GE84, GE89 and Article S11 (Article 12 RR version 1994) notifications: although it may be assumed this data item was covered under data item 8B, the Maximum radiated power (8B) did not adequately cover mixed polarisation when both the Maximum horizontal radiated power and the Maximum vertical radiated power are mandatory requirements.

(35) Addition: currently not listed in Appendix S4: this data item is included to reflect the increasing use of aeronautical services that deliberately operate with an elevation angle/ angle of launch above the horizontal.

(36) Addition: currently not listed in Appendix S4: this data item is required by HFBC-87 and required for HFBC in accordance with the work of TG 10/5.

(37) Deletion: currently shown as mandatory in Appendix S4: this data item conforms to Note (38), but may also be deleted as a full Horizontal gain pattern is mandatory for LF/MF Sound Broadcasting and therefore this data item is an unnecessary duplication of information.

(38) Modification: currently shown as mandatory in Appendix S4: however this data item is not required for omnidirectional antenna nor for a directional antenna if the antenna beam is swept or rotational.

(39) Deletion: currently shown as mandatory in Appendix S4: this data item conforms to Note (38), and is also unnecessary if there is the mandatory provision of a full attenuation pattern (see Note 32) as this data item would represent a duplication of information.

(40) Comment: the beamwidth angle should in future be notified at 3 dB below the maximum antenna gain. The definition of “Beamwidth” in previous versions of the Radio Regulations has referred to the angle at an attenuation value of not more than 3dB. In practice there have been a number of notifications where the beamwidth has been provided at other values of attenuation (usually 6dB). This has been recognised in the Preface to the IFL where a code has been introduced to indicate the attenuation value. However with the future development of “TerRaSys” the BR are converting these entries to the beamwidth angle at 3dB below the maximum antenna gain.

(41) Modification: currently shown as mandatory in Appendix S4: however this data item is not applicable to Type A transmitting antenna and is only required for a Type B transmitting antenna that has had its radiation pattern augmented.

(42) Deletion: currently shown as required in specific cases in Appendix S4: LF/MF Sound Broadcasting does not utilise a rotational antenna.

(43) Deletion: currently shown as mandatory in Appendix S4: HFBC does not utilise a rotational antenna.

(44) Addition: currently not listed in Appendix S4: this data item is mandatory in shared bands above 1GHz.

(45) Modification: currently shown as mandatory in Appendix S4: however this data item is only required in specific cases (mandatory when a directional antenna is used).

(46) Deletion: currently shown as mandatory in Appendix S4: this data item has been replaced by the addition of a new data element: see Note (50).

(47) Not used.

(48) Explanation: “Transmitting antenna height” for Fixed Base Stations in shared bands above 1GHz was previously recorded as the “Height above mean sea level”.

(49) Addition: the maximum effective height is currently shown as mandatory in Appendix S4: however this data has no meaning without the Azimuth at which it is recorded. If the **Azimuth Of Maximum Effective Height** is not required then the **Maximum Effective Height** should be deleted.

(50) Addition: currently shown as mandatory in Appendix S4 under data item (9E): the transmitting antenna height above ground level does not adequately describe the physical height (size) of the antenna which is only a mandatory requirement for Type A Transmitting antenna.

(51) Modification: currently shown as mandatory in Appendix S4: this data item is only mandatory requirement for Type A Transmitting antenna.

(52) Addition: currently not listed in Appendix S4: this data item is required for LF/MF broadcasting, however, see Note 15.

(53) Comment: antenna gain is currently determined at the assigned frequency, however for the majority of applications the variation in gain across the band of frequencies using a transmitting antenna is considered to be small and it may be more appropriate if it were determined at the mid-band point for the range of frequencies designed to use the antenna. In addition although not listed in Appendix S4 but shown on all notification forms, the codes used to identify the type of reference antenna used for radiated power and antenna gain measurements is different depending on the type of reference antenna. Selecting one group of codes would simplify the notification process, (however see Note 28). The codes are as follows:

Reference antenna	**Antenna Gain Code**	**Radiated Power Code**
Isotropic antenna;	I	I
Half-wave dipole;	D	E
Short vertical antenna;	V	M

(54) Deletion: currently shown as mandatory in Appendix S4: the GE75 and RJ81 Plans include both sectors of limited radiation and a full description of the antenna by its gain pattern for GE75 or by its components (e.g. Towers) for RJ81, or by a full attenuation pattern as proposed in Note (32) for ST61 & GE84. The supply of a full gain or attenuation pattern provides better and more comprehensive information which with increased radio usage and reduced frequency availability promotes better spectrum planning and management than the continued use of sectors of limited radiation.

(55) Addition: currently not listed in Appendix S4: this data item is a mandatory requirement for frequency assignments in the Plan RJ81 and subsequent notifications under Article S11.

(56) Addition: currently not listed in Appendix S4: this data item is included to provide another option for notifying the antenna characteristics and may be an alternative to radiation patterns etc.

(57) Modification: currently shown as mandatory in Appendix S4: however this data item is not required for Type A transmitting antenna - (simple vertical antenna).

(58) Deletion: currently shown as mandatory in Appendix S4:this data item duplicates information covered under item 9J (RDD ref. 0110) and can be deleted.

(59) Modification: currently shown as mandatory in Appendix S4:however this data item is only used at the administration's specific request when the expanded pattern quadrature factor cannot compensate for inaccuracies in antenna feeding and terrain conditions.

(60) Modification: currently shown as mandatory in Appendix S4: however this data item is only required for sectionalised or top-loaded towers.

(61) Deletion: currently shown as required in specific cases in Appendix S4: this data item can be deleted now that the Appendix S4 items 9T9A - 9T9D have been individually identified.

(62) Deletion: currently shown as mandatory in Appendix S4: this data item is recorded as a "T" for typical station, although there may be a requirement for recording this information in the BR databases, there appears to be no reason why it should be supplied by administrations as it can be deduced from the type of Notice Form.

(63) Comment: currently shown as mandatory in Appendix S4: however there appears to be no logical requirement for this data item for typical stations and would always appear to have a default value of 00.00 to 23.59 hours.

(64) Comment: this data item may not be required with the introduction of TerRaSys.

(65) Modification: currently shown as mandatory in Appendix S4: however this data item is only optional as it is not used in the ST61, GE84, GE89 Plans, nor in the calculations.

(66) Explanation: following separation of the data item 10B (Regular Hours of Operation) into its component parts this data item is mandatory for the LF/MF Region 1 and 3 Plan and in the MF Region 2 Plan. The "Local operation period code" should however represent the actual hours of local daylight and night-time for the LF/MF bands only.

The "Local operation period code" is represented by the codes HJ & HN, to determine the day-time and night-time interference calculations. The hours of day and night vary considerably with latitude and season, however currently in the Rules of Procedure the codes HJ & HN have been fixed to the hours of 0600-1800

and 1800-0600. Outside of the LF/MF bands, radio services do not have the same need for the use of local time (e.g. HFBC-87 uses UTC).

(67) Addition: currently not listed in Appendix S4: this data item is required for notifying the season or year in operation. Not required for tropical broadcasting.

(68) Deletion: following the deletion at WRC97 of the Annex to Resolution 339 (WRC95) which provided the regulatory provision under which this information is supplied, this data item can be deleted.

(69) Explanation: Mandatory in S4 when contained in a separate column: following the combining of Navtex data requirements with other Coast stations notified on an AP1/A1 this data item is now shown as required in specific cases - this is equivalent to the requirements in Appendix S4.

(70) Modification: currently shown as optional in Appendix S4: however the requirement for the "Correspondence address" should be mandatory.

The "Correspondence address" contains the addresses to which correspondence should be sent. The content varies considerably between geographic areas and includes for many areas the address of the Signatory to the convention in other countries. (E.g. in the UK the listed correspondence addresses include Sweden). In Appendix S4 the "Correspondence address" is shown as optional. The database containing these addresses requires considerable effort to maintain, if administrations no longer require this information it should be deleted and the address of the Notifying Administration used, which can be obtained from the ITU Global Directory. If the "Correspondence address" is still required then it should be mandatory.

(71) Addition: currently not listed in Appendix S4: requested by an administration.

(72) Modification: currently shown as mandatory in Appendix S4: this data item is only required for digital TV, as for analogue TV the **Assigned Frequency** can be determined from the **Vision Carrier Nominal Frequency** which is a mandatory data item. However, with the introduction of TerRaSys, the **Assigned Frequency** may become mandatory.

(73) Modification: currently shown as mandatory in Appendix S4: however these services operate within Planned bands and the RRS4.4 conformity indicator is only required if the service does not fit within the confines of the Plan, e.g. the notification is for an assignment located in a guard band.

(74) Deletion: currently shown as mandatory in Appendix S4: this data item can be determined from the analogue ***Television System*** **Code**. However, depending on the future development of digital TV, this position may need to be reviewed.

(75) Addition: currently not listed in Appendix S4: this data item is required for digital TV.

(76) Modification: currently shown as mandatory in Appendix S4: this data item is only required for analogue TV, as for digital TV although there are several different modulation rates a common rate has been agreed for the purpose of coordination.

(77) Modification: currently shown as mandatory in Appendix S4: this data item is only required for analogue TV.

(78) Addition: currently not listed in Appendix S4: this data item is required for digital TV for cases where the transmitter is part of a single frequency network.

8.2 Table of characteristics to be submitted for space and radio astronomy services in Appendix S4 order

Table 2 provides a cross-reference between the RDD reference numbers and the Appendix S4 item numbers.

TABLE 2

Characteristics to be submitted for stations in the space and radio astronomy services

Appendix S4 Item	RDD ref:	Appendix S4 Data Description	Advance publication of a geostationary-satellite network	Advance publication of a non-geostationary satellite network subject to coordination under Section II of Article **S9**	Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article **S9**	Notification or coordination of a GSO network (including Appendix **S30B**)	Notification or coordination of a non-geostationary-satellite network	Notification or coordination of an earth station (including Appendix S30B)	Notice for space stations in the BSS under Appendix **S30** *	Notice for feeder-link stations under Appendix **S30A** *	Notice for stations in the FSS under Appendix **S30B**	Radio-astronomy
A		**GENERAL CHARACTERISTICS TO BE PROVIDED FOR THE SATELLITE NETWORK OR THE EARTH OR RADIO ASTRONOMY STATION**										
A1		**IDENTITY OF THE SATELLITE NETWORK OR THE EARTH OR RADIO ASTRONOMY STATION**										
A1a	**S069**	Identity of a satellite network.	X	X	X	X	X		X	X	(1)	
A1b	**S116**	Country and ITU number (Regions 1 and 3); country and beam identification (Region 2).							X			
A1c	**S116**	Country and beam identification.								X		
A1d	**S116**	For a network derived from the Allotment Plan, the country and identification of the allotment.									X	
A1d	**S069**	For a network not derived from the Allotment Plan the identity of the network.									X	
A1e		**Identity of an earth or radio astronomy station:**										
A1e1	**S157**	the type of earth station (specific or typical)						X				
A1e2	**S149**	the earth station antenna identification code; (16)						X				X
A1e2	**S380**	For a specific earth station, or a radio astronomy station the name by which the station is known or the name of the locality in which it is situated i.e. site name. (16)						X(3)				X
A1e3		**for a specific earth station:**										
A1e3	**S041**	the country or geographical area in which the station is located, using the symbols from the Preface to the International Frequency List;						X				

Appendix S4 Item	RDD ref:	Appendix S4 Data Description	Advance publication of a geostationary-satellite network	Advance publication of a non-geostationary satellite network subject to coordination under Section II of Article **S9**	Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article **S9**	Notification or coordination of a GSO network (including Appendix **S30B**)	Notification or coordination of a non-geostationary-satellite network	Notification or coordination of an earth station (including Appendix S30B)	Notice for space stations in the BSS under Appendix **S30** *	Notice for feeder-link stations under Appendix **S30A** *	Notice for stations in the FSS under Appendix **S30B**	Radio-astronomy
A1e3	**S159**	the geographical coordinates of each transmitting or receiving site constituting the earth station (longitude and latitude in degrees and minutes as well as seconds with an accuracy of one-tenth of a minute; the seconds need only be furnished if the coordination area of the earth station overlaps the territory of another administration);						X				
A1e4		**for a radio astronomy station:**										
A1e4	**S041**	the country or geographical area in which the station is located, using the symbols from the Preface to the International Frequency List;										X
A1e4	**S159**	the geographical coordinates of the station site (longitude and latitude in degrees and minutes).										X
A1f	**S011**	Country symbol of the notifying administration.	X	X	X	X	X	X	X	X	X	X
A1f	**S011**	The symbols of the administrations in the group submitting the advance information on the satellite network.	X	X	X						X (2)	
Not in S4	**S034**	If the notice is submitted on behalf of an intergovernmental satellite organisation provide its symbol (4)	X	X	X	X	X		X	X		
A2		**DATE OF BRINGING INTO USE**										
A2a	**S187**	The date (actual or foreseen, as appropriate) of bringing the frequency assignment (new or modified) into use. Whenever the assignment is changed in any of its basic characteristics (except in the case of a change in item A.1 a), the date to be given shall be that of the latest change (actual or foreseen, as appropriate). (16)				X	X	X	X	X	X	
A2a	**S619**	For advance publication the date (actual or foreseen, as appropriate) of bringing the space station (new or modified) into use. Whenever the assignment is changed in any of its basic characteristics (except in the case of a change in item A.1 a), the date to be given shall be that of the latest change (actual or foreseen, as appropriate). (16)	X	X	X							
A2b	**S188**	For the case of a space station onboard a geostationary satellite, the period of validity of the frequency assignments (see Res. 4 (Rev.Orb-88)). (16)				X						
A2b	**S624**	For advance publication of a space station onboard a geostationary satellite, its period of validity (see Resolution 4 (Rev.Orb-88)). (16)	X									
A2c	**S187**	The date (actual or foreseen, as appropriate) on which reception of the frequency band begins or on which any of the basic characteristics are modified.										X
A3		**OPERATING ADMINISTRATION OR AGENCY**										

Appendix S4 Item	**RDD ref:**	**Appendix S4 Data Description**	Advance publication of a geostationary-satellite network	Advance publication of a non-geostationary satellite network subject to coordination under Section II of Article **S9**	Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article **S9**	Notification or coordination of a GSO network (including Appendix **S30B**)	Notification or coordination of a non-geostationary-satellite network	Notification or coordination of an earth station (including Appendix S30B)	Notice for space stations in the BSS under Appendix **S30** *	Notice for feeder-link stations under Appendix **S30A** *	Notice for stations in the FSS under Appendix **S30B**	Radio-astronomy
A3	**S029**	Symbols for the operating administration or agency if it is in operational control of the space station or Earth Station (16)			X	X	X	X	X	X		X
A3	**S034**	Symbols for the operating intergovernmental satellite organisation if it is in operational control of the space station or Earth Station (16)			X	X	X		X	X		
A3	**S021**	Symbols for the address of the administration to which communication should be sent on urgent matters regarding interference, quality of emissions and questions referring to the technical operation of the network or station (see Article **S15** of the Radio Regulations). (16)	X (6)	X (6)	X	X	X	X	X	X		X
A4		**ORBITAL INFORMATION**										
A4a		**For the case of a space station onboard a geostationary satellite:**										
A4a1	**S072**	the nominal geographical longitude on the geostationary-satellite orbit;	X			X			X	X	X	
A4a2	**S074**	the planned longitudinal tolerance easterly limit.				X			X	X	X (7)	
A4a2	**S075**	the planned longitudinal tolerance westerly limit.				X			X	X	X (7)	
A4a2	**S076**	the planned inclination excursion.				X			O (8)	O (8)	X (7)	
A4a		**In the case where a geostationary space station is intended to communicate with an earth station:**										
A4a3	**S077**	the arc of visibility easterly limit (the arc of the geostationary-satellite orbit over which the space station is visible at a minimum angle of elevation of 10° at the Earth's surface from its associated earth stations or service areas);				X						
A4a3	**S078**	the arc of visibility westerly limit (the arc of the geostationary-satellite orbit over which the space station is visible at a minimum angle of elevation of 10° at the Earth's surface from its associated earth stations or service areas);				X						
A4a4	**S079**	the service arc easterly limit (the arc of the geostationary-satellite orbit within which the space station could provide the required service to its associated earth stations or service areas);				X					+ (9)	
A4a4	**S080**	the service arc westerly limit (the arc of the geostationary-satellite orbit within which the space station could provide the required service to its associated earth stations or service areas);				X					+ (9)	
A4a5	**S081**	in the event that the service arc is less than the arc of visibility, the reasons therefor.				X						
A4b		**For the case of space station(s) onboard non-geostationary satellite(s):**										

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A4b1	**S096**	the angle of inclination of the orbit;		X	X		X (10)					
A4b2	**S103**	the period;		X	X		X (11)					
A4b3	**S098**	the altitude in kilometres of the apogee of the space station(s); (16)		X	X		X (11)					
A4b3	**S099**	the altitude in kilometres of the perigee of the space station(s); (16)		X	X		X (11)					
A4b4	**S085**	the number of satellites used.		X	X		X (10)					
Not in S4	**S084**	Reference body code (12)		X	X		X					
A4b5		**In addition, if the stations operate in a frequency band subject to the provisions of Resolution 46 (Rev. WRC 97)/No. S9.11A: new data elements required to characterize properly the orbital statistics of non-GSO satellite systems:**										
A4b5 N_p	**S086**	number of orbital planes;		X (14)	X (14)		X (15)					
A4b5 N_s	**S087**	number of satellites in each orbital plane;					X					
A4b5 Ω_j	**S097**	right ascension of the ascending node for the j-th orbital plane, measured counter-clockwise in the equatorial plane from the direction of the vernal equinox to the point where the satellite makes its South-to-North crossing of the equatorial plane ($0° \leq \Omega_j < 360°$);					X					
A4b5 i_j	**S096**	inclination angle for the j-th orbital plane with respect to the reference plane, which is taken to be the Earth's equatorial plane ($0° \leq i_j < 180°$);					X					
A4b5 ω_i	**S106**	initial phase angle of the i-th satellite in its orbital plane at reference time t = 0, measured from the point of the ascending node ($0° \leq \omega_i < 360°$);					X					
A4b5 α	**S102**	semi-major axis;					X					
A4b5 e	**S101**	eccentricity ($0 \leq e < 1$);					X					
A4b5 ω_p	**S100**	argument of perigee, measured in the orbital plane, in the direction of motion, from the ascending node to the perigee ($0° \leq \omega_p < 360°$).					X					
A4c	**S069**	For the case of an earth station, the identity of the associated space station(s) with which communication is to be established.						X				
A4c	**S616**	For the case of an earth station, if communication is to be established with an associated geostationary space station, its orbital position.						X				
A5		**COORDINATION**										
A5	**S011**	The country symbol of any administration with which coordination has been successfully effected, (16)				X	X	X	X	X	X	

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A5	**S011**	The country symbol of any administration with which coordination has been sought but not completed. (16)				X	X	X	X	X	X	
A5	**S304**	If coordination has been sought or completed provide the related provision code (16)				X	X	X	X	X	X	
A6		**AGREEMENTS**										
A6	**S011**	If appropriate, the country symbol of any administration or administration representing a group of administrations with which agreement has been reached, including where the agreement is to exceed the limits prescribed in these Regulations. (16)				X	X	X	X	X	X	
A6	**S304**	If agreement has been reached provide the related Provision code (16)				X	X	X	X	X	X	
A7		**EARTH STATION SITE CHARACTERISTICS**										
A7		**For a specific earth station:**										
A7a	**S171**	The horizon elevation angle in degrees for each azimuth around the earth station.						X		(17)		
A7a		in the case of a station submitted in accordance with Appendix S30A, the antenna gain in the direction of the horizon for each azimuth around the earth station.								(17) (18)		
A7b	**S168**	The planned minimum angle of elevation of the antenna in the direction of maximum radiation in degrees from the horizontal plane, having due regard to possible inclined-orbit operation of the associated space station.						X		(17)		
A7c	**S169**	The start azimuth for the planned range of operating azimuthal angles for the direction of maximum radiation in degrees, clockwise from True North, having due regard to possible inclined-orbit operation of the associated space station. (16)						X				
A7c	**S170**	The end azimuth for the planned range of operating azimuthal angles for the direction of maximum radiation in degrees, clockwise from True North, having due regard to possible inclined-orbit operation of the associated space station. (16)						X				
A7d	**S161**	The ground altitude (metres) of the antenna above mean sea level. (16)						X		(17)		
A7d	**S162**	The height (metres) of the antenna above ground level. (16)						X		(17)		
A8		The rain climatic zone(s) (19)										

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A9	**S212**	Minimum angle of elevation in the service area in the case of Regions 1 and 3							X (20)			
A10		**EARTH STATION COORDINATION AREA DIAGRAMS**										
A10	**S173**	The diagrams shall be drawn to an appropriate scale, indicating, for transmission the location of the earth station and its associated coordination areas, or the coordination area related to the service area in which it is intended to operate the mobile earth station. For clear sky. (16)						X				
A10	**S322**	The diagrams shall be drawn to an appropriate scale, indicating, for transmission the location of the earth station and its associated coordination areas, or the coordination area related to the service area in which it is intended to operate the mobile earth station for rain scatter. (16)						X				
A11	**S091**	Regular hours of operation start time (16)							X	X		
A11	**S092**	Regular hours of operation stop time(16)							X	X		
A12		**RANGE OF AUTOMATIC GAIN CONTROL**										
A12	**S331**	Range of automatic gain control, expressed in dB.								X		
A13		**AS APPROPRIATE, REFERENCE TO THE SPECIAL SECTION OF THE BUREAU'S WEEKLY CIRCULAR**										
A13a	**S768**	a) providing the advance publication special section reference information required in accordance with No. S9.1;				X	X	X (21)				
A13a	**S606**	a) providing the advance publication special section number required in accordance with No. S9.1;				X	X	X (21)				
A13b	**S769**	b) providing the coordination special section reference information required in accordance with No. S9.7;				X	(22)	+ (38)				
A13b	**S607**	b) providing the coordination special section number required in accordance with No. S9.7;				X	(22)	+ (38)				
A13c	**S769**	c) providing the special section reference information required in accordance with No. S9.21;				+ (33)	+ (33)	+ (33)				
A13c	**S607**	c) providing the special section number required in accordance with No. S9.21;				+ (33)	+ (33)	+ (33)				
A13d	**S769**	d) providing the coordination special section reference information required in accordance with No. S9.8;				X	(22)	(24)				

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A13d	**S607**	d) providing the coordination special section number required in accordance with No. S9.8;				X	(22)	(24)				
A13e	**S769**	e) providing the coordination special section reference information required in accordance with No. S9.9;				X	(22)	(24)				
A13e	**S607**	e) providing the coordination special section number required in accordance with No. S9.9;				X	(22)	(24)				
A13f	**S769**	f) providing the coordination special section reference information required in accordance with No. S9.11;				+ (43)	+ (43)	(24)				
A13f	**S607**	f) providing the coordination special section number required in accordance with No. S9.11;				+ (43)	+ (43)	(24)				
A13g	**S769**	g) providing the coordination special section reference information required in accordance with No. S9.11A;				+ (33)	+ (33)	+ (33)				
A13g	**S607**	g) providing the coordination special section number required in accordance with No. S9.11A;				+ (33)	+ (33)	+ (33)				
A13h	**S769**	h) providing the special section reference information required in accordance with Article 6 of Appendix S30B.				+ (36)	(22)	+ (36)				
A13h	**S607**	h) providing the special section number required in accordance with Article 6 of Appendix S30B.				+ (36)	(22)	+ (36)				
B		**CHARACTERISTICS TO BE PROVIDED FOR EACH SATELLITE ANTENNA BEAM OR EACH EARTH OR RADIO ASTRONOMY STATION ANTENNA**										
B1	**S116**	The designation of the satellite antenna beam (16)			X	X	X	X	X	X	X	
B1	**S118**	For satellite antenna beam if appropriate, an indication as to whether it is a steerable or reconfigurable antenna beam. (16)			X	X	X		X (25)	X (25)	X (25)	
Not in S4	**S070**	Indicate if the network is part of a sub-regional system (26)									X	
B2	**S115**	Transmission/Reception indicator			X	X	X	X			X	
B3		**GEOSTATIONARY SPACE STATION ANTENNA CHARACTERISTICS**										
B3a		**Where it is intended to communicate with an earth station via an antenna pointing in a fixed direction:**										
B3a1	**S124**	the maximum isotropic gain (dBi);				X						

Appendix S4 Item	RDD ref:	Appendix S4 Data Description	Advance publication of a geostationary-satellite network	Advance publication of a non-geostationary satellite network subject to coordination under Section II of Article **S9**	Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article **S9**	Notification or coordination of a GSO network (including Appendix **S30B**)	Notification or coordination of a non-geostationary-satellite network	Notification or coordination of an earth station (including Appendix S30B)	Notice for space stations in the BSS under Appendix **S30** *	Notice for feeder-link stations under Appendix **S30A** *	Notice for stations in the FSS under Appendix **S30B**	Radio-astronomy
B3a2	**S369**	the antenna gain contours plotted on a map of the Earth's surface, preferably in a radial projection from the satellite onto a plane perpendicular to the axis from the centre of the Earth to the satellite. The space station antenna gain contours shall be drawn as isolines of the isotropic gain, at least for –2, – 4, – 6, –10 and –20 dB and at 10 dB intervals thereafter, as necessary, relative to the maximum antenna gain, when any of these contours is located either totally or partially anywhere within the limit of visibility of the Earth from the given geostationary satellite. Whenever possible, the gain contours of the space station antenna should also be provided in a numerical format.				X						
B3b		**Where a steerable beam (see No. S1.191) is used:**										
B3b1	**S124**	the maximum isotropic antenna gain (dBi), if the effective boresight area (see No. S1.175) is identical with the global or nearly global service area. The maximum antenna gain is applicable to all points on the Earth's visible surface;				X						
B3b2	**S124**	the maximum antenna gain				X						
B3b2	**S369**	the effective antenna gain contours (see No. S1.176), if the effective boresight area (see No. S1.175) is less than the global or nearly global service area. These contours shall be provided as defined in B.3 a) 2 above.				X						
B3c	**S369**	The antenna gain contours of B.3 a) 2 and B.3 b) 2 above shall include the effect of the planned, inclination excursion.				X (27)						
B3c	**S369**	The antenna gain contours of B.3 a) 2 and B.3 b) 2 above shall include the effect of the planned longitudinal tolerance.				X (27)						
B3c	**S369**	The antenna gain contours of B.3 a) 2 and B.3 b) 2 above shall include the effect of the planned pointing accuracy of the antenna.				X(27)						
B3d	**S120**	The pointing accuracy of the antenna.				X			X	X	X	
B3e	**S122**	The antenna radiation pattern, where the antenna radiation beam is directed towards another satellite.				X						
B3f	**S125**	The gain of the antenna in the direction of those parts of the geostationary-satellite orbit which are not obstructed by the Earth, in the case of operation in a band allocated in the Earth-to-space direction and in the space-to-Earth direction.				X				X		
B3g		**For the case of a space station submitted in accordance with Appendix S30, Appendix S30A or Appendix S30B:**										
B3g1	**S124**	maximum isotropic co-polar antenna gain (dBi);							X	X	X	

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Not in S4	**S621**	maximum cross-polar isotropic antenna gain (dBi) for shaped or steerable beams that are not circular or elliptical (28)							X	X		
B3g2		shape of the beam (elliptical, circular, or other);							(19)	(19)	X (29)	
B3g3		**for circular beams:**										
B3g3	**S129**	half-power beamwidth in degrees;							(19)	(19)	X	
B3g3	**S122**	co-polar radiation patterns;							(19)	(19)	X (31)	
B3g3	**S123**	cross-polar radiation patterns;							(19)	(19)		
B3g3	**S119**	nominal intersection of the antenna beam axis with the Earth (boresight longitude and latitude);							(19)	(19)	X	
B3g4		**for elliptical beams:**										
B3g4	**S122**	co-polar radiation patterns;							X	X	X (31)	
B3g4	**S123**	cross-polar radiation patterns;							X	X		
B3g4	**S133**	rotational accuracy in degrees;							X	X	X	
B3g4	**S132**	major axis orientation in degrees anticlockwise from the Equator;							X	X	X	
B3g4	**S130**	major axis (degrees) at the half-power beamwidth;							X	X	X	
B3g4	**S131**	minor axis (degrees) at the half-power beamwidth;							X	X	X	
B3g4	**S119**	nominal intersection of the antenna beam axis with the Earth (boresight longitude and latitude);							X	X	X	
B3g5		**for beams of other than circular or elliptical shape:**										
B3g5	**S369**	co-polar gain contours plotted on a map of the Earth's surface, preferably in a radial projection from the satellite on to a plane perpendicular to the line from the centre of the Earth to the satellite. The isotropic or absolute gain shall be indicated at each contour which corresponds to a decrease in gain of 2, 4, 6, 10 or 20 dB and thereafter at 10 dB intervals down to a value of 0 dB relative to an isotropic radiator. Whenever practicable, a numerical equation or table providing the necessary information to allow the gain contours to be plotted should be provided;							X	X	X (31)	

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B3g5	**S370**	cross-polar gain contours plotted on a map of the Earth's surface, preferably in a radial projection from the satellite on to a plane perpendicular to the line from the centre of the Earth to the satellite. The isotropic or absolute gain shall be indicated at each contour which corresponds to a decrease in gain of 2, 4, 6, 10 or 20 dB and thereafter at 10 dB intervals down to a value of 0 dB relative to an isotropic radiator. Whenever practicable, a numerical equation or table providing the necessary information to allow the gain contours to be plotted should be provided;							X	X		
B3g5	**S119**	beam aim point longitude and latitude;							X	X	X	
B3g5	**S124**	where a steerable beam (see No. S1.191) is used, the maximum co-polar antenna gain							X	X	X	
B3g5	**S369**	where a steerable beam (see No. S1.191) is used, the effective antenna co-polar gain contours (see No. S1.176); these contours shall be provided as defined above;							X	X	X (31)	
B3g5	**S370**	where a steerable beam (see No. S1.191) is used, the effective antenna cross-polar gain contours (see No. S1.176); these contours shall be provided as defined above;							X	X		
B3g6	**S125**	for an assignment in the bands 14.5 - 14.8 GHz or 17.7 - 18.1 GHz, the isotropic gain in the direction of those parts of the geostationary-satellite orbit which are not obstructed by the Earth. Use a diagram to show estimated isotropic gain relative to orbit longitude;								X		
B3g7	**S211**	DG (difference between the maximum gain and the gain in the direction of the point in the service area at which the power-flux density is at a minimum) (for Regions 1 and 3 only).							(19)			
B4		**NON-GEOSTATIONARY SPACE STATION ANTENNA CHARACTERISTICS**										
B4a	**S124**	The isotropic gain of the antenna in the direction of maximum radiation (dBi).			X		X					
B4a	**S122**	The antenna radiation pattern.			X		X					
B4b		**In the case of a space station submitted in accordance with Resolution 46 (Rev. WRC 97)/ No. S9.11A:**										
B4b	**S121**	orientation angle alpha of the satellite transmitting and receiving antenna beams;			(32)		X					

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B4b	**S368**	orientation angle beta of the satellite transmitting and receiving antenna beams;			(32)		X					
B4b	**S122**	satellite transmitting and receiving antenna beams radiation pattern;			(32)		X					
B4b	**S126**	the satellite antenna gain G(θ) as a function of elevation angle at a fixed point on the Earth;			(32)		X					
B4b	**S127**	the spreading loss (for a non-GSO satellite) as a function of elevation angle (to be determined by equations or provided in graphical format);			(32)		X					
B4b	**S601**	maximum beam peak e.i.r.p./4 kHz for each beam			(32)		X					
B4b	**S602**	maximum beam peak e.i.r.p./ 1 MHz for each beam			(32)		X					
B4b	**S603**	average beam peak e.i.r.p./4 kHz for each beam			(32)		X					
B4b	**S604**	average beam peak e.i.r.p./ 1 MHz for each beam			(32)		X					
B4b	**S728**	for the fixed-satellite service (space-to-Earth) in the band 6 700 - 7 075 MHz, calculated peak value of power flux-density produced within ±5 degrees inclination of the geostationary-satellite orbit.			(32)		X					
B5		**EARTH STATION ANTENNA CHARACTERISTICS**										
B5a	**S163**	The isotropic gain (dBi) of the antenna in the direction of maximum radiation (see No. S1.160).						X				
B5b	**S164**	Half-power beamwidth in degrees.						X				
B5c	**S167**	Either the measured radiation pattern of the antenna or the reference radiation pattern to be used for coordination.						X				
B6		**RADIO ASTRONOMY STATION ANTENNA CHARACTERISTICS**										
B6	**S166**	The antenna type and dimensions, effective area (16)										X
B6	**S169**	Operational sector’s start azimuth. (16)										X
B6	**S170**	Operational sector’s end azimuth. (16)										X
B6	**S168**	Planned minimum elevation angle. (16)										X
B6	**S381**	Planned maximum elevation angle. (16)										X
C		**CHARACTERISTICS TO BE PROVIDED FOR EACH GROUP OF FREQUENCY ASSIGNMENTS FOR A SATELLITE ANTENNA BEAM OR AN EARTH OR RADIO ASTRONOMY STATION ANTENNA**										
C1		**FREQUENCY RANGE**										

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C1	**S247**	The frequency range lower limit within which the carriers will be located for each Earth-to-space or space-to-Earth service area, or for each space-to-space relay. (16)	X	X	X						X	
C1	**S248**	The frequency range upper limit within which the carriers will be located for each Earth-to-space or space-to-Earth service area, or for each space-to-space relay. (16)	X	X	X						X	
C2		**ASSIGNED FREQUENCY (FREQUENCIES)**										
C2a	**S333**	The beam assigned frequency (frequencies), as defined in No. S1.148, in kHz up to 28 000 kHz inclusive, in MHz above 28 000 kHz to 10 500 MHz inclusive and in GHz above 10 500 MHz. If the basic characteristics are identical, with the exception of the assigned frequency, a list of frequency assignments may be provided.				X						
C2a	**S723**	The assignment coordination group assigned frequency (frequencies), as defined in No. S1.148, in kHz up to 28 000 kHz inclusive, in MHz above 28 000 kHz to 10 500 MHz inclusive and in GHz above 10 500 MHz. If the basic characteristics are identical, with the exception of the assigned frequency, a list of frequency assignments may be provided.				X	X	X	X	X		
C2a		Channel number							(19)			
Not in S4	**S712**	If an exclusive operation group its identification code							X(28)	X(28)		
C2b	**S256**	The centre of the frequency band observed, in kHz up to 28 000 kHz inclusive, in MHz above 28 000 kHz to 10 500 MHz inclusive and in GHz above 10 500 MHz.										X
C3		**ASSIGNED FREQUENCY BAND**										
C3a	**S190**	The bandwidth of the assigned frequency band in kHz (see No. S1.147).				X	X	X	X (28)	X		
C3b	**S374**	The bandwidth of the frequency band in kHz observed by the station.										X
C4		**CLASS OF STATION(S) AND NATURE OF SERVICE**										
C4	**S052**	The class of station using the symbols shown in the Preface to the International Frequency List.	X	X	X	X	X	X	X	X		X
C4	**S617**	The nature of service performed, using the symbols shown in the Preface to the International Frequency List.	X	X	X	X	X	X	X	X		X
C5		**RECEIVING SYSTEM NOISE TEMPERATURE**										

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C5a	**S192**	In the case of a space station, the lowest total receiving system noise temperature, in kelvins, referred to the output of the receiving antenna of the space station.			X	X	X			X	X	
C5b	**S764**	In the case of an earth station, the lowest total receiving system noise temperature, in kelvins, referred to the output of the receiving antenna of the earth station under clear-sky conditions. This value shall be indicated for the nominal value of the angle of elevation when the associated transmitting station is onboard a geostationary satellite and, in other cases, for the minimum value of the angle of elevation.						X				
C5c	**S764**	In the case of a radio astronomy station, the overall receiving system noise temperature in kelvins, referred to the output of the receiving antenna.										X
C6		**POLARIZATION**										
C6	**S189**	The type of polarization and, if appropriate, sense of polarization of the antenna. In the case of circular polarization, indicate the direction of polarization (see Nos. S1.154 and S1.155). In the case of a space station submitted in accordance with Appendix **S30** or **S30A**, this indication is to be in the direction of the boresight or the aim point or as defined in B.3 *g)* 3), B.3 *g)* 4) and B.3 *g)* 5), respectively. (34)			X	X	X	X	X	X		
C6	**S364**	In the case of linear polarization, indicate the angle (in degrees) measured counter-clockwise in a plane normal to the beam axis from the equatorial plane to the electric vector of the waves as seen from the satellite. In the case of a space station submitted in accordance with Appendix **S30** or **S30A**, this indication is to be in the direction of the boresight or the aim point or as defined in B.3 *g)* 3), B.3 *g)* 4) and B.3 *g)* 5), respectively. (34)			X	X	X	X	X	X		
C7		**CLASS OF EMISSION, NECESSARY BANDWIDTH AND DESCRIPTION OF THE TRANSMISSION**										
C7		**In accordance with Article S2 and Appendix S1:**										
C7a	**S262**	the class of emission;			O	X	X	X	X	X		
C7a	**S334**	the necessary bandwidth;			O	X	X	X	X	X		
C7b	**S257**	the carrier frequency of the emission(s);			O	C	C	C				
C7b	**S723**	the frequencies of the emission(s);			O	C	C	C				
C7c	**S262**	for each carrier the class of emission,;			O	C	C	C				
C7c	**S334**	for each carrier the necessary bandwidth;			O	C	C	C				

