INTERNATIONAL TELECOMMUNICATION UNION

CCITT

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TELEGRAPH AND MOBILE SERVICES

OPERATIONS AND QUALITY OF SERVICE

OPERATIONAL PROVISIONS FOR THE INTERNATIONAL TELEX SERVICE

Recommendation F.60

Geneva, 1992

FOREWORD

The CCITT (the International Telegraph and Telephone Consultative Committee) is a permanent organ of the International Telecommunication Union (ITU). CCITT is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The Plenary Assembly of CCITT which meets every four years, establishes the topics for study and approves Recommendations prepared by its Study Groups. The approval of Recommendations by the members of CCITT between Plenary Assemblies is covered by the procedure laid down in CCITT Resolution No. 2 (Melbourne, 1988).

Recommendation F.60 was revised by Study Group I and was approved under the Resolution No. 2 procedure on the 4th of August 1992.

CCITT NOTES

1) In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized private operating agency.

2) A list of abbreviations used in this Recommendation can be found in Annex C

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Recommendation F.60

OPERATIONAL PROVISIONS FOR THE INTERNATIONAL TELEX SERVICE

(revised 1992)

1 Introduction

1.1 *Scope*

1.1.1 These provisions fix the rules to be followed in the international telex service.

1.1.2 The International telex service is a telegraph service for subscribers whereby they can communicate directly and temporarily between themselves using equipment operating at a modulation rate of 50 bauds and presenting a start-stop telegraph interface to the international telex network and employing International Telegraph Alphabet No. 2.

1.1.3 The general characteristics of the international telex service are described in Recommendation F.59 which provides a convenient guide to the various Recommendations dealing with the international telex service, including the R-, S- and U-Series Recommendations which deal with matters of an essentially technical nature.

1.2 *International telex circuits – Routes*

1.2.1 International telex circuits are made up by using telegraph-type circuits.

1.2.2 The networks of the countries participating in the international telex service shall, as far as practicable, be directly connected and shall thereby constitute the international telex network.

1.2.3 In case of breakdown, any defective international circuit (or section of an international circuit) must be repaired with all possible speed and, pending repair, every attempt must be made to provide a replacement circuit with the minimum delay.

1.2.4 For each relation, the Administrations concerned shall, by mutual agreement, decide upon one or more primary telex routes and, to the extent necessary and possible, upon secondary telex routes.

1.2.5 In this respect, the Administrations shall conform, as far as possible, with the principles recommended by the CCITT as regards the constitution and maintenance of circuits and installations. In particular, the provisions of Recommendation U.8 regarding end-to-end performance objectives and call set-up time should be taken into account when international telex routes are being established between two countries, or via a transit country.

1.2.6 A Table of international telex relations and traffic [1] is published in accordance with Recommendation F.95.

1.3 *Duration of service – Legal time*

1.3.1 Each Administration shall fix the working hours of its centres.

1.3.2 Automatic international telex centres are in principle continuously open.

1.3.3 Manual international telex centres should, as far as possible, afford continuous service.

1.3.4 Switching centres that are not open continuously are required to extend their service beyond the normal closing hours when there are calls in progress.

1.3.5 Each centre shall use the legal time of its country or of its zone.

2 Classes of telex call

2.1 *General*

2.1.1 Accepted classes of telex call are:

a) ordinary private telex calls between subscribers;

b) service telex calls, including requests for directory information between telex centres;

c) privilege telex calls (see Recommendation D.193).

2.1.2 In the manual and semi-automatic services only, the following additional classes of call are accepted:

a) safety of life telex calls;

b) Government telex calls.

2.2 *Service telex calls*

2.2.1 Service telex callsmay be exchanged free of charge between the Administrations participating in the international telex service (see Recommendations F.17 and D.192).

2.2.2 Service telex calls may be requested only by persons authorized to do so by their respective Administrations.

2.3 *Government telex calls* (manual and semi-automatic service only)

2.3.1 The person booking a Government telex call must state his name and rank on request.

2.3.2 A Government telex call shall have priority only if priority has been specifically requested by the calling subscriber.

3 Operation of the international telex service

3.1 *Operating systems*

3.1.1 The international telex service may operate:

– automatically;

– semi-automatically; or

– manually.

3.1.2 Administrations shall reach mutual agreement upon the most appropriate method of operation to be applied in the international relations that concern them.

3.2 *Automatic operation*

3.2.1 It is strongly recommended that the telex network of each country be on an automatic switching basis and that it be possible for subscribers to reach one another by fully automatic selection.

3.2.2 To establish a connection in the automatic service the subscriber should normally select: an access code to the international telex network, if required, which is fixed according to national rules.

3.2.3 In accordance with Recommendation U.1, through-connection is normally indicated to the calling subscriber by the return of the called subscriber's answerback code. In order to facilitate the checking of this code within the delay provided by Recommendations F.61 and U.1, insertion by the network of any signals between the call-connected signal and the called subscriber's answerback should be avoided.

Note – For future systems on international connections, it is also desirable to avoid the addition by the called network of date, time and other signals after the called subscriber's answerback. However, service codes or other information in accordance with U-series Recommendations may be sent by the called network, for example, **NCH** or **RDI** in accordance with Recommendation U.41.

3.2.4 In the automatic service no priority shall be given to the various classes of calls listed in § 2.1.

3.2.5 The duration of calls in the automatic service should not be limited. However, for operational reasons, Administrations may set a limit on the maximum duration, for example, 12 hours or 24 hours.

3.2.6 In the automatic operation of the international telex service, if, during an established connection, there is a prolonged period of idle condition, the originating network may initiate clearing. This provision does not apply to either transit or the terminating network. Where such protection against inadvertent holding of a circuit is provided, it is recommended that Administrations make any necessary arrangements for the facility not to operate where requested by the subscriber or for certain types of calls.

3.2.7 For any given traffic relation between two countries, the number of circuits provided should be arranged such that, during the busy hour, the probability of lost calls due to the lack of international circuits should not exceed 1 call in 50. For the calculation of the number of circuits, the requirements of Recommendation F.64 should be applied.

3.3 *Semi-automatic and manual operation*

3.3.1 *General provisions*

3.3.1.1 Wherever fully automatic selection has not yet been adopted, it is recommended that semi-automatic operation should be introduced, whereby the operator of the originating international telex position receives the booking, sets up and controls the call.

3.3.1.2 Where semi-automatic service is not possible, calls shall be established manually by means of two or more international telex positions in tandem whereby the operator of the originating international telex position normally receives the booking.

3.3.1.3 The operator of the originating international position must be acquainted with the necessary operating particulars of the networks in the destination country. The incoming Administration will give all the necessary technical information to the outgoing Administration.

3.3.1.4 Any faults in installations noted by international telex positions must be reported without delay to the technical service responsible for their maintenance.

3.3.1.5 The technical services responsible for the maintenance of telex circuits are recommended to use the abbreviations given in the *List of service abbreviations for maintenance of telegraph circuits*, published in Annex A of Recommendation R.90.

3.3.1.6 The number of circuits between two networks and the switching equipment should in all cases be calculated as far as possible for a no-delay telex service.

3.3.2 *Booking of telex calls*

3.3.2.1 In the booking of a call, the telex installation of the subscriber required must be designated by the name of the country, the subscriber's exchange if necessary, and his national number.

