THE INTERNATIONAL TELEGRAPH AND TELEPHONE
CONSULTATIVE COMMITTEE
(C.C.I.T.T.)

IVth PLENARY ASSEMBLY

MAR DEL PLATA, 23 SEPTEMBER - 25 OCTOBER 1968

WHITE BOOK

VOLUME II-B

Telegraph operation and tariffs

Published by
THE INTERNATIONAL TELECOMMUNICATION UNION
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CONTENTS OF THE C.C.I.T.T. BOOKS APPLICABLE AFTER THE IVth PLENARY ASSEMBLY (1968)

(WHITE BOOK)

Each volume contains, where appropriate, extracts from contributions received on the subject of the volume concerned whenever their interest is such as to warrant publication.

TELEGRAPH OPERATION AND TARIFFS

Proposals to the next Administrative Telegraph and Telephone Conference

Recommendations relating to Telegraph Operation and Tariffs (Series F)

Questions of Telegraph Operation and Tariffs entrusted to Study Group I

PROPOSALS
TO THE NEXT ADMINISTRATIVE TELEGRAPH AND TELEPHONE CONFERENCE

PROPOSAL No. 1

(Reply to Resolution No. 3 of the Administrative Telegraph and Telephone Conference, Geneva, 1958)

TEXT OF RESOLUTION NO. 3

The ordinary Administrative Telegraph and Telephone Conference, Geneva, 1958,

considering

that the regulations in Chapter IX of the Telegraph Regulations relating to the counting of words, although they have been carefully revised, still present certain difficulties both in operation and to users,

instructs

the C.C.I.T.T. to pursue its study concerning the counting of words, taking account of the proposals submitted to the Telegraph and Telephone Conference, Geneva, 1958.

The study of this proposal has been suspended by the IVth Plenary Assembly of the C.C.I.T.T. pending completion of the study of Question 1/I.

PROPOSAL No. 2

(Reply to Resolution No. 2 of the Administrative Telegraph and Telephone Conference, Geneva, 1958)

TEXT OF RESOLUTION NO. 2

The ordinary Administrative Telegraph and Telephone Conference, Geneva, 1958,

considering

1. that the reservation of the " figures " position in combinations Nos. 6, 7 and 8 of the international telegraph Alphabet No. 2 for internal service requirements does not satisfy the needs of administrations using a national alphabet having a greater number of letters than that available in the existing Alphabet No. 2;

2. that to bring the methods of operation used in the internal service into line with those employed in the international service, at least two additional combinations must be allotted from the figure case in Alphabet No. 2 to internal service requirements,

invites the C.C.I.T.T.

1. to study the possibility of modifying the international telegraph Alphabet No. 2 in such a way as to make at least two additional signals from the figure case available to Administrations for their internal requirements;

2. to submit the results of such study to the next Administrative Telegraph and Telephone Conference.

Comments

The two additional signals will be obtained by dropping the sign : and replacing the two brackets by a single graphical sign.

A decision must be taken on:

— the signal to be used for the single bracket,

— the graphical sign for this single bracket.

In response to Resolution No. 2, the C.C.I.T.T. proposes:

1. that the figure position of signal No. 3 (the colon sign) be dropped;

2. that the figure position of signal No. 11 (the left-hand bracket) be dropped;

3. that the right-hand bracket sign, appearing in the figure position of signal No. 12, be replaced by)(.

The following modifications, thereby, will be introduced to the Telegraph Regulations *(Geneva Revision, 1958)*:

1. Article 16, § 5

102	PRESENT TEXT		PROPOSED TEXT	
	Punctuation marks and miscellaneous signs:		*Punctuation marks and miscellaneous signs:*	
	Full stop	.	Full stop	.
	Comma	,	Comma	,
	Colon or division sign	:	Question mark	?
	Question mark	?	Apostrophe	'
	Apostrophe	'	Cross or addition sign	+
	Cross or addition sign	+	Hyphen or dash or subtraction sign	—
	Hyphen or dash or subtraction sign	—	Fraction bar or division sign	/
	Fraction bar or division sign	/	Multiplication sign	×
	Multiplication sign	×	Double hyphen	=
	Double hyphen	=	Left-hand or right-hand bracket (parenthesis)	(or)
	Left-hand bracket (parenthesis)	(		
	Right-hand bracket (parenthesis)	)		

2. Article 16, § 5

(Table on page 17)

103 PRESENT TEXT

No. of signal	Letter case	Figure case
...	...	...
3	C	:
...	...	...
11	K	(
12	L	)
...	...	...

PROPOSED TEXT

No. of signal	Letter case	Figure case
...	...	...
3	C	1)
...	...	...
11	K	1)
12	L	)(
...	...	...

3. Article 16, § 5

PROPOSED TEXT (addition)

113 bis

To transmit the left-hand bracket or the right-hand bracket, the sign)((the figure case of combination No. 11 – secondary of K) is used.

4. Article 21, § 1

163 PRESENT TEXT

Punctuation and miscellaneous signs

. . . . . .

Colon or division sign (:)

PROPOSED TEXT

163

Delete this line.

5. Article 21

PROPOSED TEXT (addition)

170 bis

The signs of left-hand bracket and right-hand bracket might be replaced by the unique sign)(for the transmission.

PROPOSAL No. 3

Reply to Resolution No. 1 of the Administrative Telegraph and Telephone Conference (Geneva, 1958)

TEXT OF RESOLUTION NO. 1

The Ordinary Administrative Telegraph and Telephone Conference, Geneva, 1958,

considering

1. that the phototelegraph service in the extra-European system is steadily developing; and

2. that the existing provisions relative to the European service are not wholly adapted to the extra-European system,

resolves

that the C.C.I.T.T. study this question, with a view to issuing a Recommendation on provisions which might be applied by all Members and Associate Members of the Union.

As a first stage in reply to Resolution No. 1, the C.C.I.T.T. has issued Recommendation F.84:

RULES FOR PHOTOTELEGRAPH COMMUNICATIONS ESTABLISHED OVER RADIO CIRCUITS OR COMBINED RADIO AND METALLIC CIRCUITS

PROPOSAL No. 4

Reply to Resolution No. 36 of the Plenipotentiary Conference (Montreux, 1965)

TEXT OF RESOLUTION NO. 36

The Plenipotentiary Conference of the International Telecommunication Union (Montreux, 1965),

considering

a) that certain provisions of the Telegraph and Telephone Regulations revised by world administrative conferences cover the same ground as certain Recommendations of the C.C.I.T.T.;

b) that most technical and operational questions and certain tariff questions relating to telegraphy and telephony are dealt with in C.C.I.T.T. Recommendations;

c) that it is advisable to reduce Union expenditure by shortening the duration of world administrative conferences dealing with telegraph or telephone questions,

is of the opinion

that it would be desirable to simplify the Telegraph and Telephone Regulations annexed to the International Telecommunication Convention;

instructs the International Telegraph and Telephone Consultative Committee

1. to ascertain which provisions of the Telegraph and Telephone Regulations are, or could be, the subject of C.C.I.T.T. Recommendations and could accordingly be omitted from the Regulations; and

2. to submit proposals for this purpose to the next Plenary Assembly of the C.C.I.T.T.;

resolves

that after consideration and approval by the C.C.I.T.T. Plenary Assembly, the proposals for simplification shall be submitted to the next world administrative conference dealing with telegraph and telephone questions.

As the Vth Plenary Assembly of the C.C.I.T.T. will probably be held before the next Administrative Telegraph and Telephone Conference, the IVth Plenary Assembly did not draw up final proposals in response to Resolution No. 36.

Provisional proposals are contained in documents AP IV/27 and AP IV/28 (the latter deals specifically with the revision of Chapter XXV—Phototelegraph service—of the Telegraph Regulations).

The discussions brought out the desirability of certain amendments of substance in the Telegraph Regulations and the fact that some of the rules had become pointless or obsolete and could conveniently be deleted.

The substantive amendments, the utility of which is already acknowledged, are shown in A below. The deletions agreed upon are shown in section B.

Other changes which the IVth Plenary Assembly preferred to subject to prior study have been included in the questions to be investigated during the period 1968-1972.

A. Modifications of substance

(The actual number in the Regulations is followed by a reference, in brackets, to the draft Revised C.C.I.T.T. Recommendations when transfer to C.C.I.T.T. Recommendations is envisaged in document AP IV/27.)

Regulation No.

132 (F1-A110) Reference to the system of spelling recommended by the C.C.I.T.T. has been omitted because no standard system is recommended for the time being by C.C.I.T.T.

177/180 Amalgamation of paid and unpaid service indicators:

A common form of presentation between public telegraph paid traffic and service messages of all types would make staff training and utilization easier. Paid service indicators precede the address and indicate the facility requested by the customer. Abbreviated service instructions are, under present regulations, required to be placed in the preamble line and are in some cases duplicated in the list of paid service indicators.

It was agreed that the service indicators and instructions now found in the existing Article 23 (Numbers 180 and 181) and Article 41 (Numbers 383 and 395) be regrouped in the suggested new draft Regulations in one Article.

The application of a uniform position for service indicators in the page format will ensure that:

a) unpaid service instructions used on Service Telegrams and Advices (e.g. A; A urgent; ADG; CR; ST and RST) will be placed in the same position as paid service indications (i.e. immediately preceding the address);

b) abbreviated service instructions, if they are already included as paid service indications (e.g. S; F; OBS and URG), are eliminated.

The existing unpaid service instructions SVH, VIR and MDT would, in view of this new proposal, require a special type of handling as inclusion in the telegram immediately preceding the address would mean that, for charging purposes, the word count would be increased by one.

In view of the fact that the indication MANDAT—as well as the abbreviation MDT—was inserted before the address, simplification would be obtained if this abbreviation were eliminated from the revised draft Regulations.

In view of the similarity between the VIR (postal cheque) and the MANDAT (money order) telegram facility, the VIR indicator should similarly be eliminated.

It was furthermore agreed on the following two points:

1) deletion of the word " paid " from " the paid service indication " throughout the revised Regulations;

2) deletion of the double hyphens placed before and after the service indications except a particular case such as in Regulation Number 179.

It should be noted that the cases in which service indications shall be transmitted between double hyphens are given in Revised Recommendations F1-B23, C80.

196 and **259** *bis* Amplified to provide for the possibility that the address of a telegram may be supplemented by the addition of a postal code. New Regulation Number 259 *bis* added to provide that office of destination with postal code indication shall be counted and charged as one word.

249 The effect of the new Rules 177/180 would be that in paid service advices, the service indication ST and the office of destination would each be counted as one word and thus increase the charge to the sender by two words. To offset this increased charge the message references and date should be combined as one word (although the date has always been counted separately in the past).

290 (F1-A59) The Regulations do not specify whether in the event that a telegram has been delivered in accordance with Regulation 288, despite the addressee's refusal to pay, an attempt should be made to collect the deficiency from the sender—the wording has been clarified.

307 Amended to take note that strict observance of the rules governing the order of transmission of telegrams may not always be technically practicable when modern systems are used.

420 (F1-A92) With modern methods of working, there is no longer a necessity to acknowledge MANDAT and VIREMENT telegrams.

493 Amplified to distinguish between the likelihood that the sender of an RP telegram will quote the amount paid for reply in local currency and the need to signal forward the amount in gold francs.

498 Drafting amended to avoid a direct contradiction in present wording.

503 Wording amended to indicate that collation of code words in Government telegrams is subject to sender's request.

605 *bis* A new Regulation has been added to provide for the exceptional circumstance that a Safety of Life telegram may be accepted without the name of an addressee. Consequential amendments have been made in Regulations Numbers 186 and 194.

649 The phrase " according to their category " has been deleted as urgent private telegrams are classed as a special service and not a separate category of telegrams.

763 (F1-D38) In cases where the office of origin has, before giving a repetition, been unable to contact the sender of a telegram which it had received by telephone, telex or private wire, it is wrong to leave the addressee in doubt whether a correction is to be awaited as is now the case with the CTFSN procedure (correction to follow if necessary). It would be preferable to adopt a new code word RAPAG and to assign to it the meaning: " Herewith repetition from our copy, confirmation follows when sender contacted".

In consequence this new code word will need to be inserted in the code word section of the list of *Codes and abbreviations for the use of the International Telecommunication Services* published by the I.T.U.

The insertion should be made:

1) after RAP on page 38;

2) after RAFEC on page 76.

737 Amended to guard against a user misusing the service by sending a periodic telegram to a correspondent quoting, for example, commodity prices, and thereafter continuously updating the information.

902 The present text of Regulation Number 902 provides for the possibility of partial reimbursement of charge to the sender when, in the case of cancellation at his request, the telegram could be stopped in course of transmission. With the advent of modern systems, the stoppage of a telegram before it arrives at its destination will become less and less possible. In these circumstances, reimbursement of the unexpended balance of the charge should no longer be allowed where a telegram is cancelled at the sender's request when it is already in course of transmission.

935, 937 938, 946 Bearing in mind the cost of investigation, the maximum amount to be refunded by the administration (or R.P.O.A.) of origin has been increased to the more realistic value of 50 gold francs.

978 *bis* Although Regulation Number 978 provides limits of difference in monthly accounts prepared by corresponding administrations or R.P.O.A.s within which the accounts shall be admitted without revision, it was nevertheless inequitable that the accounts should contain obvious errors such as errors of rating, omissions and the like. With the use of modern accounting methods, errors of this kind could be repeated month by month. In order to avoid difficulties which had been encountered in seeking to rectify this type of error, this new Regulation, to follow Regulation Number 978, has been added.

Article 99 1013-1027 This Article constitutes in effect a directive to the General Secretariat from the Administrative Conference and accordingly C.C.I.T.T. Recommendations do not constitute an appropriate vehicle for such a directive. On the other hand, inclusion of this Article within the Regulations is incompatible with their function as defined in Article 1 and it should therefore appear more appropriately as an annex to the Regulations (Annex 2).

Annex 1 To ensure that all necessary notifications are made to the General Secretariat as prescribed by various Regulations, a list showing the numbers and subject matter of such Regulations should appear as an annex to the Regulations.

B. CHARGES PUT INTO EFFECT BY THE CANCELLATION OF CERTAIN REGULATIONS

Regulation number	Reasons
3	Substance incorporated in revised Number 1
5-11	Combined in revised Number 5 to avoid repetition of definitions given in the Convention
22-24	Not appropriate in the Regulation, these provisions need be shown only in the Official List of Telegraph Offices
61	This provision is no longer in practical use
63	Redundant
130	Duplication of Number 112
154	Covered by editorial rearrangement
171	Duplication of Number 89
181	Function covered by editorial changes in Number 180
289	This Regulation requires notification to the General Secretariat of a right conferred by Number 288; such notification is unnecessary
302-3	Redundant
345	Duplicated by Number 725
384-5	Made redundant with 177/180 amended

Regulation number	Reasons
414-6	Redundant
485 and **486** second sentence **483** third sentence	With modern transmission systems it is now impracticable to meet the sender's request to cancel a telegram en route and therefore to refund an unexpended balance of charge
496 (other than first sentence)	Now impracticable
507	It is implicit, and, in any case unnecessary, to provide that notification of delivery should be advised to the sender (who so requests) as soon as the notification is received
558	Duplicated by Number 183
630-1	Made redundant by 177/180 amended
734-5	Redundant—covered by Number 732
903	This provision is now impracticable
920	The present text of Regulation Number 920 provides for reimbursement of the mobile station charge to the sender of a radiotelegram when the message is delivered by the land station by means other than radiotelegraphy. In this case the telegraph service has fulfilled its role. In consequence, no partial reimbursement of charge should take place and Regulation Number 920 has been cancelled in preparing the draft revised Regulations. As a consequence of the cancellation of Regulation Number 920, corresponding amendments will be necessary to the Additional Radio Regulations (Geneva, 1959) Numbers 2132, 2134 and 2136
954	First sentence cancelled as repetitious and remainder combined with Number 952
1028 **1029**	Duplicate the Convention and inclusion in the Regulations is not compatible with the purpose of the Regulations as defined in Article 1

SERIES F RECOMMENDATIONS
RELATING TO TELEGRAPH OPERATION AND TARIFFS

SUMMARY

Index of Series F Recommendations.

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SECTION 1

OPERATING METHODS
FOR THE INTERNATIONAL GENERAL TELEGRAPH SERVICE

RECOMMENDATION F.1

TRANSMISSION OF TELEGRAMS IN THE INTERNATIONAL SERVICE [1]

(Geneva, 1958, amended at New Delhi, 1960 and at Geneva, 1964)

The C.C.I.T.T.,

considering Articles 4, 16, 21, 27, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45 and 46 of the Telegraph Regulations (Geneva Revision, 1958),

unanimously declares the view

that the following rules serve as a guide for the staff in charge of the transmission of telegrams in the international service.

RULES FOR THE TRANSMISSION OF TELEGRAMS IN THE INTERNATIONAL SERVICE

INDEX

[1] References given in brackets in the left-hand margin of the text of this Recommendation refer to the Telegraph Regulations *(Geneva Revision, 1958)*.

Section A. — General rules

ARTICLE A.1 *Order of transmission of telegrams*

§ 1. The transmission of telegrams shall take place in the following order:

a) SVH telegrams;

b) Government telegrams Priorité Nations;

c) Service advices relating to serious interruption to telecommunication routes;

d) Government telegrams for which the sender has requested transmission priority;

e) Meteorological telegrams;

(Art. 36, § 1) f) Urgent service telegrams, urgent service advices and paid service advices;

g) Urgent private telegrams, urgent RCT telegrams and urgent press telegrams;

h) Non-urgent service telegrams, non-urgent service advices and acknowledgements of receipt;

i) Government telegrams other than those indicated in b) and d) above, ordinary private telegrams, ordinary RCT telegrams and ordinary press telegrams;

j) Letter telegrams (ELT, ELTF, LT and LTF).

(Art. 36, § 2) § 2. Every office which receives, through an international communication channel a telegram presented as a SVH telegram, a Government telegram, a service telegram or a meteorological telegram, shall re-forward it as such.

(Art. 36, § 3) § 3. Except where technically impossible, telegrams having the same priority shall be transmitted by the sending office in the order of their time of handing-in, and by intermediate offices in the order of their time of receipt.

(Art. 36, § 4) § 4. At intermediate offices, originating telegrams and transit telegrams to be transmitted over the same routes shall, except where technically impossible, be placed together and transmitted according to the time of handing-in or receipt, subject to the order laid down in this Article.

ARTICLE A.2 *Beginning of transmission*

§ 1. All correspondence between two offices shall begin with the call signal.

(Art. 37, §§ 1 and 2) § 2. A transmission, once begun, may not be interrupted to give place to a communication of higher priority except in a case of absolute urgency.

§ 3. The office called must reply immediately.

ARTICLE A.3 *Order of transmission of the parts of a telegram*

(Art. 42) § 1. The various parts of a telegram shall be transmitted as follows: preamble, paid service indications, the address, the text, the signature, and, if necessary, the verification of the signature. Expressions charged for as one word and joined up by the counter officer shall be transmitted as one word.

(Art. 37, § 3) § 2. Except where transmission and reception is between page-printing [1] systems, the double hyphen (— - - - — in Morse Code and = on printing equipment) shall be transmitted to separate the preamble from the paid service indications, the paid service indications from each other, the paid service indications from the address, the various addresses of a multiple telegram from each other, the address from the text, the text from the signature, the signature from its verification (if included), and the pages of a telegram comprising more than 50 words.

ARTICLE A.4 *Transmission of the preamble*

§ 1. The service indications forming the preamble shall be transmitted as follows:

a) the letter B, but solely in the exchange of telegrams by Morse and sound-reading instruments, and then only when the sending office is working direct with the office of destination;

(Art. 41, § 1) b) the letter X, in the cases mentioned in Article B.5, § 4;

c) the serial number of the telegram (Art. B.5) or the reference number (Art. C.3, § 1) if either of these numbers is to be transmitted;

d) the nature of the telegram, by means of the regulation abbreviations (Regulations, Article 41), if necessary;

[1] For reception on a page-printing teleprinter, see Recommendation F.12.

e) the name of the office of destination, but only in a SVH telegram without an address, a telegram for forwarding (" to follow ") bearing several destinations (Regulations, Art. 56, § 5 (1)), a service advice, a paid service or an acknowledgement of receipt;

f) (1) the name of the office of origin followed, if necessary, by the additions intended to distinguish it from other offices in the same locality (*example :* Berlin-Charlottenburg). The name of the office must be transmitted as it appears in the first column of the International List of Telegraph Offices and cannot be abbreviated or combined into a single word. Examples: La Union and *not* Launion; S. Alban d'Ay and *not* Salbanday;

(2) when the office of origin is indicated by a number, in addition to the name of the place (for example: Berlin 19), the name of the office shall be separated from the number by a fraction bar in the transmission (example: Berlin/19). On Morse and sound-reading instruments, this number shall be transmitted immediately after the name of the office, without being separated by a fraction bar or being abbreviated;

(3) when the opening of the office of origin has not yet been notified by the General Secretariat, the name of the office, the territorial subdivision, and the country, must be indicated;

(4) when a telegram is telephoned to a telegraph office by a subscriber served by a telephone exchange in a locality other than that in which the telegraph office is situated, the indication of the place of origin may be
(Art. 41, § 1) transmitted in the following way: Exeter telephoned from Feniton (Exeter denoting the telegraph office to which the telegram has been telephoned and Feniton the place in which the subscriber's telephone exchange is situated).

Should a telegram be handed in to a telegraph office (Stockholm, for example) by telex by a subscriber living somewhere else (say Sundsvall), the place of origin may be transmitted as follows: " Stockholm telexed from Sundsvall ";

g) the office number of the telegram, when this number is to be transmitted (Regulations, Article 40, § 2);

h) the number of words (Regulations, Article 31), with the exception of service advices and acknowledgements of receipt;

i) (1) the date and time of handing in of the telegram shown by two groups of figures, the first indicating the day of the month and the second consisting of a group of four figures (0001 to 2400) indicating the hours and minutes;

(2) in countries which do not use the 24-hour clock, the times may be transmitted by means of the figures 0001 to 1200, in which case, the letters m or a (morning), s or p (afternoon) shall be added to the time of handing-in;

j) other service instructions. The route to be followed, if one is indicated, must always be shown at the end; it may be followed only by the indication " Dévié... " However, within the country of destination, retransmission of the route indication shall be optional.

