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Service – Telex

**OPERATIONAL PROVISIONS FOR THE
INTERNATIONAL TELEX SERVICE**

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NOTES

1 CCITT Recommendation F.60 was published in Fascicle II.4 of the *Blue Book*. This file is an extract from the *Blue Book*. While the presentation and layout of the text might be slightly different from the *Blue Book* version, the contents of the file are identical to the *Blue Book* version and copyright conditions remain unchanged (see below).

2 In this Recommendation, the expression “Administration” is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

Recommendation F.60

OPERATIONAL PROVISIONS FOR THE INTERNATIONAL TELEX SERVICE

1 Introduction

1.1 Scope

1.1.1 These provisions fix the rules to be followed in the international telex service. Telex is a telegraph service for subscribers whereby they can communicate directly and temporarily between themselves using start-stop telegraph equipment operating at 50 bauds and with International Telegraph Alphabet No. 2.

1.1.2 Questions of an essentially technical nature concerning the telex service are dealt with by other CCITT Recommendations.

1.2 Definitions

1.2.1 The following terms used in these provisions have the undermentioned definitions:

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.

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 telegrams and telephone calls, in accordance with the *International Telecommunication Convention* [1].

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.

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 and franking privilege telex calls;
- ii) safety of life telex calls;
- iii) government telex calls.

primary routes

F: voies primaires

S: rutas primarias

The circuits normally used in a given relation.

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 25 of the *International Telecommunication Convention* [1].

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.

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.

(telex) relation

F: relation (télex)

S: relación (télex)

A (telex) relation between two terminal countries exists when there is between them an exchange of telex traffic (and, normally, a settlement of accounts).

1.3 International telex circuits – Routes

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

1.3.2 The networks of the countries operating the telex service shall, as far as possible, be directly connected.

1.3.3 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.

1.3.4 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.

1.3.5 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.

1.3.6 A *Table of International Telex Relations and Traffic* [2] is published in accordance with Recommendation F.95.

1.4 *Duration of service – Legal time*

- 1.4.1 Each Administration shall fix the working hours of its centres.
- 1.4.2 Automatic international telex centres are in principle continuously open.
- 1.4.3 Manual international telex centres should, as far as possible, afford continuous service.
- 1.4.4 Switching centres that are not open continuously are required to extend their service beyond the normal closing hours when there are calls in progress.
- 1.4.5 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;
- b) service telex calls, including requests for directory information between telex centres and franking privilege telex calls.

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 calls (as defined in § 1.2.2) may be exchanged free of charge between the Administrations concerned with the international telex service.

2.2.2 However, by agreement between the Administrations concerned, the telephone service may use, free of charge, the telex service provided by these Administrations for the exchange of telex calls concerning the working of the international telephone service (including the establishment and maintenance of circuits for other telecommunications carried out through the international telephone service), which calls shall then be regarded as service telex calls.

2.2.3 By way of reciprocity, the agreements mentioned in § 2.2.2 above are expected to provide that in the same relations the telex service may use, free of charge, the telephone service conducted by the Administrations for the exchange of telephone calls relating to the working of the international telex service. These telephone calls shall then be regarded as service telephone calls.

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

2.2.5 Service telex calls relating to the official business of the ITU may be exchanged free of charge between Administrations and recognized operating agencies on the one hand and the Chairman of the Administrative Council of the ITU, the Secretary-General of the ITU, the Director of the CCITT, the Director of the CCIR and the Chairman of the IFRB on the other hand.

2.2.6 In accordance with Recommendation D.193, privilege telex calls may be offered during the conferences and meetings of the ITU. Such privilege telex calls are considered as service telex calls and are admitted on a reciprocal and optional basis.

2.2.7 Service telex calls should be made, as far as possible, outside the busiest hours.

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 telex service

3.1 *Operating systems*

3.1.1 The telex service is operated:

- 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 an international call in the automatic service the subscriber shall normally select:

- a) the access code to the international network, which is fixed according to national rules,
- b) the telex destination code, which as far as possible should correspond to the list given in Recommendation F.69, and
- c) the call-number of the distant subscriber.