3.3.2.2 Bookings of telex calls not completed shall cease to be valid:

Where all the offices concerned are open continuously:

a) at midnight if the telex call has been booked before 10 p.m. on the same day;

b) at 8 a.m. if the telex call has been booked after 10 p.m. the previous evening;

c) in each case the times indicated shall be those of the originating telex centre.

Where all the offices concerned are not open continuously:

– at the closing time of the originating telex centre.

3.3.2.3 In the case of all bookings of telex calls, and subject to the provisions relative to the validity of bookings, the caller may, so long as the required subscriber has not been obtained:

a) cancel his booking;

b) specify the time after which the booking should be cancelled;

c) change the number of the station required within the destination country.

3.3.2.4 Modifications of bookings shall be permitted free of charge; the origin Administration may, however, make a special charge covering the additional work of recording. This charge shall not enter into the international accounts.

3.3.3 *Priority of telex calls*

3.3.3.1 When the manual telex service normally provides a demand service, no priority shall be given to the various classes of call.

3.3.3.2 Under fault or congestion conditions, and in general when a national telex service does not provide a demand service, either normally or temporarily, international telex calls shall be set up in the following order:

a) calls concerning safety of life;

b) service calls concerning the re-establishment of international telecommunication links following a major breakdown or disruption in service (see Recommendation A.30);

c) government calls for which priority has specifically been requested;

d) government calls for which priority has not been requested, ordinary private calls, service calls other than those mentioned in b);

e) privilege calls.

3.3.3.3 In the international telex centre, calls shall take their priority according to their class and time of receipt at the exchange.

3.3.4 *Establishment and disconnection of calls by the international telex positions*

3.3.4.1 Telex calls established manually or semi-automatically will normally be controlled by the international telex position in the origin country. However, where a call is established over two or more international links and access to the second link is obtained manually in the transit country concerned, control of the call will be exercised by the operator in the transit country in the following circumstances:

a) if the first link is provided by landline, satellite, microwave link or submarine cable and the second or subsequent link by ARQ radio;

b) if the call is booked with the operator in the transit country and connection with the subscriber in the origin country is established semi-automatically.

3.3.4.2 International telex centres connected with each other by several international telex circuits may, by mutual agreement, allocate certain of these circuits for setting up transit calls or for the establishment of traffic in one direction only.

3.3.4.3 For the operation of international telex circuits, the French or English language shall be used between Administrations having different languages, in the absence of special agreements between them for the use of other languages.

3.3.4.4 In the manual service, all bookings, modifications of bookings and cancellation advices shall be transmitted as quickly as possible to the international telex centre charged with establishing the calls booked.

3.3.4.5 In the manual service, calling signals on international circuits must be answered immediately.

3.3.4.6 On bothway circuits, calls of the same class are established alternately. The international telex centres may, by mutual arrangement, temporarily change to one-way working to improve the flow of traffic.

3.3.4.7 Telex calls already prepared must not be delayed for the benefit of calls of higher priority, with the exception of calls concerning safety of life.

3.3.4.8 Without prejudice to the provisions of § 3.3.6, the operator directing the calls at the international telex position shall verify that transmission between the correspondents is satisfactory. He shall note the time when the call is established as well as the time when the call ends and/or its duration. He shall record service incidents and other items necessary for the preparation of the international accounts.

3.3.4.9 With the exception of the cases where the duration of calls is limited, and of cases where an infringement of the present provisions or national instructions has been noted, operators are forbidden to cut off or break into an established call that is proceeding normally.

3.3.5 *Limitation of the duration of international telex calls*

3.3.5.1 In general, the duration of ordinary private calls, service calls, and privilege calls shall not be limited. However, under congestion conditions, the international telex centres concerned may agree to limit the duration of such calls to twelve, or even six minutes (see also § 3.2.5).

3.3.5.2 The duration of safety of life and Government calls shall not be limited. These calls are only available in the manual and semi-automatic service.

3.3.5.3 However, transit Administrations shall have the right, in the case of breakdown, to limit the duration of Government calls to twelve minutes when these calls are established through the intermediary of one of their exchanges. In such a case the operator in the transit country shall advise the controlling operator that restrictions on duration are in force.

3.3.5.4 If the duration of an operator-assisted call is limited, the caller shall be informed, when the call is about to be connected, that it will be cut off after the due time.

3.3.6 *Operating procedure on international telex positions*

3.3.6.1 *Single operator case*

3.3.6.1.1 If the called subscriber can be obtained directly by the controlling international telex operator, this operator should:

a) hold the calling subscriber and select a free circuit;

b) select the called subscriber using the information in accordance with § 3.3.2.1;

c) set up the call to the called subscriber and obtain the called subscriber's answerback, which must also be transferred to the calling subscriber;

d) obtain the calling subscriber's answerback, which must also be transferred to the called subscriber;

e) operate the timing equipment;

f) clear the connection on reception of the clear signal from either party.

3.3.6.1.2 If the called subscriber is engaged, the controlling international telex operator should signal **OCC** and then release the calling subscriber. When the calling subscriber has to be recalled, the signal **RAP** is sent after the **OCC** signal before releasing.

3.3.6.2 *Two-operator case*

3.3.6.2.1 If the called subscriber is obtained via two international telex positions:

a) the controlling international operator should hold the calling subscriber and select a free circuit;

b) the operator at the second international position should announce himself by the abbreviated name of his[1)] telex exchange[2)];

c) the controlling international operator should send his own answerback code and signal the particulars of the required subscriber received in § 3.3.2.1;

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1) The use of gender-specific terms within this Recommendation have no significance.

2) It is recommended that, as far as possible, the abbreviated name of the telex exchange shall be transmitted by means of the answerback unit and shall be so constituted as to permit the identification of the operator's position concerned in the connection of an international call.

d) the operator of the second international position should:

i) hold the circuit from the controlling international position;

ii) select the required subscriber, using the information received in accordance with § 3.3.6.2.1, c);

iii) establish the connection to the called subscriber;

iv) signal **DF** to the controlling international position, which is not passed to the calling subscriber;

e) the controlling international operator should then:

i) establish the connection if necessary, with the calling subscriber and obtain the called subscriber's answerback which must also be transferred to the calling subscriber;

ii) obtain the calling subscriber's answerback, which must also be transferred to the called subscriber;

iii) operate the timing equipment;

iv) clear down the connection on receiving the clear signal from either party.

3.3.6.2.2 If the called subscriber is engaged, the operator of the second international position should signal **OCC** and clear down the international circuit. The controlling operator should then proceed as indicated in § 3.3.6.1.2.

3.3.6.3 *Multiple operator case*

3.3.6.3.1 If the called subscriber is obtained via more than two international telex positions:

a) the controlling international operator should hold the calling subscriber and select a free circuit;

b) the operator at the second international position should announce himself by the abbreviated name of his telex exchange[3)];

c) the controlling international operator should send his own answerback and signal the particulars of the required subscriber to the second international position;

d) the operator of the second international position should extend the call to the third international position and signal **THRU** to the calling international position;

e) the operator of the third international position should announce himself by the abbreviated name of his telex exchange[3)];

f) the controlling international operator should send his own answerback and signal the particulars of the required subscriber to the third international position;

g) the operator of the third international position should:

i) hold the circuit from the controlling international position;

ii) select the required subscriber, using the information received in accordance with § 3.3.6.3.1, f);

iii) establish the connection between it and the called subscriber;

iv) signal the letters **DF** to the controlling international position, which are not passed to the calling subscriber;

h) the controlling international operator should:

i) establish the connection with the calling subscriber and obtain the called subscriber's answerback, which must also be transferred to the calling subscriber;

ii) obtain the calling subscriber's answerback, which must also be transferred to the called subscriber;

iii) operate the timing equipment;

iv) clear down the connection on receiving the clear signal from either party.