ARTICLE A.5 *Transmission of the other parts of a telegram*

§ 1. Every telegram must be transmitted as received from the sender, subject to the exceptions mentioned in Articles A.6, A.7 and A.8.

(Art. 37, § 6) § 2. With the exception of paid service indications, which must always be transmitted in abbreviated form, and in cases subject to Articles B.7 and C.8, the use of any abbreviations whatsoever and alterations of any kind shall be prohibited.

§ 3. An office having more than five telegrams with the same text, and comprising more than 30 words, for transmission to the same office, need transmit the text once only. In such a case the text shall be transmitted in only the first telegram, and in those that follow, having the same text, it shall be replaced by the words: text No. ... (the number of the first telegram being inserted). The same procedure may be adopted when the number of telegrams having the same text is five or less and the text comprises more than 50 words.

(Art. 37, § 7) This method of procedure necessitates the transmission in succession of all telegrams with the same text.

The office in correspondence must be warned of such a transmission by an advice on the following lines:

" Note, here are five identical texts."

§ 4. When reception by the receiving office is possible by means of perforated tape, the office should be warned sufficiently beforehand of the transmission of telegrams with the same text so that it can prepare to receive them by perforated tape.

§ 5. A telegram of more than 50 words shall be transmitted in pages of 50 words in the following form:

(Art. 37, § 8)

119 Amsterdam 128 16 1015 page 1/50 = address, etc.
119 ... (name of addressee) page 2/50 =
119 ... (name of addressee) page 3/28 =

The double hyphen indicating the last word of each section of 50 words shall be transmitted after that word.

ARTICLE A.6 *Transmission of signs for which there is no corresponding signal in the telegraph alphabet*

§ 1. The signs accepted in the drafting of telegrams, although they have no corresponding signal in a telegraph alphabet, shall be sent as follows:

Accentuated é or è:

a) (Art. 16, §§ 4 and 5) In relations in which Alphabets No. 1 or No. 2 are used, the letter E shall be transmitted; when an accent on the E is essential to the meaning, the transmitting telegraphist shall repeat the word after the signature, putting the E accentuated between two spaces, to draw the attention of the receiving office to it. The receiving telegraphist then puts in the accent by hand.

(Art. 16, § 6) b) When the Morse Code is used, the accentuated signal E shall be transmitted.

Roman figures :

Roman figures shall be transmitted as arabic figures.

(Art. 21, § 4) If the sender has written the French word " romain ", or a corresponding word in the language in which the telegram is drafted, in front of an arabic figure or group of figures, this word shall be transmitted and the receiving official shall leave this word on the telegram to be delivered, followed by the arabic figure or group of figures.

Addition sign (+): Transmit the cross sign (+).

Subtraction sign (—): Transmit the dash (—).

(Art. 21, § 5) *Multiplication sign* (×): Transmit the letter X.

Division sign (:): Transmit the colon (:).

Division sign (/): Transmit the fraction bar (/).

Percentage sign (%):

a) When Alphabet 1 is used, transmit the signal %.

(Art. 16, §§ 5 and 6) b) In other relations, successively transmit the figure 0, the fraction bar and the figure 0. A whole number, a fractional number, or a fraction, followed by a % sign, shall be transmitted by joining up the whole number, the fractional number, or the fraction to be the % sign by a dash.

Examples : for 2%, transmit 2—0/0 and not 20/0.

Per thousand sign (‰) *:*

Successively transmit the figure 0, the fraction bar, the figure 0 and the figure 0.

(Art. 16, §§ 4, 5, 6) A whole number, a fractional number, or a fraction, followed by a ‰ sign, shall be transmitted by joining up the whole number, the fractional number, or the fraction to be ‰ sign by a dash.

Examples : for 2‰, transmit 2—0/00 and not 20/00
for 4½‰, transmit 4—1/2—0/00 and not 41/20/00.

Inverted commas (quotation mark) :

(Art. 16, §§ 4 and 5) a) When Alphabet 1 or 2 is used, transmit:
the apostrophe (') twice at the beginning and end of the text within the inverted commas (" ").

b) With Morse Code, the special inverted-comma signal before and after the words concerned.

However, administrations and recognized private operating agencies using code converters may transmit inverted commas by twice repeating the apostrophe sign before and after the words.

Accentuated letters ä *or* æ, à *or* å, ñ, ö *or* ø, ü (in relations in which the use of

(Art. 16, § 6) these signs has been authorized by special agreement between administrations and recognized private operating agencies):

(Art. 16, §§ 4 and 5) a) When Alphabet No. 1 or No. 2 is used, transmit them in accordance with the agreement reached.

(Art. 16, § 6) b) When Morse Code is used, transmit the signals corresponding to these characters.

ARTICLE A.7 *Transmission of groups of figures and letters or of ordinal numbers and fractions*

§ 1. Ordinal numbers composed of figures and letters: 30^{me}, 25^{th}, etc. shall be transmitted in the form 30me, 25th, etc.

(Art. 21, § 7) § 2. Letters or groups of letters followed by letters or figures placed above or below the line shall be transmitted in the form substituted for them by the sender.

If, however, the expressions 30^{a}, 30^{b}, etc., 30*bis*, 30*ter*, etc., 30 I, 30 II, etc., 30^{1}, 30^{2}, etc., 30 A, 30 B, etc., indicating a house number, appear in the address
(Art. 21, § 7) of a telegram, the counter officer shall separate the number from the letters or figures accompanying it by a fraction bar. The expression in question shall consequently be transmitted in the following way in the address of a telegram: 30/a, 30/b, etc., 30/bis, 30/ter, etc., 30/1, 30/2, etc., 30/1, 30/2, etc., 30/A, 30/B, etc.

§ 3. Except as provided in § 2 above, groups consisting of figures and letters
(Art. 16, §§ 5 and 6) must be transmitted as set forth in the telegram.

Examples: 3B is transmitted as 3B
AG 25 is transmitted as AG 25.

But when Alphabet No. 1 is used, a group made up of figures and letters
(Art. 16, § 4) must be transmitted by linking figures and letters with a double hyphen.

Examples: 3 = B, AG = 25.

§ 4. A number which includes a fraction shall be transmitted with the fraction linked to the whole number by a single hyphen.

Examples: for 1¾, transmit 1—3/4, and not 13/4
(Art. 16, §§ 4, 5 and 6) for ¾8, transmit 3/4—8, and not 3/48
for 363½ 4 5642 transmit 363—1/2 4 5642, and not 3631/2 4 5642.

§ 5. In the case of routine repetition with Morse Code, provided there can be
(Art. 16, § 6) no misunderstanding as a result of the presence together of figures and letters or groups of letters, figures may be rendered by means of the abbreviated signals.

Unless otherwise requested by the receiving office, the sending office may also use these signals in the preamble of telegrams, except in respect of distinguishing
(Art. 16, § 6) numbers of the office of origin and in the texts of telegrams consisting solely of figures. In the latter case, the telegrams must bear the service instruction " in figures ".

ARTICLE A.8 *Signs not transmitted*

The following shall neither be charged for nor transmitted:

(Art. 27, § 1) a) dashes used only to separate the different words or groups on the sender's copy;

b) isolated signs, unless the sender has specifically requested their transmission.

ARTICLE A.9 *End indications*

§ 1. Every telegram shall be terminated by the cross signal preceded by a space.

§ 2. The end of transmission shall be indicated by the cross and question mark signals, preceded by a space.

(Art. 16, §§ 4 and 5) § 3. The end of work shall be shown by a double transmission of the plus (+) sign if Alphabet No. 1 or No. 2 is used, or the " end of work " signal in Morse Code.

ARTICLE A.10 *Transmission irregularities*

(Art. 16, § 4) § 1. To indicate " wait ", MOM shall be transmitted if Alphabet No. 1 or 2 is used, or the " wait " signal in Morse Code.

§ 2. To show an error, the following shall be transmitted:

(Art. 16, § 4) With Alphabet No. 1, the " error " signal (✳);
(Art. 16, § 5) With Alphabet No. 2, E space E space E space;
With Morse, the error signal - - - - - - - -

The transmission shall then be resumed and begin with the last word correctly transmitted.

(Art. 16, § 5) § 3. If Alphabet No. 2 is used together with perforated-tape transmission devices enabling badly punched characters to be eliminated, the signals corresponding to these characters shall be erased by a series of " letters " signals.

ARTICLE A.11 *Reception*

(Art. 37, § 9) § 1. With the exception of mobile radio stations, no office may refuse to receive telegrams offered by a sending office, whatever their destination. However, in the case of an obvious mistake in routing or other manifest irregularity, the receiving telegraphist shall point it out to the sending office. If the latter fails to respond, a service advice shall be forwarded after receipt of the telegram and the sending office shall rectify, by service advice, the error made.

(Art. 37, § 10) § 2. A telegram must not be refused or delayed because of irregularities in the service instructions, paid service indications, or certain parts of the address or text. The telegram must be accepted and then, if necessary, a service advice sent to the office of origin requesting rectification as in Article 85 of the Regulations.

(Art. 37, § 5) § 3. When the receiving telegraphist finds reception unintelligible, he shall interrupt his correspondent, or cause him to be interrupted, and repeat or cause to be repeated the last word correctly received followed by a question mark. The sending telegraphist shall then go back and continue the transmission from that word. If a repetition is asked for after a long interruption of correspondence, the telegram and part of the telegram in question must be precisely indicated.

(Art. 37, §§ 5 and 12) § 4. For stopping transmission from a correspondent, or, in multiplex instruments, from a particular sector, the following methods shall be applied until transmission stops:

a) Morse simplex: transmit a series of dots.

b) Morse duplex and Wheatstone duplex: transit the letters " BK ".

(Art. 37, §§ 5 and 12)

c) Multiplex, simplex and duplex instruments: transmit a succession of letters " P " or signs " % ".

d) Start-stop instruments: transmit a succession of letters " P " or figures " 0 ".

(Art. 43, § 1)

§ 5. As soon as possible after transmission, the receiving telegraphist shall compare, in each telegram, the number of words received with the number announced. When the number of words is given in the form of a fraction, this comparison, except in the case of an obvious error, shall refer only to the actual number of words or groups.

§ 6. If the telegraphist finds a difference between the number of words announced to him and the number received, he shall notify his correspondent by indicating the number of words received and repeat the first letter of each word, and the first figure of each number. (Example: 17 j c r b 2 d ... etc.). If the sending telegraphist has simply made an error in announcing the number of words, he shall reply " admitted ", and indicate the actual number of words (Example: 17 admitted); if not, he shall rectify the passage found to be incorrect according to the initials received. In both cases, he shall interrupt the transmission of the initials by his correspondent, as soon as he is able to rectify or confirm the number of words.

(Art. 43, § 2)

In long telegrams where each page contains only 50 actual words, the receiving telegraphist shall give only the initials of the page containing the mistake.

When this difference does not arise from a mistake in transmission, the rectification in the number of words announced can only be made by agreement, reached, if necessary, by service advice, between the office of origin and the office in correspondence. Failing such agreement, the number of words announced by the office of origin shall be admitted, the telegram being forwarded, meanwhile, with the service indication " Correction to follow checked... words " transmitted in the abbreviated form " CTF... words ", the meaning of which shall be indicated by the office of destination on the copy delivered to the addressee. The correction shall be requested from the office of origin by the office which has inserted the indication " CTF ... words ".

(Art. 43, § 3)

Repetitions shall be requested and given briefly and clearly.

(Art. 41, § 2)

§ 7. The information given in the preamble which reaches the office of destination and, in every case, the name of the office of origin, the number of words, and the date and time of handing-in, shall appear on the copy delivered to the addressee.

§ 8. At the top of the page, the receiving officer shall write the indications received in accordance with Article A.5, § 5 (transmission of telegrams of more than 50 words).

(Art. 37, § 8)

On Morse and sound-reading instruments, the receiving telegraphist shall reproduce the double hyphen if the telegram is in transit; if the telegram is for delivery, he shall mark the fiftieth word of the section by a small tick.

On printing instruments, the receiving telegraphist at the transit office shall maintain the double hyphen. At the office of destination, it shall be deleted and the fiftieth word of each section shall be marked by a small tick.

ARTICLE A.12 *Routine repetition — Collation*

(Art. 44. §§ 2 to 5)

§ 1. When telegraphists are in doubt as to the accuracy of the transmission or reception, they shall give or demand the partial or complete repetition of telegrams which they have either sent or received.

§ 2. For all classes of telegram, routine repetition shall be compulsory for all figures or mixed groups of letters, figures or signs in the address, text or signature.

(Art. 44, §§ 2 to 5) § 3. For Government telegrams in plain language and for service telegrams, partial repetition shall be compulsory not only for figures but also for proper names and any doubtful words.

§ 4. For money order and postal cheque telegrams, partial repetition shall be compulsory not only for figures, proper names and any doubtful words, but also for the names of the offices of origin and destination.

(Art. 44, § 6) § 5. On Morse and sound-reading instruments, when traffic is exchanged alternately, telegram by telegram, the routine repetition as well as the collation, if any (Regulations, Art. 54, § 1), shall be given by the receiving telegraphist. If the routine repetition or collation is corrected by the sending telegraphist, the words or figures corrected shall be repeated by the receiving telegraphist. If omitted, this second repetition shall be demanded by the sending telegraphist. On these instruments, when the exchange of traffic is made in series, and on high-speed instruments, the routine repetition or collation shall be given by the sending telegraphist immediately after the telegram. If the receiving telegraphist observes discrepancies between the transmission and the routine repetition or collation, he shall notify his correspondent, quoting the doubtful passages and adding a question mark after them. He shall also repeat the word preceding and the word following, where necessary.

(Art. 44, § 7) § 6. On connections using duplex working or apparatus permitting two-way traffic, the complete collation of telegrams containing more than 100 words shall be given by the receiving telegraphist. This rule shall not be compulsory on connections using Wheatstone instruments or teleprinters. On instruments which enable transmissions to be made by perforated tape, the collation must be effected by a second perforation when given by the sending telegraphist.

(Art. 44, § 8) § 7. In telegrams of more than 50 words, routine repetition shall be given at the end of every page, or of every telegram.

(Art. 44, § 11) § 8. Routine repetition may under no circumstances be delayed or interrupted, except as specified in the Regulations, Art. 37, § 1.

(Art. 44, § 1) § 9. Any routine repetition shall be preceded by the abbreviation COL.

ARTICLE A.13 *Acknowledgement of receipt*

The receiving office shall acknowledge receipt of any telegram or series of telegrams it receives. The form to be taken by this acknowledgement of receipt shall depend on how the particular communication is operated (see Articles B.6 and C.6).

ARTICLE A.14 *Misprints and interruptions*

(Art. 46, § 1) § 1. Corrections and requests for information relating to telegrams already sent on by the office in correspondence shall be made by urgent service advice (A Urgent).

§ 2. Telegrams containing obvious misprints can be retained only in cases where the rectifications can be speedily made. They must be retransmitted without delay with the service instruction " CTF " at the end of the preamble; this instruction
(Art. 46, § 2) is supplemented by information about the nature of the rectification. For example " CTF fourth " meaning that the fourth word will be corrected. Immediately after the retransmission of the telegram, the rectification shall be requested by urgent service advice (A Urgent).

§ 3. Deferred rectifications must be expressly designated as urgent service advices (A Urgent).

§ 4. If, through interruption or any other cause, it is not practicable to give or receive the repetition or acknowledgement of receipt, this circumstance shall not
(Art. 46, § 3) prevent the office which has received the telegrams from sending them on, subject to any necessary rectification following later, the service instruction " CTF " being inserted at the end of the preamble.

In cases of interruption, the receiving office shall immediately give an acknowledgement of receipt and, when necessary, shall request the completion
(Art. 46, § 4) of an unfinished telegram, either by another direct channel if there is one in service, or if not, by an urgent service advice (A Urgent) forwarded by whatever means are available.

(Art. 46, § 5) § 5. The cancellation of a telegram transmission which has already begun must always be asked for or notified by urgent service advice (A Urgent).

§ 6. When the transmission of a telegram has not been completed or the acknowledgement of receipt is not received within a reasonable time, the telegram
(Art. 46, § 6) shall be transmitted afresh with the service instruction " Ampliation ", except in the case of a money order telegram or a postal cheque telegram (Regulations Art. 47, § 3). The meaning of this service instruction " Ampliation " may be indicated on the addressee's copy by the office of destination.

§ 7. In service correspondence relative to the working of communications, it is
(Art. 37, § 11) preferable that code expressions in the *Codes and abbreviations for the use of the international telecommunication services* should be used.

Section B. — Special rules for connections not put through by switching

ARTICLE B.1 *Daily closing*

(Art. 4, § 3) § 1. In relations permanently open, the closing of daily sessions shall take place at a time agreed upon between the offices concerned.

§ 2. In relations between offices which are not permanently open, a terminal
(Art. 4, § 4) office may not close before having exchanged all outstanding international telegrams with an office which is open later and before having received confirmation that all these telegrams have been received.

§ 3. Between two directly communicating offices in different countries, the close of work may take place only by agreement between these offices. If these offices
(Art. 4, § 5) have different closing hours, the office that closes the earlier shall request the close of work. If they have the same closing time, the close of work shall be requested by the office of the country whose capital has a longitude East of the other's capital.

ARTICLE B.2 *Calling*

(Art. 37, § 2) § 1. To call another office, the calling office shall transmit three times the answer-back signal of the office required and the word " de " followed by its own answer-back signal, unless there are special rules peculiar to the type of apparatus used. Between fixed stations the call shall be made at hand speed.

(Art. 16, § 4) § 2. However, when Alphabet No. 1 is used, the word " ohe " shall be transmitted to call the office, followed by the answer-back signal of the office called, finishing with several inversions (alternate tapping of the keys for the signals " letter blank " and " figure blank ").

(Art. 37, § 2) § 3. However, on circuits operated by start-stop instruments, connected in such a way that the transmitting office may effect the unlocking, the transmission of telegram shall begin without special call or previous notice to the receiving office.

(Art. 37, § 2) § 4. If agreement has been reached between administrations (or recognized private operating agencies) to use automatic answer-back devices, calling shall be effected by transmitting the signals " figures-shift " and " D " (or " who are you ? "). The correct reception of the answer-back from the required office shall constitute a reply to the call. The transmission of certain classes of telegram on start-stop instruments may be announced by an audible or visible signal set off by transmitting the " figures-shift " and " J ".

(Art. 37, § 2) § 5. The office called must reply immediately, except in the case of start-stop correspondence, subject to § 4 above.

In Morse working, the office called shall reply by transmitting its answer-back signal followed by the signal — - —.

§ 6. If the office called is unable to receive, it shall give the " wait " signal. If it expects the wait to exceed ten minutes, the reason and probable duration shall be given.

(Art. 37, § 2) § 7. When an office called does not reply, the call may be repeated at suitable intervals.

§ 8. When the office called does not reply to the repeated call, the condition of the channel must be examined.

ARTICLE B.3 *Alternate transmission of telegrams*

(Art. 38, § 1) § 1. Two offices in direct communication by Morse or sound-reading instruments shall exchange telegrams alternately, telegram by telegram, having regard to Article 36 of the Regulations.

(Art. 38, § 2) § 2. A telegram having priority in transmission shall not count in the alternate order.

(Art. 38, § 3) § 3. The office which has just ended a transmission shall have the right to continue when it has telegrams awaiting transmission or when telegrams reach it which are entitled to priority over those which the office in communication has to transmit, unless the latter has already begun transmitting.

(Art. 38, § 4) § 4. When an office has finished transmitting, the office which has just received shall transmit in its turn; if it has nothing to transmit, the other shall continue. If neither has anything to transmit, the offices shall give the signal for the end of work.

(Art. 38, § 5) § 5. The receiving office shall have the right to interrupt the transmission in the case specified in the Regulations, Art. 37, § 1.

ARTICLE B.4 *Series transmission, alternate working and continuous working*

(Art. 39, § 1) § 1. On high-speed instruments, exchanges shall take place in series when the offices in communication have several telegrams to transmit. This rule shall be applicable to transmission by Morse and sound-reading instruments when the traffic justifies it and after understanding between the offices in communication.

(Art. 39, § 2) § 2. Telegrams of the same series shall be considered as forming a single transmission, but each correct telegram, before being sent on its way, shall be retained until the next but one telegram begins or for the time required to transmit a telegram of average length.

(Art. 39, § 3) § 3. When two offices are connected by one " go " and one " return " path, or in the case of simultaneous working, transmission shall be continuous, but the telegrams shall be grouped in series of 10 unless the offices concerned employ, in accordance with this section B, a special running series of numbers for the telegrams exchanged between them.

(Art. 39, § 4) § 4. When the exchange of telegrams takes place alternately, each series shall comprise a maximum of five telegrams if transmitted by Morse or sound-reading instruments, and a maximum of ten telegrams if transmitted by high-speed instruments. Nevertheless, every telegram containing more than 100 words on the Morse instrument, more than 150 words on sound-reading instruments, or more than 200 words on high-speed instruments, shall count as a series or terminate a series already in course of transmission.

(Art. 39, § 4) § 5. Similarly, in alternate transmission by series, the sending office shall end a series in course of transmission when it has only letter-telegrams to send; it shall not resume transmission until the office in correspondence has no more telegrams of higher priority on hand.

(Art. 37, § 12) § 6. Service messages and notes interposed between telegrams shall, in transmission by series, be separated from telegrams by one of the abbreviations RQ, BQ or XQ.

Example : RQ in 187 RPT...

(Art. 39, § 5) § 7. The receiving office shall have the right to interrupt a series in course of transmission in the case specified in the Regulation, Art. 37, § 1.

ARTICLE B.5 *Transmission with a continuous series of numbers*

(Art. 40, § 1) § 1. For telegrams transmitted over international circuits, every administration (or recognized private operating agency) shall have the right to number telegrams in series. In each case, it shall tell the administrations and recognized private operating agencies concerned.

The exercise of this right shall not, however, impose on the administration (or recognized private operating agency), to which the receiving office is subject, the obligation to apply the special provisions laid down in Article B.6, §§ 4 to 7, for the exchange of acknowledgements of receipt. In such cases, the provisions of Article B.6, §§ 1 to 3, shall remain in force at the request of the administration (or recognized private operating agency) concerned.