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C7c	**S262**	for each carrier the description of transmission;			O	C	C	C				
C7d	**S262**	for the carrier having the smallest bandwidth of the assignments in the system, the class of emission.			O	C	C	C				
C7d	**S334**	for the carrier having the smallest bandwidth of the assignments in the system, the necessary bandwidth.			O	C	C	C				
C7d	**S262**	for the carrier having the smallest bandwidth of the assignments in the system, the description of the transmission.			O	C	C	C				
C8		**POWER CHARACTERISTICS OF THE TRANSMISSION**										
C8a	**S264**	The maximum value of the peak envelope power (dBW) supplied to the input of the antenna for each carrier type			O (31) (46)	X (46)	X (46)	C (37)				
C8a	**S267**	The maximum power density (dB(W/Hz)) , averaged over the worst 4 kHz band for carriers below 15 GHz, supplied to the input of the antenna for each carrier type			X (31) (46)	X (46)	X (46)	O				
C8a	**S336**	The maximum power density (dB(W/Hz)) averaged over the worst 1 MHz band for carriers above 15 GHz, supplied to the input of the antenna for each carrier type			X (31) (46)	X (46)	X (46)	O				
C8b	**S263**	The total peak envelope power (dBW) supplied to the input of the antenna,.			O (31) (46)	X (46)	X (46)	X	(39)	(39)		
C8b	**S266**	The maximum power density (dB(W/Hz)) supplied to the input of the antenna, averaged over the worst 4 kHz band for carriers below 15 GHz.			X (31) (46)	X (46)	X (46)	X				
C8b	**S335**	The maximum power density (dB(W/Hz)) supplied to the input of the antenna averaged over the worst 1 MHz band for carriers above 15 GHz.			X (31) (46)	X (46)	X (46)	X				
C8c	**S265**	The minimum value of the peak envelope power (dBW) supplied to the input of the antenna for each carrier type			O	+ (40)	+ (40)	+ (40)				
C8c	**S269**	Reason for absence of the minimum value of the peak envelope power (dBW) supplied to the input of the antenna for each carrier type (40)				+	+	+				
C8c	**S268**	The minimum power density (dB(W/Hz))1, averaged over the worst 4 kHz band for carriers below 15 GHz supplied to the input of the antenna for each carrier type			O	+ (40)	+ (40)	+ (40)				
C8c	**S371**	The minimum power density (dB(W/Hz))1 averaged over the worst 1 MHz band for carriers above 15 GHz, supplied to the input of the antenna for each carrier type			O	+ (40)	+ (40)	+ (40)				

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C8c	**S372**	Reason for absence of the minimum power density supplied to the input of the antenna for each carrier type (40)				+	+	+				
C8d	**S193**	For a space to earth link the maximum total peak envelope power (dBW) supplied to the input of the antenna for each contiguous satellite bandwidth. For a satellite transponder, this corresponds to the maximum saturated peak envelope power. (35)				X	X					
C8d	**S249**	For a space to earth link each contiguous satellite bandwidth. For the maximum saturated peak envelope power of the satellite transponder, this corresponds to the bandwidth of each transponder. (35)				X	X					
C8d	**S776**	For a transmitting space to space link the maximum total peak envelope power (dBW) supplied to the input of the antenna for each contiguous satellite bandwidth. For a satellite transponder, this corresponds to the maximum saturated peak envelope power. (35)				X	X					
C8d	**S777**	For a space to space link each contiguous satellite bandwidth. For the maximum saturated peak envelope power of the satellite transponder, this corresponds to the bandwidth of each transponder. (35)				X	X					
C8e	**S270**	The required carrier-to-noise ratio (dB), considering clear-sky operation, for each carrier type.			O	+ (40)	+ (40)	+ (40)				
C8e	**S373**	Reason for absence of the carrier-to-noise ratio (40)				+	+	+				
C8f	**S652**	For space to space the space station’s nominal equivalent isotropically radiated power(s) on the beam axis. (16) (35)			X							
C8f	**S653**	For space to space the associated space station’s nominal equivalent isotropically radiated power(s) on the beam axis. (16) (35)			X							
C8g	**S600**	The maximum aggregate power (dBW) of all carriers (per transponder, if applicable) supplied to the input of the associated earth station antenna. (35)				C	C					
C8g	**S646**	The aggregate bandwidth of all carriers (per transponder, if applicable) supplied to the input of the associated earth station antenna. (35)				C	C					
C8g	**S765**	The aggregate bandwidth of all carriers (per transponder, if applicable) supplied to the input of the associated earth station antenna. If this corresponds to the bandwidth of a transponder, this shall be indicated..(35)				C	C					
C8g	**S771**	The maximum aggregate power (dBW) of all carriers (per transponder, if applicable) supplied to the input of the earth station antenna. (35)						C (44)				

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C8g	**S770**	The aggregate bandwidth of all carriers (per transponder, if applicable) supplied to the input of the earth station antenna. (35)						C (44)				
C8g	**S736**	The aggregate bandwidth of all carriers (per transponder, if applicable) supplied to the input of the earth station antenna If this corresponds to the bandwidth of a transponder, this shall be indicated. (35)						C (44)				
C8h		**In the case of a space station submitted in accordance with Appendix S30:**										
C8h	**S544**	the power supplied to the antenna (dBW) (Regions 1 and 3);							X			
C8h	**S544**	the power supplied to the antenna (dBW) (Region 2).							X			
C8h	**S208**	the maximum power density per Hz (dB(W/Hz)), averaged over the worst 5 MHz, supplied to the antenna							X			
C8h	**S207**	the maximum power density per Hz (dB(W/Hz)), averaged over the worst 40 kHz supplied to the antenna (Region 2).							X			
C8h	**S266**	the maximum power density per Hz (dB(W/Hz)), averaged over the worst 4 kHz supplied to the antenna							X			
	S647	the maximum power density per Hz (dB(W/Hz)), averaged over 27MHz							X (28)			
C8i		**In the case of an earth station submitted in accordance with Appendix S30A:**										
C8i	**S625**	total transmitting power (dBW) in the assigned frequency band supplied to the input of the antenna;								X		
C8i	**S335**	for the band 17.3 - 18.1 GHz, the maximum power density per Hz (dB(W/Hz)) supplied to the input of the antenna averaged over the worst 1 MHz band;								X		
C8i	**S266**	for the band 14.5 - 14.8 GHz, the maximum power density per Hz (dB(W/Hz)) supplied to the input of the antenna averaged over the worst 4 kHz band;								X		
C8i	**S209**	for the band 17.3 - 17.8 GHz, the maximum power density per Hz (dB(W/Hz)) supplied to the input of the antenna averaged over the total RF bandwidth (24 MHz for Region 2 or 27 MHz for Regions 1 and 3);								X		
C8i	**S330**	range of power control, expressed in dB, above the transmitting power indicated above (if power control is used).								X		
C8j		**In the case of a space station or an earth station submitted in accordance with Appendix S30B:**										

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C8j	**S618**	the maximum value of power density, in dB(W/Hz), averaged over the necessary bandwidth of the modulated carrier, supplied to the input of the antenna;				+ (7)		+ (7)			X	
C8j	**S250**	the frequency below which signals whose peak-to-average ratio is less than 5 dB will be located;				+ (7)		+ (7)			X	
C8j	**S266**	maximum carrier power density, in dB(W/Hz), averaged over the worst 4 kHz band, supplied to the antenna input.				+ (7)		+ (7)			X	
C9		**INFORMATION ON MODULATION CHARACTERISTICS**										
C9a		**For each carrier, according to the nature of the signal modulating the carrier and the type of modulation:**										
C9a1	**S196**	the lowest frequencies of the baseband;in the case of a carrier frequency modulated by a frequency-division multichannel telephony baseband (FDM/FM) or by a signal that can be represented by a multichannel telephony baseband;			O	C	C					
C9a1	**S197**	the highest frequencies of the baseband;in the case of a carrier frequency modulated by a frequency-division multichannel telephony baseband (FDM/FM) or by a signal that can be represented by a multichannel telephony baseband;			O	C	C					
C9a1	**S326**	the r.m.s. frequency deviation of the pre-emphasis characteristic for a test tone as a function of baseband frequency in the case of a carrier frequency modulated by a frequency-division multichannel telephony baseband (FDM/FM) or by a signal that can be represented by a multichannel telephony baseband;			O	C	C					
C9a2	**S327**	the standard of the television signal;in the case of a carrier frequency modulated by a television signal: where appropriate the colour standard of the television signal;			O	C	C					
C9a2	**S201**	the P-P frequency deviation of the pre-emphasis characteristic; in the case of a carrier frequency modulated by a television signal:			O	C	C					
C9a2	**S202**	the pre-emphasis characteristic itself; in the case of a carrier frequency modulated by a television signal:			O	C	C					
C9a2	**S199**	where applicable, the characteristics of the multiplexing of the video signal with the sound signal(s) or other signals; in the case of a carrier frequency modulated by a television signal:			O	C	C					
C9a3	**S204**	the bit rate; in the case of a carrier phase-shift modulated by a digital signal:			O	C	C		X (28)	X (28)		

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Not in S4	**S644**	the effective bit rate; in the case of a carrier phase-shift modulated by a digital signal:							X (28)	X (28)		
C9a3	**S205**	the number of phases; in the case of a carrier phase-shift modulated by a digital signal:			O	C	C					
C9a4	**S640**	the nature of the modulating signal in the case of an amplitude modulated carrier (including single sideband): as precisely as possible,;			O	C	C					
C9a4	**S641**	the kind of amplitude modulation used; in the case of an amplitude modulated carrier (including single sideband): as precisely as possible,			O	C	C					
C9a5	**S642**	such particulars as may be useful for an interference study; for all other types of modulation:			O	C	C					
C9a6	**S200**	for any type of modulation, as applicable: the characteristics of energy dispersal, such as the peak-to-peak frequency deviation.			O	C	C					
C9a6	**S324**	for any type of modulation, as applicable: the characteristics of energy dispersal, such as the sweep frequency (kHz) of the energy dispersal waveform.			O	C	C					
C9a6	**S325**	for any type of modulation, as applicable: the energy dispersal waveform.			O	C	C					
C9b		**In the case of a space station submitted in accordance with Appendix S30 or the case of a space station submitted in accordance with Appendix S30A:**										
C9b1	**S640**	type of modulation;							X	X		
C9b2	**S201**	P-P frequency deviation of the pre-emphasis characteristics;							X	X		
C9b2	**S202**	Pre-emphasis characteristic;							X	X		
C9b3	**S327**	TV standard;							X	X		
C9b4	**S203**	sound-broadcasting characteristics;							X	X		
C9b5	**S643**	frequency deviation;							X	X		
C9b6	**S198**	composition of the baseband;							X	X		
C9b7	**S199**	type of multiplexing of the video and sound signals;							X	X		
C9b8	**S200**	peak-to-peak frequency deviation of the energy dispersal waveform.							X	X		
C9b8	**S324**	Sweep frequency of energy dispersal waveform.							X	X		
C9b8	**S325**	Energy dispersal waveform.							X	X		

Appendix S4 Item	RDD ref:	Appendix S4 Data Description	Advance publication of a geostationary-satellite network	Advance publication of a non-geostationary satellite network subject to coordination under Section II of Article **S9**	Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article **S9**	Notification or coordination of a GSO network (including Appendix **S30B**)	Notification or coordination of a non-geostationary-satellite network	Notification or coordination of an earth station (including Appendix S30B)	Notice for space stations in the BSS under Appendix **S30** *	Notice for feeder-link stations under Appendix **S30A** *	Notice for stations in the FSS under Appendix **S30B**	Radio-astronomy
C9c	**S640**	the type of modulation In the case of a non-geostationary space station submitted in accordance with Resolution 46 (Rev. WRC 95)/No. S9.11A,.			(32)		X					
C9c	**S329**	the type of multiple access.In the case of a non-geostationary space station submitted in accordance with Resolution 46 (Rev. WRC 95)/No. S9.11A,			(32)		X					
C9c	**S195**	the spectrum mask In the case of a non-geostationary space station submitted in accordance with Resolution 46 (Rev. WRC 95)/No. S9.11A			(32)		X					
C10		**TYPE AND IDENTITY OF THE ASSOCIATED STATION(S)**										
C10		**The associated station may be another space station, a typical earth station of the network or a specific earth station.**										
C10a	**S069**	For an associated space station, its identity.			X	X	X					
Not in S4	**S507**	If the associated space station is in the geostationary orbit provide its nominal longitude (41)			X	X	X					
C10b	**S380**	For a specific associated earth station, the identity of the earth station i.e. site name.			X	X	X			X		
C10b	**S671**	For an associated earth station antenna, its identification code			X	X	X			X		
Not in S4	**S041**	For a specific associated earth station antenna the country or geographical area in which the associated earth station is located, using the symbols from the Preface to the International Frequency List;			X	X	X			X		
Not in S4	**S559**	Typical/Specific indicator (42)			X	X	X			X		
C10b	**S673**	For a specific associated earth station, the geographical coordinates of the antenna site.			X	X	X			X		
C10c		**For an associated earth station (whether specific or typical):**										
C10c1	**S052**	the class of station using the symbols shown in the Preface to the International Frequency List;			X	X	X			X	X	
C10c1	**S617**	the nature of service performed, using the symbols shown in the Preface to the International Frequency List;			X	X	X			X	X	
C10c2	**S676**	the isotropic gain (dBi) of the antenna in the direction of maximum radiation (see No. S1.160);			X	X	X		X (28)	X	X	
C10c3	**S677**	the beamwidth in degrees between the half power points (describe in detail if not symmetrical);			O	X	X		X(28)	X	X	

Appendix S4 Item	RDD ref:	Appendix S4 Data Description	Advance publication of a geostationary-satellite network	Advance publication of a non-geostationary satellite network subject to coordination under Section II of Article **S9**	Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article **S9**	Notification or coordination of a GSO network (including Appendix **S30B**)	Notification or coordination of a non-geostationary-satellite network	Notification or coordination of an earth station (including Appendix S30B)	Notice for space stations in the BSS under Appendix **S30** *	Notice for feeder-link stations under Appendix **S30A** *	Notice for stations in the FSS under Appendix **S30B**	Radio-astronomy
C10c4	**S678**	either the measured co-polar radiation pattern of the antenna or the reference radiation pattern;			X	X	X		X (28)	X	X	
C10c4	**S321**	either the measured cross-polar radiation pattern of the antenna or the reference radiation pattern;							X (28)	X		
C10c5	**S763**	the lowest total receiving system noise temperature, in kelvins, referred to the output of the receiving antenna of the earth station under clear-sky conditions, when the associated station is a receiving earth station;			X	X	X				X	
C10c6	**S165**	the antenna diameter (metres).								X		
Not in S4	**S650**	Equivalent Antenna Diameter							X (28)			
Not in S4	**S679**	The horizon elevation angle in degrees for each azimuth around the earth station.								X (17)		
Not in S4	**S172**	in the case of a station submitted in accordance with Appendix S30A, the antenna gain in the direction of the horizon for each azimuth around the earth station.								X (17) (18)		
Not in S4	**S680**	The planned minimum angle of elevation of the antenna in the direction of maximum radiation in degrees from the horizontal plane, having due regard to possible inclined-orbit operation of the associated space station.								X (17)		
Not in S4	**S674**	The ground altitude (metres) of the antenna above mean sea level. (16)								X (17)		
Not in S4	**S675**	The height (metres) of the antenna above ground level. (16)								X (17)		
C11		**SERVICE AREA**										
C11a	**S384**	The service area or areas of the satellite beam on the Earth, when the associated transmitting stations are earth stations.	X (49)	X (49)	X	X	X					
C11a	**S276**	The service area or areas of the satellite beam on the Earth, when the associated receiving stations are earth stations.	X (49)	X (49)	X	X	X					
C11b		**In the case of a space station submitted in accordance with Appendix S30A:**										
C11b	**S673**	the geographical coordinates of the feeder-link station (Rev. WRC-97)								X		
C11b		where the feeder-link earth station is in Region 2, the rain climatic zone of the feeder-link station in the frequency band 17.7 - 17.8 GHz, including the;								(19)		

Appendix S4 Item	RDD ref:	Appendix S4 Data Description	Advance publication of a geostationary-satellite network	Advance publication of a non-geostationary satellite network subject to coordination under Section II of Article **S9**	Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article **S9**	Notification or coordination of a GSO network (including Appendix **S30B**)	Notification or coordination of a non-geostationary-satellite network	Notification or coordination of an earth station (including Appendix S30B)	Notice for space stations in the BSS under Appendix **S30** *	Notice for feeder-link stations under Appendix **S30A** *	Notice for stations in the FSS under Appendix **S30B**	Radio-astronomy
C11b	**S384**	in all other cases, the feeder-link service area identified by a set of a maximum of twenty feeder-link test points, and by a service area contour on the surface of the Earth or defined by a minimum elevation angle. (Rev. WRC-97)								X		
C11b		in all other cases, the rain climatic zone for each test point of the feeder-link service area.								(19)		
C11c	**S276**	In the case of a space station submitted in accordance with Appendix S30 the service area identified by a set of a maximum of twenty test points and a list of geographical areas totally or partially in the service area and either a service area contour on the surface of the Earth. or defined by a minimum elevation angle (Rev. WRC-97) or Appendix S30B, the service area identified by a set of a maximum of twenty test points and by a service area contour on the surface of the Earth.							X		X (48)	
C11c	**S384**	In the case of a space station submitted in accordance with Appendix S30B, the feeder linkservice area identified by a set of a maximum of twenty test points and by a service area contour on the surface of the Earth.									X (48)	
C11d	**S214**	In the case of a non-geostationary space station submitted in accordance with Resolution 46 (Rev. WRC 95)/No. S9.11A, appropriate information required to calculate the affected region due to the MSS space stations (as defined in Recommendation ITU-R M.1187).					X					
C12		**REQUIRED PROTECTION RATIO**										
C12	**S210**	The minimum acceptable aggregate carrier-to-interference ratio, if less than 26 dB. The carrier-to-interference ratio is to be expressed in terms of the power averaged over the necessary bandwidth of the modulated wanted and interfering signals, assuming both the desired carrier and interfering signals have equivalent bandwidths and modulation types.									X	
C13		**CLASS OF OBSERVATIONS**										
C13	**S332**	The class of observations to be taken on the frequency band shown in item C.3 b). Class A observations are those in which the sensitivity of the equipment is not a primary factor. Class B observations are those of such a nature that they can be made only with advanced low-noise receivers using the best techniques.										X

Appendix S4 Item	RDD ref:	Appendix S4 Data Description	Advance publication of a geostationary-satellite network	Advance publication of a non-geostationary satellite network subject to coordination under Section II of Article **S9**	Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article **S9**	Notification or coordination of a GSO network (including Appendix **S30B**)	Notification or coordination of a non-geostationary-satellite network	Notification or coordination of an earth station (including Appendix S30B)	Notice for space stations in the BSS under Appendix **S30** *	Notice for feeder-link stations under Appendix **S30A** *	Notice for stations in the FSS under Appendix **S30B**	Radio-astronomy
C14		**TYPE OF RECEPTION**										
C14	**S156**	Type of reception (individual or community) in the case of a space station in Regions 1 and 3 submitted in accordance with Appendix S30.							X			
D		**OVERALL LINK CHARACTERISTICS TO BE PROVIDED ONLY WHEN SIMPLE FREQUENCY-CHANGING TRANSPONDERS ARE USED ON THE SPACE STATION ONBOARD A GEOSTATIONARY SATELLITE.**										
D1		**CONNECTION BETWEEN EARTH-TO-SPACE AND SPACE-TO-EARTH FREQUENCIES IN THE NETWORK**										
D1	**S610**	The connection between uplink and downlink beam frequency assignments in each transponder for each intended combination of receiving and transmitting beams.				X						
D1	**S774**	The connection between uplink and downlink assignment coordination group frequency assignments in each transponder for each intended combination of receiving and transmitting beams for Region 2.							X (28)	X (28)		
D2		**TRANSMISSION GAINS AND ASSOCIATED EQUIVALENT SATELLITE LINK NOISE TEMPERATURES**										
D2		**For each entry under D.1:**										
D2a	**S287**	The lowest equivalent satellite link noise temperature. These values shall be indicated for the nominal value of the angle of elevation.				X						
D2a	**S289**	The associated transmission gain of the lowest equivalent satellite link noise temperature. These values shall be indicated for the nominal value of the angle of elevation. The transmission gain is evaluated from the output of the receiving antenna of the space station to the output of the receiving antenna of the earth station.				X						
D2b	**S288**	The values of transmission gain that correspond to the highest ratio of transmission gain to equivalent satellite link noise temperature.				X						
D2b	**S286**	The values of associated equivalent satellite link noise temperature that correspond to the highest ratio of transmission gain to equivalent satellite link noise temperature.				X						

X - Mandatory; + Mandatory under specified conditions; O - Optional; C- Mandatory if used as a basis to effect coordination with another administration

* The application of this provision is suspended pending the decision of WRC-99

Notes to Table 2 (Variations from Appendix S4)

(1) Deletion: currently shown as mandatory in Appendix S4: however this data item is only required if the satellite network is not derived from the Allotment Plan and the provision of this information is provided under Appendix S4 item A.1.d.

(2) Explanation: currently not separately identified in Appendix S4; this data item is required if more than one administration has a participating interest in the space station e.g. sub-regional systems.

(3) Modification: currently shown in Appendix S4 as mandatory and combined with the earth station antenna's identification code that applies to both specific and typical antenna: this data item is only mandatory if it is a specific earth station.

(4) Addition: currently not listed in Appendix S4: this data item is required on the notification forms and is supplied with the notifying administration's name.

(5) Not used.

(6) Addition: currently not listed in Appendix S4: the notifying administration's correspondence address is required for the special section relating to the advance publication.

(7) Addition: currently not listed in Appendix S4: this data item is required for Appendix S30B to the Radio Regulations.

(8) Modification: currently shown as mandatory in Appendix S4: at WRC97 the requirement for this data item was changed to optional.

(9) Addition: currently not listed in Appendix S4: this data item is required for Appendix S30B to the Radio Regulations when the satellite network is not derived from the Allotment Plan.

(10) Comment: currently shown as mandatory in Appendix S4: this data item listed under A.4.b.1 is not necessary for non-geostationary satellites subject to coordination under Section II of Article S9 as the identical data is recorded under A4b5. Hence this data item should only be mandatory for non-geostationary satellites not subject to coordination under Section II of Article S9.

(11) Comment: currently shown as mandatory in Appendix S4: this data item is not necessary for non-geostationary satellites subject to coordination under Section II of Article S9 as more detailed data supplied under A4b5 makes it superfluous. Hence this data item should only be mandatory for non-geostationary satellites not subject to coordination under Section II of Article S9.

(12) Addition: currently not listed in Appendix S4: this data item is required on the notification forms and is used in non-geostationary satellite networks for identifying the reference body on which the orbit characteristics are based.

(13) Not used.

(14) Comment: currently not listed in Appendix S4 for advance publication: non-geostationary networks may operate in one or more orbital planes and the total number that the administration proposes to use may be necessary to provide other administrations and the BR with an indication of the networks potential impact.

(15) Comment: currently not listed in Appendix S4 for notification of non-geostationary networks not subject to coordination under Section II of Article S9: the requirement for this data item is based on Note (14) and would then be required for confirmation of any changes from the advance publication stage.

(16) Explanation: separation of compound data items into individual data items to clarify the information required and improve identification of different data formats.

(17) Explanation: currently listed in Appendix S4 under Earth Station section A7: the BR treat the notification of Appendix S30A as a space station with an associated transmitting Earth station therefore this data item is more appropriately located under section C10 this is equivalent to the requirements of Appendix S4.

(18) Comment: currently listed as mandatory in Appendix S4: this data item can be deleted as the information it contains can be calculated from the antenna pattern and the horizon elevation pattern.

(19) Deletion: currently shown as mandatory in Appendix S4: the requirement for this data item was deleted at WRC97.

(20) Comment: currently listed as mandatory in Appendix S4: this data item can be deleted as the information it contains can be calculated from other mandatory data.

(21) Addition: currently not listed in Appendix S4: this data item is included to enable confirmation that the space station with which the Earth station will communicate has entered the advance publication stage.

(22) Deletion: currently listed as mandatory in Appendix S4: the regulatory provision does not apply to non-geostationary space stations.

(23) Not used.

(24) Deletion: currently listed as mandatory in Appendix S4: the regulatory provision only applies to the space station and is therefore not required for notification of Earth stations.

(25) Comment: currently not listed in Appendix S4 for the Plans: this data item has been included as steerable beams are permitted and have been submitted for notification and it may be necessary therefore to have an indication of whether the beam is steerable.

(26) Addition: currently not listed in Appendix S4: this data item is required for Appendix S30B if the beam is in a sub-regional system.

(27) Modification: currently shown as required for coordination in Appendix S4: however this data item is requested to be included within the plots for antenna contours for notification.

(28) Addition: currently not listed in Appendix S4: the requirement for this data item was added at WRC97.

(29) Comment: currently listed as mandatory in Appendix S4: the requirement for this data item was deleted for the APS30 and APS30A Plans at WRC-97 and it is considered that this data item can be deleted for APS30B as the information it contains can be determined from other mandatory data.

(30) Not used.

(31) Explanation: currently listed in Appendix S4 with a footnote: this data item has been separated into its component parts and the footnote is now not required: this is equivalent to the requirements of Appendix S4.

(32) Deletion: currently listed in Appendix S4 as mandatory: this data item was inadvertently added at WRC97 and the information to which it refers is only applicable to non-geostationary satellites subject to coordination under Section II of Article S9. The Radio Regulatory Board have issued a Rule of Procedure that states “the Bureau, in the completeness examination of the submitted data, will disregard the requirement for the characteristics B.4.b and C.9.c in the case of the advance publication of those non-GSO satellite systems which are not subject to the coordination procedures of Section II of Article S9”. Therefore it is proposed that this data should be deleted from Appendix S4.

(33) Modification: currently listed as mandatory in Appendix S4: the regulatory provision only applies to frequency bands covered by a footnote in Article S5 of the Radio Regulations.

(34) Comment: the definition of linear polarisation angle in Annex 2 to Appendix S30/S30A and the RDD state it is viewed from the satellite. Further in Appendix S30/S30A circular polarization is defined as viewed in the direction of propagation. In Appendix S4 Circular Polarisation is defined as viewed from the satellite. In the Preface to the IFL, both circular polarisation and linear polarisation are quoted as viewed in the direction of propagation. This is likely to cause confusion with the possible swapping of co/cross polarisation during the notification process.

(35) Explanation: currently listed in Appendix S4 with a footnote: the text for the data item has been changed and the footnote is now not required: this is equivalent to the requirements of Appendix S4.

(36) Modification: currently listed as mandatory in Appendix S4: this data item is only required for sub-regional systems.

(37) Modification: currently shown as required for coordination in Appendix S4 with a footnote that states “only the total peak envelope power is required for coordination under S9.15, S9.17 and S9.17A”: this statement is incorrect and should refer to the maximum peak envelope power.

(38) Modification: currently listed as mandatory in Appendix S4: this data item is only required in specific cases (e.g. when communicating with geostationary space stations).

(39) Comment: in the BSS the transmitting power is given under C.8.h: it is considered that this information could be replaced by the use of the Total Peak Envelope Power (C8b), which would be applicable for analogue channels where there is a single BSS channel in the Assignment Coordination Group. For the case where there are multiple carriers in the ACG, it may then also be appropriate to use the Maximum Peak Envelope Power

(40) Explanation: currently listed in Appendix S4 as a footnote: this data item has been brought into the table and the footnote is now not required: this is equivalent to the requirements of Appendix S4.

(41) Addition: currently not listed in Appendix S4: this data item is required if the associated space station is in the geostationary orbit.

(42) Addition: currently not listed in Appendix S4: this data item is included to identify if the associated earth station is typical or specific.

(43) Modification: currently shown as mandatory in Appendix S4: this regulatory provision and Resolution 33 only apply to the Broadcasting-Satellite Service, where it is not subject to a plan.

(44) Appendix S4 to the Radio Regulations, footnote: "Not required for coordination under No. **S9.15**, **S9.17** or **S9.17A**."

(45) Explanation: this data item is the Site name

(46) Appendix S4 to the Radio Regulations, footnote: "One or the other of C.8.a or C.8.b is mandatory, but not both."

(47) Not used.

(48) Comment: the number of test points used in APS30B could be increased from 10 to 20 for compatibility with the changes at WRC97 to the APS30 and APS30A Plans.

(49) Appendix S4 to the Radio Regulations, footnote: "Only the list of country or geographic designators or a narrative description of the service area shall be supplied."

RADIOCOMMUNICATION DATA DICTIONARY

Section 9

APPENDICES TO SECTIONS 1 TO 8 OF THE RDD

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9.1 Appendix 1: Codes Designating Notifying Administrations

Note 1: *The presence of any given code designating a country with respect to a frequency assignment to a station is without prejudice to any question of territorial status which may be involved.*

Note 2: *Some codes do not designate an ITU Member, and cover international frequency assignments which are not notified by any country.*

Code	Name of the administration (ITU Member State)
AFG	Afghanistan (Islamic State of)
AFS	South Africa (Republic of)
AGL	Angola (Republic of)
ALB	Albania (Republic of)
ALG	Algeria (People's Democratic Republic of)
AND	Andorra (Principality of)
ARG	Argentine Republic
ARM	Armenia (Republic of)
ARS	Saudi Arabia (Kingdom of)
ATG	Antigua and Barbuda
AUS	Australia
AUT	Austria
AZE	Azerbaijani Republic
B	Brazil (Federative Republic of)
BAH	Bahamas (Commonwealth of the)
BDI	Burundi (Republic of)
BEL	Belgium
BEN	Benin (Republic of)
BFA	Burkina Faso
BGD	Bangladesh (People's Republic of)
BHR	Bahrain (State of)
BIH	Bosnia and Herzegovina (Republic of)
BLR	Belarus (Republic of)
BLZ	Belize
BOL	Bolivia (Republic of)
BOT	Botswana (Republic of)
BRB	Barbados
BRM	Myanmar (Union of)
BRU	Brunei Darussalam
BTN	Bhutan (Kingdom of)
BUL	Bulgaria (Republic of)
CAF	Central African Republic
CAN	Canada
CBG	Cambodia (Kingdom of)
CHL	Chile
CHN	China (People's Republic of)
CLM	Colombia (Republic of)
CLN	Sri Lanka (Democratic Socialist Republic of)
CME	Cameroon (Republic of)
COD	Congo (Democratic Republic of the)

Code	Name of the administration (ITU Member State)
COG	Congo (Republic of the)
COM	Comoros (Islamic Federal Republic of the)
CPV	Cape Verde (Republic of)
CTI	Côte d'Ivoire (Republic of)
CTR	Costa Rica
CUB	Cuba
CVA	Vatican City State
CYP	Cyprus (Republic of)
CZE	Czech Republic
D	Germany (Federal Republic of)
DJI	Djibouti (Republic of)
DMA	Dominica (Commonwealth of)
DNK	Denmark
DOM	Dominican Republic
E	Spain
EGY	Egypt (Arab Republic of)
EQA	Ecuador
ERI	Eritrea
EST	Estonia (Republic of)
ETH	Ethiopia (Federal Democratic Republic of)
F	France
FIN	Finland
FJI	Fiji (Republic of)
FSM	Micronesia (Federated States of)
G	United Kingdom of Great Britain and Northern Ireland
GAB	Gabonese Republic
GEO	Georgia
GHA	Ghana
GMB	Gambia (Republic of the)
GNB	Guinea-Bissau (Republic of)
GNE	Equatorial Guinea (Republic of)
GRC	Greece
GRD	Grenada
GTM	Guatemala (Republic of)
GUI	Guinea (Republic of)
GUY	Guyana
HND	Honduras (Republic of)
HNG	Hungary (Republic of)
HOL	Netherlands (Kingdom of the)
HRV	Croatia (Republic of)
HTI	Haiti (Republic of)
I	Italy
IND	India (Republic of)
INS	Indonesia (Republic of)
IRL	Ireland
IRN	Iran (Islamic Republic of)
IRQ	Iraq (Republic of)
ISL	Iceland

Code	Name of the administration (ITU Member State)
ISR	Israel (State of)
ITU	This symbol indicates recordings in the Master Register which do not result from a notification, such as allotments and frequencies for common use, which are entered by the BR in accord. with the relevant provisions of the Radio Regulations. It is also used in some cases in frequency plans for entries in respect of the requirements conference concerned.
J	Japan
JMC	Jamaica
JOR	Jordan (Hashemite Kingdom of)
KAZ	Kazakhstan (Republic of)
KEN	Kenya (Republic of)
KGZ	Kyrgyz Republic
KIR	Kiribati (Republic of)
KOR	Korea (Republic of)
KRE	Democratic People's Republic of Korea
KWT	Kuwait (State of)
LAO	Lao People's Democratic Republic
LBN	Lebanon
LBR	Liberia (Republic of)
LBY	Libya (Socialist People's Libyan Arab Jamahiriya)
LCA	Saint Lucia
LIE	Liechtenstein (Principality of)
LSO	Lesotho (Kingdom of)
LTU	Lithuania (Republic of)
LUX	Luxembourg
LVA	Latvia (Republic of)
MAU	Mauritius (Republic of)
MCO	Monaco (Principality of)
MDA	Moldova (Republic of)
MDG	Madagascar (Republic of)
MEX	Mexico
MHL	Marshall Islands (Republic of the)
MKD	The former Yugoslav Republic of Macedonia
MLA	Malaysia
MLD	Maldives (Republic of)
MLI	Mali (Republic of)
MLT	Malta
MNG	Mongolia
MOZ	Mozambique (Republic of)
MRC	Morocco (Kingdom of)
MTN	Mauritania (Islamic Republic of)
MWI	Malawi
NCG	Nicaragua
NGR	Niger (Republic of the)
NIG	Nigeria (Federal Republic of)
NMB	Namibia (Republic of)
NOR	Norway
NPL	Nepal
NRU	Nauru (Republic of)

Code	Name of the administration (ITU Member State)
NZL	New Zealand
OMA	Oman (Sultanate of)
ONC	Stations of the "United Nations Military Observer Group in India and Pakistan".
ONJ	Stations of the "United Nations Truce Supervision Organization in areas between the Armistice Demarcation Lines at Jerusalem".
ONU	United Nations
PAK	Pakistan (Islamic Republic of)
PHL	Philippines (Republic of the)
PLW	Republic of Palau
PNG	Papua New Guinea
PNR	Panama (Republic of)
POL	Poland (Republic of)
POR	Portugal
PRG	Paraguay (Republic of)
PRU	Peru
QAT	Qatar (State of)
ROU	Romania
RRW	Rwandese Republic
RUS	Russian Federation
S	Sweden
SDN	Sudan (Republic of the)
SEN	Senegal (Republic of)
SEY	Seychelles (Republic of)
SLM	Solomon Islands
SLV	El Salvador (Republic of)
SMO	Western Samoa (Independent State of)
SMR	San Marino (Republic of)
SNG	Singapore (Republic of)
SOM	Somali Democratic Republic
SRL	Sierra Leone
STP	Sao Tome and Principe (Democratic Republic of)
SUI	Switzerland (Confederation of)
SUR	Suriname (Republic of)
SVK	Slovak Republic
SVN	Slovenia (Republic of)
SWZ	Swaziland (Kingdom of)
SYR	Syrian Arab Republic
TCD	Chad (Republic of)
TCH	The symbol TCH is to be considered as applying equally to the Czech Republic and the Slovak Republic until a final decision has been taken by the two administrations concerned regarding the status of the (assignment) (allotment) against which it appears.
TGO	Togolese Republic
THA	Thailand
TJK	Tajikistan (Republic of)
TKM	Turkmenistan
TON	Tonga (Kingdom of)
TRD	Trinidad and Tobago
TUN	Tunisia

Code	Name of the administration (ITU Member State)
TUR	Turkey
TUV	Tuvalu
TZA	Tanzania (United Republic of)
UAE	United Arab Emirates
UGA	Uganda (Republic of)
UKR	Ukraine
URG	Uruguay (Eastern Republic of)
URS	In column B (notifying administration) only against assignments notified by the Administration of ex-USSR
USA	United States of America
UZB	Uzbekistan (Republic of)
VCT	Saint Vincent and the Grenadines
VEN	Venezuela (Republic of)
VTN	Viet Nam (Socialist Republic of)
VUT	Vanuatu (Republic of)
YEM	Yemen (Republic of)
YUG	Yugoslavia (Federal Republic of)
ZMB	Zambia (Republic of)
ZWE	Zimbabwe (Republic of)

9.2 Appendix 2: List Of Intergovernmental Satellite Organizations

Code	Intergovernmental Satellite Organization	Notifying Administration
ARB	ARABSAT	ARS
ASA	ASETA	VEN
ESA	EUROPEAN SPACE AGENCY	F
EUT	EUTELSAT	F
IK	INTERSPOUTNIK	RUS
INM	INMARSAT	G
IT	INTELSAT	USA
NOT	NOTELSAT	S

9.3 Appendix 3: Codes Designating Geographical Areas

***Note**: The codes have a geographical significance only. The presence of any given code designating a country or a geographical area with respect to a frequency assignment to a station is without prejudice to any question of territorial status which may be involved.*

Code	Radiocommunication Region	Notifying Administration	Name of the geographical area
AAA*	Shared throughout the world.		
AAB	Shared by several countries, but in a restricted area of the world.		
MMM	This code is used to indicate the use of the frequency assignment for inter-ship communications.		
MWM	This code is used to indicate either a coordination that is required, or one that has been obtained, on a worldwide basis.		
ABW	2	HOL	Aruba
AFG	3	AFG	Afghanistan (Islamic State of)
AFS	1	AFS	South Africa (Republic of)
AGL	1	AGL	Angola (Republic of)
AIA	2	G	Anguilla
ALB	1	ALB	Albania (Republic of)
ALG	1	ALG	Algeria (People's Democratic Republic of)
ALS	2	USA	Alaska (State of), United States of America
AMS	3	F	Saint Paul and Amsterdam Islands
AND	1	AND	Andorra (Principality of)
AOE	1	MRC**	Western Sahara
ARG	2	ARG	Argentine Republic
ARM	1	ARM	Armenia (Republic of)
ARS	1	ARS	Saudi Arabia (Kingdom of)
ASC	1	G	Ascension
ATA	Antarctica		
ATG	2	ATG	Antigua and Barbuda
ATN	2	HOL	Netherlands Antilles
AUS	3	AUS	Australia
AUT	1	AUT	Austria
AZE	1	AZE	Azerbaijani Republic
AZR	1	POR	Azores
B	2	B	Brazil (Federative Republic of)
BAH	2	BAH	Bahamas (Commonwealth of the)
BDI	1	BDI	Burundi (Republic of)
BEL	1	BEL	Belgium
BEN	1	BEN	Benin (Republic of)
BER	2	G	Bermuda
BFA	1	BFA	Burkina Faso
BGD	3	BGD	Bangladesh (People's Republic of)
BHR	1	BHR	Bahrain (State of)
BIH	1	BIH	Bosnia and Herzegovina (Republic of)
BIO	3	G	British Indian Ocean Territory
BLR	1	BLR	Belarus (Republic of)
BLZ	2	BLZ	Belize
BOL	2	BOL	Bolivia (Republic of)
BOT	1	BOT	Botswana (Republic of)