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3) It is recommended that, as far as possible, the abbreviated name of the telex exchange shall be transmitted by means of the answerback unit and shall be so constituted as to permit the identification of the operator's position concerned in the connection of an international call.

3.3.6.3.2 If the operator of the second international telex position finds all the circuits to the third position engaged, he should signal **NC** and clear down the international circuit.

3.3.6.3.3 If the called subscriber is engaged, the operator of the destination international telex position should signal **OCC** and clear down the international circuit.

3.3.6.4 *Subscriber recall*

3.3.6.4.1 When a telex connection has to be established by recalling the calling subscriber (§ 3.3.6.1.2) the operator of the position controlling the call will first select from the two correspondents the one he can reach more easily. The procedure will be analogous to that described in §§ 3.3.6.1, 3.3.6.2 and 3.3.6.3, but before connecting the two subscribers the controlling operator will transmit **DF** to the calling subscriber to advise him that he is receiving a call that he has previously booked.

3.3.6.4.2 The operator should not hold an international telex circuit while awaiting clearance of an occupied subscriber line.

3.3.6.5 *Operator recall*

3.3.6.5.1 It is not possible to recall the operator of an international telex position to a connection already set up, except when applying Recommendation U.21 by agreement between Administrations. The operator-recall signal shall be acted upon by the controlling operator only. In the event of the assistance of any other operator being required, it will be obtained by the controlling operator.

3.3.6.6 *Instructions for foreign subscribers*

3.3.6.6.1 All instructions necessary for the efficient handling of a subscriber's international telex traffic may be given to that subscriber only through the medium of the international terminal exchange to which he is connected.

3.4 *Characteristics of subscribers' equipment*

3.4.1 *Network interface*

3.4.1.1 The signals sent by the start-stop equipment used in the international telex service are those of International Telegraph Alphabet No. 2 as shown in Recommendation S.1.

3.4.1.2 Where the subscriber's equipment is automatic, e.g. where a computer port simulates the functions of a teleprinter, the provisions of Recommendation U.40 should be observed, particularly concerning the number and timing of call attempts into the international telex network.

3.4.1.3 In the particular case of an automatic terminal with several messages for the same telex destination, the provisions of Recommendation U.40 shall be applied to the first message. If this message is undeliverable, it is recommended that call attempts not be initiated in respect of the remaining messages.

3.4.1.4 Where the subscribers equipment consists of a multiple-line terminal, the reaction to ineffective call attempts should be the same as that for a single line terminal and the provisions of Recommendation U.40 should be applied.

3.4.1.5 The application of the above procedures is recommended in order to safeguard the quality of the international telex service.

3.4.1.6 The general operational aspects and basic characteristics of telex terminals, derived from the service principles, are detailed in Recommendation F.59.

3.4.2 *Terminal availability*

3.4.2.1 In the international telex service all terminals, like exchanges, shall provide continuous service. The terminal equipment of a free telex line shall accordingly be available at all times to answer a call and record a message from the calling subscriber whether or not an operator is present at the called terminal.

3.4.2.2 The subscriber's equipment must be arranged in such a way that a call can be received, the answerback taken, the message transmitted and the connection cleared without the intervention of the called subscriber.

Failure to abide by this condition should be indicated by failure to return the call connected signal in response to a valid call signal and results in the service signal **DER** being transmitted to the caller, unless the called terminal has requested temporary interruption of its service by reporting absent in which case that service signal may be replaced by **ABS**. The **DER** service signal may also take the expanded form as shown in Table 1/F.60.

TABLE 1/F.60

Expanded form of DER code expression

Code expression	Additional information characters [a]	Meaning [b]
DER	**EXM**	Out of order due to no text recording medium
	NAB	Out of order due to failure of answerback mechanism
	PFL	Out of order due to no power at the called terminal

[a] These characters may appear anywhere on the line preceding the **DER** signal and are an integral part of the expanded service signal.

[b] Or technical failure presenting the same condition at the exchange.

Note 1 – The implementation of these expanded forms of the service signal is a national matter.

Note 2 – See also Recommendation U.45.

3.4.2.3 In exceptional cases, Administrations may allow subscribers to dispense with the stipulation of § 3.4.2.2 for periods previously notified. In such cases, means must be provided for the transmission of one of the appropriate code expressions either automatically or, in the case of a manual exchange, by the incoming switchboard operator.

3.4.2.4 While a call is established, the subscriber's equipment must be continuously ready to receive signals. Where applicable, the teleprinter motor must rotate continuously for the duration of an established connection.

3.4.2.5 The subscriber's equipment should return its answer-back promptly in response to a **WRU** signal at any stage while the call is established. Nevertheless, following the initial exchange of answerbacks and in accordance with the S-Series Recommendations, a special sequence may be used to inhibit the answerback mechanisms where transfer to another alphabet is desired after call establishment.

3.4.3 *Answerback composition*

3.4.3.1 The answerback code shall consist of 20 International Telegraph Alphabet No. 2 (ITA2) characters which should include:

a) the subscriber's number;

b) if required, the machine identity letter or letters;

c) optionally, an (abbreviated) name designating the subscriber;

d) the telex network identification code, in accordance with the Recommendation F.69, preferably preceded by a space.

3.4.3.2 Preferably, the various parts of the answerback code should be arranged in the order shown in § 3.4.3.1. Nevertheless, if Administrations alter on a network national basis the form of existing answerback codes or open new networks, they must ensure that the answerback code is composed in the form shown above. It should be noted, however, that there are some networks in existence which do not follow the prescribed order shown, and allowance should be made for these in any international relation.

3.4.3.3 Where a telex subscriber has more than one telex line and automatic hunting facilities are provided by the terminating exchange, the answerback code of each machine of the group should, apart from the machine identification letter(s), be identical.

3.4.3.4 If the order shown in § 3.4.3.1 is applied, the series of 20 characters in the answerback code, as shown in Recommendation S.6, should be as follows:

a) for machines without identification letters:

- figure-shift or (if permanently fitted or required by the network) letter-shift;
- carriage-return;
- line-feed;
- the national call number of the subscriber or (if letter-shift is fitted in the first position) figure-shift followed by the national call number of the subscriber;
- letter-shift;
- space;
- letters indicating as explicitly as possible the name of the telex subscriber;
- space;
- the one or two letters of the telex network identification code as listed in Recommendation F.69;
- letter-shift (if permanently fitted or required by the network);

b) for machines with identification letters:

- figure-shift or (if permanently fitted or required by the network) letter-shift;
- carriage return;
- line-feed;
- the national number of the subscriber, or (if letter-shift is fitted in the first position) figure-shift followed by the national number of the subscriber;
- letter-shift;
- machine identification letter(s);
- space;
- letters indicating as explicitly as possible the name of the telex subscriber;
- space;
- the one or two letters of the telex network identification code as listed in Recommendation F.69;
- letter-shift (if permanently fitted or required by the network);

c) for machines without identification letters and whose answerback code does not include letters indicating the (abbreviated) name of the subscriber:

- figure-shift or (if permanently fitted or required by the network) letter-shift;
- carriage return;
- line-feed;
- the national number of the subscriber, or (if letter-shift is fitted in the first position) figure-shift followed by the national number of the subscriber;
- letter-shift;
- space;
- the one or two letters of the telex network identification code as listed in Recommendation F.69;
- carriage-return;
- line-feed;
- letter-shift (if permanently fitted or required by the network);

d) for machines with identification letters, but whose answerback codes do not include letters indicating the (abbreviated) name of the subscriber:

– figure-shift or (if permanently fitted or required by the network) letter-shift;

– carriage-return;

– line-feed;

– the national number of the subscriber, or (if letter-shift is fitted in the first position) figure-shift followed by the national number of the subscriber;

– letter-shift;

– machine identification letter(s);

– space;

– the one or two letters of the telex network identification code as listed in Recommendation F.69;

– carriage-return;

– line-feed;

– letter-shift (if permanently fitted or required by the network).

