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Recommandation M.140

DESIGNATIONS OF INTERNATIONAL CIRCUITS, GROUPS, GROUP AND LINE LINKS, DIGITAL BLOCKS, DIGITAL PATHS, DATA

TRANSMISSION SYSTEMS AND RELATED INFORMATION

CONTENTS

Note — For the definition of the terms unidirectional, bidirectional, one way and two way (both way), refer to Recommendation E.600 [1] (definitions 3.3 and 3.4).

0 General

Designation of international routes are of great importance for identification and information.

Technical developments, especially those due to digital technology have brought a much greater variety of techniques and allow for a more efficient use of equipment.

Information on the equipment and techniques used is of great interest to staff working in the field of maintenance and operation. Present operational conditions can be more complicated than those previously, e.g. as a consequence of greater competition in the field of telecommunication. Another consideration is automated file handling which is often a necessity for Administrations and the standardization of designation is an important factor to facilitate this.

To cover the need for standardized designations which are easy to handle but which give precise information, the designation information is built up from two layers:

— layer 1 provides the unique identification: the *designation* ;

— layer 2 provides the necessary additional information which must be known at both terminations of the routes: the *related information* .

If Administrations need more route data to be stored, they are free to create independently or bilaterally a third layer for which no standardization is intended for the time being.

0.1 *Layer 1*

The term ‘‘ routes ´circuits, groups, blocks. etc.

The general format of layer 1 for the designation of all types of international routes is shown in Table 1/M.140.

H.T. [T1.140]

TABLE 1/M.140

Format of designation	Town A	/	Suffix	—	Town B	/	Suffix		Function code	Serial number
Signs	Characters	Slash	Letters/ digits	Hyphen	Characters	Slash	Letters/ digits	Space	Letters/ digits	Digits
Number of characters	12	1	3	1	12	1	3	1	6	4

Table 1/M.140 [T1.140], p.

The use of suffixes applies particularly to international public switched circuits. Their use is optional for international non-switched circuits, groups, group links, digital blocks and paths and data transmission systems. It provides more detailed information on the termination of the routes.

The first part of the designation, the traffic relation, presents the origin and destination of a route. The function code shows the type of route whilst the serial number counts the routes (i.e. circuits, groups, digital blocks, etc.) within the same traffic relation and same function code.

If a town name exceeds 12 characters, Administrations should apply a suitable abbreviation which should be unique.

If identical place names occur in different countries, and if confusion is likely to arise, the Administrations concerned should agree to identify the country in the designation by adding after the place name a three letter country code as defined in ISO 3166 [2]. This country code must be included within the 12 characters of the town name, if necessary by providing an abbreviation of the town name.

The serial number should be written without leading zeros.

0.2 *Layer 2*

The general format for layer 2 (related information) is as follows:

1 . | | | . | | |

2 . | | | . | | |

3 . | | | . | | | etc.

The numbers identifying the fields in layer 2 indicate the various items. Each item provides information on the route, e.g. *operational* | operating companies and control station, etc. or *technical* | analogue/digital, use of special equipment etc. The items provide flexibility in designation information because they can be extended in the future if there is a need.

0.3 *Layer 3*

Not subject to standardization at the present time.

0.4 *Implementation*

It is recommended that the new designation types be applied to newly installed routes starting on 1 January 1990 (or earlier with the agreement of the Administrations involved).

Existing route designations (circuits, groups, digital blocks, etc.) should be converted gradually. The conversion to the new type designation should be completed by 1 January 1994.

To facilitate the change, Administrations with control station responsibility should prepare proposals containing designations conforming to layer 1 and propose the items of related information to be included in layer 2.

Agreement should then follow on the designation as well as an exchange of the agreed layer 2 information.

Administrations will need to ensure that the layer 2 related information is kept up to date and that other concerned Administrations are informed of any changes.

1 Designations of international public switched circuits

1.1 *General*

The format of the designation of public switched circuits is shown in Table 2/M.140.

The elements of the format are as follows:

a) *Traffic relation*

Towns A and B (maximum 12 characters or space, see Note 1): refers to the names of the two towns in which the international exchanges of the circuit are located. The place names in all types of designations should always be written in Roman characters taking the official name of a town as used in the country to which it belongs (see § 0.1).

International exchange suffix (maximum 3 alpha-numeric characters): the international exchange is indicated by letters, digits or a combination. The suffix will refer to the whole exchange (to the building or to a part of it, see Note 2). It will be chosen by the Administration, see Note 3 and 4.

H.T. [T2.140]
TABLE 2/M.140

Format of designation Inter national exchange suffix } Inter national exchange suffix }	Town A —	/ Town B Function code	{ / Serial number	 {						
Signs	Characters	Slash	Letters/ digits	Hyphen	Characters	Slash	Letters/ digits	Space	Letters	Digits
Number of characters	12	1	3	1	12	1	3	1	1 or 2	4

Table 2/M.140 [T2.140], p.

b) *Function code* | (1 or 2 alphabetical characters)

The function code indicates the type of circuit.

c) *Serial number* | (maximum 4 numeric characters)

The serial numbering starts anew if there is a difference in:

— town A or town B;

— international exchange suffix;

— function code.

Note 1 — If the name of the town exceeds 12 characters the responsible Administration will supply an appropriate abbreviation, which should be unique.

Note 2 — In the example given in Figure 1/M.140 there may be only one suffix or three to be decided by the Administration.

Note 3 — The 3 alphanumeric characters make it possible to include carrier's name information in the suffix, e.g. Tokyo/SJK: the international exchange in Tokyo—Shinjuku where the K in the suffix reflects the responsible carrier KDD.

Note 4 — The different companies operating in the same town have to agree on the suffixes used, in order that they be different.

Figure 1/M.140, p.

1.2 *Telephone-type circuits*

1.2.1 *General*

Possible function codes are:

M manual telephone circuits

Z automatic and semi-automatic telephone circuits in one-way operation

B both-way telephone circuits

The serial number has a maximum of 4 numeric characters. Serial numbering starts anew if there is a difference in:

— town A or town B

— international exchange suffix

— function code.

1.2.2 *Telephone circuits used in manual operation*

The terminal points of the circuit are arranged in alphabetical order.

The function code is: M.

Example:

The first telephone circuit for manual operation between London Keybridge and Paris Bagnolet is designated:

London/KB—Paris/BAG M1.

1.2.3 *One-way telephone circuits used for semi-automatic or automatic operation*

The terminal points of the circuits are arranged in the order according to the direction of operation of the circuit.

The function code is: Z.

Serial numbering: Circuits operated in the direction corresponding to the alphabetical order of the terminations should have odd numbers. Circuits operated in the direction corresponding to an inverse alphabetical order of the terminations should have even numbers.

Examples:

The 11th circuit operated in the London Mollison to Montreal 1TE direction (alphabetical order of towns) is designated:

London/SM—Montreal/1TE Z21.

The 9th circuit operated in the Montreal 1TE to London Mollison direction (inverse alphabetical order of towns) is designated:

Montreal/1TE—London/SM Z18.

1.2.4 *Both-way telephone circuits used for semi-automatic or automatic operation*

The terminal points of the circuit are arranged in alphabetical order.

The function code is: B.

Example:

The first both-way circuit between London Kelvin and New York 24 is designated:

London/J—New York/24 B1.

1.3 *Circuit used for switched telex and telegraph services*

By bilateral agreement Administrations may wish to apply a serial number to telephone-type circuits on a town-to-town basis rather than on an exchange-to-exchange basis.
By bilateral agreement, Administrations may wish to apply continuous serial numbering on Z + B circuits.

See CCITT Recommendation R.70 [3].

