

Recommendation T/R 75-01 (Puerto de la Cruz 1974,
revised Malaga-Torremolinos 1975 and Nice 1985)

**FORM OF INFORMATION FOR EXCHANGE BETWEEN ADMINISTRATIONS AND BETWEEN
ADMINISTRATIONS AND INTERNATIONAL ORGANIZATIONS IN RESPECT
OF FREQUENCY ASSIGNMENTS**

Recommendation proposed by the "Radiocommunications" Working Group T/WG 3 (R)

Revised text of the Recommendation adopted by the "Telecommunications" Commission:

"The European Conference of Postal and Telecommunication Administrations,

considering

- (a) that it is a matter of greatest interest that Administrations should be able to exchange information relating to frequency assignments in a standardized form,
- (b) that the presentation of information in a standardized form enables it to be processed with the assistance of computers,
- (c) that the schedule of information and codes and of supplementary notices remains incomplete and requires to be completed and progressively updated.

recommends

1. that Administrations exchanging information do so using the notice shown in the Annex, in accordance with the instructions for its use included in the preface and the schedule of information and codes accompanying the Annex,
2. that Administrations adopting, in particular, punched cards, perforated tape or magnetic tape as the storage media for information to be exchanged, use the EBCDIC code for perforation or marking,
3. that while this Recommendation undergoes its various stages of revision, Administrations use in addition the draft versions of the schedule of information and codes and of the supplementary notices drawn up by the "Radiocommunications" Working Group."

Annex to Recommendation T/R 75-01

Summary of contents

- I. Explanatory preface describing the use of the frequency assignment notice for terrestrial radiocommunications.
- II. The frequency assignment notice for terrestrial radiocommunications.
- III. Schedule of information and codes required for the utilization of the frequency assignment notice for terrestrial radiocommunications with its Annexes 1, 2, 2*bis*, 3, 4, 5, 6 and 7.
- IV. Supplementary notices.

I. EXPLANATORY PREFACE DESCRIBING THE USE OF THE FREQUENCY ASSIGNMENT NOTICE FOR TERRESTRIAL RADIOCOMMUNICATIONS

1. INTRODUCTION

Information for exchange between Administrations and between Administrations and international organizations is categorized as follows:

- Group 1. Administrative data and other information specific to a frequency assignment.
- Group 2. Technical data relating to transmitting and receiving equipment and to antennas.
- Group 3. Parameters of radio network systems.
- Group 4. Sundry.

The frequency assignment notice discussed below contains the essential information required by terrestrial services as regards Group 1. European Administrations are not required to assemble and exchange all the information which may be described in this notice. However, where Administrations have agreed, in bilateral or multilateral agreements, which items of information they will be seeking to exchange, the use of a standard coded format could assist certain of their colleagues in their task.

Supplementary notices should be used for the information in Groups 2, 3 and 4.

2. FREQUENCY ASSIGNMENT NOTICES

- 2.1. The items of information to be exchanged are specified in arrays (blocks) of 80-character lines, each corresponding to a punched card.

These lines will be referred to hereafter as card-lines.

Each card-line must show:

in columns 1 to 3, the number of the card-line (for the meaning and the way they are grouped, see below); and

in columns 4 to 13, the "family number". This is made up as indicated in the schedule of information and codes under reference B.

Each particular item of information contained in the notice is identified by a 5-figure number describing its position, which is made up of the number of the card-line followed by the number of the first column of the box in which that information is entered.

The first 3 columns, identifying the card-lines, should be completed as follows:

001 to designate the 3 card-lines which make up an assignment's "G" (General Details) block

002

003

xx4 to designate the 6 card-lines which make up an "L" (Technical Liaison) block. The first two characters, xx, may be any two numbers between 01 and 99, and designate the "L" block number.

xx6 The total number of "L" blocks for one assignment are given by Information No. 00115 of the "G" block.

xx7

xx8

xx9

Administrations may use either:

a single "G" block accompanied by a "L" blocks all with the same family number to describe an assignment and all its technical liaisons; or

a single "G" block accompanied by a single "L" block with the same family number, to describe a single technical liaison.

- 2.2. The schedule of information and codes attached indicates how each box of the notice should be completed.
- 2.2.1. A number of columns shown with hatching in the notice remain unallocated for the time being. It is desirable that they should be kept in reserve for any additional data agreed by the CEPT for exchange at an international level. Administrations wishing to use these locations for their own national purposes are requested to do so taking all the necessary precautions to avoid any subsequent interference with the addition referred to above.
- 2.2.2. When written documents are exchanged:
 — the figure "zero" shall be represented by a "0"; the letter "O" shall not have a bar across it;
 — data aligned to the right-hand side shall be completed to the left-hand side with non-significant zeros.

3. SUPPLEMENTARY NOTICES

3.1. Scope

The purpose of the supplementary notices is to describe, using an established format, any additional information for which no specific place has been provided in the frequency assignment notice. There are two types of supplementary notice:

- 3.1.1. Supplementary notices describing collective information relating to several frequency assignment notices (a frequency assignment notice is linked to a supplementary notice of this type by a reference number; this number, which corresponds to the catalogue number of the item of information, is shown in the box of the main notice for the code number of the item in question); and
- 3.1.2. Supplementary notices describing specific information relating to a single frequency assignment notice (a frequency assignment notice is linked to a supplementary notice of this type by the family number).

3.2. Format

The format of each supplementary notice will be decided later, but it is desirable that the system for associating supplementary notices and frequency assignment notices should be decided here and now. The first columns of the card-lines of supplementary notices should, therefore, be completed in the following manner:

1st column:

A code designating the information group to which the supplementary notice refers;

2nd and 3rd columns:

The number of the card-line in the block constituting the supplementary notice.

These 3 columns are followed:

— in the collective supplementary notice, by 6 characters indicating the reference number;

— in the individual supplementary notice, by 15 characters indicating the family number of the frequency assignment notice to which the supplementary information refers, followed by the number of the information box in that frequency assignment notice.

3.3. Codes

The first three columns of the supplementary notice should be completed using the following code:

Group 2: Technical data

- | | |
|-----------------------------------|--------------|
| 2.1. Transmitters | |
| (Collective supplementary notice) | T 01 to T 49 |
| (Individual supplementary notice) | T 51 to T 99 |
| 2.2. Receivers | |
| (Collective supplementary notice) | R 01 to R 49 |
| (Individual supplementary notice) | R 51 to R 99 |
| 2.3. Antennas | |
| (Collective supplementary notice) | A 01 to A 49 |
| (Individual supplementary notice) | A 51 to A 99 |

Group 3: System parameters

- | | |
|-----------------------------------|--------------|
| (Collective supplementary notice) | S 01 to S 49 |
| (Individual supplementary notice) | S 51 to S 99 |

Group 4: Sundry

41. Monitoring reports	M 51 to M 99
42. Topographical information Referral to data base on terrain	E 51 to E 99 G
43. Other information (Free text) (Individual supplementary notice)	D 01 to D 49 D 51 to D 99
44. Confidential information (Collective supplementary notice) (Individual supplementary notice)	X 01 to X 49 X 51 to X 99

3.4. **Referral system**

Where one of the symbols ?, \$, % or § appears in any box of the frequency assignment notice this is an indication that a supplementary notice exists referring to the information in question.

3.5. Supplementary notices whose form has already been determined are covered by section IV of this Annex.

4. **ASSOCIATED NOTICES**

Associated notices are frequency assignment notices linked to another frequency assignment notice.

The principal frequency assignment notice contains in No. xx866 the family number of the associated notice and in No. xx876 the code indicating the reason for the association. In the associated notice, the family number of the principal frequency assignment notice is shown in No. xx866; no entry is made in No. xx876.

III. SCHEDULE OF INFORMATION AND CODES FOR USE WITH THE FREQUENCY ASSIGNMENT NOTICE

A. Columns 01, 02 and 03

- In columns 01 and 02 are entered:
 - the figures 00, for the card-lines of a "G" (General Details) block;
 - the figures xx, for the card-lines of an "L" (Technical Liaison) block. The figures xx (from 01 to 99) designate the "L" block number.
 - In column 03 is entered a figure (between 1 and 9) which designates the card-line. The card-lines designated by the figures 1, 2 and 3 entered in this column constitute a "G" block. The card-lines designated by the figures 4 to 9 entered in this column constitute an "L" block.
- N.B.:* In the documents exchanged, Administrations may choose whether or not to repeat the "G" block before each "L" block.

B. Columns 04 to 13

The characters entered in these columns make up the "family number".

- Columns 04, 05 and 06 will contain the abbreviation for the name of the country responsible for the assignment under consideration: the abbreviations given in the Preface to the International Frequency List should be used.
- Columns 07 to 13 will contain a 7-figure number allocated to this assignment by the Administration referred to in the paragraph above, in accordance with its own procedure.

Columns 14 to 80

Information	Number of Characters	Coding
No. 00115 Number of "L" blocks	2	Number of "L" blocks representing all the technical liaisons constituting the same frequency assignment (right-aligned).
No. 00117 Date of transmission of the schedule of information	6	Day, month, year (in figures): e.g. the date 1 February 1983 is entered thus: 010283.
No. 00123 Notifying country	3	IFRB Code.
No. 00126 Country, group of countries or international organization to whom the information is addressed	3	IFRB Code, and XZB: EBU XZE: EUTELSAT headquarters XZF: IFRB XZM: INMARSAT headquarters XZT: NATO XZS: INTELSAT headquarters XZR: ESA (ASE) The other groups in the XZA-XZZ series remain unallocated.

Information	Number of Characters	Coding
No. 00129 Reason for notification to the addressee in No. 00126	2	A: For information (no response required; no consequences for the status of the assignment may result from the notification. The information may nevertheless be transmitted in response to a request for information or under the terms of an agreement, etc.). B: For registration (for inclusion in a list or document, in accordance with another established administrative procedure). C: For consultation (i.e. as a request for an opinion regarding the assignment described, as a request for coordination, etc.). D: In response to a consultation (the response may therefore have consequences for the status of the assignment referred to in the notice circulated; the opinion itself should be given elsewhere; see No. 00214). E: For a proposed substitution (different frequencies or characteristics).
Nos. 00131 to 00171 Nine items of information analogous to No. 00126	$9 \times (3 + 2)$ $= 45$	
No. 00176 Purpose of this schedule	1	A: New assignment. B: Amendment to a previously communicated schedule of information. C: Cancellation of a previously communicated schedule. D: Addition. E: Correction of an error.
No. 00177	3	Unallocated.
No. 00180 Level of confidentiality applying to the assignment to which this list refers	1	P: Public: the information may be disclosed to any user (this will be the case in particular for all assignments intended for registration with the IFRB). R: Restricted. The country or organization addressed is requested not to disclose the information to organizations or countries other than those indicated in Nos. 00126 to 00171*. *To be reserved for use, for example, in coordination between two Administrations, to indicate that the notice must not be communicated to others.