3.4.3.5 Unused places should be filled by the necessary number of letter-shifts, which should preferably be inserted before the telex network identification code.

3.4.3.6 For the particular case of answerback codes generated by teleprinters (or equivalent terminal devices) on ships, see Recommendation F.130.

3.5 *Restriction on the use of a telex station*

3.5.1 Pursuant to Articles 19 and 20 of the Convention [2], Members may exercise their rights concerning stoppage of telecommunications and suspension of services in certain exceptional circumstances.

3.6 *Subscribers' operating procedure for telex calls*

3.6.1 Administrations may wish to advise their customers on how to make best use of the international telex service. To that end, an example for such provisions is given in Annex A. Such instructions may also include information regarding the code expressions used in the international telex service, which are listed in § 4.1 and which could usefully be inserted within national telex directories.

3.7 *Directories*

3.7.1 *Compilation of directories*

3.7.1.1 As far as possible each Administration shall publish a directory of its subscribers at least once a year.

3.7.1.2 Directories should not be larger than 210 × 297 mm (A4).

3.7.1.3 The directory shall be composed of two separate lists, a list of subscribers and a list of answerback codes.

3.7.1.3.1 The list of subscribers shall be drawn up as follows:

either a) places where stations are located, classified in alphabetical order, and within that classification, subscribers' names arranged in alphabetical order;

Example:

Place	Subscriber's name and address	Subscriber's exchange (where necessary)	National number	Answer-back code

or b) subscriber's names only, arranged in alphabetical order (subscribers of the same name being classified in the alphabetical order of the place in which they are located).

Example:

Subscriber's name and address, including the locality	Subscriber's exchange (where necessary)	National number	Answer-back code

3.7.1.3.2 The list of answerback codes shall be compiled in numerical order.

Example:

Answer-back code	Subscriber's name and place	Subscriber's exchange (where necessary)	National number (where necessary)

3.7.1.3.3 However, in cases where the answerback codes are not yet arranged in the order laid down in § 3.4.2.1, the list of answerback codes may be compiled in alphabetical order.

3.7.1.4 The directories sent to Administrations shall be set up in Roman letters. The call-number published shall be that which the calling subscriber has to transmit in order to obtain the called subscriber after he has followed the procedure prescribed in his own country to gain access to an international circuit.

3.7.1.5 When directories are written in a language other than the language used in that country, they shall be accompanied by an explanatory note to facilitate the use of such directories. This note shall be drawn up in whatever official language of the Union has been agreed upon by the Administrations concerned.

3.7.1.6 Each directory should also contain:

a) the list of destination codes for the countries to which the national subscribers have access. These codes shall be supplemented by the access prefix for the international telex network;

b) a list of the telex network identification codes of these countries;

c) optionally, subscribers operating procedures in accordance with § 3.6.1.

3.7.1.7 The telex network identification code of the country (or network) should be shown in large type on the cover and on the spine (i.e. the bound edge) of each directory.

3.7.1.8 To facilitate reference in international telex centres to a number of directories issued by various Administrations, the orientation of the printing on the spine should be identical. When directories are stored vertically on a bookshelf, identification codes should all be horizontal and other particulars, which cannot conveniently be printed horizontally, should be read from bottom to top.

3.7.2 *Supply of directories*

3.7.2.1 Each Administration shall supply, free of charge, to the Administrations with which a telex service exists, a sufficient number of copies of its subscribers' directories for official use. The number of such copies shall be fixed in advance by mutual agreement and shall be regarded as applying until a request to change it is received. Such request must be made not later than 1 February each year.

3.7.2.2 Each Administration shall supply, against payment, to the Administrations and recognized private operating agencies with which a telex service exists, a number of its subscribers' directories to be put on sale. The number of copies intended for sale shall be fixed in advance by mutual agreement and shall be regarded as applying until a request to change it is received. Such requests must be made not later than 1 February each year.

3.7.2.3 A subscriber wishing to obtain a copy of the telex directory of another country must apply to his own Administration. If an application for its directory is received direct by an Administration from a subscriber in a foreign country, the request shall be forwarded by that Administration to the Administration of the subscriber's country.

3.7.2.4 An Administration that has supplied directories of its country intended for sale to another Administration shall indicate the equivalent in special drawing rights (SDR) or gold francs of the sale price of the directories applied in the country of origin plus any postal charges.

4 Miscellaneous provisions

4.1 *Code expressions used in the international telex service*

4.1.1 The following code expressions may be used in operator-to-operator correspondence, generated by the network or used by the originating subscriber for special purposes. In certain cases, they may also be followed by the clear signal. Subscribers may also find it useful to use some of these codes during a conversational call.

ABS	Absent subscriber/office closed
ADD	Please input your international telex number
ANUL	Delete
BCT	Broadcast call
BK	I cut off
BMC	No end of message or end of transmission received, therefore message cancelled
CFM	Please confirm/I confirm
CI[4)]	Conversation impossible
COL[5)]	Collation please/I collate
CRV	Do you receive well?/I receive well
DER	Out of order (see Table 1/F.60)
DF	You are in communication with the called subscriber

---

4) This code expression is intended to be generated only by automatic means and not normally used in service correspondence between operators.

5) Repetition of, for example, isolated figures, mixed figures or other sensitive information.

EXM	Connection cleared due to exhaustion of text recording medium at either the called or calling terminal
FMT	Format error
GA	You may transmit/May I transmit?
IAB	Invalid answerback from destination
IMA	Input message acknowledgement
INF	Subscriber temporarily unobtainable, call the information service
ITD	Input transaction accepted for delivery
ITL	I transmit later
JFE	Office closed because of holiday
LDE	Maximum acceptable message length or duration has been exceeded
MNS	Minutes
MOM	Wait/waiting
MUT	Mutilated
NA	Correspondence with this subscriber is not admitted
NC	No circuits
NCH	Subscriber's number has been changed
NDN	Non-delivery notification
NI	No line identification available
NP	The called party is not, or is no longer, a subscriber
NR	Indicate your call number/My call number is . . .
OCC	Subscriber is engaged
OK	Agreed/Do you agree?
PPR	Paper
R	Received
RAP	I shall call you back
RDI	Redirected call
REF	Reference of the message delivered to the telex side from a conversion facility for telex/teletex interworking
REI	Address validation failure/non-compliant answerback received
RPT	Repeat/I repeat
RSBA	Retransmission still being attempted
SSSS	Change of alphabet
SVP	Please
T[6)] (or figure **5**)[6)]	Stop your transmission
TAX	What is the charge?/The charge is . . .
TEST MSG	Please send a test message
THRU	You are in communication with a telex position

6) To be repeated until the transmission is brought to a stop.

TMA Maximum number of addresses exceeded

TPR Teleprinter

TTX Designation of the conversion facility (CF) for telex-teletex interworking

VAL Validation response

W Words

WRU Who is there?

