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Recommendation F.4

PLAIN AND SECRET LANGUAGE

The CCITT,

considering

(a) Article 27 of the International Telecommunication Convention (Nairobi, 1982) concerning the use of secret language in telegrams;

(b) the general provisions in Recommendation F.1 on the preparation and handing in of telegrams;

(c) the CCITT studies on simplifying the international public telegram service and increasing its cost-effectiveness;

(d) that the provisions governing the international telex, telematic and data transmission services do not restrict the language or content of messages transmitted by these services, nor would it be practicable to apply restrictions in subscriber-operated services without withdrawing automatic operation or otherwise disrupting the quality of service;

(e) that, nonetheless, it may be necessary for an ITU Member to impose restrictions on the content of telegrams transmitted from its territory or received from another country;

(f) that where an ITU Member elects to impose language restrictions on telegrams received from another country, this should not unduly burden the operation of the service in that country,

declares the view

that the following procedures shall apply regarding the use of plain and secret language in the international telegram service.

1 Definitions

1.1 **plain language** consists of words that present an intelligible meaning in one or more of the languages admitted for international telegrams, which include at least French, English and Spanish in every relation. Each word and each expression has a meaning normally assigned to it in the language to which it belongs. A text in plain language may contain:

a) numbers written in letters or figures;

b) proper names or abbreviated addresses;

c) groups comprising letters, figures, signs or any combination of them providing that they have no secret meaning.

1.2 **secret language** comprises words in which one or more consist of:

a) groups of letters, figures, signs or any combination of them that have a secret meaning;

b) words in plain language that are not used with the meaning normally assigned to them;

c) any other words not fulfilling the conditions laid down for plain language.

2 General principles

2.1 All ITU Members shall accept in all relations the use of plain language in messages sent or received by any public international telecommunication service.

2.2 At least the three working languages of the Union (French, English and Spanish) shall be admitted as plain language in all relations.

2.3 In order to facilitate efficient working and convenience for the users of telecommunication services, all ITU Members should also normally admit telegrams wholly or partly in secret language. In any case, government telecommunications and service telecommunications may be expressed in secret language in all relations. Except in the case of suspension of services defined in Article 20 of the Convention, any telecommunication containing secret language shall also be allowed to pass in transit from one country to another.

2.4 Exceptionally, where an ITU Member finds it necessary to impose language restrictions on international telecommunications, for example pursuant to Article 19 of the Convention (stoppage of telecommunications):

a) the Member concerned shall make all necessary arrangements regarding any restrictions on messages originating within its own territory;

b) except where appropriate bilateral agreements are reached, it shall also accept the final responsibility for stopping any non-compliant messages originating in other countries, although origin Administrations should assist to the extent reasonable and practicable;

c) the Secretary-General should be advised of the restrictions so that he can then advise all Administrations promptly through the *Operational Bulletin* .

3 Telegrams with secret language

3.1 If requested by the origin Administration, the sender of a telegram in secret language must produce the code or identify the dictionary language used in drafting the telegram. Administrations may also require the sender to produce a translation of the telegram into plain language or a language acceptable to the Administration. This provision shall not apply to government telegrams.

3.2 If the origin Administration considers it appropriate, or, in relations where so agreed to meet the requirements of the destination Administration, the office of origin should insert the name of the code and/or language used in such a telegram at the end of the preamble line as a service instruction , which is not chargeable. It may not be convenient for this procedure to be applied with some types of lodgement.

3.3 In cases where a destination Administration receives a telegram (other than a government telegram) wholly or partly in non admissable language, that Administration:

a) may require the addressee to produce a translation of the telegram; or

b) shall make every effort to identify the commercial code or language used and check that the translated text is then acceptable; and

c) shall advise the origin Administration where a) or b) causes late delivery as defined in Recommendation D.42 (which shall nevertheless not be grounds for a refund of charges to the originator); or

d) shall inform the origin Administration by service advice when either the original telegram cannot be translated or when the translated text contravenes national law (neither case shall be grounds for a refund of charges to the originator).

3.4 Further to point c) of § 2.4 above, any Administrations wishing to impose language restrictions shall advise the Secretary-General of their requirements both for lodgements within their country and for reception from other countries in terms of:

a) languages other than French, English and Spanish admitted as plain language;

b) commercial or other standard codes admitted;

c) whether identification in the preamble line of the code or language used is desired;

d) whether secret language as defined in § 1.2, other than b) above is not admitted.

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Recommendation F.10

CHARACTER ERROR RATE OBJECTIVE
FOR TELEGRAPH COMMUNICATION

USING 5-UNIT START-STOP EQUIPMENT

The CCITT,

considering

(a) that it would be useful to have a common standard for assessing the quality of telegraph communications ;

(b) that the character error rate [1] of a telegraph communication would be suitable for this purpose;

(c) that a defined error rate objective should be established;

(d) that all forms of current wideband transmission techniques have intrinsic characteristics that make some errors economically unavoidable;

(e) that occasional bursts of errors occur (errors that are concentrated into a relatively short time interval, i.e. seconds),

unanimously declares

(1) that the quality of service must be the same for telegraph communication in the public telegram service, the telex service and the leased circuit service;

(2) that the objective, irrespective of transmission media and intervening equipment, should be an error rate not greater than 3 in 100 | 00 alphabetic telegraph signals transmitted;

(3) that the error rate objective should have not less than a 95% probability;

(4) that, in the determination of error rate, measurements should be made for relatively long time periods, i.e. for at least several hours (see Note 1);

(5) that the effects of operator error rates (e.g. in the public telegram service) and of local ends and their terminations (e.g. teleprinters) should be excluded when determining the error rate.

Note 1 — The minimum time interval should include the busy hour and be of at least 12 hours duration.

Note 2 — The absolute value for the error rate objective requires further study.

Reference

[1] CCITT Definition: *Character error rate* , Vol. I, Fascicle I.3 (Terms and Definitions).

BLANC

MONTAGE: PAGE PAIRE = BLANCHE

SECTION 2

THE GENTEX NETWORK

Recommendation F.20

THE INTERNATIONAL GENTEX SERVICE

The CCITT,

unanimously declares

(1) that the following provisions should be adopted for the gentex service;

(2) that Administrations should make arrangements for their offices to apply these provisions.

1 General

1.1 The gentex network is made up of telegraph offices, switching centres and telegraph channels, interconnecting the offices to switching centres and the switching centres to each other.

1.2 The gentex network is operated by fully automatic switching.

1.3 Gentex signalling shall be in accordance with CCITT Recommendations relative to telegraph switching technique.

2 Call-numbers and answer-back codes

2.1 Unless other arrangements are made, the call-number dialled by a gentex office to call a gentex office in another country is made up of:

— the prefix giving acces to the called country from the calling country;

— the call-number of the called office, which must comprise figures only, up to a maximum of 8 figures; the call from the national network or another number especially selected for the purpose.

2.2 The answer-back codes of the equipment used in the genetex service are made up of 20 signals.

2.3 The composition of answer-back codes shall be in accordance with the provisions of Recommendation F.21.

3 Equipment of positions in telegraph offices

3.1 Transmitting or receiving positions in the gentex service shall be equipped with tape-printing or page-printing teleprinters using International Telegraph Alphabet No. 2, possessing an answer-back unit and able to work, if necessary, in simplex.

3.2 Positions shall be equipped for the following:

— the setting-up of calls;

— the clearing of calls;

— reception of the bell (figure J) signal;

— an alarm or transmission of the clearing signal if the paper runs out.

3.3 As far as possible, these positions shall also be equipped to signal the following:

— equipment out of service;

— tape broken;

— faulty tape feed.

3.4 In an office, the positions used in the gentex service can be grouped into those specializing in transmission and those specializing in reception. Administrations shall arrange this specialization so that the incoming grade of service shall not be less than the CCITT recommended limits.

3.5 Both-way and incoming-only positions in the same office shall all have a common call-number. When one of these positions is engaged or faulty, a call arriving at that office shall be directed to a free position in the same group.

4 Routing lists

4.1 All countries taking part in the gentex service shall draw up a routing list containing information about the routing of traffic, and shall supply this list to the ITU for distribution to the other countries concerned. This list shall comprise:

a) the telegraph offices connected to the gentex network shall precede the name of every office taking part in telegram tranmission only, but available for a direct call when service correspondence has to be exchanged;

b) offices that, while not connected, normally deal with a fair amount of international traffic.

4.2 Routing lists should be of the A4 size (210 × 297 mn) and should contain the following information:

a) in the first column, the alphabetical list of the offices chosen in accordance with § 4.1 above (names of telegraph offices connected to the gentex network are in heavy type);

b) in the second column, the call-number of the gentex office to be called for routing traffic to the office shown in the first column, with no restriction sign (a space is left in this column for inserting the prefix or prefixes to obtain access to the country concerned);

c) in the third column, the answer-back codes of the offices connected to the gentex network, or of the gentex office serving an office that is not connected to this network (without the characteristic letter or letters of the specialized receiving positions);

d) in the fourth column, the service hours of offices connected to the gentex network or of the gentex office serving an unconnected office, or in the indication *office* which *merely transmits* ; service hours are given in local time. Some office work different hours on Sundays and public holidays, in which case the column is sub-divided and a list of public holidays is given at the beginning of the list. The abbreviations used in this column have the following meanings:

N = office permanently open (day and night),

P = office with extended service,

— | office closed;

e) in the fifth column, the name of the gentex office that should be called for alternative routing when the office given in the third column is closed, out of order or engaged. This information may also be provided in the preliminary note.

4.3 This list shall be preceded by a preliminary note indicating the routing of telegrams to offices not mentioned in the list.

4.4 When certain important gentex offices possess specialized positions to deal with service notes and advices, or specialized positions for the reception of fault notices , the call-numbers and answer-back codes of such positions shall appear in an annex to the routing list.

4.5 If a gentex exchange is equipped with an automatic test-phrase transmitter (with or without distortion) the call-number of such a transmitter shall also be indicated in this annex.

4.6 Examplex of the first part of a routing list and this annex appear in Tables 1/F.20 and 2/F.20 respectively.

H.T. [T1.20]

MONTAGE: REPRENDRE ORIGINAUX DU LIVRE ROUGE. Pas de nouvelle saisie = MAINTENU du LIVRE ROUGE

H.T. [T2.20]

MONTAGE: REPRENDRE ORIGINAUX DU LIVRE ROUGE. Pas de nouvelle saisie = MAINTENU du LIVRE ROUGE

H.T. [T1.21]

MONTAGE: REPRENDRE ORIGINAUX DU LIVRE ROUGE. Pas de nouvelle saisie = MAINTENU du LIVRE ROUGE

H.T. [T1.30]

TABLE 1/F.30

Sequence of combination	Printed position	Letter case Figure case	Recommendation reference	
{ Connection of reperforator (or equivalent device) }	3 3 3 3	**CCCC**	**: | | |**	S.4
{ Disconnection of reperforator (or equivalent device) }	6 6 6 6	**FFFF**	Note 1	S.4
Suppression of delay signals	8 8 8 8	**HHHH**	Note 1	S.4, U.22
Ready for test	11 11 11 11	**KKKK**	**(| | |**	R.79, R.79 | fIbis
{ Switching a reader (or equivalent device) into circuit by remote control }	11 12 11 12	**KLKL**	**(| | |**	S.4
{ End of message or enabling of delay signals }	14 14 14 14	**NNNN**	**, | | |**	F.1, F.31, S.4, U.22
Change of alphabet	19 19 19 19	**SSSS**	**' | | |**	S.15
Error signal	24 24 24 24 24	**XXXXX**	/////	F.1 (C94)
Start of message	26 3 26 3	**ZCZC**	**+: | :**	F.1, F.31
End of input	26 26 26 26	**ZZZZ**	**++++**	F.200
{ Request for automatic advice of parties cleared prematurely during the broadcast call followed by call cleared }	13 13 13 13 Note 3	**MMMM** Note 3	Note 2	S.4, U.44

Note 1 — As noted in Recommendation F.1, § C4, the figure case of combinations 6, 7 and 8 is available for the internal service of each Administration.