Information	Number of Characters	Coding
<p>No.00214 Status of the assignment</p>	<p>2</p>	<p>The first character is allotted as follows: A: <i>Definitive</i> effective assignment. B: <i>Temporary</i> effective assignment. C: Assignment to be made effective at some time in the future, either at a date which is approximately indicated or without any specified date (as signified by the word "PLANNED"). D: Assignment only "PROPOSED".</p> <p>The second character is allotted as follows: A: For information: the assignment described has not acquired formal status. B: Request for agreement. C: Agreed without reservation. D: Agreed subject to operational tests to show that co-existence is possible. E: Agreement on a non-interference basis (NIB); revocation of the agreement and any request to cease the emissions in question requires proof that harmful interference has been caused to assignments whose status has already been established, which should normally be described in an associated notice. F: Agreed, subject to a requirement identical or analogous to the requirement of RR342. Revocation of the agreement and a requirement that emissions cease without showing grounds remains possible. G: Agreed, without any reservation as to interference which may be caused by the assignment described; the applicant is, however, informed that there is a risk of interference from assignments whose status has already been established, and that the responsibility for any such risk is his—one or more associated notices may be sent. Y: Request for agreement refused, but an alternative suggestion is formulated (in this case an associated notice should be circulated, No. 00126 being shown coded with an E). Z: Request for agreement refused. <i>(N.B.: One or more associated notices may be circulated, referring to the assignments/frequencies to which the refusal applies.)</i></p>
<p>No.00216 Operating Administration or Company (column 12 of the International Frequency List)</p>	<p>3</p>	<p>Same coding as shown in Table 5 of the Preface to the International Frequency List.</p>
<p>No.00219 Postal and telegraphic address of the Administration responsible for the station (column 12b of the International Frequency List)</p>	<p>2</p>	<p>Same coding as shown in Table 5 of the Preface to the International Frequency List.</p>

Information	Number of Characters	Coding
No. 0021 Provisions of the Radio Regulation used for the assignment, notification or coordination	8	Enter the number of the Radio Regulation, Appendix, Resolution or Recommendation, e.g. RR 26032 AP 27 RS 704 RC 501
No. 0023 Reference to any other international arrangements or to a frequency plan	3	Code: Annex 1 to this Schedule.
No. 0023 Unit of frequency used for Nos. 00233 and 00243	1	K: kHz M: MHz G: GHz T: THz
No. 0023 Assigned transmitting frequency or lower limit for case R of No. xx838	10	The unit given in No. 00232 is entered in the 5th box from the left.
No. 0024 Additional information concerning frequencies: reference frequency (carrier frequency where a single-sideband emission or a broadcasting frequency with shift is concerned (case O or D of No. xx838)) or associated receiving frequency (case P of No. xx838) or upper limit of the assigned frequency band (case R of No. xx838)	10	The unit given in No. 00232 is entered in the 5th box from the left.
No. 00253 Number of channel in the Plan indicated in Nos. 00221 and 00229	5	Channel number in figures with, for a TV channel, the alphanumeric code given in Annex 2 to this Schedule.
No. 00258 Class of station	2	As per IFRB rules (column 6a of the International Frequency List).
No. 00260 Nature of service	2	As per IFRB rules (column 6b of the International Frequency List).
No. 00262 Experimental station	2	As per IFRB rules (column 6c of the International Frequency List).

Information	Number of Characters	Coding
No. 00264 Additional information	17	Alphanumeric text for additional information of a general nature concerning the "G" block.
No. 00314 Name of the transmitting station	20	The uncoded name of the station should be entered, abbreviated if necessary (in accordance with column 4a of the International Frequency List). For mobile stations, the uncoded name of their area of operation is entered, preceded by the indication: — AML for land mobile stations; — AMA for aeronautical mobile stations; — AMS for maritime mobile stations.
No. 00334 Name of the country on whose territory the transmitting station is located	3	As per column 4b of the International Frequency List.
No. 00337 Longitude and latitude of the transmission point	15	In degrees, minutes, seconds, in the following order: 008°/20'/12"/E/48°/13'/03"/N. If it is not possible to be precise beyond the minute level, the positions reserved for the seconds should not under any circumstances be completed with "0". <i>Note:</i> In the short term, provision should be made for the insertion of N, E/W after the degrees.
No. 00352 Altitude at the transmission point (above mean sea-level)	5	In metres. The first character should be a + or - sign (right-aligned).
No. 00357 Identification signal or call-sign	20	As per IFRB rules.
No. 00377	1	Unallocated.
No. 00378 Referral note	1	?, \$, % or §: referral to a supplementary notice in respect of the "G" block.
No. 00379 Referral note	1	?, \$, % or §: referral to a supplementary notice in respect of the "G" block.

Information	Number of Characters	Coding																														
<p>No. 00789</p> <p>The parameter Δh used to define the degree of irregularity of the terrain (see CCIR Recommendation 370-4, point 1.4). This parameter represents the difference between the altitudes exceeded over 10% and 90% of the propagation path between 10 and 30 km from the transmitter</p>	1	<p>If the value of the parameter Δh remains approximately constant in all directions of azimuth from the station, the following coding should be used to represent the value of the parameter:</p> <table border="1" data-bbox="671 488 1337 927"> <thead> <tr> <th>Δh</th> <th>Code</th> </tr> </thead> <tbody> <tr><td>$\Delta h \leq 10$ m</td><td>A</td></tr> <tr><td>$10 < \Delta h \leq 20$ m</td><td>B</td></tr> <tr><td>$20 < \Delta h \leq 30$ m</td><td>C</td></tr> <tr><td>$30 < \Delta h \leq 50$ m</td><td>D</td></tr> <tr><td>$50 < \Delta h \leq 70$ m</td><td>E</td></tr> <tr><td>$70 < \Delta h \leq 100$ m</td><td>F</td></tr> <tr><td>$100 < \Delta h \leq 150$ m</td><td>G</td></tr> <tr><td>$150 < \Delta h \leq 200$ m</td><td>H</td></tr> <tr><td>$200 < \Delta h \leq 250$ m</td><td>J</td></tr> <tr><td>$250 < \Delta h \leq 300$ m</td><td>K</td></tr> <tr><td>$300 < \Delta h \leq 400$ m</td><td>L</td></tr> <tr><td>$400 < \Delta h \leq 500$ m</td><td>M</td></tr> <tr><td>$500 < \Delta h \leq 700$ m</td><td>N</td></tr> <tr><td>$700 < \Delta h$</td><td>P</td></tr> </tbody> </table> <p>If the terrain is irregular the referral note symbol should be entered in this position to indicate the existence of a supplementary notice giving the detailed value of Δh.</p>	Δh	Code	$\Delta h \leq 10$ m	A	$10 < \Delta h \leq 20$ m	B	$20 < \Delta h \leq 30$ m	C	$30 < \Delta h \leq 50$ m	D	$50 < \Delta h \leq 70$ m	E	$70 < \Delta h \leq 100$ m	F	$100 < \Delta h \leq 150$ m	G	$150 < \Delta h \leq 200$ m	H	$200 < \Delta h \leq 250$ m	J	$250 < \Delta h \leq 300$ m	K	$300 < \Delta h \leq 400$ m	L	$400 < \Delta h \leq 500$ m	M	$500 < \Delta h \leq 700$ m	N	$700 < \Delta h$	P
Δh	Code																															
$\Delta h \leq 10$ m	A																															
$10 < \Delta h \leq 20$ m	B																															
$20 < \Delta h \leq 30$ m	C																															
$30 < \Delta h \leq 50$ m	D																															
$50 < \Delta h \leq 70$ m	E																															
$70 < \Delta h \leq 100$ m	F																															
$100 < \Delta h \leq 150$ m	G																															
$150 < \Delta h \leq 200$ m	H																															
$200 < \Delta h \leq 250$ m	J																															
$250 < \Delta h \leq 300$ m	K																															
$300 < \Delta h \leq 400$ m	L																															
$400 < \Delta h \leq 500$ m	M																															
$500 < \Delta h \leq 700$ m	N																															
$700 < \Delta h$	P																															
<p>No. xx414</p> <p>Designation of the emission (column 7A of the International Frequency List)</p>	9																															
<p>No. xx423</p> <p>Class of operation (column 7B)</p>	1																															
<p>No. xx424</p> <p>TV system and colour (column 7C)</p>	3																															
<p>No. xx427</p> <p>Designation of transmitter power (column 8)</p>	1	Code X, Y or Z (see also Circular Letter No. 536 - Table 8-1).																														
<p>No. xx428</p> <p>Power delivered to antenna in dBW (column 8A)</p>	4	1st character: + or - sign. 3rd character: unit in dBW.																														
<p>No. xx432</p> <p>Radiated power in dBW (column 8B)</p>	6	1st character: + or - sign. 4th character: unit in dBW. 6th character: code E, I or V.																														
<p>No. xx438</p>	23	Unallocated.																														
<p>No. xx461</p> <p>Remarks</p>	20	To be shown here: either information communicated as complementary information; or information which does not fit any of the previous boxes and which appears here as an additional note.																														

Information	Number of Characters	Coding
No. xx514 Height of the transmitting antenna above the ground	3 1	m metres, right-aligned. T: The height given above represents the height of the top of the antenna. C: The height given above represents the height of the centre of the antenna.
No. xx518 Height of the transmitting antenna above mean ground level between 3 and 15 km in a given direction from the transmitter	1 4 3 1	+ or - sign. Height in metres } right-aligned. Azimuth } ?, \$, % or §: indicating referral to a supplementary notice where the height of the antenna is required for different azimuths round the station (at 10° intervals, for example).
No. xx527 Type of transmitting antenna	3	Code: Annex 3 to this Schedule. Right-aligned.
No. xx530 Polarization	4	Code: Annex 4 to this Schedule.
No. xx534 Referral code	1	?, \$, % or §: indicating the existence of a supplementary notice describing in detail the radiation characteristics of the transmitting antenna.
No. xx535 Azimuth of maximum radiation of the transmitting antenna	4	As per column 9a of the International Frequency List; right-aligned. When the antenna is directional but the azimuth cannot be specified for the reasons given below, the following code should be entered, instead of the value in degrees, in the left-hand box (xx535): E: Equidirectional antenna (non-directional in the horizontal plane, directional in the vertical plane). M: Directional antenna with a varying azimuth of radiation (e.g. mobile stations). ND: Non-directive antenna.
No. xx539 Angular width of beam	6	As per column 9c of the International Frequency List. Shown in degrees, to two places of decimals, occasionally preceded by a letter or an asterisk. H corresponds to an angular width of 6 dB. * corresponds to an angular width of 3 dB (IFRB). If the first character is left blank, that corresponds to an angular width of 3 dB.
No. xx545 Transmitting antenna gain	1 3 1	As per column 9g of the International Frequency List. + or - sign. Value in dB, right-aligned. Symbols: I Isotropic gain (G_I). V Gain referred to a short vertical antenna (G_V). D Gain referred to a half-wave dipole (G_D).