(Art. 40, § 2) § 2. The serial number shall be transmitted at the beginning of the preamble. Administrations and recognized private operating agencies shall decide, in so far as each one is concerned, whether the office number shall be retained.

(Art. 40, § 3) § 3. When serial numbers are used, all telegrams shall be numbered in unbroken series. On instruments using international Alphabets No. 1 and No. 2, a special series shall be used for each sector or channel. This series shall differ from the series used for the other sectors or channels by distinguishing figures or letters. A special series may be assigned to each category of telegrams.

§ 4. Telegrams with priority over ordinary telegrams and which are not transmitted in numerical order of the series, shall be marked with the distinguishing letter " X ", placed before the serial number.

(Art. 40, § 4) § 5. Offices in correspondence shall agree upon the start and finish of the series of numbers.

The offices in correspondence shall agree each day on the number to start the new series, i.e. 1, 2001, etc. Each series shall be started by the same number or by another number which the receiving office shall communicate to the sending office every day before beginning the new series.

(Art. 40, § 5) § 6. When telegrams have to be diverted and their serial numbers cannot be altered because they have already been perforated, the office which effects the diversion shall inform, by service message, the office to which the telegrams would otherwise have been transmitted and the office to which they actually are transmitted. The receiving office to which the telegrams should have been sent shall strike off its list the numbers of the telegrams which it is informed are being diverted.

In all other cases, telegrams which are to be diverted shall be given new serial numbers.

(Art. 40, § 6) § 7. When the receiving office observes that a serial number is missing, it must inform the sending office forthwith, so that the necessary inquiries may be made.

(Art. 40, § 7) § 8. When a serial number already used has to be struck out, the transmitting office shall inform the receiving office by service advice.

ARTICLE B.6 *Acknowledgements of receipt*

§ 1. For a single telegram, it shall be acknowledged by the letter R followed by the number of the telegram received, for example: " R 436 ".

(Art. 45, § 2) § 2. For an SVH telegram, a Government telegram with priority, a money order or a postal cheque telegram, receipt shall be acknowledged in the form: " R 436 SVH " or " R 436 ETAT " or " R 436 MDT " or " R 510 VIR ".

§ 3. (1) For a series of telegrams, the letter R shall be given with the number of telegrams received, and also the first and last numbers of the series, for example, " R 6 157 980 ".

(Art. 45, § 3) (2) If the series includes SVH telegrams, Government telegrams with priority, money order telegrams or postal cheque telegrams, the acknowledgement of receipt shall be supplemented by the numbers of these telegrams thus: " R 6 157 980 including 23 SVH 13 ETAT 290 MDT ".

§ 4. (1) Where transmission is with a running series of numbers, an acknowledgement of receipt (LR) shall, subject to the reservation in Article B.5, § 1, be given only at the request of the sending telegraphist, if traffic is exchanged without interruption. When transmission is not continuous, the sending telegraphist must ask for an acknowledgement of receipt immediately after the end
(Art. 40, § 8) of work.

(2) In every case, the acknowledgement of receipt must be transmitted immediately in the following form:

" LR 683 missing 680 retained 665 ". (This acknowledgement of receipt contains the last received (683), the number 680 missing and the number 665 retained.) [1]

(3) The sending telegraphist must request the acknowledgement of receipt immediately after the transmission of an SVH telegram, a Government telegram with priority, a money order or postal cheque telegram, or a series of money
(Art. 40, § 9) order and/or postal cheque telegrams.

In such cases, the acknowledgement of receipt shall take the following form:

" LR 383 MDTS 681 682 ETAT 683 " [1]

(4) The acknowledgement of receipt mentioned in § 4 (1) is given at the daily
(Art. 40, § 10) closing of service. The transmitting telegraphist then adds the word " closing " [1] to his invitation " LR ".

ARTICLE B.7 *Abbreviating the name of the office of destination*

In the transmission of telegrams between two countries linked by direct communication, the name of the office of destination may be abbreviated by arrangement between the administrations (or recognized private operating
(Art. 42, § 2) agencies) concerned, in the case of a well-known place in one of the countries concerned.

The abbreviations chosen must not be the same as the names of offices in the International List of Telegraph Offices. They cannot be used in the transmission of money order or postal cheque telegrams.

Section C. — Special rules for switched connections (gentex calls)

ARTICLE C.1 *Routing*

§ 1. The gentex network is made up of telegraph offices of European countries participating in the service (gentex offices), of switching centres and of telegraph channels connecting the offices to switching centres and the switching centres to one another.

§ 2. Instructions for the routing of telegrams appear in the routing lists available to operators.

§ 3. Telegrams to an office which appears in the routing list shall be routed to the gentex office listed as serving that office, account being taken of § 5 below, if appropriate.

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[1] In the service between fixed stations, the following forms of acknowledgement of receipt are currently used:

a) xq to Paris = 180205 gmt LR 683 missing 680 RQ 678 cfm = NY (**375**);
b) xq to Paris = 180415 gmt Etat 683 mdts 681 682 rcdok = NY (**377**);
c) 15 A Paris de Moscow 28 0010 = closing 27/5 LR 701 missing 689 LS 816 blank 782 TUHRU (**378**).

§ 4. Telegrams to an office which 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.

§ 5. Telegrams to limited service gentex offices shall be routed in accordance with the instructions appearing against these offices in the routing lists.

ARTICLE C.2 *Answer-back codes*

§ 1. The answer-back code used in the gentex service is made up of 20 signals.

§ 2. The series of 20 signals in the answer-back code is as follows:

— Carriage return
— Line-feed
— Figure-shift
— The figures representing the national call number
— Letter-shift
— For large offices, when necessary, one or two letters identifying the position
— Name (in full or abbreviated) of the office
— Space
— one or two letters identifying the country (see § 5 below)
— Letter-shift.

§ 3. The answer-back code of special positions dealing with service notes and advices, when they exist, includes the group of letters INQ [1] after the name of the office.

§ 4. The answer-back code of specialized incoming positions for overflow traffic includes the group of letters DEB [2] after the name of the office.

§ 5. The characteristic letters of the names of countries are as follows:

A	Austria	I	Italy
B	Belgium	L	Luxembourg
BG	Bulgaria	MC	Monaco
CH	Switzerland	N	Norway
CS	Czechoslovakia	NL	Netherlands
D	Germany	P	Portugal
DK	Denmark	PL	Poland
E	Spain	R	Roumania
EI	Ireland	S	Sweden
F	France	SF	Finland
GB	United Kingdom	SU	U.S.S.R.
GR	Greece	TR	Turkey
H	Hungary	YU	Yugoslavia

ARTICLE C.3 *Setting-up of calls*

§ 1. At the calling position, the telegram may be provided with a reference number which will be transmitted at the beginning of the preamble and will serve as an additional means of identifying the telegram if required.

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[1] INQ standing for " inquiries ".

[2] DEB standing for " débordement " (overflow).

§ 2. To set up the call with the required office, the operator of the calling station proceeds to call.

The number sent by a gentex office to call a gentex office in another country is made up of:

— the prefix giving access to the called country from the calling station,
— the national number of the called office.

§ 3. Having set up the call, the operator at the calling station brings into operation the answer-back device in the station obtained together with that of his own station, when these two operations are not automatically controlled by the equipment in the calling or called country. The operator at the calling station checks the answer-back code he obtains against that of the required office and if they correspond he then begins to transmit the telegram.

§ 4. If the answer-back code received comes from an overflow position, transmission can begin.

§ 5. If the answer-back code received belongs to a position in an office which is not required to intervene, the operator sends the signal BK, gives the clearing signal, and tries once again to put the call through to the office required.

Should this fresh attempt end by reception of the answer-back code of a position which is not an overflow position and does not belong to the office required, the operator shall proceed in accordance with Article C.7, § 4.

§ 6. If the calling station receives the busy signal, the call shall be repeated after about two minutes. If the second call is unsuccessful, a third call shall be made after another two minutes. If the busy signal is again received, telegrams shall be diverted to that telegraph office in the same country as the required office shown in the routing list as competent in such cases.

§ 7. When a call is sent to a gentex office in a country admitting diversion to an overflow position, connection with the required gentex office or an overflow position may be effected after a period of up to one minute.

The operator of the calling station is informed thereof by reception of MOM. He will then await subsequent routing of his call.

ARTICLE C.4 *Transmission procedure*

§ 1. The operator in the calling station is primarily responsible for the transmission of telegrams. If a telegram fails to arrive or if its text is mutilated, he must prove that he has followed the correct procedure.

He can supply this proof by producing the original of the telegram and the control tape, if there is one, by examination of the called station answer-back code, which must have been received without error in order to provide a simplified acknowledgement and by examination of the acknowledgement of receipt when such an acknowledgement is obligatory.

§ 2. When a call has been set up with the desired telegraph office, or with an overflow position, the telegram shall be transmitted in the manner described in the Telegraph Regulations and in section A of these Rules. The prescribed routine repetition of different parts of the telegram or of the whole of it shall always be effected by the operator at the calling station.

§ 3. Before transmission of an SVH, S, MDT, VIR or urgent telegram, or of a service advice indicating transmission by ampliation of a money order or postal cheque telegram, the operator shall transmit the audible signal three times.

§ 4. When the operator has more than five telegrams with identical texts to transmit, he must first announce this fact by transmitting the signals RPFR TM... (...: number of telegrams) and by sending the audible signal. These telegrams shall then be transmitted as soon as the operator at the called station has replied by the signal GA. If the GA signal has not been received within one minute, then the operator shall go ahead with the transmission.

§ 5. After transmission of the telegram, the operator obtains the answer-back code of the called station and then sends his own answer-back code.

§ 6. If, after the exchange of answer-back codes following the transmission of the telegram, the operator of the calling station notes transmission errors in the telegram, he shall operate the audible signal three times and transmit the expression RECT followed by the necessary corrections; then he shall again exchange answer-back codes as described under § 5.

§ 7. When transmission of a single telegram has been completed, the operator of the calling station should, before exchanging answer-back codes, transmit the time of end-of-transmission in the form of 4 figures, unless it is sent automatically. The time is not forwarded by the operator if it is automatically transmitted before or after sending the telegram.

§ 8. Following the exchange of answer-back codes, the operator of the calling station sends the clearing signal, unless the telegram transmitted is an SVH, S, MDT or VIR telegram, or a service advice indicating transmission by ampliation of a money order or postal cheque telegram (in which case he should act as prescribed in Article C.5, § 2).

§ 9. When a calling station has several telegrams for the same office they shall be transmitted one after the other, once the calling station has made contact with that office, observing the prescriptions laid down in §§ 2 to 5. In such cases, the operator at the calling station shall exchange answer-back codes after every telegram.

When the last telegram has been transmitted, the operator of the calling station shall transmit successively the abbreviated indication of the number of telegrams transmitted (for instance, " TG 3 " for a series of three telegrams) and the end-of-transmission time if it has not been transmitted automatically; he then proceeds to the final exchange of answer-back codes before sending the clearing signal.

ARTICLE C.5 *Receiving procedure*

§ 1. The called station checks the telegram or telegrams received in accordance with the provisions of the Telegraph Regulations and the rules of section A of this Recommendation. If a correction is necessary, a request must be sent by RQ note to the transmitting office (see Article C.8 below).

§ 2. A called position receiving an audible signal announcing a telegram must be staffed by an operator as soon as possible.

a) If the receiving operator reads RPFR TM..., he shall put the perforating receiver into circuit, if such apparatus is available in the called office, and

shall transmit GA. Should no perforating receiver be available, the receiving operator shall transmit GA forthwith.

b) On receipt by the receiving operator of SVH, S, MDT, VIR or of a service advice indicating transmission by ampliation of a money order or postal cheque telegram, he shall wait for the end of transmission of the text and the concluding exchange of answer-back codes; he then transmits MOM, checks the text received, obtains the answer-back code of the calling station, compares it with that received at the beginning of the transmission, and acknowledges receipt (see Article C.6 below).

c) If the receiving operator reads URGENT, he shall wait for the end of the telegram transmitted on the receiving position and deal with it immediately.

d) Should the receiving operator read RECT, he must check the correction made and intervene only when necessary.

ARTICLE C.6 *Acknowledgement of receipt*

§ 1. A called station must give an acknowledgement of receipt to the calling station upon receipt of SVH, S, MDT, VIR telegrams or of a service advice indicating transmission by ampliation of a money order or postal cheque telegram.

§ 2. These shall be acknowledged in the following way:

R — handing-in number and reference number (if there is one) — specialization and identification letters of the calling station — category of telegram (SVH, S, MDT or VIR, A).

§ 3. Telegrams requiring an acknowledgement of receipt shall be announced by three successive operations of the audible signal (see C.4, § 3 above). An operator at the called office shall man the position receiving this signal as soon as possible (see Article C.5, § 2); he then waits for the end of transmission of the telegram and the concluding exchange of answer-back codes, transmits MOM, checks the text received, obtains the answer-back code of the calling station, compares it with that received at the beginning of the transmission and acknowledges receipt as described in § 2 above.

The operator at the calling station gives the clearing signal.

§ 4. If the calling station has not received the MOM signal some 30 seconds after the end of transmission of the telegram, the operator shall give the clearing signal or continue with the transmission of other telegrams if there are others to send to the called office.

§ 5. If an office has been unable to acknowledge receipt before the call is cleared, it shall send this by service advice to the office which transmitted the telegram requiring it.

§ 6. If the office transmitting a telegram requiring an acknowledgement of receipt has not received it approximately 30 minutes after transmission, a service advice requesting such acknowledgement shall be sent to the receiving office in the following form: SVP R — handing-in number and reference number (if there is one) — specialization and identification letters of the position which has transmitted the telegram — category of telegram and the address. An office receiving such a service advice reminder shall proceed forthwith to take the necessary action and shall give the acknowledgement of receipt by urgent service advice.

ARTICLE C.7 *Irregularities*

§ 1. If, during the transmission of a telegram, the receiving operator notices that it has been misdirected:

— when the office of destination is located in the same country as the office receiving it, the latter accepts the telegram and retransmits it to the office of destination,

— when the office of destination is not in the same country as the office receiving the telegram, the receiving operator shall interrupt the transmission and give notice of the routing error.

§ 2. If the fact that the telegram has been misdirected is noticed only after the call has been cleared, the receiving office retransmits it without delay and with priority over other telegrams in the same category, to the office of destination even when the latter is in another country.

§ 3. The operator manning a position is responsible for seeing that there is enough paper in the apparatus, that the inking system is fully serviceable, and that the apparatus is switched to " engaged " while the ribbon and paper are being replaced.

§ 4. Should the operator of a calling station notice, during the putting through of a call, anything which appears to him attributable to a fault in lines or equipment, he shall, if possible, transmit DER BK and give the clearing signal.

After two minutes or so, he shall try again to put the call through. If once again there are irregularities, he shall, if possible, transmit DER BK, give the clearing signal, record the irregularities on the telegram or telegrams, and effect disposal by the alternative route indicated on the routing list. He shall then report the fault.

§ 5. Should a mutilated answer-back code be received, or should there be no answer-back code at all, the operator shall transmit DER BK, give the clearing signal and proceed as in § 4 above.

§ 6. If the operator at the called station notes misprints or any incoherence in the text of a telegram which is being received, he shall send P or zero signals repeatedly until transmission stops. He shall then send MUT RPT AA... (or possibly, the reference number (SRL NR) or handing-in number (TG NR) of the first mutilated telegram when a series of telegrams is being received) and the last correctly received word or group. The operator at the calling station shall recommence transmission at the word or group indicated.

§ 7. Should a completely mutilated text be received, including mutilation of the answer-back code of the calling station, an operator noticing this before the call is broken off stops the transmission and immediately reports the matter to the corresponding station by transmitting MUT RPT ALL.

§ 8. If the receiving operator cannot stop a bad transmission, or if the text received when the transmission is resumed continues to be mutilated, the receiving agent sends DER BK and the clearing signal.

§ 9. a) If the answer-back code of the called station is not received or is badly received at the end of transmission of a telegram, the calling station sends DER BK and gives the clearing signal.

b) It then proceeds once more to call the required gentex office and resumes transmission, preceding it by the expression " fair copy " situated between two space signals, except with MDT or VIR telegrams.

c) The procedure described under sub-paragraph b above is also applied when the call is accidentally interrupted during transmission.

§ 10. If a call is accidentally interrupted during transmission, or if a call has been cleared after transmission of BK, the called office suspends the texts received until the calling office resumes transmission. If transmission is not resumed within 15 minutes, the called office sends a service note to the calling office, requesting any corrections or repetitions which may be necessary.

§ 11. When a completely mutilated text is received, and the answer-back code of the calling station is also mutilated, the printed tape shall, if the call has already been broken off, be stuck on a telegram form. The name of the receiving station and the time of receipt shall be marked thereon and the telegram kept for inquiry purposes.

ARTICLE C.8 *Service notes and advices*

§ 1. When reception of a telegram is checked and mistakes are noted, a service note (RQ) shall be transmitted by means of a special call to the office which has transmitted the telegram. This latter office transmits the reply by a service note (BQ) as quickly as possible also by special call.

§ 2. The same treatment shall be given to calls for service notes (RQ or BQ) as to those for a telegram.

§ 3. A request (RQ or BQ) must contain the following indications:

a) code word (RQ or BQ);

b) office to which the (RQ or BQ) note is being sent;

c) time at which transmission of the telegram has finished (or time at which the call given by the automatic switching equipment was put through);

d) designation of the telegram in question by the handing-in number (and, if necessary, the reference number) of the telegram, followed by that of the operating position which has transmitted the telegram, separated by a fraction bar (e.g. 17/385/TC);

e) the request or reply itself:

Examples: for RQ: RQ LYON 1030 17/385/TC 9W = CFLAM-8A-BH +
for BQ: BQ AMSTERDAM 1030 17/385/TC 9W OK +
for RQ (in the case mentioned in Number 403 of the Telegraph Regulations): RQ LYON 1030 376/TC PAGE 3 = RPT WA... +

§ 4. If a reply to an (RQ) note has not been received after a maximum period of 20 minutes, a second (RQ) note shall be transmitted, preceded by RAFSO, to the calling office. If no reply is received after a further 10 minutes, the telegram shall

be sent on marked CTF and the type of correction indicated. The same applies when it is obvious from the outset that the clarification of an irregularity will take a fairly long time (for instance after the closing time of a telegraph office).

§ 5. When a telegram is sent on marked CTF, due to a long-delayed reply (BQ) to a note (RQ), the office to which the RQ note has been sent shall be informed of the fact by a service advice (A).

§ 6. Requests which are transmitted one or more days after the telegram has been received shall be made by means of service advices (A).

§ 7. Service notes and advices shall make use of the codes listed in the annex to these Rules, and also the five-letter codes from the book of " *Codes and abbreviations for the use of the international telecommunication services* (second issue) ".

ARTICLE C.9 *Prohibitions*

§ 1. A gentex office shall not, under any circumstances, call a telex subscriber in another country.

§ 2. If an office connected to the gentex network receives a call from a telex subscriber in another country:

a) when the receiving operator notices this before the call has been cleared, he shall immediately interrupt the transmission from the calling station and transmit NA BK and the clearing signal;

b) when this is noticed after the call from the telex subscriber has been cleared, a service advice shall be sent to the gentex office which seems most appropriate in the country of origin, informing it that the telegram has been improperly handed in and that the telegram thus received has been cancelled.

ANNEX TO SECTION C OF THE RULES FOR THE TRANSMISSION OF TELEGRAMS IN THE INTERNATIONAL SERVICE

Service codes and abbreviations to be used in gentex operation

Abbreviation	*Meaning*
ABS	Telegraph office closed
ADRS	Address
ANH	Congestion
ANUL	Delete ....
BK	I cut off
BQ	Reply to RQ
CALL NR	National call number of a gentex office
CCT	Circuit
CFM	Please confirm / I confirm
CK	Please check number of words
COL	Collation - Please give / I give routine repetition
CRV	How do you receive ?
CTF	Correction to follow

Abbreviation	*Meaning*
CTG	Category of telegram
DBL	Double word(s)
DEB	Overflow position
DER	Out of order
DER BK	Out of order, I cut off
DER MOM	Bad reception, do not cut off, we are testing the line
DETR	I am re-routing to...
DETR SVP	Please re-route to... / Alternative route ?
DIF	Different
DTE	Date of handing-in
E E E	Error signal
FIG	Figure(s)
GA	You may transmit
IND	Answer-back code
INQ	Position specializing in the handling of service notes and advices
LTR	Letters(s)
MIN	Minutes
MOM	Please wait !
MOM PPR	Please wait ! I have paper trouble
MUT	Mutilated
NA BK	Correspondence with this telegraph office is not admitted. I cut off
NC	No circuit
NOT R	Not received
NP	The called number is not / no longer in use
NR	Number
OCC	Busy
O/D	Telegraph office of destination
OK	Agreed
OMTD	Omitted
O/O	Telegraph office of handing in
P (repeated)	Stop your transmission
PBL	Preamble of telegram
PPR	Paper
QGA	May I transmit ?
QOK	Do you agree ?
R	Received ....
RAFSO	Second application
RAP	I shall call you again
RECT	Correct please / I am correcting / correction ?
RECT AA	Correct all after .....
AB	„ all before .....
ALL	„ the whole telegram
BN	„ all between ..... and .....
SRL NR	„ reference number
TG NR	„ telegram number
WA	„ word after .....
WB	„ word before .....
REF	With reference to ....
ROUTE	Route to / I am routing to .... / Route ?

Abbreviation	*Meaning*
RPFR	Please prepare your reperforator
TM	Prepare your reperforator because of telegram with multiple addresses
TXT	Prepare your reperforator because of long or difficult text, or because of telegrams having the same text
RPT	Repeat please / I repeat
RPT AA	Repeat all after .....
AB	„ all before .....
ALL	„ the whole telegram
BN	„ all between ..... and .....
SRL NR ..	„ reference number given by the transmitting office ....
TG NR	„ telegram number
TXT	„ text
WA	„ word after .....
WB	„ word before .....
RQ	Announcement of a request
SIG	Signature
SRL NR	Reference number given by a gentex transmitting office
SVIN	Service indication
SVP	Please
TCHN	Technical service / I shall advise the technical service
TEST MSG	Please send a test message
TG	Telegram
TG NR	Telegram number given by the handing-in office .....
TPLE	Triple word(s)
TPR	Teleprinter
TXT	Text
UTCOD	Use the gentex code
W	Word(s)
WEFXU	Waiting reply to our service advice
WTG	We are waiting / I am waiting
+ ?	I have finished my transmission / Do you wish to transmit ?
Figure 0 (repeated)	Stop your transmission

RECOMMENDATION F.2

ACTION TO BE TAKEN IN CASE OF INTERRUPTION OF TELEGRAPH CIRCUITS. POSSIBLE USE OF TELEX CIRCUITS

(formerly C.C.I.T. Recommendation G.12, Geneva, 1956)

The C.C.I.T.T.,

considering

that such interruptions are individual cases which may arise in many different ways,

unanimously declares the view

that, for the time being, the procedure to be adopted should be settled by agreement between the administrations and recognized private operating agencies concerned.