1.4 *Circuits in the international public switched data network*

The terminations of the circuit are arranged in alphabetical order.

The function code is: XD.

Example:

The first international public switched data circuit between Oslo A and Stockolm H is designated:

Oslo/A—Stockholm/HYX XD1.

1.5 *Related information*

The additional information on public switched circuits is covered by the following items:

1. urgency for restoration;
2. terminal countries;
3. administrations’ or carriers’ names;
4. control and subcontrol station(s);
5. fault report points;
6. routing;
7. association;
8. equipment information;
9. use;
10. transmission medium information;
11. composition of transmission;
12. bandwith or bit rate;
13. signalling type.

The various items will be dealt with in § 2.

2 Related information for international public switched circuit

The following sections explain the items of related information concerned with international public switched circuits. A full example for the designation information of an international public switched telephone circuit is given in Annex A, § A.1.

2.1 *Urgency for restoration (item 1)*

This item supplies information on the urgency of restoration of the circuit based upon bilateral agreement between the terminal Administrations.

Format:

1. xxx . | | | xx; (maximum 10 characters)

Illustration :

a) if the priority is top: 1;

if the priority is second: 2;

if the priority is third: 3; or

b) if repair is required within e.g. 24 hours: 24 h; or

c) if no urgency has to be indicated: —;

2.2 *Terminal countries (item 2)*

This item presents the countries in which the circuit is terminating.

Format:

2. XXX, YYY; (3 characters for each)

Specification:

XXX: code for country of town A

YYY: code for country of town B

Note — The codes are according to ISO Standard 3166 [2].

Example:

For the circuit London/KB—Tokyo/SJK Z101:

2. GBR, JNP:

2.3 *Names of Administrations or carriers (item 3)*

This item records the names of the Administrations or carriers which operate the circuit.

Format:

3. YYYYYY, ZZZZZZ; (maximum 6 characters for each)

Specification:

YYYYYY code for company operating in town A

ZZZZZZ code for company operating in town B

Example:

For the circuit London/KB—Tokyo/SJK Z101 operated by BTI and KDD:

3. BTI, KDD;

2.4 *Control station [sub-control station(s)] (item 4)*

This item lists the appointed control station and sub-control stations (according to Recommendations M.80 and M.90). Further details about the stations can be found in the list of contact points (Recommendation M.93).

Format:

4. CS: designation of control station,

SCS1: designation of sub-control station,

SCS2: designation of sub-control station,

. . . .

. . . .

. . . .

SCSn: designation of sub-control station.

Specification:

CS: designation of the control station,

SCS1: designation of the terminal sub-control station,

SCS2 to SCSn: if applicable, other sub-control stations; have to be placed in the geographical order according to the traffic relation.

Example:

For the circuit New York/10—Stockholm/1 B1 where New York is the control station and sub-control stations are in London and Stockholm:

4. CS: New York,

SCS1: Stockholm,

SCS2: London;

2.5 *Fault report points (item 5)*

This item presents the names of both fault report points on the circuit. Further information about the fault report points can be found in the list of contact points (Recommendation M.93).

Format:

5. Designation of fault report point, designation of fault report point;

Specification:

The first report point is that of the country of town A.

The second fault report point is that of the country of town B.

Example:

For the circuit London/M—Reims/IP1 Z999 with fault report points in London M and Reims XRE:

5. London/M, Reims/XRE;

2.6 *Routing (item 6)*

This item shows the international primary group(s) or primary block(s) and channel number(s) which carry the circuit. If there are more than one, the groups or blocks appear in the geographical order from town A to town B.

Format:

6. Designation of an international primary group or primary block/channel number, designation of a primary group/channel number, . | | , designation of a primary group/channel number;

Note — Primary groups or blocks can be unidirectional as well. Two consecutive unidirectional groups or blocks are separated by a + sign instead of a comma.

Example:

For a circuit London/KB—Santiago/1 Z27:

6. London—Paris 1204/4, Paris—(MU) 1202/2+Santiago—(MU) 1203/3;

2.7 *Association (item 7)*

This item informs whether there are associated circuits and if so, of which nature.

Format:

7. Association code: designation of associated circuit;

Specification:

If the circuit *has* a reserve circuit the association code is: S followed by the function code and the serial number of the principal circuit.

If the circuit *is* a reserve circuit the association code is: Function code followed by S and the serial number of the reserve circuit.

Example:

7. ZS13: Roma/AS1—Zuerich/SEL T1;

Which indicates that the actual circuit Z13 is a reserve circuit for the circuit Roma/AS1—Zuerich/SEL T1.

2.8 *Equipement information (item 8)*

This item records any equipment in the circuit which requires special maintenance attention.

Format:

8. XX, XX, XX, XX, XX;

Specification:

If the circuit has been routed via analogue circuit multiplication equipment: AM

If the circuit has been routed via digital circuit multiplication equipment:

— using reduced bit rate encoding: RB

— using speech interpolation: SI

If the circuit has a compandor: CO

If the circuit has an echo suppressor: ES

If the circuit has an echo cancellor: EC

If the circuit has an echo suppressor in terminal country of town A and an echo cancellor in terminal country of town B: ES, EC (any combination of EC and ES is possible).

If the circuit is a bearer circuit: BC

If the circuit is a derived circuit: DC

Note 1 — If there is a need to record an additional special equipment, the places free for a code are available for this purpose. They can be used after bilateral agreement between the Administrations. The codes must be unique and shall have two characters.

Note 2 — A bearer circuit refers to the circuit type that continues to be provided in the case of a breakdown of the circuit multiplication equipment. For a derived circuit this is not the case.

2.9 *Use (item 9)*

This item supplies information on the usage of the circuit. It concerns the role of the circuit in the traffic (e.g. belonging to a final route) and the usage of the circuit made by the user.

Format:

9. XX, YYYY; (maximum 7 characters)

Specification:

XX refers to the type of traffic carried by the circuit:

— if it belongs to a final group of circuits: FN

— if it belongs to an overflow group of circuits: OF

— if it belongs to a transit group of circuits: TR

— if the information is not known: —

YYYY refers to the use of the circuit:

in the case where a public telephone circuit is used for phototelegraphy or facsimile: F

2.10 *Transmission medium information (item 10)*

This item identifies whether a satellite is involved in the routing of the circuit.

Format:

10. ST; or —;

Specification:

If the circuit has been routed via satellite: ST

If the circuit is not being routed via satellite: —

Example:

For the circuit Amsterdam/2H—New York/24 Z33 routed partly via satellite:

10. ST;

2.11 *Composition of the transmission (item 11)*

This item shows the type of transmission on the circuit.

Format:

11. A; or N; or C;

Specification:

If the transmission is analogue: A

If the transmission is digital: N

If the transmission is mixed analogue/digital: C

2.12 *Bandwidth or bit rate (item 12)*

This item shows the bandwidth (in the case of an analogue or mixed circuit) or the bit rate (in the case of a digital circuit).

Format:

12. xxxx.x Hz; or kHz; or MHz; bit/s; or kbit/s; or Mbit/s;

Rule for the notation of the figures:

Leading zeros may be omitted, and if the decimal is a zero, this decimal and the decimal point may also be omitted.

If the figure is up to 999, use Hz, bit/s.

If the figure is between 1000 and 9 | 99 | 99, use kHz, kbit/s.

If the figure is 10 | 00 | 00 or more, use MHz, Mbit/s.

Specification:

If the circuit is analogue or mixed analogue/digital: the bandwidth in Hz, kHz, MHz

If the circuit is digital: the bit rate in bit/s, kbit/s, Mbit/s.

2.13 *Signalling type (item 13)*

This item presents the signalling information that applies to the circuit.