Information	Number of Characters	Coding
No. xx55 Transmitting antenna elevation angle	1 2 1	As per column 9b of the International Frequency List. + or - sign. Angle formed with the horizontal, in degrees, right-aligned. Any decimal fraction.
No. xx554	7	Unallocated.
No. xx56 Remarks	20	To be shown here: either information sent as supplementary information; or information which does not fit any of the previous boxes and which appears here as a referral.
No. xx614 Name of the receiving station	20	The uncoded name of the station should be entered, in abbreviated form if necessary (in accordance with column 5a of the International Frequency List). For mobile stations, the uncoded name of their area of operation should be entered, preceded by the indication: AML for land mobile stations AMA for aeronautical mobile stations AMS for maritime mobile stations.
No. xx634 Name of the country on whose territory the receiving station is located	3	As per column 5b of the International Frequency List.
No. xx637 Longitude and latitude of the reception point	15	In degrees, minutes, seconds, in the following order: 008° 20' 12" E 48° 13' 03" N. If accuracy is not possible beyond the minute level, the positions reserved for the seconds should not under any circumstances be completed with "0". <i>Note:</i> In the short term, provision should be made for the insertion of N, E, W after the degrees.
No. xx652 Altitude of the terrain at the reception point (height above mean sea-level)	1 4	+ or - sign. In metres, right-aligned.
No. xx657 Length of circuit	5	In kilometres, right-aligned.
No. xx662	7	Unallocated.

Information	Number of Characters	Coding			
N° xx669 Receiver selectivity	2	F1 designates the receiver's total bandwidth at 6 dB. F2 designates the receiver's total bandwidth at 60 dB. The value of F1 should be entered <i>in the left-hand box</i> using the following code:			
		F1 (kHz)	Code	F1 (MHz)	Code
		≤0.05	1	2	L
		0.1	2	5	M
		0.4	3	7	N
0.8	4	10	P		
1.2	5	15	R		
2	6	20	S		
3	7	30	T		
6	8	40	U		
12	9	60	V		
16	0	100	W		
25	A	150	X		
36	B	200	Y		
50	C	≥ 500	Z		
100	D				
150	E				
200	F				
300	G				
400	H				
700	J				
1000	K				
... In the right-hand box should be shown the value of the ratio $\frac{F2}{F1}$ of the receiver's total bandwidth at 60 dB to its total bandwidth at 6 dB using the following code (the same unit of expression being used for F1 and F2):					
F2/F1	Code	F2/F1	Code		
< 1.25	A	4.5	M		
1.5	B	5	N		
1.75	C	5.5	O		
2	D	6	P		
2.25	E	6.5	Q		
2.5	F	7	R		
2.75	G	7.5	S		
3	H	8	T		
3.25	I	9	U		
3.5	J	10	V		
3.75	K	15	X		
4	L	20	Y		
		> 25	Z		
This form of designation allows a symmetrical "envelope" or "mask" selectivity curve to be described in approximate terms. If an asymmetrical curve is required, or one with a greater degree of accuracy, a referral symbol should be entered in the left-hand box (No. xx669) to show the existence of a supplementary notice, the format of which remains to be decided.					

Information	Number of Characters	Coding
No. xx671 Receiver sensitivity	5	1 character to the left to indicate the unit of expression, using the following code: K: degrees Kelvin; V: electromotive force in μ V; F: noise factor. 4 characters indicating the sensitivity value, right-aligned.
No. xx676 Sensitivity to interference	1	As per Recommendation T/R 25-01 E.
No. xx677 Required signal noise ratio	2	In dB, right-aligned.
No. xx679 Referral information	1	A referral symbol in this box indicates the existence of a supplementary notice relating to stations of the aeronautical mobile service. <i>Note:</i> The elimination of this item is under consideration.
No. xx714 Height of the receiving antenna above the ground	3	In metres, right-aligned.
	1	T: The height given above represents the height of the top of the antenna. C: The height given above represents the height of the centre of the antenna.
No. xx718 Height of the receiving antenna above mean ground level between 3 and 15 km in a given direction from the receiver	1	+ or - sign.
	4	Height in metres } right-aligned.
	3	
	1	? , S, % or §: indicating referral to a supplementary notice where the height of the antenna is required for different azimuths round the station (at 10° intervals, for example).
No. xx727 Type of receiving antenna	3	Code: Annex 3 to this Schedule. Right-aligned.
No. xx730 Polarization of receiving antenna	4	Code: Annex 4 to this Schedule.
No. xx734 Referral	1	? , S, % or §: indicating the existence of a supplementary notice describing in detail the gain characteristics of the receiving antenna.
No. xx735 Azimuth of maximum gain of the receiving antenna	4	As per column 9a of the International Frequency List, right-aligned. When the antenna is directional but the azimuth cannot be specified for the reasons given below, the following code should be entered, in the left-hand box: E: Equidirectional antenna (non-directional in the horizontal plane, directional in the vertical plane). M: Directional antenna with a varying azimuth of radiation (e.g. mobile stations). ND: Non-directive antenna.

Information	Number of Characters	Coding
No. xx 739 Angular width of radiation main lobe of the receiving antenna	6	As per column 9c of the International Frequency List. Shown in degrees, to two places of decimals, occasionally preceded by a letter or an asterisk. H corresponds to an angular width of 6 dB. * corresponds to an angular width of 3 dB (IFRB). If the first character is left blank, that corresponds to an angular width of 3 dB.
No. xx 745 Receiving antenna gain	1 3 1	As per column 9g of the International Frequency List. + or – sign. Value in dB, right-aligned. Symbols: I Isotropic gain (G_I). V Gain referred to a short vertical antenna (G_V). D Gain referred to a half-wave dipole (G_D).
No. xx 750 Receiving antenna elevation angle	1 2 1	As per column 9g of the International Frequency List. + or – sign. Angle formed with the horizontal, in degrees, right-aligned. Any decimal fraction.
No. xx 754 Transmission line loss of receiving antenna	2	In dB.
No. xx 756	5	Unallocated.
No. xx 761 Remarks	20	To be shown here: --- either information sent as supplementary information; --- or information which does not fit any of the previous boxes and which appears here as a referral.
No. xx 815 xx number of the entry	2	Number of the “L” block representing a technical liaison in accordance with IFRB rules (column G of the notice).
No. xx 817 Status of ITU registration	1	A: Assignment notified to the IFRB but not yet registered. R: Assignment registered with the IFRB. I: Assignment registered with the IFRB upon insistence. U: Assignment communicated to the IFRB but refused and not registered. S: Assignment not notified to the IFRB for reasons of secrecy. O: Assignment not notified to the IFRB for other reasons.

Information	Number of Characters	Coding
No. xx81 Date of bringing into use (date in column 2c of the International Frequency List)	6	Day, month and year (in figures). For example, 1 February 1983 would be entered as 010283.
No. xx82 Date shown in column 2a, 2b or 2d of the International Frequency List	1	A: Date in column 2a. B: Date in column 2b. D: Date in column 2d.
	6	Day, month and year (in figures) or the symbol *** (aligned to the left-hand side). For example, 1 February 1983 would be entered as 010283
No. xx831 Latest permitted date for use of the assignment under consideration	6	Day, month and year (in figures). For example, 1 February 1983 would be entered as 010283.
No. xx837 Operating mode	1	S: Simplex operation. D: Duplex operation. H: Semi-duplex operation. B: Unidirectional transmission. M: Unidirectional transmission using synchronized transmitters.
No. xx838 Nature of the assignment (only with respect to information given in Nos. 00233 and 00243)	1	S: Single frequency. P: Pair of frequencies (associated transmitting frequency and receiving frequency). R: Frequency band. O: Frequency with shift. D: Frequency with precision shift. U: Operation without shift (for broadcasting).
No. xx839 Normal hours of operation of the frequency assignment	8	As per IFRB rules (column 10b of the International Frequency List).
No. xx847 Period of use of the frequency	5	Code: Annex 5 to this Schedule.
No. xx852 Mobility and context of the transmitting station	2	Code: Annex 6 to this Schedule.
No. xx854 Number of mobile stations in the network	4	In figures, right-aligned.
No. xx858 Referral	1	?, \$, % or §: referral to a supplementary notice relating to the "E" block.
No. xx859	7	Unallocated.

Information	Number of Characters	Coding
No. xx866 Family number of a single associated notice	10	This is the information contained in columns 04 to 13 of the associated notice. To refer to more than one associated notice, the symbols ?, \$, % or § should be used with a complementary indicator.
No. xx876 Reason for the associated notice	1	Code: Annex 7 to this Schedule.
No. xx914 Most recent circular of the IFRB in which the assignment under consideration has been published	4	Indicate the number (a maximum of 4 figures).
No. xx918 IFRB Conclusions	4 4 14	As per Table 6 of the Preface to the International Frequency List (column 13a). As per Table 6 of the Preface to the International Frequency List (column 13b). Remarks appearing in column 13c of the International Frequency List.
No. xx940	21	Unallocated.
No. xx961 Remarks	20	To be shown here: — either information communicated as complementary information; — or information which does not fit any of the previous boxes and which appears here as an additional note.

ANNEX I
to the Schedule of Information and Codes

Code: Information No. 00229

A. Reference to other international arrangements or to frequency plans concerning one or more member countries of the CEPT

Code	Reference
001	European Broadcasting Convention, Copenhagen, 1948.
002	Agreement concerning maritime radiotelephony on VHF frequencies, The Hague, 1957.
003	Regional Agreement concerning the use of frequencies in the bands 68-73 MHz and 76-87.5 MHz by the Broadcasting Service on the one part and by the Fixed and Mobile Services on the other, Geneva, 1960.
004	European Conference on VHF and UHF Broadcasting, Stockholm, 1961.
005	Special Agreement concerning the use of the frequency band 582-606 MHz by the Radionavigation Service, Brussels, 1962.
006	Special Agreement on reorganization of the frequency plan in the sound broadcasting band 87.5-100 MHz, in compliance with Chapter XVII of the final protocol of the Stockholm Agreement (1961), Kleinheubach, 1962.
007	Special Regional Agreement on the use of the band 100-104 MHz by the Broadcasting Service, 1962.
008	Special Agreement between the Administrations of Belgium, the Netherlands and the Federal Republic of Germany concerning the use of the VHF and UHF bands for the Fixed and Mobile Services in frontier areas, Brussels, 1963.
009	Agreement concerning coordination of the Decca and HI-FIX services, Brussels, 1967.
010	Agreement between the Administrations of Austria, the Federal Republic of Germany, Italy and Switzerland concerning the coordination of frequencies between 29.7 and 470 MHz for the Fixed and Land Mobile Services, Vienna, 1969.
011	Minutes of the meeting of 5, 6 and 7 March on the coordination of frequencies at the French-German frontier, Paris 1968.
012	Regional Agreement concerning the Rhine Radiotelephony Service, Brussels 1970, revised Munich, 1976.
013	Regional Agreement concerning the introduction of the Broadcasting Service in the frequency band 100-104 MHz, Darmstadt, 1971.
014	Agreement between the Administrations of Italy and the Socialist Federal Republic of Yugoslavia concerning the coordination of frequencies between 29.7 and 470 MHz for the Fixed and Land Mobile Services, Vienna, 1969.
015	Agreement between the Telecommunications Administration of Austria and the Federal Radio-communications Directorate of the Socialist Federal Republic of Yugoslavia concerning the coordination of frequencies between 29.7 and 470 MHz for the Fixed and Land Mobile Services, Vienna, 1969.
016	Agreement between the Administrations of Austria, Hungary and Czechoslovakia concerning the utilization of frequencies between 29.7 and 470 MHz for the Fixed and Land Mobile Services, Vienna, 1969.
017	Special Agreement concerning the utilization of HF frequencies for low-power television transmitter (Roman 4/5) in frontier areas, Vienna, 1969. Between the Telecommunications Administrations of Austria, Germany (Fed. Rep. of), Socialist Federal Republic of Yugoslavia, Hungary and Czechoslovakia.
018	Special Agreement between the Telecommunications Administration of the Federal Republic of Germany and France concerning the coordination of frequencies in the bands above 1000 MHz for the Fixed Service, Berlin, 1983.