Note 2 — As noted in Recommendation U.44 this sequence is to be recognized in letter case only.

Note 3 — A minimum of 4 Ms would clear a telex broadcast call. The usage of a 5th or more Ms is a national matter.

Tableau 1/F.20 [T1.20], p.1

H.T. [T2.20]

MONTAGE: REPRENDRE ORIGINAUX DU LIVRE ROUGE. Pas de nouvelle saisie = MAINTENU du LIVRE ROUGE

H.T. [T1.21]

MONTAGE: REPRENDRE ORIGINAUX DU LIVRE ROUGE. Pas de nouvelle saisie = MAINTENU du LIVRE ROUGE

H.T. [T1.30]

TABLE 1/F.30

Sequence of combination	Printed position	Letter case		
		Figure case	Recommendation reference	
{ Connection of reperforator (or equivalent device) }	3 3 3 3	**CCCC**	**: | | |**	S.4
{ Disconnection of reperforator (or equivalent device) }	6 6 6 6	**FFFF**	Note 1	S.4
Suppression of delay signals	8 8 8 8	**HHHH**	Note 1	S.4, U.22
Ready for test	11 11 11 11	**KKKK**	**(| | |**	R.79, R.79 | fIbis
{ Switching a reader (or equivalent device) into circuit by remote control }	11 12 11 12	**KLKL**	**(| | |**	S.4
{ End of message or enabling of delay signals }	14 14 14 14	**NNNN**	**, | | |**	F.1, F.31, S.4, U.22
Change of alphabet	19 19 19 19	**SSSS**	**’ | | |**	S.15
Error signal	24 24 24 24 24	**XXXXX**	/////	F.1 (C94)
Start of message	26 3 26 3	**ZCZC**	**+: | :**	F.1, F.31
End of input	26 26 26 26	**ZZZZ**	**++++**	F.200
{ Request for automatic advice of parties cleared prematurely during the broadcast call followed by call cleared }	13 13 13 13 Note 3	**MMMM** Note 3	Note 2	S.4, U.44

Note 1 — As noted in Recommendation F.1, § C4, the figure case of combinations 6, 7 and 8 is available for the internal service of each Administration.

Note 2 — As noted in Recommendation U.44 this sequence is to be recognized in letter case only.

Note 3 — A minimum of 4 Ms would clear a telex broadcast call. The usage of a 5th or more Ms is a national matter.

Tableau 2/F.20 [T2.20], p.2

5 Telegram routing

5.1 Telegrams to an office that, whether or not connected to the gentex network, appears in the routing list shall be routed using the call number shown in the List.

5.2 Telegrams to an office that does not appear in the routing list shall be routed in accordance with the instructions given at the beginning of the routing list of the country in which the office is located.

6 Overflow

6.1 Administrations may make arrangements for calls to be automatically routed to overflow positions when all the receiving positions of a called office are busy.

7 Prohibition of communications with telex subscribers in other countries

7.1 An office connected to the gentex network shall not, under any circumstances, call a telex subscriber in another country. Where possible this prohibition shall be effected by the switching equipment.

7.2 Arrangements should also be made to prevent telex subscribers from obtaining access to gentex offices.

8 Operation of the gentex service

8.1 The gentex service shall be operated in accordance with provisions in Recommendation F.1.

Recommendation F.21

COMPOSITION OF ANSWER-BACK CODES

FOR THE INTERNATIONAL GENTEX SERVICE

The CCITT,

considering

(a) that the answer-back code sent by teleprinter equipment in the gentex service should provide as much useful information as possible for the operational services. Procedures for checking answer-back codes should be simple and speedy because the average time taken to transmit the text of a telegram in the gentex system is about one minute and this means that roughly every minute three answer-back codes have to be checked by the operator (two at the beginning of the telegram, the answer-back code of the station obtained and the answer-back code of the calling station, and one at the end: the answer-back code of the station obtained);

(b) that the answer-back code in the international gentex service should therefore include the call-number of the office and as much of the name of this office as possible;

(c) that it is also essential to show in the answer-back code one or two characteristic letters of the country in which the teleprinter equipment is situated, for the worst routing mistake is that of sending a telegram to the wrong country;

(d) that Administrations may identify, by additional letters in the answer-back code, not only the office but also the nature of the position in the office (outgoing position, incoming position), or the identity of the position among all similarly specialized positions, so as to facilitate the location of any faults in the equipment of the tracing of any telegrams in disupute;

(e) that the initial letters of the alphabet: **A** , **B** , **C** , etc., are to be used for identifying specialized outgoing positions and one of the final letters of the alphabet **Z** , **Y** , **X** , etc. for identifying specialized incoming positions. For very large offices, where groups of machines having the same specialized function, outgoing or incoming, may comprise more than 12 machines, it will be necessary to use additional specialization letters:

T to indicate a position specializing in transmission ;

R to indicate a position specializing in reception ;

(f) that if an office that uses letters denoting specialization is also equipped with combined incoming/outgoing positions, such positions will be identified by the same specialization letter as the incoming positions;

(g) that should outgoing or incoming groups comprise more than 26 machines, the letters **S** and **Q** , denoting outgoing or incoming specialization respectively, may be used in conjunction with the letters **T** and **R** , thus increasing the possibility of identification in a group of machines to 52;

(h) that in the case of overflow positions, they must indicate very clearly the name of the office obtained, for this name belongs to an office other than the one called. For this purpose, the call-number of the overflow office will not appear in the answer-back code of such a position, so as to leave space for the name of the office as complete as possible and the characteristic indication **DEB** , which has been chosen to denote *overflow* ;

(i) that because machines in the gentex service can be page-printing machines, it is necessary to provide carriage-return and line-feed signals at the beginning of the answer-back code and for technical reasons the last chartacter of the answer-back code must be the letter-shift signal,

unanimously declares

(1) that answer-back codes of machines used in the international gentex service should be made up of 20 signals;

(2) that, for machines other than those used on positions specialized for receiving overflow traffic, the series of 20 signals in the answer-back code should, in principle, be as follows:

— carriage-return,

— line-feed,

— figure-shift,

— the figures of the call-number by which the office is to be called when a telegram is sent to it [in some large offices a position (or group of positions) may specialize in delaing with service advices, and in this case it is provided with a special call-number and answer-back code — see §(6) below],

— letter-shift,

— space,

— letters indicating as explicitly as possible the name of the office,

— space,

— the characteristic letters of the name of the country, in accordance with the code listed under § (9) below,

— letter-shift.

Note — Some teleprinters are permanently arranged to transmit letter-shift as the first character of the answer-back. In this case the letter-shift should precede the carriage-return and will reduce the number of characters available for the name of the office by one.

(3) that, for Administrations that wish to give the specialization and identity of the positions with which equipment is associated in large offices, the series of 20 signals in the answer-back code should be made up as follows, according to the size of such offices:

— carriage-return,

— line-feed,

— figure-shift,

— the call number as indicated under §(2),

— letter-shift,

— one or two letters chosen in accordance with Table 1/F.21,

— space,

— the name of the office,

— space,

— the characteristic letters of the name of the country,

— letter shift;

(4) if, in the exchanges referred to in § (3) above, combined incoming/outgoing positions are used in addition to specialized incoming or outgoing positions, the answer-back codes of these combined positions should be composed in the same way as the answer-back codes of a specialized incoming position;

(5) The specialization letter **T** should be preferred to the letter **S** , and the letter **R** to the letter **Q** ; the letters **S** and **Q** should be used only when such use is justified by the exchange equipment;

H.T. [T1.21]
MONTAGE: REPRENDRE ORIGINAUX DU LIVRE ROUGE. Pas de nouvelle saisie = MAINTENU du LIVRE ROUGE

H.T. [T1.30]
TABLE 1/F.30

Sequence of combination	Printed position	Letter case Figure case	Recommendation reference	
{ Connection of reperforator (or equivalent device) }	3 3 3 3	**CCCC**	**: | | |**	S.4
{ Disconnection of reperforator (or equivalent device) }	6 6 6 6	**FFFF**	Note 1	S.4
Suppression of delay signals	8 8 8 8	**HHHH**	Note 1	S.4, U.22
Ready for test	11 11 11 11	**KKKK**	**(| | |**	R.79, R.79 | fIbis
{ Switching a reader (or equivalent device) into circuit by remote control }	11 12 11 12	**KLKL**	**(| | |**	S.4
{ End of message or enabling of delay signals }	14 14 14 14	**NNNN**	**, | | |**	F.1, F.31, S.4, U.22
Change of alphabet	19 19 19 19	**SSSS**	**' | | |**	S.15
Error signal	24 24 24 24 24	**XXXXX**	/////	F.1 (C94)
Start of message	26 3 26 3	**ZCZC**	**+: | :**	F.1, F.31
End of input	26 26 26 26	**ZZZZ**	**++++**	F.200
{ Request for automatic advice of parties cleared prematurely during the broadcast call followed by call cleared }	13 13 13 13 Note 3	**MMMM** Note 3	Note 2	S.4, U.44

Note 1 — As noted in Recommendation F.1, § C4, the figure case of combinations 6, 7 and 8 is available for the internal service of each Administration.

Note 2 — As noted in Recommendation U.44 this sequence is to be recognized in letter case only.

Note 3 — A minimum of 4 Ms would clear a telex broadcast call. The usage of a 5th or more Ms is a national matter.

Tableau 1/F.21 [T1.21], p.3

(6) that, for the positions specialized in dealing with service messages, the series of 20 signals of the answer-back code should be as follows:

— carriage-return,

— line-feed,

— figure-shift,

— the call-number of the specialized position or group of positions,

— letter-shift

— space,

— the name of the office,

— space,

— letters **INQ** ,

— letter-shift;

(7) that, for positions specialized in the reception of overflow traffic, the series of 20 signals in the answer-back code should be as follows:

— carriage-return,

— line-feed,

— letter-shift,

— position identification letter(s),

— space,

— the name of the office,

— space,

— letters **DEB** ,

— letter-shift;

(8) that, if an answer-back code does not fill the 20 places available, the unused places should be filled by the necessary number of space signals between the name of the office and the country code;

(9) that the characteristic letters of names of countries should be the same as the telex network identification code shown in the *List of Destination Indicators and Telex Network Identification Codes* [1] with the exception of the countries below, which use the characteristic letters shown:

CS	Czechoslovakia	**I**	Italy
GB	United Kingdom	**L**	Luxembourg

Reference

[1] *List of indicators for the telegram retransmission system and telex network identification codes* , ITU, Geneva.

Recommendation F.23

GRADE OF SERVICE FOR LONG-DISTANCE INTERNATIONAL GENTEX CIRCUITS

The CCITT,

considering

that the main purpose of the gentex service is to ensure that traffic shall be passed without delay, whilst also ensuring a sufficient use of groups of long-distance international circuits intended to carry traffic,

unanimously declares

that the grade of service corresponding to a loss probability of 1 in 50, as set out in Table 2/F.64, should apply to the groups of long-distance international circuits used in the gentex service.