RECOMMENDATION F.10

MAXIMUM TOLERABLE ERROR RATE FOR LAND-LINE TELEGRAPH COMMUNICATIONS USING FIVE-UNIT START-STOP APPARATUS

(formerly C.C.I.T. Recommendation F.7, Geneva, 1956)

The C.C.I.T.T.,

considering

a) that it would be helpful in telegraph working to have a standard for assessing the quality of telegraph communications;

b) that the error rate for telegraph communications, as laid down, would be suitable for this purpose (ratio between the number of alphabetic signals incorrectly translated to the number of such signals in the message, keying being correct);

c) that the standard chosen should take account of the quality obtainable with present-day technique;

d) that some administrations have made measurements in this connection;

e) that the standard should be reviewed and adapted to keep it in step with future technical progress,

unanimously declares the view

1. that provisionally, for land-line telegraph communications in the general service, the subscribers' service and the leased circuits service, using five-unit start-stop apparatus the maximum tolerable error rate to be recommended should be 3 in 100 000 alphabetic telegraph signals transmitted;

2. that administrations and recognized private operating agencies should pursue the study of this question in order that the provisional standard may be modified to keep it in line with the progress of telegraph technique.

RECOMMENDATION F.11

MAXIMUM TOLERABLE ERROR RATE FOR RADIOTELEGRAPH COMMUNICATIONS USING FIVE-UNIT START-STOP APPARATUS (INCLUDING MIXED COMMUNICATIONS CONSISTING OF WIRE AND RADIO CIRCUITS)

(formerly C.C.I.T. Recommendation F.8, Geneva, 1956)

The C.C.I.T.T.,

considering

a) that the propagation difficulties which exist on certain radio circuits make some errors in transmission unavoidable;

b) that the type of transmission to be used on radio circuits may depend on the error rate which can be tolerated;

c) that therefore it should be useful to establish the maximum error rate;

d) that for this purpose the error rate as defined for telegraph communications should be used, i.e. the ratio of alphabetic telegraph signals incorrectly translated to the number of alphabetic telegraph signals of the message, assuming the keying to be correct;

e) that for land-line communications a maximum tolerable error rate of 3 in 100 000 alphabetic telegraph signals has been provisionally accepted (Recommendation F.10);

f) that this error rate cannot be used as such for radiotelegraph communications on account of essentially variable conditions peculiar to this type of transmission,

unanimously declares the view

1. that the quality of service must be the same for telegraph communication in the general service, the subscribers' service, and the leased circuits service;

2. that in order to ensure a high grade of telegraph service with present-day technique, it is advisable to recommend provisionally, for the whole of a telegraph connection including a radio path, a maximum tolerable error rate of 10 in 100 000 alphabetic telegraph signals transmitted.

However, depending on the connections concerned, this error rate cannot always be maintained for the entire duration of the service. The administrations and recognized private operating agencies concerned should reach agreement on the percentage of time during which the maximum tolerable error rate must be respected;

3. that it devolves upon the C.C.I.R. to establish methods of measurement necessary for a practical control of error rate on radiotelegraph communications;

4. that the administrations and recognized private operating agencies should continue to study this question in order that the provisional standard may be modified to keep it in line with the progress of radiotelegraph technique.

RECOMMENDATION F.11*bis*

SOME FURTHER DATA ABOUT THE EFFICIENCY FACTOR IN TIME. APPLICATION TO THE CASE OF A TELEPRINTER CIRCUIT WITH ARQ SYSTEMS

(New Delhi, 1960, amended at Geneva, 1964)

The efficiency factor in time (No. 33.23 of the *List of definitions*) is defined as follows:

efficiency factor in time (of a telegraph communication with automatic repetition for he correction of errors):

" Ratio of the time necessary to transmit a text automatically without repetition, at a pecified modulation rate, to the time actually taken to receive the same text with a given rror rate."

Note 1. — The whole of the apparatus comprising the communication is assumed to be in the normal onditions of adjustment and operation.

Note 2. — A telegraph communication may have a different efficiency factor in time for the two direc- ions of transmission.

Note 3. — The actual conditions in which the measurement is made should be specified, in particular he duration of the measurement.

To avoid different ways of interpreting this definition (and these differences could lead o practical consequences since the efficiency factor is going to be used for automatic witched operation on radio circuits), the C.C.I.T.T. *unanimously declares the following view :*

A. — that the definition be amended as follows:

1. The time T *actually* taken to transmit a text (or any series of signals included in a nessage) is the sum of the time T_U taken by the automatic transmission of the message ignals and the time T_R taken for the repetitions that are necessary for error correction: $= T_U + T_R$.

The time that would be required to transmit the text in the case of automatic transmis- ion in perfect transmission conditions that do not require repetitions for error correction T_U.

The efficiency factor in time is $\frac{T_U}{T}$ or again $\frac{T - T_R}{T}$ or again $1 - \frac{T_R}{T}$.

2. In the case of radio circuits using error correction devices with automatic repetition known as ARQ) where all the signals are transmitted at the same modulation rate (and ithout loss of time when the repeated signals are sent) a definition like the preceding one an be used, but in terms of the number of signals.

If N_U is the number of signals in the message and N_R the number of signals in the repeti- on cycles during measurement time T (which is the time actually taken for the trans-

mission), $N = N_U + N_R$ is the number of signals which, during time T, have been transmitted; it is also the number of message signals which could have been transmitted during time T if the transmission had been made without repetitions.

Time T_R corresponds to the transmission of the signals in the repetition cycles, i.e. to the transmission of N_R signals.

The efficiency factor $\frac{T - T_R}{T}$ can then be written $\frac{N - N_R}{N}$ because T and N, and T_R and N_R are proportional.

If R is the number of repetition cycles during this time T and k the number of signals per repetition, the efficiency factor becomes $\frac{N - kR}{N}$ and may be defined as follows:

Ratio of the number of signals usefully transmitted (at a given modulation rate and received with a given residual error rate) during a given interval of time to the number of signals that could be transmitted if transmission is correct during this same interval of time.

3. In the case of a four-character repetition cycle, N being the maximum number of characters that can be transmitted during the observation period, the efficiency factor is $\frac{N - 4R}{N}$.

With an eight-character repetition cycle, the efficiency factor is: $\frac{N - 8R}{N}$;

B. — that the efficiency factor in time be measured as follows, for a *point-to-point* call using a radio circuit with ARQ:

traffic is observed for twenty-four hours, divided into periods of fifteen minutes;

N being the maximum number of characters which can be transmitted on the circuit during a period of fifteen minutes, in other words, the " maximum circuit operating rate "

the number R of repetition cycles is counted during each fifteen minute period, and the maximum reached by R (R_{max}) is observed;

the efficiency factor has, as its minimum $\frac{N - 4R_{max}}{N}$ or $\frac{N - 8R_{max}}{N}$, according to whether the cycle comprises four or eight characters;

the number of uncorrected errors during each period of fifteen minutes will be indicated

RECOMMENDATION F.12

PAGE RECEPTION OF TELEGRAMS WITH AN AGREED LAYOUT AND WITHOUT ERROR

(Geneva, 1956, amended at New Delhi, 1960; Geneva, 1964 and Mar del Plata, 1968)

Certain exchanges use page-printing teleprinters for reception and hence want the corresponding offices to transmit their traffic in a predetermined form; the standards governing the lay-out of the various parts of a telegram often vary according to the receiving offices, and this leads to difficulties in the sending offices.

Certain receiving offices use the page on which the telegram has been received for delivery to the addressee and, consequently, the transmitting office must transmit its traffic without errors.

For these reasons, the C.C.I.T.T. *unanimously declares the following view :*

1. When page-printing teleprinters are used for reception, the corresponding office or offices should transmit traffic to that office without error, according to the following lay-out:

" *Number of signals : line feed* " *(see note a)*	
1	sdz202 sz ur 287 rcb90[1]
1	indiana harborind 29 2 1638[2]
3	
1	lt fs
1	missgisella cohen, grand hotel
	geneva
3	
1	1000 francs cabled to lucerne july 28 through swiss bank corporation
	stop please cable if not received love
	daddy [3]
3	
	col lt fs 1000 28
10	
	(10 " letter-shift " signals) *(see note b)*

[1] Preamble, the parts referred to in Numbers 381 and 382 of the Telegraph Regulations (Geneva, 1958).
[2] Preamble, the parts referred to in Numbers 383 to 395 of the Telegraph Regulations (Geneva, 1958).
[3] Minimum five " spaces " before the signature.

Note a). — Administrations and recognized private operating agencies may to some extent adapt the vertical line spacing of their teleprinters for the reception of telegrams to ensure a suitable lay-out.

Note b). — It is considered that ten " letter-shift " signals can usefully be inserted after the ten line spaces separating telegrams, to provide for cases in which the receiving office uses perforated-tape retransmission.

2. Each line of the address must consist of not more than 43 characters (including spaces) and must be preceded by the re-alignment function. The office of destination must always appear on a separate line.

Example :

LT
MR FRANK CONTI US DELEGATION ILO CONFERENCE
EUROPEAN UNO HEAD OFFICE
GENEVA

3. The sending office should eliminate errors before transmission.

4. Telegrams of more than 50 actual words shall be divided into pages generally in accordance with Regulation 339. The text shall itself be divided into groups of 50 actual words, called pages. These pages shall be numbered in a continuous series for the whole of the telegram; the last page may consist of less than 50 words.

Each page should be separated from the next by four line-feeds. On the second and subsequent pages the text should be separated from the reference line which carries the identification number, by three line-feeds.

5. Collations shall take place for each page.

6. In the case of preparing telegrams in page format which are to be circulated via a message retransmission system, the additional provisions contained in Recommendation F.31 should be observed.

7. In the case of preparing telegrams in page format which are to be circulated via the gentex network, the additional provisions contained in Recommendation F.22 should be observed.

ANNEX

(to Recommendation F.12)

Example: *Ordinary paid telegram with multiple address* (TMx)

CR LF

1LF TKJ844 LNB428 NDS417
BOMBAY 19 24 1430

3LF

1LF TM2
1LF MACFISH
1LF SEAFRESH
WALSALL

3LF

1LF YOURS 1137 CREDIT MINIMUM TIME REQUIRED
180 DAYS GRATEFUL YOU CONSIDER AND ADVISE URGENT
SINPO

3LF

COL TM2 1137 180

10LF

Ten " letter-shift " signals

Example: *Multi-address telegram with service indications relating to specific addresses*

CR LF

1LF AKB006 MDS415
MADRAS 24/23 18 1826

3LF

1LF LT TM3 CTA
1LF MP
1LF BROWNCO
1LF RP 30,00
1LF STRONGBOW
1LF TLX 420216
1LF RIGHTARM
1LF LONDON

3LF

CULL 245266 SEA COPY NOT RECEIVED SEND COPY MOST URGENTLY
JOHNSON

3LF

COL LT TM3 CTA MP RP30,00 TLX 420216 245266

10LF

Ten " letter-shift " signals

Example: *Money-order telegram*

CR LF

1LF AKW112 HQ0244
LONDON LB 16 26 1130

3LF

1LF MANDAT 1474
BOMBAY

3LF

1LF MOHD YOUNAS 500 FIVE HUNDRED RUPEES
MR ABOUR RAUF 74 APOLLO BUNDO HAPPY BIRTHDAY

3LF

COL LONDON LB MANDAT 1474 BOMBAY MOHD YOUNAS
500 ABOUR RAUF 74

10LF

Ten " letter-shift " signals

Example: *Multi-page telegram*

CR LF

1LF GWB608 MKA296 AZT044
NEW YORK 73/72 10 1826 PAGE 1/50

3LF

1LF LT
1LF SOAPBOX
LIVERPOOL

3LF

00503 YOUR TELEGRAM MODEV6 OF MARCH 1 FOR GRADUATE VOLUNTEERS GRATEFUL FOR WHAT YOU PROPOSE STOP WOULD ONLY PRESS FOR THIRD CATEGORY NAMED IF RESULTS OF RECRUITMENT PERMITTED BUT FOR PRACTICAL REASONS WOULD BE GLAD IF THEY DID SO PLEASE TELEGRAPH PROSPECTS FOR EXPORT ACTIVITY DISTRIBUTION ARRANGEMENTS

3LF

COL LT 00503 MODEV6 1

4LF

AZTO44 SOAPBOX PAGE 2/22

3LF

URGENT X CAN WE SHIP 5000 LBS K685 EX PUK ON BRAEMAR SAILING LONDON MARCH 18 X CABLE MACKENZIES KAMPALA IMMEDIATELY
SMITHCO

3LF

COL 5000 K685 18

10LF

Ten " letter-shift " signals

SECTION 2

SWITCHING NETWORK FOR THE GENERAL PUBLIC SERVICE GENTEX NETWORK

RECOMMENDATION F.20

CONSTITUTION OF THE EUROPEAN SWITCHING NETWORK FOR THE GENERAL PUBLIC TELEGRAPH SERVICE USING START-STOP TELEPRINTERS

(formerly C.C.I.T. Recommendation F.11, Geneva, 1956)

The C.C.I.T.T.,

considering

that the European start-stop teleprinter network using switching to carry the international traffic of the general telegraph service in Europe can be organized according to various plans;

that one of these plans—Plan A—entails the creation of a European network completely separate from the national networks;

that, in Plan A, the telegraph stations, lines and switching equipments used for terminating international calls in the territory of countries which are parties to the European switching network are independent of the telegraph stations, lines and switching equipments used in the inland services of these countries;

that such a plan would be advantageous in that it would give rise to an entirely new network, including the latest advances in switching technique with a numbering scheme and with answer-back codes both simple and thoroughly adapted to that arrangement of network;

that, on the other hand, separation, within a country, of systems of telegraph lines and operating stations into one group for the inland service and an independent group for the international service would be costly;

that, for this reason, only the major telegraph offices of a country would be connected to the European switching network;

that, in addition, the creation of such a network (which, if full advantage is to be taken of the points in its favour, would have to be designed for a single signalling system and a single operating procedure) would require lengthy international study and hence would take several years;

that, at the present time, several European countries are operating, or will shortly operate, national switching networks, and are ready to start a switching service from country to country;

that application of Plan A would require the unanimous agreement of the participants in the European switching network;

that, for the reasons explained above, such agreement cannot be obtained,

unanimously declares the view

that, for the time being, the creation of a European network completely independent of national networks cannot be proposed for the European switching network of the general public service;

considering further

that another plan—Plan B—entails interconnection, by switching, of the national networks now being operated by switching (or which are to be so operated);

that this plan presents an advantage in that it could be implemented by bilateral agreement between administrations, and in certain relations could be very speedily applied;

that it presents another advantage in that it does not restrict the further development of the network, since it does not limit the connection of the European switching network to a few major offices and thus would make it possible for the retransmission of telegrams to be further reduced;

that it is more economical than Plan A;

that the right of administrations freely to choose which of their offices are to be connected to the European switching network cannot be challenged;

that some administrations have decided to connect a fair number of their telegraph offices to the European switching network;

that, on the other hand, other administrations have decided to separate the national and international networks in their territories;

that, for this reason, full application of Plan B cannot be considered, and that it would be well to recommend a solution combining Plans A and B,

unanimously declares the view

that the European switching network of the general public service should be so constituted that some administrations would be able to use their national networks to terminate international communications, while others would be able to use a specialized network for international traffic within their territory (Plan C);

that, as regards trunk circuits between the switching centres of different countries, the administrations concerned should be free to choose between the use of international telex trunk circuits and the constitution of trunk circuits reserved for general traffic;

that, to offset the diversity of operating conditions and technical equipment which might result from the application of Plan C, standardization of operating methods and

signalling should be carried as far as the essential characteristics of the national networks permit;

that, in order to facilitate and expedite a thorough study of whether Plan C could be put into operation by all countries, it is desirable that the countries having some experience of the technical, operational and charging problems of this Plan should communicate all possible information on the subject to the other administrations interested, through the medium of the C.C.I.T.T.;

considering finally

that operation entirely by automatic switching is much less expensive than manual or semi-automatic operation;

that it would be desirable to adopt, at least on a provisional basis, an abbreviated name for such a network,

unanimously declares the view

that those networks whose interconnection is envisaged would have to be operated entirely by automatic switching;

that provisionally the word " gentex " would be used to designate the switching network for the general telegraph service.

RECOMMENDATION F.21

COMPOSITION OF THE ANSWER-BACK CODE FOR THE INTERNATIONAL GENTEX SERVICE

(Geneva, 1958, amended at New Delhi, 1960 and Geneva, 1964)

The answer-back code sent by teleprinter equipment in the gentex service should provide as much useful information as possible for the operational services.

The number of telegraph offices taking part in the international gentex service seems to be growing considerably and it is therefore necessary for the name of an office obtained as the result of a call to be indicated very clearly to the operator at the calling station, who generally belongs to a country speaking a language other than that used in the station obtained.

It should be noted, moreover, that the average time taken to transmit the text of a telegram in the European 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). Procedure for checking answer-back codes should therefore be simple and speedy.

The name of the office should therefore appear in the answer-back code as clearly and completely as possible.

Furthermore, inclusion of the call-numbers of the connected offices in the answer-back code has the advantage of immediately indicating to the receiving operator the call-number which he must select if he wishes to call back the calling office in order to discuss any dispute concerning the telegram received.

The answer-back code in the international gentex service should therefore include as much of the name of the office as possible, and the call-number of this office in its national network.

Inclusion in the answer-back code of the prefix to be dialled, for the purposes of routing a call towards the country concerned, is out of the question, as these prefixes vary according to the called or calling country.

But it is essential to show in the answer-back code one or two characteristic letters of the country in which the equipment is situated, for the worst routing mistake is that of sending a call to the wrong country.

It is difficult to include all this information in an answer-back code of 20 signals, but extension of the number of signals in the answer-back code to more than 20 cannot be admitted, for it would entail the total reconstruction of thousands of teleprinters. Furthermore, the 60 signals (3×20) used for exchanging answer-back codes for a telegram constitute a limit which cannot be exceeded in operation without throwing out of balance the ratio between the time used for transmitting the text of the telegram and the total time taken by a communication in the gentex service.

Some administrations wish to reserve the possibility of identifying in the answer-back code not only the office but also the nature of the position in the office (outgoing position, incoming position). Some of these administrations even consider it useful to include in the answer-back code the identity of the position amongst all similarly specialized positions, so as to facilitate the location of any faults in the equipment or the tracing of any telegrams in dispute.

To avoid wastage of signals which would be entailed by case-shift signals, this wish can only be met by using letters, additional to those representing the name of the office, which would denote the specialization and identity of each position.

This would result in cutting down the number of letters available for the name in the answer-back code; however, as letters denoting specialization and identity are only useful in large and very large offices which are well known internationally, the resulting abbreviation of the name of the office is acceptable so long as such additional information does not take up more than two signals in the case of large offices (one space signal, one of the initial letters of the alphabet: A, B, C, etc., for identifying a specialized outgoing position or one of the final letters of the alphabet Z, Y, X, etc. for identifying a specialized incoming position). 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 dispense with three signals (one space signal, one specialization letter and one identification letter). The specialization letters chosen are:

T to indicate a position specializing in transmission,
R to indicate a position specializing in reception.

If an exchange 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.

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 con-

junction with the letters T and R, thus increasing the possibility of identification in a group of machines to 52.

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 full name of the office and the characteristic indication DEB which has been chosen to denote " overflow ".

Because of the limit of 20 signals, and the fact that machines in the gentex service can be connected to page-printing machines (making it necessary to retain the carriage return and line feed signals at the beginning of the answer-back code), in order to have 7 or 8 letters for the exchange name and 2 or 1 letters for the country plus the necessary shift signals, only 5 signals are left for the call-number in the national network. Fortunately, this is enough in almost all cases. Administrations wishing to take advantage of the possibility, offered by C.C.I.T.T. Recommendation F.13, of including up to 8 figures in the national call-number, will have to do their utmost to avoid reducing the number of letters used to denote the name of the office; such administrations may then not be able to use letters showing the specialization and identity of positions.

In view of the above, the C.C.I.T.T. *unanimously declares the view*

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
— Five figures of the national 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 dealing with service advices concerning disputes, and in this case it is provided with a special call-number and answer-back code—see § 7 below.)

— Letter-shift
— Seven or eight letters indicating as explicitly as possible the name of the office
— Space
— Two or one characteristic letters of the name of the country, in accordance with the code listed under § 10
— Letter-shift;

3. that, if the national call-number consists of more than five figures, the number of letters used to denote the name of the office should then be reduced, if necessary, but not to less than five;

4. 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:

(1)	(2)	(3)
large offices	very large offices (more than 12 specialized outgoing or incoming positions)	exceptionally large offices (more than 26 specialized outgoing or incoming positions)

↓

— Carriage-return
— Line feed
— Figure-shift
— Five figures for the national call-number as indicated under § 2
— Letter-shift

	(1)	(2)	(3)
for a specialized outgoing position	1 letter from A to L	the letter T and 1 letter from A to Z	the letter T or the letter S and 1 letter from A to Z
for a specialized incoming position	1 letter from Z to O	the letter R and 1 letter from A to Z	the letter R or the letter Q and 1 letter from A to Z

↓

— Space

(1)	(2)	(3)
5 or 6 letters for the name of the office	4 or 5 letters for the name of the office	4 or 5 letters for the name of the office

↓

— Space
— Two or one characteristic letters of the name of the country
— Letter-shift;

5. if, in the exchanges referred to in point 4 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;

6. 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;

7. 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
— Five figures of the call-number of the specialized position or group of positions
— Letter-shift
— Space
— Name of office in letters
— Space
— Letters INQ
— Letter-shift;

8. 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
— Letters of the name of the office (as complete as possible)
— Space
— Letters DEB
— Letter-shift;

9. that, if an answer-back code does not make use of the 14 places that can be used for the call-number, the name of the office and the name of the country, the unused places should be filled in by " space " signals, the name of the office being first extended as far as possible;

10. that the characteristic letters of names of countries should be as follows:

A	Austria	I	Italy
B	Belgium	L	Luxembourg
BG	Bulgaria	MC	Monaco
CH	Switzerland	N	Norway
CS	Czechoslovakia	NL	Netherlands
D	Germany	P	Portugal
DK	Denmark	PL	Poland
E	Spain	R	Roumania
EI	Ireland	S	Sweden
F	France	SF	Finland
GB	United Kingdom	SU	U.S.S.R.
GR	Greece	TR	Turkey
H	Hungary	YU	Yugoslavia

RECOMMENDATION F.22

GENTEX REGULATIONS

(Geneva, 1958, amended at New Delhi, 1960, Geneva, 1964 and Mar del Plata, 1968)

The C.C.I.T.T.,

considering Recommendations F.20 and F.21,

unanimously declares the view

1. that the following Regulations should be adopted for the gentex service;

2. that administrations should make arrangements for their offices to apply these Regulations.