* Used by all administrations
** Under certain conditions

Code	Radiocommunication Region	Notifying Administration	Name of the geographical area
BRB	2	BRB	Barbados
BRM	3	BRM	Myanmar (Union of)
BRU	3	BRU	Brunei Darussalam
BTN	3	BTN	Bhutan (Kingdom of)
BUL	1	BUL	Bulgaria (Republic of)
CAF	1	CAF	Central African Republic
CAN	2	CAN	Canada
CAR	3	USA	Caroline Islands
CBG	3	CBG	Cambodia (Kingdom of)
CHL	2	CHL	Chile (except Easter Island)
CHN	3	CHN	China (People's Republic of)
CHR	3	AUS	Christmas Island (Indian Ocean)
CKH	3	NZL	Cook Islands
CLM	2	CLM	Colombia (Republic of)
CLN	3	CLN	Sri Lanka (Democratic Socialist Republic of)
CME	1	CME	Cameroon (Republic of)
CNR	1	E	Canary Islands
COD	1	COD	Congo (Democratic Republic of the)
COG	1	COG	Congo (Republic of the)
COM	1	COM	Comoros (Islamic Federal Republic of the)
CPV	1	CPV	Cape Verde (Republic of)
CRO	1	F	Crozet Archipelago
CTI	1	CTI	Côte d'Ivoire (Republic of)
CTR	2	CTR	Costa Rica
CUB	2	CUB	Cuba
CVA	1	CVA	Vatican City State
CYM	2	G	Cayman Islands
CYP	1	CYP	Cyprus (Republic of)
CZE	1	CZE	Czech Republic
D	1	D	Germany (Federal Republic of)
DGA	3	G	Diego Garcia
DJI	1	DJI	Djibouti (Republic of)
DMA	2	DMA	Dominica (Commonwealth of)
DNK	1	DNK	Denmark
DOM	2	DOM	Dominican Republic
E	1	E	Spain
EGY	1	EGY	Egypt (Arab Republic of)
EQA	2	EQA	Ecuador
ERI	1	ERI	Eritrea
EST	1	EST	Estonia (Republic of)
ETH	1	ETH	Ethiopia (Federal Democratic Republic of)
F	1	F	France
FIN	1	FIN	Finland
FJI	3	FJI	Fiji (Republic of)
FLK	2	G	Falkland Islands (Malvinas)
FSM	3	FSM	Micronesia (Federated States of)
G	1	G	United Kingdom of Great Britain and Northern Ireland
GAB	1	GAB	Gabonese Republic
GCA	1	G	Territories of the United Kingdom in Region 1
GCC	3	G	Territories of the United Kingdom in Region 3
GDL	2	F	Guadeloupe (French Department of)

Code	Radiocommunication Region	Notifying Administration	Name of the geographical area
GEO	1	GEO	Georgia
GHA	1	GHA	Ghana
GIB	1	G	Gibraltar
GMB	1	GMB	Gambia (Republic of the)
GNB	1	GNB	Guinea-Bissau (Republic of)
GNE	1	GNE	Equatorial Guinea (Republic of)
GRC	1	GRC	Greece
GRD	2	GRD	Grenada
GRL	2	DNK	Greenland
GTM	2	GTM	Guatemala (Republic of)
GUF	2	F	Guiana (French Department of)
GUI	1	GUI	Guinea (Republic of)
GUM	3	USA	Guam
GUY	2	GUY	Guyana
HKG	3	CHN	Hongkong
HND	2	HND	Honduras (Republic of)
HNG	1	HNG	Hungary (Republic of)
HOL	1	HOL	Netherlands (Kingdom of the)
HRV	1	HRV	Croatia (Republic of)
HTI	2	HTI	Haiti (Republic of)
HWA	3	USA	Hawaii (State of), United States of America
I	1	I	Italy
ICO	3	AUS	Cocos Keeling Islands
IND	3	IND	India (Republic of)
INS	3	INS	Indonesia (Republic of)
IRL	1	IRL	Ireland
IRN	3	IRN	Iran (Islamic Republic of)
IRQ	1	IRQ	Iraq (Republic of)
ISL	1	ISL	Iceland
ISR	1	ISR	Israel (State of)
J	3	J	Japan
JMC	2	JMC	Jamaica
JON	2	USA	Johnston Island
JOR	1	JOR	Jordan (Hashemite Kingdom of)
KAZ	1	KAZ	Kazakhstan (Republic of)
KEN	1	KEN	Kenya (Republic of)
KER	3	F	Kerguelen Islands
KGZ	1	KGZ	Kyrgyz Republic
KIR	3	KIR	Kiribati (Republic of)
KOR	3	KOR	Korea (Republic of)
KRE	3	KRE	Democratic People's Republic of Korea
KWT	1	KWT	Kuwait (State of)
LAO	3	LAO	Lao People's Democratic Republic
LBN	1	LBN	Lebanon
LBR	1	LBR	Liberia (Republic of)
LBY	1	LBY	Libya (Socialist People's Libyan Arab Jamahiriya)
LCA	2	LCA	Saint Lucia
LIE	1	LIE	Liechtenstein (Principality of)
LSO	1	LSO	Lesotho (Kingdom of)
LTU	1	LTU	Lithuania (Repubic of)
LUX	1	LUX	Luxembourg

Code	Radiocommunication Region	Notifying Administration	Name of the geographical area
LVA	1	LVA	Latvia (Republic of)
MAC	3	POR	Macao
MAU	1	MAU	Mauritius (Republic of)
MCO	1	MCO	Monaco (Principality of)
MDA	1	MDA	Moldova (Republic of)
MDG	1	MDG	Madagascar (Republic of)
MDR	1	POR	Madeira
MDW	2	USA	Midway Islands
MEX	2	MEX	Mexico
MHL	3	USA	Marshall Islands (Republic of the)
MKD	1	MKD	The former Yugoslav Republic of Macedonia
MLA	3	MLA	Malaysia
MLD	3	MLD	Maldives (Republic of)
MLI	1	MLI	Mali (Republic of)
MLT	1	MLT	Malta
MNG	1	MNG	Mongolia
MOZ	1	MOZ	Mozambique (Republic of)
MRA	3	USA	Mariana Islands
MRC	1	MRC	Morocco (Kingdom of)
MRN	1	AFS	Marion Island
MRT	2	F	Martinique (French Department of)
MSR	2	G	Montserrat
MTN	1	MTN	Mauritania (Islamic Republic of)
MWI	1	MWI	Malawi
MYT	1	F	Mayotte Island
NCG	2	NCG	Nicaragua
NCL	3	F	New Caledonia
NFK	3	AUS	Norfolk Island
NGR	1	NGR	Niger (Republic of the)
NIG	1	NIG	Nigeria (Federal Republic of)
NIU	3	NZL	Niue Island
NMB	1	NMB	Namibia (Republic of)
NOR	1	NOR	Norway
NPL	3	NPL	Nepal
NRU	3	NRU	Nauru (Republic of)
NZL	3	NZL	New Zealand
OCE	3	F	French Polynesia
OMA	1	OMA	Oman (Sultanate of)
PAK	3	PAK	Pakistan (Islamic Republic of)
PAQ	2	CHL	Easter Island (Chile)
PHL	3	PHL	Philippines (Republic of the)
PHX	3	KIR/USA	Phoenix Islands
PLM	3	USA	Palmyra Island
PLW	3	PLW	Republic of Palau
PNG	3	PNG	Papua New Guinea
PNR	2	PNR	Panama (Republic of)
POL	1	POL	Poland (Republic of)
POR	1	POR	Portugal
PRG	2	PRG	Paraguay (Republic of)
PRU	2	PRU	Peru
PTC	3	G	Pitcairn Island

Code	Radiocommunication Region	Notifying Administration	Name of the geographical area
PTR	2	USA	Puerto Rico
QAT	1	QAT	Qatar (State of)
REU	1	F	Reunion (French Department of)
RG1	1		Region 1
RG2	2		Region 2
RG3	3		Region 3
ROD	3	MAU	Rodriguez
ROU	1	ROU	Romania
RRW	1	RRW	Rwandese Republic
RUS	1	RUS	Russian Federation
S	1	S	Sweden
SCN	2	SCN	Saint Christopher and Nevis
SDN	1	SDN	Sudan (Republic of the)
SEN	1	SEN	Senegal (Republic of)
SEY	1	SEY	Seychelles (Republic of)
SHN	1	G	Saint Helena
SLM	3	SLM	Solomon Islands
SLV	2	SLV	El Salvador (Republic of)
SMA	3	USA	American Samoa
SMO	3	SMO	Western Samoa (Independent State of)
SMR	1	SMR	San Marino (Republic of)
SNG	3	SNG	Singapore (Republic of)
SOM	1	SOM	Somali Democratic Republic
SPM	2	F	Saint Pierre and Miquelon (French Department of)
SRL	1	SRL	Sierra Leone
STP	1	STP	Sao Tome and Principe (Democratic Republic of)
SUI	1	SUI	Switzerland (Confederation of)
SUR	2	SUR	Suriname (Republic of)
SVK	1	SVK	Slovak Republic
SVN	1	SVN	Slovenia (Republic of)
SWN	2	HND	Swan Islands
SWZ	1	SWZ	Swaziland (Kingdom of)
SYR	1	SYR	Syrian Arab Republic
TCA	2	G	Turks and Caicos Islands
TCD	1	TCD	Chad (Republic of)
TCH	1	TCH	The code TCH is to be considered as applying equally to the Czech Republic and the Slovak Republic until a final decision has been taken by the two Administrations concerned regarding the status of the assignment or the allotment against which it appears.
TGO	1	TGO	Togolese Republic
THA	3	THA	Thailand
TJK	1	TJK	Tajikistan (Republic of)
TKL	3	NZL	Tokelau Islands
TKM	1	TKM	Turkmenistan
TMP	3	INS	East Timor
TON	3	TON	Tonga (Kingdom of)
TRC	1	G	Tristan da Cunha
TRD	2	TRD	Trinidad and Tobago
TUN	1	TUN	Tunisia
TUR	1	TUR	Turkey
TUV	3	TUV	Tuvalu
TZA	1	TZA	Tanzania (United Republic of)

Code	Radiocommunication Region	Notifying Administration	Name of the geographical area
UAE	1	UAE	United Arab Emirates
UGA	1	UGA	Uganda (Republic of)
UKR	1	UKR	Ukraine
URG	2	URG	Uruguay (Eastern Republic of)
URS	1	URS	Only against assignments notified by the Administration of ex-USSR.
USA	2	USA	The 48 contiguous States of the United States of America (excluding the States of Alaska and Hawaii)
UZB	1	UZB	Uzbekistan (Republic of)
VCT	2	VCT	Saint Vincent and the Grenadines
VEN	2	VEN	Venezuela (Republic of)
VIR	2	USA	United States Virgin Islands
VRG	2	G	British Virgin Islands
VTN	3	VTN	Viet Nam (Socialist Republic of)
VUT	3	VUT	Vanuatu (Republic of)
WAK	3	USA	Wake Island
WAL	3	F	Wallis and Futuna Islands
YEM	1	YEM	Yemen (Republic of)
YUG	1	YUG	Yugoslavia (Federal Republic of)
ZMB	1	ZMB	Zambia (Republic of)
ZWE	1	ZWE	Zimbabwe (Republic of)

9.4 Appendix 4: Radiocommunication Services

The Radiocommunication Services are defined in the Radio Regulations, Chapter S-I, Article S1 (Terms and definitions).
The Radiodetermination Service while defined in the Radio Regulations, is not used directly in Article S5 of the Radio Regulations (Table of Frequency Allocations). Instead, Radiolocation and Radionavigation are used, as subsets of the Radiodetermination Service.
This table of Radiocommunication Services may not be needed, if the ***Class Of Station*** defines unambiguously the Radiocommunication Service to which a station pertains. However, for the purpose of checking the conformity of a frequency assignment with Article S5 of the Radio Regulations, there may be merits in giving directly the Radiocommunication Service at the assignment level, rather than indirectly through the ***Class Of Station*** of the two ends of a link.

9.4.1 Table of Radiocommunication Terrestrial Services

Code	Name of the Radiocommunication Service
B	Broadcasting
D	Radiodetermination
DL	Radiolocation
DN	Radionavigation
DNA	Aeronautical radionavigation
DNM	Maritime radionavigation
F	Fixed
H	Standard frequency and time signal
M	Mobile
MT	Land mobile
MM	Maritime mobile
MA	Aeronautical mobile
MAR	Aeronautical mobile (R)
MAO	Aeronautical mobile (OR)
MX	Mobile except aeronautical mobile
MXO	Mobile except aeronautical mobile (OR)
MXR	Mobile except aeronautical mobile (R)
Z	Amateur

9.4.2 Table of Radiocommunication Space Services

Code	Name of the Radiocommunication Service
SA	Radioastronomy
SB	Broadcasting-satellite
SD	Radiodetermination-satellite
SDL	Radiolocation-satellite
SDN	Radionavigation-satellite
SDNA	Aeronautical radionavigation-satellite
SDNM	Maritime radionavigation-satellite
SF	Fixed-satellite
SH	Standard frequency and time signal-satellite
SI	Inter-satellite
SM	Mobile-satellite
SMT	Land mobile-satellite
SMM	Maritime mobile-satellite
SMA	Aeronautical mobile-satellite
SMAR	Aeronautical mobile-satellite (R)
SMAO	Aeronautical mobile-satellite (OR)
SMX	Mobile-satellite, except Aeronautical mobile-satellite
SMXO	Mobile-satellite, except Aeronautical mobile-satellite (OR)
SMXR	Mobile-satellite, except Aeronautical mobile-satellite (R)
SO	Space operation
SR	Space research
SW	Meteorological-satellite
SX	Earth exploration-satellite
SZ	Amateur-satellite

The Aeronautical radionavigation-satellite Service (SDNA) and the Maritime radionavigation-satellite Service (SDNM) do not appear in the Table of Allocations of the Radio Regulations (Article S5), although corresponding Classes Of Stations exist in the Preface to the IFL, Table 6A1, as EO, for a Space station in the Aeronautical radionavigation-satellite Service; TO, for a Mobile earth station in the Aeronautical radionavigation-satellite Service; TZ, for a Fixed earth station in the Aeronautical radionavigation-satellite Service; EQ, for a Space station in the Maritime radionavigation-satellite Service; TQ, for a Mobile earth station in the Maritime radionavigation-satellite Service; TX, for a Fixed earth station in the Maritime radionavigation-satellite Service.

Suffixes
The following suffixes may complement the codes defined in the above Table:

- T earth to space
- S space to earth
- I space to space
- P passive
- A active
- D deep space

Example: SR-DT means: Space Research (deep space) (earth to space)

9.5 Appendix 5: Table Of Classes Of Station

9.5.1 Classes Of Station For The Terrestrial Services

Class Of Station Code	Name of the Class Of Station	Code Of Service as in Appendix 4
AL	Land station in the Aeronautical radionavigation Service	DNA
AM	Mobile station in the Aeronautical radionavigation Service	DNA
AT	Amateur station	Z
BC	Broadcasting station, sound	B
BT	Broadcasting station, television	B
FA	Aeronautical station, i.e. land station in the Aeronautical mobile Service	MA
FB	Base station, i.e. land station in the Land Mobile Service	MT
FC	Coast station, i.e. land station in the Maritime Mobile Service	MM
FD	Aeronautical station in the Aeronautical mobile (R) Service	MAR
FG	Aeronautical station in the Aeronautical mobile (OR) Service	MAO
FL	Land station, i.e. station in the Mobile Service not intended to be used while in motion	M
FP	Port station, i.e. coast station in the port operations service, part of the Maritime Mobile Service	MM
FX	Fixed station, i.e. station in the Fixed Service	F
LR	Radiolocation land station, i.e. station in the Radiolocation Service not intended to be used while in motion	DL
MA	Aircraft station, i.e. mobile station in the Aeronautical mobile Service	MA
ML	Land mobile station, i.e. mobile station in the Land Mobile Service	MT
MO	Mobile station, i.e. station in the Mobile Service intended to be used while in motion or during halts at unspecified points	M
MR	Radiolocation mobile station, i.e. station in the Radiolocation Service intended to be used while in motion or during halts at unspecified points	DL
MS	Ship station, i.e. mobile station in the Maritime Mobile Service	MM
NL	Maritime radionavigation land station	DNM
NR	Radionavigation mobile station, i.e. station in the Radionavigation Service intended to be used while in motion or during halts at unspecified points	DN
OD	Oceanographic data station	W
OE	Oceanographic data interrogation station	W
PL*	Combination of two or more classes of station (limited to collective entries made under the terms of RR S20.5)	-
RM	Maritime radionavigation mobile station	DNM
RN	Radionavigation land station, i.e. station in the Radionavigation Service not intended to be used while in motion	DN
SA	Mobile station in the Meteorological aids service. For example: Radiosonde, i.e. automatic radio transmitter usually carried on an aircraft, free balloon, kite or parachute, and which transmits meteorological data	W
SM	Meteorological aids base station	W

* No further entries should be made of this type

Class Of Station Code	Name of the Class Of Station	Code Of Service as in Appendix 4
SS	Standard frequency and time signal station	H
Not defined	Radiodetermination station, i.e. station in the Radiodetermination Service	D
Not defined	Radio Direction-Finding station, i.e. radiodetermination station using radio direction-finding	D
Not defined	Primary Radar, i.e. radiodetermination system based on the comparison of reference signals with radio signals reflected from the position to be determined	D
Not defined	Secondary Radar, i.e. radiodetermination system based on the comparison of reference signals with radio signals retransmitted from the position to be determined	D
Not defined	Radar Beacon (racon), i.e. transmitter-receiver which, when triggered by a radar, automatically returns a distinctive signal which can appear on the display of the triggering radar, providing range, bearing and identification information	D
Not defined	Radiobeacon station, i.e. station in the Radionavigation Service the emissions of which are intended to enable a mobile station to determine its bearing or direction in relation to the radiobeacon station	DN
Not defined	Marker Beacon, i.e. transmitter in the aeronautical radionavigation service which radiates vertically a distinctive pattern for providing position information to aircraft	DNA
Not defined	Aircraft Radio Altimeter, used to determine the height of the aircraft above the Earth’s surface	DNA
Not defined	Emergency Position-Indicating Radiobeacon station (EPIRB), i.e. station in the mobile service the emissions of which are intended to facilitate search and rescue operations	M
Not defined	On-board communication station, i.e. mobile station in the maritime mobile service	MM

9.5.2 Classes Of Station For The Space Services

Class Of Station Code	Name of the Class Of Station	Code Of Service as in Appendix 4
EA	Space station in the Amateur-satellite Service	SZ
EB	Space station in the Broadcasting-satellite Service (sound broadcasting)	SB
EC	Space station in the Fixed-satellite Service	SF
ED	Space telecommand space station in the Space operation Service	SO
EE	Space station in the Standard frequency and time signal-satellite Service	SH
EF	Space station in the Radiodetermination-satellite Service	SD
EG	Space station in the Maritime mobile-satellite Service	SMM
EH	Space station in the Space research Service	SR
EI	Space station in the Mobile-satellite Service	SM
EJ	Space station in the Aeronautical mobile-satellite Service	SMA
EK	Space tracking space station in the Space operation Service	SO
EM	Space station in the Meteorological-satellite Service	SW
EN	Space station in the Radionavigation-satellite Service	SDN
EO	Space station in the Aeronautical radionavigation-satellite Service	SDNA
EQ	Space station in the Maritime radionavigation-satellite Service	SDNM
EV	Space station in the Broadcasting-satellite Service (television)	SB
ER	Space telemetering space station in the Space operation Service	SO
ES	Space station in the Inter-satellite Service	SI
ET	Space station in the Space operation Service	SO
EU	Space station in the Land mobile-satellite Service	SMT
EW	Space station in the Earth exploration-satellite Service	SX
EY	Space station in the Standard frequency and time signal-satellite Service	SH
RA	Radio astronomy station	SA
TA	Space operation earth station in the Amateur-satellite Service	SZ
TB	Aeronautical earth station, providing a feeder link for the Aeronautical mobile-satellite Service	SF
TC	Earth station in the Fixed-satellite Service	SF
TD	Space telecommand earth station in the Space operation Service	SO
TE	Mobile earth station; i.e. earth station in the Mobile-satellite Service the emissions of which are intended to facilitate search and rescue operations (Satellite EPIRB)	SM
TF	Fixed earth station in the Radiodetermination-satellite Service	SD
TG	Ship earth station, i.e. mobile earth station in the Maritime mobile-satellite Service	SMM
TH	Earth station in the Space research Service	SR
TI	Coast earth station, providing a feeder link for the Maritime mobile-satellite Service	SF
TJ	Aircraft earth station, i.e. Mobile earth station (aircraft) in the Aeronautical mobile-satellite Service	SMA
TK	Space tracking earth station in the Space operation Service	SO
TL	Mobile earth station in the Radiodetermination-satellite Service	SD
TM	Earth station in the Meteorological-satellite Service	SW
TN	Fixed earth station in the Radionavigation-satellite Service	SDN
TO	Mobile earth station in the Aeronautical radionavigation-satellite Service	SDNA

Class Of Station Code	Name of the Class Of Station	Code Of Service as in Appendix 4
TQ	Mobile earth station in the Maritime radionavigation-satellite Service	SDNM
TR	Space telemetering earth station in the Space operation Service	SO
TT	Earth station in the Space operation Service	SO
TU	Land mobile earth station, i.e. mobile earth station in the Land mobile-satellite Service	SMT
TW	Earth station in the Earth exploration-satellite Service	SX
TX	Fixed earth station in the Maritime radionavigation-satellite Service	SDNM
TY	Base earth station, providing a feeder link for the Land mobile-satellite Service	SF
TZ	Fixed earth station in the Aeronautical radionavigation-satellite Service	SDNA
VA	Land earth station, providing a feeder link for the Mobile-satellite Service	SF
UA	Mobile earth station, i.e. earth station in the Mobile-satellite Service intended to be used while in motion or during halts at unspecified points	SM
UB	Earth station in the Broadcasting-satellite Service (sound broadcasting)	SB
UD**	Space telecommand mobile earth station in the Space operation Service	SO
UE	Earth station in the Standard frequency-satellite Service	SH
UH	Mobile earth station in the Space research Service	SR
UK	Space tracking mobile earth station in the Space operation Service	SO
UM	Mobile earth station in the Meteorological-satellite Service	SW
UN	Mobile earth station in the Radionavigation-satellite Service	SDN
UR	Space telemetering mobile earth station in the Space operation Service	SO
UT	Mobile earth station in the Space operation Service	SO
UV	Earth station in the Broadcasting-satellite Service (television)	SB
UW	Mobile earth station in the Earth exploration-satellite Service	SX
UY	Earth station in the Time signal-satellite Service	SH

** Symbols UD, UH, UK, UN, UR, UT and UW should be used when notifying, according to the provisions of A.11.2 (ORB-88) or A.13.3 (ORB-88), an Earth station in the Earth exploration satellite Service, the Space research Service or the Space operation Service intended to be used while in motion or during halts at unspecified points

9.6 Appendix 6: Antenna Patterns

9.6.1 Space Stations Antenna Patterns

Antenna pattern code	Description
R13TSS	Gain (dBi) of the WARC ’77 transmitting space station antenna. This pattern is based on Figure 9 and Section 3.13.3 in Annex 5 of Appendix S30. The co-polar formula is Curve A in Figure 9, and the cross-polar formula is curve B in Figure 9. In both the co-polar and cross-polar situations, curve C in Figure 9 is the minimum gain.
R13RSS	Gain (dBi) of the receiving space station antenna. This pattern is based on Figure B in Section 3.7.3 of Annex 3 of Appendix S30A. The co-polar formula is Curve A in Figure B, and the cross-polar formula is Curve B in Figure B.
R123SS	Gain (dBi) of the RARC ’83 simple ellipse space station antenna. This pattern is based on: • Figure 10 and Section 3.13.3 in Annex 5 of Appendix S30 for RARC 83 satellite transmitting antennas. • Figure 7 and Section 4.6.3 in Annex 3 of Appendix S30A for RARC 83 satellite receiving antennas. • Figure 1 and Section 1.7.2 in Annex 1 of Appendix S30B for the FSS Allotment Plans. In all cases, the co-polar formula is Curve A, and the cross-polar formula is Curve B. In both the co-polar and cross-polar situations, Curve C is the minimum gain.
R123FR	Gain (dBi) of the RARC ‘83, WARC ’88, WRC’97 space station fast roll-off antenna. This pattern is based on: • Figures 11a, 11b in Section 3 of Appendix S30 and • Figure C in Section 3 of Appendix S30A.
MODRSS	Gain (dBi) of the receiving space station antenna. It is an implentation of Rec. ITU-R BO.1296 and has been included at WRC’97 in Appendix S30A as Figure B in Section 3 of Annex 3.
Note:	*In addition, and mainly in the framework of Appendices S30, S30A or S30B to the Radio Regulations, some administrations have used the following antenna codes*
RADTSS	Gain (dBi) of the fast roll-off antenna for RADIOSAT-3. This pattern is based on : • Figure 8 in Section 4.6.3 in Annex 3 of Appendix S30A for RARC 83 satellite receiving antennas • Figure 11 in Section 3.13.3 in Annex 5 of Appendix S30 for RARC 83 satellite transmitting antennas • Figure C in Section 3.7.3 in Annex 3 of Appendix S30A for the Regions 1 and 3 Feeder Link Plans. This has been corrected in IFRB Circular-Letter No. 790, 12 July 1989. See IFRB Rule of Procedure No. H38 • Figure 2 in Section 1.7.2 in Annex 1 of Appendix S30B for the FSS Allotment Plans. This has been corrected in IFRB Circular-Letter No. 790, 12 July 1989. See IFRB Rule of Procedure No. H38 With a new pattern for the far side-lobes and BMIN2=0.8 since WARC-77 is used.
BIFROST-SS	Gain (dBi) of BIFROST Space Station (transmitting and receiving) antenna (Appendix S30B) This pattern is based on Figure 9 and Section 3.13.3 in Annex 5 of Appendix S30.
LSAT177	Gain (dBi) of the modified WARC ’77 transmitting space station antenna based on Weekly Circular 1565, 19 April 1983, in the Special Section AP30/E/1, ADD-2, Figure 1.
EUTELSAT1	Gain according to EUTELSAT antenna TYPE 1.

9.6.2 Earth Stations Antenna Patterns

Antenna pattern code	Description
AP28 or AP29	This is used for both uplink and downlink Earth Station antennas. It is based on Annex II.4 of Appendix S28 and Annex III of Appendix S29 of the RR.
REC-465	This is used for both uplinks and downlinks for analyses under Appendix S30B. It is based on Rec. ITU-R S.465. However, that Recommendation does not describe a complete pattern, so the algorithm has been expanded to describe a complete pattern using the same pattern as AP28 and AP29 above in the undefined areas.
REC-580	This is used for both uplinks and downlinks for analyses under Appendix 30B. It is based on Recommendation ITU-R S.580.
REC-694	Recommendation ITU-R M.694 "Reference radiation pattern for ship earth station antennas"
REC-1213	Rec. ITU-R BO.1213, Reference receiving earth station antenna pattern for replanning purposes of the WARC BS-77 BSS plans for Regions 1and 3.
29-25LOG(FI)	Represents a reference radiation pattern similar to that in Rec. ITU-R S.465 with side lobe radiation reduced by 3dB.
27-25LOG(FI)	As above with side lobe radiation reduced by 5dB.
N-25LOG(FI)	Represents a generic radiation pattern of the same type and allows for values of N other than those listed above.
MODTES	Gain (dBi) of the transmitting earth station antenna. It is an implementation of Rec. ITU-R BO.1295 and has been included at WRC'97 in Appendix S30A as Figure A in Section 3 of Annex 3.
ND	Quasi-omnidirectional radiation pattern with maximum isotropic gain stated in the appropriate field.

Note: *In addition, and mainly in the framework of Appendices S30, S30A or S30B to the Radio Regulations, some administrations have used the following antenna codes*

R2TES	Gain (dBi) of the RARC'83 transmitting earth station antenna. This pattern is based on Figure 6 and Section 4.4.2 of Annex 3 of Appendix S30A. This has been expanded to provide a value when ϕ is less than 0.1 degree.
R2RES	Gain (dBi) of the RARC '83 receiving earth station antenna. It is based on a fixed value for the 3dB beamwidth of 1.7 degrees. This pattern is based on Figure 8 and Section 3.7.2 in Annex 5 of Appendix S30. The co-polar formula is Curve A in Figure 8, and the cross-polar formula is Curve B in Figure 8.
R13TES	This is used for Earth Station antennas for uplinks in Region 1 and 3. It is based on Figure A and Section 3.5.3 in Annex 3 of Appendix S30A.
DBL-TYP1	This Earth Station (5 meters) antenna pattern is used for uplinks for analyses under Appendix S30A of the RR.
DBL-TYP2	This Earth Station (2.5 meters) antenna pattern is used for uplinks for analyses under Appendix S30A.
MODRES	It is an implementation for planning purposes of the antenna pattern described in Rec. ITU-R BO.1213 and identical to REC-1213 above. It has been included as Figure 7bis of Section 3 of Appendix S30.
AP30B	This is used for both uplinks and downlinks for analyses under Appendix S30B when no other antenna pattern is specified. It is based on Table 1 of Section A of Annex 1 of Appendix S30B. It has been enhanced to deal with the situation when D/λ is less than 100.
BIFROST-RES	Gain (dBi) of BIFROST Earth Station receiving antenna (1m antenna, 70% antenna efficiency - used for Appendix S30B).
BIFROST-TES1	Gain (dBi) of BIFROST Earth Station transmitting terminal type 1 antenna(3m antenna, 70% antenna efficiency - used for Appendix S30B).
BIFROST-TES2	Gain (dBi) of BIFROST Earth Station transmitting terminal type 2 antenna (1m antenna, 70% antenna efficiency - used for Appendix S30B).
DBLTVROI0001	This Earth Station antenna pattern is used for downlinks for analyses under Appendix S30. The precise pattern is created by the specification of the maximum gain and antenna diameter. The pattern is for individual reception. See the pattern DBLTVROC0001 for community reception.

Antenna pattern code	Description
DBLTVROC0001	This Earth Station antenna pattern is used for downlinks for analyses under Appendix 30. This pattern is for community reception. See the pattern DBLTVROI0001 for individual reception.
R13RES	Gain (dBi) of the WARC ’77 receiving earth station antenna. It is based on a fixed value for the 3 dB beamwidth of 2.0 degrees.The pattern is based on Figure 7 and Section 3.7.2 in Annex 5 of Appendix 30 of the RR. The co-polar formula is Curve A in Figure 7, and the cross-polar formula is Curve B in Figure 7. Individual reception is always used, rather than community reception.
MIX1	This Earth Station antenna pattern, which is valid only when D/λ is ≥ 100, is used for both uplinks and downlinks for analyses under Appendix 30B. However, the complete pattern is not described, so the algorithm has been expanded to describe a complete pattern using the same pattern as Appendix 30B in the undefined areas.
MIX2	This Earth Station antenna pattern is used for both uplinks and downlinks for analyses under Appendix 30B.

9.7 Appendix 7: Standard Abbreviations For Site Names Compression

In certain instances, the name of the site may be followed by the abbreviated name of the state or province in which the site is located. An abbreviation can be used to signify a description either in a singular or a plural sense.

Abbreviation	Meaning	Abbreviation	Meaning
B		LR	Lower
B	Baie, Bay, Bukhta	LSTN	Light station
BCH	Beach	**M**	
BK	Bank	MON	Monument
BM	Baggermolen	MT	Mont, Monte, Mount (and plural)
BO	Boundary	MTN	Mountain (and plural)
BRDG	Bridge	MUN	Municipality
BT	Butte	**N**	
BY	Buoy, Bouée, Boya	N	New, Nouveau, Nouvelle, Nova, Nove, Novo, Nueva, Nuevo
C		NMON	National Monument
C	Cabo, Cap, Cape, Capo	NO	Nord, Norte, North, Northern
CD	Ciudad	NPK	National Park
CHR	Church	NRF	National Refuge
CK	Creek	NTL	National
CL	Central	**O**	
CLLG	College	OFC	Oficina
CNT	Center, Centre	OSTR	Ostrov
CO	Country	**P**	
COL	Colonia	PK	Peak
COM	frequency for Common use in accordance with RR1220	PLA	Platform
CP	Camp, Campo	PMPSTN	Pump station
CRY	Cannery	PNT	Point, Pointe, Ponta, Punta
CTG	Cottage	PR	Prince, Prins, Prinz
CY	City	PRD	Presidencia, Presidente
D		PRJ	Project
DEP	Depot	PRK	Park
DM	Dam	PRS	Princess, Princesse
DPT	Department, Département, Departamento, Bezirk	PS	Pass
DTO	Destacamento	PT	Port, Porto, Puerto
E		**R**	
E	East, Eastern, Est, Este	RCH	Ranch
EN	Estación	RCK	Rock
ES	Estancia	RD	Road (and plural)
ESTO	Establecimiento	RG	Range
ET	Estate	RGR	Ranger
F		RK	Rudnik
FAR	Farol	RPS	Rapids
FDA	Fazenda	RPTR	Repeater
FDO	Fundo	RSVD	Reserve, Reservation
FLD	Field	RV	River

Abbreviation	Meaning	Abbreviation	Meaning
FLS	Falls	RVSD	Riverside
FT	Fort, Forte, Fuerte	**S**	
FTR	Fire Tower	S	Saint, Sainte, San, Sankt, Santa, Santo, Sao, Svata, Svaty, etc.
G		SD	Sound
GF	Gulf	SHL	Shoal (and plural)
GOV	Gobernador, Governador	SO	Sud, South, Southern, Sur
GR	Grand, Grande	SPR	Springs
GRAL	General	SQ	Square
GRD	Guard	STN	Station
GT	Great	STR	Détroit, Strait, Estrecho
GVN	Gavan	STRM	Stream
H		SVZ	Sovkhoz
HD	Head	**T**	
HAD	Hacienda	TP	Township
HLL	Hill	TR	Tower
HPTL	Hospital	TRP	Trap
HR	Harbour	**U**	
HTS	Heights	UP	Upper
HVN	Haven	**V**	
HWAY	Highway	V	Vila, Villa, Ville
I		VLG	Village
I	Ile, Ilha, Isla, Island, Isle (and plural)	VLY	Valley
J		**W**	
JN	Junction	W	West, Western, Oeste, Ouest
L		**Z**	
L	Lac, Lago, Lake (and plural)	ZVD	Zavod
LG	Lagoon		
LKT	Lookout		
LNG	Lodging		

9.8 Appendix 8: Standard Defined Areas

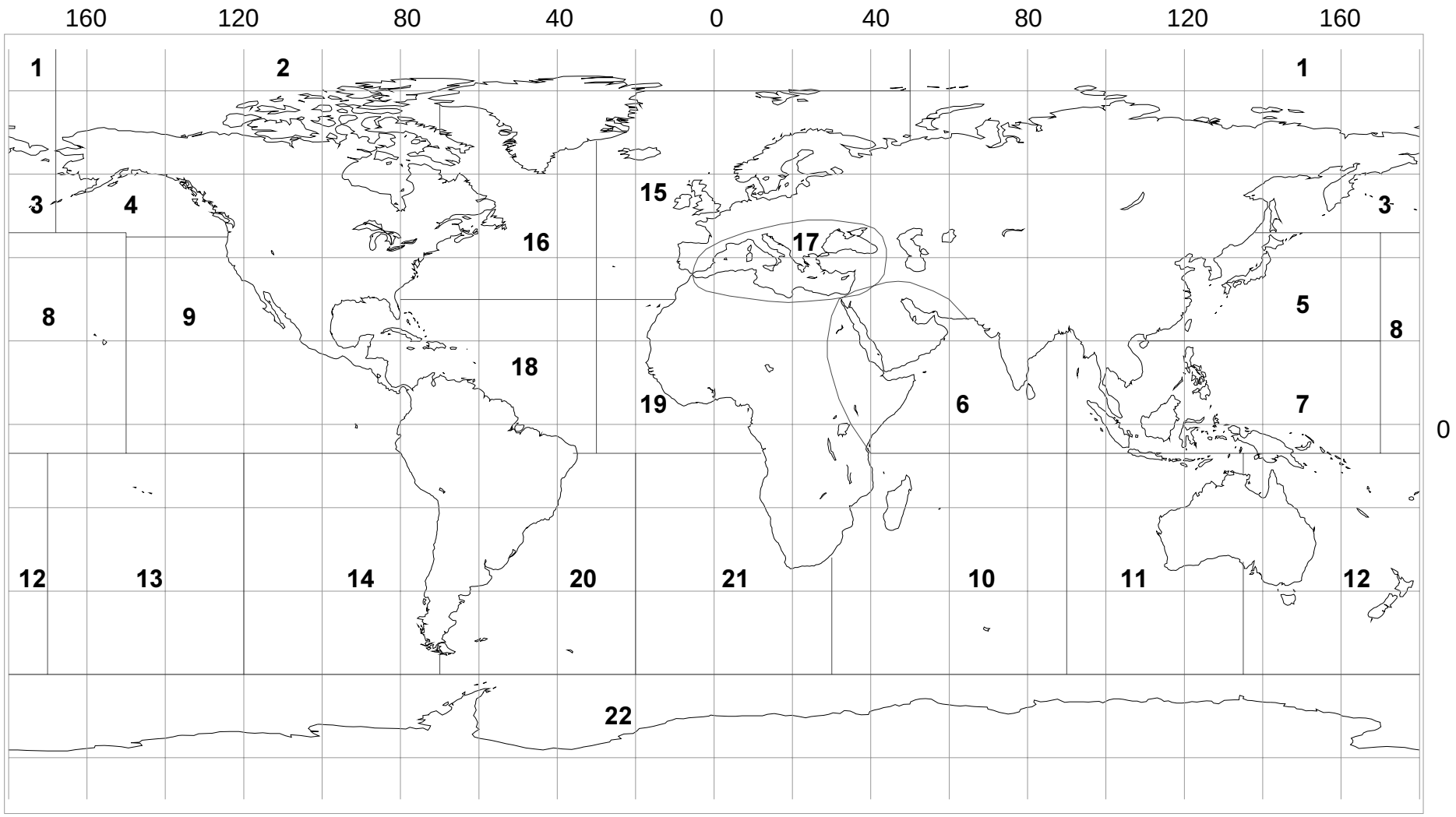
The following codes are either defined in standard references (e.g. MWARA, RDARA in Appendix S27 Aer2) or defined by the Bureau in consultation with the administration concerned whenever required. In accordance with the Radio Regulations, an area where a transmitting mobile or transportable station or a receiving station may be located has to be well defined and sufficiently small to make it easy to forecast the conditions of use of the frequency assignment from the propagation point of view.