Recommendation F.24

AVERAGE GRADE OF SERVICE FROM COUNTRY TO COUNTRY IN THE GENTEX SERVICE

The CCITT,

considering

(a) that Recommendation F.23 gives a recommended grade of service for groups of long-distance international circuits used in the gentex service but;

(b) that it would be helpful for outgoing countries to be certain that the gentex calls can be put through with a loss probability sufficient to maintain the grade of gentex service without delay working ;

(c) that small offices connected to the gentex network cannot ensure, at the incoming end, a very high grade of service, otherwise their equipment would be uneconomically used;

(d) that it is sufficient for an outgoing country to be able to count on an average grade of service for all gentex calls to a given incoming country,

unanimously declares

(1) that it is helpful to define an average grade of service between countries for gentex calls;

(2) that this grade of service should be expressed as the proportion of calls that reach the incoming country participating in the gentex service, but that fail to get through to its gentex stations; and

(3) that this grade of service should not involve more than an average of 1 lost call in 10 during the busy hour on a normal day. Calls routed to an overflow position are considered as successful calls.

SECTION 3

MESSAGE SWITCHING

Recommendation F.30

USE OF VARIOUS SEQUENCES OF COMBINATIONS FOR SPECIAL PURPOSES

The CCITT,

unanimously declares that

(1) when it is necessary to provide for switching of telegrams to different routes in semi-automatic or fully automatic telegram retransmission systems, the beginning and ending of each telegram are identified by the insertion of start-of-message and end-of-message signals;

(2) the start-of-message signal consists of the sequence **ZCZC** in letter case;

(3) the end-of-message signal consists of the sequence **NNNN** , in letter case;

(4) the equipment that recognizes the start-of-message and end-of-message signals may be designed to do so by searching only for the sequence of four combinations corresponding to **ZCZC** or **NNNN** respectively (i.e. combinations 26, 3, 26, 3 or 14, 14, 14, 14 in International Telegraph Alphabet No. 2 regardless of whether they are in letter or figure case);

(5) Table 1/F.30 lists other sequences of combinations used for special purposes.

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H.T. [T1.30]
TABLE 1/F.30

Sequence of combination	Printed position	Letter case		
		Figure case	Recommendation reference	
{ Connection of reperforator (or equivalent device) }	3 3 3 3	**CCCC**	**: | | |**	S.4
{ Disconnection of reperforator (or equivalent device) }	6 6 6 6	**FFFF**	Note 1	S.4
Suppression of delay signals	8 8 8 8	**HHHH**	Note 1	S.4, U.22
Ready for test	11 11 11 11	**KKKK**	**(| | |**	R.79, R.79 | fIbis
{ Switching a reader (or equivalent device) into circuit by remote control }	11 12 11 12	**KLKL**	**(| | |**	S.4
{ End of message or enabling of delay signals }	14 14 14 14	**NNNN**	**, | | |**	F.1, F.31, S.4, U.22
Change of alphabet	19 19 19 19	**SSSS**	**' | | |**	S.15
Error signal	24 24 24 24 24	**XXXXX**	/////	F.1 (C94)
Start of message	26 3 26 3	**ZCZC**	**+: | :**	F.1, F.31
End of input	26 26 26 26	**ZZZZ**	**++++**	F.200
{ Request for automatic advice of parties cleared prematurely during the broadcast call followed by call cleared }	13 13 13 13 Note 3	**MMMM** Note 3	Note 2	S.4, U.44

Note 1 — As noted in Recommendation F.1, § C4, the figure case of combinations 6, 7 and 8 is available for the internal service of each Administration.

Note 2 — As noted in Recommendation U.44 this sequence is to be recognized in letter case only.

Note 3 — A minimum of 4 Ms would clear a telex broadcast call. The usage of a 5th or more Ms is a national matter.

Tableau 1/F.30 [T1.30] p.4

Recommendation F.31

TELEGRAM RETRANSMISSION SYSTEM

(a) For the routing of telegram traffic, Administrations can use the *Telegram Retransmission System* . This system comprises a network of interconnected telegram retransmission centres, which carry out the switching and retransmission functions. The indications needed to route the telegram are included with the telegram when it enters the system and are retransmitted with the telegram from one centre to another.

(b) The offices where telegrams enter or leave the telegram retransmission system are linked to at least one retransmission centre; such offices are described as *linked* offices. In the case of a particular telegram, the linked office through which the telegram enters the system is known as the linked entry office ; the linked office through which the telegram leaves the system is known as the linked exit office

(c) The present Recommendation has been drawn up for fully automatic working, but may be used for semi-automatic and manual working.

(d) To facilitate world-wide operation of the telegram retransmission system, to simplify the transfer of telegrams between the retransmission network and other networks and to enable the switching and accounting equipment needed for the retransmission centres to be designed, the CCITT, *unanimously declares that*

1 Each telegram must be treated independently, even if several telegrams for the same destination arrive in series at a linked entry office.

2 The format to be used in preparing the telegram for transmission shall be as follows:

2.1 The heading of the telegram shall start with the *numbering line* | preceded by a carriage-return, a line-feed and a letter-shift. The numbering line consists of:

2.1.1 *The start-of-message signal (SOM)*

In accordance with Recommendation F.30 the start-of-message signal (SOM) is made up by the sequence of combinations Nos. 26, 3, 26, 3 of International Telegraph Alphabet No. 2 (**ZCZC**) followed by:

2.1.2 *The channel sequence number*

Telegrams transmitted over a channel shall be numbered according to a series of numbers for each channel. The channel sequence number will therefore be composed of three letters characteristic of the channel used (channel indicator) followed by a number showing the order of this telegram in the series sent over this channel. The channel sequence numbers shall be in sequence from **001** to **999** and change automatically from **999** to **001** at the end of a numbering cycle.

When the telegram passes from one channel to another in a network, each new channel sequence number shall be inserted immediately after the start-of-message signal. The channel sequence numbers will appear in the numbering line of the telegram in the opposite order to that in which the telegram passed through the network.

The channel sequence number shall be transmitted as:

— space;

— three letters constituting the channel indicator;

— figure-shift;

— three figures constituting the number in the series on the channel.

Service advices will be numbered in the channel series unless agreed otherwise by the Administrations concerned. The channel sequence number(s) is followed by:

2.1.3 *The telegram identification group (TIG)*

The telegram identification group enables the office of origin to recognize the telegram. This group must not exceed 15 printing characters, which may be composed of any combination of letters and/or figures. In the special case of a telegram from the gentex network to the telegram retransmission system, the telegram identification group will be the only reference in the numbering line and will consist of two letters identifying the originating country or a particular network therein (in accordance with Recommendation F.96), the call number of the gentex office followed by one or two letters identifying the gentex position and the serial number of the telegram which that position sends.

The telegram identification group shall be transmitted as:

— space;

— letter-shift (if necessary);

— not more than 15 printing characters;

followed by:

2.1.4 *End of line*

— carriage-return;

— line-feed;

which will mark the end of the numbering line, followed by:

2.2 The second line of the heading, the *pilot line* , which consists of:

2.2.1 *The destination indicator*

This indicator is extracted from the *List of Destination Indicators and Telex Network Identification Codes* [1], and consists of four letters; the first two characterize the destination country (or a particular network in the destination country) and the following two letters characterize an office of that country (see also § 4 below).

The destination indicator shall be transmitted as:

— letter-shift;

— four letters;

followed by:

2.2.2 *The priority and tariff indicator*

This indicator consists of two letters chosen in such a way that the priority letters of the indicator differ from each other by at least two unit elements and the same letter does not appear twice in the same indicator, thus reducing the possibilities of error.

2.2.2.1 The first letter will designate the priority of transmission according to the following table:

A — Telegrams relating to safety of life (**SVH**)

B — Telegrams relating to the application of the United Nations Charter (**ETATPRIORITE**)

— Government telegrams with priority (**ETATPRIORITE**)

— Meteorological telegrams (**OBS**)

— Ordinary private telegrams with urgent transmission and delivery (**URGENT**)

— **RCT** telegrams with urgent transmission and delivery (**URGENT RCT**)

— Money orders and postal cheque telegrams with urgent transmission and delivery (**URGENT POSTFIN**)

C — Government telegrams (**ETAT**)

— Service telegrams (**A**)

— Service advices (**A**)

— Ordinary private telegrams

— **RCT** telegrams (**RCT**)

— Money orders and postal cheque telegrams (**POSTFIN**)

— Telemessage

H — Letter telegrams (including government letter telegrams) (**LT, LTF)**

This table takes account of the order of transmission given in Recommmendation F.1, A136 to A144.

2.2.2.2 A telegram that has been abnormally delayed can be upgraded to a higher priority group. Such promotion can be effected only in the linked entry office; in this case, a category **H** telegram could be marked **C** and a category **C** telegram marked **B** , but a telegram with lower priority than **A** can never be promoted to category **A**

2.2.2.3 The *second letter* **|** will designate the tariff class to be used according to the following table:

F Radiotelegrams routed via a foreign land station;

Where there is a choice of tariff indicator the one marked with a [2] takes precedence.

J **|** u2 **POSTFIN** telegrams ;

K Government telegrams where preferential rate is to be charged;

L Letter telegrams;

M Meteorological telegrams;

N Non-chargeable telegrams;

O Ordinary private telegrams;

Q | u2 Telegrams involving special accounting features ;

R **RCT** telegrams;

T Telemessages

U Telegrams (other than **RCT** telegrams) with urgent transmission and delivery;

V | u2 Divided telegrams ;

X For use by transit offices when inserting the pilot line on transit telegrams;

Y Government full-rate telegrams;

Z Government letter-rate telegrams.

2.2.2.4 Letters **D, E, G, I, P, S** and **W** are available for assignment when required.

The priority and tariff indicator shall be transmitted as:

— space;

— two letters;

followed by:

2.2.3 *The origin indicator*

The origin indicator consists of four letters; the first two will be the same as those used in the destination indicators for the originating Administration or network; the third and fourth will represent:

a) a particular city or town within that country or network; or

b) the office or department to which service correspondence regarding the telegram should be addressed.

Administrations may select the last two letters to satisfy the requirements of their internal organization but where there is more than one entry point to a country or network from any station the choice of letter combinations must be negotiated with that station where they differ from the destination indicator for the office in question. Administrations that take advantage of this facility should notify the CCITT of the origin indicators in use in their system.

The origin indicator shall be transmitted as:

— space;

— four letters;

followed by:

2.2.4 *The number of chargeable words*

The number of chargeable words shall be transmitted in the form of a three-figure number (for example **009**) using the number of chargeable words shown in the preamble line for the telegram in question. For a non-chargeable telegram the number **000** will be shown.

The number of chargeable words shall be transmitted as:

— space;

— figure-shift;

— three figures;

followed by:

2.2.5 A *customer identification group* | (optional): This group characterizes the customer for accounting purposes and can be composed of any combination of letters and/or figures. It will not be transmitted beyond the first retransmission centre. (See also Recommendation F.1 C108.)

The customer identification group shall be transmitted as:

— space;

— the customer identification group;

Administrations may agree mutually to accept additional tariff indicators.

followed by:

2.2.6 *End of line*

— carriage-return;

— line-feed;

which will mark the end of the second line (pilot line), followed by:

2.3 The third line of the heading which is the *preamble line* and which shall be transmitted as shown in Recommendation F.1, A140 to A144, including any service instructions, followed by:

— carriage-return;

— three line-feeds;

followed by:

2.4 *The address part*

2.4.1 *The service indication line* | (where required)

Any service indications should be placed on a separate line immediately before the address. Each indication shall be transmitted as one word. If there are several indications each will be separated by a space.