Format:

13. xx . | | | xx; (maximum 20 characters).

Specification:

If the signalling is of the type xxxx Hz/xx Hz: xxxx/xx

If the CCITT Signalling System R2 is applied: R2

If the CCITT Signalling System R2-digital is applied: R2D

If the CCITT Signalling System No. 4 is applied: C4

If the CCITT Signalling System No. 5 is applied: C5

If the CCITT Signalling System No. 6 is applied: C6, xxx/yy

where xxx/yy refers to band and circuit number respectively

If the CCITT Signalling System No. 7 is applied: C7, xxxx, Y—YYY—Y, Z—ZZZ—Z where xxxx refers to the circuit identification code (CIC)

Y—YYY—Y refers to the international signalling point code (ISPC) for town A/international exchange

Z—ZZZ—Z refers to the ISPC for town B/international exchange.

Example:

For a circuit with C6-signalling type and being the 7th circuit in band number 32:

13. C6, 032/06; (circuit counting starts at 0).

3 Designations of international fixed (non-switched) circuits

3.1 *General*

The designations of leased circuits and public fixed circuits are treated in §§ 3.2 and 3.3 respectively. The format of the designation of fixed circuits are shown in Table 3/M.140.

H.T. [T3.140]
TABLE 3/M.140

Format of designation Transmission station | ua) suffix (optional) } Transmission station | ua) suffix (optional) }	Town A —	/ Town B Function code	{ / Serial number	 {						
Signs	Characters	Slash	Letters/ digits	Hyphen	Characters	Slash	Letters/ digits	Space	Letters/ digits	Digits
Number of characters	12	1	3	1	12	1	3	1	1 to 14	4

Table 3/M.140 [T3.140], p.

The elements of the format are as follows:

a) *Traffic relation*

Towns A and B, possibly with a transmission station suffix, identify the terminal points of the circuit. The identification of the terminal point is up to the Administration concerned. In the case where a town name exceeds the maximum length of 12 characters, the Administration should supply a suitable abbreviation which must be unique (see § 0.1).

The transmission station suffix (maximum 3 characters) is an optional field which may be used to further identify the terminal point, e.g., when there is more than one carrier operating in the town. The necessity for a suffix and its form should be decided by the Administration operating the circuit in the town concerned.

b) *Function code* (maximum 4 characters)

This code identifies the type of the circuit; see §§ 3.2 and 3.3.

c) *Serial number* (maximum 4 digits)

There should be a separate serial numbering series for each traffic relation and function code. In case of more than one carrier in the town, the serial numbering will be on a transmission station to transmission station basis.

The designations of the different categories of leased circuits are given below. In special cases in which CCITT Recommendations do not apply, agreement should be reached between the terminal Administrations.

3.2 *International leased circuits*

3.2.1 *General*

Leased circuits are fixed circuits for private services or particular purposes. They are distinguished by the letter P.

The designation format for leased circuits is as stated in § 3.1. Possible function codes are:

P for analogue leased circuits used wholly for telephony

TP for analogue leased circuits used for voice-frequency telegraphy

TDP for analogue leased circuits used for TDM-telegraphy

DP for analogue leased circuits used wholly for data transmission

FP for analogue leased circuits used wholly for phototelegraphy or facsimile

RP for analogue leased unidirectional sound-programme circuits

RRP for analogue leased reversible sound-programme circuits

VP for analogue leased unidirectional television-programme circuits

VVP for analogue leased reversible television-programme circuits

XP for analogue leased circuits used for multiple type transmissions

NP for digital leased circuits.

Note — In case of leased circuits connecting three or more locations the letter M should follow these function codes.

3.2.2 *Analogue leased circuits used for telephony*

The terminal points of the circuits are arranged in alphabetical order.

The function code is: P.

Example:

The lst analogue leased circuit used for telephony between Paris and Wellington (New Zealand) is designated:

Paris—WellingtoNZL P1.

3.2.3 *Analogue leased circuits used for telegraphy*

3.2.3.1 *Voice-frequency telegraphy*

The terminal points of the circuits are arranged in alphabetical order.

The function code is: TP.

Example:

The lst analogue leased circuit used for voice-frequency telegraphy between Bern 1RS and New York 1RC is designated:

Bern/1RS—New York/1RC TP1.

3.2.3.2 *TDM-telegraphy*

The terminal points of the circuits are arranged in alphabetical order.

The function code is: TDP.

Example:

The 3rd analogue leased circuit used for TDM-telegraphy between London and Montreal is designated:

London—Montreal TDP3.

3.2.4 *Leased telegraph circuits*

See Recommendation R.70 [3].

3.2.5 *Analogue leased circuits used for data transmission*

The terminal points of the circuits are arranged in alphabetical order.

The function code is: DP.

Example:

The 3rd analogue leased circuits used for data transmission between London and Paris is designated:

London—Paris DP3.

3.2.6 *Analogue leased circuits used for phototelegraphy or facsimile*

The terminal point of the circuits are arranged in alphabetical order.

If these circuits are different from P-circuits the function code is: FP.

Example:

The 2nd analogue leased circuits used for phototelegraphy between London and Paris is designated:

London—Paris FP2.

If normal P-circuits are used, then these circuits are designated accordingly.

3.2.7 *Analogue leased circuits used for sound-programme transmission*

3.2.7.1 *Analogue leased unidirectional sound-programme circuit*

The terminal points of the circuits are arranged in the order corresponding to the direction of transmission (instead of alphabetically, if this is different).

The function code for these circuits is: RP.

Serial numbering: Circuits which transmit in the direction corresponding to the alphabetical order of the terminals should have odd serial numbers, circuits in the other direction even numbers.

Examples:

The first leased sound-programme circuit transmitting in the direction Montreal to Wellington (New Zealand) will be designated:

Montreal—WellingtoNZL RP1.

The first leased sound-programme circuit transmitting in the direction Wellington (New Zealand) to Montreal will be designated:

WellingtoNZL—Montreal RP2.

3.2.7.2 *Analogue leased reversible sound-programme circuits*

The terminal points of the circuits are arranged in alphabetical order.

The function code is: RRP.

Example:

The first leased circuit with reversible sound-programme transmission between Montreal and Wellington (New Zealand) is designated:

Montreal—WellingtoNZL RRP1.

3.2.8 *Analogue leased circuits used for television transmission*

3.2.8.1 *Analogue leased unidirectional television-programme circuits*

The terminal points of the circuit are arranged in the order corresponding to the direction of transmission (instead of alphabetically if this is different).

The function code is: VP.

Serial numbering, circuits which transmit in the direction corresponding to the alphabetical order of the terminals should have odd serial numbers, circuits in the other direction even numbers.

Example:

The first leased television programme circuit transmitting in the direction Wellington (New Zealand) to Montreal will be designated:

WellingtoNZL—Montreal VP2.

3.2.8.2 *Analogue leased reversible television-programme circuits*

The terminal points of the circuits are arranged in alphabetical order.

The function code is: VVP.

Example:

The first circuit with reversible television transmission between Montreal and Wellington (New Zealand) is designated:

Montreal—WellingtoNZL VVP1.

3.2.9 *Leased circuits used for digital video transmission*

These circuits are designated as digital leased circuits (irrespective of the use), see §§ 3.2.15 and 3.2.16.

3.2.10 *Analogue leased circuits connecting circuit multiplication terminal equipments as renters' premises*

These circuits are designated as normal leased circuits. The information indicating that these circuits connect circuit multiplication terminal equipment can be recorded under item 9 (use) of related information (see § 4.9).

Circuits routed via circuit multiplication equipment are also designated as normal circuits. The multiplication equipment appears under item 8 (equipment information) of related information (see § 4.8).