Gentex regulations

ARTICLE 1. *General*

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

§ 2. The gentex network is operated by fully automatic switching.

§ 3. Gentex signalling shall be in accordance with C.C.I.T.T. Recommendations relative to the technique of telegraph switching.

ARTICLE 2. *Call-numbers and answer-back codes*

§ 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 access to the called country from the calling country;
— the national call-number of the called office, which must comprise figures only, up to a maximum of 8 figures.

§ 2.1 The answer-back codes of the equipment used in the gentex service are made up of 20 signals.

§ 2.2 For machines other than those used for positions specializing in the reception of overflow traffic, the series of 20 signals in the answer-back codes shall, in principle, be as follows:

— Carriage return
— Line feed
— Figure-shift
— Five figures representing the national call-number by which the office must be called when a telegram is sent to it.
(In some larger offices, a position or group of positions may specialize in handling service notes and advices about complaints and be equipped with a special call-number and answer-back code—see § 3 below.)
— Letter-shift

— Seven or eight letters indicating the name of the office as explicitly as possible
— Space
— Two letters or one letter characterizing the name of the country, according to the code given in § 6
— Letter-shift.

§ 2.3 If the national call-number has more than five figures, the number of letters used for the name of the office shall be reduced, if necessary, but may not be less than five.

§ 2.4 For administrations which indicate the specialization and identity of the positions to which the machines are assigned in the major offices, the series of 20 signals in the answer-back code shall be made up as follows, according to the importance of these offices:

(1)	(2)	(3)
major offices	very important offices (more than 12 specialized outgoing or incoming positions)	exceptionally important offices (more than 26 specialized outgoing or incoming positions)

↓

— Carriage-return
— Line feed
— Figure-shift
— Five figures for the national call-number as indicated under § 2.2
— Letter-shift

	(1)	(2)	(3)
for a specialized outgoing position	1 letter from A to L	the letter T and 1 letter from A to Z	the letter T or the letter S and 1 letter from A to Z
for a specialized incoming position	1 letter from Z to O	the letter R and 1 letter from A to Z	the letter R or the letter Q and 1 letter from A to Z

↓

— Space

(1)	(2)	(3)
5 or 6 letters for the name of the office	4 or 5 letters for the name of the office	4 or 5 letters for the name of the office

↓

— Space
— Two or one characteristic letters of the name of the country
— Letter-shift.

§ 2.5 If, in the offices referred to by point 2.4 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.

§ 2.6 The specialization letter T should be preferred to the letter S, and the letter R should be preferred to the letter Q; the letters S and Q should be used only when such use is justified by the office equipment.

§ 3. For the positions specializing in the handling of service notes and advices, the series of 20 signals in the answer-back codes shall be as follows:

— Carriage return
— Line feed
— Figure-shift
— Five figures of the call-number peculiar to the special position or group of positions
— Letter-shift
— Space
— Letters of the name of the office
— Space
— Letters INQ
— Letter-shift.

§ 4. For the positions specializing in the reception of overflow traffic, the series of 20 signals in the answer-back codes shall be as follows:

— Carriage return
— Line feed
— Letter-shift
— Position identification letter(s)
— Space
— Letters of the name of the office (as complete as possible)
— Space
— Letters DEB
— Letter-shift.

§ 5. Should the answer-back codes not fill the 14 places available for the national call-number, full name of the office, and indication of the country, the remaining shall be filled with space signals.

§ 6. The following shall be the characteristic letters of the name of countries for the purpose of answer-back codes:

A	Austria	I	Italy
B	Belgium	L	Luxembourg
BG	Bulgaria	MC	Monaco
CH	Switzerland	N	Norway
CS	Czechoslovakia	NL	Netherlands
D	Germany	P	Portugal
DK	Denmark	PL	Poland
E	Spain	R	Roumania
EI	Ireland	S	Sweden
F	France	SF	Finland
GB	United Kingdom	SU	U.S.S.R.
GR	Greece	TR	Turkey
H	Hungary	YU	Yugoslavia

ARTICLE 3. *Equipment of positions in telegraph offices*

§ 1. The transmitting or receiving station in the gentex service shall be equipped with tape-printing teleprinters using international alphabet No. 2, possessing an answer-back unit and able to work in simplex, preferably with a control tape.

By mutual agreement between the concerned administrations or R.P.O.A., it is also possible to use page-printing teleprinters for the transmission of telegrams, provided the particular provisions (annex 1) and the format (annex 2) are observed.

§ 2.1 Stations must be equipped for the following:

— the setting-up of calls

— the clearing of calls

— reception of the call signal

— clearing if the paper runs out.

§ 2.2 As far as possible, these stations shall also be equipped to signal the following:

— apparatus blocked

— tape broken

— faulty tape feed.

§ 3.1 In an office, the stations 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 C.C.I.T.T. recommended limits.

§ 3.2 Both-way and incoming-only stations in the same office shall all have a common call-number. When one of these stations is faulty, a call arriving at that office shall be directed to a free station in the same group.

§ 3.3 When the positions in an office specialize in incoming or outgoing operations, the special purpose of the positions and their identity, when included in the answer-back codes, shall be indicated as follows:

a) in offices where there are 12 stations or less in a given group: the name of the office in the answer-back code shall be preceded by one of the letters A to L for an outgoing-only position, and by one of the letters Z to O for an incoming-only position;

b) in offices where there are more than 12 and not more than 26 stations in a given group: the name of the office in the answer-back code shall be preceded by the letter T followed by one of the letters A to Z for an outgoing-only position, and by the letter R followed by one of the letters A to Z for an incoming-only position;

c) in offices where there are more than 26 stations and less than 53 in a given group: the name of the office in the answer-back code shall be preceded by the letter T or by the letter S followed by one of the letters A to Z for an outgoing-only position, and by the letter R or the letter Q followed by one of the letters A to Z for an incoming-only position.

ARTICLE 4. *Responsibility of transmitting or receiving stations*

§ 1.1 The operator in the calling station is primarily responsible for the transmission of telegrams. If a telegram fails to arrive or if its text is mutilated, he will have to prove that he has followed the regulations.

§ 1.2 He can provide this proof by producing the original of the telegram and the control tape, if there is one, by examination of the called station's answer-back code, which must have been received without error in order to be used as a simplified acknowledgement of receipt, and by an examination of the acknowledgement of receipt when such acknowledgement is demanded.

§ 2. The operator manning a position is responsible for seeing that there is enough paper in the machine, that the inking system is fully serviceable, and that the machine is switched to " engaged " while the ribbon and paper are being replaced.

Furthermore, the operator of the receiving station shall eliminate the erroneous passages requiring correction which are noticed in the telegrams received.

ARTICLE 5. *Operating preceding transmission*

§ 1. At the calling station, the telegram may be provided with a reference number which will be transmitted at the beginning of the preamble and will serve as an additional means of identifying the telegram if required.

§ 2. To set up the call with the office required, the operator of the calling office shall proceed according to the rules for his network, and shall dial the call-number in accordance with Article 2, § 1.

§ 3. Having set up the call, the operator obtains the answer-back code of the called station followed by that of his own station, when these two operations are not automatically controlled by the equipment in the calling or called country. The operator at the calling station checks the answer-back code obtained against that of the required office and if they correspond he then begins to transmit the telegram.

§ 4.1 If the answer-back code received is not from the required office, the reason may be one of the following:

1) the answer-back code belongs to an overflow position, in which case the call has been put through to an overflow position which can receive the telegram; transmission of the telegram can therefore begin;

2) the answer-back code received belongs to a position in an office which is not required to intervene. The operator sends the signal BK, gives the clearing signal, and again tries to put the call through to the office required.

§ 4.2 Should this fresh attempt end in reception of the answer-back code of a position which is not an overflow position and does not belong to the office required, the operator shall proceed in accordance with Article 10, § 1.

§ 5. If the calling station receives the busy signal, the call shall be repeated after about two minutes. If the second call is also unsuccessful, a third call shall be made after another two minutes or so. If the busy signal is again received, telegrams shall be diverted to a telegraph office in the same country as that of the office required and which is competent in such cases (see Article 14, § 2.5).

§ 6.1 Before transmission of an SVH, S, MDT, VIR or urgent telegram or of a service advice indicating transmission by ampliation of a money order or postal cheque telegram, the operator shall transmit the audible signal three times.

§ 6.2 When the operator has more than 5 telegrams with identical texts to transmit, he must first announce this fact by transmitting the signals RPFR TM... (...: number of telegrams) and by sending the audible signal. These telegrams shall then be transmitted as soon as the operator at the called station has replied by the signal GA. If the GA signal has not been received within one minute, then the operator shall go ahead with the transmission.

Note. — The operator in the receiving station thus has time to switch his machine to a reperforator if he is equipped with one.

ARTICLE 6. *Actual transmission of a telegram*

§ 1. When communication has been established with the desired telegraph office or with an overflow position, the telegram shall be transmitted in the manner described in the Telegraph Regulations. The prescribed routine repetition of the different parts of the telegram, or of the whole of it, shall always be effected by the operator at the calling station.

§ 2. After transmission of the telegram, the operator obtains the answer-back code of the called station and then transmits his own.

§ 3. If, after the exchange of answer-back codes following the transmission of the telegram, the operator at the calling station notes transmission errors in it, he shall operate the audible signal three times, transmit the expression RECT followed by the necessary corrections; then he shall again exchange answer-back codes as described under § 2.

ARTICLE 7. *Operations following transmission of a telegram*

§ 1. When transmission of a single telegram has been completed, the operator of the calling station should, before exchanging answer-back codes, transmit the time of end-of-transmission in the form of four figures.
The time is not forwarded by the operator if it is automatically transmitted before or after sending the telegram.

§ 2. Following the exchange of answer-back codes, the operator of the calling station gives the clearing signal, unless the telegram transmitted is an SVH, S, MDT or VIR telegram or a service advice indicating transmission by ampliation of a money order or postal cheque telegram (in which case he should act as prescribed in Article 23).

ARTICLE 8. *Series transmission*

§ 1. When a calling station has several telegrams for the same office, once the calling station has made contact with that office, they shall be transmitted one after the other observing the prescriptions laid down in Articles 6 and 7. In such cases, the operator at the calling station shall only request the answer-back code of the called station after every telegram.

§ 2. When the last telegram has been transmitted, the operator at the calling station transmits successively an abbreviated indication of the number of telegrams

transmitted (for instance, " TG 3 " for a series of 3 telegrams) and the end-of-transmission time if it has not been transmitted automatically; he then exchanges answer-back codes before giving the clearing signal.

ARTICLE 9. *Reception of telegrams*

§ 1. The called station checks the telegram or telegrams received in accordance with the provisions of the Telegraph Regulations. If correction is necessary, a request must be sent by RQ note to the transmitting office (see Article 19).

§ 2. When a telegram is announced by the audible signal, the position receiving this signal shall be manned by an operator as soon as possible.

a) If the receiving operator reads RPFR TM ..., he shall put the perforating receiver into circuit, if such apparatus is available in the called office, and then shall transmit GA. Should no perforating receiver be available, the receiving operator shall transmit GA forthwith.

b) On receipt by the receiving operator of SVH, S, MDT, VIR or, in the case of a service advice indicating transmission, by ampliation of a money order or postal cheque telegram, he shall verify that the machine is ready to receive. When the end of transmission is announced by three successive operations of the audible signal, he shall occupy the position, transmit MOM, check the text received, obtain the answer-back of the calling station, compare it with that received at the beginning of transmission and give the acknowledgement of reception (see Articles 22 and 23).

c) If the receiving operator reads URGENT, he shall wait for the end of the telegram.

d) Should the receiving operator read RECT, he must check the correction made and intervene only when necessary.

ARTICLE 10. *Abnormal conditions before transmission*

§ 1.1 Should the operator of a calling station notice, during the putting through of a call, anything which seems to him due to faulty lines or equipment, he shall, if possible, transmit DER BK and give the clearing signal.

§ 1.2 After two minutes or so, he shall try again to put the call through. If, once again, there are abnormal conditions, he shall, if possible, transmit DER BK, give the clearing signal, record the abnormal conditions on the telegram or telegrams and dispose of it or them by an alternative route (see Article 14, § 2). He shall then report the fault.

§ 2. Should a mutilated answer-back code be received, or should there be no answer-back code at all, the operator shall send DER BK, give the clearing signal and proceed as in § 1.2 above.

ARTICLE 11. *Abnormal conditions during the call*

§ 1. If the operator at the called station notes misprints or any incoherence in the text of a telegram which is being received, he shall send P or zero signals repeatedly until transmission stops. He shall then send MUT RPT AA... (or possibly, the reference number (SRL NR) or the handing-in number (TG NR) of the first mutilated telegram when a series of telegrams is being received) and the last correctly received word or group. The operator at the calling station shall recommence transmission at the word or group indicated.

§ 2. Should a completely mutilated text be received, including mutilation of the answer-back code of the calling station, an operator noticing this before the call is broken off shall stop the transmission and immediately report the matter to the corresponding station by transmitting MUT RPT ALL.

§ 3. If the receiving operator cannot stop a bad transmission, or if the text received when the transmission is resumed continues to be mutilated, the receiving operator sends DER BK and gives the clearing signal.

§ 4.1 If the answer-back code of the called station is not received or is badly received at the end of transmission of a telegram, the calling station sends DER BK and gives the clearing signal.

§ 4.2 It then proceeds once more to call the required exchange and resumes transmission, preceding it by the expression " ampliation " between two spaces. However, in the case of money order or postal cheque telegrams, a fair copy is sent by service advice stating that this money order or postal cheque telegram has already been sent once, and giving the routing of it.

Reception of such a service advice should be specially acknowledged, as for MDT or VIR telegrams (see Article 22).

§ 4.3 The procedure described under § 2 above is also applied when the call is accidentally interrupted during transmission.

§ 5. If a call is accidentally interrupted during transmission, or if a call has been cleared after transmission of BK, the called office suspends the texts received until the calling office resumes transmission. If transmission is not resumed within 15 minutes, the called office sends a service note to the calling office, requesting any corrections or repetitions which may be necessary.

§ 6. When a completely mutilated text is received, and the answer-back code of the calling station is also mutilated, if the call has already been cleared, the printed tape shall be stuck on a telegram form. The name of the receiving station and the time of receipt shall be marked thereon and the telegram kept for enquiry purposes. Since the receiving station cannot, in such circumstances, transmit a request to the transmitting station, there is, inevitably, the loss of a telegram if the transmitting station has failed to notice the fault.

§ 7. Shortage of paper in a machine makes it send the clearing signal automatically. A break in the tape or faulty tape feed, shall, where possible, give rise to a local signal, if the clearing signal is not sent automatically.

ARTICLE 12. *Other abnormal conditions*

When a machine runs continuously and is not being used for sending or receiving, its position should be marked engaged and the fault reported. The mains supply to the machine should be disconnected if the fault persists.

ARTICLE 13. *General measures for the maintenance of good serviceability*

§ 1.1 No telegram should be transmitted or received by machines or lines which are not fully serviceable.

§ 1.2 Faulty machines or lines should be withdrawn from service so that they cannot be used for a call and should be marked " engaged ", so that a call arriving on such a line or machine would be re-routed to another machine or line belonging to the same group or on overflow position.

§ 2. Any position which is temporarily withdrawn from operation should be switched to engaged as indicated under § 1.2.

§ 3. Each operator should know how and where to report faults.

ARTICLE 14. *Routing lists*

§ 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 copies to all the countries concerned.

This list shall comprise:

a) the telegraph offices connected to the gentex service. The sign ◊ shall precede the name of every office taking part in telegram transmission only, but available for a direct call when service correspondence (RQ.BQ) has to be exchanged;

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

§ 2. Routing lists should be of the A4 size (210 × 297 mm) and should contain the following information:

1) in the first column, the alphabetical list of the offices chosen in accordance with the preceding paragraph (names of telegraph offices connected to the gentex network should appear in heavy type);

2) in the second column, the national call-number of the gentex office to be called for routing traffic to the office shown in column 1, with no restriction sign (a space will be left in this column for inserting the prefix or prefixes to obtain access to the country concerned);

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

4) in the fourth column, the service hours of offices connected to the gentex network or of the gentex office serving an unconnected office (see Article 15, § 2), or the indication " office which merely transmits ";

5) in the fifth column, the name of the office in the gentex network which should be called for alternative routing when the office given in the third column is closed, out of order or engaged.

§ 3. This list shall be preceded by a general note indicating the routing of telegrams to offices not mentioned on the list.

§ 4.1 When certain important gentex offices possess specialized positions to deal with service notes and advices concerning disputes, or specialized positions for the

reception of fault notices, the national call-numbers and answer-back codes of such positions shall appear in an annex to the routing list.

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

Annex. — Example: the first part of a routing list (Switzerland in this case), and the annex to this list.

GENTEX SERVICE WITH SWITZERLAND

Routing list

Telegrams to Swiss telegraph offices not included in this list should be routed through *Zurich* when such offices have *German* or *Italian* names, and through *Geneva* when they have *French* names.

1	2		3	4	5
Telegraph office	Prefix	National call No.	Answer-back code of the gentex office serving the office	Service hours	Alternative routing when the gentex office is closed, engaged or out of order
Aarau		5	5 Zuerich CH	N	
Adelboden		3	3 Bern CH	|	
Altdorf Uri		5	5 Zuerich CH	|	
Altstätten St. Gallen		5	5 Zuerich CH	|	
Arbon		5	5 Zuerich CH	|	
Arlesheim		6	6 Basel CH	|	
Arosa		5	5 Zuerich CH	|	
Ascona		5	5 Zuerich CH	|	
Bad Ragaz		5	5 Zuerich CH	|	
Baden		5	5 Zuerich CH	|	
Balsthal		5	5 Zuerich CH	|	
Basel		6	6 Basel CH	|	Zuerich
Bellinzona		5	5 Zuerich CH	|	
Bern		3	3 Bern CH	|	Zuerich

ANNEX

Call-numbers of specialized positions in Switzerland

Service	Call-numbers	Text of answer-back codes
Zurich position dealing with service notes and advices	91	91 ZUERICH INQ
Zurich position for reception of fault notices	94	94 ZUERICH TCHN
Central transmitter of text with distortion for the whole of Switzerland	96	no answer-back unit
Central transmitter of text without distortion for the whole of Switzerland	99	no answer-back unit

ARTICLE 15. *Telegrams to offices with a restricted service*

§ 1. Restricted-service gentex offices should not be called when they are closed; traffic to such offices should be routed to the permanent-service offices mentioned in the fifth column of the routing list for receiving traffic intended for restricted-service offices.

§ 2. The hours of service for gentex traffic of restricted-service offices shall be the same for all offices under one administration; this rule shall not be compulsory for the networks where there is automatic overflow to another office when an office is closed.

ARTICLE 16. *Overflow and waiting period*

Administrations may make arrangements for calls to be automatically routed to overflow positions when all the receiving positions of a called office are busy. Diversion of a call to an overflow position may be made after a period of up to one minute; when this occurs, the calling telegraph office should be informed immediately of the start of this period by the transmission of MOM. Subsequently, the call should proceed following either the reception of the answer-back code of the office required or the answer-back code of an overflow position.

ARTICLE 17. *Telegrams to offices not connected to the gentex network*

§ 1. Telegrams to an office which, while not connected to the gentex network, appears in the routing list shall be routed to the gentex office mentioned in the list as serving this office, account being taken of Article 15, if applicable.

§ 2. Telegrams to an office which does not appear on 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.

ARTICLE 18. *Misdirected telegrams*

§ 1. If, during the transmission of a telegram, the receiving operator notices that it has been misdirected:

a) when the office of destination is located in the same country as the office receiving it, the latter must accept the telegram and retransmit it to the office of destination;

b) when the office of destination is not in the same country as the office receiving the telegram, the receiving operator shall interrupt the transmission and give notice of the routing error.

§ 2. If the fact that the telegram has been misdirected is noticed only after the call has been cleared, the receiving office shall retransmit it without delay and with priority over other telegrams in the same category, to the office of destination, even when the latter is in another country.

ARTICLE 19. *Service notes*

§ 1. When reception of a telegram is checked and mistakes are noted, a service note (RQ) shall be transmitted by means of a special call to the office which has

transmitted the telegram. This latter office transmits the reply by a service note (BQ) as quickly as possible also by special call.

§ 2. The same treatment shall be given to calls for service notes (RQ) or (BQ) as to those for a telegram.

§ 3. A request or reply (RQ or BQ) must contain the following indications:

a) code word (RQ or BQ);

b) office to which the RQ or BQ note is being sent;

c) time at which transmission of the telegram has finished (or time at which the call given by the automatic switching equipment was put through);

d) designation of the telegram in question by the handing-in number (and, eventually, the reference number) of the telegram, followed by that of the operating position which has transmitted the telegram, separated by a fraction bar (e.g. 17/385/TC);

e) the request or reply itself.