The service indication line is transmitted as:

— letter-shift (if necessary);

— the service indications;

— carriage-return;

— line-feed;

followed by:

2.4.2 *The address lines*

The address of a telegram shall be transmitted as:

— letter-shift (if necessary);

— the address;

— the name of the office of destination isolated in the last line (see Recommendation F.1, A39 to A100);

— carriage-return;

— three line-feeds;

followed by:

2.5 *The text part*

2.5.1 *The text* | shall be transmitted as:

— letter-shift (if necessary);

For postal addresses, the address part (including service indication line) should be composed of a maximum of six lines preferably not exceding 30 printing/spacing characters. An address part of five lines of up to 43 printing/spacing characters each shall be accepted.

— text;

— carriage-return;

— line-feed or — ten line-feeds

(if signature present) (if no signature present).

2.5.2 *The signature* | shall be transmitted as:

— minimum five spaces;

— signature;

— carriage-return;

— ten line-feeds.

2.6 *The end-of-message signal (EOM)*

In accordance with Recommendation F.30 the *end-of-message signal (EOM)* shall be transmitted as:

— letter-shift;

— **NNNN** ;

— ten letter-shifts (except where not required).

2.7 *Format examples*

Annex A gives an example of the format of a typical ordinary private telegram showing all the functional signals. Formats of other telegrams will be found in Recommendation F.1.

3 Choice of destination indicator

3.1 The linked entry office of the telegram retransmission network selects the destination indicator to be entered in the pilot line of a telegram.

3.2 Apart from the exceptions given in §§ 4.3, 4.4 and 4.5 the destination indicator shall be selected from the *List of Destination Indicators and Telex Network Identification Codes* [1] (see Recommendation F.96) according to the rules in Table 1/F.31.

3.3 Administrations wishing to do so may use the destination indicator *all others* (or one of the *all others* indicators) of the country of the office concerned for the telegrams to an office appearing in the *List of Indicators* [1], but not directly connected to the telegram retransmission network.

3.4 By private agreement between the Administrations concerned, the destination indicator to be used for each town of a country may be selected from any of the destination indicators for the country according to the internal routing of the country.

3.5 For return service advices, etc., relating to a telegram, the destination indicator shall be the origin indicator given in the telegram.

4 Routing

4.1 Within a telegram retransmission centre, a telegram shall be directed to the following channel in the chain of connections by the destination indicator shown on the pilot line of the telegram, in accordance with the traffic circulation scheme of the telegram retransmission centre.

4.2 If the appropriate subsequent route for the telegram is not connected with the telegram retransmission equipment, the destination indicator shall direct the telegram to a place in the centre where it can be handled and reforwarded.

H.T. [T1.31]

TABLE 1/F.31

Rules for selecting the destination indicator

{		C	{
		Telegram showing routing	Telegram not showing routing
{ 1. Destination town directly connected with telegram retransmission system, or to which a destination indicator is allocated } Use destination indicator given in the *List* | against the town concerned } Use destination indicator with the two letters for the network in the *List* | followed by the two letters for the town in the *List* } Use destination indicator with the two letters for *unrouted* | for the country concerned followed by the two letters for the town in the *List* }	{ { {		
2. Other destinations Use destination indicator *all others* | given in the *List* | for destination country } Use destination indicator with the two letters for the network in the *List* , followed by the two letters corresponding to *all others* | for the country concerned } Use destination indicator with the two letters for *unrouted* for the country concerned, followed by two letters for *all others* for the country }	{ { {		

Tableau 1/F.31 [T1.31], p.5

5 Tolerances as to the format and checking of format

5.1 Switching equipment shall tolerate:

a) a space and letter-shift transposition or a space and figure-shift transposition in a sequence normally prescribed as having to be a space followed by a shift;

b) the repetition of a function signal, except for the space between the destination indicator and the priority indicator;

c) the reception of characters between successive end-of-message signals and start-of-message signals (for example: spurious signals, letter-shifts or other functional signals) without affecting the proper functioning of the equipment. (Any transmission from the sending end of a channel between an end-of-message signal and the subsequent start-of-message signal should be limited to those characters that have a function at the receiving end of the channel.)

5.2 If a repetition or a transposition in the sequence carriage-return, line-feed, letter-shift separating the numbering line from the pilot line cannot be tolerated by the switching equipment, the telegram affected by such a defect will be directed towards a manual service position.

5.3 Any deviation from the format that might be recognized by a centre and that goes beyond the acceptable tolerances as given herein shall as far as possible be corrected before retransmission to another switching centre.

5.4 If the operator in preparing a telegram detects an error in the set-up of the numbering line or the pilot line, he must destroy the part already set up and start preparation of his telegram again. But if the transmission of these two lines has already started, the operator shall send the code expression **ANUL** space **ANUL** followed by ten line-feeds and the end-of-message signal. Any telegram so terminated shall not, if possible, be retransmitted by the first switching equipment to receive it.

6 Protection against loss of telegrams

6.1 *Transmission*

6.1.1 Whenever a retransmission is made, a channel sequence number is sent, showing the channel used for retransmission and the sequence of the telegram on that channel.

6.1.2 During the retransmission, a telegram interrupted by the code expression **ANUL ANUL** followed by the EOM sequence is considered as not transmitted. This telegram must be retransmitted with its original channel sequence number without other indication.

6.1.3 A check must be made in every retransmission centre, either automatically or by an operator, to prove that every telegram received is retransmitted.

6.2 *Reception*

6.2.1 A check is made to verify the regular sequence of the channel numbers of telegrams received on each incoming channel. Should there be any irregularity, an alarm will warn the supervisory staff.

6.2.2 During reception, a telegram interrupted by the code expression **ANUL ANUL** followed by the EOM sequence is considered as not received. This telegram must be received again in a complete way with its original channel sequence number without other indication.

6.3 *Mutilation*

6.3.1 If there is a mutilation of the text of a telegram, the incident will be dealt with by end-to-end servicing since the alteration will be noted in practice only at the linked exit office.

6.3.2 If there is a mutilation of a channel sequence number, which may be noted automatically when entering an office, a request for re-run, by service advice, as applicable, indicating the queried sequence number, will be sent to the proceding office on the channel chain, which will then re-run the telegram in question.

6.3.3 For enquiries about a telegram whose telegram identification group has been mutilated, investigation will be made by going back along the route from office to office and by identifying the telegram by means of operating information.

7 Starting of motors

7.1 In general the motors of terminal equipment will always be running, at least on intercontinental circuits.

7.2 However, the two Administrations concerned may agree to operate a channel with terminal equipment fitted with time-delay devices to start and stop the motor. They will agree mutually on arrangements for controlling the start of the motor. The provisions of Recommendation S.7 seem to be the most applicable.

8 Use of tape-printing equipment

8.1 Recommendation S.5 should be followed with regard to the use of tape-printing equipment in the telegram retransmission system.

9 Offices operated semi-automatically or manually

9.1 For offices that are connected to fully automatic systems, Administrations should follow as closely as possible the format recommended in this Recommendation.

9.2 Other offices should also follow the recommended format on any telegram that will enter the telegram retransmission system on a second or subsequent link.

10 Automatic service procedures

10.1 *Re-runs and Put-backs*

10.1.1 A re-run is the repetition, between two directly connected centres of offices, of one or more telegrams that have previously been sent.

10.1.2 A put-back ionvolves stopping a transmission on a channel, recommencing at a particular telegram previously transmitted and continuing from there.

10.1.3 Re-runs and Put-backs should only consist of information that was initially transmitted. Request for re-runs will only occur between the directly connected centres concerned. Telegrams so repeated shall be transmitted under their original channel sequence numbers only.

10.1.4 If a re-run of any telegram is given automatically by a telegram retransmission centre, such re-run should be restricted to that telegram retransmission centre or linked office to which the traffic was initially transmitted, or a centre or linked office to which the traffic has been diverted.

10.2 *Automatic service notes*

10.2.1 Automatic service notes are designed to initiate an automatic action at a telegram retransmission centre. They may or may not be generated automatically, but they shall be numbered in the normal sequence.

10.2.2 Automatic service notes should only be sent from stations that work directly to the distant automatic retransmission centre at which the action is to be taken.

10.2.3 Where automatic action is required, the numbering line may also be composed of:

ZCZC ABC000 or **ZCZC XQ**

10.2.4 Automatic service notes shall contain a pilot line with a special destination indicator composed of the country code followed by **ZZ** ; the **B** priority indicator must be used.

10.2.5 A preamble line may appear in these notes, but it may be in abbreviated form, e.g. a date and time group only.

10.2.6 The text must commence with a four-letter code designating the action required:

RRUN for re-run,

PUTB for put-back (retransmission of all the telegrams, starting from a given number),

BKBK for break,

SITU for situation,

GAGA for go ahead (after an interruption in the traffic).

10.2.7 Automatic service notes and responses shall conform to the layout in Annex A.

10.3 *Automatic re-runs and put-backs (commands* **RRUN** *and* **PUTB** *)*

10.3.1 Where a centre can automatically generate re-runs and put-backs, these should normally be available on request from another directly connected centre during the 24 hours following the original transmission of the telegrams in question.

10.3.2 Automatic re-run of a maximum of ten telegrams may be requested in a single service note.

10.3.3 Put-back of a maximum of 50 telegrams may be requested in a single service note (**PUTB**).

10.3.4 The telegrams referred to in a request for automatic re-run or put-back shall all bear the same original channel indicator.

10.3.5 Automatic re-runs and put-backs should take place over the channel used for the transmission of the original telegram(s). However, they may also be sent over the original route, but not necessarily over the original channel, if the two Administrations concerned have agreed to this course in advance.

10.3.6 Where automatic answer is not given immediately, the reply must be made manually subsequently.

10.3.7 The same format should also be used by centres that have access to automatic repetition facilities at a distant centre but that have to prepare failure notes manually.

10.4 *Automatic stoppages and re-starts of transmission (commands* **| BKBK** *and* **| GAGA** *)*

10.4.1 Automatic stoppage and re-start of transmission should be available on request from any directly connected centre.

10.4.2 Both facilities should be possible, either stopping or re-starting on one specified channel or on all channels of a relation.

10.4.3 In the case of a general break command from a telegram retransmission centre, a service note including a numbering line consisting only of **ZCZC XQ** and having a special destination indicator **XQXQ** in the pilot line shall be used to notify all connected Administrations.

10.5 *Automatic situation requests (command* **| SITU** *)*

10.5.1 Where a Centre can automatically provide the channel sequence numbers of the last telegram received and the last telegram sent, this should normally be available on request from another directly connected Centre.