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, where necessary, service codes or other information in accordance with CCITT Recommendations (e.g. Recommendation U.42) will be sent by the called network.

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

3.2.5 The duration of calls in the automatic service should not be limited.

3.2.6 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 one call in 50. For the calculation of the number of circuits, the requirements of CCITT Recommendation F.64 should apply.

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*, annexed to 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 call-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 telex service closing time at the end of the day.

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 the 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 that have been totally interrupted;
- 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).

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 telex calls*

3.3.5.1 In general, the duration of ordinary private calls and service 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.

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:

- a) holds the calling subscriber and selects a free circuit;
- b) selects the called subscriber;
- c) sets up the call to the called subscriber and obtains the called subscriber's answerback, which must also be received by the calling subscriber;
- d) obtains the calling subscriber's answerback, which must also be received by the called subscriber;
- e) operates the timing equipment;
- f) clears down the connection on reception of the clearing signal.

3.3.6.1.2 If the called subscriber is engaged, the controlling international telex operator signals **OCC** and then releases 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 holds the calling subscriber and selects a free circuit;
- b) the operator at the second international position announces himself by the abbreviated name of his telex exchange ¹⁾;
- c) the controlling international operator sends his own answerback code and signals the particulars of the called subscriber;
- d) the operator of the second international position:
 - i) holds the circuit from the controlling international position,
 - ii) selects the called subscriber,
 - iii) signals the letters **DF** to the controlling international position,
 - iv) establishes the connection between it and the called subscriber;
- e) the controlling international operator:
 - i) establishes the connection with the calling subscriber and obtains the called subscriber's answerback which must, at the same time, be received by the calling subscriber,
 - ii) obtains the calling subscriber's answerback, which must also be received by the called subscriber,
 - iii) operates the timing equipment,
 - iv) clears down the connection on receiving the clearing signal.

3.3.6.2.2 If the called subscriber is engaged, the operator of the second international position signals **OCC** and clears down the international circuit.

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 holds the calling subscriber and selects a free circuit;
- b) the operator at the second international position announces himself by his abbreviated name;
- c) the controlling international operator sends his own answerback and signals the particulars of the called subscriber;
- d) the operator at the second international position extends the call to the third international position and signals **THRU** to the calling international position;
- e) the operator of the third international position announces himself by his abbreviated name;
- f) the controlling international operator sends his own answerback and signals the particulars of the called subscriber;
- g) the operator of the third international position:
 - i) holds the circuit from the controlling international position,
 - ii) selects the called subscriber,
 - iii) signals the letters **DF** to the controlling international position,
 - iv) establishes the connection between it and the called subscriber;
- h) the controlling international operator:
 - i) establishes the connection with the calling subscriber and obtains the called subscriber's answerback, which must also be received by the calling subscriber,
 - ii) obtains the calling subscriber's answerback, which must also be received by the called subscriber,
 - iii) operates the timing equipment,
 - iv) clears down the connection on receiving the clearing signal.

¹⁾ 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 international operator of the destination exchange signals **OCC** and clears 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 above) 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 above, 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 may not occupy international telex circuits while awaiting clearance of a busy subscriber line.

3.3.6.5 *Operator recall*

3.3.6.5.1 It is not possible to recall the operator of a 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 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 shall be observed, particularly concerning the number and timing of call attempts into the telex network.

3.4.2 *Terminal availability*

3.4.2.1 In the 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 answer-back taken, the message transmitted and the connection cleared without the intervention of the called subscriber.

Failure to abide by this condition must be indicated by the return of the call connected signal in response to a valid call signal and results in the sequence **DER** being transmitted to the caller, unless the called terminal has requested temporary interruption of its service by reporting absent in which case that sequence must be replaced by **ABS**.