Code	Reference
019	Special Agreement between the Administrations of Greece and the Socialist Federal Republic of Yugoslavia concerning the coordination of frequencies in the band 29.7-470 MHz for the Fixed and Land Mobile Services in frontier areas. Athens, 1979.
020	Special Agreement between the Administrations of Austria and Italy concerning the coordination of frequencies in the band 104-108 MHz for the Broadcasting and Land Mobile Services. Geneva, 1984.
021	Special Agreement between the Administrations of Italy and the Socialist Federal Republic of Yugoslavia concerning the coordination of frequencies in the band 104-108 MHz for the Broadcasting and Land Mobile Services. Geneva, 1984.
022	Special Agreement between, on the one part, the Administrations of France and the United Kingdom; and on the other part: the Administrations of the Federal Republic of Germany, Belgium, Ireland, Italy, Luxembourg, Monaco, the Netherlands and Switzerland, concerning conditions governing the use of the band of frequencies 104-108 MHz by the Broadcasting and Land Mobile Services in the different signatory countries. Geneva, 1984.

B. *Reference to other international arrangements*

Frequency plans appearing in the Radio Regulations or adopted by World or Regional Administrative Conferences

Code	Reference
100	Frequency Plans for Radiotelephonic Communications used by Stations in the Maritime Mobile Service in the Bands between 4000 and 23000 kHz (Appendix 16 to the RR - Sections A, B, C1 and C2). Duplex and Semi-duplex Ship-to-shore, Shore-to-ship and Intership Radiotelephonic Communications.
101	Frequency Plan for Station in the Maritime Mobile Service in the Band 156-174 MHz (Appendix 18 to the RR).
102	Frequency Plan for Narrow-Band Direct-Printing Telegraphy and Data Transmission Systems in the Maritime Mobile Bands between 4000 and 27500 kHz (Appendices 32 and 33 to the RR).
103	Frequency Plan for Calling Frequencies for A1A Morse Telegraphy at Speeds Not Exceeding 40 Bauds, in the Bands between 4000 and 27500 kHz (Appendix 34 to the RR and WARC-79 Resolution No. 312).
104	Frequency Plan for Working Frequencies for A1A and A1B Morse Telegraphy at Speeds Not Exceeding 40 Bauds, in the Bands between 4000 and 27500 kHz (Appendices 31 and 35 to the RR).
105	Frequency Plan for Selective Calling, Digital Selective Calling System (Article 62 and Appendix 31 to the RR).
106	Frequency Plan for Wide-Band Telegraphy, Facsimile and Oceanographic Data Transmission (Appendix 31 to the RR).
107	Associated Plan for the Broadcasting-Satellite Service in the Band 11.7-12.5 GHz (in Region 1) (Appendix 30 to the RR).
108	Frequency Plan for Sound Broadcasting in the LF and MF Bands (Regions 1 and 3).
109	Frequency Plan for Frequency Modulation Sound Broadcasting in the VHF Band (Region 1).

C. Channelling arrangements for radio-relay systems

Code	Reference	CCIR Recommendation
200	Recommendation 283-4	Channelling arrangement for analog radio-relay systems with a capacity of 60, 120, 300 and 960 telephony channels or for low- or medium-capacity digital radio-relay systems of equivalent bandwidth, using the bands 1700-2300 MHz and 2470-2700 MHz.
201	Recommendation 382-3	Channelling arrangement for television and telephony radio-relay systems with a capacity of 600 to 1.800 telephony channels, or the equivalent, operating in the 2 and 4 GHz bands, or for medium-capacity digital radio-relay systems operating in the bands using the bands 1700-2100 MHz and 3585-4200 MHz.
202	Recommendation 383-2	Channelling arrangement for television and telephony radio-relay systems with a capacity of 1.800 telephony channels, or the equivalent, operating in the band 5925-6425 MHz.
203	Recommendation 384-3	Channelling arrangement for analog radio-relay systems with a capacity of 2.700 or a maximum of 1.260 telephony channels, or the equivalent, and for digital radio-relay systems with a capacity of the order of 140 Mbits/s operating in the band 6425-7125 MHz.
204	Recommendation 385-2	Channelling arrangement for frequency division multiplex telephony radio-relay systems with a capacity of 60, 120 and 300 telephony channels operating in the 7 GHz band.
205	Recommendation 386-2	Channelling arrangement for television and telephony radio-relay systems with a capacity of 960 telephony channels, or the equivalent, operating in the bands 7725-7975 MHz and 8025-8275 MHz.
206	Recommendation 387-3	Channelling arrangement for analog television radio-relay systems with a capacity of 600 to 1.800 telephony channels, or the equivalent, or for low- or medium-capacity digital radio-relay systems of equivalent bandwidth, operating in the 11 GHz band.
207	Recommendation 497-2	Channelling arrangement for analog television and telephony radio-relay systems (FDM) with a capacity of 960 telephony channels, or the equivalent, and medium-capacity digital radio-relay systems operating in the 13 GHz band.
208	Recommendation 595	Channelling arrangement for digital radio-relay systems operating in the frequency band between 17.7 and 19.7 GHz.
209	Report 287-4	Channelling arrangement for analog radio-relay systems with a capacity of 2.700 telephony channels in the band 4400-5000 MHz.
210	Report 933	Channelling arrangement for analog radio-relay systems with a capacity of up to 300 telephony channels or for digital radio-relay systems of equivalent bandwidth, operating in the band 2300-2500 MHz.
211	Report 935	Channelling arrangement under a homogeneous plan for digital radio-relay systems with a capacity of up to 200 Mbit/s operating in the band 3400-4200 MHz.
212	Report 782-1	Channelling arrangement for high-capacity digital radio-relay systems operating in the frequency band between 10.7 and 11.7 GHz.
213	Report 607-2	Channelling arrangement for radio-relay systems operating in the frequency bands 10.5-10.68 GHz and 11.7-15.35 GHz.
214	Report 936 (Annex 1)	Channelling arrangement for digital radio-relay systems operating in the bands between 17.7 and 21.2 GHz (of the order of 400 Mbit/s).

ANNEX 2
to the Schedule of Information and Codes

Code: Information No. 00253

A. When the code for No. 00229 is 004

Column number	Information	Coding
53	Television system	The system is indicated by a letter, in accordance with CCIR Report No. 624-2, with the exception of the K1 system which is designated by the letter Z.
54	Channel number	<p>— The number of the channel is shown by 2 characters (letters or figures according to the country) in columns 55 and 56.</p> <p>— Column 54 is kept in reserve for SHF use.</p> <p><i>Important note:</i> Within the same system, identical letters or channel numbers may correspond to carriers of different frequencies, according to the country. When dealing with notices received from different countries care should be taken to ensure that the number of the channel is linked with the name of the country responsible for the assignment (No. 00104).</p>
55		
56		
57	Colour system	<p>M: Black and white</p> <p>N: N.T.S.C.</p> <p>P: Pal</p> <p>S: Secam</p>

B. When the code for No. 00229 is 200 to 214 (radio-relay systems)

Column number	Information	Coding
53	CCIR Plan	<p>The CCIR Plans are reproduced in Annex 2<i>bis</i> following.</p> <p>These Plans are designated by 2 characters:</p> <p>— the first character (column 53) designates the frequency band:</p> <p style="margin-left: 20px;">2: 2 GHz band</p> <p style="margin-left: 20px;">4: 4 GHz band</p> <p style="margin-left: 20px;">6: 6 GHz band</p> <p style="margin-left: 20px;">7: 7 GHz band</p> <p style="margin-left: 20px;">8: 8 GHz band</p> <p style="margin-left: 20px;">A: 10 GHz band</p> <p style="margin-left: 20px;">B: 11 GHz band</p> <p style="margin-left: 20px;">C: 13 GHz band</p> <p style="margin-left: 20px;">D: 15 GHz band</p> <p style="margin-left: 20px;">E: 18 GHz band</p> <p style="margin-left: 20px;">F: 20 GHz band</p> <p style="margin-left: 20px;">.....</p> <p>The second character (column 54) indicates the Plan referred to in the band designated by the first character.</p>
54		
55	Channel number	<p>With respect to a main link:</p> <p>A 3-character number characterizing each frequency as indicated in the CCIR Plans reproduced in Annex 2<i>bis</i>.</p> <p>The first two characters (columns 55 and 56) constitute a 2-figure number.</p> <p>The third character (column 57) is a letter:</p> <p>B: Lower frequency of a standard plan</p> <p>H: Upper frequency of a standard plan</p> <p>I: Lower frequency of an interleaved plan</p> <p>J: Upper frequency of an interleaved plan</p> <p>With respect to an auxiliary link:</p> <p>columns 55 and 56 are left blank</p> <p>a figure as shown in Annex 2<i>bis</i> for the auxiliary frequency in question is entered in column 57.</p>
56		
57		