9.8.1 Zones defined by a Geographical Area

The codes are listed in Appendix 2.

9.8.2 Standard Maritime Zones

Maritime Zones are shown in the map in figure below. On the notice forms, the code designating a Maritime Zone has to be preceded by the symbol MAR without an intervening space; e.g. MAR01, MAR02, MAR22.


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ITU Digitized World Map.
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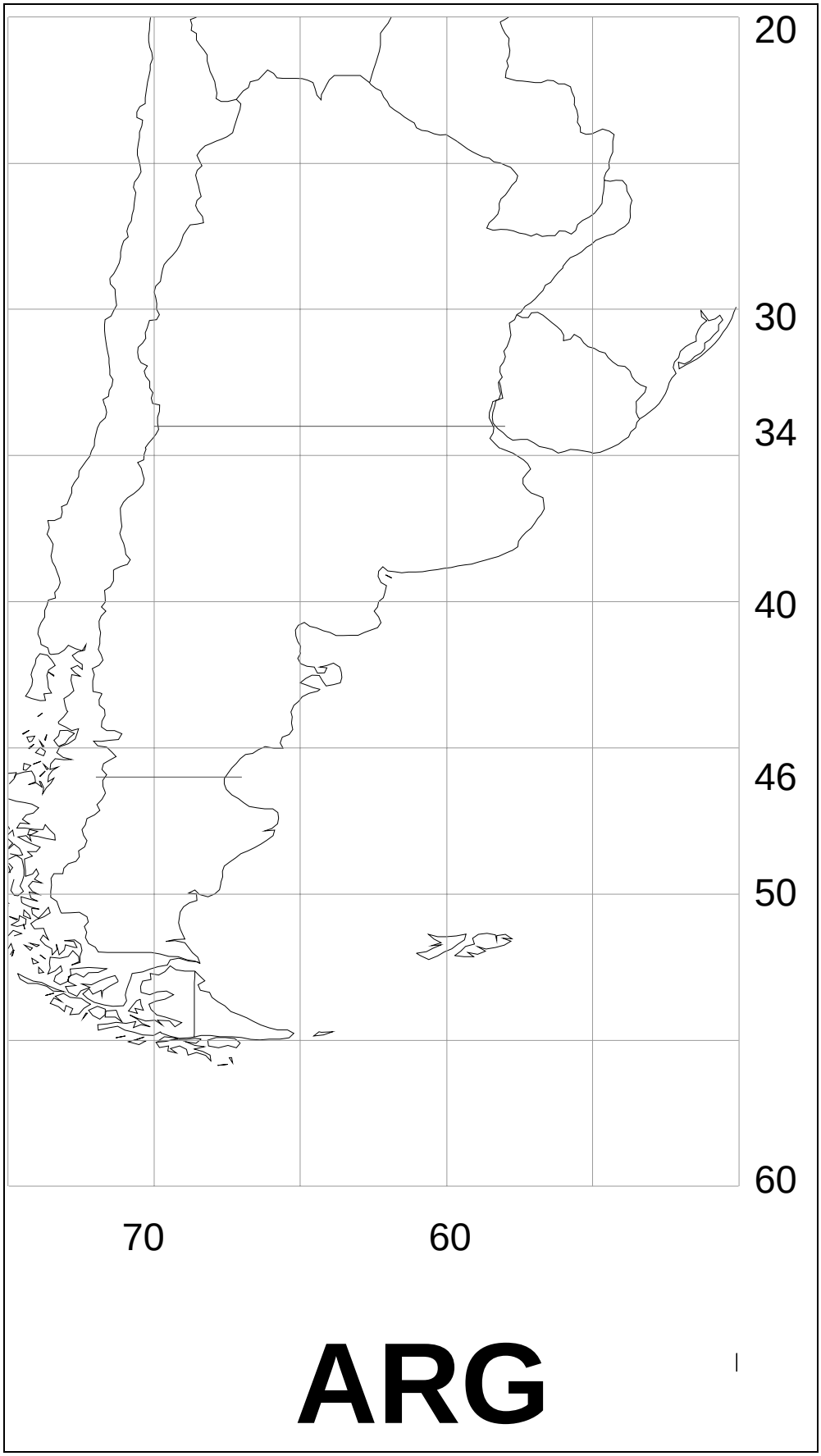
9.8.3 Allotment Areas as Defined in Appendix S25 of the Radio Regulations

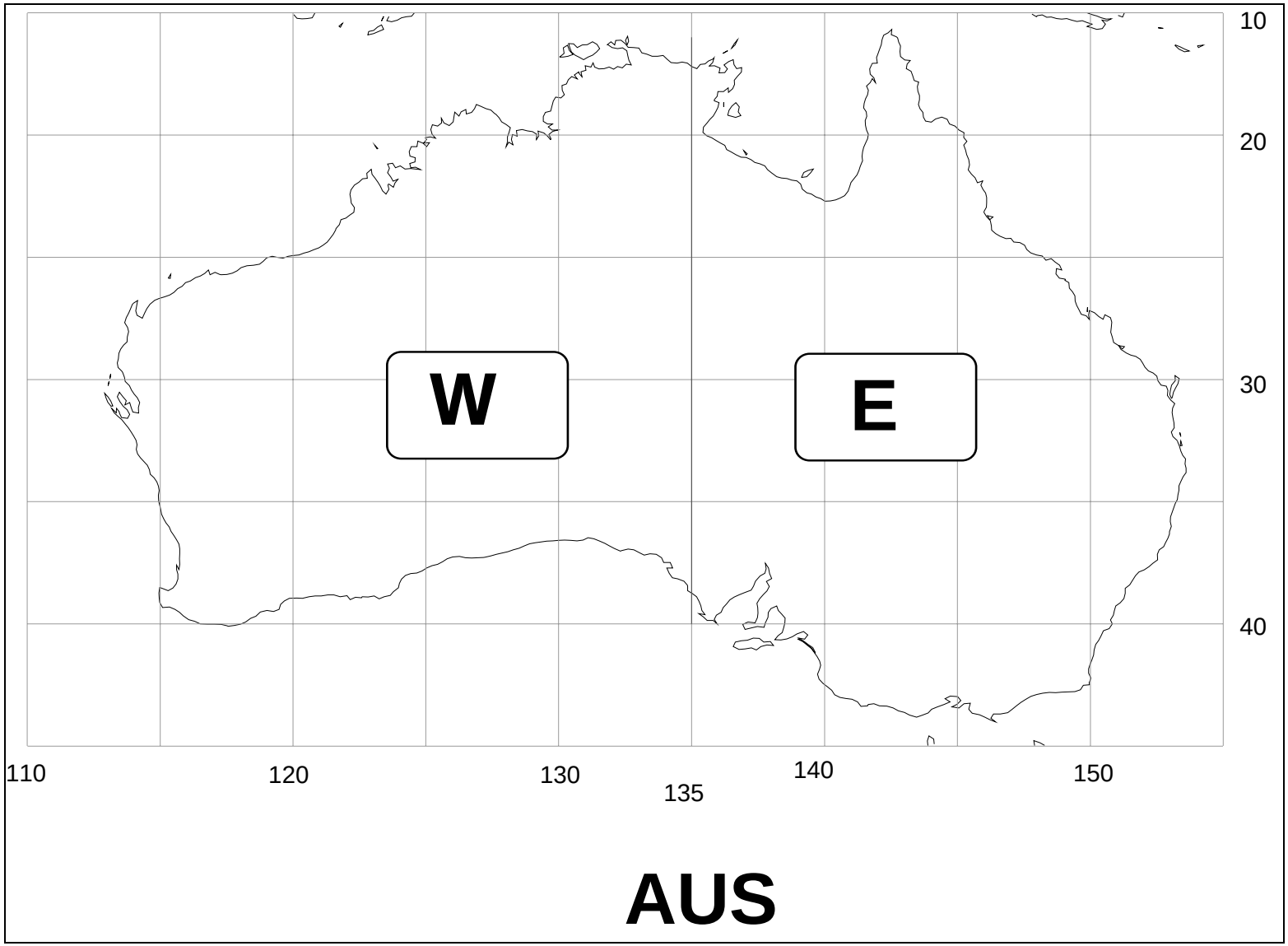
The Frequency Allotment Plan in Appendix S25 to the Radio Regulations contains zones comprising only a part of certain countries; in the entries appearing in List I as representing these allotments (see Section II, Chapter 2, paragraph 3), these zones are represented by the following symbols in Column 4E of the IFL:

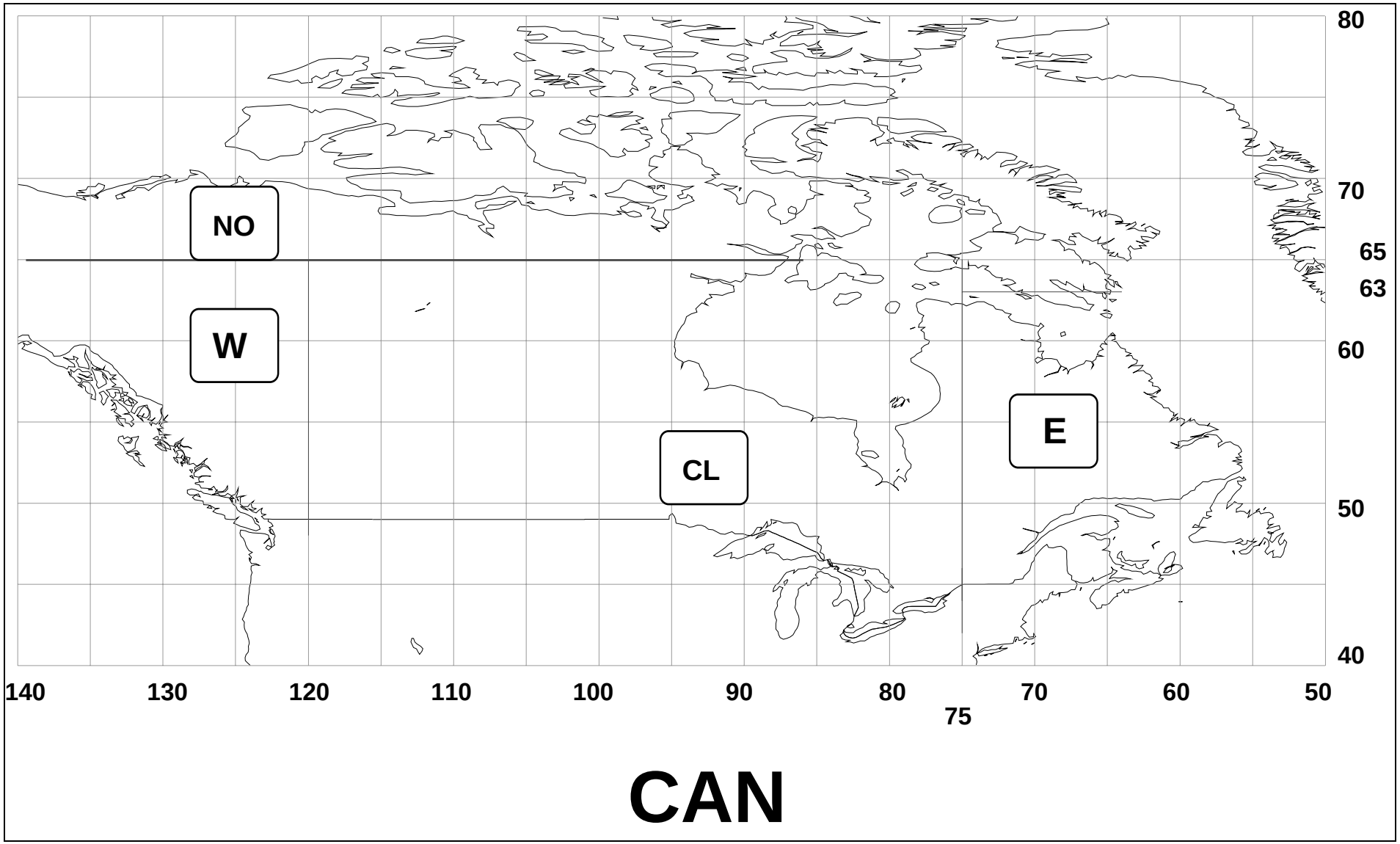
Code	Country part	Definition
ARG NO	for ARG North	includes that part of the territory of ARG limited on the south by a line that extends from the western border along parallel 34 South to the coastline including all coast stations of ARG lying to the north of this parallel.
ARG CL	for ARG Central	includes that part of the territory of ARG limited on the south by a line that extends from the western border along parallel 46 South to the coastline and on the north by a line that extends from the western border along parallel 34 South to the coastline including all coast stations of ARG lying between these parallels.
ARG SO	for ARG South	includes that part of the territory of ARG limited on the north by a line that extends from the western border along parallel 46 South to the coastline including all coast stations of ARG lying to the south of this parallel.
AUS E	for AUS East	includes that part of the territory of AUS limited on the west by a line that extends from the northern coastline along meridian 135 East of Greenwich to the southern coastline including all coast stations of AUS lying to the east of this meridian.
AUS W	for AUS West	includes that part of the territory of AUS limited on the east by a line that extends from the northern coastline along meridian 135 East of Greenwich to the southern coastline including all coast stations of AUS lying to the west of this meridian.
CAN CL	for CAN Central	includes that part of the territory of CAN limited on the west by a line that extends from parallel 65 North along meridian 120 West of Greenwich to the southern border, on the east by a line that extends from parallel 65 North along meridian 75 West to the southern border, and on the north by a line that extends from meridian 120 West along parallel 65 North to meridian 75 West including all coast stations of CAN lying to the south of these lines.
CAN E	for CAN East	includes that part of the territory of CAN limited on the west by a line that extends from parallel 63 North along meridian 75 West to the southern border and on the north by a line that extends from meridian 75 West along parallel 63 North to the eastern coastline including all coast stations of CAN lying to the south east of these lines.
CAN NO	for CAN North	includes that part of the territory of CAN limited on the south by a line that extends from the western border along parallel 65 North to its intersection with meridian 75 West, thence along meridian 75 West to its intersection with parallel 63 North, thence along parallel 63 North to the eastern coastline including all coast stations of CAN lying to the north of these lines.
CAN W	for CAN West	includes that part of the territory of CAN limited on the north by a line that extends from the western border along parallel 65 North to its intersection with meridian 120 West and on the east by a line that extends from the parallel 65 North along meridian 120 West of Greenwich to the southern border including all coast stations of CAN lying to the west of meridian 120 West and to the south of parallel 65 North.
CHL CL	for CHL Central	includes that part of the territory of CHL limited on the south by a line that extends from the eastern border along parallel 40 South to the coastline and on the north by a line that extends from the eastern border along parallel 30 South to the coastline including all coast stations of CHL lying between these parallels.

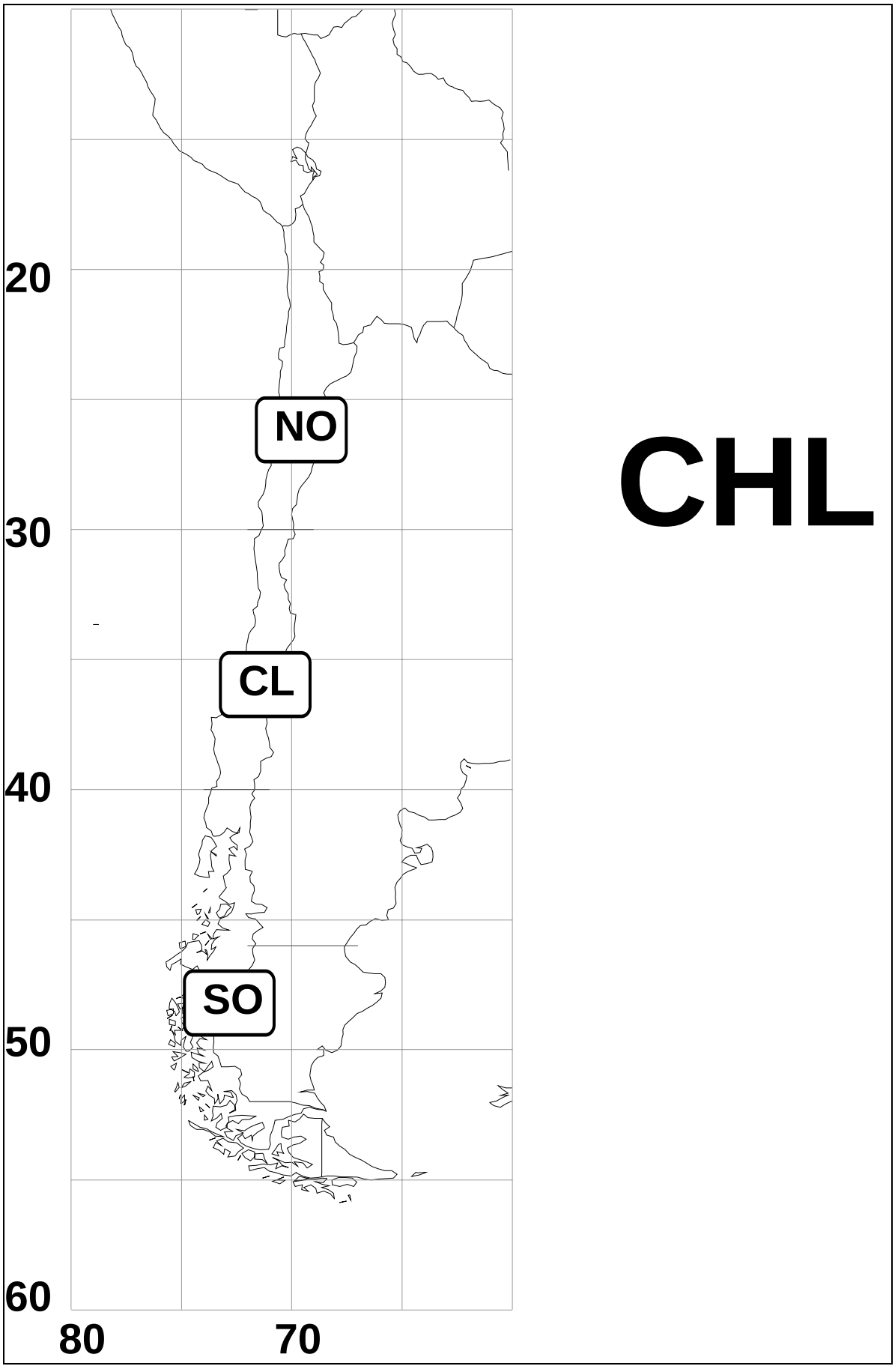
Code	Country part	Definition
CHL NO	for CHL North	includes that part of the territory of CHL limited on the south by a line that extends from the eastern border along parallel 30 South to the coastline including all coast stations of CHL lying to the north of this parallel.
CHL SO	for CHL South	includes that part of the territory of CHL limited on the north by a line that extends from the eastern border along parallel 40 South to the coastline including all coast stations of CHL lying to the south of this parallel.
D1	for D West	includes that part of the territory of Germany limited on the north east by a line that extends from the northern coastline along meridian 10° 55 of east longitude to the parallel 50° 19N and a line that extends from 10° 55 of east longitude along parallel 50° 19 of north latitude to the eastern border including all coast stations of D lying to the south west of these lines.
D2	for D East	includes that part of the territory of Germany limited on the west by a line that extends from the northern coastline along meridian 10° 55 of east longitude to the parallel 50° 19N and on the south by a line that extends from 10° 55 of east longitude along parallel 50° 19 of north latitude to the eastern border including all coast stations of D lying to the north east of these lines.
IND E	for IND East	includes that part of the territory of IND limited on the west by a line that extends from the northern border along 77 degrees 30 minutes of east longitude to the southern coastline including all coast stations of IND lying to the east of this longitude.
IND W	for IND West	includes that part of the territory of IND limited on the east by a line that extends from the northern border along 77 degrees 30 minutes of east longitude to the southern coastline including all coast stations of IND lying to the west of this longitude.
MEX E	for MEX East	includes that part of the territory of MEX limited on the west by a line joining the points intersection of the northern border with meridian 110 West; 100 West / 20 North; and intersection of the southern border with meridian 92 West including all coast stations of MEX lying to the east of this line.
MEX W	for MEX West	includes that part of the territory of MEX limited on the east by a line joining the points intersection of the northern border with meridian 110 West; 100 West / 20 North; and intersection of the southern border with meridian 92 West including all coast stations of MEX lying to the west of this line.
RUS AN	for RUS Northern Asia	includes that part of the territory of RUS limited on the west by a line that extends from the northern coastline along meridian 50 East of Greenwich to the parallel 60 North, thence along parallel 60 North to its intersection with meridian 130 East, thence along a line joining the points 130 East / 60 North and 165 East / northern coastline including all coast stations of RUS lying to the north of these lines.
RUS AS	for RUS Southern Asia	includes that part of the territory of RUS limited on the north by a line that extends from meridian 50 East along parallel 60 North to its intersection with meridian 130 East; on the west by a line joining the points 50 East / 60 North and 45 East / 50 North, thence along meridian 45 East to the southern border; and on the east by a line that extends from parallel 60 North along meridian 130 East to its intersection with the southern border including all coast stations of RUS lying to the south of these lines.
RUS EO	for RUS Far East	includes that part of the territory of RUS limited on the west by a line that extends from the northern coastline along a line joining the points 165 East / northern coastline and 130 East / 60 North, thence along meridian 130 East to the southern border including all coast stations of RUS lying to the east of these lines.

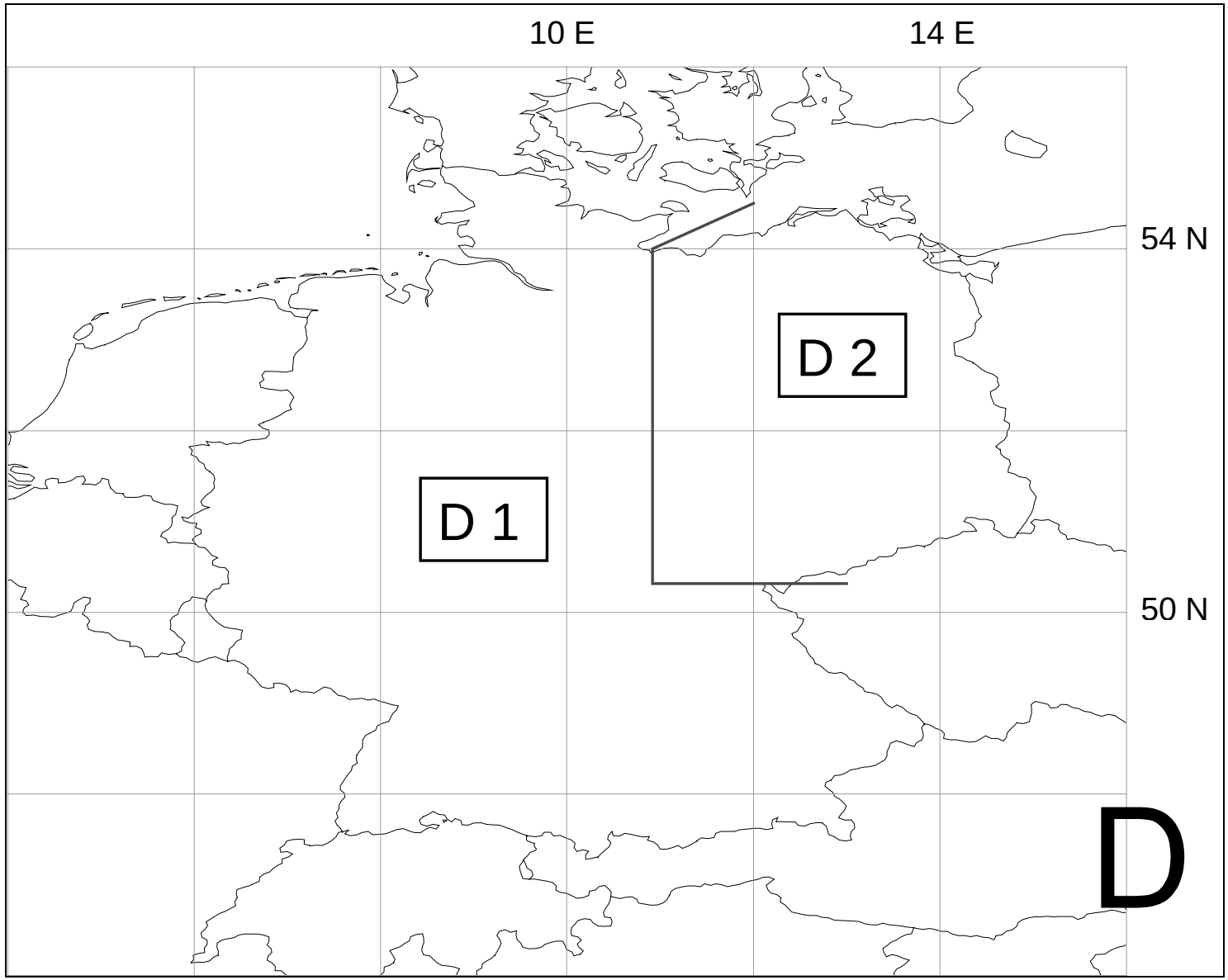
Code	Country part	Definition
RUS NW	for RUS North West	includes that part of the territory of RUS limited on the east by a line that extends from the northern coastline along meridian 50 East of Greenwich to the parallel 60 North and on the south by a line that extends from the western coastline along parallel 60 North to its intersection with meridian 50 East including all coast stations of RUS lying to the north of these lines.
RUS SW	for RUS South West	includes that part of the territory of RUS limited on the north by a line that extends from the western coastline along parallel 60 North to its intersection with meridian 50 East and on the east by a line that extends from parallel 60 North joining the points 50 East / 60 North and 45 East / 50 North, thence along meridian 45 East to the southern border including all coast stations of RUS lying to the south west of these lines, but excluding the stations situated in RUS W.
RUS W	for RUS West	includes that part of the territory of RUS which is the geographical area representing the "Kaliningrad Region".
USA CL	for USA Central	includes that part of the territory of USA limited on the west by a line that extends from the northern border along meridian 110 West of Greenwich to the parallel 35 North, thence along parallel 35 North to its intersection with meridian 85 West, thence along the line joining the points 85 West / 35 North and 75 West / 42 North, thence along meridian 75 West to the northern border including all coast stations of USA lying to the north of these lines.
USA E	for USA East	includes that part of the territory of USA limited on the west by a line that extends from the eastern coastline along parallel 31 North to its intersection with meridian 85 West of Greenwich, thence along meridian 85 West to the parallel 35 North, thence along the line joining the points 85 West / 35 North and 75 West / 42 North, thence along meridian 75 West to the northern border including all coast stations of USA lying to the east of these lines.
USA W	for USA West	includes that part of the territory of USA limited on the east by a line that extends from the northern border along meridian 110 West of Greenwich to the southern border including all coast stations of USA lying to the west of this meridian.
USA SO	for USA South	includes that part of the territory of USA limited on the west by a line that extends from the southern border along meridian 110 West of Greenwich to the parallel 35 North, thence along parallel 35 North to its intersection with meridian 85 West, thence along meridian 85 West to its intersection with parallel 31 North, thence along parallel 31 North to the eastern coastline including all coast stations of USA lying to the south of these lines.

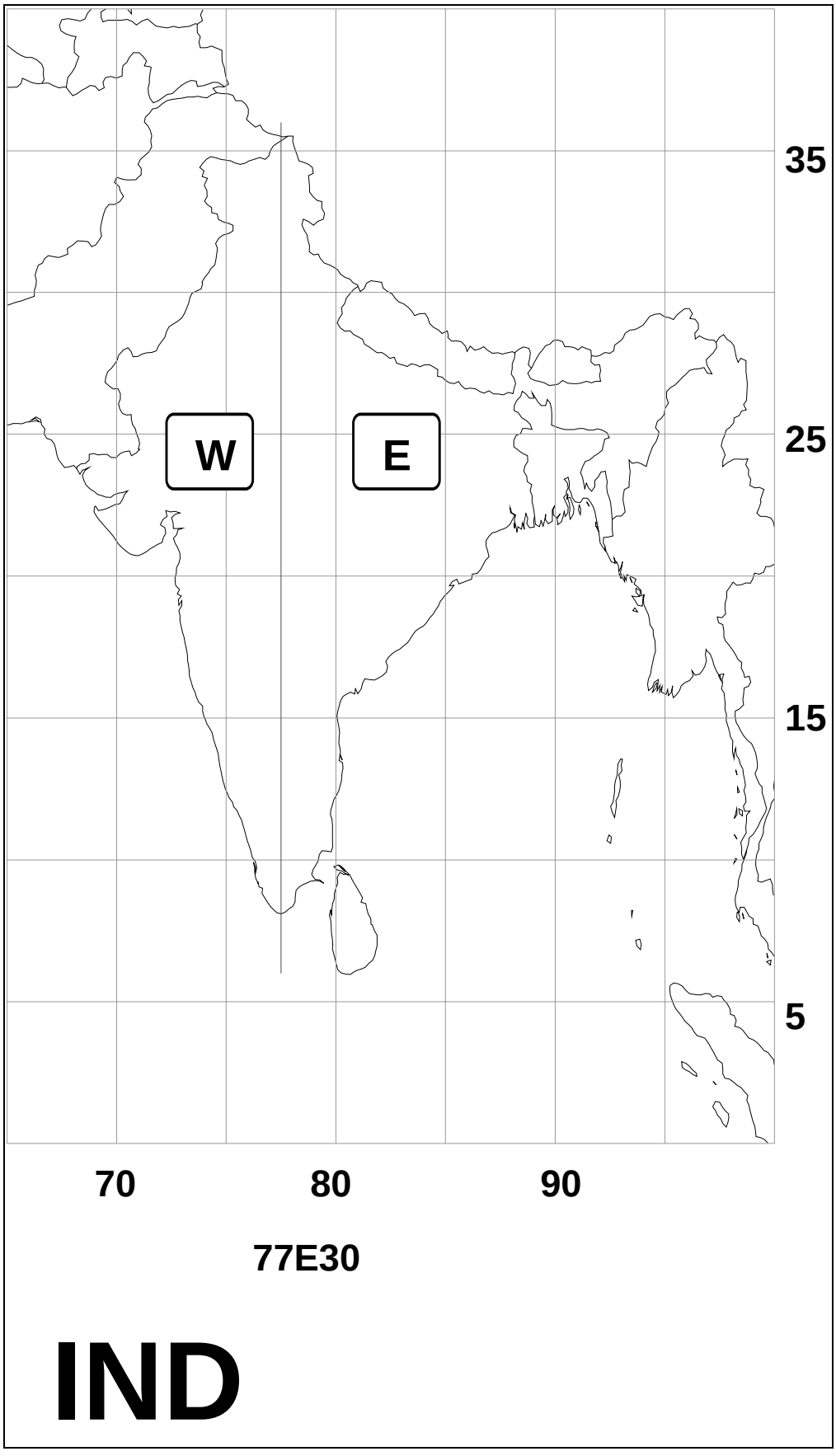

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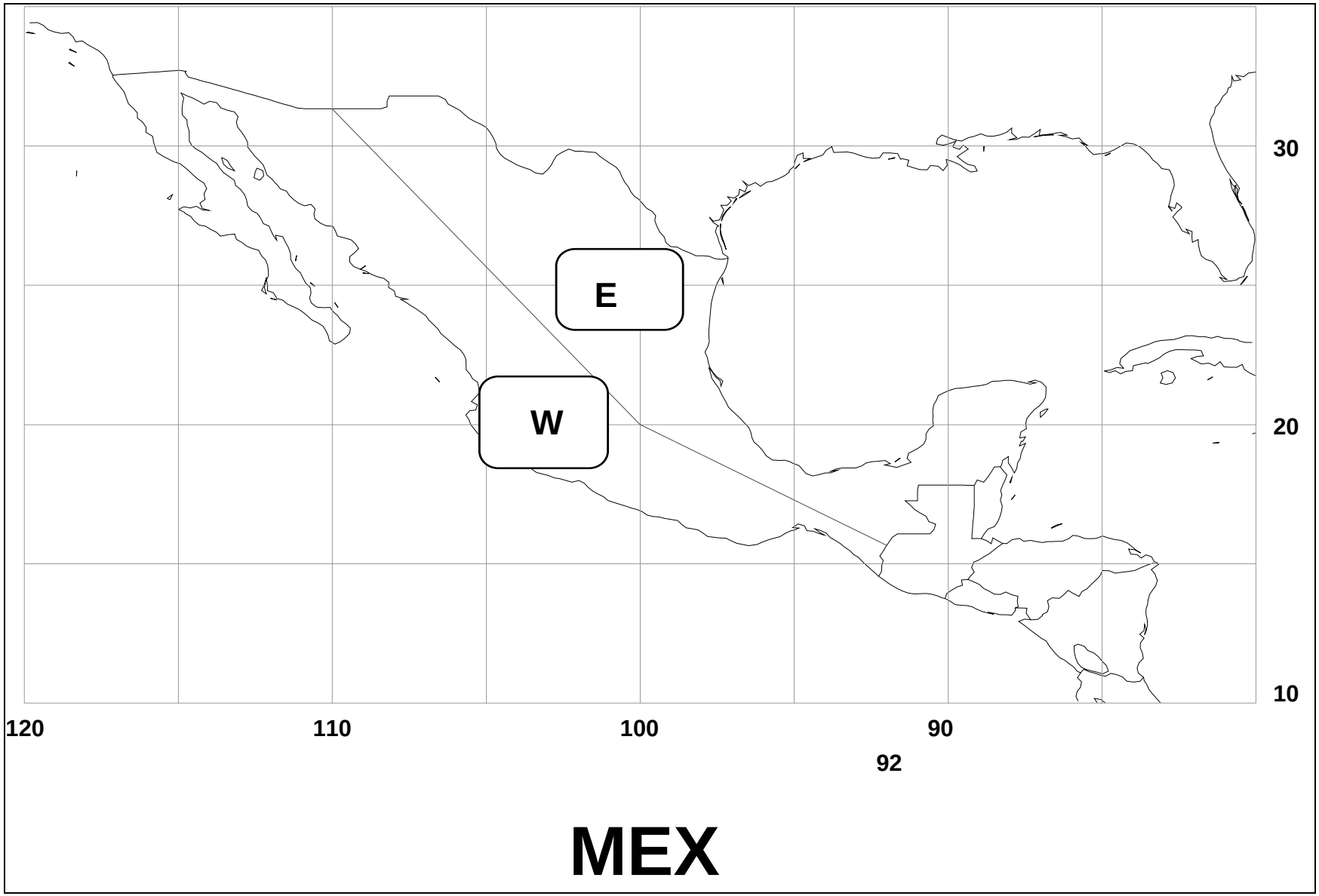