3.2.11 *Analogue leased circuits used for transmission other than those designated in the paragraphs above, or used for combinations of transmissions*

In this category are circuits used for different transmissions at different times, or circuits in which the bandwidth is divided into two or more bands, thus providing two or more derived circuits which may be used for different transmissions.

The terminal points of the circuits are arranged in alphabetical order.

The function code is: XP.

Example:

Bruxelles—Paris XP8.

3.2.12 *Analogue leased circuits connecting three or more locations*

Various types and configurations of multiterminal circuits fall into this category. Each section of the circuit should have a unique designation. A section is any part of the circuit which connects a branching point to either a customer terminal or another branching point.

International sections should use the designation described below.

The terminal town points of each section are arranged in alphabetical order.

The function code is formed by adding the letter M to the function codes recommended in §§ 3.2.2 to 3.2.11. This leads, in principle, to the function codes PM, TPM, TDPM, DPM, FPM, RPM, RRPM, VPM, VVPM and XPM.

The association between sections should be recorded in the related information of each section under item 7 (association) (see § 4.7).

Wholly national sections with national designations may be included if bilaterally agreed.

Example:

Let there be an international multiterminal leased circuit connecting Bruxelles and Paris (7th PM circuit between Bruxelles and Paris) with branches from Bruxelles to Edinburgh (1st PM circuit on this relation) and from Bruxelles to Aachen (4th PM-circuit) and with an extension from Paris to Marseille.

The international sections are designated:

Bruxelles—Edinburgh PM1

Aachen—Bruxelles PM4

Bruxelles—Paris PM7.

3.2.13 *Leased analogue groups, supergroups, etc.*

These groups, supergroups, etc. will receive a circuit type designation. The additional information on the constitution of these leased groups, supergroups, etc. is to be recorded in related information under item 12 (bandwidth or bit rate, see § 4.12) and under item 6 (routing, see § 4.6).

The function codes are according to the relevant codes for circuits.

Example:

A supergroup between renters' premises in London and Paris for data transmission which is the 15th lease circuit for data transmission on this relation, is designated:

London—Paris DP15.

3.2.14 *Leased analogue group, supergroup links*

These group and supergroup links will receive a circuit type designation. The additional information on the constitution of these leased group, supergroup links, etc. is to be recorded in related information under item 12 (bandwidth or bit rate, see § 4.12) and under item 6 (routing, see § 4.6).

Example:

A group link provided between renters' premises in London and Montreal devoted to data transmission which is the 10th leased circuit for data transmission on this relation, is designated:

London—Montreal DP10.

3.2.15 *Digital leased circuits connecting two locations*

Destinations given below also apply for leased digital blocks and paths.

Note 1 — For digital leased circuits, the use of the circuit will no longer be taken into account for the designation: the use may change without notification to the Administration or may be unknown.

The additional information concerning the bit rate is to be found in related information under item 12 (bandwidth or bit rate, see § 4.12).

The terminations of the circuit are placed in alphabetical order.

The function code is: NP.

Example:

The 5th digital leased circuit between Birmingham and Toulouse is designated:

Birmingham—Toulouse NP5.

Note 2 — It may happen that a digital leased circuit has been routed via one or more international exchanges; in this case, they are designated as normal digital leased circuits. However, in such cases, an international exchange suffix may replace the transmission station suffix. The information concerning the permanent switched mode is recorded in related information under item 8 (equipment information, see § 4.8).

Example:

The 12th digital leased circuit between users' premises in Athens and Reims which is connected to transmission station TS2 in Athens and permanently switched in the international exchange IP2 in Reims is designated:

Athinai/TS2—Reims/IP2 NP12.

(Recording of suffixes is not mandatory.)

3.2.16 *Digital leased circuits connecting three or more locations*

Various types and configurations of multiterminals circuits fall into this category. Each section of the circuit should have a unique designation. A section is any part of the circuit which connects a branching point to either a customer terminal or another branching point. (See also Recommendation M.1055 [4]).

International sections should use the designation described below.

The terminal points of each section are arranged in alphabetical order.

The function code is formed by adding the letter M to the function code recommended in § 3.2.15, i.e., the function code is: NPM.

The association between sections should be recorded in the related information of each section under item 7 (association, see § 4.7).

Wholly national sections with national designations may be included if bilaterally agreed.

Example:

In an international digital multiterminal leased circuit connecting Oslo, London, Paris, Rome and Amsterdam, the international section between Oslo and London (being the lst NPM circuit on this relation) is designated:

London—Oslo NPM1.

3.3 *Fixed (non-switched) public circuits*

3.3.1 *General*

The designation format is according to § 3.1. Possible function codes are:

R for a unidirectional sound-programme circuit

RR for a reversible sound-programme circuit

RK for telephone type circuits for narrow band sound-programme transmission

V for a unidirectional television circuit

VV for a reversible television circuit

F for a phototelegraphy or facsimile circuit

T for circuits providing voice-frequency telegraph links

TD for circuits providing TDM-telegraph systems

D for data transmission circuits

DL for circuits providing transfer link for common channel signalling systems.

Note — Information on whether a sound-programme circuit together with a second sound-programme circuit form a stereophonic pair will be recorded in the related information under the item No. 7 (association, see § 4.7).

3.3.2 *Circuits used for sound-programme transmission*

3.3.2.1 *Circuits used for unidirectional sound-programme transmission*

The terminations of the circuit are arranged in the order corresponding to the direction of transmission (instead of alphabetically, if this is different).

The function code is: R.

Serial numbering: Circuits which transmit in the direction corresponding to the alphabetical order of the terminals should have odd serial numbers. Circuits which transmit in the direction corresponding to the inverse alphabetical order of the terminals should have even serial numbers.

Example:

The 1st circuit transmitting in the direction Wellington (New Zealand) to Montreal is designated:

WellingtoNZL—Montreal R2.

3.3.2.2 *Circuits used for reversible sound-programme transmission*

The terminations of the circuit are arranged in alphabetical order.

The function code is: RR.

Example:

The 1st circuit with reversible sound-programme transmission between Montreal and Wellington (New Zealand) is designated:

Montreal—WellingtoNZL RR1.

3.3.2.3 *Telephone-type circuits used for narrow-band sound-programme transmission*

In the traffic relation, the terminals of the circuit are arranged in the order corresponding to the direction of operation (instead of alphabetically, if this is different).

The function code is: RK.

Serial numbering: Circuits which transmit in the direction corresponding to the alphabetical order of the terminals should have odd serial numbers. Circuits which transmit in the direction corresponding to the inverse alphabetical order of the terminals should have even serial numbers.

Example:

The 1st telephone-type circuit set up for the narrow-band sound-programme transmission in the direction from Milano to Madrid is designated.

Milano—Madrid RK2.

3.3 *Circuits used for television transmission*

3.3.3.1 *Circuits used for unidirectional television transmission*

In the traffic relation, the terminations of the circuit are arranged in the order corresponding to the direction of transmission (instead of alphabetically, if this is different).

The function code is: V.

Serial numbering: Circuits which transmit in the direction corresponding to the alphabetical order of the terminals should have odd serial numbers. Circuits which transmit in the direction corresponding to the inverse alphabetical order of the terminals should have even serial numbers.

Example:

The 1st unidirectional television circuit transmitting in the direction Paris to Helsinki is designated:

Paris—Helsinki V2.

3.3.3.2 *Circuits used for reversible television transmission*

The terminations of the circuit are arranged in alphabetical order.

The function code is: VV.

Example:

The 1st reversible television transmission circuit between Tokyo TS1 and New Delhi is designated:

New Delhi—Tokyo/TS1 VV1.

3.3.4 *Circuits for digital audio and video transmission*

These circuits are designated according to the data transmission system, see § 11.