C. Where the code for No. 00229 refers to a Frequency Plan for the Maritime Mobile Service

Column number	Information	Coding																					
53	Maritime Plan	M: VHF Plan given in RR Appendix 18 A: HF Section A of RR Appendix 16 B: HF Section B of RR Appendix 16 C: HF Section C1 of RR Appendix 16 D: HF Section C2 RR Appendix 16																					
54-57	Designation of channel number under the Plan	from 0001 to 0028 or from 0060 to 0088 for VHF for HF (Section A) from 0401 to 0426 or from 0601 to 0606 or from 0801 to 0831 or from 1201 to 1232 or from 1601 to 1641 or from 2201 to 2240 from 001 to 005 for HF (Section B) followed by a letter indicating the band and whether ship emission or coast emission: <table border="1" data-bbox="475 853 1329 1256"> <thead> <tr> <th colspan="2"></th> <th>Codes</th> </tr> </thead> <tbody> <tr> <td>4 MHz</td> <td>coast ship</td> <td>A: (coast and ship in Section B) B:</td> </tr> <tr> <td>6 MHz band</td> <td>coast ship</td> <td>C: (coast and ship in Section B) D:</td> </tr> <tr> <td>8 MHz band</td> <td>coast ship</td> <td>E: (coast and ship in Section B) F:</td> </tr> <tr> <td>12 MHz band</td> <td>coast ship</td> <td>J: (coast and ship in Section B) K:</td> </tr> <tr> <td>16 MHz band</td> <td>coast ship</td> <td>L: (coast and ship in Section B) M:</td> </tr> <tr> <td>22 MHz band</td> <td>coast ship</td> <td>N: (coast and ship in Section B) O:</td> </tr> </tbody> </table> from C101 to C121 for HF (Section C1) from C201 to C231 for HF (Section C2)			Codes	4 MHz	coast ship	A: (coast and ship in Section B) B:	6 MHz band	coast ship	C: (coast and ship in Section B) D:	8 MHz band	coast ship	E: (coast and ship in Section B) F:	12 MHz band	coast ship	J: (coast and ship in Section B) K:	16 MHz band	coast ship	L: (coast and ship in Section B) M:	22 MHz band	coast ship	N: (coast and ship in Section B) O:
		Codes																					
4 MHz	coast ship	A: (coast and ship in Section B) B:																					
6 MHz band	coast ship	C: (coast and ship in Section B) D:																					
8 MHz band	coast ship	E: (coast and ship in Section B) F:																					
12 MHz band	coast ship	J: (coast and ship in Section B) K:																					
16 MHz band	coast ship	L: (coast and ship in Section B) M:																					
22 MHz band	coast ship	N: (coast and ship in Section B) O:																					

ANNEX 2bis
to the Schedule of Information and Codes
CCIR Plans (Radio-relay systems)

Plan 2A Main radio-relay system: Recommendation 283-4
 $f_o = 1808$ MHz

Main link							
Standard Plan				Interleaved Plan			
Channel No.	Frequency MHz	Channel No.	Frequency MHz	Channel No.	Frequency MHz	Channel No.	Frequency MHz
01B	1713.5	01H	1832.5	01I	1720.5	01J	1839.5
02B	1727.5	02H	1846.5	02I	1734.5	02J	1853.5
03B	1741.5	03H	1860.5	03I	1748.5	03J	1867.5
04B	1755.5	04H	1874.5	04I	1762.5	04J	1881.5
05B	1769.5	05H	1888.5	05I	1776.5	05J	1895.5
06B	1783.5	06H	1902.5	06I	1790.5	06J	1909.5
1	1603.5	3	1816.5	2	1594.5	4	1805.5
5	1796	7	2007	6	1785	8	1998
Auxiliary link							

Plan 2B Main radio-relay system: Recommendation 283-4
 $f_o = 2000$ MHz

Main link							
Standard Plan				Interleaved Plan			
Channel No.	Frequency MHz	Channel No.	Frequency MHz	Channel No.	Frequency MHz	Channel No.	Frequency MHz
01B	1905.5	01H	2024.5	01I	1912.5	01J	2031.5
02B	1919.5	02H	2038.5	02I	1926.5	02J	2045.5
03B	1933.5	03H	2052.5	03I	1940.5	03J	2059.5
04B	1947.5	04H	2066.5	04I	1954.5	04J	2073.5
05B	1961.5	05H	2080.5	05I	1968.5	05J	2087.5
06B	1975.5	06H	2094.5	06I	1982.5	06J	2101.5
1	1795.5	3	2008.5	2	1786.5	4	1997.5
5	1988	7	2199	6	1977	8	2190
Auxiliary link							

Plan 2C Main radio-relay system: Recommendation 283-4
 $f_o = 2203$ MHz

Main link							
Standard Plan				Interleaved Plan			
Channel No.	Frequency MHz	Channel No.	Frequency MHz	Channel No.	Frequency MHz	Channel No.	Frequency MHz
01B	2108.5	01H	2227.5	01I	2115.5	01J	2234.5
02B	2122.5	02H	2241.5	02I	2129.5	02J	2248.5
03B	2136.5	03H	2255.5	03I	2143.5	03J	2262.5
04B	2150.5	04H	2269.5	04I	2157.5	04J	2276.5
05B	2164.5	05H	2283.5	05I	2171.5	05J	2290.5
06B	2178.5	06H	2297.5	06I	2185.5	06J	2304.5
1	1998.5	3	2211.5	2	1989.5	4	2200.5
5	2191	7	2402	6	2180	8	2393
Auxiliary link							

Plan 2D Main radio-relay system: Recommendation 283-4
 $f_c = 2586$ MHz

Main link							
Standard Plan				Interleaved Plan			
Channel No.	Frequency MHz	Channel No.	Frequency MHz	Channel No.	Frequency MHz	Channel No.	Frequency MHz
01B	2491,5	01H	2610,5	01I	2498,5	01J	2617,5
02B	2505,5	02H	2624,5	02I	2512,5	02J	2631,5
03B	2519,5	03H	2638,5	03I	2526,5	03J	2645,5
04B	2533,5	04H	2652,5	04I	2540,5	04J	2659,5
05B	2547,5	05H	2666,5	05I	2554,5	05J	2673,5
06B	2561,5	06H	2680,5	06I	2568,5	06J	2687,5

Plan 2E Main radio-relay system: Recommendation 382-3
Auxiliary radio-relay system: Recommendation 389-2
 $f_c = 1903$ MHz

Main link							
Standard Plan				Interleaved Plan			
Channel No.	Frequency MHz	Channel No.	Frequency MHz	Channel No.	Frequency MHz	Channel No.	Frequency MHz
01B	1724	01H	1937	01I	1709,5	01J	1922,5
02B	1753	02H	1966	02I	1738,5	02J	1951,5
03B	1782	03H	1995	03I	1767,5	03J	1980,5
04B	1811	04H	2024	04I	1796,5	04J	2009,5
05B	1840	05H	2053	05I	1825,5	05J	2038,5
06B	1869	06H	2082	06I	1854,5	06J	2067,5
1	1698,5	3	1911,5	2	1689,5	4	1900,5
5	1891	7	2102	6	1880	8	2093

Auxiliary link

Plan 2F Main radio-relay system: Recommendation 382-3
Auxiliary radio-relay system: Recommendation 389-2
 $f_c = 2101$ MHz

Main link							
Standard Plan				Interleaved Plan			
Channel No.	Frequency MHz	Channel No.	Frequency MHz	Channel No.	Frequency MHz	Channel No.	Frequency MHz
01B	1922	01H	2135	01I	1907,5	01J	2120,5
02B	1951	02H	2164	02I	1936,5	02J	2149,5
03B	1980	03H	2193	03I	1965,5	03J	2178,5
04B	2009	04H	2222	04I	1994,5	04J	2207,5
05B	2038	05H	2251	05I	2023,5	05J	2236,5
06B	2067	06H	2280	06I	2052,5	06J	2265,5
1	1896,5	3	2109,5	2	1887,5	4	2098,5
5	2089	7	2300	6	2078	8	2291

Auxiliary link

Plan 2G Main radio-relay system: Report 933
 $f_0 = 2394$ MHz

Channel No.	Frequency MHz	Channel No.	Frequency MHz
01B	2308	01H	2402
02B	2309	02H	2403
03B	2310	03H	2404
⋮	⋮	⋮	⋮
⋮	⋮	⋮	⋮
⋮	⋮	⋮	⋮
⋮	⋮	⋮	⋮
⋮	⋮	⋮	⋮
⋮	⋮	⋮	⋮
⋮	⋮	⋮	⋮
⋮	⋮	⋮	⋮
79B	2386	79H	2480
80B	2387	80H	2481
$f = f_0 - 87 + n$		$f = f_0 + 7 + n$	

Plan 4A Main radio-relay system: Recommendation 382-3
Auxiliary radio-relay system: Recommendation 389-2
 $f_0 = 4003.5$ MHz

Main link							
Standard Plan				Interleaved Plan			
Channel No.	Frequency MHz	Channel No.	Frequency MHz	Channel No.	Frequency MHz	Channel No.	Frequency MHz
01B	3824.5	01H	4037.5	01I	3810	01J	4023
02B	3853.5	02H	4066.5	02I	3839	02J	4052
03B	3882.5	03H	4095.5	03I	3868	03J	4081
04B	3911.5	04H	4124.5	04I	3897	04J	4110
05B	3940.5	05H	4153.5	05I	3926	05J	4139
06B	3969.5	06H	4182.5	06I	3955	06J	4168
1	3799	3	4012	2	3790	4	4001
5	3991.5	7	4202.5	6	3980.5	8	4193.5
Auxiliary link							

Plan 6A Main radio-relay system: Recommendation 383-2
 Auxiliary radio-relay system: Recommendation 389-2
 $f_c = 6175$ MHz

Main link				Auxiliary link			
Secondary Plan		Main link		Secondary Plan		Auxiliary link	
Channel No.	Frequency MHz	Channel No.	Frequency MHz	Channel No.	Frequency MHz	Channel No.	Frequency MHz
01B	5945,20	01H	6197,24	01I	6180,375	01J	6182,415
02B	5974,85	02H	6226,89	02I	6200,025	02J	6212,065
03B	6004,50	03H	6256,84	03I	6229,675	03J	6241,715
04B	6034,15	04H	6286,79	04I	6259,325	04J	6271,365
05B	6063,80	05H	6315,84	05I	6288,975	05J	6301,015
06B	6093,45	06H	6345,49	06I	6318,625	06J	6330,665
07B	6123,10	07H	6375,14	07I	6348,275	07J	6360,315
08B	6152,75	08H	6404,99	08I	6377,925	08J	6389,965
1	5926,1	2	6178,17				
3	6171,97	4	6223,97				
5	5925,3	6	6177,57				
7	6172,57	8	6224,57				

¹ For systems with frequency modulation.

² For systems with amplitude or frequency modulation.