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AUS

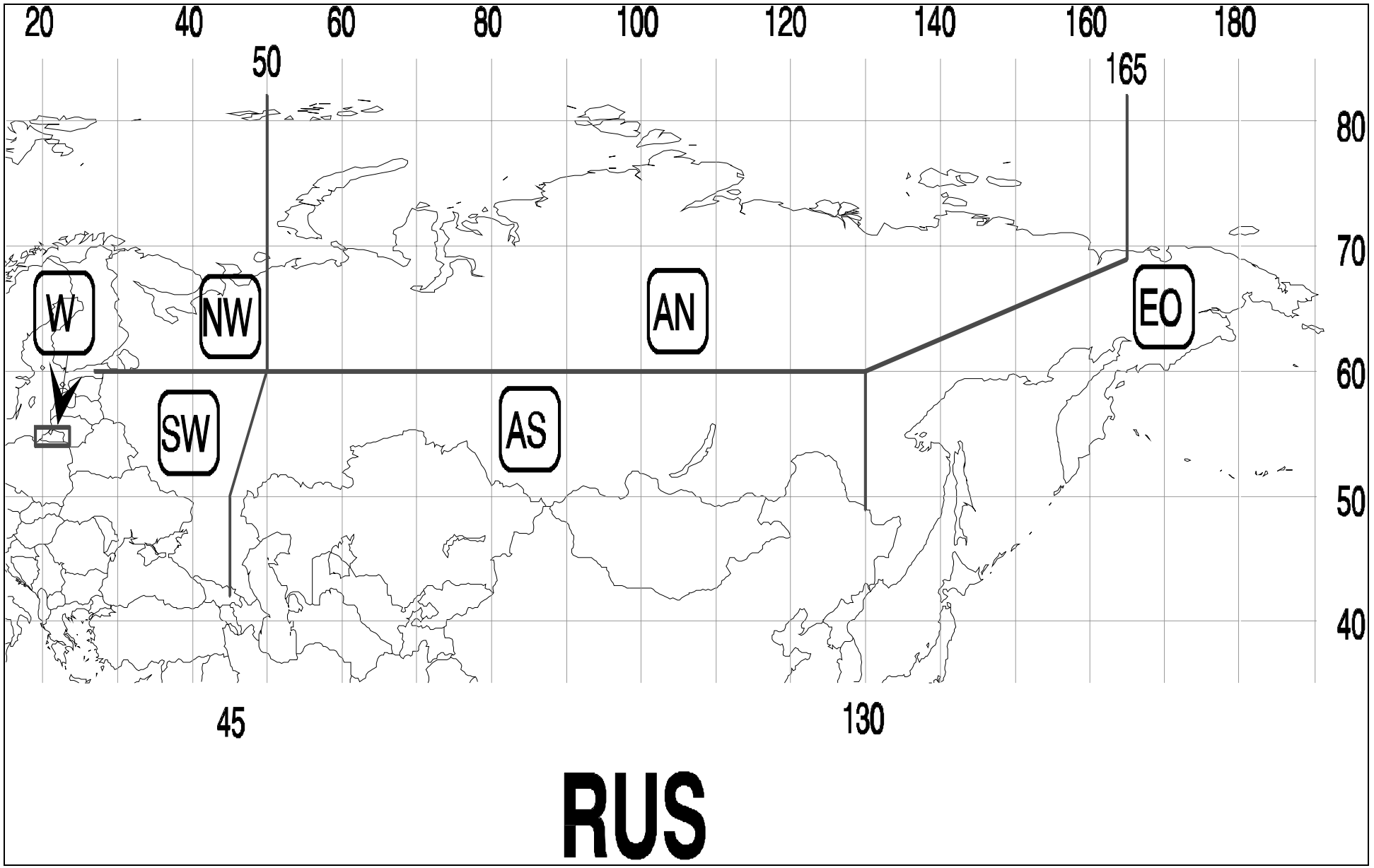

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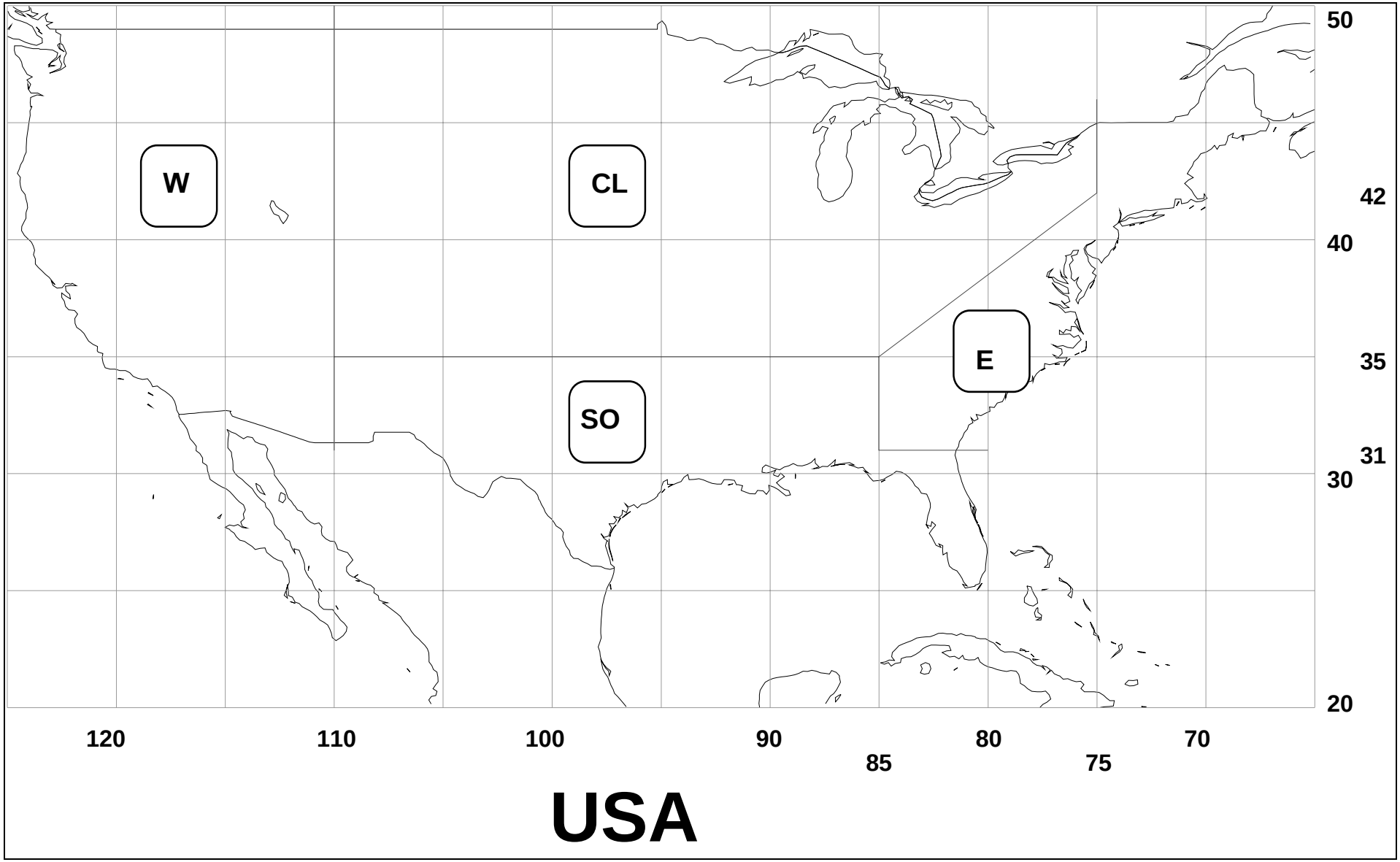

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50 N
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MEX


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130
RUS


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SO
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120
110
100
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75
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USA

9.8.4 Aeronautical Zones Defined in Appendix S26 of the Radio Regulations

Part IV of Appendix S26 to the Radio Regulations contains codes representing zones comprising only certain parts of RUS; these codes are also used in Column 4E of the IFL and are as follows:

URS - AM	for URS Central Asia
URS - C	for URS Caucasus
URS - E	for URS Europe
URS - SEO	for URS Siberia and Far East

9.8.5 Aeronautical Zones Defined in Appendix S27 of the Radio Regulations

In Part II, Section 1, Articles 1 to 4 of Appendix S27 Aer2 to the Radio Regulations, Geneva, 1979, are defined the Aeronautical Zones for the purpose of the Frequency Allotment Plan for the Aeronautical Mobile (R) Service in the exclusive bands between 2 850 kHz and 22 000 kHz contained in this Appendix.
When notifying frequency allotments or assignments in these Aeronautical Zones, administrations should precede an MWARA Area with symbol M, an RDARA or RDARA Sub-Area with symbol R, a VOLMET Area with symbol V and a Worldwide Area with symbol W in the table below which lists these aeronautical zones and the manner in which they are to be indicated.

Symbol	MWARA	Description of the Major World Air Route Areas
MAFI	MWARA - AFI	AFRICA
MCAR	MWARA - CAR	CARIBBEAN
MCEP	MWARA - CEP	CENTRAL EAST PACIFIC
MCWP	MWARA - CWP	CENTRAL WEST PACIFIC
MEA	MWARA - EA	EAST ASIA
MEUR	MWARA - EUR	EUROPE
MINO	MWARA - INO	INDIAN OCEAN
MMID	MWARA - MID	MIDDLE EAST
MNAT	MWARA - NAT	NORTH ATLANTIC
MNCA	MWARA - NCA	NORTH CENTRAL ASIA
MNP	MWARA - NP	NORTH PACIFIC
MSAM	MWARA - SAM	SOUTH AMERICA
MSAT	MWARA - SAT	SOUTH ATLANTIC
MSEA	MWARA - SEA	SOUTH EAST ASIA
MSP	MWARA - SP	SOUTH PACIFIC

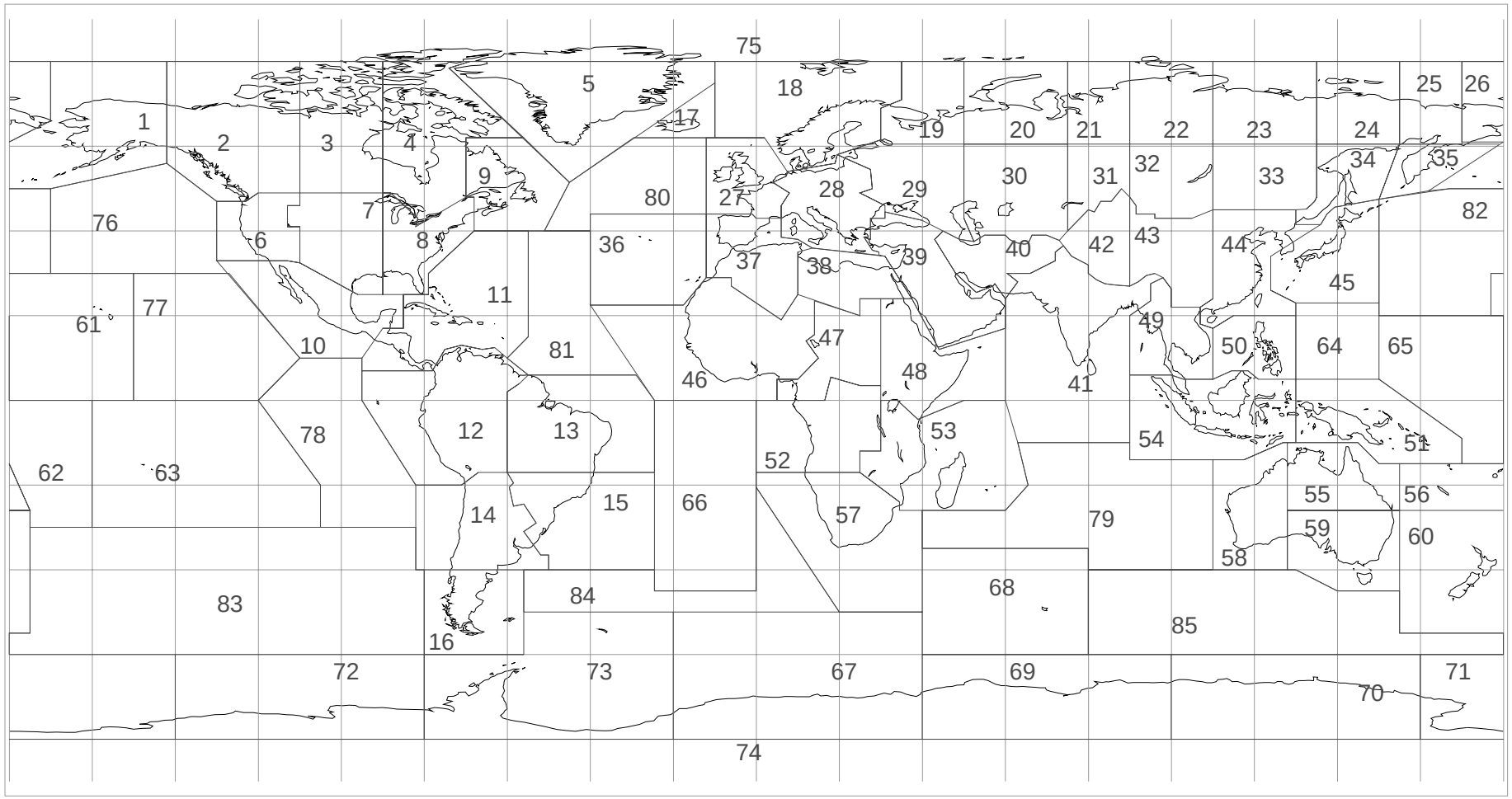
Regional and Domestic Air Route Areas					
Symbol	**RDARA**	**Description**	**Symbol**	**RDARA**	**Description**
R1	RDARA-1	Area 1	R10	RDARA-10	Area 10
R1A		Sub-Area 1A	R10A		Sub-Area 10A
R1B		Sub-Area 1B	R10B		Sub-Area 10B
R1C		Sub-Area 1C	R10C		Sub-Area 10C
R1D		Sub-Area 1D	R10D		Sub-Area 10D
R1E		Sub-Area 1E	R10E		Sub-Area 10E
R2	RDARA-2	Area 2	R10F		Sub-Area 10F
R2A		Sub-Area 2A	R11	RDARA-11	Area 11
R2B		Sub-Area 2B	R11A		Sub-Area 11A
R2C		Sub-Area 2C	R11B		Sub-Area 11B
R3	RDARA-3	Area 3	R11C		Sub-Area 11C
R3A		Sub-Area 3A	R12	RDARA-12	Area 12
R3B		Sub-Area 3B	R12A		Sub-Area 12A
R3C		Sub-Area 3C	R12B		Sub-Area 12B
R4	RDARA-4	Area 4	R12C		Sub-Area 12C
R4A		Sub-Area 4A	R12D		Sub-Area 12D
R4B		Sub-Area 4B	R12E		Sub-Area 12E
R5	RDARA-5	Area 5	R12F		Sub-Area 12F
R5A		Sub-Area 5A	R12G		Sub-Area 12G
R5B		Sub-Area 5B	R12H		Sub-Area 12H
R5C		Sub-Area 5C	R12I		Sub-Area 12I
R5D		Sub-Area 5D	R12J		Sub-Area 12J
R6	RDARA-6	Area 6	R13	RDARA-13	Area 13
R6A		Sub-Area 6A	R13A		Sub-Area 13A
R6B		Sub-Area 6B	R13B		Sub-Area 13B
R6C		Sub-Area 6C	R13C		Sub-Area 13C
R6D		Sub-Area 6D	R13D		Sub-Area 13D
R6E		Sub-Area 6E	R13E		Sub-Area 13E
R6F		Sub-Area 6F	R13F		Sub-Area 13F
R6G		Sub-Area 6G	R13G		Sub-Area 13G
R7	RDARA-7	Area 7	R13H		Sub-Area 13H
R7A		Sub-Area 7A	R13I		Sub-Area 13I
R7B		Sub-Area 7B	R13J		Sub-Area 13J
R7C		Sub-Area 7C	R13K		Sub-Area 13K
R7D		Sub-Area 7D	R13L		Sub-Area 13L
R7E		Sub-Area 7E	R13M		Sub-Area 13M
R7F		Sub-Area 7F	R13N		Sub-Area 13N
R8	RDARA-8	Area 8	R14	RDARA-14	Area 14
R9	RDARA-9	Area 9	R14A		Sub-Area 14A
R9B		Sub-Area 9B	R14B		Sub-Area 14B
R9C		Sub-Area 9C	R14C		Sub-Area 14C
R9D		Sub-Area 9D	R14D		Sub-Area 14D
			R14E		Sub-Area 14E
			R14F		Sub-Area 14F
			R14G		Sub-Area 14G

Symbol	VOLMET	Description of the VOLMET Allotment Areas and VOLMET Reception Areas
VAFI	AFI-MET	AFRICA-INDIAN OCEAN
VCAR	CAR-MET	CARIBBEAN
VEUR	EUR-MET	EUROPE
VMID	MID-MET	MIDDLE-EAST
VNAT	NAT-MET	NORTH ATLANTIC
VNCA	NCA-MET	NORTH CENTRAL ASIA
VPAC	PAC-MET	PACIFIC
VSAM	SAM-MET	SOUTH AMERICA
VSEA	SEA-MET	SOUTH EAST ASIA

Symbol	Description of the Worldwide Allotment Areas
WI	The boundaries of this allotment area comprise those of RDARAs 1, 2 and 3
WII	The boundaries of this allotment area comprise those of RDARAs 10, 11, 12A, 12B, 12C and 12D
WIII	The boundaries of this allotment area comprise those of RDARAs 6, 8, 9 and 14
WIV	The boundaries of this allotment area comprise those of RDARAs 12E, 12J and 13
WV	The boundaries of this allotment area comprise those of RDARAs 4, 5 and 7

9.8.6 Broadcasting Zones defined in Appendix S1 of the Radio Regulations

The broadcasting zones known as CIRAF Zones which appear in the Annex to Appendix S1 to the Radio Regulations are shown in the figure below. When any of these zones is used for indicating a standard geographical area, it has to be preceded by the symbol C without an intervening space; e.g. C01, C02, C74.



ITU Digitized World Map. PLATE-CARREE Scale:156892608 GRID:20.0

500 1000 10000

9.9 Appendix 9: TV Systems

Television system (symbol)	Number of lines	Field frequency (Hz)	Video bandwidth (MHz)	Channel bandwidth (MHz)	Difference between vision carrier and sound carrier (MHz)	Width of the main sideband (MHz)	Width of the vestigial sideband (MHz)	Type of vision modulation	Polarity of vision modulation	Type of sound modulation	Frequency deviation (kHz)	Ratio of effective radiated power vision/sound ST61	Ratio of effective radiated power vision/sound ITU-R
A	405	50	3		-3.5	3	0.75	C3F	Pos.	A3E	/	4/1	4/1
B	625	50	5	7	+5.5	5	0.75	C3F	Neg	F3E	±50	5/1	10/1 - 20/1
C	625	50	5	7	+5.5	5	0.75	C3F	Pos.	A3E	/	4/1	4/1
D	625	50	6	8	+6.5	6	0.75	C3F	Neg.	F3E	±50	5/1	5/1 - 10/1
E	819	50	10	14	±11.15	10	2	C3F	Pos.	A3E	/	4/1	10/1
F	819	50											
G	625	50	5	8	+5.5	5	0.75	C3F	Neg.	F3E	±50	5/1	10/1 - 20/1
H	625	50	5	8	+5.5	5	1.25	C3F	Neg.	F3E	±50	5/1	5/1 - 10/1
I	625	50	5.5	8	+5.9996	5.5	1.25	C3F	Neg.	F3E	±50	5/1	5/1
K	625	50	6	8	+6.5	6	0.75	C3F	Neg.	F3E	±50	5/1	5/1 - 10/1
K1*	625	50	6	8	+6.5	6	1.25	C3F	Neg.	F3E	±50	2/1 - 5/1	10/1
L	625	50	6	8	+6.5	6	1.25	C3F	Pos.	A3E	/	8/1	10/1
M	525	60	4.2	6	+4.5	4.2	0.75	C3F	Neg.	F3E	±25	2/1 - 1.43/1	5/1 - 10/1
N	625	50	4.2	6	+4.5	4.2	0.75	C3F	Neg.	F3E	±25		5/1 - 10/1

* *Note: In this case, the colour system is always SECAM.*

9.10 Appendix 10: Symbols Used For Coordination And Agreement

Symbol	Description
NI/...	In the case of a transmitting station, the notifying administration has undertaken to use this frequency assignment on the basis of non-interference to stations of the country whose symbol follows the slant stroke. In the case of a receiving earth station, the notifying administration has undertaken to accept the interference to this assignment resulting from the existing or future terrestrial station assignments of the country whose symbol follows the slant stroke.
N/RR---/…	The administration responsible for this entry asked the Bureau to seek coordination under the provisions of the Radio Regulations indicated in this remark with the administration of the country whose name is designated by the symbol which follows the slant stroke, and this administration has not answered within the time limits specified. Consequently, the provisions of RR1101-1103, RR1142-1144, RR1181 or RR1709-1711 are applicable for the administration whose symbol is indicated in this remark.
RR1066A RR1067 RR1068 RR1069	The Finding was formulated on the understanding that, according to the provisions of RR1066A, RR1067, RR1068 or RR1069, no coordination under RR1060 was required.
RR1070 or RR1070/...	The notifying administration has informed the Bureau that, for the present assignment to a receiving station, it accepts the interference resulting from the frequency assignments which should have been the subject of a coordination agreement under RR1060. When this remark is followed by symbols indicating one or more administrations, the interference acceptance statement refers to the administration of the country whose symbol follows the slant stroke.
RR1109 RR1110 RR1111	The Finding was formulated on the understanding that, according to the provisions of RR1109, RR1110 or RR1111, no coordination under RR1107 was required.
RR1111A or RR1111A/...	The notifying administration has informed the Bureau that, for the present assignment to a receiving earth station, it accepts the interference resulting from the existing or future terrestrial station assignments. When this remark is followed by symbols indicating one or more administrations, the interference acceptance statement refers to the administration of the country designated by the symbol which follows the slant stroke.
RR---- or RR----/...	The notifying administration has informed the Bureau of the successful completion of the coordination or agreement procedures in accordance with the provision of the Radio Regulation indicated in this remark. When this remark is followed by symbols indicating one or more administrations, the coordination/agreement statement refers to the administration of the country designated by the symbol which follows the slant stroke.
RS46 2.1/... or RS46 2.2/... or RS46 3.1/...	The notifying administration has informed the Bureau of the successful completion of the coordination procedure in accordance with the paragraph of the procedure annexed to Resolution 46 indicated in this remark with the administrations of the countries designated by the symbols which follow the slant stroke.
X/RS1(RJ88)/...	In accordance with paragraph 2 of Resolution No. 1 of the Regional Administrative Radio Conference to Establish a Plan for the Broadcasting Service in the Band 1 605 - 1 705 kHz in Region 2 (Rio de Janeiro, 1988), this assignment has been examined with respect to its compatibility with the allotment for the country following the slant stroke. The notifying administration has been invited to seek agreement of the affected administration. The status of the assignment will be reviewed when the broadcasting station is brought into use in the allotment concerned.

Symbol	Description
X/RJ88/...	The examination made in accordance with paragraph 2.1 of Article 6 of the Final Acts of the Regional Administrative Radio Conference to Establish a Plan for the Broadcasting Service in the Band 1 605 - 1 705 kHz in Region 2 (Rio de Janeiro, 1988), shows that the assignment is incompatible with the allotment in the Plan annexed to the Agreement for the country following the slant stroke. The notifying administration having insisted that this assignment be reconsidered, it has been recorded in the Master Register on a provisional basis and its status will be reviewed when the broadcasting station is brought into use in the allotment concerned.
X/RR1089/... X/RR1130/... X/RR1169/... X/RR1700/...	The administration indicated hereafter requested the assistance of the Bureau under RR1089, RR1130, RR1169 or RR1700. The administration responsible for this assignment or allotment did not reply to the request of the Bureau or did not give a decision within the time limits prescribed in the Radio Regulations. In accordance with RR1101-1103, RR1142-1144, RR1181 orRR1709-1712, this administration is deemed to have undertaken: a) that no complaint will be made in respect of any harmful interference which may be caused to the services rendered by its stations by the use of the assignment or the allotment for which the assistance of the Bureau was requested; b) that its stations will not cause harmful interference to the use of the assignment or allotment for which the assistance of the Bureau was requested.
X/RR1610/...	The use of this frequency assignment is subject to the application of the procedure of Article 14. In the process of application of this procedure the administration of the country designated by the symbol which follows the slant stroke has formally objected to the proposed use. The Bureau has therefore concluded that the application of the procedure of Article 14 was not successfully completed with the administration concerned. A favourable Finding (13A1) was nevertheless formulated on the understanding that no harmful interference shall be caused to the services of or protection claimed from the administration concerned.
X/RR----/...	In accordance with the provision of the Radio Regulations indicated in this remark, coordination or agreement was required with the administration of the country designated by the symbol which follows the slant stroke; however, the Bureau was not informed of the successful conclusion of this coordination/agreement.
V/RR1060/....	The coordination required under RR1060 of the space station assignment has not been effected with the administration of the country designated by the symbol which follows the slant stroke (unfavourable finding with respect to RR1504). Nevertheless, the Bureau's finding for this assignment with respect to RR1506 is favourable.
Z/RR1060/...	Based on the assumption that the present earth station was taken into account in the RR1060 coordination of the corresponding satellite network with the administration of the country designated by the symbol which follows the slant stroke, a favourable Finding was formulated with respect to RR1504. Nevertheless, this Finding will be reviewed if, after six months following the publication in Part II of the weekly Circular, an objection from the administration concerned has been received.
AP30---/...	The notifying administration has informed the Bureau of the successful application of the procedure or the completion of the coordination with the administration of the country designated by the symbol which follows the slant stroke in accordance with the provision of Appendix 30 indicated in this remark.
AP30A----/...	The notifying administration has informed the Bureau of the successful application of the procedure or the completion of the coordination with the administration of the country designated by the symbol which follows the slant stroke in accordance with the provision of Appendix 30A indicated in this remark.
X/RS46 2.1 or X/RS46 2.2	In accordance with the paragraph of the procedure annexed to Resolution 46 indicated in this remark, coordination was required; however, the relevant coordination procedure has not been initiated.

Symbol	Description
X/RS46 2.1/... or X/RS46 2.2/...	In accordance with the paragraph of the procedure annexed to Resolution 46 indicated in this remark, coordination was stated as required by the administration of the country designated by the symbol which follows the slant stroke; however, the Bureau was not informed of the successful conclusion of this coordination.
X/RS46 3.1/...	In accordance with the paragraph of the procedure annexed to Resolution 46 indicated in this remark, coordination was required with the administration of the country designated by the symbol which follows the slant stroke; however, the Bureau was not informed of the successful conclusion of this coordination.
AP30B----/...	The notifying administration has informed the Bureau of the successful application of the procedure or the completion of the coordination with the administration of the country designated by the symbol which follows the slant stroke in accordance with the provision of Appendix 30B indicated in this remark.
X/AP30----/...	In accordance with the provision of Appendix 30 indicated in this remark, coordination was required with the administration of the country designated by the symbol which follows the slant stroke; however, the Bureau was not informed of the successful conclusion of this coordination.
X/AP30A----/...	In accordance with the provision of Appendix 30A indicated in this remark, coordination was required with the administration of the country designated by the symbol which follows the slant stroke; however, the Bureau was not informed of the successful conclusion of this coordination.
X/AP30B----/...	In accordance with the provision of Appendix 30B indicated in this remark, coordination was required with the administration of the country designated by the symbol which follows the slant stroke; however, the Bureau was not informed of the successful conclusion of this coordination.

9.11 Appendix 11: BR Favourable Or Unfavourable Findings

9.11.1 Findings in Sub-Column 13A1 regarding Conformity with the Radio Regulations

Symbol	Finding Favourable with respect to
A	RR1240, RR1317, RR1328, RR1335, RR1344A, RR1352 or RR1503, or
A	paragraph 5.2.1a), 6.3.8 or 7.4.5.1 of Appendix S30, or
A	paragraph 5.2.1a) of Appendix S30A, or
A	paragraph 5.2 of Resolution No. 33.

Symbol	Finding Unfavourable with respect to
N	RR1240, RR1317, RR1328, RR1335, RR1344A, RR1352 or RR1503, or
N	paragraph 5.2.1a), 6.3.8 or 7.4.5.1 of Appendix S30, or
N	paragraph 5.2.1a) of Appendix S30A, or
N	paragraph 5.2 of Resolution No. 33.

9.11.2 Findings in Sub-Column 13A2 regarding Coordination under Article 11 or 12 of the Radio Regulations or Conformity with a Worldwide or Regional Plan

Symbol	Finding Favourable with respect to
A	RR1318, RR1329, RR1345 or RR1353, or
A	RR1336 to RR1339, or
A	RR1504 and RR1505 when both are applicable, or
A	RR1504 or RR1505 when one of them only is applicable, or
A	paragraph 5.2.1b), 5.2.1c), 5.2.1.d), 6.3.9 or 7.4.5.2 of Appendix S30, or
A	paragraph 5.2.1b) or 5.2.1c) and 5.2.1.e) of Appendix S30A, or
A	paragraph 5.2.1d), 6.6 or 7.7 of Appendix S30A, or
A	paragraph 5.3 and 5.4 of Resolution No. 33
A	RR1245 concerning a Plan annexed to a Regional Agreement, indicated in Column 13B1; or
A	against standard frequency assignments assumed to have been coordinated under the provisions of RR S26.2

Symbol	Finding Unfavourable with respect to
N	RR1318, RR1329, RR1345, RR1353, or
N	RR1336, RR1337, RR1338 or RR1339, or
N	RR1504 and/or RR1505, or
N	paragraph 5.2.1b) and 5.2.1c) or 5.2.1d) or 6.3.9 or 7.4.5.2 of Appendix S30, or
N	paragraph 5.2.1b) and 5.2.1c) or 5.2.1e) or
N	paragraph 5.2.1d), 6.6 or 7.7 of Appendix S30A, or
N	paragraph 5.3 or 5.4 of Resolution No. 33
N	RR1245 concerning a Plan annexed to a Regional Agreement, indicated in Column 13B1

9.11.3 Findings in Sub-Column 13A3 regarding Technical Examination

Symbol	Finding Favourable with respect to
A	RR1341, RR1348C or RR1354, or
A	RR1506 and RR1509 when both are applicable, or
A	RR1506 or RR1509 when one of them only is applicable, or
A	paragraph 6.3.10 or 7.4.5.3 of Appendix S30, or
A	paragraph 5.5 of Resolution No. 33

Symbol	Finding Unfavourable with respect to
N	RR1341, RR1348C, or RR1354, or
N	RR1506 and/or RR1509, or
N	paragraph 6.3.10 or 7.4.5.3 of Appendix S30, or
N	paragraph 5.5 of Resolution No. 33

9.12 Appendix 12: BR Finding References, Remarks And Dates

9.12.1 Finding Reference in Sub-Column 13B1 to a provision of the Radio Regulations or an Appendix thereto, or a Resolution of a World (Administrative) Radio Conference or a Regional Agreement

Symbol	Description
AP27/54	In examining the frequency assignment notice corresponding to this assignment, it was noted that either the peak envelope power exceeds the power limit specified in No. 27/54 of Appendix S27 Aer2 to the Radio Regulations, or the mean effective radiated power exceeds the limits specified in No. 27/55. However, a favourable Finding was formulated with respect to No. 27/59 where applicable, and the assignment was recorded in the Master Register with a favourable Finding with respect to RR1336-1339. The attention of the notifying administration has been drawn to the provisions of Nos. 27/56 to 27/58. Should the Bureau receive any complaint of harmful interference from an administration which is using the frequency concerned in accordance with the relevant provisions of the Allotment Plan, it shall investigate the matter and, if necessary, the previous Finding will be reviewed.
GE75	This frequency assignment is either in conformity with the Plan adopted by the Regional Administrative LF/MF Broadcasting Conference (Regions 1 and 3), Geneva, 1975, or one for which the notifying administration has successfully applied the procedure prescribed in Article 4 of the Regional Agreement, Geneva, 1975. In relations between Contracting Members, all frequency assignments bearing this symbol are considered to have the same status, irrespective of the dates entered in Column 2A or Column 2B.
GE84	This frequency assignment is either in conformity with the Plan adopted by the Regional Administrative Conference for the Planning of VHF Sound Broadcasting (Region 1 and part of Region 3), Geneva, 1984, or one for which the procedure prescribed in Article 4 of the Regional Agreement, Geneva, 1984, has been carried out successfully.
GE85M	This frequency assignment is either in conformity with the Plan adopted by the Regional Administrative Conference for the Planning of the MF Maritime Mobile and Aeronautical Radionavigation Services (Region 1) (Geneva, 1985) or one for which the procedure prescribed in Article 4 or Article 6 of the Regional Agreement adopted by that Conference has been carried out successfully.
GE85N	This frequency assignment is either in conformity with the Plan adopted by the Regional Administrative Conference for the planning of the Maritime Radionavigation Service (Radiobeacons) in the European Maritime Area (Geneva, 1985), or one for which the procedure described in Article 4 of the Regional Agreement adopted by that Conference has been carried out successfully, or one for which a favourable Finding was formulated following the examinations referred to in Article 6 of the same Agreement.
RJ81	This frequency assignment is either in conformity with the Plan adopted by the Regional Administrative MF Broadcasting Conference (Region 2), Rio de Janeiro, 1981, or one for which the procedure prescribed in Article 4 of the Regional Agreement, Rio de Janeiro, 1981, has been carried out successfully.
RJ88	This frequency assignment is in accordance with the provisions of the Regional Agreement for the Use of the Band 1 605 - 1 705 kHz in Region 2, Rio de Janeiro, 1988.
RR1419 RR1420 RR1560	This frequency assignment is the subject of an unfavourable Finding with respect to RR1240, RR1352 or RR1503. In accordance with the provisions of RR1419, RR1420 or RR1560, if harmful interference is actually caused to any station whose assignment is in conformity with the Radio Regulations, the station concerned shall, on receipt of advice thereof, immediately eliminate this harmful interference. In the case of an assignment for reception by a coast station, the reference to RR1419, that interference is not to be caused, is understood as being attached to the transmitting ship stations associated with the receiving coast station.

Symbol	Description
RR1559	This frequency assignment to a space radiocommunication station has been recorded in the Master Register in accordance with the provisions of RR1544. If harmful interference is actually caused, in accordance with RR1559, to the reception of any space radiocommunication station whose frequency assignment has been recorded in the Master Register as a result of a favourable Finding with respect to RR1503, RR1504, RR1505, RR1506 - 1508 or RR1509 - 1512, as appropriate, the station using this frequency assignment shall, on receipt of advice thereof, immediately eliminate the harmful interference. The attention of the notifying administration has been drawn to these provisions.
RR----	The provision of the Radio Regulations indicated by the number following this symbol applies to the assignment or entry concerned. The references to the footnotes of the Table of Frequency Allocations (RR444 -RR927) follow the numbering scheme of Article 8 of the Radio Regulations (edition of 1994). The correspondence between these numbers and the numbers appearing in the new Article S5, which entered into force on 1 January 1997, can be found in the Final Acts of the WRC-95 (pages 38 - 53).
RS4 1.1	The administration responsible for this assignment has not replied to the consultation of the Bureau under Resolution No. 4, paragraph 1.1; in consequence the assignment in question is considered to be definitively discontinued.
RS8	This frequency assignment was at that time selected by the IFRB and accepted by the notifying administration in accordance with Resolution No. 8 of WARC-79 as a replacement of the frequency assignment which operated in a band re-allocated to other services by WARC-79. The favourable Finding in Column 13A3 is formulated on that understanding.
RS21	This frequency assignment, which is subject to the provisions of Resolution No. 21 (formerly Resolution COM5/7) of WARC-92, has been received after 1 April 1992. The Findings entered in Column 13A were formulated on the basis of the relevant provisions of Article 12 of the Radio Regulations in force at the time of its receipt. In accordance with "*resolves 2*" of Resolution No. 21, the respective Findings will be reexamined as of 1 April 2007.
RS23	In accordance with Resolution PLEN-6 (WRC-95) this assignment was either not examined under RR1241-1242, or the related procedures of RR1252-1265 were not applied to it. As a consequence, a date in Column 2d was inserted due to the non-application of the provision No. 1389.
RS300	This frequency assignment has been entered in the Master International Frequency Register in accordance with the procedure prescribed in Resolution No. 300 (Rev. Mob-87).
ST61	This frequency assignment is either in accordance with the Plans adopted by the European VHF/UHF Broadcasting Conference, Stockholm, 1961, or one for which the procedure prescribed in Article 4 of the Regional Agreement, Stockholm, 1961, has been carried out successfully.
X/AP26	This frequency assignment has no corresponding allotment in the Allotment Plan for the Aeronautical Mobile (OR) Service contained in Appendix S26 to the Radio Regulations. The Finding with respect to the conditions specified in Part III, Section II, paragraph 4 d) is indicated in Column 13A3.
X/GE75	This frequency assignment is not in conformity with the Plan adopted by the Regional Administrative LF/MF Broadcasting Conference (Regions 1 and 3), Geneva, 1975, and the notifying administration has not successfully applied the procedure prescribed in Article 4 of the Regional Agreement, Geneva, 1975. Consequently, in accordance with the provisions of paragraph 3.5.4 of Article 4 of the Regional Agreement, the recording of this assignment in the Master Register has been made subject to the reservation that no harmful interference will be caused by this assignment to frequency assignments in conformity with the Agreement.

Symbol	Description
X/GE85M	This frequency assignment is not in conformity with the Plan adopted by the Regional Administrative Conference for the planning of the MF Maritime Mobile and Aeronautical Radionavigation Services (Region 1), Geneva, 1985 and is one for which the consultation procedure prescribed in Article 4 of the Regional Agreement adopted by that Conference has not been applied or has not been carried out successfully. This assignment is not entitled to any protection in relation to assignments that are in conformity with the Plan and must not cause any harmful interference to any such assignments.
X/GE85N	This frequency assignment is not in conformity with the Plan adopted by the Regional Administrative Conference for the planning of the Maritime Radionavigation Service (Radiobeacons) in the European Maritime Area (Geneva, 1985), and is one for which the consultation procedure prescribed in Article 4 of the Regional Agreement adopted by that Conference has not been applied or has not been carried out successfully.
X/RJ81	This frequency assignment is not in conformity with the Plan adopted by the Regional Administrative MF Broadcasting Conference (Region 2), Rio de Janeiro, 1981, and the notifying administration has not successfully applied the procedure prescribed in Article 4 of the Regional Agreement, Rio de Janeiro, 1981. The notifying administration having resubmitted the frequency assignment and having insisted on its reconsideration, its recording in the Master Register has been made subject to the reservation that no harmful interference will be caused to frequency assignments in conformity with the Agreement. (See paragraph 5.4 of Article 5 of the Regional Agreement, Rio de Janeiro, 1981.)
X/RS1(RJ88)	This assignment has caused interference to a broadcasting station brought into use in conformity with an allotment of the Plan annexed to the Regional Agreement for the use of the band 1 605-1 705 kHz in Region 2 (Rio de Janeiro, 1988). In accordance with paragraph 4 of Resolution No. 1 of the Regional Administrative Radio Conference to Establish a Plan for the Broadcasting Service in the Band 1 605 - 1 705 kHz in Region 2 (Rio de Janeiro, 1988), the Finding of this assignment has been reviewed and it is no longer taken into account when acting on any later notice (RR1263).
X/RS8	This frequency assignment has been notified under the interim procedure of Annex B to Resolution No. 8 of WARC-79; it was subsequently identified as a non-compatible one and pursuant to the review procedure of Annex C to Resolution No. 8, a replacement assignment was proposed. The administration failed to communicate its acceptance of the replacement assignment. This interim assignment has been retained in the Master Register with symbol Y in Column 13B2 and is not taken into account when examining notices under the provisions of RR1242.
X/RS400	This frequency assignment is not in conformity with the Plans adopted by the World Administrative Radio Conference on the Aeronautical Mobile ® Service, Geneva, 1978. The administration concerned, however, wished to retain it. Therefore, in accordance with *"resolves"* 2.1 of Resolution No. 400 of the World Administrative Radio Conference, Geneva, 1979, the assignment in question is retained in the Master Register, without a date in Column 2, for information only (symbol Y in Column 13B2).
X/RS401 X/RS404	This frequency assignment is not in conformity with Resolution No. 401 or No. 404, as appropriate, of the World Administrative Radio Conference, Geneva, 1979. The administration concerned having failed to notify its transfer to an appropriate frequency within the period prescribed in paragraph 2.1 of that Resolution, the assignment in question is retained in the Master Register without a date in Column 2, in accordance with paragraph 2.2 of the same Resolution, and therefore it does not enjoy any right to international protection against harmful interference (symbol Y in Column 13B2).