10.5.2 The information shall contain the time to which the situation refers.

10.5.3 The information given should include the situation for all channels on the same route.

10.6 *Automatic continuity checks* (**LRLS**)

10.6.1 Sixty minutes after the last message received or sent on a circuit, a continuity check message shall be sent.

10.6.2 The format of this message is identical to the reply (**LRLS**) to a situation request.

ANNEX A
(to Recommendation F.31)

Format examples

A.1 *Ordinary private telegram with service indication (showing all functional signals)*

≡

↓ **ZCZC AOE** ↑**262** ↓**LDB** ↑**814** ↓**PLD** ↑**606** ≡

↓ **AASD CO GBLD** ↑**018** ≡

↓ **LONDON** ↑**B/F** ↓**LD** ↑**18B/F16 22 1430** ≡≡≡

↓ **LX** ≡

HARRIS ≡

↑ **2462** ↓**SOUTHERNHIGHWAY** ≡

SYDNEY ≡≡≡

CONGRATULATIONS ON YOUR PROMOTION AND ≡

BEST WISHES FOR THE FUTURE ≡

JOHN ≡≡≡≡≡≡≡≡≡≡

↓ **NNNN** ↓↓↓↓↓↓↓↓↓↓

A.2.1 *Service note requesting automatic re-run of one message*

ZCZC ABC000 ≡ (or **ZCZC XQ**)

DPZZ BN FRZZ 000 ≡ (**ZZ** if request is generated automatically, **XQ** otherwise)

PARIS 21 0926 ≡≡≡ (optional or abbreviated in case of request only)

RRUN BCA165 ≡≡≡≡≡≡≡≡≡≡

NNNN

A.2.2 *Service note requesting automatic re-run of several messages in a sequence (maximum ten messages)*

ZCZC XQ ≡

DPZZ BN FRZZ 000 ≡

PARIS 21 0926 ≡≡≡

RRUN BCA286/293 ≡≡≡≡≡≡≡≡≡≡

NNNN

A.2.3 *Service note requesting automatic re-run of several non-consecutive messages (maximum five)*

3 first lines identical ≡≡≡

RRUN BCA123 141 162 173 ≡≡≡≡≡≡≡≡≡≡

NNNN .bp

A.3 *Service note requesting put-backs (maximum 50 messages)*

3 first lines identical ≡≡≡

PUTB BCA123 ≡≡≡≡≡≡≡≡≡≡

NNNN

A.4.1 *Service note with break command on a specific circuit*

3 first lines identical ≡≡≡

BKBK BCA ≡≡≡≡≡≡≡≡≡≡

NNNN

A.4.2 *Service note with break command on all circuits in a relation*

3 first lines identical ≡≡≡

BKBK ≡≡≡≡≡≡≡≡≡≡

NNNN

A.4.3 *Service note with break command consecutive to a system failure*

ZCZC XQ ≡

XQXQ BN FRXQ 000 ≡

Preamble line optional ≡≡≡

BKBK ≡≡≡≡≡≡≡≡≡≡

NNNN

A.5.1 *Service advice to restart the traffic on a specific circuit*

ZCZC ABC000 ≡

DPZZ BN FRZZ 000 ≡

Preamble line optional ≡≡≡

GAGA BCA ≡≡≡≡≡≡≡≡≡≡

NNNN

A.5.2 *Service note to restart the traffic on all circuits of a relation*

ZCZC XQ ≡

DPZZ BN FRZZ 000 ≡

Preamble line optional ≡≡≡

GAGA ≡≡≡≡≡≡≡≡≡≡

NNNN .bp

A.6.1 *Service note for a situation request*

ZCZC LPA000 ≡

FRZZ BN GXZZ 000 ≡

LONDON 9 1027 ≡≡≡ (optional)

SITU ≡≡≡≡≡≡≡≡≡≡

NNNN

A.6.2 *Reply format to the § A.6.1 request*

ZCZC PLA000 ≡

GXZZ BN FRZZ 000 ≡

PARIS 9 1031 ≡≡≡ (complete preamble compulsory)

LRLS LPA074 PLA444 ≡

LPB570 PLB009 ≡

MISSING LPA040/043 ≡

LPB551 554 560 ≡≡≡≡≡≡≡≡≡≡

NNNN

References

[1] *List of indicators for the telegram retransmission system and the telex network identification codes* , ITU, Geneva.

[2] *List of telegraph offices open for international service* , ITU, Geneva.

Recommendation F.35

PROVISIONS APPLYING TO THE OPERATION OF AN INTERNATIONAL PUBLIC AUTOMATIC MESSAGE SWITCHING SERVICE FOR EQUIPMENTS

UTILIZING THE INTERNATIONAL TELEGRAPH ALPHABET No. 2

The existence of message switching systems in various countries creates the need for international agreement on operational rules. This service, hereafter described, can be offered by the Administration, on an international basis, following a preliminary agreement by the Administrations concerned.

The CCITT,

considering

(a) that message switching services are based on a technique of providing storage, routing and retransmission of messages;

(b) that the existence of present terminals and systems utilizing the International Telegraph Alphabet No. 2 justifies the provision of a Recommendation for an automatic message switching service;

Formerly numbered F.150 in the Red Book.

(c) that terminals and systems in use conform to the relevant CCITT Recommendations;

(d) that the application of operational rules in this kind of environment does not preclude the development of messaging services ,

unanimously declares

that the following provisions should be applied when a public message switching service is being provided internationally for equipment utilizing the International Telegraph Alphabet No. 2.

1 General

1.1 The *format* | to be used shall comprise a layout with the following basic components:

— the identification line ,

— the routing line ,

— the origin line,

— the text.

1.2 *Length of messages*

As a general rule, the length of messages should not exceed 10 | 00 printed characters, spaces or separators. Nevertheless, Administrations may establish a different limit by bilateral agreement.

1.3 *Sequence of signs*

The uninterrupted repetition of any sign shall be tolerated up to a number of characters corresponding to a printed line varying in length according to the mode of operation used. Beyond this limit, the message shall be refused; subsequent signs forming part of the repetition shall be ignored.

1.4 *Routing*

Messages shall be routed on circuits and systems in accordance with arrangements and modalities agreed between the Administrations concerned.

As a rule, each system shall only receive messages for direct retransmission to national users.

When difficulties arise in this routing, only the standby circuits and systems previously designated as such shall be brought into use. If, however, the standby equipments previously agreed upon prove to be inadequate owing to the special nature of the difficulty, the traffic may be routed on other circuits or systems with the prior agreement of the Administrations concerned or of instances appointed by them for the purpose.

To avoid critical obstruction of the system or systems used for emergency routing, traffic cannot be deviated until the agreement of the Administrations concerned has been obtained; any restrictions placed on the deviation must be observed.

1.5 *Service traffic*

Service traffic exchanged through a system must conform with the example given in § 5.2. In all cases, the reference data relating to the original message must appear at the beginning of the text of the service correspondence. These data must in no case be preceded by other information.

In cases directly concerned with interworking between systems, the service traffic must be addressed to the system itself.

1.6 *Effects of one system on another*

Traffic between two directly interconnected systems may be affected by the following commands:

— an order to the partner to stop and then to resume his transmission;

— a request to repeat messages;

— a request for a load position notice.

These commands shall follow the format shown in § 5.2 and shall be addressed to the corresponding system. The first word of the text indicates the action to be taken.

According to the degree of development of the system, the reaction may be automatic or set off by the operator.

1.7 *Overloading of systems*

Precautions must be taken against overloading.

The system shall signal the moment when a critical load threshold is reached, so that appropriate measures can be taken before the situation deteriorates further.

As far as possible, the system shall complete reception of messages in progress before taking action.

1.8 *Procedure to be applied in the event of total interruption of the system*

When the interruption is planned (maintenance), the partners shall be notified as far as possible in advance.

When it is formally established that a sudden interruption will last longer than 2 hours, all the partners concerned shall be notified without delay and informed of the measures to be taken or, where applicable, of the application of measures planned for the provisional remedy of such system failures.

As soon as normal operation of the system is restored, the correspondents shall be informed without delay.

1.9 *Period of preservation of archives*

1.9.1 *For automatic access*

An automatic message retransmission system should, as far as possible, be so designed as to allow direct access, for purposes of repetition or settlement of disputes, to messages transmitted by the system for at least the past 24 hours.

1.9.2 *For deferred access*

Archives relating to the deposit and transmission of messages shall be kept for at least 2 weeks as from the day following the deposit of the message.

1.10 *Terminals directly connected to the centre of another Administration*

When connection to a national centre cannot be effected, a terminal may exceptionally be connected to the centre of another Administration, with the consent of the Administrations concerned.

1.11 *Tolerances*

1.11.1 At *reception* , a system must be capable of admitting tolerances whereby recourse to human interpretation is reduced to a minimum.

For maximum efficiency, these tolerances shall, as far as possible, be adapted to the errors most commonly encountered in operation. Nevertheless, errors liable to interfere with the routing or correct treatment of the message shall be excluded.

Unless otherwise agreed, messages which cannot be processed, automatically or manually, and character sequences not recognized as messages shall be notified to the transmitting station by an appropriate message. This message shall be set out in the format described in § 5.2 and shall contain in the text the references of the original message (identification line) and the reason for refusal.

1.11.2 At *transmission* , the system must strictly observe the criteria of the agreed format, irrespective of the tolerances admitted at reception.

1.11.3 Departures from these rules may be permitted only with the consent of the Administrations concerned.

2 Message

The format to be used to prepare a message for transmission is as follows:

2.1 *Identification line*

The heading of the message is formed by the identification line which comprises:

2.1.1. *Start-of-message signal* (SOM)

This signal, normally composed of the sequence of Combinations Nos. 26, 3, 26, 3 of International Telegraph Alphabet No. 2 (ZCZC or + : + :), may vary according to the mode of operation used. It is followed by the channel serial number.

2.1.2 *Channel serial number*

Transmission numbering shall be applied serially to each point-to-point circuit and each terminal using the switched network. The channel serial number consists of three letters characterizing the circuit (circuit indicator) or terminal used, followed by the order number of the message carried on the circuit, exchanged with the terminal. The channel serial numbers shall be followed by 001 to 999, with automatic transfer from 999 to 001 at the end of the numbering cycle.

At each retransmission, a new channel serial number shall be inserted immediately after the start-of-message signal. The channel serial numbers shall appear in the identification line of the message in the opposite order to the one in which the message was transmitted.

The length of the identification line must not exceed 69 printed characters. Where necessary, the penultimate channel serial number of the identification line shall be erased and replaced by a new one; the last channel serial number of the identification line shall always be retained, because it also serves as the identification group of the message.

The identification line shall be followed by the routing line.

2.2 *Routing line*

The routing line comprises:

2.2.1 *Priority indicator*

The priority indicator, preceded by at least one ‘‘line change’’ order, consists of two letters and indicates the following four priorities:

— QS means that the message is very urgent

— QU means that the message is urgent

— QN means that the message is normal

— QD means that the message can wait.

Systems should be capable of identifying these four priorities at reception, but can deal with only two priorities at transmission, confusing QS with QU and QN with QD. A message containing no mention of priority or containing a mention other than the ones listed above shall be regarded as a normal message and shall be marked with the code QN at output.

The priority indicator shall be followed by the routing indicator.

2.2.2 *Routing indicator*

The routing indicator shall be composed of an alphanumerical group of three to seven characters agreed upon by the Administrations concerned. The signs ‘‘—’’ (dash) and ‘‘/’’ (oblique) are also admitted.

A message may comprise up to 32 routing indicators distributed over one or more lines, each of which can designate one or more addressees. The message delivered to the addressee shall contain only the indicator which relates to him.

The routine line is followed by the origin line.

2.3 *Origin line*

The origin line is preceded by at least one ‘‘change of line’’ order, followed by the full stop sign (.). The origin line comprises:

2.3.1 *Origin indicator*

The origin indicator is composed in accordance with the criteria set out in the first paragraph of § 2.2.2. The space between the full stop and the origin indicator is optional.

The origin indicator may be followed by references.