3.3.5 *Telephone-type circuits used for phototelegraphy or facsimile*

Circuits used for phototelegraphy or facsimile which are different from normal telephone circuits will have the function code: F.

The terminal points of the circuit are arranged in alphabetical order.

If normal telephone circuits are used, they are designated accordingly. Information about the usage may be recorded in the related information under item 9 (use, see § 4.9).

Example:

The first circuit for phototelegraphy between Koebenhavn and Tokyo:

Koebenhavn—Tokyo F1.

3.3.6 *Telephone-type circuits used to provide voice-frequency telegraph links*

The terminal points of the circuit are arranged in alphabetical order.

The function code is: T.

Example:

The 1st circuit to provide a voice-frequency telegraph link between Koebenhavn 1 and Montreal 1TE is designated:

Koebenhavn/1—Montreal/1TE T1.

(Suffixes are optional)

A reserve T-circuit is designated according to its present function. Information concerning the nature of the reserve T-circuit is found in the related information under item 7 (association, see § 4.7).

3.3.7 *Telephone-type circuits used to provide TDM (time division multiplex) telegraph systems*

The terminal points of the circuit are arranged in alphabetical order.

The function code is: TD.

Example:

The first circuit to provide a TDM-telegraph system between London Keybridge and Montreal 1TE:

London/KB—Montreal/1TE TD1.

(Suffixes are optional)

A reserve TD-circuit is designated according to its present function. Information concerning the nature of the reserve TD-circuit is found in the related information under item 7 (association, see § 4.7).

3.3.8 *Telephone-type circuits used for data transmission*

The terminal points of the circuit are arranged in alphabetical order.

The function code is: D.

Example:

The 1st circuit used for data transmission between Frankfurt 1 and Toronto 1TE is designaged:

Frankfurt/1—Toronto/1TE D1.

(Suffixes are optional)

3.3.9 *Telephone-type circuits used as transfer links for common channel Signalling Systems No. 6 and No. 7*

The terminal points of the circuit are arranged in alphabetical order.

The function code is: DL.

Example:

The first data link used for common channel signalling between Sacramento 4ESS and Tokyo Shinjuku is designated:

Sacramento/4ES—Tokyo/SJK DL1

(Suffixes are optional.)

3.4 *Related information*

The additional information on fixed circuits is covered by the following items:

1. urgency for restoration;
2. terminal countries;

3. administrations’carriers, or broadcasting companies’s names;

4. control and sub-control station(s);

5. fault report points;

6. routing;

7. association;

8. equipment information;

9. use;

10. transmission medium information;

11. composition of transmission;

12. bandwidth or bit rate;

13. signalling type;

14. applicable CCITT Recommendations;

The various items will be dealt with in § 4.

4 Related information for international fixed circuits

The following sections explain the items of related information concerned with international fixed circuits. A full example for the designation information of an international leased analogue circuit is given in Annex A, § A.2.

4.1 *Urgency for restoration (item 1)*

This item supplies information on the urgency of restoration of the circuit based upon bilateral agreement between the terminal Administrations.

Format:

1. xxx | | | xx; (maximum 10 characters)

Illustration:

a) if the priority is top: 1;

if the priority is second: 2;

if the priority is third: 3; or

b) if repair is required within e.g., 24 hours: | 4 h; or

c) if no urgency has to be indicated: —;

Note — In the case of a digital leased circuit, the priority or urgency may be decided upon by taking into account the bit rate of the circuit.

4.2 *Terminal countries (item 2)*

This item presents the countries in which the circuit is terminating.

Format:

2. XXX, YYY; (3 characters for each)

Specification:

XXX: code for country of town A

YYY: code for country of town B

Note — The codes are according to the ISO Standard 3166 [2].

Example:

For the circuit Paris—WellingtoNZL P1:

2. FRA, NZL;

4.3 *Names of Administrations, carriers or broadcasting companies (item 3)*

This item records the names of the Administrations or carriers which operate the circuit or, in the case of sound-programme and television circuits, the name of the broadcasting company.

Format:

3. YYYYYY, ZZZZZZ; (maximum 6 characters for each)

Specification:

YYYYYY: code for company operating in town A

XXXXXX: code for company operating in town B

Example:

For the circuit Bern/1RS—NewYork/1RC TP1 operated by Radio Suisse and RCA:

3. RS, RCA;

4.4 *Control station [sub-control station(s)] (item 4)*

This item lists the appointed control station and sub-control stations (according to Recommendations M.80 and M.90 or M.1012 [5] and M.1013 [6] for leased circuits). Further details about the stations can be found in the list of contact points (Recommendation M.93).

Example:

4. CS: designation of control station,

SCS1: designation of sub-control station,

SCS2: designation of sub-control station,

. . . .

. . . .

. . . .

SCSn: designation of sub-control station.

Specification:

CS: designation of the control station,

SCS1: designation of the terminal sub-control station,

SCS2 to SCSn: if applicable: other sub-control station; have to be placed in the geographical order according to the traffic relation.

Example:

For the circuit London/KB—Paris/ARC RP1 where Paris Archives is the control station and London Keybridge is the sub-control station:

4. CS: Paris/ARC,

SCS1: London/KB.

4.5 *Fault report points (item 5)*

This item presents the names of both fault report points on the circuit. Further information about the fault report points can be found in the list of contact points (Recommendation M.93).

Format:

5. Designation of fault report point, designation of fault report point.

Specification:

The first fault report point is that of the country of town A.

The second fault report point is that of the country of town B.

Example:

The fault report points for the circuit Athinai—Roma DP3:

5. Athinai, Roma/TS1.

4.6 *Routing (item 6)*

This item shows the international primary group(s) or primary block(s) and the channel number(s) which carry the circuit (see Notes 1 and 2). If there are more than one, the groups or blocks appear in the geographical order from town A to town B.

Format:

6. Designation of an international primary group (Note 1) or primary block/channel number, designation of a primary group of block/channel number, | | |, designation of a primary group or block/channel number;

Example 1:

For the circuit from London Mollison to Paris Archives DP7:

6. London—Paris 1204/4;

Example 2:

For the wide-band circuit Frankfurt—London DP5:

6. Amsterdam—Frankfurt 6005/2, Amsterdam—London 6002/3;

Note 1 — In the case where a leased circuit consists of a group or block, the primary groups or blocks are to be replaced by the next higher groups or blocks. In this case the channel numbers are to be replaced by the group numbers.

Note 2 — Primary groups or blocks can be unidirectional as well. Two consecutive unidirectional groups or blocks are separated by a + sign instead of a comma.

4.7 *Association (item 7)*

This item informs whether there are associated circuits and if so, of what nature.

Format:

7. Association code: Designation(s) of associated circuit(s);

Specification:

If the circuit *has* a reserve circuit, the association code is: S followed by the function code and the serial number of the principal circuit.

If the circuit *is* a reserve circuit, the association code is: function code followed by S and the serial number of the reserve circuit.

If the circuit is one of a stereophonic pair, the other circuit will appear in this item. Association code is: H followed by a 2 digit serial number indicating the number of the stereophonic pair. This is followed by the function code and the serial number of actual circuit.

If the circuit belongs to a multiterminal leased circuit, the association code is: PM, DPM, etc. (see §§ 3.2.12 and 3.2.16) followed by the serial number of the circuit.

Example 1:

7. ST1: Roma/AS1—Zuerich/SEL Z13;

which indicates that the reserve circuit for the principal circuit T1 is Roma/AS1—Zuerich/SEL Z13.