Symbol	Description
X/----	This frequency assignment has been examined with respect to its conformity with a provision or Article of the Radio Regulations or an Appendix thereto or with a Resolution or a Regional Agreement and an unfavourable Finding was formulated. The provision, Article, Appendix, Resolution or Regional Agreement concerned is indicated following this symbol. The references to the footnotes of the Table of Frequency Allocations (RR S5.53-RR S5.565) follow the numbering scheme of Article 8 of the Radio Regulations (edition of 1994). The correspondence between these numbers and the numbers appearing in the new Article S5, which entered into force on 1 January 1997, can be found in the Final Acts of the WRC-95 (pages 38 - 53).

9.12.2 Remark in Sub-Column 13B2 concerning the Finding

Symbol	Description
H	The present assignment shall be operated subject to not causing harmful interference to or claiming protection from the assignments of administrations indicated in Column 11 after a reference to the relevant provisions of the Radio Regulations or after the symbol NI in Column 11.
R	In accordance with the provisions of the Table of Frequency Allocations to which reference is made in Column 13B1, the present assignment has secondary status with respect to, or is to be operated subject to not causing harmful interference to, stations of (a) particular service(s) in the whole Region or in certain countries.
S	The service indicated by the Class of Station (Column 6A) being secondary (RR S5.28) or subject to not causing harmful interference (RR S5.43), this assignment is not taken into account when examining, with respect to the provisions of Articles 12 or 13, an assignment pertaining to a primary or permitted service.
V	In accordance with RR S23.8of the Radio Regulations, this frequency assignment has a lower status with respect to the assignments to the broadcasting service within the Tropical Zone and within the bands listed in RR S23.6.
X	This assignment which should have been transferred to another frequency in accordance with a transfer procedure decided by a Radiocommunication Conference, was not acted upon by the concerned Administration and hence has been retained in the Master Register without a date in Column 2 and for information only.
Y	Pursuant to the provisions referred to in Column 13B1, this assignment (or entry) is not taken into account when examining frequency assignments in accordance with the provisions of Articles 12 or 13 of the Radio Regulations. The present assignment has been recorded or retained in the Master Register for information only.
Z	This frequency assignment is for occasional use, and it is taken into account in examining a new notice with respect to the provisions of RR1506 - 1508 and RR1509 - 1512, as appropriate. However, when this entry is likely to be affected beyond the limits existing in the Rules of procedures, a qualified favourable Finding is formulated with respect to such a new notice. In the bands below 28 MHz, the use of this symbol is for information only, as no examination with reference to probability of harmful interference is performed.

9.12.3 Date in Sub-Column 13B3 relating to a review of Finding to be made

Symbol	Description
A/....	This assignment is recorded in accordance with RR1311, RR1382 or RR1553 on a provisional basis before it is put into use. If the notifying administration has not confirmed the putting into use by the date indicated following this symbol, the assignment will be deleted.
B/....	The Unfavourable Finding with respect to RR1241 or RR1242 indicated in Sub-Column 13A3 shall be reviewed by the date indicated after this symbol (RR1428).
C/....	The use of this frequency assignment is authorized until the date indicated under this symbol.
D/....	The BR has been informed that the use of this assignment, which is suspended, will resume on the date indicated against this symbol. At that date, the situation will be reviewed.
F/....	In accordance with the provisions of the Radio Regulations which apply to the frequency band in which this assignment is situated, this assignment will be reviewed on the date following this symbol.

***Note**: Pending the development of the new database, the old Columns 13B1 - 13B4 will continue to appear in the copies of the MRF or extracts thereof made on magnetic tape or on paper. Symbols described under 13B1 (references) will appear in Column 13B3, Column 13B4 will contain symbols described under 13B3 (dates) and Column 13B1 will remain blank*

9.13 Appendix 13: Nature Of Service Codes

9.13.1 Table of Nature Of Service Codes for Terrestrial Services

Nature Of Service Code	Meaning of the Code
AX	Fixed station used for transmission of aeronautical information (from 1 January 1999)
CO	Station open to official correspondence exclusively
CP	Station open to public correspondence
CR	Station open to limited public correspondence
CV	Station open exclusively to correspondence of a private agent
FS	Land station established solely for the safety of life
HP	Fixed station using high altitude platform
MX	Fixed station used for transmission of meteorological information
OT	Station open exclusively to operational traffic of the service concerned
PX	Fixed station used for press transmission
RC	Non-directional radiobeacon
RD	Directional radiobeacon
RG	Radio direction-finding station
RT	Revolving radiobeacon
ST	Fixed station using tropospheric scatter

9.13.2 Table of Nature Of Service Codes for Space Services

Nature Of Service Code	Meaning of the Code
CO	Station open to official correspondence exclusively
CP	Station open to public correspondence
CR	Station open to limited public correspondence
CV	Station open exclusively to correspondence of a private agent
OT	Station open exclusively to operational traffic of the service concerned

9.14 Appendix 14: Power Measurement Method Code For Each Class Of Emission

Class Of Emission	Power to be notified (see S1.156 - S1.159)	Power Measurement Method Code
NON--	PZ	Z
A1A--	PX	X
A1B--	PX	X
A2A--	PY	Y
A2B--	PY	Y
R2B--	PX	X
B7B--	PX	X
H2A--	PY	Y
J2B--	PX	X
A3E--	PY	Y
A3E-- (BC in Column 6A)	PZ	Z
R3E--	PX	X
B8E--	PX	X
H3E--	PY	Y
J3E--	PX	X
A3C--	PY	Y
R3C--	PX	X
B8C--	PX	X
J3C--	PX	X
A3F--	PY	Y
R3F--	PX	X
C3F--	PX	X
J7B--	PX	X
A7B--	PY	Y
R7B--	PX	X
H7B--	PY	Y
AXX--	PY	Y
BXX--	PX	X
JXX--	PX	X
F1B--	PY	Y
F2B--	PY	Y
F3E--	PY	Y
G3E--	PY	Y
F1C--	PY	Y
F3F--	PY	Y
F7B--	PY	Y
FXX--	PY	Y
P0N--	PX	X
K1B--	PX	X
K2B--	PX	X
L2B--	PX	X
M2B--	PX	X

Class Of Emission	Power to be notified (see S1.156 - S1.159)	Power Measurement Method Code
K3E--	PX	X
M3E--	PX	X
V3E--	PX	X
K3F--	PX	X
PXX--	PX	X

PX Peak envelope power: the average power supplied to the antenna by a transmitter during one radio frequency cycle at the crest of the modulation envelope taken under normal operating conditions.

PY Mean power: the average power supplied to the antenna by a transmitter during an interval of time sufficiently long compared with the lowest frequency encountered in the modulation taken under normal operating conditions.

PZ Carrier power: the average power supplied to the antenna by a transmitter during one radio frequency cycle taken under the condition of no modulation.

RADIOCOMMUNICATION DATA DICTIONARY

Section 10

DATA ITEM REFERENCE INDEX

Contents

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10.4 Space data groups and data items in alphabetical sequence **417**

10.0 Introduction

This section provides indexes to assist in identifying the page and paragraph number of definitions for specific data elements.

There are 4 indexes. Each index presents different information in one of two different forms, as described by the following table.

Index	Content	Sequence	Space/Terrestrial
10.1	Data groups, data items & relationships	RDD reference number	Terrestrial
10.2	Data groups & data items	Alphabetical order of the data group/data item name	Terrestrial
10.3	Data groups, data items & relationships	RDD reference number	Space
10.4	Data groups & data items	Alphabetical order of the data group/data item name	Space

Note: *Rows in tables 10.1 and 10.3 occur in the sequence of their RDD reference number. However, because some data elements have been cancelled in the process of developing the RDD, the sequence is not fully continuous.*

These indexes also enable the identification of data element names from their RDD reference number and visa versa.

The “Data Type” column identifies the type of data element in each row i.e.: G = Data Group, I = Data Item, R = Relationship.

10.1 Terrestrial data elements in RDD reference number sequence

RDD ref	Page	Para	Data Type	Data Group	Data Item/Relationship
0001	134	3.30	G	Three Dimensional Zone	
0002				RDD reference number(s) not allocated	
0003	134	3.30	I	Three Dimensional Zone	Maximum Operating Height
0004	134	3.30	I	Three Dimensional Zone	Minimum Operating Height
0005 to 0009					RDD reference number(s) not allocated
0010	79	3.1	G	Administration	
0011	79	3.1	I	Administration	Code
0012	79	3.1	I	Administration	Name
0013	79	3.1	I	Administration	Official Postal Address
0014	79	3.1	I	Administration	Official Telex Address
0015				RDD reference number(s) not allocated	
0016	79	3.1	R	Administration	An Administration may notify one or more Signal Configurations
0017	79	3.1	R	Administration	An Administration may be party to one or more Coordination Agreements
0018	138	3.34	R	Geographical Area	A Geographical Area may be a valid area for one or more Correspondence Addresses
0019 to 0031					RDD reference number(s) not allocated
0032	135	3.31	G	Aeronautical Zone	
0033	135	3.31	I	Aeronautical Zone	Code
0034				RDD reference number(s) not allocated	
0035	89	3.8	G	Antenna	
0036				RDD reference number(s) not allocated	
0037	89	3.8	I	Antenna	Geographical Coordinates
0038	89	3.8	I	Antenna	Mast Identification
0039	89	3.8	R	Antenna	An Antenna must be located at a single Site
0040	88	3.7	R	Site	A Site must be located within a single Geographical Area
0041 to 0053					RDD reference number(s) not allocated
0054	105	3.17	R	Antenna Radiation Pattern Augmentation	An Antenna Radiation Pattern Augmentation must modify the radiation pattern for a single Type B Transmitting Antenna
0055 to 0059					RDD reference number(s) not allocated
0060	96	3.11	I	Directional Transmitting Antenna	Vertically Polarized Component Horizontal Attenuation Pattern
0061 to 0063					RDD reference number(s) not allocated
0064	122	3.28	I	Signal Configuration	Vision Carrier Nominal Frequency
0065	122	3.28	I	Signal Configuration	Vision Carrier Frequency Offset Code
0066	128	3.28	I	Signal Configuration	Vision To Sound Power Ratio
0067	120	3.28	R	Signal Configuration	A Signal Configuration may use a single Colour System
0068	120	3.28	R	Signal Configuration	A Signal Configuration may use a single Television System
0069	137	3.33	G	Circular Zone	
0070	137	3.33	I	Circular Zone	Centre Geographical Coordinates
0071	137	3.33	I	Circular Zone	Radius
0072 to 0076					RDD reference number(s) not allocated
0077	115	3.23	G	Colour System	
0078	115	3.23	I	Colour System	Code
0079					RDD reference number(s) not allocated
0080	115	3.23	R	Colour System	A Colour System may be available to one or more Television Systems
0081	115	3.23	R	Colour System	A Colour System may be used by one or more Signal Configurations
0082					RDD reference number(s) not allocated
0083	134	3.30	I	Three Dimensional Zone	Altitude Radius Reduction
0084 to 0087					RDD reference number(s) not allocated
0088	81	3.2	G	Coordination Agreement	
0089				RDD reference number(s) not allocated	
0090	81	3.2	I	Coordination Agreement	Status Code
0091	81	3.2	R	Coordination Agreement	A Coordination Agreement must be in respect of a single Signal Configuration
0092	81	3.2	R	Coordination Agreement	A Coordination Agreement must be sought with a single Administration
0093	82	3.3	G	Correspondence Address	
0094	82	3.3	I	Correspondence Address	Code
0095	82	3.3	I	Correspondence Address	Postal Address
0096	82	3.3	I	Correspondence Address	Telex Address
0097	82	3.3	R	Correspondence Address	A Correspondence Address must have validity in one or more Geographical Areas
0098	82	3.3	R	Correspondence Address	A Correspondence Address may be used for one or more Signal Configurations
0099 to 0106					RDD reference number(s) not allocated
0107	94	3.11	G	Directional Transmitting Antenna	
0108	94	3.11	I	Directional Transmitting Antenna	Azimuth Of Maximum Gain
0109	94	3.11	I	Directional Transmitting Antenna	Elevation Angle Of Maximum Gain
0110	97	3.11	I	Directional Transmitting Antenna	Reference Pattern
0111 to 0113					RDD reference number(s) not allocated
0114	90	3.9	G	Receiving Antenna	
0115					RDD reference number(s) not allocated
0117	90	3.9	R	Receiving Antenna	A Receiving Antenna may receive a signal from one or more Transmitting Antennas
0118	90	3.9	R	Receiving Antenna	A Receiving Antenna may be the intended point of reception for one or more Signal Configurations
0119	91	3.10	G	Transmitting Antenna	
0120	124	3.28	I	Signal Configuration	Adjacent Channel Protection Ratio
0121	92	3.10	I	Transmitting Antenna	Ground Altitude Above Mean Sea Level
0122	91	3.10	I	Transmitting Antenna	Directivity Indicator
0123	92	3.10	I	Transmitting Antenna	Effective Height Pattern
0124	92	3.10	I	Transmitting Antenna	Ground Conductivity

RDD ref	Page	Para	Data Type	Data Group	Data Item/Relationship
0125	92	3.10	I	Transmitting Antenna	Height Above Ground Level
0126					RDD reference number(s) not allocated
0128	92	3.10	I	Transmitting Antenna	Maximum Effective Height
0129	91	3.10	I	Transmitting Antenna	Maximum Gain
0130	89	3.8	I	Antenna	Operator's Identification Code
0131	91	3.10	I	Transmitting Antenna	Polarization Code
0132	125	3.28	I	Signal Configuration	Synchronised Network Indicator
0133	93	3.10	I	Transmitting Antenna	Type Code
0134					RDD reference number(s) not allocated
0136	91	3.10	R	Transmitting Antenna	A Transmitting Antenna must produce signals described by one or more Signal Configurations
0137	91	3.10	R	Transmitting Antenna	A Transmitting Antenna may transmit a signal to one or more Receiving Antennas
0138					RDD reference number(s) not allocated
0139	120	3.28	R	Signal Configuration	A Signal Configuration may be produced by a single Transmitting Antenna
0140	120	3.28	G	Signal Configuration	
0141	126	3.28	I	Signal Configuration	Date Of Bringing Into Use
0142	109	3.20	I	Regular Operation Period	NAVTEX Transmission Duration
0143					RDD reference number(s) not allocated
0144	126	3.28	I	Signal Configuration	Period Of Validity
0145	121	3.28	I	Signal Configuration	Frequency Category Code
0146					RDD reference number(s) not allocated
0147	94	3.11	I	Directional Transmitting Antenna	Horizontal Beamwidth
0148					RDD reference number(s) not allocated
0149	128	3.28	I	Signal Configuration	Maximum Horizontally Polarized Radiated Power
0150	126	3.28	I	Signal Configuration	Station Identification
0151 to 0153					RDD reference number(s) not allocated
0154	129	3.28	I	Signal Configuration	Maximum Power Density Over 4kHz
0155	127	3.28	I	Signal Configuration	Maximum Radiated Power
0156	125	3.28	I	Signal Configuration	Nature Of Service Code
0157	125	3.28	I	Signal Configuration	Necessary Bandwidth Code
0158					RDD reference number(s) not allocated
0159	127	3.28	I	Signal Configuration	Power Measurement Method Code
0160	90	3.9	I	Receiving Antenna	Receiving System Noise Temperature
0161	126	3.28	I	Signal Configuration	RR Conformity Indicator
0162					RDD reference number(s) not allocated
0163	128	3.28	I	Signal Configuration	Total Radiated Power
0164					RDD reference number(s) not allocated
0165	124	3.28	I	Signal Configuration	FM Transmission System Code
0166	127	3.28	I	Signal Configuration	Transmitter Output Power
0167					RDD reference number(s) not allocated
0168	91	3.10	I	Transmitting Antenna	Vertical Beamwidth
0169					RDD reference number(s) not allocated
0170	128	3.28	I	Signal Configuration	Maximum Vertically Polarized Radiated Power
0171					RDD reference number(s) not allocated
0173	138	3.34	G	Geographical Area	
0174	138	3.34	I	Geographical Area	Code
0175	138	3.34	I	Geographical Area	Name
0176	138	3.34	R	Geographical Area	A Geographical Area may be the location of one or more Sites
0177 to 0182					RDD reference number(s) not allocated
0183	127	3.28	I	Signal Configuration	Local Operation Period Code
0184					RDD reference number(s) not allocated
0185	139	3.35	G	Maritime Zone	
0186	139	3.35	I	Maritime Zone	Description
0187	139	3.35	I	Maritime Zone	Code
0188 to 0193					RDD reference number(s) not allocated
0194	130	3.28	I	Signal Configuration	Three Dimensional Roaming Zone
0195	120	3.28	R	Signal Configuration	A Signal Configuration may be transmitted to one or more Receiving Antennas
0196 to 0199					RDD reference number(s) not allocated
0200	84	3.5	G	Terrestrial Service Notice	
0201	84	3.5	I	Terrestrial Service Notice	Administration's Notice Code
0202	84	3.5	I	Terrestrial Service Notice	BR Date Received
0203				RDD reference number(s) not allocated	
0204	84	3.5	I	Terrestrial Service Notice	Date Sent
0205	84	3.5	I	Terrestrial Service Notice	BR Identification Code.
0206	84	3.5	I	Terrestrial Service Notice	Intended Action Code
0207					RDD reference number(s) not allocated
0208	84	3.5	R	Terrestrial Service Notice	A Terrestrial Service Notice must be submitted in respect of a single Signal Configuration
0209 to 0217					RDD reference number(s) not allocated
0218	83	3.4	G	Operator	
0219	83	3.4	I	Operator	Code
0220	83	3.4	I	Operator	Name
0221	83	3.4	R	Operator	An Operator may operate within a single Geographical Area
0222	83	3.4	R	Operator	An Operator may be responsible for the operation of one or more Signal Configurations
0223 to 0225					RDD reference number(s) not allocated
0226	117	3.25	G	Protection Mask	
0227	117	3.25	I	Protection Mask	Signal To Interference Ratio
0228	117	3.25	I	Protection Mask	Description
0229	117	3.25	I	Protection Mask	Minimum Protected Field Strength
0230	117	3.25	I	Protection Mask	Protection Margin
0231	117	3.25	I	Protection Mask	Shape
0232	117	3.25	I	Protection Mask	Protection Ratio
0233 to 0240					RDD reference number(s) not allocated
0241	118	3.26	G	Radiocommunication Service	
0242					RDD reference number(s) not allocated

RDD ref	Page	Para	Data Type	Data Group	Data Item/Relationship
0243	118	3.26	I	Radiocommunication Service	Name
0244					RDD reference number(s) not allocated
0245	118	3.26	R	Radiocommunication Service	A Radiocommunication Service must be qualified by one or more Classes Of Station
0246	108	3.19	G	Season Of Operation	
0247	108	3.19	I	Season Of Operation	Code
0248	108	3.19	R	Season Of Operation	A Season Of Operation may be the emission period for one or more Signal Configurations
0249 to 0251					RDD reference number(s) not allocated
0252	120	3.28	R	Signal Configuration	A Signal Configuration may be emitted in one or more Season Of Operation
0253					RDD reference number(s) not allocated
0254	120	3.28	R	Signal Configuration	A Signal Configuration may be operating during one or more Regular Operation Periods
0255	120	3.28	R	Signal Configuration	A Signal Configuration may require one or more Coordination Agreements
0256					RDD reference number(s) not allocated
0257	120	3.28	R	Signal Configuration	A Signal Configuration must be the subject of one or more Terrestrial Service Notices
0258					RDD reference number(s) not allocated
0259	120	3.28	R	Signal Configuration	A Signal Configuration may be the responsibility of a single Operator
0260	120	3.28	R	Signal Configuration	A Signal Configuration may have correspondence relating to interference matters addressed to a single Correspondence Address
0261	120	3.28	R	Signal Configuration	A Signal Configuration must be notified by a single Administration
0262					RDD reference number(s) not allocated
0263	120	3.28	R	Signal Configuration	A Signal Configuration must belong to a single Class Of Station
0264					RDD reference number(s) not allocated
0265	88	3.7	G	Site	
0266					RDD reference number(s) not allocated
0267	88	3.7	I	Site	Name
0268	88	3.7	R	Site	A Site may be the location of one or more Antennas
0269 to 0272					RDD reference number(s) not allocated
0273	95	3.11	I	Directional Transmitting Antenna	Horizontally Polarized Component Horizontal Attenuation Pattern
0274	129	3.28	I	Signal Configuration	Horizontal Radiation Pattern
0275	129	3.28	I	Signal Configuration	Vertical Radiation Pattern
0276	116	3.24	G	Class Of Station	
0277	116	3.24	I	Class Of Station	Code
0278	116	3.24	I	Class Of Station	Name
0279	116	3.24	R	Class Of Station	A Class Of Station may classify the operation of one or more Signal Configurations
0280	116	3.24	R	Class Of Station	A Class Of Station must identify one or more Radiocommunication Services
0281	132	3.29	G	Television System	
0282					RDD reference number(s) not allocated
0283	132	3.29	I	Television System	Code
0284 to 0299					RDD reference number(s) not allocated
0300	132	3.29	R	Television System	A Television System may be used by one or more Signal Configurations
0301	132	3.29	R	Television System	A Television System may be designed to use a single Colour System
0302 to 0305					RDD reference number(s) not allocated
0306	109	3.20	G	Regular Operation Period	
0307	109	3.20	I	Regular Operation Period	Start Time
0308	109	3.20	I	Regular Operation Period	Stop Time
0309	109	3.20	R	Regular Operation Period	A Regular Operation Period must be the operating time for a single Signal Configuration
0310 to 0327					RDD reference number(s) not allocated
0328	141	3.37	G	Zone Boundary Coordinate	
0329	141	3.37	I	Zone Boundary Coordinate	Geographical Coordinates
0330 to 0344					RDD reference number(s) not allocated
0345	120	3.28	I	Signal Configuration	Assigned Frequency
0346					RDD reference number(s) not allocated
0347	126	3.28	I	Signal Configuration	Call Sign
0348	120	3.28	I	Signal Configuration	Reference (Carrier) Frequency
0349					RDD reference number(s) not allocated
0350	124	3.28	I	Signal Configuration	Channel Occupation Indicator
0351	125	3.28	I	Signal Configuration	Class Of Emission Code
0352					RDD reference number(s) not allocated
0354	105	3.17	G	Antenna Radiation Pattern Augmentation	
0355	105	3.17	I	Antenna Radiation Pattern Augmentation	Central Azimuth Field Strength
0356	105	3.17	I	Antenna Radiation Pattern Augmentation	Central Azimuth
0357	105	3.17	I	Antenna Radiation Pattern Augmentation	Serial Number
0358	105	3.17	I	Antenna Radiation Pattern Augmentation	Total Span
0359	100	3.13	I	Type B Transmitting Antenna	Special Quadrature Factor
0360	130	3.28	I	Signal Configuration	Station Coverage Code
0361 to 0365					RDD reference number(s) not allocated
0366	136	3.32	G	CIRAF Zone	
0367	136	3.32	I	CIRAF Zone	Quadrant Code
0368	136	3.32	I	CIRAF Zone	Zone Number
0369					RDD reference number(s) not allocated
0371	121	3.28	I	Signal Configuration	Alternative Frequency
0372					RDD reference number(s) not allocated
0373	121	3.28	I	Signal Configuration	Other Simultaneous Frequencies Used
0374	121	3.28	I	Signal Configuration	Preferred Frequency Band
0375	103	3.15	G	Sectionalised Tower	
0376	103	3.15	I	Sectionalised Tower	Lower Section Height Difference
0377	103	3.15	I	Sectionalised Tower	Lower Section Electrical Height
0378					RDD reference number(s) not allocated
0379	103	3.15	I	Sectionalised Tower	Height Difference
0380	98	3.12	G	Type A Transmitting Antenna	
0381	99	3.13	G	Type B Transmitting Antenna	
0382	98	3.12	I	Type A Transmitting Antenna	Electrical Height
0383	100	3.13	I	Type B Transmitting Antenna	Pattern Type

RDD ref	Page	Para	Data Type	Data Group	Data Item/Relationship
0384	100	3.13	R	Type B Transmitting Antenna	A Type B Transmitting Antenna must have its radiation pattern modified by the use of one or more Antenna Radiation Pattern Augmentations
0385	100	3.13	R	Type B Transmitting Antenna	A Type B Transmitting Antenna must consist of one or more Towers
0386	104	3.16	G	Top Loaded Tower	
0387					RDD reference number(s) not allocated
0388	104	3.16	I	Top Loaded Tower	Height Difference
0389	101	3.14	G	Tower	
0390	102	3.14	I	Tower	Angular Orientation
0391	101	3.14	I	Tower	Reference Number
0392	102	3.14	I	Tower	Electrical Spacing
0393	102	3.14	I	Tower	Field Phase Difference
0394	102	3.14	I	Tower	Electrical Height
0395	102	3.14	I	Tower	Field Strength Ratio
0396	101	3.14	I	Tower	Identification Number
0397	101	3.14	I	Tower	Structure Code
0398	101	3.14	R	Tower	A Tower must form a part of a single Type B Transmitting Antenna
0399 to 0420					RDD reference number(s) not allocated
0421	119	3.27	G	Sector Of Limited Radiation	
0422	119	3.27	I	Sector Of Limited Radiation	Finish Azimuth
0423	119	3.27	I	Sector Of Limited Radiation	Radiated Power
0424	119	3.27	I	Sector Of Limited Radiation	Start Azimuth
0425	119	3.27	R	Sector Of Limited Radiation	A Sector Of Limited Radiation must define part of the radiation pattern for a single Signal Configuration
0426 to 0428					RDD reference number(s) not allocated
0429	120	3.28	R	Signal Configuration	A Signal Configuration may have its radiation pattern defined by one or more Sectors Of Limited Radiation
0430 to 0445					RDD reference number(s) not allocated
0446	130	3.28	I	Signal Configuration	Maximum Length Of Circuit
0447 to 0450					RDD reference number(s) not allocated
0451	140	3.36	G	Segment Zone	
0452	140	3.36	I	Segment Zone	Start Azimuth
0453	140	3.36	I	Segment Zone	Finish Azimuth
0454	140	3.36	I	Segment Zone	Start Radius
0455 to 0461					RDD reference number(s) not allocated
0462	120	3.28	R	Signal Configuration	A Signal Configuration may have its protection limits defined by one or more Protection Masks
0463	117	3.25	R	Protection Mask	A Protection Mask may provide protection limits for one or more Signal Configurations
0464	111	3.21	G	Traffic Characteristic	
0465	111	3.21	I	Traffic Characteristic	Start Peak Hours
0466	111	3.21	I	Traffic Characteristic	Stop Peak Hours
0467	111	3.21	I	Traffic Characteristic	Daily Volume
0468	111	3.21	R	Traffic Characteristic	A Traffic Characteristic must further define a single Regular Operation Period
0469	109	3.20	R	Regular Operation Period	A Regular Operation Period may be further defined by one or more Traffic Characteristics
0470					RDD reference number(s) not allocated
0471	128	3.28	I	Signal Configuration	RMS Radiation
0472 to 0474					RDD reference number(s) not allocated
0475	140	3.36	I	Segment Zone	Finish Radius
0476	95	3.11	I	Directional Transmitting Antenna	Radiator Type
0477	95	3.11	I	Directional Transmitting Antenna	Reflector Type
0478	93	3.10	I	Transmitting Antenna	Design Frequency
0479	94	3.11	I	Directional Transmitting Antenna	Azimuth To The Normal Of The Plane Of The Radiating Elements
0480	94	3.11	I	Directional Transmitting Antenna	Slew Angle
0481	121	3.28	I	Signal Configuration	Sound Carrier Nominal Frequency
0482	122	3.28	I	Signal Configuration	Sound Carrier Frequency Offset Code
0483					RDD reference number(s) not allocated
0484	129	3.28	I	Signal Configuration	Energy Dispersal Description
0485	121	3.28	I	Signal Configuration	Pre-emphasis P-P Frequency Deviation
0486 to 0493					RDD reference number(s) not allocated
0494	126	3.28	I	Signal Configuration	Class Of Operation Code
0495	124	3.28	I	Signal Configuration	Channel Number
0496	124	3.28	I	Signal Configuration	Alternative Channel Number
0497	124	3.28	I	Signal Configuration	Channel Number To Be Replaced
0498	107	3.18	G	Day Of Operation	
0499	107	3.18	R	Day Of Operation	A Day Of Operation may be the emission period for one or more Signal Configurations.
0500					RDD reference number(s) not allocated
0502	96	3.11	I	Directional Transmitting Antenna	Vertical Gain Pattern
0503 to 0506					RDD reference number(s) not allocated
0507	96	3.11	I	Directional Transmitting Antenna	Horizontal Gain Pattern
0508	96	3.11	I	Directional Transmitting Antenna	Elevation Gain Pattern
0509	94	3.11	I	Directional Transmitting Antenna	Rotational Antenna Beam Start Azimuth
0510	95	3.11	I	Directional Transmitting Antenna	Rotational Antenna Beam Finish Azimuth
0511	141	3.37	I	Zone Boundary Coordinate	Sequence Number
0512	124	3.28	I	Signal Configuration	HF Transmission System Code
0513 to 0523					RDD reference number(s) not allocated
0524	112	3.22	G	Maximum Hours Of Operation	
0525	112	3.22	I	Maximum Hours Of Operation	Start Time
0526	112	3.22	I	Maximum Hours Of Operation	Stop Time
0527	134	3.30	I	Three Dimensional Zone	Two Dimensional Zone
0528 to 0530					RDD reference number(s) not allocated
0531	107	3.18	I	Day Of Operation	Name

RDD ref	Page	Para	Data Type	Data Group	Data Item/Relationship
0532 to 0534					RDD reference number(s) not allocated
0535	126	3.28	I	Signal Configuration	Synchronised Network Number
0536	92	3.10	I	Transmitting Antenna	Physical Height
0537					RDD reference number(s) not allocated
0538	108	3.19	I	Season Of Operation	Start Date
0539	108	3.19	I	Season Of Operation	Stop Date
0540	138	3.34	R	Geographical Area	A Geographical Area may be an area of operation for one or more Operators
0541	120	3.28	R	Signal Configuration	A Signal Configuration may be emitted on one or more Days Of Operation
0542	112	3.22	R	Maximum Hours Of Operation	A Maximum Hours Of Operation must be the maximum operating time of a single Signal Configuration
0543	120	3.28	R	Signal Configuration	A Signal Configuration may be operating within one or more Maximum Hours Of Operation
0544	130	3.28	I	Signal Configuration	Two Dimensional Roaming Zone
0545	130	3.28	I	Signal Configuration	Three Dimensional Service Zone
0546	130	3.28	I	Signal Configuration	Two Dimensional Service Zone
0547					RDD reference number(s) not allocated
0549	109	3.20	I	Regular Operation Period	NAVTEX Transmission Interval
0550	92	3.10	I	Transmitting Antenna	Azimuth Of Maximum Effective Height
0551	122	3.28	I	Signal Configuration	Sound Carrier Frequency Offset
0552	123	3.28	I	Signal Configuration	Vision Carrier Frequency Offset
0553	123	3.28	I	Signal Configuration	Frequency Offset Stability Indicator
0554	127	3.28	I	Signal Configuration	Antenna Input Power
0555					RDD reference number(s) not allocated
0556	79	3.1	R	Administration	An Administration may submit one or more Correspondence Addresses
0557	79	3.1	R	Administration	An Administration may inform the BR of the address of one or more Operators
0558					RDD reference number(s) not allocated
0559	79	3.1	R	Administration	An Administration may nominate one or more Sites
0560	79	3.1	I	Administration	Official Facsimile Address
0561	79	3.1	I	Administration	Official E-mail Address
0562	80	3.1	I	Administration	ITU Language Code
0563	82	3.3	R	Correspondence Address	A Correspondence Address must be nominated by a single Administration
0564	82	3.3	I	Correspondence Address	Facsimile Address
0565	82	3.3	I	Correspondence Address	E-mail Address
0566					RDD reference number(s) not allocated
0567	88	3.7	R	Site	A Site must be submitted by a single Administration
0568					RDD reference number(s) not allocated
0570	128	3.28	I	Signal Configuration	Power Control Range
0571	129	3.28	I	Signal Configuration	Maximum Power Density Over 1MHz
0572	121	3.28	I	Signal Configuration	Pre-emphasis RMS Frequency Deviation
0573					RDD reference number(s) not allocated
0574	112	3.22	R	Maximum Hours Of Operation	A Maximum Hours Of Operation must be the maximum operating time for a single Site
0575	88	3.7	R	Site	A Site may be used for transmission or reception during one or more Maximum Hours Of Operation
0576	142	3.38	G	Maritime HF Allotment	
0577	142	3.38	I	Maritime HF Allotment	Description
0578	142	3.38	I	Maritime HF Allotment	Code
0579					RDD reference number(s) not allocated
0580	117	3.25	R	Protection Mask	A Protection Mask must be defined for a single Radiocommunication Service
0581	118	3.26	R	Radiocommunication Service	A Radiocommunication Service may include one or more other Radiocommunication Services
0582	118	3.26	R	Radiocommunication Service	A Radiocommunication Service may be protected by one or more Protection Masks
0583 to 0600					RDD reference number(s) not allocated
0601	135	3.31	I	Aeronautical Zone	Description
0602					RDD reference number(s) not allocated
0603	83	3.4	R	Operator	An Operator must have been registered with the BR by a single Administration
0604	118	3.26	I	Radiocommunication Service	Code
0605	85	3.6	G	Provision	
0606	85	3.6	R	Provision	A Provision may determine the requirements for one or more Coordination Agreements
0607	85	3.6	R	Provision	A Provision may determine the requirements for one or more Terrestrial Service Notices
0608	85	3.6	I	Provision	Code
0609	81	3.2	R	Coordination Agreement	A Coordination Agreement must be in respect of a single Provision
0610	84	3.5	R	Terrestrial Service Notice	A Terrestrial Service Notice must be submitted according to the requirements of one or more Provisions
0611 to 0651					RDD reference number(s) not allocated
0652	120	3.28	I	Signal Configuration	Frequency Offset
0653	138	3.34	I	Geographical Area	Radiocommunication Region Code

10.2 Terrestrial data groups and data items in alphabetical sequence

RDD ref	Page	Para	Data Type	Data Group	Data Item
0120	124	3.28	I	Signal Configuration	Adjacent Channel Protection Ratio
0010	79	3.1	G	Administration	
0201	84	3.5	I	Terrestrial Service Notice	Administration's Notice Code
0032	135	3.31	G	Aeronautical Zone	
0496	124	3.28	I	Signal Configuration	Alternative Channel Number
0371	121	3.28	I	Signal Configuration	Alternative Frequency
0083	134	3.30	I	Three Dimensional Zone	Altitude Radius Reduction
0390	102	3.14	I	Tower	Angular Orientation
0035	89	3.8	G	Antenna	
0554	127	3.28	I	Signal Configuration	Antenna Input Power
0354	105	3.17	G	Antenna Radiation Pattern Augmentation	
0345	120	3.28	I	Signal Configuration	Assigned Frequency
0550	92	3.10	I	Transmitting Antenna	Azimuth Of Maximum Effective Height
0108	94	3.11	I	Directional Transmitting Antenna	Azimuth Of Maximum Gain
0479	94	3.11	I	Directional Transmitting Antenna	Azimuth To The Normal Of The Plane Of The Radiating Elements
0202	84	3.5	I	Terrestrial Service Notice	BR Date Received
0205	84	3.5	I	Terrestrial Service Notice	BR Identification Code.
0347	126	3.28	I	Signal Configuration	Call Sign
0356	105	3.17	I	Antenna Radiation Pattern Augmentation	Central Azimuth
0355	105	3.17	I	Antenna Radiation Pattern Augmentation	Central Azimuth Field Strength
0070	137	3.33	I	Circular Zone	Centre Geographical Coordinates
0495	124	3.28	I	Signal Configuration	Channel Number
0497	124	3.28	I	Signal Configuration	Channel Number To Be Replaced
0350	124	3.28	I	Signal Configuration	Channel Occupation Indicator
0366	136	3.32	G	CIRAF Zone	
0069	137	3.33	G	Circular Zone	
0351	125	3.28	I	Signal Configuration	Class Of Emission Code
0494	126	3.28	I	Signal Configuration	Class Of Operation Code
0276	116	3.24	G	Class Of Station	
0011	79	3.1	I	Administration	Code
0094	82	3.3	I	Correspondence Address	Code
0219	83	3.4	I	Operator	Code
0608	85	3.6	I	Provision	Code
0247	108	3.19	I	Season Of Operation	Code
0078	115	3.23	I	Colour System	Code
0277	116	3.24	I	Class Of Station	Code
0283	132	3.29	I	Television System	Code
0033	135	3.31	I	Aeronautical Zone	Code
0174	138	3.34	I	Geographical Area	Code
0187	139	3.35	I	Maritime Zone	Code
0578	142	3.38	I	Maritime HF Allotment	Code
0604	118	3.26	I	Radiocommunication Service	Code
0077	115	3.23	G	Colour System	
0088	81	3.2	G	Coordination Agreement	
0093	82	3.3	G	Correspondence Address	
0467	111	3.21	I	Traffic Characteristic	Daily Volume
0141	126	3.28	I	Signal Configuration	Date Of Bringing Into Use
0204	84	3.5	I	Terrestrial Service Notice	Date Sent
0498	107	3.18	G	Day Of Operation	
0228	117	3.25	I	Protection Mask	Description
0601	135	3.31	I	Aeronautical Zone	Description
0186	139	3.35	I	Maritime Zone	Description
0577	142	3.38	I	Maritime HF Allotment	Description
0478	93	3.10	I	Transmitting Antenna	Design Frequency
0107	94	3.11	G	Directional Transmitting Antenna	
0122	91	3.10	I	Transmitting Antenna	Directivity Indicator
0565	82	3.3	I	Correspondence Address	E-mail Address
0123	92	3.10	I	Transmitting Antenna	Effective Height Pattern
0394	102	3.14	I	Tower	Electrical Height
0382	98	3.12	I	Type A Transmitting Antenna	Electrical Height
0392	102	3.14	I	Tower	Electrical Spacing
0109	94	3.11	I	Directional Transmitting Antenna	Elevation Angle Of Maximum Gain
0508	96	3.11	I	Directional Transmitting Antenna	Elevation Gain Pattern
0484	129	3.28	I	Signal Configuration	Energy Dispersal Description
0564	82	3.3	I	Correspondence Address	Facsimile Address
0393	102	3.14	I	Tower	Field Phase Difference
0395	102	3.14	I	Tower	Field Strength Ratio
0422	119	3.27	I	Sector Of Limited Radiation	Finish Azimuth
0453	140	3.36	I	Segment Zone	Finish Azimuth
0475	140	3.36	I	Segment Zone	Finish Radius
0165	124	3.28	I	Signal Configuration	FM Transmission System Code
0145	121	3.28	I	Signal Configuration	Frequency Category Code
0652	120	3.28	I	Signal Configuration	Frequency Offset
0553	123	3.28	I	Signal Configuration	Frequency Offset Stability Indicator
0173	138	3.34	G	Geographical Area	
0037	89	3.8	I	Antenna	Geographical Coordinates
0329	141	3.37	I	Zone Boundary Coordinate	Geographical Coordinates
0121	92	3.10	I	Transmitting Antenna	Ground Altitude Above Mean Sea Level
0124	92	3.10	I	Transmitting Antenna	Ground Conductivity
0125	92	3.10	I	Transmitting Antenna	Height Above Ground Level
0379	103	3.15	I	Sectionalised Tower	Height Difference
0388	104	3.16	I	Top Loaded Tower	Height Difference
0512	124	3.28	I	Signal Configuration	HF Transmission System Code