XXXXX Error

4.1.2 Code expressions received when interworking with users of the IPM service are given in Recommendation F.421(F.84).

4.1.3 Code expressions received when interworking with data terminal equipments connected to a packet switched public data network (PSPDN) are given in Recommendations F.83 and U.203.

4.2 *Printing of telex numbers*

4.2.1 Standardized printing of telex numbers on letterheads is especially valuable for international purposes. It is recommended that this printing contain the word *Telex*, followed by the subscriber's answerback code, for example:

Telex 31005 SHELL NL

4.2.2 In those cases where there is no number and/or no telex network identification code in the answerback code the word *Telex* should be followed by the *Telex* number and the complete answerback within inverted commas, for example:

Telex 24935 "LAPORTCHEM LDN"

ANNEX A

(to Recommendation F.60)

Operating procedure for telex calls

A.1 *Setting up a telex call*

A.1.1 In the automatic service the subscriber selects the telex number required. The establishment of a connection is recognized by the reception of the answerback from the wanted subscriber. The caller should check whether the answerback he has received is in fact that of the appropriate subscriber. If it is not, he should disconnect and reselect the number of the subscriber required. When the caller has received the correct answerback he should release his own answerback before starting the transmission of a message.

A.1.2 In the manual or semi-automatic service a connection is established through the intermediary of an international telex position. The establishment of a connection is indicated by the reception of the answerback from the called subscriber, followed by that of the calling subscriber. The subscribers must not intervene during this procedure. The caller checks whether the answerback he has received is in fact that of the wanted subscriber. If it is not, he should disconnect and inform the international telex position accordingly.

A.1.3 If the called telex station is continuously unattended, e.g. automatic answering equipment, store-and-forward equipment or other reception equipment, a dialogue with the called telex station is impossible.

A.1.4 If the telex machine of the called subscriber is attended, a dialogue between subscribers is possible, in which case the end of each transmission should be indicated by the plus sign and question mark (**+?**) followed by a letter-shift, thus inviting the other party to transmit in his turn.

A.2 *Setting out the message*

A.2.1 Where the recipient may be in doubt about the identity of the caller, it is recommended that the calling subscriber indicate:

a) name and place of the sender, preceded by the word **FROM**;

b) name and place of the addressee, preceded by the word **TO**;

c) if required, name and place of information addressee(s), preceded by the word **COPY**.

Practice has shown that the observation of this recommendation will often save additional work for the recipient especially when messages have to be distributed for action.

A.2.2 After the exchange of answerbacks as set out in § A.1 and following the recommendation in § A.2.1, the calling subscriber can transmit his message, for which the following uniform procedure is recommended:

a) start a new line and mention own reference, if any, and the date of dispatch;

b) start a new line and indicate the priority of the message, if desirable, such as **URGENT**, **VERY URGENT**, etc.;

c) start a new line and indicate the subject if appropriate and/or the name of the person or department for whose attention the message is intended;

d) start a new line and mention any references, such as **REF YOUR TELEX 123 OF 15.7**, **REF YOUR LETTER 456 OF 25.7**, **REF OUR TELECON**, etc.;

e) start a new line and transmit the text of the message;

f) after having completed the message, start a new line and transmit a plus sign (+) indicating the end of the message or **NNNN**;

g) obtain the answerback of the called subscriber, check it in order to be sure that the connection is still in good order and generate own answerback;

h) if there are more messages, they should be separated from each other by at least 8 line-feeds, after the exchange of the answerbacks as mentioned in g);

i) after transmission of the last message and the exchange of the answerbacks send at least 8 line-feeds and give the clearing signal.

A.3 *Additional instructions*

A.3.1 When a group, or part of a group, is composed of a whole number and an ordinary fraction, the fraction should be separated from the number by means of a dash without space.

Example: for *one and three quarters*: **1-3/4**

A.3.2 In order to avoid misunderstanding, a whole number, a fractional number, or a fraction followed by a % or ‰ should be transmitted by joining them up to the % or ‰. sign by a dash, or transmitted in full as appropriate.

Examples: for *2%* transmit **2-0/0** or **2 PER CENT**

for *4 ½ ‰*, transmit **4-1/2-0/00** or **4-1/2 PER MILLE**

A.3.3 When important figures or words appear in the text it is desirable to repeat them immediately after the group followed by a space either in brackets or preceded by the word **REPEAT**.

Examples: **1500 (1500)**

1500 REPEAT 1500

NOT REPEAT NOT

A.3.4 To pass to the beginning of the next line, i.e. to start a new line, first press carriage-return and then line-feed. Some terminals may also provide a new line key which combines these functions.

A.3.5 An error is corrected in the following manner:

a) In manual transmission, by the sequence **XXXXX** (letter **X** repeated five times and followed by a space)[7] joined to the erroneous word.

Example: **PLEASE DISPATCH FITXXXXX FIVE PARCELS**

b) In automatic transmission, when preparing perforated tape, by *backspacing* (if necessary by counting the number of characters to be erased, including spaces and shifts, and backspacing by that number) to the erroneous character and then operating the letter-shift key to erase all the characters up to and including the last punched character. Then start again with the character to be sent immediately after the last correctly punched character.

c) If the procedure mentioned under b) for one reason or other cannot be followed, an error could be corrected as indicated under a).

d) If an error is detected after the transmission of a message but before the exchange of the answerbacks it should be corrected by clearly indicating under the text of the message what change is required, e.g.:

CORRECT 4TH WORD 2ND LINE TO READ NOT REPEAT NOT

DELETE 4TH WORD 2ND LINE

INSERT THE WORD "WITH" BETWEEN THE 4TH AND 5TH WORD OF 2ND LINE

A.3.6 If, for some reason or other, a message has to be cancelled during transmission this should be clearly indicated on a new line by transmitting three times the word **ANUL**.

A.3.7 In preparing a perforated tape for automatic transmission, care should be taken that:

a) the signal *Who are you?* (figure case D) does not appear on the tape, in order to prevent the text from being garbled by the returned answerback of the other party;

b) the procedure mentioned in § A.3.4 above is followed;

c) the tape is perforated to the end with a series of letter-shifts.

A.3.8 Since figure case signs or letters coupled with the letters **F**, **G** and **H** are not universally standardized, they must not be used in international communications, but should be transmitted in full, e.g. **DOLLARS**, **POUNDS STERLING**, etc.

A.4 *Ineffective call attempts when calling from a manual terminal*

A.4.1 If an attempt to set up a call is unsuccessful (for example, if the wanted subscriber is engaged), the network will return a service code indicating the reason. It will also disconnect automatically except in the particular cases of changed number interception and call redirection as described in Recommendation U.41.

A.4.2 The commonly used service codes, their meaning and the appropriate action for the subscriber to take are given in Table A-1/F.60.

A.5 *Idle connections*

A.5.1 To avoid incurring unnecessary charges, care should always be taken to clear the connection once all messages have been sent (see § A.2.2).

A.5.2 In some national telex networks a prolonged idle condition may cause a warning message to appear followed, possibly after a short delay, by clearing. Normally, this action will not commence until the idle condition has persisted for a period to be determined by the Administration.

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[7] It is to be noted that the sequence **E E E** (space and letter **E** repeated three times followed by a space and repetition of the last correct word) is in use but is not preferred.

A.5.3 Should a subscriber wish to maintain an idle condition for a period in excess of that stipulated by the Administration, it is advisable to make that intention clear by sending at least one character periodically.