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 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, 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 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.

3.4.3.3 Where a telex subscriber has more than one telex line and automatic hunting facilities are provided, 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 signals in the answerback code, as shown in Recommendations 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 (code listed in column 5 of the *List of Indicators for the Telegram Retransmission System and Telex Network Identification Codes – Part A* [4]);
 - 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 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;
 - 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;
 - 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 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;
 - the one or two letters of the telex network identification code;
 - carriage-return;
 - line-feed;
 - letter-shift (if permanently fitted or required by the network);
- d) for machines with identification letters, but whose answerback codes 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 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;
 - machine identification letter(s);
 - space;
 - the one or two letters of the telex network identification code;
 - carriage-return;
 - line-feed;
 - letter-shift (if permanently fitted or required by the network).

3.4.3.5 Should the signals in the answerback code not fill the places available, the 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 Administrations reserve the right to suspend the telex service in the cases mentioned in Articles 19 and 20 of the Convention [1].

3.5.2 Administrations and recognized private operating agencies shall refuse to make the telex service available to a telegraph forwarding agency that is known to be organized for the purpose of sending or receiving telegrams for retransmission by telegraphy with a view to evading the full charges due for the complete route.

3.5.3 Administrations shall refuse to provide international telex service to a customer whose activity would be regarded as an infringement of the functions of an Administration in providing a public telecommunication service.

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.

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)	Call number	Answer-back code
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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)	Call number	Answer-back code
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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)	Call number (where necessary)
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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.

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 similar to that used in this fascicle (II.4). When directories are stored vertically on a bookshelf, identification codes should all be horizontal (like E for English) and other particulars, which cannot conveniently be printed horizontally, should all read from bottom to top (like *RECOMMENDATIONS . . .*).

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 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 In service correspondence the following code expressions should be used:

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 ²⁾	Conversation impossible
COL	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

²⁾ This code expression is intended to be generated only by automatic means and not normally used in service correspondence between operators.

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
RPT	Repeat/I repeat
RSBA	Retransmission still being attempted
SSSS	Change of alphabet
SVP	Please
T³⁾ (or figure 5) ³⁾	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
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

³⁾ To be repeated until the transmission is brought to a stop.

TABLE 1/F.60

Expanded form of DER code expression

Code expression	Additional information characters ^{a), b)}	Meaning
DER	EXM NAB PFL	Out of order due to no text recording medium Out of order due to failure of answerback mechanism Out of order due to no power at the called terminal

a) Or technical failure presenting the same condition at the exchange.

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

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

Note 2 – See also Recommendation U.45.

4.1.2 Code expressions received when interworking with users of the IPM service are given in Recommendation F.421(F.75).

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 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 checks whether the answerback he has received is in fact that of the appropriate subscriber. If it is not, he disconnects and reselects the number of the subscriber required. When the caller has received the correct answerback he releases 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 above 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;
- 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 4½‰, 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.

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)⁴⁾ 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.

⁴⁾ 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.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.

TABLE A-1/F.60

Procedure after ineffective call attempts when calling from a manual terminal

Service code	Meaning	What to do
OCC NC	The called subscriber is engaged No circuits (or equipment) are available at the moment	Wait for at least one minute, then call again
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 NA NP NCH	Called subscriber is absent. Office is closed Access to called service not admitted The called number is not, or is no longer, a working line Called subscriber's number has been changed (NCH may be followed by the new number)	Check the number. If correct, try again. If the same service signal is returned refer the problem to the Telex Enquiries Service

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

References

- [1] *International Telecommunication Convention*, Nairobi, 1982.
- [2] *Table of international telex relations and traffic*, ITU, Geneva, (annual publication).
- [3] *Final Acts of the World Administrative Telegraph and Telephone Conference, International Telecommunication Regulations*, ITU, Melbourne, 1988.
- [4] *List of indicators for the telegram retransmission system and telex network identification codes (Part A)*, ITU, Geneva.

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