Example 2:

If the circuit London/KB—Paris/ARC R1 is bearing one channel of the second stereophonic pair from London to Paris, and London/KB—Paris/ARC R5 bearing the other channel of this pair:

7. H02R1: London/KB—Paris/ARC R5;

which indicates that circuit R1, being one of the stereophonic pair number 2, has as the other circuit of this pair: London/KB—Paris/ARC R5.

Example 3:

If the circuit Bruxelles-Edinburgh PM1 is a part of an international multiterminal telephone circuit connecting Bruxelles and Paris (being the 7th PM-circuit on that relation) with branches from Bruxelles to Edinburgh and to Aachen (being the 2nd PM-circuit on that relation) and with an extension from Paris to Marseille, then for the circuit Bruxelles—Edinburgh PM1:

7. PM1: Aachen—Bruxelles PM2, Bruxelles—Paris PM7;

Note — The international branches may appear in any order. National branches may be added after bilateral agreement.

4.8 *Equipment information (item 8)*

This item records any equipment in the circuit which requires special maintenance attention.

Format:

8. XX, XX, XX, XX, XX;

Specification:

If the circuit has been routed via digital circuit multiplication equipment: AM

If the circuit has been routed via digital circuit multiplication equipment

— using reduced bit rate encoding: RB

— using speech interpolation: SI

If the circuit has a compandor: CO

If the circuit consists of a semi-permanent switched connection: SP

Note — If there is a need to record an additional special equipment, the free code places are available for that purpose. The codes to be used must consist of two characters, be unique and can be chosen by bilateral agreement between Administrations.

4.9 *Use (item 9)*

This item identifies for what purpose the circuit is used (if this is known by the Administration and of use for maintenance).

Format:

9. XXX | | | X; (maximum 7 characters)

Specification:

XX | | | X allows the record of the usage of the circuit.

If the circuit has been provided with circuit multiplication equipment at renters' premises with connection channels: CC.

4.10 *Transmission medium information (item 10)*

This item identifies whether a particular transmission medium is required in the routing of the circuit.

Format:

10. ST: XX | | | | X; or 10. NS: XX | | | | X; or 10. —; (XX | | | | X maximum 10 characters)

Specification:

If the circuit has to be routed via satellite: ST followed by the designation of the satellite.

If the circuit must not be routed via satellite: NS followed by the designation of the terrestrial transmission medium.

If there is no transmission medium requirement: —.

Example:

For the circuit London—Paris DP3 that has to be routed via satellite Telecom 1:

10. ST: Tel 1.

4.11 *Composition of the transmission (item 11)*

This item shows type of transmission on the circuit.

Format:

11. A; N; or C;

Specification:

If the transmission is analogue: A

If the transmission is digital: N

If the transmission is mixed analogue/digital: C

4.12 *Bandwidth or bit rate (item 12)*

This item shows the bandwidth (in the case of an analogue circuit or mixed circuit) or the bit rate (in the case of a digital circuit).

Format:

12. xxxx.x Hz; or kHz; or MHz; bit/s; or kbit/s; or Mbit/s;

Rules for the notation of the figures:

Leading zeros may be omitted, and if the decimal is a zero, this decimal and the decimal point may also be omitted.

If the figure is up to 999, use Hz, bit/s.

If the figure is between 1000 and 9 | 99 | 99, use kHz, kbit/s.

If the figure is 10 | 00 | 00 or more, use MHz, Mbit/s.

Specification:

If the circuit is analogue or mixed analogue/digital: the bandwidth Hz, kHz, MHz.

If the circuit is digital: the bit rate in bit/s, kbit/s, Mbit/s.

Example:

For the circuit Bordeaux—Darmstadt NP7 with a bit rate of 64 kbit/s:

12. 64 kbit/s.

4.13 *Signalling type (item 13)*

This item presents the signalling type that applies to the circuit (reference is made to Recommendations M.1045 [7] and Q.8 [8]).

Format:

13. xxxxxxx; (maximum 7 characters)

Specification:

If the signalling is of the type xxxx Hz/xx Hz: xxxx/xx. Otherwise the characters can be used on the basis of bilateral agreement between the two terminal Administrations.

Example:

For a circuit with in-band signalling 1000 Hz/20 Hz:

13. 1000/20.

4.14 *Application CCITT Recommendations (item 14)*

This item records the CCITT Recommendation(s) applied as regards the parameters of the circuit.

Format:

14. Rec. X.xxxx, Rec. Y.yyyy; or 14. Rec. X.xxxx; or 14. —;

Specification:

The number of Recommendations to be recorded (2, 1 or 0) is dependent on the need.

Example:

14. Recommendation M.1020;

5 Designations of international groups, supergroups etc. (bidirectional and unidirectional)

5.1 *General*

The format of the designation of groups etc. is shown in Table 4/M.140.

H.T. [T4.140]

TABLE 4/M.140

Format of designation Transmission station suffix (optional) } Transmission station suffix (optional) }	Town A —	/ Town B Function code	{ / Serial number	 {						
Signs	Characters	Slash	Letters/ digits	Hyphen	Characters	Slash	Letters/ digits	Space	Letters/ digits	Digits
Number of characters	12	1	3	1	12	1	3	1	1 to 6	2 to 3

Table 4/M.140 [T4.140], p.

The elements of the format are as follows:

a) *Traffic relation*

Groups etc. are indicated by the names of the towns where the groups, etc. terminate. For the spelling, see § 1.1. The town names are arranged in alphabetical order. For multiple destination unidirectional groups the name of town B is replaced by (MU) (see § 5.3.1). In the case that a town name exceeds the maximum length of 12 characters, the responsible Administration should supply a suitable abbreviation that must be unique (see § 0.1).

The transmission station suffix (maximum 3 characters) is an optional field which may be used to further identify the terminal point when there is more than one carrier operating in the town. The necessity for a suffix and its form should be decided by the Administration operating the circuit in the town concerned.

b) *Function code*

This code consists of the nominal number of channels in the group (see Note). In the case of a unidirectional single destination group, the number is preceded by (U) (see § 5.3.2).

Note — Where group, supergroup, etc., links are directly interfaced by analogue to digital conversion equipment, the number of channels is followed by the letter ‘‘C’’ (see § 10).

c) *Serial numbering*

The numbering is on a town-to-town basis with an exception for the case where the suffix is used. The numbering for that case is made on a transmission station to transmission station basis.

The numbering of a group, supergroup, etc., is applied between the point where the group, etc. is assembled to the point where it is broken down, independently of the position it occupies in the band of line frequencies.

If the number is less than 10, it is preceded by a zero.

5.2 *Bidirectional groups, etc.*

For the definition, see Recommendation M.300.

5.2.1 *Group*

The function code is a number that indicates the nominal number of channels in the group, as follows:

8 for 8 channel groups,

12 for 12 channel groups,

16 for 16 channel groups.

Example:

The third 12-channel group between Moskva and New York is designated:

Moskva—New York 1203.

5.2.2 *Supergroup*

The function code is a number that indicates the nominal number of channels in the supergroup, as follows:

60 for 60 channel supergroups.

80 for 80 channel supergroups.

Example:

The first 60 channel supergroup between London and Amsterdam is designated:

Amsterdam—London 6001.

5.2.3 *Mastergroup*

The function code is: 300.

Example:

The first mastergroup between Bruxelles and London is designated:

Bruxelles—London 30001.

5.2.4 *Supermastergroup*

The function code is: 900.

Example:

The tenth supergroup between Amsterdam and Paris is designated:

Amsterdam—Paris 90010.

5.2.5 *Use of the groups, etc.*

This information will be contained in related information under item 9 (use, see § 7.9). If groups are used for private purposes, see § 3.2.13.