TABLE A-1/F.60

Procedure after ineffective call attempts when calling from a manual terminal

Service code	Meaning	What to do
OCC	The called subscriber is engaged	Wait for at least one minute, then call again
NC	No circuits (or equipment) are available at the moment	
DER	Called subscriber's terminal is out of order, or temporarily out of service whilst paper, ribbon or tape is replaced	Check the number and try again after about 5 minutes. If **DER** persists, refer the problem to the Telex Enquiries Service
ABS	Called subscriber is absent. Office is closed	Check the number. If correct, try again. If the same service signal is returned refer the problem to the Telex Enquiries Service
NA	Access to called service not admitted	
NP	The called number is not, or is no longer, a working line	
NCH	Called susbcriber's number has been changed (**NCH** may be followed by the new number)	

Note – Recommendation U.40 describes the procedure after ineffective call attempts when calling from an automatic telex terminal.

ANNEX B

(to Recommendation F.60)

Terms and definitions relating to the international telex service

B.1 **emergency routes**

F: voies de secours

S: rutas de emergencia

The circuit(s) to be used in case of complete interruption or major breakdown of the primary and secondary routes. The emergency routes may pass through any country.

B.2 **Government telex calls**

F: communications télex d'Etat

S: comunicaciones télex de Estado

Those telex calls originating with one of the authorities which enjoy the advantages of Government telecommunications, in accordance with the International Telecommunication Convention [2].

B.3 **international telex position**

F: position télex internationale

S: posición télex internacional

Manual position in an international telex centre for establishing telex calls between two countries.

B.4 **ordinary private telex calls**

F: communications télex privées ordinaires

S: comunicaciones télex privadas ordinarias

All telex calls other than:

i) service telex calls, including requests for information;

ii) safety of life telex calls;

iii) Government telex calls;

iv) privilege telex calls.

B.5 **primary routes**

F: voies primaires

S: rutas primarias

The circuits normally used in a given relation.

B.6 **safety of life telex calls**

F: communications télex relatives à la sécurité de la vie humaine

S: comunicaciones télex relativas a la seguridad de la vida humana

Those telex calls requested in accordance with Article 5.1 of the *International Telecommunication Regulations* (Melbourne, 1988).

B.7 **secondary routes**

F: voies secondaires

S: rutas secundarias

The circuits to be used when the primary routes are congested. The secondary route(s) may pass through the same countries as the primary routes or through different countries. In manual and semi-automatic operation, secondary routes may also be used when the transmission on the primary route is not sufficiently good, or if traffic is to be handled outside the normal hours of service on the primary routes.

B.8 **service telex calls**

F: communications télex de service

S: comunicaciones télex de servicio

Those telex calls that relate to the working of the international telecommunication services and are exchanged among authorized bodies or officials (see Recommendation F.17).

B.9 **(telex) relation**

F: relation (télex)

S: relación (télex)

Exchange of traffic between two terminal countries, always referring to a specific service if there is between their Administrations:

a) a means for the exchange of traffic in that specific service:

– over direct circuits (direct relation); or

– via a point of transit in a third country (indirect relation), and

b) normally, the settlement of accounts.

B.10 **privilege telex calls**

F: communications télex privilégiées

S: comunicaciones télex privilegiadas

As defined in Article 2.5.1 of the *International Telecommunication Regulations* (Melbourne, 1988).

B.11 **international store-and-forward**

F: enregistrement et retransmission en international

S: almacenamiento y retransmisión para internacional

Where a subscriber in country A accesses the store-and-forward unit in country B for the transmission of messages to that country.

B.12 **interconnected store-and-forward**

F: enregistrement et retransmission avec interconnexion

S: almacenamiento y retransmisión con interconexión

Where the store-and-forward unit in country A is connected to the store-and-forward unit in country B for the transmission of messages between the two countries.

B.13 **interworking**

F: interfonctionnement

S: interfuncionamiento

The facility of sending and receiving information between a telex equipment and an equipment/user of another service, such as interpersonal messaging, videotex, etc.

B.14 **conversion facility (CF)**

F: unité de conversion

S: unidad de conversión

Fully automatic system performing the necessary conversion between the teletex service and the telex service (see Recommendation F.201).

B.15 **one-stage/two-stage selection procedure for telex to teletex direction of interworking**

F: procédures avec la selection en une ou deux étapes pour l'interfonctionnement dans le sens télex vers télétex

S: procedimientos con marcación monoetapa o bietapa para el interfuncionamiento de télex a teletex

Addressing of the teletex terminal by the telex terminal can be done, either by sending the total selection information in one phase to the CF or by calling first the CF (first stage of the selection), and by sending the teletex address after the connection to the CF has been established (second stage of the selection).

B.16 **store-and-forward conversion facility (CF using store-and-forward principles)**

F: unité de conversion avec enregistrement et retransmission (unité de conversion) utilisant les principes d'enregistrement et retransmission

S: unidad de conversión con almacenamiento y retransmisión (unidad de conversión) que utiliza los principios de almacenamiento y retransmisión

CFs that "store" the received telex (or teletex) messages before "forwarding" them to the called teletex (or telex) terminal (see Recommendation F.201).

B.17 **real-time conversion facility (real-time interworking)**

F: unité de conversion en temps réel (interfonctionnement en temps réel)

S: unidad de conversión en tiempo real (interfuncionamiento en tiempo real)

Such a CF shall transfer a message, in a unique communication, from a telex terminal to a teletex terminal, and from a teletex terminal to a telex terminal, without storage of the message (see Recommendation F.201).

B.18 **validation of the called teletex terminal [validation result (positive or negative)]**

F: validation du terminal télétex demandé [résultat de la validation (positif ou négatif)]

S: validación del terminal teletex llamado [resultado de validación (positivo o negativo)]

This validation is performed by the CF to verify that the teletex terminal is an available one, i.e. either the teletex terminal has been called with this address (validation call) or this address has been controlled in a data base (see Recommendation F.201).

B.19 **message deposit/message delivery (text deposit/delivery)**

F: dépôt du message/remise du message (dépot/remise du texte)

S: depósito de mensaje/entrega de mensaje (depósito/entrega de texto)

The message "deposit" is the sending by the calling terminal of the whole message to the store and forward CF before its further "delivery" to the called terminal (see Recommendation F.201).

B.20 **on-line delivery acknowledgement**

F: avis de remise en ligne

S: acuse de recibo de entrega en línea

The on-line delivery acknowledgement facility gives to the waiting telex (i.e. having maintained the connection with the CF after its message deposit) the opportunity to receive "on-line" a proof of the CF's message delivery to the teletex terminal, provided the call establishment to the teletex terminal has been performed within 30 seconds counted after the end of the message input (see Recommendation F.201).

B.21 **non-delivery notification: (NDN)/positive delivery notification (PDN)**

F: avis de non remise/avis de remise positive

S: notificación de no entrega/notificación de entrega positiva

If the CF has not been able to deliver the message to the called terminal despite the performance of a defined cycle of delivery attempts on the called terminal network (each network has a specific cycle) and within a maximum of a T2-defined duration, the CF should send an NDN to the calling user to indicate to him that his message has not been delivered to the called terminal and that no further delivery action will be taken by the CF (see Recommendation F.201).

Note 1 – The NDN facility is not provided in the first method of interworking for the telex to teletex direction (see Recommendation F.201).