2.3.2 *References*

These references are optional and may be provided either by the sender or by the system of origin. They shall have no effect on the processing of the message.

The length of the origin line must not exceed one printed line of 69 characters.

The origin line shall be followed by the text.

2.4 *Text*

Preceded by at least one ‘‘change of line’’ order.

The format of the text is subject to no special criteria. With regard to the content, the ‘‘start-of-message’’ (SOM) and ‘‘end-of-message’’ (EOM) signals and specific signs or combinations not authorized by a given mode of operation (cf. the relevant sections) shall not be used.

The text is followed by the end-of-message signal (EOM).

2.5 *End-of-message signal* | (EOM)

This signal, preceded by at least one ‘‘change of line’’ order, is normally composed of the sequence of combinations No. 14, 14, 14, 14 of International Telegraph Alphabet No. 2 (NNNN or ,,,,). This signal may, however, vary according to the mode of operation used.

2.6 The format to be used to prepare a *service message* | is the same as that stipulated for an ordinary message (see §§ 2.1 to 2.5).

Comments and orders may be expressed in the abbreviated form described below.

An example of such a message is given in § 5.2.

3 Mode of operation on asynchronous point-to-point circuits

3.1 *Start of message*

Group ZCZC or + : + : indicates the start of the message (SOM).

3.2 *End of message*

Group NNNN or ,,,, indicates the end of the message (EOM).

3.3 *Sequence of function signs*

The combination of function signs (≡↑↓) does not affect the analysis and treatment of the message.

3.4 *Routing of traffic*

Messages are routed on circuits and systems in accordance with the arrangements and modalities agreed upon between the Administrations concerned.

When two systems are connected by several circuits, the traffic shall be distributed over each usable circuit, if possible.

3.5 *Repetition of messages*

Messages shall be repeated only at the request of the partner. There are two kinds of repetition:

3.5.1 *Repetitions in the form of service notices* (retrievals)

These are generally used to repeat messages already completely transmitted. The channel serial number of the original transmission must appear in the service notice.

3.5.2 *Repetitions in the same form as the first transmission* (rerun, put-back)

Messages shall be repeated in exactly the same form as the original transmission, i.e. in the same order, with the same identification and the serial number and via the same circuit.

3.6 *Specific rules for transmission*

3.6.1 *Interruption of transmission*

After restoration of the situation, the interrupted message should, as a rule, be repeated with the same serial number.

3.6.2 *Cancellation of a message in the course of transmission*

Any message that has begun may be cancelled by transmitting:

ANUL NNNN

The channel serial number shall be reassigned to the following message.

The cancelled message shall be neither processed nor transmitted, but shall be kept in the archives.

3.6.3 *Special signs*

Transmission of characters D, F, G and H in the form of figures and of combination No. 32 is subject to prior agreement.

3.6.4 *Tolerances*

No tolerance shall be admitted for the transmission of messages.

3.7 *Specific rules for reception*

3.7.1 *Irregularities at reception*

a) *Absence of start-of-message criterion*

The system memorizes the signs received until it recognizes an end-of-message (EOM) sequence or until an irregularity c), d) or e) below appears.

b) *Absence of end-of-message (EOM) criterion*

This causes the message to be rejected.

c) *Pause*

A pause may be defined as a period during the reception of a message in the course of which no data signal is received. If the pause lasts longer than 30 seconds, the system rejects the message.

d) *Repetition of signs*

Repetition of signs in excess of the tolerances given in § 1.3 causes the message to be rejected.

e) *Interruption of circuit*

An interruption is equivalent to a lapse of reception time of at least one character. Appropriate measures shall be taken to avoid loss of messages.

Note — Rejection of the message is held to mean the sending of a notice to the transmitting station or, where applicable, its routing to a forward transfer position (see § 1.11.1).

3.7.2 *Special signs*

The presence of characters F, G and H in the form of figures and of combination No. 32 shall not affect reception availability.

As far as possible, the presence of characters D in figure case shall be admitted under the same conditions.

3.7.3 *Tolerances*

Any tolerances that might be admitted at reception must not be liable to cause the loss, mutilation or duplication of messages.

4 **Switched network mode of operation** (telex)

The rules applicable to the establishment of calls, transmission of messages and disconnection of calls shall be those set out in Recommendation F.60.

4.1 *Start of message*

Group ZCZC or + : + : indicates the start of the message (SOM).

4.2 *End of message*

Group NNNN or ,,,, indicates the end of the message.

4.3 *Cancellation of a message during transmission*

Any message that has begun may be cancelled by transmitting:

ANUL NNNN

The two answerback codes must then be released and the channel serial number must be reassigned to the following message.

The cancelled message shall not be processed or retransmitted, but shall be kept in the archives.

5 **Examples of formats**

5.1 *Format of ordinary message*

ZCZC PMS036 (Note 1)

QN STOUDHF (Note 2)

.MARSBRD 77/11 REF 132 (Note 3)

TEXT

NNNN

Note 1 — Identification line comprising the start-of-message (SOM) signal and one channel serial number.

Note 2 — Routing line comprising the priority and routing indicators.

Note 3 — Origin line comprising the indicator of origin and optional references.

5.2 *Format of service message*

ZCZC SWF226

QU CENTREB

.CENTREA

COMMENTAIRE/COMMANDE

NNNN

BLANC

MONTAGE: PAGE PAIRE = BLANCHE

SECTION 4

TARIFFS AND ACCOUNTING METHODS FOR THE INTERNATIONAL

PUBLIC TELEGRAM SERVICE

Recommendation F.41

OPERATIONAL PROVISIONS FOR PARTICIPATION IN THE

TRANSFERRED ACCOUNT TELEGRAPH AND TELEMATIC SERVICE

1 Definition

1.1 The **international transferred account telegraph and telematic service** is a service in which the Administrations concerned agree that the charge for telegraph and telematic services be paid by a party that has accepted responsibility for payment, instead of being paid by the sender.

1.2 This service shall be known as the *TA Service* .

1.3 The term **guarantor Administration** as used herein refers to the Administration responsible for the collection of TA charges and for the payment of such charges to the Administration of origin of TA traffic.

2 Correspondence admitted

2.1 The TA service applies to all telegraph and telematic services available at public telegraph offices on a TA basis and may include:

a) telegrams and radio telegrams;

b) telex and radiotelex calls from a public booth;

c) phototelegrams and phototelegraph calls handed in at public telegraph offices;

d) switched data calls through a public telegraph office;

e) document facsimile calls at a public telegraph office;

f) teletex calls from a public booth;

g) videotex calls at a public booth.

See also Recommendation D.98.

2.2 In principle, TA telegraph and telematic services can be requested only by the holder of a TA card and only on presentation of the card.

2.3 The TA service is an optional service. The Administrations that agree to participate in it shall inform the ITU General Secretariat thereof and shall also indicate which of the telegraph and telematic services mentioned in § 2.1 above are provided in the TA service. The General Secretariat shall keep a table of the information received.

3 Provisions concerning users

3.1 *Requests for admission*

3.1.1 Application for admission to the TA service must be made to an Administration and include the following particulars:

a) the full name of the person (or full title of the corporate body) wishing to use the TA service;

b) the full name and address of the person or corporate body responsible for payment of the charges;

c) duration of validity requested for the TA card.

3.1.2 The request for admission to the TA service shall be submitted to the Administration of:

a) the country in which the person or corporate body responsible for payment of charges is resident; or

b) any other country participating in the service.

3.1.3 The Guarantor Administration may request the customer responsible for payment of the charges to make a guarantee deposit, the amount of which shall be fixed by the Administration.

3.1.4 TA cards shall not be transferable. The period of validity shall not exceed one year.

3.2 *Withdrawal of the right to use the TA service; lost or stolen TA cards* .

3.2.1 The Administration authorizing the use of the TA service shall reserve the right to withdraw its authorization, given just cause, and the holder of the TA card must then surrender it on request.

3.2.2 If a TA card is lost or stolen, the TA card holder or the customer responsible for payment should immediately inform the Administration that issued it or the Administration that authorized its use. On receipt of such advice an Administration that issued the TA card as the agent of an authorizing Administration must notify that Administration as soon as possible.

4 Provisions concerning Administrations

4.1 *Requests for admission*

4.1.1 In the case cited in § 3.1.2 a), admission to the TA service may be authorized directly by the Administration receiving the request.

4.1.2 In the case cited in § 3.1.2 b), the Administration receiving the request should consult with the Guarantor Administration to confirm that the latter agrees to guarantee the charges. Admission to the TA service, and the issue of the TA card, will be contingent on this advance agreement.

4.2 *Establishment of TA cards*

4.2.1 The Administration that receives the request for admission to the TA service shall issue to the applicant a TA card of the standard model or ask the Administration of the country in which the sender is located to issue a TA card.

4.2.2 When the TA card is delivered, the Administration shall give the holder a sheet containing the *Terms of Issue* (see Annex C).

4.2.3 The authorizing Administration shall cause the following to be inserted on each TA card:

1) The card number comprised of:

a) two letters indicating the Administration that issued the card [these letters shall be taken from the *List of Indicators for the Telegram Retransmission System* [1] (Recommendation F.96)];

b) a number composed of a maximum of 6 digits, allocated by the Administration issuing the card;

c) two letters, chosen as in a), indicating the Guarantor Administration.

2) the expiration date;

3) the name of the card holder;

4) the signature of the card holder;

5) the full name of the issuing Administration;

6) the name and address of the person or corporate body responsible for the payment of TA charges;

7) the signature of an officer of the issuing Administration.

4.2.4 Inland cards issued by Administrations for use only within their own country must be quite different in appearance from the ITU cards.

4.3 *Withdrawal of the authorization to participate in the TA service*

4.3.1 In the case of withdrawal of the right to use the TA service where the TA card cannot be obtained from the holder, or in the case of a lost or stolen TA card, the authorizing Administration should immediately notify:

1) The General Secretariat so that advice may be placed in the next ITU *Operational Bulletin* ; and

2) Administrations with whom it is thought TA traffic may be lodged against the TA card.

4.3.2 On receipt of such notification, whether direct or through the ITU *Operational Bulletin* , Administrations should take all reasonable precautions to prevent the TA card being honoured and, if possible, should recover the TA card should it be presented.

4.3.3 Notwithstanding the requirement in § 4.3.2, if the TA card is used in accordance with all other relevant provisions governing the TA service then the authorizing Administration remains liable for payment of charges to the Administration accepting the TA traffic.

4.4 *Treatment of TA traffic*

4.4.1 TA traffic shall be accepted, routed and delivered under the same conditions as other traffic of the same category.

4.4.2 During routing within the origin country, TA telegrams may be completed by various indications for the purpose of accounting checks. Such indications should be deleted before transmission of the telegrams over the international network or appear, only if they are essential, at the end of the preamble line. These should consist of the indication **TA** , followed or not by other indications.

5 Provisions concerning the ITU Secretariat

5.1 *Supply of TA cards*

5.1.1 The General Secretariat shall have TA cards printed in accordance with the specifications laid down in Annex A and on request shall supply such cards to Administrations participating in the service.

5.2 *TA Table*

5.2.1 The ITU General Secretariat shall publish and keep a table in alphabetical order of country, as spelled in the French language, containing the following information in respect of each Administration participating in the TA service:

1) the name of the Administration and the abbreviation applicable to it (such abbreviations shall be taken from the *List of Indicators for the Telegram Retransmission System* [1]);

2) any surcharges or special charges applicable;

3) the address to which correspondence concerning the operation of the TA service should be sent;

4) any special observations or instructions;

5) appropriate advice if the Administration does not agree both to guarantee TA cards for its own customers and to accept TA cards guaranteed by other Administrations;

6) the telegraph and telematic services provided.