Examples:

for RQ:
RQ LYON 1030 17/385/TC 9 W = CFLAM-8A-BH +

for BQ:
BQ AMSTERDAM 1030 17/385/TC 9 W OK +

for RQ (in the case mentioned in No. 403 of the Telegraph Regulations):
RQ LYON 1030 376/TC page 3 = RPT WA ... +

§ 4. If a reply to an (RQ) note has not been received after a maximum period of 20 minutes, a second (RQ) note shall be transmitted, preceded by RAFSO, to the calling telegraph office. If no reply is received after a further 10 minutes, the telegram shall be sent on marked CTF, and the type of correction indicated. The same applies when it is obvious from the outset that the clarification of an irregularity will take a fairly long time (for instance after the closing time of a telegraph office).

ARTICLE 20. *Service advices (A)*

§ 1. When a telegram is sent on, marked CTF, due to a long-delayed reply (BQ) to a note (RQ), the office to which the RQ note has been sent shall be informed of the fact by a service advice (A).

§ 2. Requests which are transmitted one or more days after the telegram has been received shall be made by means of service advices (A).

ARTICLE 21. *Use of codes*

Service notes and advices shall make use of the codes listed in the annex to these Regulations and also the five-letter codes from the Book of *Codes and abbreviations for the use of international telecommunication services* (second issue) according to the Rules under 345 of the Telegraph Regulations (Geneva Revision, 1958).

Note. — Number 345 of the Telegraph Regulations appears in § 7 of Article A.14 of Recommendation F.1 of this Volume.

The codes listed in the annex to these Regulations shall also be used when, in exceptional circumstances, operators have to communicate while a call is still connected.

The expression UTCOD (" use the gentex code ") should be used to inform the corresponding office that it is necessary to use the code expressions of the gentex service.

ARTICLE 22. *Telegrams with acknowledgement of receipt and the form of such acknowledgements*

§ 1. A called office must give an acknowledgement of receipt to the calling station upon reception of SVH, S, MDT and VIR telegrams, or of a service advice indicating transmission by ampliation of a money order or postal cheque telegram (Article 11, § 4.2).

§ 2. Such an acknowledgement of receipt shall be given in the following way:
R — handing-in number and reference number (if there is one)—specialization and identification letters of the calling position in the calling office—category of telegram (SVH, S, MDT, VIR or A, sent in accordance with Article 11, § 4.2).

ARTICLE 23. *Operational procedure for acknowledgement of receipt*

§ 1. Telegrams requiring an acknowledgement of receipt shall be announced by three successive operations of the audible signal (Article 5, paragraph 6.1). An operator at the called office shall occupy the position receiving this signal as soon as possible (Article 9, paragraph 2) to verify that the machine is ready to receive. At the end of transmission of the telegram and the concluding exchange of answer-back codes, this shall likewise be announced by three successive operations of the audible signal. An operator at the called office shall transmit MOM, check the text received, obtain the answer-back code of the calling station, compare it with that received at the beginning of the transmission and give the acknowledgement of receipt in the form described in Article 22, paragraph 2.

The operator at the calling station gives the clearing signal.

§ 2. If the calling station has not received the MOM signal some 30 seconds after the end of transmission of the telegram, the operator shall give the clearing signal or continue to transmit other telegrams if there are others to send to the office obtained.

§ 3. If an office has been unable to acknowledge receipt before the call is cleared, it shall send this by service advice to the office which transmitted the telegram requiring it.

§ 4. If the office which has transmitted a telegram requiring an acknowledgement of receipt has not received it approximately 30 minutes after transmission, a service advice requesting such acknowledgement shall be sent to the receiving office in the following form: SVP R—handing-in number and reference number (if there is one) —specialization and identification letters of the position which has transmitted the telegram—category of telegram and the address. An office receiving such a service advice reminder shall proceed forthwith to take the necessary action and shall give the acknowledgement of receipt by urgent service advice.

ARTICLE 24. *Accounting methods*

Administrations and recognized private operating agencies taking part in the gentex service shall prepare accounts for outgoing telegrams, whether transmitted by the gentex network or not.

ARTICLE 25. *Establishment of accounts*

§ 1. Accounts shall be established in accordance with Article 93 of the Telegraph Regulations (Geneva, 1958).

§ 2. Administrations and recognized private operating agencies may also, by special arrangement, base the accounts on statistics agreed upon by the other administrations and recognized private operating agencies concerned.

MISCELLANEOUS

ARTICLE 26. *Prohibition of communications with telex subscribers in other countries*

§ 1. An office connected to the gentex network shall not, under any circumstances, call a telex subscriber in another country.

§ 2. If an office connected to the gentex network receives a call from a telex subscriber in another country:

a) when the receiving operator notices this before the call has been cleared, he shall immediately interrupt the transmission from the calling station and transmit NA BK and the clearing signal;

b) when this is noticed after the call from the telex subscriber has been cleared, a service advice shall be sent to the gentex office which seems most appropriate in the country of origin, informing it that the telegram has been improperly handed in and that the telegram thus received has been cancelled. The administration of the country of the telex subscriber shall inform him of this.

ARTICLE 27. *Application of Regulations*

§ 1. The present Regulations apply to all transmission procedures used by the gentex service whether by wire or radiotelegraph circuit.

§ 2. The Telegraph Regulations shall apply to any case which is not covered by the present Regulations.

APPENDIX TO THE GENTEX REGULATIONS

Service codes and abbreviations to be used in gentex operation

Abbreviation	*Meaning*
ABS	Telegraph office closed
ADRS	Address
ANH	Congestion
ANUL	Delete .....
BK	I cut off

Abbreviation	*Meaning*
BQ	Reply to RQ
CALL NR	National call number of a gentex office
CCT	Circuit
CFM	Please confirm / I confirm
CK	Please check number of words
COL	Collation: Please give / I give routine repetition
CRV	How do you receive ?
CTF	Correction to follow
CTG	Category of telegram
DBL	Double word(s)
DEB	Overflow position
DER	Out of order
DER BK	Out of order, I cut off
DER MOM	Bad reception, do not cut off, we are testing the line
DETR	I am re-routing to .....
DETR SVP	Alternative route ? / Please re-route to .....
DIF	Different
DTE	Date of handing-in
E E E	Error signal
FIG	Figure(s)
FVS	Five
GA	You may transmit
IND	Answer-back code
INQ	Position specializing in the handling of service notes and advices
LTR	Letter(s)
MNS	Minutes
MOM	Please wait !
MOM PPR	Please wait ! I have paper trouble
MUT	Mutilated
NA BK	Correspondence with this telegraph office is not admitted. I cut off
NC	No circuit
NCH	Number changed
NOT R	Not received
NP	The called number is not / no longer in use
NR	Number
OCC	Busy
O/D	Telegraph office of destination
OK	Agreed
OMTD	Omitted
O/O	Telegraph office of handing-in
P (repeated)	Stop your transmission
PBL	Preamble of telegram
PPR	Paper
QGA	May I transmit ?
QOK	Do you agree ?
R	Received .....
RAFSO	Second application

Abbreviation	*Meaning*
RAP	I shall call you again
RECT	Correct please / I am correcting / correction ?
RECT AA	Correct all after .....
AB	„ all before .....
ALL	„ the whole telegram
BN	Correct all between .... and ....
SRL NR	„ reference number
TG NR	„ telegram number
TXT	„ text
WA	„ word after .....
WB	„ word before .....
REF ...	With reference to .....
ROUTE	Route to ..... / I am routing to ..... / Route ?
RPFR	Please prepare your reperforator
TM	Prepare your reperforator because of telegram with multiple addresses
TXT	Prepare your reperforator because of long or difficult text or because of telegrams having the same text
RPT	Repeat please / I repeat
RPT AA	Repeat all after .....
AB	„ all before .....
ALL	„ the whole telegram
BN	„ all between ..... and .....
SRL NR	„ reference number given by the transmitting office ..
TG NR	„ telegram number
TXT	„ text
WA	„ word after .....
WB	„ word before .....
RQ	Announcement of a request
SIG	Signature
SRL NL	Reference number given by a gentex transmitting office
SVIN	Service indication
SVP	Please
TCHN	Technical service / I shall advise the technical service
TEST MSG	Please send a test message
TG	Telegram
TG NR	Telegram number given by the handing-in office .....
TNS	Ten
TPLE	Triple word(s)
TPR	Teleprinter
TXT	Text
UTCOD	Use the gentex code
W	Word(s)
WEFXU	Waiting reply to our service advice
WTG	We are waiting / I am waiting
+ ?	I have finished my transmission. Do you wish to transmit ?
Figure 0 (repeated)	Stop your transmission.

ANNEX 1
(to Recommendation F.22)

Particular provisions regarding the use of page-printing teleprinters and on combined working with tape-printing and page-printing teleprinters in the gentex service

ARTICLE 1. *General — Use of page-printing teleprinters*

§ 1. Administrations and R.P.O.A.s which intend to use page-printing teleprinters shall make the necessary arrangements with their partners in the gentex service in accordance with this annex.

§ 2. Unless otherwise specified in this annex, the provisions of Recommendation F.22 are applicable.

§ 3. The routing table for offices taking part in the gentex service (see Recommendation F.22, Article 14) must indicate that the gentex network of the administrations and R.P.O.A.s concerned is operated with page-printing teleprinters. It must also indicate which transmission procedures are accepted and whether gentex format converters and/or error correction devices are used for such gentex traffic.

ARTICLE 2. *Traffic between gentex telegraph offices equipped with page-printing teleprinters*

§ 1. The provisions of Recommendation F.12 should be followed, the format being slightly modified to meet the requirements of the gentex service (see annex 2).

§ 2. Administrations or R.P.O.A.s may nevertheless mutually agree to ignore the provisions in Recommendation F.12, paragraph 3.

ARTICLE 3. *Co-operation between tape-printing and page-printing teleprinters*

§ 1. When tape-printing teleprinters are used to transit page format they should generally be equipped in accordance with Recommendation S.5. The operation in this direction must be effected in accordance with Recommendation F.12. When page-printing teleprinters are used to transmit towards tape-printing teleprinters, the provisions of Article 2 should be followed.

ARTICLE 4. *Special transmission procedures for use with format converters and/or automatic error correction devices*

§ 1. Besides the transmission procedure laid down by Article 6, paragraph 1 of Recommendation F.22, it is admissible:

§ 1.1 that gentex offices equipped with tape-printing teleprinters may use the double hyphen (=, combination No. 22, upper case) whenever the carriage-return and line-feed signals (combinations Nos. 27 and 28) are used in the format F.12 (notwithstanding Number 330 of the Telegraph Regulations). No space is shown between the double hyphen(s) and the following word. These offices will also have to transmit five spaces before the signature.

§ 1.2 that gentex offices, whether equipped with page- or tape-printing teleprinters may also use the error signal XXXXX (at least five times the letter X without spacing) joined to the erroneous word, followed immediately by the retransmission correctly of the erroneous word instead of the error signal E E E, followed by the repetition of the last word correctly transmitted, as laid down in Number 331 of the Telegraph Regulations.

§ 2. If a space has been transmitted after the erroneous word the automatic error correction device will not suppress the error; if in this case error-free reception is necessary, the message will have to be cancelled and retransmitted. For this purpose the " ANUL " procedure (Recommendation F.31, 6.4) would be suitable.

§ 3. By mutual agreement between administrations or R.P.O.A.s the foregoing procedures may also be adopted when no format converter or error correcting device is employed, in order to enable operators to observe only a single transmission procedure.

ANNEX 2
(to Recommendation F.22)

Format example recommended for page reception in the gentex network

1 ✠
19700Z STOCKH S
4071TC FRANKF D
187 [2]

FRANKFURTMAIN/9 13 25 0935
3

RP2.50
INTERFER
STOCKHOLM
3 3

ARRIVING WEDNESDAY KLM FLIGHT 308 KINDLY ARRANGE HOTEL RESERVATION
JUDI
3

COL RP2.50 308
0945 ✠
1 19700Z STOCKH S
4071TC FRANKF D

3 10

[1] — Method of operating according to Recommendation F.22. The symbol ✠ indicates the signal " who are you? ".

[2] — Transmission series number.

[3] — As in Recommendation F.12.

RECOMMENDATION F.23

GRADE OF SERVICE FOR LONG-DISTANCE INTERNATIONAL CIRCUITS USED IN THE GENTEX SERVICE

(formerly C.C.I.T. Recommendation F.18, Geneva, 1956)

The C.C.I.T.T.,

considering

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

unanimously declares the view

that the grade of service corresponding to a loss probability of 1 in 50 as set out in column 3 of Table B Recommendation 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

(New Delhi, 1960)

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

However, it would be helpful for outgoing countries to be certain that gentex calls can be put through with a loss-probability sufficient to maintain the grade of gentex service without delay working.

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.

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.

In view of the foregoing, the C.C.I.T.T. *unanimously declares the view*

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

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

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

OPERATING METHODS FOR THE MESSAGE RETRANSMISSION NETWORK

RECOMMENDATION F.30

USE OF VARIOUS SEQUENCES OF COMBINATIONS FOR SPECIAL PURPOSES

(New Delhi, 1960, amended at Geneva, 1964)

The C.C.I.T.T.

unanimously declares the following view:

1. When it is necessary to provide for switching of traffic in different directions, for semi-automatic or fully automatic switching systems using continuous perforated tape or equivalent devices for storage or retransmission, an end-of-message signal is inserted after the end of a telegram or of the last telegram of a series to be routed in a given direction;

2. This signal will consist of the sequence: letter-shift NNNN;

3. The switches which would have to recognize the " end-of-message " signal can be designed in such a way as to do so by translating the sequence of four signals corresponding to combination No. 14 of Alphabet No. 2 (NNNN or ,,,,).

Note. — A distinction should be made between the end-of-message signal and the message-separation signal.

The end-of-message signal is a switching signal used as described in this Recommendation; the message-separation signal serves to ensure that there is enough tape between messages for tape-interruption transit system; this signal is not standardized by the C.C.I.T.T.

4. From other sequences of combinations for special purposes comprised in Recommendations S.4 (Volume VII of the *White Book*), F.31 (Volume IIB of the *White Book*) and V.10 (Volume VIII of the *White Book*), a table which recapitulates sequences concerned would be compiled.

(The table is annexed to this Recommendation.)

ANNEX

(to Recommendation F.30)

Table illustrating the use of various sequences of combinations for special purposes

Purpose of sequence	Sequence recommended in S.4	METHOD OF OPERATION		
		Message switching (including storage)	Through switching (without message storage)	Point-to-point operation
Start of message	ZCZC	Required in most systems	Could be useful in special cases	Not ordinarily required
Suppression of delay signals	HHHH	Not required (delay signal not envisaged)	Required for some types of message (e.g. cypher) when routed over synchronous error-corrected radiotelegraph channels	Not required on public systems (delay signal not envisaged)
End of telegram	+ + + + ZZZZ	Could be useful in special cases	Could be useful in special cases	Not ordinarily required
End of message	NNNN	Essential in most systems to separate individual messages at relay centres and to control message switching	Required only when it is necessary positively to reconnect delay-signal facility after use of suppression of delay signals facility	Not ordinarily required
Connection of reperforator (or equivalent device)	CCCC	Not normally used (as storage is incorporated in the system)	Could be useful for special purposes; requires special equipment at point of reception	Could be useful for special purposes; requires special equipment at point of reception
Disconnection of reperforator (or equivalent device)	FFFF	Could be used for connection and disconnection of a supplementary storage device		
Connection of data equipment	SSSS	Not normally used	Used for switching-in the data equipment in association with telex network	Could be useful for special purposes

RECOMMENDATION F.31

MESSAGE RETRANSMISSION NETWORK

(Geneva, 1964, amended Mar del Plata, 1968)

For the routing of telegraph traffic administrations and recognized private operating agencies can use the so-called " message retransmission system ".

This system makes use of a network with switching and retransmission in the so-called message retransmission centres; the message retransmission centres are equipped with " memory " facilities. A message entering a retransmission centre is registered on one of these memory instruments; it waits in this instrument until a channel capable of effecting its further routing is available. The message is then retransmitted on this channel.

The indications needed to route the message are issued when the message enters the system; they are registered in the memory in the retransmission centres and retransmitted from one centre to the following one until the message reaches the outlet point.

The reading of these routing indications determines the selection of the outgoing channels in a retransmission centre.

This system is sometimes described as a message switching system (by contrast with the direct switching system, the so-called circuit switching system, used more particularly in telex and gentex networks).

The offices where the messages enter the system or leave it are linked electrically to at least one retransmission centre; such offices are described as " linked " offices; in the case of a particular message, the linked office through which the message enters the system is known as the linked entry office; the linked office through which the message leaves the system is known as the linked exit office. These offices must be distinguished from the office of origin or destination of the telegram, as defined in the Telegraph Regulations, from which they may be separate.

The present recommendation has been drawn up for *fully automatic switching* conditions, but it is easy to adapt them for semi-automatic working and manual transit by perforated tape.

To facilitate world-wide operation of the message retransmission network, simplify the transfer of messages of this kind to other telegraph networks and enable the registration, switching and accounting equipment needed for the retransmission centres to be designed, the C.C.I.T.T.

unanimously declares the following view :

1. Each telegram must be treated as an independent message, even if several telegrams arrive in series at the same linked entry office.

2. Message format

Messages are to be made up as follows:

2.1 *In the first line, known as the numbering line :*

2.1.1 *Start-of-message signal*

This signal is made up by the sequence of combinations Nos. 26 — 3 — 26 — 3 of International Telegraph Alphabet No. 2 (ZCZC).

2.1.2 *Channel sequence number*

Messages transmitted over a channel should be numbered according to a series of numbers for each channel. The channel sequence number will therefore be composed of a characteristic of the channel used (channel indicator) followed by a number showing the order of this message in the series of messages sent over this channel.

A channel sequence number is composed of:

— a space signal,
— three letters constituting the indicator of the channel,
— a" figures-shift " signal,
— three figures constituting the number in the series on the channel,
— a " letters-shift " signal.

Service advices, including XQ, BQ, RQ, will be numbered like the messages unless agreed otherwise, by the administrations concerned.

If several channels are used in tandem in a message relay system, the channel sequence number for each preceding channel is transmitted over the following channel; the new channel sequence number for the following channel will precede the channel sequence number for each preceding channel; the channel sequence numbers will therefore be in the opposite order to their order of transmission.

The channel sequence numbers will be produced and examined automatically; the channel sequence numbers will be in sequence from 001 to 999 and change automatically from 999 to 001 at the end of a numbering cycle.

2.1.3 *Telegram identification group*

A telegram identification group intended to enable the office of origin mentioned by the origin indicator to recognize the telegram. This group will be transmitted by the linked entry office into the message retransmission network, after the channel sequence number.

A telegram identification group is composed of:

— a space
— if necessary, " figures-shift "
— not more than 12 printable characters, which may be figures or letters, as desired by the administrations. (The necessary shifts must of course be added to the 12-character group, but no " space " signal must be introduced in the 12-character group, as the presence of a space is liable to cause only the part of the group following this space to be regarded as the telegram identification group.)

2.1.4 *End of line*

— carriage return
— line-feed
which will mark the end of the first line (numbering line).

2.2 *In the second line, known as the pilot line*

— " letters-shift "

2.2.1 *Destination indicator*

This indicator extracted from the list issued by the I.T.U. will be composed of four letters; the first two characterize, in standard fashion, the country of destination (or a network in country of destination) and the following two letters characterize the office of destination in the country or the network.

(For the drawing up of the List of Destination Indicators, see Recommendation F.96.)

(For the selection and role of destination indicators, see section 5 of this Recommendation.)

— Space.

2.2.2 *Priority and tariff indicator*

It will be composed of two letters.

The first letter will designate priority according to the following code:

A (Nos. 308, 309, 310 of the TgR) [1]	— SVH telegrams — Government telegrams Priorité Nations — Service advices relating to serious interruption of channels of telecommunication.
B (Nos. 311, 312, 313, 314 of the TgR)	— Government telegrams for which the sender has requested priority of transmission — Meteorological telegrams — Urgent service telegrams, urgent service advices and paid service advices — Urgent private telegrams, urgent RCT telegrams and urgent press telegrams.
C (Nos. 315 and 316 of the TgR)	— Non-urgent service telegrams, non-urgent service advices and acknowledgements of receipt. — Government telegrams other than those indicated under A or B, ordinary private telegrams, ordinary RCT telegrams and ordinary press telegrams.
H (No. 317 of the TgR)	— Letter telegrams (ELT, ELTF, LT and LTF).

This classification respects the order of transmission given in Article 36 of the Regulations, while making use of the tolerances admitted in No. 320 of the Regulations to arrive at solutions that would be feasible in practice.

A telegram that has been abnormally delayed can be upgraded to a higher priority group. Such promotion can be effected only in the office of entry into the message retransmission system; in this case, a category H message could be marked C and a category C message marked B, but a telegram can never be promoted to category A.

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[1] TgR: Telegraph Regulations (Geneva edition, 1958).

The second letter will designate the tariff class of the message, according to the following code:

N = non-chargeable telegram
O = ordinary telegram
P = press telegram
L = letter telegram of the extra-European system
M = meteorological telegram
U = urgent telegram
D = urgent press telegram
I = letter telegram of the European system
Q = telegrams involving special features as regards international accounting
V = divided telegram as in section 3.2
E = EFM telegram [1]
G = GLT telegram [1]
Y = origin government telegram (ordinary)
S = destination government telegram (ordinary)
K = other government telegram (ordinary)
Z = government letter telegram
F, T, W, X } reserved
J, R } available for assignment later

The priority letters of the indicator have been chosen in such a way that they will differ from each other in at least two unit elements, so as to reduce possibilities of error. The same letter does not appear twice in the same indicator, so as to prevent keying of a letters-shift from having a serious effect on the priorities.

Administrations may agree mutually to accept additional tariff indicators such as for GLT and EFM telegrams.

— Space.

2.2.3 *Origin indicator*

The origin indicator will comprise four letters; the first two will be the same as those used in the destination indicator for the originating administration or network; the third and fourth will represent the office or department to which service correspondence should be addressed.

In most cases the origin indicator will be the same as the destination indicator, but administrations may select special designations at the last two letters in order to satisfy the requirements of their internal organization. Administrations with a single route from a

[1] EFM and GLT telegrams are used in the British Commonwealth.

transit administration will be free to select which letter combinations they wish. Where there is more than one entry point to a country from any transit station, the choice of letter combinations will need to be negotiated with the transit administration if they differ from the destination indicator for the office in question.

— Space
— Figures-shift.