Note 2 – The PDN facility, i.e. the ability of the CF to send back a proof of the delivery, is for further study.

B.22 **CF prefix**

F: préfixe d'unité de conversion

S: prefijo de unidad de conversión

In the first method of interworking, the "CF prefix" is the special number (up to 7 digits) to be put before the called teletex number, to indicate that the total telex selection is for reaching a teletex terminal (see Recommendation F.201).

B.23 **CF national number**

F: numéro national d'unité de conversion

S: número nacional de unidad de conversión

In the second method of interworking, the "CF national number" is the national telex number of the CF, given to the called telex users at the beginning of the telex delivery phase of the teletex to telex exchange for further use of interworking with the teletex of the CF's country (see Recommendation F.201).

B.24 **input message acknowledgement (IMA)**

F: accusé de depôt

S: acuse de recibo de mensaje introducido

The IMA message sent by the CF to the telex user is used to indicate that the message has been well received by the CF and to give to the telex user a unique reference for this message. This reference should be used again when sending an NDN (see Recommendation F.201).

The following terms bear an international electrotechnical vocabulary (IEV) number which follows the definition.

B.25 **telex conversation mode**

F: mode conversationnel télex

S: modo conversacional télex

The use of a telex connection for a dialogue or exchange of information between two *terminals*.

721.53.05

B.26 **access to the public telegram service**

F: accès au service télégraphique public

S: acceso al servicio público de telegramas

Provision for a *telex terminal* to send and receive *telegrams* to and from the *public telegram service*.

721.53.07

B.27 **user class-of-service**

F: catégorie d'usager

S: clase de servicio de usuario

The category that defines the characteristics of a call available to a user of a public telecommunication service.

Note – The characteristics for a user class of service could be, for example, *binary rate*, terminal operating mode, code structure, *access barred*.

721.53.08

B.28 **public telex booth**

F: cabine télex publique

S: cabina télex pública

Telex *terminal* available to the public (i.e. non-subscribers).

721.53.09

B.29 **outgoing only terminal**

F: terminal spécialisé en sortie

S: terminal de salida solamente

A *terminal* that can make outgoing calls to the network but which is prevented from receiving incoming calls.

721.53.10

B.30 **incoming only terminal**

F: terminal spécialisé en entrée

S: terminal de llegada solamente

A *terminal* that can receive incoming calls from the network but which is prevented from making outgoing calls.

721.53.11

B.31 **access barred**

F: interdiction d'accès

S: prohibición de acceso

A function of a telecommunication network that bars calls to or from certain subscribers, from or to certain services, routes or *terminals*.

721.53.12

B.32 **restricted service**

F: service restreint

S: servicio restringido

A service whereby a subscriber may have *access barred* from his terminal installation to certain services, routes or *terminals* which would normally be accessible to all customers.

721.53.13

B.33 **priority**

F: priorité relative

S: prioridad relativa

The possibility of setting up a call from a nominated *terminal* on a *private network* or *closed user group*, by assigning to it, at each stage of selection, priority over all other calls of lower priority that are in the process of being established. The possibility may apply either to every call or only to nominated calls from such a privileged terminal.

721.53.14

B.34 **absolute priority**

F: priorité absolue

S: prioridad absoluta

The possibility of setting up a call from a nominated *terminal* on a *private network* or *closed user group*, by assigning to it at each stage or certain stages of selection, priority over all other calls of lower priority that are established. The possibility may apply either to every call or only to nominated calls from such a privileged terminal.

721.53.15

B.35 **priority for called subscriber**

F: abonné prioritaire en demandé

S: prioridad del abonado llamado

A subscriber who has the facility of *priority* or *absolute priority* for all calls or for certain calls only to his *terminal*. This facility is activated by the sending of an appropriate signal by the calling terminal.

Note – There may be several priority levels, each confering relative or absolute priority with respect to lower levels.

721.53.16

B.36 **in-local override**

F: prise de pas sur le fonctionnement en local

S: contraorden del funcionamiento en local

A facility of the network to override a *terminal* working *in local*, for the purpose of connecting an incoming call to that terminal.

721.53.17

B.37 **direct outgoing selection**

F: prise directe

S: selección directa de salida

A facility that permits a *terminal* in a *private network* to set up a call to another network without human intervention in the private network.

721.53.18

B.38 **direct incoming selection**

F: sélection directe à l'arrivée

S: selección directa de llegada

A facility that permits a *terminal* in a telex network to set up a call to a terminal designated by the caller in a *private network* without human intervention in the private network.

721.53.19

B.39 **direct incoming selection with integrated numbering**

F: sélection directe à l'arrivée avec numérotation intégrée

S: selección directa de llegada con numeración integrada

Direct incoming selection using a single *selection sequence* made up from certain figures (digits) identifying the *private network* followed by certain figures identifying the called *terminal* in that network. The complete sequence of figures constitute a complete *address* integrated into the numbering plan of the telex network.

721.53.20

B.40 **direct incoming selection with two-stage selection**

F: sélection directe à l'arrivée avec numérotation en deux temps

S: selección directa de llegada con marcación bietapa

Direct incoming selection using two *selection sequences* to select the required *terminal* in the *private network*. The first sequence identifies the private network, the second sequence identifies the terminal in this network. Only the first sequence is integrated into the numbering plan of the telex network.

721.53.21

B.41 **closed user group**

F: groupe fermé d'usagers

S: grupo cerrado de usuarios

A user group on the public switched network whose *terminals* have the facility to communicate only with each other.

Note – A terminal may belong to more than one closed user group.

721.53.22

B.42 **partially closed user group**

F: groupe partiellement fermé d'usagers

S: grupo de usuarios parcialmente cerrado

A user group where certain terminals may make calls to or receive calls from any other terminals normally accessible in the public switched network, the other terminals having the facility to communicate only with the user of the group.

Note – In some cases the external access for nominated terminals is limited to outgoing calls.

721.53.23

B.43 **user facility**

F: service complémentaire

S: facilidad de usuario

A facility which may be provided on request to a user of the telecommunication network in addition to the normal service provided.

Note – A user facility may be provided on a per call basis or for an agreed period of time.

721.53.25

B.44 **automatic calling**

F: appel automatique

S: llamada automática

The sequence of operations required by the network procedure to set up a connection without manual intervention at the calling *terminal*.

721.53.26

B.45 **automatic answering**

F: réponse automatique

S: respuesta automática

Answering in which the called terminal automatically responds to the *calling signal* and the call may be established whether or not the called terminal is attended.

721.53.27

B.46 **manual answering**

F: réponse manuelle

S: respuesta manual

Answering in which a call is established only if the called user signals his readiness to receive it by means of a manual operation.

721.53.28

B.47 **automatic identification**

F: identification automatique

S: identificación automática

The transmission without manual intervention of the identification of the calling *terminal* to the connected terminal or vice versa, or the identification of terminals to one another when a connection is established.

Note – The identification may be provided by the network or by the terminal.

721.53.29

B.48 **line identification by the network**

F: identification de ligne par le réseau

S: identificación de línea por la red

Transmission by the network, in response to a request from either of two connected parties, of an appropriate line or address identification.

721.53.30

B.49 **automatic date and time indication**

F: indication automatique de date et d'heure

S: indicación automática de fecha y hora

Automatic indication by the network of data and time of the commencement of a call either to the calling *terminal* or to both the calling and the called terminals.

721.53.31

B.50 **indication of duration**

F: indication de durée

S: indicación de duración

The indication by the network to the paying *terminal* of the chargeable time of a call prior to the release of the paying terminal or by recall at a convenient time.