5.3 *Notification in the Operational Bulletin*

5.3.1 The ITU General Secretariat shall publish in the *Operational Bulletin* | the numbers of the TA cards which may no longer be used (see § 4.3.1).

ANNEX A
(to Recommendation F.41)

Reproduction and specifications of international standardized plastic TA card

Figure (cartes U.I.T.), (M), p.6

ANNEX B
(to Recommendation F.41)

Instructions for filling in international TA cards

Latin characters and Arabic numerals should be used throughout. The various sections of the card should be filled in, preferably by typewriter, as follows:

Section No. 1

The composition of the card number (or identification group) is specified in the provisions governing the TA service (see § 4.2.3 of this Recommendation).

Section No. 2

Enter the date until which the card is valid. This date should be composed as follows:

— the month (in Arabic numerals); card validity will always expire at the end of the month shown, January, being month No. 1;

— the year (in Arabic numerals).

Section No. 3

Enter here the name of the holder with the surname in capital letters and the first name(s) in small letters.

Section No. 4

Ensure the holder of the card signs here.

Section No. 5

Enter here the full name of the issuing Administration.

Section No. 6

Enter here the name and address of the person or corporate body responsible for the payment of TA charges.

Section No. 7

The signature of an officer of the issuing Administration.

ANNEX C
(to Recommendation F.41)

Terms of issue

C.1 This card is not transferable.

C.2 This card must be produced each time a facility duly authorized by the TA service is used.

C.3 The holder must enter his name and title (Mr., Mrs., etc.) and the number of this card on the official forms used for the TA service.

C.4 Administrations reserve the right to withdraw at any time the authorization to use this card. The holder must surrender this card on request.

C.5 This card must be returned to the issuing Administration as soon as the holder is unable or no longer intends to use it, regardless of whether its period of validity has expired or not.

C.6 In case of loss, the issuing or guaranteeing Administration must be informed immediately. Otherwise, the person or corporate body responsible for the payment of charges will be required to pay any charge resulting from fraudulent use of this card.

References

[1] *List of indicators for the telegram retransmission system and telex network identification codes* , 4th edition ITU, Geneva, 1979.

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

[3] *Final Acts of the World Administrative Telegraph and Telephone Conference, International Telecommunication Regulations* , ITU, Melbourne, 1988.

Recommendation F.42

OPERATIONAL PROVISIONS FOR THE COLLECTION OF TELEGRAM CHARGES

1 Collection of charges

1.1 The charges shall normally be collected from the sender.

2 Telegrams payable by the addressee or a third party — the TA service

2.1 Administrations may, either by participating in the transferred account telegraph and telematic service (the TA service) provided for in Recommendations F.41 and D.98, or by special agreement and at the express request of the addressee or other party undertaking payment, admit telegrams of all classes without payment of charges in the origin country. These charges shall be collected from the addressee or other party undertaking payment.

3 Prohibition of rebates

3.1 Administrations shall not grant rebates on the rates appearing in the applicable official tariff lists to senders or addressees of telegrams in any form whatsoever (for example, per word, per telegram, by means of discounts, etc.).

4 Errors in collection

4.1 If, owing to an error, a telegram is undercharged, the balance necessary to make up the full charge must be collected from the sender, in accordance with the internal regulations of each country.

4.2 Amounts overcharged in error shall be refunded to the sender in accordance with the internal regulations of each country.

BLANC

SECTION 5

TELEMESSAGE

Recommendation F.50

INTERNATIONAL PUBLIC TELEMESSAGE SERVICE

1 Introduction

1.1 *Scope*

1.1.1 This Recommendation contains the operational provisions for the international public telemessage service. This is defined as an international public service provided to enable the transmission of messages input electronically on national public telecommunication networks or by other means, normally for postal delivery in the destination country.

1.1.2 The international public telemessage service may operate in parallel with, or as an alternative to, the international public telegram service. The international public telemessage service shall provide the capability of operating in conjunction with the international public telegram service in those cases where it is used as an alternative to the international public telegram service.

1.1.3 The tariff principles for the international public telemessage service are laid down in Recommen dation D.45.

1.1.4 While this Recommendation implies an implementation related to the long established message retransmission system defined in Recommendation F.31 and while § 1.1.2 requires the capability of operating in conjunction with the telegram service, the telemessage service is not restricted to the F.31-based techniques which might be regarded as an interim method of providing the service. Rather, further study is required to develop the technical aspects of the service (e.g. character sets and coding, preferred methods of interconnection via public data networks) and also to examine possibilities of intercommunication with other services. Higher level protocols such as those developed for the message handling system services should also be studied.

1.2 *Service definitions*

1.2.1 **telemessage service**

The telemessage service is an international public service provided to enable the transmission of character coded messages input electronically on public telecommunication networks or by other means normally for postal delivery in the destination country.

1.2.2 **telemessage**

A telemessage is a document printed in letter style preferably including the printing of capital and small letters. It includes the address of the recipient, and where requested the sender, normally for delivery by post in a distinctive envelope designed for use with the service.

1.2.3 **telemessage switching centre**

A unit used to automatically switch international and/or national telemessage traffic.

1.2.4 **national telemessage input centre**

An office used for accepting telemessages.

1.2.5 **national telemessage distribution office**

An office used for the printing and enveloping of telemessages for subsequent entry into the mail network (or equivalent).

1.2.6 **printing station**

Equipment used to print messages in the national telemessages distribution office. The printing station shall be capable of accepting a minimum of 69 printing characters (including spaces) per line.

1.3 *General operating principles*

The telemessage service is made up of the following elements:

1.3.1 *Processing/switching*

1.3.1.1 Once the telemessage has entered the telemessage switching centre, it may be processed to ensure speed and code compatibility, then queued for switching to another point in the network or for onward transmission internationally.

1.3.2 *Transmission*

1.3.2.1 The telemessage switching centres are connected internationally as outlined in § 4.

1.3.3 *National distribution and delivery*

1.3.3.1 Telemessages are normally printed locally in national telemessage distribution offices, which are located to meet the Quality of Service criteria (see § 7).

1.3.3.2 Delivery should normally be achieved by the standard mail service operated in the destination country.

1.3.3.3 Other means of physical or electronic delivery may optionally be offered.

2 Acceptance of telemessages

2.1 Individual Administrations will decide what methods national customers may use to lodge telemessages. However, in principle it is expected that telemessages would normally be accepted via a wide range of national subscriber services, such as telephone (including public payphones), telex, teletex, telefax, videotex and by computer inputs.

2.2 In the basic service, and in order to facilitate the required intercommunication with the international public telegram service, the characters used in composing telemessages may initially be restricted to those available in the telegram service (Recommendations F.1, A.16 to A.18) i.e International Telegraph Alphabet No. 2 (ITA2). Nevertheless, noting the ability to preserve the distinction between capital and small letters in ITA2 where the method of lodgement permits, customers should be encouraged to use capital and small letters, so that in the preferred case where the method of international transmission also allows it, this distinction will be preserved for delivery at destination (national matter).

2.3 In relations where appropriate bilateral agreements exist, the following more extensive character sets should be used in lodging telemessages:

a) the international reference version of International Alphabet No. 5 (IA5) defined in Recommendation T.50;

b) the Teletex basic repertoire of graphic characters defined in Recommendation T.61;

2.4 The text and the signature of a telemessage may be written in any language.

3 Telemessage switching centres

3.1 A telemessage switching centre shall, in the basic service, conform to the requirements of a telegram retransmission centre as defined in Recommendation F.31 except where otherwise specified by this Recommendation.

3.2 A telemessage switching centre must be capable of switching ITA2 as described in § 2.2 above.

4 International network requirements

4.1 The telemessage service may utilize by bilateral agreement:

i) dedicated circuits between telemessage switching centres; and/or

ii) a public data transmission network; and/or

iii) the public switched telephone network (or circuits allocated for DATEL services); and/or

iv) any other network e.g. telex or Gentex.

4.2 Coding of the character sets permitted in §§ 2.2 and 2.3 above shall be in accordance with Recommendations S.1, S.2 (ITA2), T.50 (IA5 IRV), T.61 (Teletex), or others as appropriate.

In these cases the telemessage centres can be interconnected in accordance with the Message Handling System (MHS) Recommendations of the X.400-Series or other protocols by bilateral agreement.

4.3 In the case of transmission in ITA2, distinction between capital and small letters should be retained wherever possible using the coding convention defined for this purpose in Recommendation S.2. This implies that telemessage switching centres (including transit centres) should not delete possible superfluous shift characters, although this is permissible if three or more of them appear in succession.

4.4 The international connection between switching centres may, by bilateral agreement, operate at any modulation rate.

5 Format

5.1 *General*

5.1.1 In the basic service, telemessages shall be transmitted in a format in conformance with Recommendation F.31 (Telegram Retransmission System), except that the specific provisions below shall apply. Format examples in ITA2 and IA5 are given at Annex A of Recommendation F.50.

5.1.2 Format requirements and protocols for other methods of interconnecting telemessage switching centres (see § 4.2 above) are for further study.

5.2 *Message header*

5.2.1 The pilot line shall include, apart from the destination and origin indicators as specified in Recommendation F.1 and the number of actual words:

a) the priority indicator **C** for the standard telemessage service (the priority indicator **B** may be used in conjunction with an optional **EXPRESS** service); and

b) the tariff indicator **T** .

5.2.2 The actual word count shall include all the words in the text, the signature (if any) and the sender’s address (if any). Consequently, the delivery address and the service indication line (if any) are excluded.

5.2.3 The preamble line shall include the office of origin (as specified in Recommendation F.1), the actual word count, date and legal time of acceptance.

5.3 *Delivery address*

5.3.1 *General*

In relations where the telegram and telemessage services share common facilities, the first line of the address shall begin with the service indication ‘‘**TELEMESSAGE** ’’ followed by a space character and two digits (where appropriate). (For interworking applications see Recommendation F.51.)

5.3.2 *Electronic delivery*

5.3.2.1 When the two digits are **00** , the following address consists of an electronic terminal address including an indication of the service and the network where necessary.

5.3.3 *Postal delivery*

5.3.3.1 When the two digits are other than **00** , they designate one of the deluxe cards (see § 9.1). No digits indicate a standard telemessage. In both cases the delivery address shall then consist of a postal address.

5.3.3.2 The postal address must include all reasonable requirements for delivery without any enquiries in the destination country. Wherever possible the postal code should be included. In some cases a country code may be added to the postal code. Even where this is not the case, the destination country should not be shown in the address.

5.3.3.3 The postal address will be composed preferably of six lines of up to 30 printing/spacing characters each. In some cases (e.g. intercommunications with the telegram service) a postal address of five lines of up to 43 characters each shall be accepted.

5.3.3.4 The last line, or at most the last two lines, of the address will be used in many cases to switch the telemessage to the appropriate national distribution office. Accordingly, it (or they) shall consist of the following elements:

— wherever possible the postal code (which may contain letters and/or figures in any order);

— the name of the town or city in a form acceptable to the destination country, which may accept more than one version (e.g. **LONDON** , **LONDRES**);

— the name (*or an accepted abbreviation*) of the state, province or county (if applicable).