5.2.6 *Restoration groups and supergroups*

Groups and supergroups set up on restoration groups and supergroups, or on spare groups and supergroups for restoration purposes, will receive a serial number from the 800 series, in descending order and starting from 899.

Restoration groups: 8899, 8898, 8897, etc.,

12899, 12898, 12897, etc., or

16899, 16898, 16897, etc.,

as appropriate.

Restoration supergroups: 60899, 60898, 60897, etc.

Example 1:

The second 12-channel restoration group between London and Sydney is designated:

London—Sydney 12898.

Example 2:

The first restoration supergroup between Amsterdam and Bruxelles is designated:

Amsterdam—Bruxelles 60899.

5.3 *Unidirectional groups and supergroups*

5.3.1 *Multiple destination unidirectional groups and supergroups*

The unidirectional route will be designated by the name of the sending terminal station (in the general format: town A) followed by a hyphen, whilst the letters MU (multiple destination unidirectional) in parentheses replace town B. This will be followed by the function code and serial number of the group or supergroup.

Example 1:

The first multiple destination unidirectional supergroup from London (to, for example Bogota, Lusaka and Montreal) is designated:

London—(MU) 6001.

The next such supergroup from the same point of origin to any destination would take the next number in the series, e.g., the second supergroup from London is designated:

London—(MU) 6002.

This supergroup might go, for example, to Tokyo, Hawaii and Melbourne.

Example 2:

The first supergroup from Montreal (to, for example, London, Lusaka and Paris) is designed:

Montreal—(MU) 6001.

Note — Groups and supergroups routed via a multiple-access system may be provided for exclusive use between two terminal stations only, in which case the normal designations given above in this Recommendation will apply.

5.3.2 *Single destination unidirectional groups and supergroups*

The unidirectional route will be designated by the name of the sending terminal station (in the general format: town A) followed by a hyphen and the name of the receiving terminal station (town B). The function code consists of the letter U (unidirectional) in parentheses and the nominal number of channels of the group or supergroup.

Example:

A unidirectional group transmitting in the direction from Paris to Etam, which, in the reverse direction of transmission is assigned to a multiple destination unidirectional (MU) group from Etam to Paris and Rio de Janeiro, would be designated as:

Paris—Etam (U) 1201.

The next group between these locations, Paris and Etam, if bidirectional, would be designated in the normal manner as:

Etam—Paris 1202.

Note — Groups and supergroups routed via a multiple-access system may be provided on a bidirectional basis for exclusive use between two terminal stations only, and in this case the normal designations given above in this Recommendation will apply.

5.4 *Related information*

The additional information on groups etc., is covered by the following items:

1. urgency for restoration;
2. terminal countries;
3. administrations', carriers' or broadcasting companies' names;
4. control and sub-control station(s);
5. fault report points;
6. routing;
7. association;
8. equipment information;
9. use;
10. transmission medium information;
11. (empty item, use: ''—;'');
12. bandwidth;
13. occupancy.

The various items will be dealt with in § 7.

6 Designations of international group links, supergroup links and line links

6.1 *Group and supergroup links*

Group links and supergroup links are designated according to the general format for groups (see § 5.1). In practice, it may be that terminal equipment is not connected to a group link or supergroup link. Nevertheless, for designation purposes, the link will be numbered as though terminal equipment were connected.

6.1.1 *Conventional links not connected to their terminal equipment*

Such links are included in the normal numbering sequence of groups and supergroups and are not given a separate numbering sequence.

When a group link or supergroup link is used only part time with terminal translating equipment (to provide a conventional group or supergroup) it will be designated in the normal way. The part time condition of the group link has to be indicated in related information under item 9 (use, see § 7.9).

Example:

The group link between Amsterdam and London set up following 5 groups already in service, is designated:

Amsterdam—London 1206.

6.1.2 *Restoration links*

Group links and supergroup links nominated for restoration purposes will receive a serial number from the 800-series in ascending order and starting from 801.

Restoration group links: 12801, 12802, 12803, etc.,

Restoration supergroup links: 60801, 60802, 60803, etc.

Example:

The second restoration group link between Hong Kong and Sydney is designated:

Hong Kong—Sydney 12802.

Note — The first two digits (e.g., 12) in the designation of a restoration group link do not necessarily indicate the number of channels in the group which is set up via the link. For example, a restoration group link London—Montreal 12801 might be used to restore the group London—Montreal 1605.

6.2 *Line links*

The format of the designation of line links is shown in Table 5/M.140.

H.T. [T5.140]

TABLE 5/M.140

Format of designation Transmission station suffix (optional) } Transmission station suffix (optional) }	Town A —	/ Town B Function code	{ / Serial number	{ 						
Signs	Characters	Slash	Letters/ digits	Hyphen	Characters	Slash	Letters/ digits	Space	Letters/ digits	Digits
Number of characters	12	1	3	1	12	1	3	1	3 to 5	2

Table 5/M.140 [T5.140], p.

–v'1P' The elements of the format are as follows:

a) *Traffic relation*

The two terminals are arranged in alphabetical order. For the use of the suffix, see § 5.1.

b) *Function code*

This code consists of a number indicating the nominal telephone channel transmission capacity followed by the letter A.

c) *Serial number*

This is a two-digit number.

Example 1:

The first 1840 telephone channel capacity line link between Beaver Harbour and Widemouth is designated:

Beaver Harbo—Widemouth 1840A01.

Example 2:

The first 432 telephone channels capacity line link between Etam and Pleumeur-Bodou is designated:

Etam—Pleumeur-Bod 432A01.

Note — Line links are sometimes characterized by having channel capacities not in accordance with normal group, supergroup, etc., alignments. Examples of these nonstandard capacities may often be found in submarine cable or satellite line links.

These links will be numbered in accordance with the nominal channel capacity of the link.

6.3 *Related information*

The additional information on group links, supergroup links and line links is covered by the following items:

1. urgency for restoration;
2. terminal countries;
3. administrations', carriers', or broadcasting companies' names;
4. control and sub-control station(s);
5. fault report points;
6. routing;
7. association;
8. equipment information;
9. use;
10. transmission medium information;
11. (empty item, use: ''—;'');
12. bandwidth;
13. occupancy (this item is not in use for group, etc.); links,

The various items will be dealt with in § 7.

7 Related information for international groups, goup links and line links

The following sections explain the items of related information concerned with international groups, group links, line links, etc. Full examples for the designation information of an international group and an international group link is given in Annex A, § A.3.

7.1 *Urgency for restoration (item 1)*

This item supplies information on the urgency of restoration of the group/group link based upon bilateral agreement between the terminal Administrations.

Format:

1. xxx . | | | xx; (maximum 10 characters)

Illustration:

a) if the priority is top: 1;

if the priority is second: 2;

if the priority is third: 3; or

b) if repair is required within e.g., 24 hours: | 4 h; or

c) if no urgency has to be indicated: —;

Example:

If the group Bonn—Paris 1201 needs top priority restoration:

1. 1;

7.2 *Terminal countries (item 2)*

This item presents the countries in which the group/group link is terminating.

Format:

2. XXX, YYY; or XXX; (3 characters for each)

Specification:

XXX code for country of town A

YYY code for country of town B

In the case of a multiple destination unidirectional group (MU), only XXX applies.

Example 1:

For the group Beograd—Roma 1201:

2. YUG, ITA;

Example 2:

For the multiple destination group Toronto—(MU) 1202

2. CAN;

Note — The codes are according to ISO Standard 3166 [2].

7.3 *Names of Administrations, carriers or broadcasting companies (item 3)*

This item records the names of the carriers, etc., which operate the group/group link.

Format:

3. XXXXXX, YYYYYY; or XXXXXX; (maximum 6 characters for each)

Specification:

XXXXXX: name of company in town A

YYYYYY: name of company in town B

In the case of an unidirectional multiple destination, only XXXXX applies.