Plan 6B Recommendation 384-3
 $f_c = 6770$ MHz

Channel No.	Frequency MHz	Channel No.	Frequency MHz
01B	6440	01F	6780
02B	6460	02F	6800
03B	6480	03F	6820
04B	6500	04F	6840
05B	6520	05F	6860
06B	6540	06F	6880
07B	6560	07F	6900
08B	6580	08F	6920
09B	6600	09F	6940
10B	6620	10F	6960
11B	6640	11F	6980
12B	6650	12F	7000
13B	6650	13F	7020
14B	6700	14F	7040
15B	6720	15F	7060
16B	6740	16F	7080

Plan 7A Recommendation 385-2

$f_0 = 7275$ MHz

Channel No.	Frequency MHz	Channel No.	Frequency MHz
01B	7128	01H	7289
02B	7135	02H	7296
03B	7142	03H	7303
04B	7149	04H	7310
05B	7156	05H	7317
06B	7163	06H	7324
07B	7170	07H	7331
08B	7177	08H	7338
09B	7184	09H	7345
10B	7191	10H	7352
11B	7198	11H	7359
12B	7205	12H	7366
13B	7212	13H	7373
14B	7219	14H	7380
15B	7226	15H	7387
16B	7233	16H	7394
17B	7240	17H	7401
18B	7247	18H	7408
19B	7254	19H	7415
20B	7261	20H	7422

Plan 7B Recommendation 385-2

$f_0 = 7575$ MHz

Channel No.	Frequency MHz	Channel No.	Frequency MHz
01B	7428	01H	7589
02B	7435	02H	7596
03B	7442	03H	7603
04B	7449	04H	7610
05B	7456	05H	7617
06B	7463	06H	7624
07B	7470	07H	7631
08B	7477	08H	7638
09B	7484	09H	7645
10B	7491	10H	7652
11B	7498	11H	7659
12B	7505	12H	7666
13B	7512	13H	7673
14B	7519	14H	7680
15B	7526	15H	7687
16B	7533	16H	7694
17B	7540	17H	7701
18B	7547	18H	7708
19B	7554	19H	7715
20B	7561	20H	7722

Plan 7C Recommendation 385-2
 $f_c = 7400$ MHz

Channel No.	Frequency MHz	Channel No.	Frequency MHz
01B	7253	01H	7414
02B	7260	02H	7421
03B	7267	03H	7428
04B	7274	04H	7435
05B	7281	05H	7442
06B	7288	06H	7449
07B	7295	07H	7456
08B	7302	08H	7463
09B	7309	09H	7470
10B	7316	10H	7477
11B	7323	11H	7484
12B	7330	12H	7491
13B	7337	13H	7498
14B	7344	14H	7505
15B	7351	15H	7512
16B	7358	16H	7519
17B	7365	17H	7526
18B	7372	18H	7533
19B	7379	19H	7540
20B	7386	20H	7547

Plan 7D Recommendation 385-2
 $f_c = 7700$ MHz

Channel No.	Frequency MHz	Channel No.	Frequency MHz
01B	7553	01H	7714
02B	7560	02H	7721
03B	7567	03H	7728
04B	7574	04H	7735
05B	7581	05H	7742
06B	7588	06H	7749
07B	7595	07H	7756
08B	7602	08H	7763
09B	7609	09H	7770
10B	7616	10H	7777
11B	7623	11H	7784
12B	7630	12H	7791
13B	7637	13H	7798
14B	7644	14H	7805
15B	7651	15H	7812
16B	7658	16H	7819
17B	7665	17H	7826
18B	7672	18H	7833
19B	7679	19H	7840
20B	7686	20H	7847

Plan 8A Recommendation 386-2

$f_0 = 8350$ MHz

Channel No.	Frequency MHz	Channel No.	Frequency MHz
01B	8210.048	01H	8361.662
02B	8221.710	02H	8373.324
03B	8233.372	03H	8384.986
04B	8245.034	04H	8396.648
05B	8256.696	05H	8408.310
06B	8268.358	06H	8419.972
07B	8280.020	07H	8431.634
08B	8291.682	08H	8443.296
09B	8303.344	09H	8454.958
10B	8315.006	10H	8466.620
11B	8326.668	11H	8478.282
12B	8338.330	12H	8489.944

Plan 8B Recommendation 386-2

$f_0 = 8000$ MHz

Channel No.	Frequency MHz	Channel No.	Frequency MHz
01B	7747.70	01H	8059.02
02B	7777.35	02H	8088.67
03B	7807	03H	8118.32
04B	7836.65	04H	8147.97
05B	7866.3	05H	8177.62
06B	7895.95	06H	8207.27
07B	7926.6	07H	8236.95
08B	7955.25	08H	8266.6

Plan 11 A (Plan 11 GHz - A)

Main radio-relay system: Recommendation 387-3

Auxiliary radio-relay system: Recommendation 387-3

 $f_c = 11.200$ MHz

Main link

Standard Plan				Interleaved Plan			
Channel No.	Frequency MHz	Channel No.	Frequency MHz	Channel No.	Frequency MHz	Channel No.	Frequency MHz
01B	10 715	01H	11 245	01I	10 695	01J	11 225
02B	10 755	02H	11 285	02I	10 735	02J	11 265
03B	10 795	03H	11 325	03I	10 775	03J	11 305
04B	10 835	04H	11 365	04I	10 815	04J	11 345
05B	10 875	05H	11 405	05I	10 855	05J	11 385
06B	10 915	06H	11 445	06I	10 895	06J	11 425
07B	10 955	07H	11 485	07I	10 935	07J	11 465
08B	10 995	08H	11 525	08I	10 975	08J	11 505
09B	11 035	09H	11 565	09I	11 015	09J	11 545
10B	11 075	10H	11 605	10I	11 055	10J	11 585
11B	11 115	11H	11 645	11I	11 095	11J	11 625
12B	11 155	12H	11 685	12I	11 135	12J	11 665
1	10 715	3	11 215	2	10 705	4	11 202.5
5	11 185	7	11 685	6	11 175	8	11 665

Auxiliary or service link

If necessary, auxiliary or service channels shall use only 11 main channels, and in particular channels 01B, 12H, 01I and 12J.

Plan 13 A CCIR Recommendation 497-2 (Points 1 and 6)

 $f_c = 12.996$ MHz

Telephony channel capacity: 960; 480; 240.

Standard Plan				Interleaved Plan			
Channel No.	Frequency MHz	Channel No.	Frequency MHz	Channel No.	Frequency MHz	Channel No.	Frequency MHz
01B	12 765	01H	13 031	01I	12 779	01J	13 045
02B	12 793	02H	13 059	02I	12 807	02J	13 073
03B	12 821	03H	13 087	03I	12 835	03J	13 101
04B	12 849	04H	13 115	04I	12 863	04J	13 129
05B	12 877	05H	13 143	05I	12 891	05J	13 157
06B	12 905	06H	13 171	06I	12 919	06J	13 185
07B	12 933	07H	13 199	07I	12 947	07J	13 213
08B	12 961	08H	13 227	08I	12 975	08J	13 241

Plan 13B CCIR Recommendation 497-2
 $f_0 = 12996$ MHz (Point 9, Solutions I and III; option m = 1)
 Capacity: 30 telephony channels (2 Mbit/s)

Standard Plan				Interleaved Plan			
Channel No.	Frequency MHz	Channel No.	Frequency MHz	Channel No.	Frequency MHz	Channel No.	Frequency MHz
01B	12 754.5	01H	13 020.5	01I	12 758	01J	13 024
02B	12 761.5	02H	13 027.5	02I	12 765	02J	13 031
03B	12 768.5	03H	13 034.5	03I	12 772	03J	13 038
04B	12 775.5	04H	13 042.5	04I	12 779	04J	13 045

Plan 13C CCIR Recommendation 497-2
 $f_0 = 12996$ MHz (Point 9, Solution II)
 Capacity: 30 telephony channels (2 Mbit/s)

Channel No.	Frequency MHz	Channel No.	Frequency MHz
01B	12 936.5	01H	13 006.5
02B	12 943.5	02H	13 013.5
■ 03B	12 950.5	03H	13 020.5
■ 04B	12 957.5	04H	13 027.5
■ 05B	12 964.5	05H	13 034.5
■ 06B	12 971.5	06H	13 041.5
07B	12 978.5	07H	13 048.5
08B	12 985.5	08H	13 055.5

■ Preferential channels.

Plan 18 A - CCIR Recommendation 595

F₀ = 18 700 MHz

Transmission rate: 34 Mbit/s; 140 Mbit/s;
 280 Mbit/s

Standard Plan

Channel No.	Frequency MHz	Channel No.	Frequency MHz
01B	17 727.5	01H	18 737.5
02B	17 755	02H	18 765
03B	17 782.5	03H	18 792.5
() () 04B	17 810	() () 04H	18 820
05B	17 837.5	05H	18 847.5
06B	17 865	06H	18 875
07B	17 892.5	07H	18 902.5
() 08B	17 920	() 08H	18 930
09B	17 947.5	09H	18 957.5
10B	17 975	10H	18 985
11B	18 002.5	11H	19 012.5
() () 12B	18 030	() () 12H	19 040
13B	18 057.5	13H	19 067.5
14B	18 085.5	14H	19 095
15B	18 112.5	15H	19 122.5
() 16B	18 140	() 16H	19 150
17B	18 167.5	17H	19 177.5
18B	18 195	18H	19 205
19B	18 222.5	19H	19 232.5
() () 20B	18 250	() () 20H	19 260
21B	18 277.5	21H	19 287.5
22B	18 305	22H	19 315
23B	18 332.5	23H	19 342.5
() 24B	18 360	() 24H	19 370
25B	18 387.5	25H	19 397.5
26B	18 415	26H	19 425
27B	18 442.5	27H	19 452.5
() () 28B	18 470	() () 28H	19 480
29B	18 497.5	29H	19 507.5
30B	18 525	30H	19 535
31B	18 552.5	31H	19 562.5
() 32B	18 580	() 32H	19 590
33B	18 607.5	33H	19 617.5
34B	18 635	34H	19 645
35B	18 662.5	35H	19 672.5

() Frequencies which may be used with a 140 Mbit/s transmission rate.
 () Frequencies which may be used with a 280 Mbit/s transmission rate.

ANNEX 3
to the Schedule of Information and Codes

Code: Information Nos. xx527 and xx727

		<i>Type of Antenna</i>	
01	Dipol	Doublet	Dipole
02	Halbwellendipol	Doublet en demi-onde	Half-wave dipole
03	Ganzwellendipol	Doublet en onde entière	Full-wave dipole
04	Faltdipol	Doublet replié simple	Folded dipole
05	Mehrfachdipol	Doublet replié multiple	Multiple folded dipole
06	Richtantenne	Antenne directive	Directional aerial
07	Rundstrahlantenne	Antenne équi directive (dans un plan)	Omnidirectional aerial
08			
09	Querstrahler	Antenne à rayonnement trans- versal	Broadside array
10	Längsstrahler	Antenne à rayonnement lon- gitudinal	End-fire array
11	Schwundmindernde Antenne	Antenne antiévanouissement	Anti-fading aerial
12	Einpolantenne	Antenne unipolaire	Unipole aerial
13	Gefaltete Einpolantenne	Antenne unipolaire repliée	Folded unipole aerial
14	Vertikale Bodenantenne	Antenne verticale au sol
15	Vertikalantenne mit Gegenge- wicht	Antenne à plan de sol	Ground-plane aerial
16	Wanderwellen-Antenne	Antenne à onde progressive	Travelling-wave aerial
17	Aperiodische Antenne	Antenne aperiodique	Aperiodic aerial
18	Breitbandantenne	Antenne à large bande	Broad-band aerial
19	Langdrahtantenne	Antenne à long(s) fil(s)	Long-wire aerial
20	Rhombusantenne	Antenne en losange	Rhombic aerial
21	Quadrantantenne	Antenne quadrant	Quadrant aerial
22	Alford-Rahmenantenne	Antenne Gouriaud	Alford loop
23	H-Antenne	Antenne en H	H aerial
24	L-Antenne	Antenne en L (renversé)	L aerial
25	T-Antenne	Antenne en T	T aerial
26	Flächenantenne	Antenne en nappe	Flat top aerial
27	V-Antenne	Antenne en V	V aerial
28	Umgekehrte V-Antenne	Antenne en V renversé	Inverted-V aerial
29	Geneigte V-Antenne	Antenne en V incliné	Inclined-V aerial
30	Hülsendipol	Antenne à jupe	Quarter wave skirt dipole
31	Schirmantenne	Antenne en parapluie	Umbrella aerial
32	Kleeblattantenne	Antenne en trèfle	Clover leaf aerial
33	Drehkreuzantenne	(Antenne en tourniquet)	Turnstile aerial
34	Wendelantenne	Antenne en hélice	Helice aerial
35	Fischgrätenantenne	Antenne en arête de poisson	Fish-bone aerial
36	Peitschenantenne	Antenne-fouet	Whip aerial
37	Doppelkonus-Antenne	Antenne biconique	Biconical aerial
38	Diskon-Antenne	Antenne discône	Discone
39	Zigarrenantenne	Antenne-cigare	Cigar aerial
40	Winkelreflektor-Antenne	Antenne en dièdre	Corner aerial
41	Fächerantenne	Antenne en éventail	Fan aerial
42			
43	Beverage-Antenne: Wellenan- tenne	Antenne Beverage	Wave aerial Beverage aerial