5.3.3.5 The position of the postal code should be in accordance with the requirements of the destination country.

5.3.3.6 Where practicable and convenient, the town or city name should also appear in the last line of the address, preceding the state/province/county name. Otherwise it should be given on its own in the second last line of the address.

5.3.3.7 The relevant list of telegraph offices may be consulted when composing the address.

The word ‘‘**TELEMESSAGE** ’’ may not be printed (national matter)

5.4 *The text and signature*

5.4.1 The text and signature, (if any) of any one telemessage shall not exceed 35 lines, including blank lines for paragraphing and separating the signature from the text. The number of text and signature (if any) lines can exceed 35 by bilateral agreement. Each line may consist of a maximum of 69 printing/spacing characters with an option, by bilateral agreement, for 80 characters maximum providing service is not via a transit centre.

5.4.2 The text may be freely formatted, e.g. it may include columns, separate paragraphs, etc., as might be expected in a conventional letter. In principle the text shall be transmitted in the precise format accepted from the customer.

5.5 *The sender's address*

5.5.1 Then sender's address, which is optional, should follow the signature and should consist of a maximum of six lines of up to 30 printing/spacing characters each.

5.5.2 The last line of the sender's address should be the internationally recognized name (or abbreviation) of the country of origin.

5.5.3 There may be an option for the date and legal time of acceptance in the country of origin to be added by the accepting Administrations on a separate line.

6 Delivery requirements

6.1 *Location of national telemessage distribution offices*

In principle, the location of national telemessage distribution offices should be arranged to ensure that the quality of service objectives for the service are met (see § 7).

6.2 *Delivery in destination country*

The telemessage shall normally be entered into the letter service of the destination country for delivery to meet the objectives of quality of service (see § 7).

7 Quality of Service

7.1 In any relation, Quality of Service objectives will be established for each class of service in terms of the period of time for delivery of 95% of messages.

7.2 Each Administration shall provide a postal address to which undelivered items should be returned using the appropriate bilaterally agreed method. A telemessage that is considered to be unrouteable should be serviced back to the origin giving the reason and stating that the message has been cancelled.

8 Retrievals and archives

8.1 Telemessage switching centres should store all outgoing messages for a minimum of 7 days, so that they can be retrieved for retransmission on request or for investigations.

8.2 Essential accounting information shall be held in archives for a minimum period of 6 months from the time of acceptance. This information shall include:

a) the customer identification group ;

b) date and time of acceptance;

c) brief identification of the address (e.g. addressee's name and country);

d) outgoing route if necessary;

e) time of transmission.

9 Facilities

9.1 *Greetings/deluxe messages*

9.1.1 As an optional service, telemessages may be delivered with a greetings/deluxe card, preferably in a range of designs to suit a number of different occasions.

If a choice is offered then the following range of card types and indications is suggested, although it may be extended or modified. Specific designs chosen are the responsibility of the destination Administration.

11 General Greetings

22 Weddings

33 Adult Greetings

44 Child Greetings

55 Birth

66 Condolences

9.1.2 Any translation of the card indication necessary in the country of destination to effect delivery shall be performed by the terminal telemessage switching centre.

9.1.3 If the requested deluxe card is not available in the country of destination, then the General Greetings card should normally be substituted with the possible exception when **66** = (Condolences) has been requested.

9.1.4 However, Administrations that do not admit GREETINGS/DELUXE messages listed in § 9.1.1 must let them pass in transit except in case of suspension of service provided for in Article 20 of the Convention (Nairobi 1982).

9.2 *Cancellation*

The facility to cancel a telemessage after it has been accepted is not offered.

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ANNEX A
(to Recommendation F.50)

Format examples

A.1 *Standard telemessage in ITA2 with service indication*

≡

ZCZC ZYX3174 DGR118 2-3170698 ≡

GBXX CT UDNX 084 ≡

TDMT AKRON OHIO 84 3 1605 ≡≡≡

TELEMESSAGE ≡

MR P C JENKINSON ≡

216 GREAT BADDOW STREET ≡

WHITTON ≡

TWICKENHAM ≡

MIDDLESEX TW7 9RY ≡≡≡

WE REFER TO YOUR REQUEST FOR REPLACEMENT PARTS WITH COST FOR YOUR ≡

DIATRON SYSTEM. WE HAVE PLEASURE IN SUBMITTING THE FOLLOWING ≡

ESTIMATES. ≡≡

PART NR. AVAILABILITY PRICE DELIVERY ≡≡ 263-4719 61 273.70 6 weeks ≡ 263-4720 12 118.86 2 weeks ≡ 1973A26 2 1316.00 1 month ≡ 7168/A6 N/A ≡ 7168/A7 22 16.70 in stock ≡≡

PLEASE NOTE ALL PRICES ARE US DOLLARS CIF. WE LOOK FORWARD TO ≡

RECEIVING YOUR ORDERS. ≡≡≡

HIRIAM P THURSTON ≡

AKRON ASSOCIATES ≡

3167 MAIN STREET ≡

AKRON OHIO 12345 ≡

UNITED STATES OF AMERICA ≡

4.05 EST 3 July 1986 ==========

NNNN

A.2 *Standard telemessage in IA5 without service indication but with control characters for reformatting*

≡

ZCZC ZYX3174 DGR118 2-3170698 ≡

GBXX CT UDNX 079 ≡

TDMT AKRON OHIO 79 3 1605 ≡≡≡

MR P C JENKINSON ≡

216 GREAT BADDOW STREET ≡

WHITTON ≡

TWICKENHAM ≡

MIDDLESEX TW7 9RY ≡≡≡

WE REFER TO YOUR REQUEST FOR REPLACEMENT PARTS WITH COST FOR YOUR ≡

DIATRON SYSTEM. WE HAVE PLEASURE IN SUBMITTING THE FOLLOWING ≡

ESTIMATES. ≡≡

PART NR. AVAILABILITY PRICE DELIVERY ≡≡ 263-4719 61 273.70 6 weeks ≡ 263-4720 12 118.86 2 weeks ≡ 1973A26 2 1316.00 1 month ≡ 7168/A6 N/A ≡ 7168/A7 22 16.70 in stock ≡≡

PLEASE NOTE ALL PRICES ARE US DOLLARS CIF. WE LOOK FORWARD TO ≡

RECEIVING YOUR ORDERS. ≡≡≡

Hiriam P Thurston ≡

Akron Associates ≡

≡

3167 Main Street ≡

Akron Ohio 12345 ≡

United States of America ≡≡≡≡≡≡≡≡≡≡

NNNN

Indicates the IA5 control character No. 9 (FE1; horizontal tab) which could be used to mark the start of text.

The IA5 control elements No. 11 (FE3; vertical tab) can be used to mark the end of signature and the start of the sender's address (if any). Both format effectors enable Administrations, by bilateral agreement, to reformat the message to their own output requirements.

A.3 *Standard telemessage in IA5 without service indication or control characters for reformatting*

≡

ZCZC ZYX3174 DGR118 2-3170698 ≡

GBXX CT UDNX 084 ≡

TDMT AKRON OHIO 84 3 1605 ≡≡≡

MR P C JENKINSON ≡

216 GREAT BADDOW STREET ≡

WHITTON ≡

TWICKENHAM ≡

MIDDLESEX TW7 9RY ≡≡≡

WE REFER TO YOUR REQUEST FOR REPLACEMENT PARTS WITH COST FOR YOUR ≡

DIATRON SYSTEM. WE HAVE PLEASURE IN SUBMITTING THE FOLLOWING ≡

ESTIMATES. ≡≡

PART NR. AVAILABILITY PRICE DELIVERY ≡≡ 263-4719 61 273.70 6 weeks ≡ 263-4720 12

118.86 2 weeks ≡ 1973A26

2

1316.00 1 month ≡ 7168/A6 N/A ≡ 7168/A7 22 16.70 in stock ≡≡

PLEASE NOTE ALL PRICES ARE US DOLLARS CIF. WE LOOK FORWARD TO ≡

RECEIVING YOUR ORDERS. ≡≡≡

Hiriam P Thurston ≡

Akron Associates ≡

3167 Main Street ≡

Akron Ohio 12345 ≡

United States of America ≡

4.05 EST 3 JULY 1986 ≡≡≡≡≡≡≡≡≡≡

NNNN

A.4 *Standard telemessage without service indication or sender's address in ITA2*

≡

ZCZC LYX2314 DDN2716 1234FILT ≡

GBXX CT FRXX 026 ≡

PARIS 26 3 1729 ≡≡≡

MARIA C COSTELLO ≡

216A PERCY ROAD ≡

FILTON ≡

BRISTOL ≡

AVON BS6 7PL ≡≡≡

ON THIS YOUR DAY I WISH TO SEND YOU AND YOUR HUSBAND MY SINCERE BEST ≡

WISHES FOR A HAPPY LIFE TOGETHER. ≡≡≡

CLAUDE MALEVAL ≡

1729/3ER JUILLET 1986 ≡≡≡≡≡≡≡≡≡≡

NNNN

A.5 *Standard telemessage with Greetings/Deluxe service indication and without sender's address and date and time of acceptance in IA5 but with control characters for reformatting*

≡

ZCZC LYX2314 DDN2716 1234LOND ≡

GBXX CT FRXX 023 ≡

PARIS 23 3 1729 ≡≡≡

TELEMESSAGE 11 ≡

MARIA C COSTELLO ≡

216A PERCY ROAD ≡

FILTON ≡

BRISTOL ≡

AVON BS6 7PL ≡≡≡

Indicates an IA5 control character which could be used to mark the start and end of text and signature to permit Administrations by bilateral agreement to reformat the message to their own requirements.

ON THIS YOUR DAY I WISH TO SEND YOU AND YOUR HUSBAND MY SINCERE BEST ≡

WISHES FOR A HAPPY LIFE TOGETHER. ≡≡≡

Claude Maleval ≡

≡≡≡≡≡≡≡≡≡≡

NNNN

Recommendation F.51

INTERWORKING BETWEEN THE TELEMESSAGE SERVICE AND THE INTERNATIONAL PUBLIC TELEGRAM SERVICE

1 Introduction

This Recommendation defines the procedure to be followed for interworking between the Telemessage service and the international public telegram service.

2 Basic requirements

In case of interworking, the international public Telemessage service shall provide the capability of operating in conjunction with the international public telegram service in order to realize a minimum service between Administrations.

3 General operating principles

3.1 In cases of interworking between the Telemessage services and the international public telegram service, the operational procedures should be, in principle, in accordance with the mode of service, applied by the concerned Administration.

3.2 The operational procedures for the international public telegram service are defined in Recommendations F.1 and F.31.

3.2.1 Provision shall be made in interworking between the international telegram service and the Telemessage service to ensure that obligatory class of telegrams are provided for. This does not preclude any special national arrangements which might be necessary.

3.3 The international Telemessage service is defined in Recommendation F.50.

3.4 The charging and accounting principles for interworking between the Telemessage service and the international telegram service will be defined in the D-Series Recommendations.

4 Special provisions for interworking

4.1 *International network requirements*

Administrations that have not introduced the Telemessage service transmit their telegrams over the circuits that have been used up to the introduction of the Telemessage service at the Administration concerned, if no other agreement exists.

4.2 *Delivery address*

In the direction telegram service to Telemessage service, the first line of the address shall be preceded by the service indication **TELEMESSAGE** .

4.3 *Archives*

In the direction telegram service to Telemessage service, the specific provisions should take Quality of Service aspects into consideration. (For further study.)

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MONTAGE: PAGE PAIRE = BLANCHE