2.2.4 *Number of chargeable words* (disregarding any minimum chargeable number of words for the telegram in question) in the form of a 3-figure number, starting from 001 (in this respect, see point 3.4): for a non-chargeable message the number 000 will be shown.

— Space.

2.2.5 (Optional): a *customer identification group*, characterizing the customer for accounting purposes.

This group could be composed of letters or figures or of letters and figures. It will not be transmitted over the international network.

2.2.6 *End of line :*

— Carriage return
— Line-feed

which will mark the end of the second line (pilot line).

2.3 *Beginning in the third line, known as the preamble line :*

The preamble, in accordance with the Regulations Nos. 383 to 395 where applicable,

— Carriage return
— Three line-feeds
— Letter-shift.

Any paid service indications. If there are several of them, they will be separated by a space.

— Carriage return
— Line-feed.

The address

— Carriage return
— Line-feed.

Name of office of destination

— Carriage return
— Three line-feeds.

The text

— Carriage return
— Line-feed.

Five spaces at least, and *signature*

— Carriage return [1]
— Three line-feeds.

The collation

— Carriage return [1]
— Ten line-feeds.

2.4 *The end-of-message signal*, made up of:

— Letter-shift
— NNNN
— Ten letter-shift signals.

Note. — It is considered that ten letter-shift signals can usefully be inserted after the end of message signal, to provide for cases in which the receiving office uses perforated-tape retransmission (see Note *b* of Recommendation F.12).

2.5 An example of the recommended format is shown in annex 1.

3. Handling of telegrams of more than 300 words

3.1 Telegrams of more than 300 actual words—regardless of their class of priority—shall be divided into several messages. Each message must be transmitted in accordance with paragraph 2 at the rate of one message per group of 300 actual words, plus one message for the remainder, unless this remainder is less than 10 words, in which case it will be incorporated in the last message.

This division shall be made by the administration or R.P.O.A.; it shall not be the sender's responsibility.

3.2 Messages in the form of a divided telegram shall bear the special tariff indicator V. In such cases this letter will replace the letter which would have appeared as the tariff indicator if the telegram had not been divided.

3.3 Messages shall be paged in accordance with F.12, paragraph 4 but the pages shall be numbered in a continuous series for the whole of the telegram and not in a separate series for each message.

3.4 Messages relating to one and the same telegram shall bear the same identification group and the same preamble line; the number of chargeable words shown in the pilot line shall be the number for that telegram.

3.5 Annex 2 gives an example for treatment of a long telegram: it represents a letter telegram of 438 chargeable words, 436 actual words.

4. Choice of destination indicator

4.1 The linked entry office of the retransmission network selects the destination indicator to be entered in the pilot line of a message, from the *List of Destination Indicators* published by the I.T.U. (see Recommendation F.96), subject to the exceptions given in 4.5.

[1] When no collation is required, ten line-feeds will be transmitted instead of three.

	A	B	C
	A single network in country of destination	Several networks in country of destination	
		Telegram showing routing	Telegram not showing routing
1. Destination town directly connected with message retransmission system, or to which a destination indicator is allocated	Use destination indicator given in " 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 " List " for destination country	Use destination indicator with 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

4.2 Apart from the exceptions given in paragraphs 4.3, 4.4 and 4.5 below, the destination indicator shall be selected as follows:

4.3 As an exception to the rule that for traffic to an office appearing in the list of indicators, but not directly connected to the message retransmission network, the destination indicator of this office must be used, administrations and private operating agencies 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.

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

For example, the United Kingdom and Canada might come to such an agreement, taking into account automatic routing on the United Kingdom internal network; a telegram for Exeter for example, which town is not given in the List of Destination Indicators, would be given the destination indicator for BRISTOL (GBBS), instead of the indicator for " all others " (GBLX).

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

5. Routing

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

b) If the appropriate subsequent route for the message is not connected with the message retransmission equipment, the destination indicator shall direct the message to a place in the centre where it can be handled and re-forwarded.

6. Tolerances as to the format and checking of format

6.1 Switching equipment shall allow of:

a) A " space " and " letter-shift " transposition or a " space " and " figure-shift " transposition in a sequence normally prescribed as having to be " 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 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 which have a function at the receiving end of the channel.)

6.2 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 message affected by such a defect will be directed towards a manual service position.

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

6.4 If the operator in preparing a message 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 his message 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 message so terminated shall not, if possible, be retransmitted by the first switching equipment to receive it.

7. Protection against loss of messages

7.1 Whenever a retransmission is made, a channel sequence number is sent, showing the channel used for retransmission and the order of the message on that channel.

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

7.3 A check must be made in every retransmission centre, either automatically or by an operator, to see that one message goes out for every message received. Provided the technical difficulties entailed be not too great, a check should be made to ensure that the route by which a message leaves is in accordance with the destination indicator.

8. Treatment of service correspondence

8.1 *Definitions*

8.1.1 *End-to-end servicing*

Mode of operation in which the service traffic is passed between offices indicated by the origin and destination indicators of the reference message without interception at transit offices for the purposes of adding the channel sequence numbers of the original message as references.

8.1.2 *Telegram identification group*

The group of letters and/or figures by which the office designated by the origin indicator recognizes a telegram (see paragraph 2.1.3).

8.1.3 *Put-back*

Stopping a transmission on a channel, recommencing at a particular message previously transmitted, and continuing from there.

8.1.4 *Re-run*

The repetition between two directly connected centres or offices of transmission of one or more telegrams that have previously been sent.

8.1.5 *Follow-on service correspondence*

A follow-on service message is a voluntary correction or enquiry initiated by the office of origin or the sender of the original paid telegram.

8.2 *Procedures to be followed*

8.2.1 *Return service messages*

End-to-end servicing is desirable in principle, and for this purpose only the telegram identification group and date would need to be quoted.

The telegram identification group should include sufficient information for the service message to be effective even if the origin office is closed. The precise requirements will depend on the tracing and padding arrangements adopted by administrations. Each administration would quote the references and indicators it wished to be used in service messages and other administrations would use these references in return service messages.

8.2.2 *Follow-on messages*

Follow-on messages should contain all the information necessary for immediate handling of the amendment—i.e. full particulars of the message to the end of the address and signature (if any), and the correction required.

8.2.3 *Message copies*

A copy of an individual message should be requested under service procedure from the station sending the series and the copy should be embodied in the text of the reply service except for the original start of message and end-of-message signals. The reply service message should carry its own indicators.

8.2.4 *Re-runs and put-backs*

Re-runs and put-backs should comprise only matter that was initially transmitted. Requests 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.

When put-back and re-run procedures are no longer possible, it becomes necessary to follow the procedure in 8.2.3.

8.3 In the case of mutilation of a telegram, the procedure shall be as follows:

a) If there is a mutilation to the text of a message, 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.

b) If there is a mutilation to a channel sequence number, which may be noted automatically when entering an office, a request for re-run, either by means of RQ or by service advice, as applicable, indicating the queried sequence number will be sent to the preceding

office on the channel chain, which will investigate in its memories and then re-run the telegram in question.

c) For enquiries about a telegram whose identification group has been mutilated, investigations will be made by going back along the route from office to office and by identifying the telegram by means of operating information (channel sequence numbers, numbers of words, etc.).

8.4 *Automatic re-runs or message repetition*

If a re-run or repetition of any traffic is given automatically by a message retransmission centre, such re-run or message repetition should be restricted to that message 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.

9. Starting of motors

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

However, the two administrations concerned could 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.

10. Use of tape-printing apparatus

C.C.I.T.T. Recommendation S.5 should be followed with regard to the use of tape-printing apparatus on the message retransmission network.

11. Interworking between message retransmission systems and gentex systems

11.1 The provisions of Recommendation F.22, except as specified below, will be applied to traffic between gentex telegraph exchanges and message retransmission centres in both directions.

11.2 Administrations will designate the gentex offices open to traffic with message retransmission centres and will publish this information in the *Routing Table for Offices Connected to the Gentex Service* (Recommendation F.93) and in the *List of Destination Indicators* (Recommendation F.96).

11.3 The format and arrangements described in paragraphs 1 to 10 shall apply except that channel sequence numbering is not applicable in either direction on the channels connecting the two systems.

11.4 In the direction gentex to message retransmission system the telegram identification group, which will immediately follow the start-of-message signal, shall be composed of two letters identifying the originating country or administration (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 is transmitting. The group shall not include a space character nor exceed 12 printed characters.

11.5 In the direction message retransmission system to gentex all preceding channel sequence numbers and the received telegram identification group will be transmitted.

11.6 The transmission of each telegram should be immediately preceded and followed by the exchange of answer-backs.

11.7 By mutual agreement of the concerned administrations the gentex call number of the office of destination may be entered into the pilot line immediately following the number of chargeable words and separated from it by a space.

11.8 *Exceptions to Recommendation F.22*

11.8.1 Use of all the signals and special indications (bell signal, RPFR TM ...., MOM, etc.) proper to the gentex system to announce or draw attention to an abnormal situation is abolished.

11.8.2 Except where otherwise agreed, the return by the receiving station of P or zero signals to stop the transmission is not applicable. If reception is unsatisfactory the clearing signal will be sent immediately to interrupt the connection.

11.8.3 The service notes RQ/BQ are replaced by service advices.

11.8.4 An error noted after the end-of-message signal NNNN has been sent will be corrected by sending a service advice.

11.8.5 Except where otherwise agreed, the answer-back of the receiving station correctly received at the end of transmission serves as acknowledgement of receipt for all categories of telegrams (including SVH, S, MDT, VIR or A).

11.8.6 Repetition of a telegram that has already been completely transmitted will be effected in the form of a service advice (see paragraph 8.2.3). The indication PAR AMPLIATION is not used (see F.22, Article 11, paragraph 4.2).

11.9 Annex 6 gives an example of the recommended format for transmission between the gentex and message retransmission networks.

12. Offices operated semi-automatically or manually

For offices that are connected to fully automatic systems, administrations (R.P.O.A.) should follow as closely as possible the format recommended in this Recommendation.

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

ANNEX 1
(to Recommendation F.31)

Normal service telegram

CR LF
1 LF — ZCZC AKA414 HO32 B285
1 LF — GBLD CN INBY 000
1 LF — BOMBAY 12 7 1630
3 LF
1 LF — A
1 LF — GENTEL
1 LF — LONDONEC1
3 LF
YR 061630G/TG6 AGREE PROPOSED SCHEDULE FOR WINTER PERIOD
GEOGRAM
3 LF
COL A 061630G/TG6
10 LF
NNNN 10 " letter-shift " signals

ANNEX 2
(to Recommendation F.31)

Service advice

CR LF
1 LF — ZCZC APA176 MKS020 QLB624
1 LF — MASE CN GBLB 000
1 LF — LONDON LB 9 29 1726
3 LF
1 LF — A
3 LF — SINGAPORE
1 LF — PAA239/CFL203/C106/27 SMITH 121
3 LF — HALLEY ROAD SW3 RAJAJ
COL A PAA239/CFL203/C106/27 121 SW3
10 LF
NNNN 10 " letter-shift " signals

[1] As in Recommendation F.12.

ANNEX 3

(to Recommendation F.31)

Paid service advice

CR LF	
1 LF	ZCZC CMC392 BDC604 QBD291
1 LF	CAML BN GBBD 000
1 LF	BRADFORD 9 16 1420
3 LF	
1 LF	RST
1 LF	MONTREAL
3 LF	
1 LF	CBD916/NCC804/SG123/15 SMITHCO MONTREAL
1 LF	ONE SEVEN ZERO PITUG
3 LF	
	COL RST CBD916/NCC804/SG123/15
10 LF	
	NNNN 10 " letter-shift " signals

Note: The references shown in the text are that of the demand ST and not the message in question.

ANNEX 4

(to Recommendation F.31)

RQ message

CR LF	
1 LF	ZCZC LAJ913 QLB619 RQ000
1 LF	JPTK CN GBLB 000
1 LF	LONDON LB
3 LF	
1 LF	RQ
1 LF	TOKYO
3 LF	
1 LF	JAL836/AKZ429/13 LT YAMASHITA
	TOKYO 4TH ZCD
10 LF	
	NNNN 10 " letter-shift " signals

[1] As in Recommendation F.12.

ANNEX 5
(to Recommendation F.31)

BQ message

CR LF	
1 LF	ZCZC JAL861 XYZ137 BQ000
1 LF	GBLG CN JPTK 000
1 LF	TOKYO
3 LF	
1 LF	BQ
1 LF	LONDONLB
3 LF	
1 LF	LAJ913/QLB619/13 JAL836/AKZ429/13
	LT YAMASHITA TOKYO 4TH 0935
10 LF	
	NNNN 10 " letter-shift " signals

[1] As in Recommendation F.12.

ANNEX 6

(to Recommendation F.31)

Example of the recommended format for transmission between gentex and message retransmission network

```
        ✠
        42131ORC NY UI
1       4144A DARMST D
        ZCZC DP4144A154 [2]
        UINY HQ DPDA 025
        JUGENHEIMBERGSTR 25 12 1826

        3
        LT RP20.00
        MISS GISELLA COHEN 67 BROADSTREET
        NEWYORK

3       3
        1000 DOLLARS CABLED TO NEWYORK THROUGH SWISS BANK
        CORPORATION STOP PLEASE CABLE IF NOT RECEIVED LOVE
              DADDY

        3
        COL LT RP20.00 67 1000

        10

        NNNN 10 " letter-shift " signals 1840 [1] ✠ [1]
1       421310RC NY UI
        4144A DARMST D
```

[1] Method of operating according to Recommendation F.22. The symbol ✠ indicates the signal " who are you? "

[2] In the direction gentex to message retransmission system only the telegram identification group shall be transmitted to the message relay centre.

In the direction message retransmission to gentex all preceding channel sequence numbers and the received telegram identification group will be transmitted.

[3] As in Recommendation F.12.

SECTION 4

TARIFFS AND ACCOUNTING METHODS FOR THE INTERNATIONAL GENERAL TELEGRAPH SERVICE

RECOMMENDATION F.40

COUNTING OF WORDS
PREPARATION OF A VOCABULARY

(formerly C.C.I.T. Recommendation G.8, Geneva, 1956, amended at Geneva, 1964)

The C.C.I.T.T.,

considering

1. the proposal to recommend to Members of the Union the setting-up of committees comprising representatives of administrations, recognized private operating agencies and organizations representing the users of international telegraph services of all countries with a common language, with the purpose of drawing up vocabularies of commercial terms characteristic of the language or in current use in the country concerned, with an indication of the corresponding number of telegraph words;

2. that the difficulties of reckoning the charge for such terms should not be exaggerated, for they can be overcome by a liberal interpretation of the Telegraph Regulations and by making a study of some special cases relating to the counting of signals, expressions, etc. appearing in the Regulations;

3. that the high cost of preparing, circulating and keeping up to date such vocabularies would be out of all proportion to their actual value;

4. that Number 288 of the Regulations (Geneva Revision, 1958) gives the right to take appropriate measures against any abuse in the use of the terms in question;

5. that lists of these terms, already published by some administrations and recognized private operating agencies, are now used by many other administrations and recognized private operating agencies,

unanimously declares the view

a) that there is no call to recommend Members of the Union to set up committees to draw up vocabularies of characteristic commercial terms in the various languages, with an indication of the corresponding number of chargeable words;

b) that it is preferable to leave administrations and recognized private operating agencies to reach such agreements, and to take such action, as they may see fit in this field.

RECOMMENDATION F.41

PROVISIONS GOVERNING THE TRANSFERRED ACCOUNT TELEGRAPH SERVICE

(Mar del Plata, 1968)

1. *Definition*

1.1 The international transferred account telegraph service is a service in which the administrations (or R.P.O.A.s) [1] concerned agree that the charges for telegrams, telex calls or phototelegrams be paid by a party which has accepted responsibility for payment, whether the addressee or a third party, instead of being paid by the sender.

1.2 This service shall be known as the TA service.

1.3 The term " guarantor administration (or R.P.O.A.) " as used herein refers to the administration (or R.P.O.A.) responsible for the collection of TA charges and for the payment of such charges to the administration (or R.P.O.A.) of origin of TA traffic.

2. *General*

2.1 The TA service applies to:

a) telegrams,

b) telex calls from a public booth,

c) phototelegrams handed in at public telegraph offices.

In principle, TA telegrams or a TA telex call can be requested only by the holder of a TA card (see section 4 below) and only on presentation of his card.

2.2 The TA service is an optional service. The administrations and recognized private operating agencies which agree to participate in it shall inform the General Secretariat of the I.T.U. thereof. The latter shall keep a table of the information received (see section 5 below).

3. *Requests for admission*

3.1 Application for admission to the TA service must be made to an administration (or R.P.O.A.) and include the following particulars:

[1] R.P.O.A. = recognized private operating agency.

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

b) any restrictions regarding categories of communication;

c) particulars of addressees (if the request for admission does not apply to communications to any address), namely, the full name and address of the addressee, his telegraphic address and/or his telex number and answer-back code;

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

e) duration of validity requested for the TA card;

f) list of countries from which traffic may be sent (if admission is not valid for all countries participating in the TA service);

g) route requested, if such choice is allowed by the administration of the country of origin.

3.2 The request for admission to the TA service shall be submitted to the administration (or the R.P.O.A., as the case may be) 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.

3.2.1 In case a, admission to the TA service may be authorized directly by the administration (or R.P.O.A.) receiving the request;

3.2.2 In case b, the administration (or R.P.O.A.) receiving the request should consult with the guarantor administration (or R.P.O.A.) to confirm that the latter agrees to collect the charges. Admission to the TA service, and the issue of the credit card, will be contingent on this advance agreement.

3.3 Any restrictions on the use of a credit card (e.g. categories of telegrams admitted, offices open to the service, etc.) shall be notified by the administration (or R.P.O.A.) imposing them to the General Secretariat of the I.T.U. which shall publish them in the table mentioned in section 5 below, for the information of other administrations (or R.P.O.A.s).

3.3.1 Considering the contents of this table, any administration (or R.P.O.A.) that has received approval for a request for admission to the TA service should inform the card-holder of the various restrictions which might limit its use.

3.4 The guarantor administration (or R.P.O.A.) may request the person responsible for payment of the charges to make a guarantee deposit, the amount of which shall be fixed by the administration.

4. *TA card*

4.1 The administration which receives the request for admission to the TA service shall issue to the applicant a credit card of the standard model or ask the administration (or R.P.O.A.) of the country in which the sender is to issue a credit card. This card may be used, subject to any restrictions imposed by the card and/or those notified by the administrations (or R.P.O.A.s), in countries that have agreed to participate in the TA service.

When the credit card is delivered, the administration (or R.P.O.A.) shall give the holder a sheet containing the Terms of Issue (see hereinafter Annex to Rec. F. 41).

4.2 The credit card shall be printed in the five official languages of the I.T.U. (Chinese, English, French, Russian and Spanish). The inclusion of a sixth language, such as the national language of the administration (or R.P.O.A.) issuing the card, is admitted.

4.2.1 The General Secretariat of the I.T.U. shall have credit cards printed in accordance with the specifications laid down by the C.C.I.T.T. and on request shall supply such cards to administrations (or R.P.O.A.s) participating in the service.

4.2.2 Administrations (or R.P.O.A.s) participating in the service may also, if they wish, print credit cards themselves provided they are identical with those printed by the I.T.U. Secretariat.

4.3 Inland cards issued by administrations (or R.P.O.A.s) for use only within their own country must be quite different in appearance from the I.T.U. cards.

4.4 The administration (or R.P.O.A.) authorizing the issue of a credit card shall reserve the right to withdraw it and the holder must surrender it on request. Similarly, if the card is no longer being used, prior to expiration of the period of validity, it must be returned to the authorizing administration (or R.P.O.A.) for cancellation.

In case of loss of the card, the administration (or R.P.O.A.) which delivered it or authorized its use should be informed immediately.

4.5 The authorizing administration (or R.P.O.A.) shall insert an identification group on each credit card.

4.5.1 This group shall be composed of:

a) two letters indicating the administration (or R.P.O.A.) which issued the card; these will be the two letters of the destination indicator of the administration or network, as contained in the *List of destination indicators for the message retransmission network*;

b) a number composed of one or more digits taken from the series allocated to the administration (or R.P.O.A.) issuing the card;

c) two letters, chosen as in a, indicating the guarantor administration (or R.P.O.A.).

Examples : DL/001/UR
DL/121/DL

4.5.2 The two-letter abbreviated designations of administrations (and R.P.O.A.s) will be given in the TA table (see paragraph 5.1). These abbreviations will be taken from the *List of destination indicators for the message retransmission network.*

4.6 The credit card must bear the official stamp of the administration (or R.P.O.A.) which issued it and the signature of the holder. Such cards shall not be transferable. The period of validity shall not exceed two years.

4.7 Each credit card shall also indicate:

a) the name, in capital letters, and first name of the holder,

b) the period of validity,

c) the name and address of the person or corporate body responsible for the payment of TA charges,

d) the full name of the guarantor administration (or R.P.O.A.),

e) the stamp of the administration (or R.P.O.A.) issuing the card and the signatures of the issuing agent and holder.

4.8 If restrictions with regard to the outgoing countries, the addressees, the routing or the categories of communications are imposed either by the administrations (or R.P.O.A.s) concerned, or by the person responsible for payment, the card must also show the following information, as appropriate:

a) the countries from which traffic may be sent,

b) the particulars of the addressees to whom traffic may be sent (registered telegraphic address and destination and/or telex number and answer-back code and country of destination),

c) the routes by which the traffic is to be sent,

d) the category or categories of communication authorized.

4.9 The validity of a card may be terminated at any time by the guarantor administration (or R.P.O.A.) advising all affected administrations (or R.P.O.A.s), by service correspondence, of cancellations.

5. *TA Table*

5.1 The I.T.U. General Secretariat shall publish a table listing in French alphabetical order the names of administrations (and R.P.O.A.s) participating in the TA service and the abbreviations applicable to each.

5.2 By means of this table, which will be constantly kept up to date in the I.T.U. Operational Bulletin, each administration (or R.P.O.A.), bearing in mind the alternatives offered in 2.1, will be able to announce the following:

a) any restrictions it intends to apply to the TA service,

b) indication of permitted routes,

c) any surcharges or special charges applicable,

d) the address to which correspondence concerning the operation of the TA service should be sent,

e) any other observations.