44	Franklin-Antenne	Antenne Franklin	Franklin aerial
45	Rahmenantenne	Cadre	Loop aerial
46	Gezweimte Rahmenantenne	Cadre blindée	Screened loop aerial
47	Leuchtröhre	Antenne à noyau magnétique	ferrous rod aerial
48	Schlitzzstrahler	Fente rayonnante	Slot radiator
49	Schlitzzgruppenstrahler	Antenne à fentes	Slot array
50	Rohr-Schlitzzantenne	Cylindre à fentes	Closed cylinder aerial
51	Hilfleiter-Schlitzzantenne	Guide à fentes	Slot and guide aerial
52	Schmetterlings-Schlitzzantenne	Antenne en papillon	Butterfly aerial
53	Dreikreuz-Schmetterlings-Schlitzzantenne	Antenne en simarre tronçonnée	Super-multisite aerial
54	Musa-Antenne	Antenne Musa	Musa aerial
55	Yagi-Antenne	Antenne Yagi	Yagi aerial
56	Tannenbaum-Antenne	Rideau de doublets	Pine-tree aerial
57	Tannenbaum-Antennenwand		Pine-tree array
58	Chiréx-Mesny-Antenne	Rideau Chiréx-Mesny	Chiréx array
59	Tschelyscheff-Anordnung	Rideau de Dolph-Tschelyschev	Chelyshev array
60			
61	Dipol-Antennenwand (aus Ganzwellendipolen)	Panneau de doublets
62	Schmetterlings-Schlitzzantennenfeld (mit Reflektorwand)	Panneau de papillons
63	Schlitzzstrahlerfeld (mit Reflektorwand)	Panneau à fentes
64	Störungsarme Empfangsantenne	Antenne antiparasite	Anti-interference aerial system
65			
66	Antenne mit Dachkapazität	Antenne à capacité terminale	Top-loaded aerial
67	Antenne mit Verlängerungsspule	Antenne à charge série	Series-loaded aerial
68	Adcock-Antenne	Antenne Adcock	Adcock aerial
69	Bellini-Tosi-Peilantenne	Antenne Bellini-Tosi	Bellini-Tosi aerial
70	Schlitzz gespeister Dipol	Doublet symétrisé par coaxial fendu	Slot-fed dipole
71	Parabol-Antenne	Antenne parabolique	Parabolic aerial
72	Parabol-Zylinder-Antenne	Antenne en D	Cheese aerial
73	Hornantenne	Cornet	Horn
74	Sektorhorn	Cornet sectoriel	Sectoral horn
75	E-Horn	Cornet sectoriel E	E-plane sectoral horn
76	H-Horn	Cornet sectoriel H	H-plane sectoral horn
77	Pyramiden-Horn	Cornet pyramidal	Pyramidal horn
78	Konishorn	Cornet conique	Conical horn
79	Hornparabol	Cornet à réflecteur	Hoghorn
80	Horn mit Phasenkorrektor	Cornet à correction de phase	Phase-corrected horn
81*)		Antenne à champ tournant	
82*)		Antenne à faisceau modelé (à diagramme modelé)	
83*)		Antenne à faisceau plat	
84*)		Antenne à faisceau plat horizontal	
85*)		Antenne à faisceau en croix	
86*)		Antenne à faisceau en croix carrée	
87*)		Antenne multidigramme	
88*)		Antenne à faisceau orientable	

89*)	Antenne en réseau à commande de phase
90*)	Antenne à balayage (électronique)
91*)	Antenne multimode
92*)	Antenne catadioptrique
93*)	Antenne antibrouillage
94*)	Antenne à rayonnement zénithal
95*)	Antenne réversible
96*)	Antenne à rayonnement dévié
97*)	Antenne à onde stationnaire
98*)	Antenne (de réception) active
99*)	Antenne à traitement de signal
100*)	Antenne autoadaptable
101*)	Antenne froide
102*)	Antenne à onde de surface
103*)	Doublet à réflecteur
104*)	Antenne en carré
105*)	Antenne coaxiale
106*)	Antenne log-périodique
107*)	Antenne de Luneburg
108*)	Antenne Cassegrain
109*)	(Antenne) cylindre parabolique
110*)	Antenne périscope
111*)	Antenne diélectrique
112*)	Antenne cierge
113*)	Réflecteur plan

*) On a provisional basis, subject to the approval of the CCI/CC E joint group to whom this list will be submitted.

ANNEX 4
to the Schedule of Information and Codes

Code: Information Nos. xx530 and xx730

Symbols to be used to indicate polarization

Polarization	Symbol	Information
Horizontal linear	H	The electric field-intensity vector is in the horizontal plane.
Vertical linear	V	The magnetic field-intensity vector is in the horizontal plane.
Right-hand oblique	SR	The electric field-intensity vector is in the plane defined by a rotation, in a clockwise direction whilst looking from the point of emission, of 45 degrees from the vertical position.
Left-hand oblique	SL	The electric field-intensity vector is in the plane defined by a rotation, in an anticlockwise direction whilst looking from the point of emission, of 45 degrees from the vertical position.
Right-hand circular or direct	CR	The electric field-intensity vector, observed in any fixed plane normal to the direction of propagation whilst looking in the direction of propagation, rotates in a clockwise direction.
Left-hand circular or indirect	CL	The electric field-intensity vector, observed in any fixed plane normal to the direction of propagation whilst looking in the direction of propagation, rotates in an anticlockwise direction.
Dual	D	Vertically—and horizontally—polarized components of approximately equal amplitude, radiated any specific regulation of the phase relationship between them. The relative positions of the vertically—and horizontally—polarized sources are generally capable of alteration in such a manner that the resulting polarization varies in oblique polarization with the angle of azimuth.
Mixed	M	Collective term utilized when both vertically and horizontally polarized components are radiated; the term encompasses oblique polarization, circular polarization and dual polarization.
Linear	L999	The electric field-intensity vector, observed in any fixed plane normal to the direction of propagation whilst looking in the direction of propagation, follows the direction indicated by the angle measured, in an anticlockwise direction, from a line parallel to the plane of the equator; the value of this angle follows the code L, and is expressed in degrees.

ANNEX 5
 to the Schedule of Information and Codes

Code: Information No. 847

Periods of use of the frequency

Column No.	Information	Coding
47 48	Percentage use of the frequency	Percentage of time during which the frequency is in use during the period shown above, when use is intermittent - letters I or S in column 49.
49	Type of use of the frequency	C: Continuous use during the period shown. I: Intermittent use without fixed times. S: Intermittent use at fixed times.
50 51	Annual use of the frequency	A: All-year-round use. M: Use during March and April. J: Use from May to August. S: Use during September and October. D: Use from November to February. JA January JL July ET Summer FE February AU August HV Winter MR March SE September EQ Equinox AR April OC October MA May NV November JN June DC December

ANNEX 6
to the Schedule of Information and Codes

Code: Information No. xx852

*Information concerning the mobility and operational context
of the transmitting station*

Mobility

Code	Information
F	Fixed, installed at domicile.
T	Fixed during operation, but transportable.
M	Mobile, but not portable: operation is possible while in motion.
P	Portable.

Operational context

Code	Information
A	In the air.
L	On the ground.
R	In continental waters.
T	On rail.
V	On board a motor vehicle.
W	At sea.
I	Amphibious.
S	In space.

ANNEX 7
to the Schedule of Information and Codes

Code: Information No. xx876

Reason for the associated notice

Code	Information
Z or G	The preceding number (xx866) is that of the associated notice which communicates a comment, a refusal, an NIB reservation, ...
E	The preceding number (xx866) is that of the associated notice which constitutes a proposal for replacement.
K	The preceding number (xx866) is that of a notice which has technical links with the main notice.
T	The preceding number (xx866) is that of a "Television" notice associated with this "Sound" notice.
S	The preceding number (xx866) is that of a "Sound" notice associated with this "Television" notice.
A	The preceding number (xx866) is that of an associated notice with reasons for association other than those given above.

IV. SUPPLEMENTARY NOTICES

1. General supplementary notices

General supplementary notices numbered as follows may be used:
(The numbers of the supplementary notices will be announced as and when adopted.)

The forms of notice and instructions for their use are described in the following annexes:
(The numbers of the annexes will be announced as and when adopted.)

2. Special supplementary notices

Special supplementary notices numbered as follows may be used:

- A 51 (Description of the radiation pattern of an antenna);
- ... (additions to be made in due course).

The forms of notice and instructions for their use are described in the following annexes:

- Annex I (Notice A 51);
- ... (additions to be made in due course).

Explanatory notes to Supplementary Notice A 51

Supplementary Notice A 51 permits the radiation pattern of an antenna to be described in a simplified manner using a limited number of characters, on the basis of sample measurements which provide a significantly more accurate representation than does the theoretical formula:

$$G(\theta) = (52 - 10 \log \frac{D}{\lambda} - 25 \log \theta) \text{ dB}$$

$$G_o \geq G \quad \theta \geq 0$$

I. Basic Conventions

1. The analysis of the pattern(s) is restricted to the horizontal plane, in which the axis of the radiation main lobe is situated under the conditions in which the analysis is performed.

Measurements are taken in that plane, in different directions which form angles denoted θ° with the direction of the radiation main lobe, of the following:

- firstly, attenuation for the polarization corresponding to the main polarization of the antenna;
- and also, if it is so desired, the attenuation for "orthogonal" or "cross"-polarization with respect to the polarization of the antenna (measured for horizontal linear polarization if the antenna has vertical linear polarization and vice versa; measured for CLOCKWISE circular polarization if the antenna has ANTICLOCKWISE circular polarization and vice versa).

II. Measurement of the pattern(s)

1. Respecting the conditions described in point I above, the attenuation ($G_o - G_p$) of an antenna operating in a given band is measured in different directions which form angles of θ° with the direction of the radiation main lobe.