RDD ref	Page	Para	Data Type	Data Group	Data Item
0147	94	3.11	I	Directional Transmitting Antenna	Horizontal Beamwidth
0507	96	3.11	I	Directional Transmitting Antenna	Horizontal Gain Pattern
0274	129	3.28	I	Signal Configuration	Horizontal Radiation Pattern
0273	95	3.11	I	Directional Transmitting Antenna	Horizontally Polarized Component Horizontal Attenuation Pattern
0396	101	3.14	I	Tower	Identification Number
0206	84	3.5	I	Terrestrial Service Notice	Intended Action Code
0562	80	3.1	I	Administration	ITU Language Code
0183	127	3.28	I	Signal Configuration	Local Operation Period Code
0377	103	3.15	I	Sectionalised Tower	Lower Section Electrical Height
0376	103	3.15	I	Sectionalised Tower	Lower Section Height Difference
0576	142	3.38	G	Maritime HF Allotment	
0185	139	3.35	G	Maritime Zone	
0038	89	3.8	I	Antenna	Mast Identification
0128	92	3.10	I	Transmitting Antenna	Maximum Effective Height
0129	91	3.10	I	Transmitting Antenna	Maximum Gain
0149	128	3.28	I	Signal Configuration	Maximum Horizontally Polarized Radiated Power
0524	112	3.22	G	Maximum Hours Of Operation	
0446	130	3.28	I	Signal Configuration	Maximum Length Of Circuit
0003	134	3.30	I	Three Dimensional Zone	Maximum Operating Height
0571	129	3.28	I	Signal Configuration	Maximum Power Density Over 1MHz
0154	129	3.28	I	Signal Configuration	Maximum Power Density Over 4kHz
0155	127	3.28	I	Signal Configuration	Maximum Radiated Power
0170	128	3.28	I	Signal Configuration	Maximum Vertically Polarized Radiated Power
0004	134	3.30	I	Three Dimensional Zone	Minimum Operating Height
0229	117	3.25	I	Protection Mask	Minimum Protected Field Strength
0012	79	3.1	I	Administration	Name
0220	83	3.4	I	Operator	Name
0267	88	3.7	I	Site	Name
0278	116	3.24	I	Class Of Station	Name
0243	118	3.26	I	Radiocommunication Service	Name
0175	138	3.34	I	Geographical Area	Name
0531	107	3.18	I	Day Of Operation	Name
0156	125	3.28	I	Signal Configuration	Nature Of Service Code
0142	109	3.20	I	Regular Operation Period	NAVTEX Transmission Duration
0549	109	3.20	I	Regular Operation Period	NAVTEX Transmission Interval
0157	125	3.28	I	Signal Configuration	Necessary Bandwidth Code
0561	79	3.1	I	Administration	Official E-mail Address
0560	79	3.1	I	Administration	Official Facsimile Address
0013	79	3.1	I	Administration	Official Postal Address
0014	79	3.1	I	Administration	Official Telex Address
0218	83	3.4	G	Operator	
0130	89	3.8	I	Antenna	Operator's Identification Code
0373	121	3.28	I	Signal Configuration	Other Simultaneous Frequencies Used
0383	100	3.13	I	Type B Transmitting Antenna	Pattern Type
0144	126	3.28	I	Signal Configuration	Period Of Validity
0536	92	3.10	I	Transmitting Antenna	Physical Height
0131	91	3.10	I	Transmitting Antenna	Polarization Code
0095	82	3.3	I	Correspondence Address	Postal Address
0570	128	3.28	I	Signal Configuration	Power Control Range
0159	127	3.28	I	Signal Configuration	Power Measurement Method Code
0485	121	3.28	I	Signal Configuration	Pre-emphasis P-P Frequency Deviation
0572	121	3.28	I	Signal Configuration	Pre-emphasis RMS Frequency Deviation
0374	121	3.28	I	Signal Configuration	Preferred Frequency Band
0230	117	3.25	I	Protection Mask	Protection Margin
0226	117	3.25	G	Protection Mask	
0232	117	3.25	I	Protection Mask	Protection Ratio
0605	85	3.6	G	Provision	
0367	136	3.32	I	CIRAF Zone	Quadrant Code
0423	119	3.27	I	Sector Of Limited Radiation	Radiated Power
0476	95	3.11	I	Directional Transmitting Antenna	Radiator Type
0653	138	3.34	I	Geographical Area	Radiocommunication Region Code
0241	118	3.26	G	Radiocommunication Service	
0071	137	3.33	I	Circular Zone	Radius
0114	90	3.9	G	Receiving Antenna	
0160	90	3.9	I	Receiving Antenna	Receiving System Noise Temperature
0348	120	3.28	I	Signal Configuration	Reference (Carrier) Frequency
0391	101	3.14	I	Tower	Reference Number
0110	97	3.11	I	Directional Transmitting Antenna	Reference Pattern
0477	95	3.11	I	Directional Transmitting Antenna	Reflector Type
0306	109	3.20	G	Regular Operation Period	
0471	128	3.28	I	Signal Configuration	RMS Radiation
0510	95	3.11	I	Directional Transmitting Antenna	Rotational Antenna Beam Finish Azimuth
0509	94	3.11	I	Directional Transmitting Antenna	Rotational Antenna Beam Start Azimuth
0161	126	3.28	I	Signal Configuration	RR Conformity Indicator
0246	108	3.19	G	Season Of Operation	
0375	103	3.15	G	Sectionalised Tower	
0421	119	3.27	G	Sector Of Limited Radiation	
0451	140	3.36	G	Segment Zone	
0511	141	3.37	I	Zone Boundary Coordinate	Sequence Number
0357	105	3.17	I	Antenna Radiation Pattern Augmentation	Serial Number
0231	117	3.25	I	Protection Mask	Shape
0227	117	3.25	I	Protection Mask	Signal To Interference Ratio
0140	120	3.28	G	Signal Configuration	
0265	88	3.7	G	Site	
0480	94	3.11	I	Directional Transmitting Antenna	Slew Angle
0551	122	3.28	I	Signal Configuration	Sound Carrier Frequency Offset
0482	122	3.28	I	Signal Configuration	Sound Carrier Frequency Offset Code
0481	121	3.28	I	Signal Configuration	Sound Carrier Nominal Frequency
0359	100	3.13	I	Type B Transmitting Antenna	Special Quadrature Factor

RDD ref	Page	Para	Data Type	Data Group	Data Item
0424	119	3.27	I	Sector Of Limited Radiation	Start Azimuth
0452	140	3.36	I	Segment Zone	Start Azimuth
0538	108	3.19	I	Season Of Operation	Start Date
0465	111	3.21	I	Traffic Characteristic	Start Peak Hours
0454	140	3.36	I	Segment Zone	Start Radius
0307	109	3.20	I	Regular Operation Period	Start Time
0525	112	3.22	I	Maximum Hours Of Operation	Start Time
0360	130	3.28	I	Signal Configuration	Station Coverage Code
0150	126	3.28	I	Signal Configuration	Station Identification
0090	81	3.2	I	Coordination Agreement	Status Code
0539	108	3.19	I	Season Of Operation	Stop Date
0466	111	3.21	I	Traffic Characteristic	Stop Peak Hours
0308	109	3.20	I	Regular Operation Period	Stop Time
0526	112	3.22	I	Maximum Hours Of Operation	Stop Time
0397	101	3.14	I	Tower	Structure Code
0132	125	3.28	I	Signal Configuration	Synchronised Network Indicator
0535	126	3.28	I	Signal Configuration	Synchronised Network Number
0281	132	3.29	G	Television System	
0096	82	3.3	I	Correspondence Address	Telex Address
0200	84	3.5	G	Terrestrial Service Notice	
0194	130	3.28	I	Signal Configuration	Three Dimensional Roaming Zone
0545	130	3.28	I	Signal Configuration	Three Dimensional Service Zone
0001	134	3.30	G	Three Dimensional Zone	
0386	104	3.16	G	Top Loaded Tower	
0163	128	3.28	I	Signal Configuration	Total Radiated Power
0358	105	3.17	I	Antenna Radiation Pattern Augmentation	Total Span
0389	101	3.14	G	Tower	
0464	111	3.21	G	Traffic Characteristic	
0166	127	3.28	I	Signal Configuration	Transmitter Output Power
0119	91	3.10	G	Transmitting Antenna	
0544	130	3.28	I	Signal Configuration	Two Dimensional Roaming Zone
0546	130	3.28	I	Signal Configuration	Two Dimensional Service Zone
0527	134	3.30	I	Three Dimensional Zone	Two Dimensional Zone
0380	98	3.12	G	Type A Transmitting Antenna	
0381	99	3.13	G	Type B Transmitting Antenna	
0133	93	3.10	I	Transmitting Antenna	Type Code
0168	91	3.10	I	Transmitting Antenna	Vertical Beamwidth
0502	96	3.11	I	Directional Transmitting Antenna	Vertical Gain Pattern
0275	129	3.28	I	Signal Configuration	Vertical Radiation Pattern
0060	96	3.11	I	Directional Transmitting Antenna	Vertically Polarized Component Horizontal Attenuation Pattern
0552	123	3.28	I	Signal Configuration	Vision Carrier Frequency Offset
0065	122	3.28	I	Signal Configuration	Vision Carrier Frequency Offset Code
0064	122	3.28	I	Signal Configuration	Vision Carrier Nominal Frequency
0066	128	3.28	I	Signal Configuration	Vision To Sound Power Ratio
0328	141	3.37	G	Zone Boundary Coordinate	
0368	136	3.32	I	CIRAF Zone	Zone Number

10.3 Space data elements in RDD reference number sequence

RDD ref	Page	Para	Data Type	Data Group	Data Item/Relationship
S001	195	5.1	G	Administration	
S002	195	5.1	R	Administration	An Administration may be party to one or more Coordination Agreements
S003 to S005					RDD reference number(s) not allocated
S006	195	5.1	R	Administration	An Administration may submit one or more Correspondence Addresses
S007	195	5.1	R	Administration	An Administration may have joint notification interest in one or more Space Stations
S008					RDD reference number(s) not allocated
S009	195	5.1	R	Administration	An Administration may be responsible for notifying on behalf of one or more Intergovernmental Satellite Organizations
S010					RDD reference number(s) not allocated
S011	195	5.1	I	Administration	Code
S012	195	5.1	I	Administration	Name
S013	196	5.1	I	Administration	ITU Language Code
S014	195	5.1	I	Administration	Official Postal Address
S015	195	5.1	I	Administration	Official Telex Address
S016	197	5.2	G	Correspondence Address	
S017	197	5.2	R	Correspondence Address	A Correspondence Address must be nominated by a single Administration
S018	197	5.2	R	Correspondence Address	A Correspondence Address may be used for one or more Space Stations
S019	197	5.2	R	Correspondence Address	A Correspondence Address may be used for one or more Earth Station Antennas
S020	197	5.2	R	Correspondence Address	A Correspondence Address must have validity in one or more Geographical Areas
S021	197	5.2	I	Correspondence Address	Code
S022	197	5.2	I	Correspondence Address	Postal Address
S023	197	5.2	I	Correspondence Address	Telex Address
S024	198	5.3	G	Operator	
S025	198	5.3	R	Operator	An Operator must operate within a single Geographical Area
S026	198	5.3	R	Operator	An Operator may be responsible for the operation of one or more Space Stations
S027	198	5.3	R	Operator	An Operator may be responsible for the operation of one or more Earth Station Antennas
S028					RDD reference number(s) not allocated
S029	198	5.3	I	Operator	Code
S030	198	5.3	I	Operator	Name
S031	199	5.4	G	Intergovernmental Satellite Organization	
S032	199	5.4	R	Intergovernmental Satellite Organization	An Intergovernmental Satellite Organization may be the operator of one or more Space Stations
S033	199	5.4	R	Intergovernmental Satellite Organization	An Intergovernmental Satellite Organization must have all its satellite systems notified by a single Administration
S034	199	5.4	I	Intergovernmental Satellite Organization	Code
S035	199	5.4	I	Intergovernmental Satellite Organization	Name
S036	200	5.5	G	Geographical Area	
S037	200	5.5	R	Geographical Area	A Geographical Area may be an area of operation for one or more Operators
S038	200	5.5	R	Geographical Area	A Geographical Area may be the location of one or more Sites
S039	200	5.5	R	Geographical Area	A Geographical Area may be valid for one or more Correspondence Addresses
S040				RDD reference number(s) not allocated	
S041	200	5.5	I	Geographical Area	Code
S042	200	5.5	I	Geographical Area	Name
S043	200	5.5	I	Geographical Area	Radiocommunication Region Code
S044	201	5.6	G	Radiocommunication Service	
S045					RDD reference number(s) not allocated
S046	201	5.6	R	Radiocommunication Service	A Radiocommunication Service must be qualified by one or more Classes Of Station
S047	201	5.6	I	Radiocommunication Service	Name
S048	202	5.7	G	Class Of Station	
S049					RDD reference number(s) not allocated
S051	202	5.7	R	Class Of Station	A Class Of Station must identify a single Radiocommunication Service
S052	202	5.7	I	Class Of Station	Code
S053					RDD reference number(s) not allocated
S054	202	5.7	I	Class Of Station	Name
S055	206	5.10	G	Space Station	
S056					RDD reference number(s) not allocated
S057	206	5.10	R	Space Station	A Space Station must be the subject of one or more Space Service Notices
S058	206	5.10	R	Space Station	A Space Station must emit or receive one or more Beams
S059				RDD reference number(s) not allocated	
S060	206	5.10	R	Space Station	A Space Station may be under the operational control of a single Operator
S061	206	5.10	R	Space Station	A Space Station may be of "participating interest" to one or more Administrations
S062	206	5.10	R	Space Station	A Space Station may have interference issues addressed to a single Correspondence Address
S063					RDD reference number(s) not allocated
S064	217	5.15	R	Beam	A Beam may operate in one or more Frequency Ranges
S065	206	5.10	R	Space Station	A Space Station may be communicating with one or more Earth Station Antennas
S066					RDD reference number(s) not allocated
S067	206	5.10	I	Space Station	BR Identification Code
S068	207	5.10	I	Space Station	Notified Identification Code
S069	207	5.10	I	Space Station	Name
S070	207	5.10	I	Space Station	Subregional System Indicator
S071	208	5.11	G	Geostationary Orbital Position	
S072	208	5.11	I	Geostationary Orbital Position	Nominal Longitude
S073	208	5.11	I	Geostationary Orbital Position	Preferred Longitude
S074	208	5.11	I	Geostationary Orbital Position	Longitude Tolerance Easterly Limit
S075	208	5.11	I	Geostationary Orbital Position	Longitude Tolerance Westerly Limit
S076	208	5.11	I	Geostationary Orbital Position	Inclination Excursion
S077	209	5.11	I	Geostationary Orbital Position	Visibility Arc's Easterly Limit
S078	209	5.11	I	Geostationary Orbital Position	Visibility Arc's Westerly Limit
S079	209	5.11	I	Geostationary Orbital Position	Service Arc's Easterly Limit
S080	209	5.11	I	Geostationary Orbital Position	Service Arc's Westerly Limit
S081	209	5.11	I	Geostationary Orbital Position	Arc Difference Explanation
S082				RDD reference number(s) not allocated	

RDD ref	Page	Para	Data Type	Data Group	Data Item/Relationship
S084	211	5.12	I	Non-geostationary Orbit	Reference Body Code
S085	207	5.10	I	Space Station	Total Number Of Satellites
S086	207	5.10	I	Space Station	Total Number Of Non-geostationary Orbits
S087	211	5.12	I	Non-geostationary Orbit	Number Of Satellites Per Orbit
S088 to S090					RDD reference number(s) not allocated
S091	241	5.21	I	Assignment Coordination Group (ACG)	Start Time
S092	242	5.21	I	Assignment Coordination Group (ACG)	Stop Time
S093	211	5.12	G	Non-geostationary Orbit	
S094	211	5.12	R	Non-geostationary Orbit	A Non-geostationary Orbit must define the astrodynamics of a single Space Station
S095	211	5.12	R	Non-geostationary Orbit	A Non-geostationary Orbit must contain one or more Non-geostationary Satellite Positions
S096	211	5.12	I	Non-geostationary Orbit	Inclination Angle
S097	212	5.12	I	Non-geostationary Orbit	Right Ascension Of The Ascending Node
S098	212	5.12	I	Non-geostationary Orbit	Apogee Altitude
S099	213	5.12	I	Non-geostationary Orbit	Perigee Altitude
S100	213	5.12	I	Non-geostationary Orbit	Perigee Argument
S101	213	5.12	I	Non-geostationary Orbit	Eccentricity
S102	213	5.12	I	Non-geostationary Orbit	Semi Major Axis
S103	213	5.12	I	Non-geostationary Orbit	Satellite Period
S104	214	5.13	G	Non-geostationary Satellite Position	
S105	214	5.13	R	Non-geostationary Satellite Position	A Non-geostationary Satellite Position must be located in a single Non-geostationary Orbit
S106	214	5.13	I	Non-geostationary Satellite Position	Initial Phase Angle
S107	217	5.15	G	Beam	
S108	217	5.15	R	Beam	A Beam may describe the properties of satellite antennas to radiate energy that is characterised by one or more Transmitting Space Station's ACGs
S109	217	5.15	R	Beam	A Beam may describe the properties of satellite antennas to receive energy that is characterised by one or more Receiving Space Station's ACGs
S110	217	5.15	R	Beam	A Beam may describe the properties of satellite antennas to radiate energy that is characterised by one or more Transmitting Space Station's Space to Space ACGs
S111	217	5.15	R	Beam	A Beam may describe the properties of satellite antennas to receive energy that is characterised by one or more Receiving Space Station's Space to Space ACGs
S112	217	5.15	R	Beam	A Beam must belong to a single Space Station
S113	217	5.15	R	Beam	A Beam must be the subject of one or more Intended Actions
S114				RDD reference number(s) not allocated	
S115	217	5.15	I	Beam	Emission/Reception Indicator
S116	217	5.15	I	Beam	Designation
S117				RDD reference number(s) not allocated	
S118	217	5.15	I	Beam	Steerable Indicator
S119	218	5.15	I	Beam	Boresight Geographical Coordinates
S120	218	5.15	I	Beam	Pointing Accuracy
S121	218	5.15	I	Beam	Orientation Angle Alpha
S122	220	5.15	I	Beam	Co-polar Gain Pattern
S123	220	5.15	I	Beam	Cross-polar Gain Pattern
S124	219	5.15	I	Beam	Maximum Co-polar Gain
S125	221	5.15	I	Beam	Gain Versus GSO Diagram
S126	222	5.15	I	Beam	Gain Versus Elevation Angle Diagram
S127	222	5.15	I	Beam	Spreading Loss Versus Elevation Angle
S128	223	5.16	G	Circular Beam	
S129	223	5.16	I	Circular Beam	Beamwidth
S130	224	5.17	I	Elliptical Beam	Major Axis Beamwidth
S131	224	5.17	I	Elliptical Beam	Minor Axis Beamwidth
S132	224	5.17	I	Elliptical Beam	Major Axis Orientation
S133	224	5.17	I	Elliptical Beam	Rotational Accuracy
S134 to S141					RDD reference number(s) not allocated
S142	227	5.19	R	Earth Station Antenna	An Earth Station Antenna may be under the operational control of a single Operator
S143	227	5.19	R	Earth Station Antenna	An Earth Station Antenna may have interference issues addressed to a single Correspondence Address
S144					RDD reference number(s) not allocated
S145	227	5.19	R	Earth Station Antenna	An Earth Station Antenna may form a space network with a single Space Station
S146					RDD reference number(s) not allocated
S147	227	5.19	R	Earth Station Antenna	An Earth Station Antenna must be the subject of one or more Space Services Notices
S148	227	5.19	I	Earth Station Antenna	BR Identification Code
S149	227	5.19	I	Earth Station Antenna	Notified Identification Code
S150					RDD reference number(s) not allocated
S151	227	5.19	G	Earth Station Antenna	
S152	227	5.19	R	Earth Station Antenna	An Earth Station Antenna may be the point of reception for one or more Receiving Earth Station's ACGs
S153	227	5.19	R	Earth Station Antenna	An Earth Station Antenna may be the emitting source of one or more Transmitting Earth Station's ACGs
S154	227	5.19	R	Earth Station Antenna	An Earth Station Antenna must be located at a single Site
S155					RDD reference number(s) not allocated
S156	232	5.20	I	Associated Earth Station Antenna	BSS Community Reception Indicator
S157	227	5.19	I	Earth Station Antenna	Typical/Specific Indicator
S158					RDD reference number(s) not allocated
S159	228	5.19	I	Earth Station Antenna	Geographical Coordinates
S160					RDD reference number(s) not allocated
S161	228	5.19	I	Earth Station Antenna	Ground Altitude Above Mean Sea Level
S162	228	5.19	I	Earth Station Antenna	Height Above Ground Level
S163	228	5.19	I	Earth Station Antenna	Maximum Gain
S164	228	5.19	I	Earth Station Antenna	Beamwidth
S165	232	5.20	I	Associated Earth Station Antenna	Diameter
S166	228	5.19	I	Earth Station Antenna	Radioastronomy Antenna Description
S167	228	5.19	I	Earth Station Antenna	Co-polar Gain Pattern
S168	229	5.19	I	Earth Station Antenna	Planned Minimum Elevation Angle
S169	229	5.19	I	Earth Station Antenna	Operational Sector's Start Azimuth
S170	229	5.19	I	Earth Station Antenna	Operational Sector's End Azimuth
S171	229	5.19	I	Earth Station Antenna	Horizon Elevation Pattern
S172	234	5.20	I	Associated Earth Station Antenna	Horizon Gain Pattern
S173	230	5.19	I	Earth Station Antenna	Clear Sky Coordination Contour

RDD ref	Page	Para	Data Type	Data Group	Data Item/Relationship
S174	238	5.21	G	Assignment Coordination Group (ACG)	
S175					RDD reference number(s) not allocated
S177	238	5.21	R	Assignment Coordination Group (ACG)	An Assignment Coordination Group may be the subject of one or more Coordination Agreements
S178					RDD reference number(s) not allocated
S180	238	5.21	R	Assignment Coordination Group (ACG)	An Assignment Coordination Group may be found under BR procedures to require coordination with one or more other Assignment Coordination Groups
S181 to S185					RDD reference number(s) not allocated
S186	238	5.21	I	Assignment Coordination Group (ACG)	BR Identification Code
S187	238	5.21	I	Assignment Coordination Group (ACG)	Date Of Bringing Into Use
S188	239	5.21	I	Assignment Coordination Group (ACG)	Period Of Validity
S189	239	5.21	I	Assignment Coordination Group (ACG)	Polarization Code
S190	239	5.21	I	Assignment Coordination Group (ACG)	Bandwidth
S191					RDD reference number(s) not allocated
S192	245	5.24	I	Receiving Space Station's ACG	Receiving System Noise Temperature
S193	247	5.25	I	Transmitting Space Station's ACG	Maximum Total Peak Envelope Power Per Transponder
S194					RDD reference number(s) not allocated
S195	239	5.21	I	Assignment Coordination Group (ACG)	Spectrum Mask
S196	240	5.21	I	Assignment Coordination Group (ACG)	Baseband Lower Frequency Limit
S197	240	5.21	I	Assignment Coordination Group (ACG)	Baseband Upper Frequency Limit
S198	240	5.21	I	Assignment Coordination Group (ACG)	Baseband Composition
S199	240	5.21	I	Assignment Coordination Group (ACG)	Multiplex Type (Video/Sound)
S200	241	5.21	I	Assignment Coordination Group (ACG)	Energy Dispersal Frequency Deviation
S201	240	5.21	I	Assignment Coordination Group (ACG)	Pre-emphasis P-P Frequency Deviation
S202	241	5.21	I	Assignment Coordination Group (ACG)	Pre-emphasis Characteristics
S203	240	5.21	I	Assignment Coordination Group (ACG)	Sound Broadcasting Characteristics
S204	240	5.21	I	Assignment Coordination Group (ACG)	Digital Signal Transmitted Bit Rate
S205	240	5.21	I	Assignment Coordination Group (ACG)	Digital Signal Number Of Phases
S206					RDD reference number(s) not allocated
S207	253	5.28	I	Emission Characteristic Set	Maximum Power Density Averaged Over 40 kHz
S208	253	5.28	I	Emission Characteristic Set	Maximum Power Density Averaged Over 5 MHz
S209	253	5.28	I	Emission Characteristic Set	Maximum Power Density Averaged Over The Total RF Bandwidth
S210	254	5.28	I	Emission Characteristic Set	Required Protection Ratio (Minimum C/I)
S211					RDD reference number(s) not allocated
S212	247	5.25	I	Transmitting Space Station's ACG	Minimum Angle Of Elevation In The Service Area
S213					RDD reference number(s) not allocated
S214	247	5.25	I	Transmitting Space Station's ACG	Affected Area
S215	243	5.22	G	Transmitting Earth Station's ACG	
S216	243	5.22	R	Transmitting Earth Station's ACG	A Transmitting Earth Station's ACG must describe the emission characteristic for a single Earth Station Antenna
S217	243	5.22	R	Transmitting Earth Station's ACG	A Transmitting Earth Station's ACG must characterise the energy received within a single Beam
S218	244	5.23	G	Receiving Earth Station's ACG	
S219	244	5.23	R	Receiving Earth Station's ACG	A Receiving Earth Station's ACG must describe the reception characteristic for one or more Earth Station Antennas
S220	244	5.23	R	Receiving Earth Station's ACG	A Receiving Earth Station's ACG must characterise the energy radiated within a single Beam
S221 to S243					RDD reference number(s) not allocated
S244	255	5.29	G	Frequency Range	
S245	255	5.29	R	Frequency Range	A Frequency Range must describe the valid operational frequency limits for a single Beam
S246					RDD reference number(s) not allocated
S247	255	5.29	I	Frequency Range	Lower Limit
S248	255	5.29	I	Frequency Range	Upper Limit
S249	248	5.25	I	Transmitting Space Station's ACG	Transponder Bandwidth Indicator
S250	242	5.21	I	Assignment Coordination Group (ACG)	Peak To Average Power Ratio Upper Frequency Limit
S251	256	5.30	G	Beam Frequency	
S252	256	5.30	R	Beam Frequency	A Beam Frequency may represent the frequency used by a connection between space and Earth for one or more Beam Frequency Straps
S253	256	5.30	R	Beam Frequency	A Beam Frequency may represent the frequency used by a connection between Earth and space for one or more Beam Frequency Straps
S254					RDD reference number(s) not allocated
S256	244	5.23	I	Receiving Earth Station's ACG	Centre Of The Frequency Band Observed
S257	256	5.30	I	Beam Frequency	Carrier Frequency
S258 to S261					RDD reference number(s) not allocated
S262	252	5.28	I	Emission Characteristic Set	Class Of Emission Code
S263	252	5.28	I	Emission Characteristic Set	Total Peak Envelope Power
S264	252	5.28	I	Emission Characteristic Set	Maximum Peak Envelope Power Per Carrier
S265	252	5.28	I	Emission Characteristic Set	Minimum Peak Envelope Power Per Carrier
S266	252	5.28	I	Emission Characteristic Set	Maximum Power Density Averaged Over 4 kHz
S267	252	5.28	I	Emission Characteristic Set	Maximum Power Density Per Carrier Averaged Over 4 kHz
S268	253	5.28	I	Emission Characteristic Set	Minimum Power Density Per Carrier Averaged Over 4 kHz
S269	254	5.28	I	Emission Characteristic Set	Reason For Absence Of Minimum Power
S270	254	5.28	I	Emission Characteristic Set	Carrier To Noise Objective
S271	257	5.31	G	Coordination Agreement	
S272	257	5.31	R	Coordination Agreement	A Coordination Agreement must be in respect of a single Assignment Coordination Group
S273	257	5.31	R	Coordination Agreement	A Coordination Agreement must be reached with a single Administration
S274					RDD reference number(s) not allocated
S275	257	5.31	I	Coordination Agreement	Status Code
S276	247	5.25	I	Transmitting Space Station's ACG	Downlink Service Area
S277					RDD reference number(s) not allocated
S278	261	5.34	R	Beam Frequency Strap	A Beam Frequency Strap must represent the connection between space and Earth for a single Beam Frequency
S279	261	5.34	R	Beam Frequency Strap	A Beam Frequency Strap must represent the connection between Earth and space for a single Beam Frequency
S280	261	5.34	R	Beam Frequency Strap	A Beam Frequency Strap must conform to one or more Strap Characteristic Sets
S281					RDD reference number(s) not allocated
S282	262	5.35	G	Strap Characteristic Set	
S283	262	5.35	R	Strap Characteristic Set	A Strap Characteristic Set must characterise one or more Beam Frequency Straps

RDD ref	Page	Para	Data Type	Data Group	Data Item/Relationship
S284					RDD reference number(s) not allocated
S286	262	5.35	I	Strap Characteristic Set	ESLNT For Highest Ratio Of Transmission Gain To ESLNT
S287	262	5.35	I	Strap Characteristic Set	ESLNT Lowest Value
S288	262	5.35	I	Strap Characteristic Set	Transmission Gain For Highest Ratio Of Transmission Gain To ESLNT
S289	262	5.35	I	Strap Characteristic Set	Transmission Gain For Lowest ESLNT
S290	265	5.37	G	Space Service Notice	
S291					RDD reference number(s) not allocated
S292	269	5.39	R	Intended Action	An Intended Action must refer to a single Strap Characteristic Set
S293	265	5.37	R	Space Service Notice	A Space Service Notice may be supplemented by one or more Notice Attachments
S294					RDD reference number(s) not allocated
S295	265	5.37	I	Space Service Notice	Administration Notice Code
S296	265	5.37	I	Space Service Notice	Date Sent
S297	265	5.37	I	Space Service Notice	BR Identification Code
S298	265	5.37	I	Space Service Notice	BR Date Received
S299	267	5.37	I	Space Service Notice	Weekly Circular Part For Publication
S300	265	5.37	I	Space Service Notice	Occurrence Code
S301	266	5.37	I	Space Service Notice	Purpose Code
S302	267	5.37	I	Space Service Notice	Weekly Circular Date For Publication
S303	267	5.37	I	Space Service Notice	Weekly Circular Number For Publication
S304	272	5.41	I	Provision	Code
S305	268	5.38	G	Notice Attachment	
S306	268	5.38	R	Notice Attachment	A Notice Attachment must accompany a single Space Service Notice
S307	268	5.38	I	Notice Attachment	Identifier
S308	268	5.38	I	Notice Attachment	Description
S309	268	5.38	I	Notice Attachment	Type
S310 to S313					RDD reference number(s) not allocated
S314	224	5.17	G	Elliptical Beam	
S315	206	5.10	R	Space Station	A Space Station may be under the operational control of a single Intergovernmental Satellite Organization
S316 to S320					RDD reference number(s) not allocated
S321	233	5.20	I	Associated Earth Station Antenna	Cross-polar Gain Pattern
S322	230	5.19	I	Earth Station Antenna	Rain Scatter Coordination Contour
S323					RDD reference number(s) not allocated
S324	241	5.21	I	Assignment Coordination Group (ACG)	Energy Dispersal Sweep Frequency
S325	241	5.21	I	Assignment Coordination Group (ACG)	Energy Dispersal Waveform
S326	241	5.21	I	Assignment Coordination Group (ACG)	Pre-emphasis RMS Frequency Deviation
S327	240	5.21	I	Assignment Coordination Group (ACG)	TV Standard And Colour Standard Description
S328					RDD reference number(s) not allocated
S329	245	5.24	I	Receiving Space Station's ACG	Multiple Access Indicator
S330	246	5.24	I	Receiving Space Station's ACG	Earth Station's Power Control Range
S331	245	5.24	I	Receiving Space Station's ACG	Space Station's Automatic Gain Control Range
S332	244	5.23	I	Receiving Earth Station's ACG	Receiver Sensitivity Indicator
S333	256	5.30	I	Beam Frequency	Value
S334	252	5.28	I	Emission Characteristic Set	Necessary Bandwidth Code
S335	253	5.28	I	Emission Characteristic Set	Maximum Power Density Averaged Over 1MHz
S336	253	5.28	I	Emission Characteristic Set	Maximum Power Density Per Carrier Averaged Over 1 MHz
S337	266	5.37	I	Space Service Notice	Intended Action Code
S338 to S345					RDD reference number(s) not allocated
S346	227	5.19	R	Earth Station Antenna	An Earth Station Antenna may be under the operational control of a single Intergovernmental Satellite Organization
S347 to S352					RDD reference number(s) not allocated
S353	265	5.37	R	Space Service Notice	A Space Service Notice must be submitted in respect of a single Space Station
S354 to S356					RDD reference number(s) not allocated
S357	269	5.39	G	Intended Action	
S358	269	5.39	R	Intended Action	An Intended Action must apply to a single Space Service Notice
S359					RDD reference number(s) not allocated
S360	269	5.39	I	Intended Action	Code
S361					RDD reference number(s) not allocated
S363	218	5.15	I	Beam	Effective Boresight Area
S364	239	5.21	I	Assignment Coordination Group (ACG)	Polarization Linear Angle
S365 to S367					RDD reference number(s) not allocated
S368	219	5.15	I	Beam	Orientation Angle Beta
S369	221	5.15	I	Beam	Effective Co-polar Gain Contour
S370	221	5.15	I	Beam	Effective Cross-polar Gain Contour
S371	253	5.28	I	Emission Characteristic Set	Minimum Power Density Per Carrier Averaged Over 1MHz
S372	254	5.28	I	Emission Characteristic Set	Reason For Absence Of Minimum Power Density
S373	254	5.28	I	Emission Characteristic Set	Reason For Absence Of C/N
S374	244	5.23	I	Receiving Earth Station's ACG	Bandwidth Of The Frequency Band Observed
S375	203	5.8	R	Class Of Station Nature Of Service Pair	A Class Of Station Nature Of Service Pair may further define the operational limitations of one or more Assignment Coordination Groups
S376	226	5.18	G	Site	
S377	199	5.4	R	Intergovernmental Satellite Organization	An Intergovernmental Satellite Organization may be the operator of one or more Earth Station Antennas
S378	265	5.37	R	Space Service Notice	A Space Service Notice may include one or more Intended Actions
S379					RDD reference number(s) not allocated
S380	226	5.18	I	Site	Name
S381	229	5.19	I	Earth Station Antenna	Planned Maximum Elevation Angle
S382	238	5.21	R	Assignment Coordination Group (ACG)	An Assignment Coordination Group must be classified by a single Class Of Station Nature Of Service Pair
S383					RDD reference number(s) not allocated
S384	245	5.24	I	Receiving Space Station's ACG	Uplink Service Area
S385 to S387					RDD reference number(s) not allocated
S388	195	5.1	R	Administration	An Administration may nominate one or more Sites