Example 1:

For the supergroup Amsterdam—London 6002:

3. NLDPTT, BTI;

Example 2:

For the multiple destination group Hong Kong—(MU) 1201:

3. HKGTEL;

7.4 *Control station [sub-control station(s)] (item 4)*

This item lists the appointed control station and sub-control stations (according to Recommendations M.80 and M.90). Further details about the stations can be found in the list of contact point (Recommendation M.93).

Format:

4. CS: designation of control station,

SCS1: designation of sub-control station,

SCS2: designation of sub-control station,

. . . .

. . . .

. . . .

SCSn: designation of sub-control station,

or in the case of a multiple destination unidirectional group:

4. CS: designation of control station;

Specification:

CS: designation of the control station;

SCS1: designation of the terminal sub-control station;

SCS2 to SCSn: if applicable: other sub-control stations, are to be placed in the geographical order according to the traffic relation.

In the case of a multiple destination unidirectional group, only CS applies.

Example 1:

For a group Helsinki—Paris 1201 where the control station is Helsinki TM1 and the sub-control station is Paris Archives:

4. CS: Helsinki/TM1,

SCS1: Paris/ARC;

Example 2:

For the multiple destination unidirectional group Wien—(MU) 1201:

4. CS: Wien/ARS;

7.5 *Fault report points (item 5)*

This item presents the names of both fault report points on the group/group link (according to Recommendation M.130). Further details about the fault report points can be found in the list of contact points (Recommendation M.93).

Format:

5. Designation of fault report point, designation of fault report point;

or

5. Designation of fault report point;

Specification:

The first fault report point is that of the country of town A. The second fault report point is that of the country of town B. In the case of a multiple destination unidirectional group, there is only one fault report point under item 5.

Example 1:

For the group Moskva—Paris 1201;

5. Moskva/MNA, Paris/ARC;

Example 2:

For the multiple destination unidirectional group Caracas—(MU) 1201:

5. Caracas/TS1;

7.6 *Routing (item 6)*

This item records the next higher group within the multiplex hierarchy on which the group/group link has been routed and the position number, or in the case of the highest multiplex level, the transmission media on which the group/group link has been routed.

Format:

6. Designation of an international group/position number or designation of transmission medium, designation of an international group/position number or designation of transmission medium, | | |, designation of an international group/position number or designation of transmission medium;

Note — Two consecutive unidirectional groups are separated by a + sign instead of a comma.

Specification:

The designation of an international group refers to the next higher level in the multiplex hierarchy. If there are more than one, the groups are noted in geographical order from town A to town B

The designation of the transmission medium refers to the transmission medium leaving the country of town A and to the transmission medium entering the country of town B respectively.

As no CCITT designations of transmission media are provided for the time being, the terminal countries should provide designations or agree on designations.

If there is only one transmission medium, the designation of this medium applies.

Example 1:

A group Alger—London 1201 has been routed internationally as follows:

6. Alger—Paris 6002B/F2, London—Paris 6040/5;

Example 2:

A supermaster group Barcelona—Perpignan 90001 has been routed as follows:

6. Gerona—Perpignan 1800A08;

Example 3:

A group Caracas—Paris 1201 has been routed as follows:

6. Caracas—Paris 6001/2+Caracas—(MU) 6002/3;

7.7 *Association (item 7)*

This item informs whether there are associated group/group links and if so, of which nature.

Format:

7. Association code: designation(s) of the associated group(s) or group link(s);

Specification:

If the group *has* a reserve group the association code is:

S followed by the function code and the serial number of the group.

If the group *is* a reserve group the association code is:

function code followed by S and the serial number of the reserve group.

The same applies for group links.

Example:

If the normal group is Bruxelles—Luxembourg 1215 and if the group Bruxelles—Luxembourg 12899 serves as a restoration group for the group Bruxelles—Luxembourg 1215:

7. S1215: Bruxelles—Luxembourg 12899;

For the group Bruxelles—Luxembourg 12899 there has to be recorded under item 7:

7. 12S899: Bruxelles—Luxembourg 1215;

7.8 *Equipment information (item 8)*

This item records information on equipment in the group/group link which requires special maintenance attention.

Format:

8. XX, XX, XX, XX;

Specification:

If the group is carrying companded circuits: CO

If a group has been routed via TDMA: TD

If there is no special equipment: —

Note — If there is a need to record any additional equipment information, the free codeplaces are available for that purpose. The codes to be used must consist of two characters, be unique and can be chosen by bilateral agreement between Administrations.

Example:

If a group Geneva—Mexico 1210 is carrying companded circuits:

8. CO;

7.9 *Use (item 9)*

This item identifies for what purpose the group/group link is used (if this is known by the Administration and of use for maintenance).

Format:

9. XXXXXX; (maximum of 6 characters)

Specification:

XXXXXX refers to (among others) the designatory letters Z, B, D, X, DP, RP, VP, etc., as explained in §§ 1 and 3. If no other information available, the sign — is used.

Example:

If the group London—Melbourne 1212 is dedicated to DP—circuits:

9. DP;

7.10 *Transmission medium information (item 10)*

This item identifies whether a satellite is involved in the routing.

Format:

10. ST; or —;

Specification:

If the group/group link has been routed via satellite: ST

If the group/group link has not been routed via satellite: —

Example:

If the group Caracas—Madrid 1203 has been routed via satellite:

10. ST;

7.11 *End-to-end information (for mixed analogue/digital routes only) (item 11)*

This item provides information on the destinations of the traffic carried by the group.

Format:

11. X | | | |, Y | | | | ; (maximum 12 characters each) or —;

Specification:

X | | | | and Y | | | | are the names of a town and refer to the destinations of the traffic on the group. The destinations are placed according to the order of towns in the traffic relation.

If the group has a multiple destination, one town name is replaced by the code: M.

If the group is within an analogue environment, X | | | |, Y | | | | is replaced by the sign —.

Example:

If the group Athinai—Paris 60C11 carriers traffic from Bruxelles to Sofia:

11. Sofia, Bruxelles;

7.12 *Bandwidth (item 12)*

This item shows the bandwidth of the group/group link.

Format:

12. xxxx kHz or MHz or GHz

Rules for the notation of the bandwidth figures:

No leading zeros required

If the figure is between 10 | 00 and 9 | 99 | 99, use kHz

If the figure is between 10 | 00 | 00 and 9 | 99 | 99 | 99, use MHz

If the figure is 10 | 00 | 00 | 00 or more, use GHz.

Example:

A group Bangkok—New Delhi 1201:

12. 48 kHz;

7.13 *Occupancy (for groups/supergroups, etc., and for line links) (item 13)*

This item lists the occupancy of the group expressed by the next lower group and/or circuits which have been routed in the group.

Format in the case of a group (lowest level):

13. Position number: designation of the circuit, or the sign —,

. . . . . .

Position number: designation of the circuit, or the sign —;

Format in the case of a supergroup or higher level group:

13. Position number: designation of a group, of a leased circuit, or the sign —,

. . . .

Position number: designation of a group of a leased circuit, or the sign —;

Specification:

If the position number is occupied by a next lower group: designation of this group.

If the position number is occupied by a leased circuit (with a bandwidth corresponding to the bandwidth of the next lower multiplex level, e.g., see § 3.2.13): designation of this leased circuit.

If the position number is not in use: —

Example:

For a supergroup Athinai—Paris 6002:

13. 01: Beyrouth—Paris 1209,

02: London—Sofia 1202,

03: Athinai—Paris 1205,

04: Athinai—Rotterdam 1202,

05: Athinai—Paris DP4;

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