- for three frequencies in the antenna's operating band (two extreme, one median);
- for the two half-planes on either side of the direction of maximum radiation.

This measurement is carried out for polarization corresponding to the polarization of the antenna, termed the main polarization and denoted G_p .

2. Still in the same plane, but for "orthogonal" or "cross"-polarization with respect to the polarization of the antenna under consideration, the attenuation ($G_o - G_c$) is measured for different angles of θ° as above.

III. *Plotting of Curves and Envelopes*

1. *Main polarization*

1.1. The following values are entered on a graph with logarithmic coordinates, where the abscissa represents on a logarithmic scale the angles between 1° and 180° formed by the direction of the radiation main lobe and the directions in which measurements are taken, and the ordinate axis represents on a linear scale gain or attenuation values expressed in dB:

firstly, the value of G_0 (gain isotropic gain corresponding to the gain in the direction of the radiation main lobe for the main polarization), to give a standard reference curve;

secondly, the values of $G_\theta - G_0$ for the angles measured;

1.2. An envelope curve of the different curves is then plotted.

1.3. A "smoothed-out" envelope consisting of four straight-line sections connecting points A, B, C, D and E (the abscissa of E = $\theta_1 = 180^\circ$; the abscissa of A = θ_N ; θ_N being an integer, 1 or greater; the selection of $\theta_N = 1$ is strongly recommended for antennas working with frequencies above 1,700 MHz) is produced and plotted on the graph.

1.4. *N.B.* The logarithmic representation does not lend itself well to analysis of the pattern when the angles involved are very small. For values of θ less than θ_N , representation of the pattern by the continuation of the segment BA to its intersection with the ordinate $G_\theta - G_0 = 0$ dB is therefore assumed. For yet smaller values of θ , $G_\theta = G_0$ will be assumed.

2. *"Orthogonal" or "cross"-polarization*

The same procedure as described in point III.1. above will be followed for the attenuation values determined for "orthogonal" or "cross"-polarization (G_\perp), noting the points F, G, H, I, J ($\theta_1 = 180^\circ$; $\theta_1 \geq 1^\circ$) where the segments of the "smoothed-out" envelope meet.

2.1. *N.B.* (1): It should not be forgotten that in the expression $G_\theta - G_\perp$, G_θ is always the maximum gain for the main polarization.

2.2. *N.B.* (2): As in point III.1. above, the selection of $\theta_1 = 1^\circ$ for frequencies of 1,700 MHz or above is recommended.

2.3. *N.B.* (3): In the "smoothed-out" descriptive diagram for "orthogonal" polarization the attenuation between θ_1 and $\theta = 0^\circ$ is assumed to be constant and equal to the attenuation for θ_1 .

IV. *Recording of data on Notice A51*

For each of the two polarizations, the patterns may be described by indicating the values of four angles, $\theta_N, \theta_B, \theta_C, \theta_D$ or $\theta_1, \theta_C, \theta_H, \theta_I$, i.e. $4 \times 3 = 12$ characters (θ_1 and $\theta_1 = 180^\circ$), together with 5 values for the gain in dB = $5 \times 2 = 10$ characters.

The value G_0 of the isotropic gain in the direction of radiation main lobe with the main polarization will be recorded in position A 51-71 to A 51-73.

The two diagrams which follow provide a graphic representation of the above.

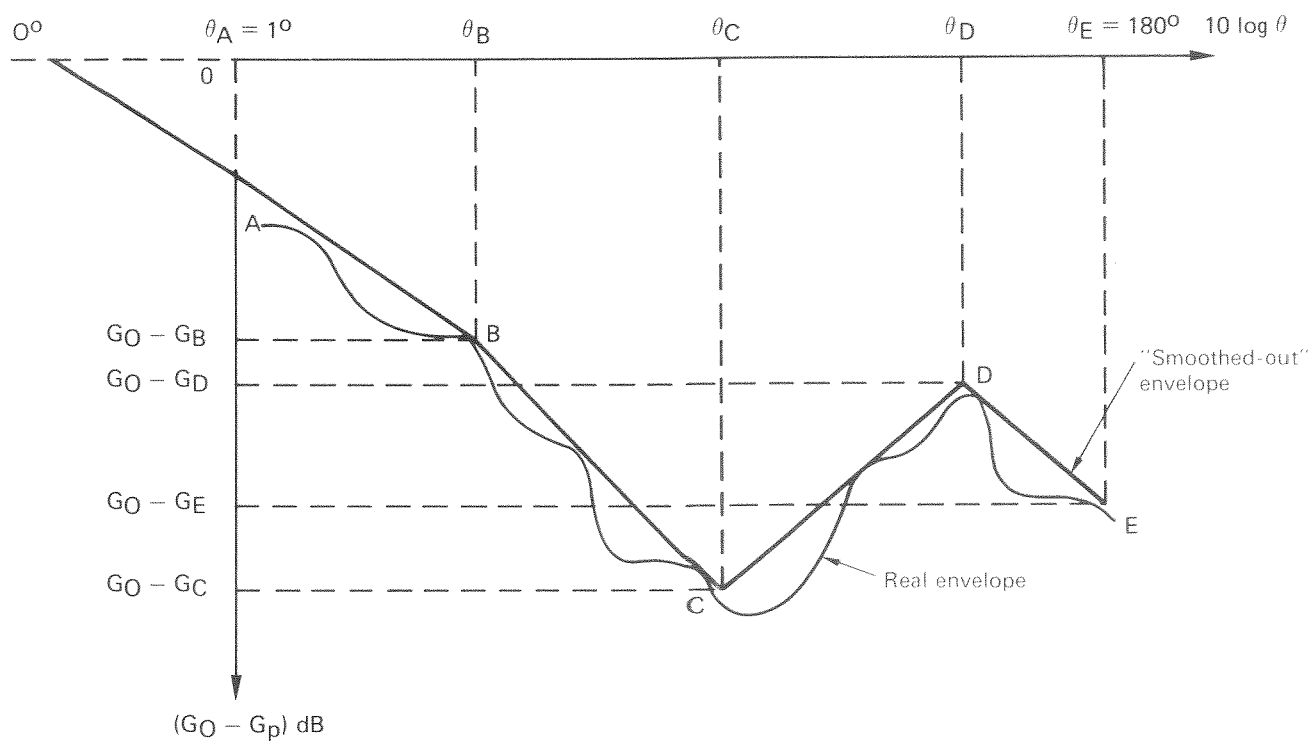


Figure 1 (T/R 75-01). Representation of a diagram for principal polarization $G_p(\theta)$.

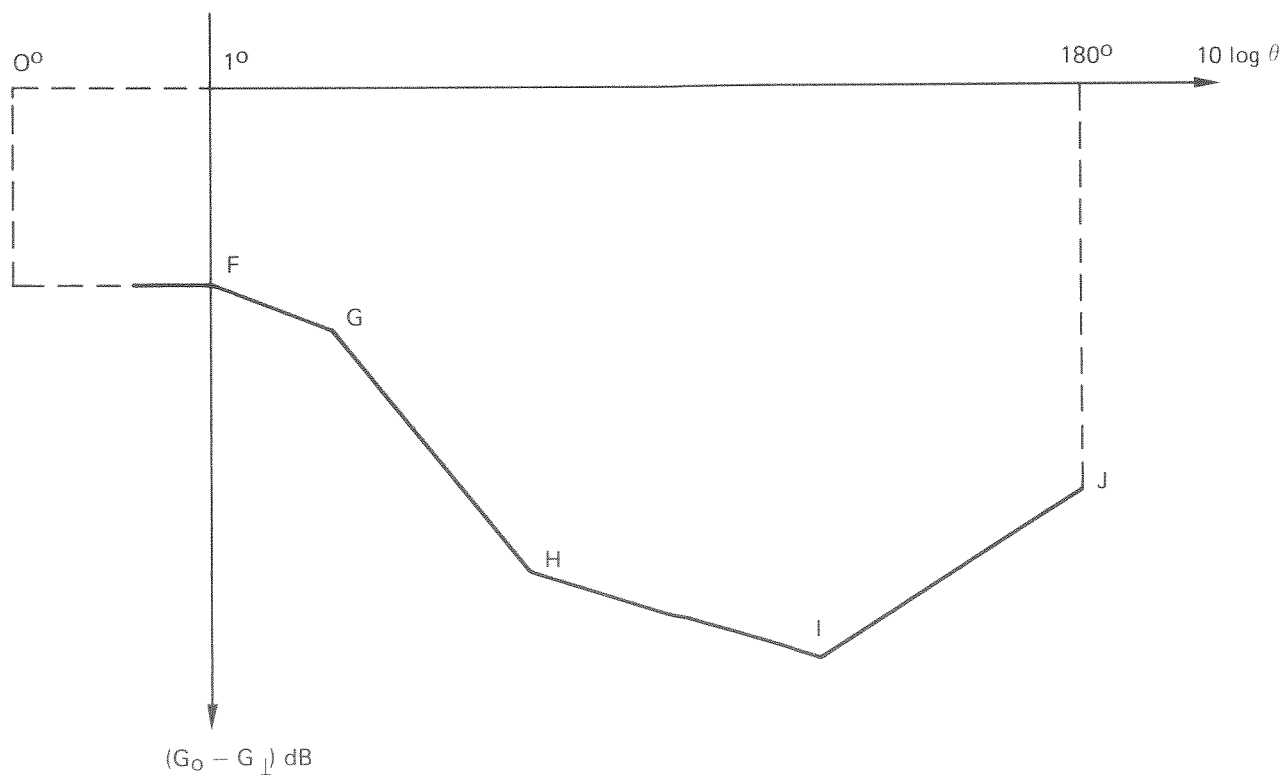


Figure 2 (T/R 75-01). Representation of a diagram for "orthogonal" polarization $G_\perp(\theta)$.

ANNEX I (SUPPLEMENTARY NOTICES)

Supplementary notice

A51

Description of the radiation diagram of an antenna

01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20
Card code		Country				Family No. of the principal notice to which this notice refers						Information No. on the principal notice: in theory xx534 xx734				Unallocated			

21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42
Gain for the principal polarization																					
$G_n - G_p$ for θ_A				$G_n - G_p$ for θ_B				$G_n - G_p$ for θ_C				$G_n - G_p$ for θ_D				$G_n - G_p$ for $\theta_E = 180^\circ$					
θ_A		dB		θ_B		dB		θ_C		dB		θ_D		dB		θ_E		dB		dB	

43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68
Unallocated				Gain for the "orthogonal" polarization																					
Unallocated				$G_n - G$ for θ_F				$G_n - G$ for θ_G				$G_n - G$ for θ_H				$G_n - G$ for θ_I				$G_n - G$ for $\theta_J = 180^\circ$					
Unallocated				θ_F		dB		θ_G		dB		θ_H		dB		θ_I		dB		θ_J		dB		dB	

69	70	71	72	73	74	75	76	77	78	79	80
Unallocated		G As per RR No. 154				Unallocated					