RDD ref	Page	Para	Data Type	Data Group	Data Item/Relationship
S389	195	5.1	R	Administration	An Administration may notify one or more Space Stations
S390	197	5.2	I	Correspondence Address	Facsimile Address
S391	262	5.35	R	Strap Characteristic Set	A Strap Characteristic Set must be valid for use with a single Associated Earth Station Antenna
S392					RDD reference number(s) not allocated
S393	206	5.10	R	Space Station	A Space Station must be notified by a single Administration
S394 to S400					RDD reference number(s) not allocated
S401	195	5.1	I	Administration	Official Facsimile Address
S402	196	5.1	I	Administration	Official E-mail Address
S403	197	5.2	I	Correspondence Address	E-mail Address
S404	201	5.6	I	Radiocommunication Service	Code
S405	201	5.6	R	Radiocommunication Service	A Radiocommunication Service may include one or more other Radiocommunication Services
S406					RDD reference number(s) not allocated
S407	226	5.18	R	Site	A Site must be submitted by a single Administration
S408	226	5.18	R	Site	A Site may be the location of one or more Earth Station Antennas
S409	226	5.18	R	Site	A Site must be located within a single Geographical Area
S410 to S441					RDD reference number(s) not allocated
S442	206	5.10	R	Space Station	A Space Station must have its astrodynamics defined as one or more Non-geostationary Orbits
S443					RDD reference number(s) not allocated
S444	206	5.10	R	Space Station	A Space Station must be located at a single Geostationary Orbital Position
S445	208	5.11	R	Geostationary Orbital Position	A Geostationary Orbital Position must be the location of a single Space Station
S446	217	5.15	R	Beam	A Beam may describe the properties of satellite antennas to radiateenergy that is characterised by one or more Receiving Earth Station's ACGs
S447	217	5.15	R	Beam	A Beam may describe the properties of satellite antennas to receive energy that is characterised by one or more Transmitting Earth Station's ACGs
S448					RDD reference number(s) not allocated
S449	217	5.15	R	Beam	A Beam may consist of one or more Beam Frequencies
S450					RDD reference number(s) not allocated
S452	238	5.21	R	Assignment Coordination Group (ACG)	An Assignment Coordination Group must be the subject of one or more ACG Intended Actions
S453	238	5.21	R	Assignment Coordination Group (ACG)	An Assignment Coordination Group may contain one or more ACG Frequencies
S454					RDD reference number(s) not allocated
S456	245	5.24	G	Receiving Space Station's ACG	
S457	245	5.24	R	Receiving Space Station's ACG	A Receiving Space Station's ACG must describe the emission characteristic for one or more Associated Earth Station Antennas
S458	245	5.24	R	Receiving Space Station's ACG	A Receiving Space Station's ACG must characterise the energy received by a satellite antenna within a single Beam
S459 to S462					RDD reference number(s) not allocated
S463	247	5.25	G	Transmitting Space Station's ACG	
S464	247	5.25	R	Transmitting Space Station's ACG	A Transmitting Space Station's ACG may describe the reception characteristic for one or more Associated Earth Station Antennas
S465	247	5.25	R	Transmitting Space Station's ACG	A Transmitting Space Station's ACG must characterise the energy radiated by satellite antenna within a single Beam
S466 to S471					RDD reference number(s) not allocated
S472	249	5.26	G	Transmitting Space Station's Space To Space ACG	
S473	249	5.26	R	Transmitting Space Station's Space To Space ACG	A Transmitting Space Station's Space To Space ACG must characterise the energy radiated by a satellite antenna within a single Beam
S474					RDD reference number(s) not allocated
S476	250	5.27	G	Receiving Space Station's Space To Space ACG	
S477					RDD reference number(s) not allocated
S478	250	5.27	R	Receiving Space Station's Space To Space ACG	A Receiving Space Station's Space To Space ACG must characterise the energy received by a satellite antenna within a single Beam
S479					RDD reference number(s) not allocated
S480	256	5.30	R	Beam Frequency	A Beam Frequency must define a frequency used by a single Beam
S481					RDD reference number(s) not allocated
S483	208	5.11	R	Geostationary Orbital Position	A Geostationary Orbital Position must be the subject of one or more Intended Actions
S484				RDD reference number(s) not allocated	
S485	211	5.12	R	Non-geostationary Orbit	A Non-geostationary Orbit must be the subject of one or more Intended Actions
S486					RDD reference number(s) not allocated
S488	263	5.36	R	ACG Frequency Strap	An ACG Frequency Strap must be notified by one or more Intended Actions
S489	261	5.34	R	Beam Frequency Strap	A Beam Frequency Strap must be the subject of one or more Intended Actions
S490	262	5.35	R	Strap Characteristic Set	A Strap Characteristic Set must be the subject of one or more Intended Actions
S491					RDD reference number(s) not allocated
S493	231	5.20	G	Associated Earth Station Antenna	
S494 to S500					RDD reference number(s) not allocated
S501	258	5.32	R	ACG Frequency	An ACG Frequency must be the subject of a single Assignment Coordination Group
S502	263	5.36	R	ACG Frequency Strap	An ACG Frequency Strap must have an Earth to space component defined as a single ACG Frequency
S503	263	5.36	R	ACG Frequency Strap	An ACG Frequency Strap must have a space to Earth component defined as a single ACG Frequency
S504					RDD reference number(s) not allocated
S505	259	5.33	R	Associated Space Station Position	An Associated Space Station Position must be a source of the transmission to one or more Receiving Space Station's Space to Space ACGs
S506	259	5.33	R	Associated Space Station Position	An Associated Space Station Position must be a target of the transmission from one or more Transmitting Space Station's Space To Space ACGs
S507	259	5.33	I	Associated Space Station Position	Anticipated Nominal Longitude
S508 to S516					RDD reference number(s) not allocated
S517	259	5.33	R	Associated Space Station Position	An Associated Space Station Position may be represented by a single Space Station
S518	270	5.40	R	ACG Intended Action	An ACG Intended Action must be in respect of a single Assignment Coordination Group
S519	270	5.40	I	ACG Intended Action	Weekly Circular Date For Last Advance Publication
S520	270	5.40	I	ACG Intended Action	Weekly Circular Number For Last Advance Publication
S521	270	5.40	I	ACG Intended Action	Weekly Circular Date For Last Coordination
S522	270	5.40	I	ACG Intended Action	Weekly Circular Number For Last Coordination

RDD ref	Page	Para	Data Type	Data Group	Data Item/Relationship
S523	271	5.40	I	ACG Intended Action	Weekly Circular Date For Last Notification
S524	271	5.40	I	ACG Intended Action	Weekly Circular Number For Last Notification
S525					RDD reference number(s) not allocated
S526	250	5.27	R	Receiving Space Station's Space To Space ACG	A Receiving Space Station's Space To Space ACG must have its beam associations described by one or more Associated Beam Positions
S527	249	5.26	R	Transmitting Space Station's Space To Space ACG	A Transmitting Space Station's Space To Space ACG must have its beam associations described by one or more Associated Space Station Positions
S528 to S530					RDD reference number(s) not allocated
S531	258	5.32	G	ACG Frequency	
S532	263	5.36	G	ACG Frequency Strap	
S533	259	5.33	G	Associated Space Station Position	
S534					RDD reference number(s) not allocated
S536	270	5.40	G	ACG Intended Action	
S537 to S543					RDD reference number(s) not allocated
S544	247	5.25	I	Transmitting Space Station's ACG	Power To The Antenna
S545 to S558					RDD reference number(s) not allocated
S559	231	5.20	I	Associated Earth Station Antenna	Typical/Specific Indicator
S560 to S579					RDD reference number(s) not allocated
S580	203	5.8	G	Class Of Station Nature Of Service Pair	
S581 to S599					RDD reference number(s) not allocated
S600	246	5.24	I	Receiving Space Station's ACG	Maximum Aggregate Power
S601	222	5.15	I	Beam	Maximum Beam Peak EIRP 4kHz
S602	222	5.15	I	Beam	Maximum Beam Peak EIRP 1MHz
S603	222	5.15	I	Beam	Average Beam Peak EIRP 4kHz
S604	222	5.15	I	Beam	Average Beam Peak EIRP 1MHz
S605	267	5.37	I	Space Service Notice	Special Section Number For Publication
S606	270	5.40	I	ACG Intended Action	Special Section Number For Last Advance Publication
S607	270	5.40	I	ACG Intended Action	Special Section Number For Last Coordination
S608					RDD reference number(s) not allocated
S610	261	5.34	I	Beam Frequency Strap	Notified Identification Code
S611 to S613					RDD reference number(s) not allocated
S614	204	5.9	G	Nature Of Service	
S615	272	5.41	G	Provision	
S616	230	5.19	I	Earth Station Antenna	Associated Space Station's Longitude
S617	204	5.9	I	Nature Of Service	Code
S618	254	5.28	I	Emission Characteristic Set	Maximum Power Density Averaged Over The Necessary Bandwidth
S619	207	5.10	I	Space Station	Date Of Bringing Into Use
S620					RDD reference number(s) not allocated
S621	220	5.15	I	Beam	Maximum Cross-polar Gain
S622	204	5.9	R	Nature Of Service	A Nature Of Service may be the subject of one or more Class Of Station Nature Of Service Pairs
S623	231	5.20	R	Associated Earth Station Antenna	An Associated Earth Station Antenna must be the point of reception for one or more Transmitting Space Station's ACG
S624	207	5.10	I	Space Station	Period Of Validity
S625	246	5.24	I	Receiving Space Station's ACG	Total Transmitting Power
S626	231	5.20	R	Associated Earth Station Antenna	An Associated Earth Station Antenna may be classified by one or more Classes of Station Nature Of Service Pairs
S627 to S631					RDD reference number(s) not allocated
S632	261	5.34	G	Beam Frequency Strap	
S633 to S639					RDD reference number(s) not allocated
S640	242	5.21	I	Assignment Coordination Group (ACG)	Type Of Modulation
S641	242	5.21	I	Assignment Coordination Group (ACG)	Type Of Amplitude Modulation
S642	242	5.21	I	Assignment Coordination Group (ACG)	Interference Study Information
S643	242	5.21	I	Assignment Coordination Group (ACG)	Frequency Deviation
S644	242	5.21	I	Assignment Coordination Group (ACG)	Digital Signal Effective Bit Rate
S645					RDD reference number(s) not allocated
S646	246	5.24	I	Receiving Space Station's ACG	Aggregate Bandwidth
S647	254	5.28	I	Emission Characteristic Set	Maximum Power Density Averaged Over 27MHz
S648					RDD reference number(s) not allocated
S650	232	5.20	I	Associated Earth Station Antenna	Equivalent Antenna Diameter
S651					RDD reference number(s) not allocated
S652	249	5.26	I	Transmitting Space Station's Space To Space ACG	Maximum Radiated Power
S653	250	5.27	I	Receiving Space Station's Space To Space ACG	Maximum Radiated Power
S654 to S670					RDD reference number(s) not allocated
S671	231	5.20	I	Associated Earth Station Antenna	Notified Identifying Code
S672					RDD reference number(s) not allocated
S673	231	5.20	I	Associated Earth Station Antenna	Geographical Coordinates
S674	231	5.20	I	Associated Earth Station Antenna	Ground Altitude Above Mean Sea Level
S675	231	5.20	I	Associated Earth Station Antenna	Height Above Ground Level
S676	232	5.20	I	Associated Earth Station Antenna	Maximum Gain
S677	232	5.20	I	Associated Earth Station Antenna	Beamwidth
S678	233	5.20	I	Associated Earth Station Antenna	Co-polar Gain Pattern
S679	234	5.20	I	Associated Earth Station Antenna	Horizon Elevation Pattern
S680	234	5.20	I	Associated Earth Station Antenna	Planned Minimum Elevation Angle
S681 to S699					RDD reference number(s) not allocated
S700	202	5.7	R	Class Of Station	A Class Of Station may be the subject of one or more Class Of Station Nature Of Service Pairs
S701	203	5.8	R	Class Of Station Nature Of Service Pair	A Class Of Station Nature Of Service Pair must be a valid pairing for a single Nature Of Service

RDD ref	Page	Para	Data Type	Data Group	Data Item/Relationship
S702	203	5.8	R	Class Of Station Nature Of Service Pair	A Class Of Station Nature Of Service Pair must be a valid pairing for a single Class Of Station
S703	226	5.18	R	Site	A Site may be the location of one or more Associated Earth Station Antennas
S704	215	5.14	R	Exclusive Operational Group	An Exclusive Operational Group must apply to a single Space Station
S705	258	5.32	R	ACG Frequency	An ACG Frequency may be either the space to Earth component in by one or more ACG Frequency Straps
S706	258	5.32	R	ACG Frequency	An ACG Frequency may be either the Earth to space component in by one or more ACG Frequency Straps
S707	231	5.20	R	Associated Earth Station Antenna	An Associated Earth Station Antenna must be located within a single Site
S708	272	5.41	R	Provision	A Provision may determine the requirements for one or more Coordination Agreements
S709	272	5.41	R	Provision	A Provision may determine the requirements for one or more Space Service Notices
S710	257	5.31	R	Coordination Agreement	A Coordination Agreement must be in respect of a single Provision
S711	265	5.37	R	Space Service Notice	A Space Service Notice must be submitted according to the requirements of one or more Provisions
S712	215	5.14	I	Exclusive Operational Group	Notified Identifying Code
S713					RDD reference number(s) not allocated
S714	206	5.10	R	Space Station	A Space Station may be associated with one or more Associated Earth Station Antennas
S715	262	5.35	I	Strap Characteristic Set	National Code
S716 to S719					RDD reference number(s) not allocated
S720	269	5.39	R	Intended Action	An Intended Action must refer to a single Geostationary Orbital Position
S721	269	5.39	R	Intended Action	An Intended Action must refer to a single Non-geostationary Orbit
S722	269	5.39	R	Intended Action	An Intended Action must refer to a single Beam
S723	258	5.32	I	ACG Frequency	Value
S724	269	5.39	R	Intended Action	An Intended Action must refer to a single Beam Frequency
S725	269	5.39	R	Intended Action	An Intended Action must refer to a single Associated Earth Station Antenna
S726	269	5.39	R	Intended Action	An Intended Action must refer to a single ACG Frequency Strap
S727	269	5.39	R	Intended Action	An Intended Action must refer to a single Beam Frequency Strap
S728	222	5.15	I	Beam	Calculated Peak PFD
S729	215	5.14	G	Exclusive Operational Group	
S730	215	5.14	R	Exclusive Operational Group	An Exclusive Operational Group must consist of one or more Assignment Coordination Groups
S731	238	5.21	R	Assignment Coordination Group (ACG)	An Assignment Coordination Group may have its characteristics further defined by one or more Emission Characteristic Sets
S732	238	5.21	R	Assignment Coordination Group (ACG)	An Assignment Coordination Group may be a member of one or more Exclusive Operational Groups
S733	251	5.28	G	Emission Characteristic Set	
S734	204	5.9	I	Nature Of Service	Name
S735				RDD reference number(s) not allocated	
S736	243	5.22	I	Transmitting Earth Station's ACG	(AB) Transponder Bandwidth Indicator
S737	231	5.20	R	Associated Earth Station Antenna	An Associated Earth Station Antenna must belong to a single Space Station
S738	206	5.10	R	Space Station	A Space Station may be the subject of one or more Associated Space Station Positions
S739	265	5.37	R	Space Service Notice	A Space Service Notice must be submitted in respect of a single Earth Station Antenna
S740	231	5.20	R	Associated Earth Station Antenna	An Associated Earth Station Antenna must be the transmitting source for one or more Receiving Space Station's ACG
S741	231	5.20	R	Associated Earth Station Antenna	An Associated Earth Station Antenna must be the subject of one or more Intended Actions
S742	203	5.8	R	Class Of Station Nature Of Service Pair	A Class Of Station Nature Of Service Pair may further define the operational limitations of one or more Associated Earth Station Antennas
S743	256	5.30	R	Beam Frequency	A Beam Frequency must be the subject of one or more Intended Actions
S744 to S759				RDD reference number(s) not allocated	
S760	251	5.28	R	Emission Characteristic Set	An Emission Characteristic Set must further define a single Assignment Coordination Group
S761					RDD reference number(s) not allocated
S762	199	5.4	I	Intergovernmental Satellite Organization	Address
S763	232	5.20	I	Associated Earth Station Antenna	Receiving System Noise Temperature
S764	244	5.23	I	Receiving Earth Station's ACG	Receiving System Noise Temperature
S765	246	5.24	I	Receiving Space Station's ACG	(AB) Transponder Bandwidth Indicator
S766					RDD reference number(s) not allocated
S767	266	5.37	I	Space Service Notice	Special Section Reference For Publication
S768	270	5.40	I	ACG Intended Action	Special Section Reference For Advance Publication
S769	270	5.40	I	ACG Intended Action	Special Section Reference For Last Coordination
S770	243	5.22	I	Transmitting Earth Station's ACG	Aggregate Bandwidth
S771	243	5.22	I	Transmitting Earth Station's ACG	Maximum Aggregate Power
S772	199	5.4	R	Intergovernmental Satellite Organization	An Intergovernmental Satellite Organization may have submitted on their behalf one or more Space Services Notices
S773	265	5.37	R	Space Service Notice	A Space Service Notice may be submitted on behalf of a single Intergovernmental Satellite Organization
S774	263	5.36	I	ACG Frequency Strap	Notified Identification Code
S775	270	5.40	I	ACG Intended Action	Weekly Circular Part for Last Notification
S776	249	5.26	I	Transmitting Space Station's Space To Space ACG	Maximum Total Peak Envelope Power Per Transponder
S777	249	5.26	I	Transmitting Space Station's Space To Space ACG	Transponder Bandwidth Indicator
S778	231	5.20	R	Associated Earth Station Antenna	An Associated Earth Station Antenna may be the subject of one or more Strap Characteristic Sets
S779	206	5.10	R	Space Station	A Space Station may be the subject of one or more Exclusive Operational Groups

10.4 Space data groups and data items in alphabetical sequence

RDD ref	Page	Para	Data Type	Data Group	Data Item
S736	243	5.22	I	Transmitting Earth Station's ACG	(AB) Transponder Bandwidth Indicator
S765	246	5.24	I	Receiving Space Station's ACG	(AB) Transponder Bandwidth Indicator
S531	258	5.32	G	ACG Frequency	
S532	263	5.36	G	ACG Frequency Strap	
S536	270	5.40	G	ACG Intended Action	
S762	199	5.4	I	Intergovernmental Satellite Organization	Address
S001	195	5.1	G	Administration	
S295	265	5.37	I	Space Service Notice	Administration Notice Code
S214	247	5.25	I	Transmitting Space Station's ACG	Affected Area
S770	243	5.22	I	Transmitting Earth Station's ACG	Aggregate Bandwidth
S646	246	5.24	I	Receiving Space Station's ACG	Aggregate Bandwidth
S507	259	5.33	I	Associated Space Station Position	Anticipated Nominal Longitude
S098	212	5.12	I	Non-geostationary Orbit	Apogee Altitude
S081	209	5.11	I	Geostationary Orbital Position	Arc Difference Explanation
S174	238	5.21	G	Assignment Coordination Group (ACG)	
S493	231	5.20	G	Associated Earth Station Antenna	
S533	259	5.33	G	Associated Space Station Position	
S616	230	5.19	I	Earth Station Antenna	Associated Space Station's Longitude
S604	222	5.15	I	Beam	Average Beam Peak EIRP 1MHz
S603	222	5.15	I	Beam	Average Beam Peak EIRP 4kHz
S190	239	5.21	I	Assignment Coordination Group (ACG)	Bandwidth
S374	244	5.23	I	Receiving Earth Station's ACG	Bandwidth Of The Frequency Band Observed
S198	240	5.21	I	Assignment Coordination Group (ACG)	Baseband Composition
S196	240	5.21	I	Assignment Coordination Group (ACG)	Baseband Lower Frequency Limit
S197	240	5.21	I	Assignment Coordination Group (ACG)	Baseband Upper Frequency Limit
S107	217	5.15	G	Beam	
S251	256	5.30	G	Beam Frequency	
S632	261	5.34	G	Beam Frequency Strap	
S129	223	5.16	I	Circular Beam	Beamwidth
S164	228	5.19	I	Earth Station Antenna	Beamwidth
S677	232	5.20	I	Associated Earth Station Antenna	Beamwidth
S119	218	5.15	I	Beam	Boresight Geographical Coordinates
S298	265	5.37	I	Space Service Notice	BR Date Received
S067	206	5.10	I	Space Station	BR Identification Code
S148	227	5.19	I	Earth Station Antenna	BR Identification Code
S186	238	5.21	I	Assignment Coordination Group (ACG)	BR Identification Code
S297	265	5.37	I	Space Service Notice	BR Identification Code
S156	232	5.20	I	Associated Earth Station Antenna	BSS Community Reception Indicator
S728	222	5.15	I	Beam	Calculated Peak PFD
S257	256	5.30	I	Beam Frequency	Carrier Frequency
S270	254	5.28	I	Emission Characteristic Set	Carrier To Noise Objective
S256	244	5.23	I	Receiving Earth Station's ACG	Centre Of The Frequency Band Observed
S128	223	5.16	G	Circular Beam	
S262	252	5.28	I	Emission Characteristic Set	Class Of Emission Code
S048	202	5.7	G	Class Of Station	
S580	203	5.8	G	Class Of Station Nature Of Service Pair	
S173	230	5.19	I	Earth Station Antenna	Clear Sky Coordination Contour
S122	220	5.15	I	Beam	Co-polar Gain Pattern
S167	228	5.19	I	Earth Station Antenna	Co-polar Gain Pattern
S678	233	5.20	I	Associated Earth Station Antenna	Co-polar Gain Pattern
S011	195	5.1	I	Administration	Code
S021	197	5.2	I	Correspondence Address	Code
S029	198	5.3	I	Operator	Code
S034	199	5.4	I	Intergovernmental Satellite Organization	Code
S041	200	5.5	I	Geographical Area	Code
S404	201	5.6	I	Radiocommunication Service	Code
S052	202	5.7	I	Class Of Station	Code
S617	204	5.9	I	Nature Of Service	Code
S360	269	5.39	I	Intended Action	Code
S304	272	5.41	I	Provision	Code
S271	257	5.31	G	Coordination Agreement	
S016	197	5.2	G	Correspondence Address	
S123	220	5.15	I	Beam	Cross-polar Gain Pattern
S321	233	5.20	I	Associated Earth Station Antenna	Cross-polar Gain Pattern
S619	207	5.10	I	Space Station	Date Of Bringing Into Use
S187	238	5.21	I	Assignment Coordination Group (ACG)	Date Of Bringing Into Use
S296	265	5.37	I	Space Service Notice	Date Sent
S308	268	5.38	I	Notice Attachment	Description
S116	217	5.15	I	Beam	Designation
S165	232	5.20	I	Associated Earth Station Antenna	Diameter
S644	242	5.21	I	Assignment Coordination Group (ACG)	Digital Signal Effective Bit Rate
S205	240	5.21	I	Assignment Coordination Group (ACG)	Digital Signal Number Of Phases
S204	240	5.21	I	Assignment Coordination Group (ACG)	Digital Signal Transmitted Bit Rate
S276	247	5.25	I	Transmitting Space Station's ACG	Downlink Service Area
S403	197	5.2	I	Correspondence Address	E-mail Address
S151	227	5.19	G	Earth Station Antenna	
S330	246	5.24	I	Receiving Space Station's ACG	Earth Station's Power Control Range
S101	213	5.12	I	Non-geostationary Orbit	Eccentricity
S363	218	5.15	I	Beam	Effective Boresight Area
S369	221	5.15	I	Beam	Effective Co-polar Gain Contour
S370	221	5.15	I	Beam	Effective Cross-polar Gain Contour
S314	224	5.17	G	Elliptical Beam	
S733	251	5.28	G	Emission Characteristic Set	

RDD ref	Page	Para	Data Type	Data Group	Data Item
S115	217	5.15	I	Beam	Emission/Reception Indicator
S200	241	5.21	I	Assignment Coordination Group (ACG)	Energy Dispersal Frequency Deviation
S324	241	5.21	I	Assignment Coordination Group (ACG)	Energy Dispersal Sweep Frequency
S325	241	5.21	I	Assignment Coordination Group (ACG)	Energy Dispersal Waveform
S650	232	5.20	I	Associated Earth Station Antenna	Equivalent Antenna Diameter
S286	262	5.35	I	Strap Characteristic Set	ESLNT For Highest Ratio Of Transmission Gain To ESLNT
S287	262	5.35	I	Strap Characteristic Set	ESLNT Lowest Value
S729	215	5.14	G	Exclusive Operational Group	
S390	197	5.2	I	Correspondence Address	Facsimile Address
S643	242	5.21	I	Assignment Coordination Group (ACG)	Frequency Deviation
S244	255	5.29	G	Frequency Range	
S126	222	5.15	I	Beam	Gain Versus Elevation Angle Diagram
S125	221	5.15	I	Beam	Gain Versus GSO Diagram
S036	200	5.5	G	Geographical Area	
S159	228	5.19	I	Earth Station Antenna	Geographical Coordinates
S673	231	5.20	I	Associated Earth Station Antenna	Geographical Coordinates
S071	208	5.11	G	Geostationary Orbital Position	
S161	228	5.19	I	Earth Station Antenna	Ground Altitude Above Mean Sea Level
S674	231	5.20	I	Associated Earth Station Antenna	Ground Altitude Above Mean Sea Level
S162	228	5.19	I	Earth Station Antenna	Height Above Ground Level
S675	231	5.20	I	Associated Earth Station Antenna	Height Above Ground Level
S171	229	5.19	I	Earth Station Antenna	Horizon Elevation Pattern
S679	234	5.20	I	Associated Earth Station Antenna	Horizon Elevation Pattern
S172	234	5.20	I	Associated Earth Station Antenna	Horizon Gain Pattern
S307	268	5.38	I	Notice Attachment	Identifier
S096	211	5.12	I	Non-geostationary Orbit	Inclination Angle
S076	208	5.11	I	Geostationary Orbital Position	Inclination Excursion
S106	214	5.13	I	Non-geostationary Satellite Position	Initial Phase Angle
S357	269	5.39	G	Intended Action	
S337	266	5.37	I	Space Service Notice	Intended Action Code
S642	242	5.21	I	Assignment Coordination Group (ACG)	Interference Study Information
S031	199	5.4	G	Intergovernmental Satellite Organization	
S013	196	5.1	I	Administration	ITU Language Code
S074	208	5.11	I	Geostationary Orbital Position	Longitude Tolerance Easterly Limit
S075	208	5.11	I	Geostationary Orbital Position	Longitude Tolerance Westerly Limit
S247	255	5.29	I	Frequency Range	Lower Limit
S130	224	5.17	I	Elliptical Beam	Major Axis Beamwidth
S132	224	5.17	I	Elliptical Beam	Major Axis Orientation
S771	243	5.22	I	Transmitting Earth Station's ACG	Maximum Aggregate Power
S600	246	5.24	I	Receiving Space Station's ACG	Maximum Aggregate Power
S602	222	5.15	I	Beam	Maximum Beam Peak EIRP 1MHz
S601	222	5.15	I	Beam	Maximum Beam Peak EIRP 4kHz
S124	219	5.15	I	Beam	Maximum Co-polar Gain
S621	220	5.15	I	Beam	Maximum Cross-polar Gain
S163	228	5.19	I	Earth Station Antenna	Maximum Gain
S676	232	5.20	I	Associated Earth Station Antenna	Maximum Gain
S264	252	5.28	I	Emission Characteristic Set	Maximum Peak Envelope Power Per Carrier
S335	253	5.28	I	Emission Characteristic Set	Maximum Power Density Averaged Over 1MHz
S647	254	5.28	I	Emission Characteristic Set	Maximum Power Density Averaged Over 27MHz
S266	252	5.28	I	Emission Characteristic Set	Maximum Power Density Averaged Over 4 kHz
S207	253	5.28	I	Emission Characteristic Set	Maximum Power Density Averaged Over 40 kHz
S208	253	5.28	I	Emission Characteristic Set	Maximum Power Density Averaged Over 5 MHz
S618	254	5.28	I	Emission Characteristic Set	Maximum Power Density Averaged Over The Necessary Bandwidth
S209	253	5.28	I	Emission Characteristic Set	Maximum Power Density Averaged Over The Total RF Bandwidth
S336	253	5.28	I	Emission Characteristic Set	Maximum Power Density Per Carrier Averaged Over 1 MHz
S267	252	5.28	I	Emission Characteristic Set	Maximum Power Density Per Carrier Averaged Over 4 kHz
S652	249	5.26	I	Transmitting Space Station's Space To Space ACG	Maximum Radiated Power
S653	250	5.27	I	Receiving Space Station's Space To Space ACG	Maximum Radiated Power
S193	247	5.25	I	Transmitting Space Station's ACG	Maximum Total Peak Envelope Power Per Transponder
S776	249	5.26	I	Transmitting Space Station's Space To Space ACG	Maximum Total Peak Envelope Power Per Transponder
S212	247	5.25	I	Transmitting Space Station's ACG	Minimum Angle Of Elevation In The Service Area
S265	252	5.28	I	Emission Characteristic Set	Minimum Peak Envelope Power Per Carrier
S371	253	5.28	I	Emission Characteristic Set	Minimum Power Density Per Carrier Averaged Over 1MHz
S268	253	5.28	I	Emission Characteristic Set	Minimum Power Density Per Carrier Averaged Over 4 kHz
S131	224	5.17	I	Elliptical Beam	Minor Axis Beamwidth
S329	245	5.24	I	Receiving Space Station's ACG	Multiple Access Indicator
S199	240	5.21	I	Assignment Coordination Group (ACG)	Multiplex Type (Video/Sound)
S012	195	5.1	I	Administration	Name
S030	198	5.3	I	Operator	Name
S035	199	5.4	I	Intergovernmental Satellite Organization	Name
S042	200	5.5	I	Geographical Area	Name
S047	201	5.6	I	Radiocommunication Service	Name
S054	202	5.7	I	Class Of Station	Name
S734	204	5.9	I	Nature Of Service	Name
S069	207	5.10	I	Space Station	Name
S380	226	5.18	I	Site	Name
S715	262	5.35	I	Strap Characteristic Set	National Code
S614	204	5.9	G	Nature Of Service	
S334	252	5.28	I	Emission Characteristic Set	Necessary Bandwidth Code
S072	208	5.11	I	Geostationary Orbital Position	Nominal Longitude
S093	211	5.12	G	Non-geostationary Orbit	
S104	214	5.13	G	Non-geostationary Satellite Position	
S305	268	5.38	G	Notice Attachment	
S068	207	5.10	I	Space Station	Notified Identification Code
S149	227	5.19	I	Earth Station Antenna	Notified Identification Code
S610	261	5.34	I	Beam Frequency Strap	Notified Identification Code
S774	263	5.36	I	ACG Frequency Strap	Notified Identification Code

RDD ref	Page	Para	Data Type	Data Group	Data Item
S712	215	5.14	I	Exclusive Operational Group	Notified Identifying Code
S671	231	5.20	I	Associated Earth Station Antenna	Notified Identifying Code
S087	211	5.12	I	Non-geostationary Orbit	Number Of Satellites Per Orbit
S300	265	5.37	I	Space Service Notice	Occurrence Code
S402	196	5.1	I	Administration	Official E-mail Address
S401	195	5.1	I	Administration	Official Facsimile Address
S014	195	5.1	I	Administration	Official Postal Address
S015	195	5.1	I	Administration	Official Telex Address
S170	229	5.19	I	Earth Station Antenna	Operational Sector's End Azimuth
S169	229	5.19	I	Earth Station Antenna	Operational Sector's Start Azimuth
S024	198	5.3	G	Operator	
S121	218	5.15	I	Beam	Orientation Angle Alpha
S368	219	5.15	I	Beam	Orientation Angle Beta
S250	242	5.21	I	Assignment Coordination Group (ACG)	Peak To Average Power Ratio Upper Frequency Limit
S099	213	5.12	I	Non-geostationary Orbit	Perigee Altitude
S100	213	5.12	I	Non-geostationary Orbit	Perigee Argument
S624	207	5.10	I	Space Station	Period Of Validity
S188	239	5.21	I	Assignment Coordination Group (ACG)	Period Of Validity
S381	229	5.19	I	Earth Station Antenna	Planned Maximum Elevation Angle
S168	229	5.19	I	Earth Station Antenna	Planned Minimum Elevation Angle
S680	234	5.20	I	Associated Earth Station Antenna	Planned Minimum Elevation Angle
S120	218	5.15	I	Beam	Pointing Accuracy
S189	239	5.21	I	Assignment Coordination Group (ACG)	Polarization Code
S364	239	5.21	I	Assignment Coordination Group (ACG)	Polarization Linear Angle
S022	197	5.2	I	Correspondence Address	Postal Address
S544	247	5.25	I	Transmitting Space Station's ACG	Power To The Antenna
S202	241	5.21	I	Assignment Coordination Group (ACG)	Pre-emphasis Characteristics
S201	240	5.21	I	Assignment Coordination Group (ACG)	Pre-emphasis P-P Frequency Deviation
S326	241	5.21	I	Assignment Coordination Group (ACG)	Pre-emphasis RMS Frequency Deviation
S073	208	5.11	I	Geostationary Orbital Position	Preferred Longitude
S615	272	5.41	G	Provision	
S301	266	5.37	I	Space Service Notice	Purpose Code
S166	228	5.19	I	Earth Station Antenna	Radioastronomy Antenna Description
S043	200	5.5	I	Geographical Area	Radiocommunication Region Code
S044	201	5.6	G	Radiocommunication Service	
S322	230	5.19	I	Earth Station Antenna	Rain Scatter Coordination Contour
S373	254	5.28	I	Emission Characteristic Set	Reason For Absence Of C/N
S269	254	5.28	I	Emission Characteristic Set	Reason For Absence Of Minimum Power
S372	254	5.28	I	Emission Characteristic Set	Reason For Absence Of Minimum Power Density
S332	244	5.23	I	Receiving Earth Station's ACG	Receiver Sensitivity Indicator
S218	244	5.23	G	Receiving Earth Station's ACG	
S456	245	5.24	G	Receiving Space Station's ACG	
S476	250	5.27	G	Receiving Space Station's Space To Space ACG	
S763	232	5.20	I	Associated Earth Station Antenna	Receiving System Noise Temperature
S764	244	5.23	I	Receiving Earth Station's ACG	Receiving System Noise Temperature
S192	245	5.24	I	Receiving Space Station's ACG	Receiving System Noise Temperature
S084	211	5.12	I	Non-geostationary Orbit	Reference Body Code
S210	254	5.28	I	Emission Characteristic Set	Required Protection Ratio (Minimum C/I)
S097	212	5.12	I	Non-geostationary Orbit	Right Ascension Of The Ascending Node
S133	224	5.17	I	Elliptical Beam	Rotational Accuracy
S103	213	5.12	I	Non-geostationary Orbit	Satellite Period
S102	213	5.12	I	Non-geostationary Orbit	Semi Major Axis
S079	209	5.11	I	Geostationary Orbital Position	Service Arc's Easterly Limit
S080	209	5.11	I	Geostationary Orbital Position	Service Arc's Westerly Limit
S376	226	5.18	G	Site	
S203	240	5.21	I	Assignment Coordination Group (ACG)	Sound Broadcasting Characteristics
S290	265	5.37	G	Space Service Notice	
S055	206	5.10	G	Space Station	
S331	245	5.24	I	Receiving Space Station's ACG	Space Station's Automatic Gain Control Range
S606	270	5.40	I	ACG Intended Action	Special Section Number For Last Advance Publication
S607	270	5.40	I	ACG Intended Action	Special Section Number For Last Coordination
S605	267	5.37	I	Space Service Notice	Special Section Number For Publication
S768	270	5.40	I	ACG Intended Action	Special Section Reference For Advance Publication
S769	270	5.40	I	ACG Intended Action	Special Section Reference For Last Coordination
S767	266	5.37	I	Space Service Notice	Special Section Reference For Publication
S195	239	5.21	I	Assignment Coordination Group (ACG)	Spectrum Mask
S127	222	5.15	I	Beam	Spreading Loss Versus Elevation Angle
S091	241	5.21	I	Assignment Coordination Group (ACG)	Start Time
S275	257	5.31	I	Coordination Agreement	Status Code
S118	217	5.15	I	Beam	Steerable Indicator
S092	242	5.21	I	Assignment Coordination Group (ACG)	Stop Time
S282	262	5.35	G	Strap Characteristic Set	
S070	207	5.10	I	Space Station	Subregional System Indicator
S023	197	5.2	I	Correspondence Address	Telex Address
S086	207	5.10	I	Space Station	Total Number Of Non-geostationary Orbits
S085	207	5.10	I	Space Station	Total Number Of Satellites
S263	252	5.28	I	Emission Characteristic Set	Total Peak Envelope Power
S625	246	5.24	I	Receiving Space Station's ACG	Total Transmitting Power
S288	262	5.35	I	Strap Characteristic Set	Transmission Gain For Highest Ratio Of Transmission Gain To ESLNT
S289	262	5.35	I	Strap Characteristic Set	Transmission Gain For Lowest ESLNT
S215	243	5.22	G	Transmitting Earth Station's ACG	
S463	247	5.25	G	Transmitting Space Station's ACG	
S472	249	5.26	G	Transmitting Space Station's Space To Space ACG	
S249	248	5.25	I	Transmitting Space Station's ACG	Transponder Bandwidth Indicator
S777	249	5.26	I	Transmitting Space Station's Space To Space ACG	Transponder Bandwidth Indicator
S327	240	5.21	I	Assignment Coordination Group (ACG)	TV Standard And Colour Standard Description
S309	268	5.38	I	Notice Attachment	Type

RDD ref	Page	Para	Data Type	Data Group	Data Item
S641	242	5.21	I	Assignment Coordination Group (ACG)	Type Of Amplitude Modulation
S640	242	5.21	I	Assignment Coordination Group (ACG)	Type Of Modulation
S157	227	5.19	I	Earth Station Antenna	Typical/Specific Indicator
S559	231	5.20	I	Associated Earth Station Antenna	Typical/Specific Indicator
S384	245	5.24	I	Receiving Space Station's ACG	Uplink Service Area
S248	255	5.29	I	Frequency Range	Upper Limit
S333	256	5.30	I	Beam Frequency	Value
S723	258	5.32	I	ACG Frequency	Value
S077	209	5.11	I	Geostationary Orbital Position	Visibility Arc's Easterly Limit
S078	209	5.11	I	Geostationary Orbital Position	Visibility Arc's Westerly Limit
S520	270	5.40	I	ACG Intended Action	Weekly Circular Number For Last Advance Publication
S519	270	5.40	I	ACG Intended Action	Weekly Circular Date For Last Advance Publication
S521	270	5.40	I	ACG Intended Action	Weekly Circular Date For Last Coordination
S523	271	5.40	I	ACG Intended Action	Weekly Circular Date For Last Notification
S302	267	5.37	I	Space Service Notice	Weekly Circular Date For Publication
S522	270	5.40	I	ACG Intended Action	Weekly Circular Number For Last Coordination
S524	271	5.40	I	ACG Intended Action	Weekly Circular Number For Last Notification
S303	267	5.37	I	Space Service Notice	Weekly Circular Number For Publication
S775	270	5.40	I	ACG Intended Action	Weekly Circular Part for Last Notification
S299	267	5.37	I	Space Service Notice	Weekly Circular Part For Publication