Note – This information may be provided automatically or on demand.

721.53.32

B.51 **indication of charge**

F: indication de taxe

S: indicación del importe de la comunicación

The indication by the network to the paying *terminal* of the charge of a call prior to the release of the paying terminal or by recall at a convenient time.

Note – This information may be provided automatically or on demand.

721.53.33

B.52 **statement of call account**

F: décompte de taxes de communications

S: estado de cuentas de comunicaciones

The sending by the network upon request of a subscriber, an Administration, *closed user group* or *private network*, of a detailed account of his call charges either since his last request or over a nominated period.

721.53.34

B.53 **shared terminal**

F: terminal partagé

S: terminal compartido

A facility offered to certain subscribers permitting the use of the same *terminal*, sharing the corresponding costs and charges.

721.53.35

B.54 **accounts for shared terminal**

F: décompte pour terminal partagé

S: cuentas de un terminal compartido

Provision of separate accounts to users of a *shared terminal*.

721.53.36

B.55 **storage of call content**

F: archivage des messages

S: almacenamiento del contenido de las comunicaciones

The storage for a specified length of time by the network at the subscriber's request of the contents of some or all of his calls sent or received.

721.53.37

B.56 **retrieval of stored call content**

F: consultation d'archives

S: consulta del contenido almacenado de las comunicaciones

The transmission of the call contents to subscribers who had previously requested *storage of all content*.

721.53.38

B.57 **statistics on request**

F: statistiques sur demande

S: estadísticas a petición

Provision for the network to send to the subscriber at this request, details of his calls under defined headings, e.g. international calls, national calls, calls to certain subscribers or total of all calls.

721.53.39

B.58 **recorded message**

F: réponse par message enregistré

S: mensaje registrado

A facility provided by the called subscriber or terminating network, whereby incoming calls to that subscriber may be connected to a transmitter for recorded *messages*.

721.53.40

B.59 **camp-on: connect when free**

F: attente sur occupation

S: conexión tras liberación

The holding by the network of a call attempt that was unsuccessful due to the called *terminal(s)* being busy or due to network congestion, with subsequent automatic connection as soon as possible.

721.53.41

B.60 **camp-on with recall**

F: attente sur occupation avec rappel

S: conexión tras liberación con rellamada

A *camp-on* with the release of the calling *terminal* and recall as soon as possible.

721.53.42

B.61 **absent subscriber service (in telegraphy and data communication)**

F: service des abonnés absents (en télégraphie et transmission de données)

S: servicio de abonado ausente (en telegrafía y comunicación de datos)

A facility that permits the calling *terminal* to be advised automatically by a *service signal* that, due to an action of the called subscriber, the latter's terminal is not available for calls.

721.53.43

B.62 **call re-direction**

F: renvoi d'appel

S: redireccionamiento de la llamada

A facility that permits a call to be redirected to a previously nominated alternative destination upon the request of the called subscriber with advice by a *service signal* to the calling terminal.

721.53.44

B.63 **changed address interception**

F: interception suite à un changement de numéro

S: interceptación de cambios de dirección

Automatic advice provided by the network to a calling *terminal* of a called terminal's new address followed either by *call redirection* or by release of the calling terminal.

Note – It is also possible to simply send a *service signal* followed by release.

721.53.45

B.64 **store-and-forward**

F: enregistrement et retransmission

S: almacenamiento y retransmisión

The process of storing *messages* or parts of messages and their subsequent transmission to the designated address or addresses.

721.53.46

B.65 **storage installation**

F: installation d'enregistrement

S: instalación de almacenamiento

An installation that provides a *store-and-forward* function.

Note – This installation may be provided at a *terminal* or at a centralized installation.

721.53.47

B.66 **redirection address**

F: adresse de réacheminement

S: dirección de redireccionamiento

Information sent in the backward direction consisting of a number of *address* signals indicating the complete address to which the call is to be or has been redirected.

721.53.48

B.67 **delayed delivery**

F: remise différée

*S: entrega diferid*a

A *store-and-forward* process in which the re-transmission of stored *messages* is delayed until a predetermined period.

721.53.49

B.68 **message priority**

F: priorité des messages

*S: prioridad de los mensaje*s

A facility within a *store-and-forward*, or *message switching* system that enables a subscriber to attach to his *message* one of a number of levels of priority which has been provided.

721.53.50

B.69 **message spacing**

F: espacement des messages

S: separación de los mensajes

A facility whereby a subscriber may request the network to transmit several *line feed* characters to his *terminal* at the end of each successful call, before clear down, for the purpose of providing a blank space between adjacent printed *messages*.

721.53.51

B.70 **header**

F: en-tête

S: encabezamiento

The initial part of a *message* or *packet* which contains the service information.

721.53.52

B.71 **booked call**

F: appel à heure fixe, vacation

S: llamada a hora convenida

A process whereby a subscriber may have his *terminal* called by the network at a given time, with or without an audible signal.

721.53.53

B.72 **network recall**

F: rappel du réseau

S: rellamada a la red

The recall of the network by a subscriber during the *message* phase of the call to request facilities.

721.53.54

B.73 **multi-address call**

F: communication à destinations multiples

S: comunicación multidireccional

A call set up by the network in which more than one called *terminal* is involved.

721.53.55

B.74 **conference call**

F: communication de conférence

S: comunicación conferencia

A *multi-address call* in which the signals which may be transmitted by any one of the terminals are received simultaneously by all other *terminals*.

Note – The order in which the terminals may transmit shall be mutually agreed.

721.53.56

B.75 **broadcast call**

F: communication de diffusion

S: comunicación de difusión

A *multi-address call* in which signals are transmitted simultaneously by the calling *terminal* to all the called terminals.

721.53.57

B.76 **restricted conference call**

F: conférence restreinte

S: comunicación conferencia restringida

A *conference call* in which certain nominated *terminals* may only transmit to one, or some, of the terminals involved, or may not transmit at all.

721.53.58

B.77 **broadcast conference call**

F: conférence-diffusion

S: comunicación conferencia de difusión

A *restricted conference call* in which only one nominated *terminal* can transmit to and receive from the other terminals.

721.53.59

B.78 **prefix**

F: préfixe

S: prefijo

An indicator, consisting of one or more digits, that allows the selection of different types of address formats (e.g. local, national or international address formats), transit network and/or service selection. Prefixes are not part of the national subscriber number and are not signalled over inter-network or international boundaries.

B.79 **escape code**

F: code d'échappement, séquence d'échappement

S: código de escape

An indicator consisting of one or more digits. The indicator is defined in a given numbering plan and is used to indicate that the following digits are a number from a different numbering plan. Escape codes are currently used within Recommendation X.121 numbering plans.

Note – An escape code may be carried forward through the originating network and can be carried across inter-network and international boundaries. Therefore, the values of escape codes should be standardized.

ANNEX C

(to Recommendation F.60)

Alphabetical list of abbreviations used in this Recommendation

CF	Conversion facility
IEV	International electrotechnical vocabulary
IMA	Input message acknowledgement
ITA2	International Telegraph Alphabet No. 2
NDN	Non-delivery notification
ODA	On-line delivery acknowledgement
PDN	Positive delivery notification
PSPDN	Packet switched public data network
SDR	Special drawing rights

References

[1] *Table of international telex relations and traffic*, ITU, Geneva, (yearly publication).

[2] *International Telecommunication Convention*, Nairobi, 1982.