5.3 Administrations (or R.P.O.A.s) wishing to insert or amend information in the TA table should allow, as far as practicable, at least 45 days between notification to the I.T.U. and the date of application.

6. *Treatment of TA traffic*

6.1 Except for surcharges and special charges (see section 7), TA traffic shall be accepted, routed and delivered under the same conditions as other traffic of the same category.

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

6.3 If there is a routing indication on the credit card, it shall be respected as far as possible by the administration (or R.P.O.A.) in the country of origin.

7. *Surcharges and special charges*

7.1 The administration (or R.P.O.A.) of the country of origin and the guarantor administration (or R.P.O.A.) may levy a surcharge for each TA telegram, telex call, or phototelegram.

7.2 The administration (or R.P.O.A.) which issues a credit card may also levy a special charge to cover the cost of preparing the card.

7.3 These surcharges shall accrue to the administration (or R.P.O.A.) which levies them.

8. *Accounting*

Traffic of the TA service shall not be distinguished from other traffic in the international accounts exchanged between administrations (and R.P.O.A.s). In particular, the indication TA shall not be mentioned in the monthly traffic accounts.

9. *Establishment and exchange of TA accounts*

9.1 The administration (or R.P.O.A.) of the country of origin of the messages shall prepare a monthly transferred account for each person or corporate body responsible for the payment of charges. Such statements shall include the following information:

a) name of the administration (or R.P.O.A.) of origin;
b) month of acceptance of TA telegrams, telex calls or phototelegrams;
c) name and address of the administration (or R.P.O.A.) responsible for collecting the charges;
d) name of the person or corporate body which has undertaken to pay the charges, together with the address when known;
e) country and, if possible, office of acceptance;
f) office of destination and, if necessary, the country;
g) identification group of the card and name of card holder;

h) date of acceptance of the TA traffic;

i) name of addressee, or telex station number and answer-back code of recipient;

j) class of correspondence;

k) number of chargeable words for telegrams; chargeable telex time; or size and/or charging scale for phototelegrams;

l) total charges, including surcharges in the currency of the country of origin;

m) total charges in gold francs (or other agreed currency).

9.2 A monthly recapitulatory statement of TA accounts shall be prepared by the country of origin for each guarantor administration (or R.P.O.A.).

9.2.1 This statement shall recapitulate the individual accounts of the persons or organizations responsible for the payment of TA traffic charges.

9.3 Three copies of the recapitulatory statement shall be sent to the guarantor administration (or R.P.O.A.). The individual statements (number of copies corresponding to the requirements of the accounting services of the administrations (or R.P.O.A.s) concerned) shall be annexed thereto.

9.3.1 The recapitulatory statement and the attached individual accounts may be sent to the guarantor administration (or R.P.O.A.) either direct or through another administration (or R.P.O.A.) which has accounting relations with the guarantor administration (or R.P.O.A.).

9.4 A period of up to three months following the acceptance of the traffic may be allowed for the preparation and despatch of these accounting documents to the administration (or R.P.O.A.) concerned.

9.5 Any complementary information required for monthly TA statements shall be requested by the guarantor administration (or R.P.O.A.) from the administration (or R.P.O.A.) which has prepared the accounts within three months of receipt of the TA accounts. When this period expires, the amount concerned shall be included for settlement in quarterly accounts for the TA service (see section 10).

9.6 Adjustments arising from discrepancies unresolved on expiry of the three months referred to in paragraph 9.5 shall be settled in subsequent accounts, as agreed between the administrations (or R.P.O.A.s) concerned.

10. *Settlement of TA accounts*

In the absence of alternative settlement procedures agreed between the administrations (or R.P.O.A.s) concerned, settlement of quarterly TA balances shall be effected in accordance with the settlement provisions of the International Telecommunication Convention and the Telegraph Regulations annexed thereto.

11. *Liability for collection of charges*

The administration (or R.P.O.A.) which has accepted responsibility for the collection of charges guarantees payment of the TA charges to other administrations (or R.P.O.A.s).

ANNEX

(to Recommendation F.41)

(Couverture — page 1) (Cover — page 1)

**UNION
INTERNATIONALE
DES
TÉLÉCOMMUNICATIONS**

CARTE INTERNATIONALE DE CRÉDIT POUR SERVICES TÉLÉGRAPHIQUES
INTERNATIONAL CREDIT CARD FOR TELEGRAPH SERVICES

Espagnol:
Spanish:

Russe:
Russian:

Chinois:
Chinese:

(Langue nationale):
(National language):

(Couverture — page 2) (Cover — page 2)

— Cette carte de crédit permet à son titulaire de participer aux services télégraphiques sans paiement préalable des taxes, dans les conditions indiquées ci-après sur cette carte, sous réserve de toute clause restrictive en vigueur auprès des administrations (ou exploitations privées reconnues) ayant délivré la carte ou auprès desquelles la carte doit être utilisée.

— This credit card entitles the holder to use the Telegraph Services without prepayment of the charges, subject to the conditions shown herein and any restrictions imposed by the administrations (or recognized private operating agencies) which issued the card or to which the card is presented.

— Texte espagnol.

Page 3

— *Russe* — Russian

— *Chinois* — Chinese

— *Langue nationale* — National language

Page 4

1. N°

2. Valable au; Valid to; (espagnol) (russe) (chinois) (langue nationale):

	Jour Day (espagnol) (russe) (chinois) (lang. nat.)	Mois Month (espagnol) (russe) (chinois) (lang. nat.)	Année Year (espagnol) (russe) (chinois) (lang. nat.)	

3. Carte valable dans les pays ou réseaux suivants:
Card valid in the following countries (or networks):
(espagnol) (etc.)

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4. Nom et prénom du titulaire/Name and first name of holder/(espagnol/russe/chinois/langue nationale):

5. Taxes à payer par/Charges to be paid by/(espagnol/russe/chinois/langue nationale):

6. Administration ou exploitation privée reconnue garante/Guaranteeing administration or recognized private operating agency/(espagnol/russe/chinois/langue nationale):

7.1 Délivré/Issued/(espagnol/russe/chinois/langue nationale):

le/on/(espagnol/russe/chinois/langue nationale): .....

par/by/(espagnol/russe/chinois/langue nationale): .....

7.2 Timbre
Seal
(espagnol)
(russe)
(chinois)
(langue nationale)

7.3 .....

Signature de l'agent émetteur:

Signature of issuing officer:
(espagnol)
(russe)
(chinois)
(langue nationale)

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8. Services admis/Facilities admittted/(espagnol/russe/chinois/langue nationale):

	français	anglais	espagnol	russe	chinois	langue nationale
8.1	Télégrammes	Telegrams				
8.2	Télégrammes de presse	Press telegrams				
8.3	Télégrammes d'Etat	Government telegrams				
8.4	Télex	Telex				
8.5	Phototélégrammes	Photo-telegrams				

9. Acheminement demandé (à respecter autant que possible)/Routing indication (route indications to be followed where possible)/(espagnol/russe/chinois/langue nationale):

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10. Destinataire(s) admis/Addressee(s) admitted/(espagnol/russe/chinois/langue nationale):

Adresse télégraphique enregistrée et destination et/ou numéro télex, indicatif, pays/ Registered telegraphic address and destination and/or telex number, answer-back code, country/(espagnol/russe/chinois/langue nationale):

11. Signature du titulaire:
Signature of holder:
(espagnol)
(russe)
(chinois)
(langue nationale)

Instructions for filling in international credit cards

Latin characters and Arabic numerals (with one exception in section 2) should be used throughout.

The various sections of the card should be filled in as follows:

Section No. 1

The composition of the card number (or identification group) is specified in the provisions governing the TA service (Article 4.5).

Section No. 2

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

— the day of the month (in Arabic numerals)
— the month (in *Roman* numerals)
— the year (in Arabic numerals)

The Table below shows the Roman numerals to be used for the names of the months, listed in the three working languages of the I.T.U.

I	Janvier	January	Enero
II	Février	February	Febrero
III	Mars	March	Marzo
IV	Avril	April	Abril
V	Mai	May	Mayo
VI	Juin	June	Junio
VII	Juillet	July	Julio
VIII	Août	August	Agosto
IX	Septembre	September	Septiembre
X	Octobre	October	Octubre
XI	Novembre	November	Noviembre
XII	Décembre	December	Diciembre

Section No. 3

Enter here the countries (or networks) in which the card may be used. The names of countries, written out in Latin characters, must not be abbreviated.

If the card is valid in all countries taking part in the TA service, an entry such as " all countries " may be made.

Section No. 4

Enter here the surname of the holder (in capital letters) followed by the first name (in small letters).

Section No. 5

Enter here the name and address of the person or the corporate body from whom the charges are to be collected.

Section No. 6

Enter here the full name of the administration (or recognized private operating agency) which stands guarantor for payment of charges.

Section No. 7

This section should indicate:

— the date of issue of the card in the same form as in section 2;
— the issuing administration (or recognized private operating agency);
— the stamp of the issuing administration (or recognized private operating agency);
— the signature of the issuing officer.

DISPOSITIONS GÉNÉRALES

1. La présente carte ne peut en aucun cas être transférée.
2. La présentation de cette carte est nécessaire pour le dépôt de télégrammes ou le dépôt des phototélégrammes auprès d'un bureau télégraphique ou pour les demandes de communications télex à partir des postes télex publics.
3. Le détenteur de cette carte doit inscrire ses nom et qualité (M., M^{me}, etc.) ainsi que le numéro de cette carte de crédit sur les télégrammes ou phototélégrammes déposés.
4. Les administrations (ou exploitations privées reconnues) se réservent le droit de retirer à tout moment l'autorisation de participer au service TA. Le détenteur de cette carte devra rendre celle-ci sur demande.
5. Cette carte devra être retournée à l'administration (ou exploitation privée reconnue) qui l'a délivrée dès que son utilisation n'est plus possible ou envisagée, que la validité soit ou non expirée.
6. Dans le cas de perte de cette carte, l'administration (ou exploitation privée reconnue) l'ayant délivrée ou en ayant autorisé l'usage doit être immédiatement informée. A défaut de cette notification, la personne ou organisme responsable du paiement des taxes sera également responsable du paiement de toute taxe résultant d'un usage frauduleux de cette carte.

TERMS OF ISSUE

1. This card is not transferable.
2. This card must be produced when telegrams or phototelegrams are handed in to a telegraph office and when telex calls are requested at public telex booths.
3. The holder must enter his name and title (Mr., Mrs., etc.) and the number of this credit card on the telegrams or phototelegrams handed in.
4. The administrations (or recognized private operating agencies) reserve the right to withdraw at any time the authorization to use this credit card. The holder must surrender this card on request.
5. This card must be returned to the issuing administration (or recognized private operating agency) 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.
6. In case of loss, the issuing or guaranteeing administration (or recognized private operating agency) 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.

Section No. 8

Leave only the facilities authorized and cross out the rest. For example, if the card is for press telegrams only, a thick line should be drawn through sub-sections 8.1, 8.3, 8.4 and 8.5 in all the languages.

Section No. 9

Enter routes (where necessary).

Section No. 10

Enter here the names of the addressees to whom TA telegrams may be sent or the telex call numbers (and the answer-back code) for which TA calls can be booked. An entry such as " Any addressee in any country " may be made.

If this section contains only a few addressees, an oblique line should be drawn across the blank part of the table.

Section No. 11

Signature of the holder of the card.

RECOMMENDATION F.45

DETERMINATION OF TERMINAL RATES IN THE EUROPEAN SYSTEM

(Geneva, 1958)

The C.C.I.T.T.,

Having examined the results of the study to determine the elements of the cost of routing telegrams in the European system (see *Violet Book* — Supplements — pages 330 to 335);

considering

that charging with a fixed amount per telegram and a variable transmission rate per word does not meet with adequate approval;

that, under these conditions, charging for telegrams should be by the word, as at present;

that, for a telegram of an average length of 15 words, the cost of handing in or delivery per word is between 6.6 and 10 gold centimes;

that the real average load of a circuit should be assessed at 2500 words per day (instead of 5000 words, which practice has revealed to be too heavy a load);

that, because of this fact, the average cost of transmitting an incoming or outgoing telegram is 5 gold centimes per word,

declares the view

that terminal rates for one country should be the same at both incoming and outgoing services;

that these rates should be between 11.6 and 15 gold centimes per word.

Note. — The Administration of the U.S.S.R. declares that its terminal rate will be 32 gold centimes per word and its transit rate 24 gold centimes per word.

RECOMMENDATION F.50

ACCOUNTING IN THE PUBLIC TELEGRAPH SERVICE

(formerly C.C.I.T. Recommendation G.14, Geneva, 1956, amended at Geneva, 1964)

The C.C.I.T.T.,

considering

1. that in general, and for the operational needs of the international switching system of the general telegraph service in particular, the accounting between administrations and recognized private operating agencies should be based on the transmitted traffic;

2. that several administrations and recognized private operating agencies, especially in the extra-European system, prefer that accounts should be based on the received traffic,

unanimously declares the view

that, for the time being, there is no point in modifying the existing rules for the drawing up of accounts in the telegraph service, since the provisions of Number 952 of the Telegraph Regulations (Geneva Revision, 1958) permit administrations and recognized private operating agencies to adopt such measures as they consider appropriate for drawing up accounts.

RECOMMENDATION F.51

ACCOUNTING PROCEDURE TO BE APPLIED WHEN A CIRCUIT CARRYING V.F. TELEGRAPHY IS REPLACED BY ANOTHER HAVING A DIFFERENT ROUTING

(Geneva, 1956, amended at New Delhi, 1960)

The C.C.I.T.T.

unanimously declares the view

that the following accounting procedure should be applied:

1. The durations of the diversions during a whole month (Sundays excepted) are added together, each diversion being reckoned in minutes. The total number of minutes, after agreement between the administrations at the two ends of the diverted voice-frequency system is divided by 60 (any remainder being disregarded) giving as a result the number of full hours during the relevant month.

2. Division by 24 gives the number of full days for which payment should be made. If the remainder exceeds 11 hours, it is counted as a whole day; if it is 11 or less it is dis-

regarded. If the total number of hours is less than 24 the same procedure is followed (11 hours or less to be disregarded, as expressed in paragraph 1).

3. The number of days thus obtained is expressed as a percentage of a whole month of 25 days (hereinafter called A%). A% of the month's traffic shall be considered as having been routed via the diverted route.

Hence:
$$A = \frac{\textit{number of days of change-over} \times 100}{25}$$

4. Where there are two or more voice-frequency systems on the same route between the same two terminal points, and one (or more) of these systems is diverted to another route, the following procedure will apply for the general telegraph and telex services:

a) For each diverted voice-frequency system the A% shall be calculated separately in the normal way;

b) The volume of traffic handled via the circuits of the diverted voice-frequency system(s) shall be derived from the total traffic in the month on the basis of the proportion between the number of circuits in the diverted system(s) and the total number of circuits on the route used for the service in question on the 15th day of the month concerned.

5. For the *general telegraph service*, the administration establishing the monthly accounts first considers all the telegrams as having been exchanged over normal circuits. The number of words is converted into equated words. A% of this figure then represents the traffic sent over the emergency circuit. The administration responsible for establishing the accounts indicates this percentage of the total traffic separately.

6. When the accounts are established in accordance with para. 952 of the Telegraph Regulations *(Geneva Revision, 1958)* the administration to which the normal transit rate accrues shall pay the new transit administration(s) its (their) quota(s) for A% of the total traffic, the balance of the total traffic (100% minus A%) being accounted for as if transmitted via the normal route.

7. When the accounts are established in accordance with para. 953 of the Telegraph Regulations *(Geneva Revision, 1958)*, the administration responsible for preparing the accounts shall send sufficient extra copies of the accounts to the administration of origin to enable the latter to forward one copy to each of the new transit administrations.

8. In the monthly *telex* accounts the total traffic is divided into two portions, one of which (100% minus A%) exchanged by the normal route is accounted for at normal quotas, and the other (A%) is accounted for at quotas appropriate to the diversion route.

9. The rental of *leased circuits* for each monthly or quarterly period will be paid by the renter in the normal way, as if no diversion had taken place. If no special arrangement has been made between the administrations concerned, the administration(s) which, according to the agreement in force for the rented circuit in question, collect(s) the transit amount relating to the voice-frequency system section from the renter(s) shall, in case of

diversion of the voice-frequency system, distribute the said amount to the administration(s) on the normal route (100 % minus A %) and the new administration(s) (A %) for the months concerned.

10. In cases where only a section of the voice-frequency system is diverted, the administrations which make the diversion inform the administrations at the two ends of the voice-frequency system.

11. Where working channels in a diverted voice-frequency system extend beyond the countries at the ends of the system, each of the two administrations at the ends of the voice-frequency system is responsible for notifying the above-mentioned A % to those terminal administrations of the extended channels lying beyond its territory.

12. The value of " A ", for the purposes of paras. 10 and 11, should be determined by the administrations concerned not later than the fifth day of the following month.

13. The quotas applying to extra transit administrations that handle traffic via alternate routes shall be given by the following rules, unless otherwise agreed between the countries in question.

General telegraph service : The amount for the new transit administrations shall be the notified transit quotas, or, as the case may be, the available transit share proportionately divided into quotas. If no transit share is available between adjacent countries, payment of a transit share shall be subject to special agreement.

Telex service : Charges shall be apportioned in accordance with Recommendation F.60, annex 2.

Leased circuits : Any transit quota is shared equally by the new transit countries. Where no transit quota is available between neighbouring countries, the payment of any such quota shall be the subject of special agreement.

SECTION 5

TELEX SERVICE

RECOMMENDATION F.60

DRAFT REGULATIONS FOR THE SUBSCRIBERS' TELEGRAPH SERVICE BY START-STOP APPARATUS (TELEX SERVICE)

(Brussels, 1948, amended at Arnhem, 1953, Geneva, 1956 and 1958, New Delhi, 1960 Geneva, 1964 and Mar del Plata, 1968)

The C.C.I.T.T., in view of Article 84 of the Telegraph Regulations (Geneva, 1958),

unanimously declares the view

that the following Regulations should be adopted for the telex service:

REGULATIONS FOR THE TELEX SERVICE

TABLE OF CONTENTS

CHAPTER ONE

Scope of the Regulations — Definitions

ARTICLE 1

General provisions

§ 1. These Regulations fix the rules to be followed for the subscribers' telegraph service, permitting the users to communicate directly and temporarily by means of start-stop apparatus. This service is called telex service.

§ 2. Questions of an essentially technical nature concerning the telex service are dealt with by special C.C.I.T.T. Recommendations, including the following:

S.3 Characteristics, from the transmission point of view, of the local end with its termination when start-stop apparatus uses International Alphabet No. 2 (50 bauds).

S.5 Standardization of page-printing start-stop apparatus and co-operation between page-printing and tape-printing start-stop apparatus.

S.6 Characteristics of answer-back units for start-stop apparatus of the telex service.

U.1 Signalling conditions for use in the international telex service.

ARTICLE 2

Definitions

§ 1. Unless otherwise indicated, terms used in these Regulations, and which are defined in the *List of Definitions of Essential Telecommunication Terms — Part I* and the *1st Supplement to Part 1 of the List*, correspond to the definitions in this List.

§ 2. The following terms used in these Regulations have the undermentioned definitions:

Auxiliary telex route : route used when the normal route is congested.

Emergency telex route : route to be used in case of complete interruption or major breakdown of the normal and auxiliary routes.

International telex position : manual position in an international telex centre for establishing telex calls between two countries.

CHAPTER II

International telex network — Duration of the telex service

ARTICLE 3

Constitution of international telex circuits — Routes

§ 1. International telex circuits are made up by using telegraph circuits.

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

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

§ 4. Each intermediate administration (or recognized private operating agency) shall provide the sections of international circuits passing through the territory which it serves.

§ 5. For each relation, the administrations (or recognized private operating agencies) concerned shall, by mutual agreement, decide upon one or more normal telex routes and, to the extent possible, upon auxiliary telex routes and emergency telex routes.

§ 6. In this respect, the administrations (and/or recognized private operating agencies) shall conform, as far as possible, with the principles recommended by the C.C.I.T.T. as regards the constitution and maintenance of circuits and installations.

§ 7. If it should become necessary to use the auxiliary or emergency telex routes, the countries concerned shall take urgent measures to make them available.

§ 8. The General Secretariat shall publish yearly the table of international telex relations (see Recommendation F.95).

ARTICLE 4

Maintenance and upkeep of telex communications — Role of international telex positions

Any faults in installations noted by international telex positions must be reported without delay to the technical service responsible for the maintenance and upkeep of switched telegraph communications.

The technical services responsible for the maintenance and upkeep of telex communications are recommended to use the abbreviations given in the list of service abbreviations for the maintenance and upkeep of telegraph communications, annexed to C.C.I.T.T. Recommendation R.90.

ARTICLE 5

Duration of service — Legal time

§ 1. Each administration (or recognized private operating agency) shall fix the working hours of its centres.

§ 2. International telex centres must, so far as possible, afford continuous service.

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

§ 4. Each centre shall use the legal time of its country or of its zone. Each administration (or recognized private operating agency) shall notify this time or times to the General Secretariat, which will advise the other administrations (and/or recognized private operating agencies).

CHAPTER III

Classes of telex call

ARTICLE 6

Classes of telex call

§ 1. Accepted classes of telex call are:

a) Safety of life telex calls (SVH).

b) Government telex calls.

c) Service telex calls.

d) Ordinary private telex calls.

e) Requests for information.

§ 2. In addition, subscription calls may be accepted by special agreement between administrations (and/or recognized private operating agencies).

§ 3. Administrations (and/or recognized private operating agencies) may decide by special agreement among themselves to accept classes of telex call other than those mentioned above.

ARTICLE 7

Telex calls concerning the safety of life

Safety of life calls (SVH) are those requested in accordance with Article 38 of the International Telecommunication Convention, Geneva, 1959.

ARTICLE 8

Government telex calls

§ 1. Government telex calls are those originating with one of the authorities which enjoy the advantages of Government telegrams and telephone calls, in accordance with the International Telecommunication Convention.

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

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

ARTICLE 9

Service telex calls

§ 1. (1) Service telex calls are those which relate to the working of the international telegraph services (general telegraph services, telex service and telegraph circuit leasing service); such calls may be exchanged free of charge between the administrations (and/or recognized private operating agencies) concerned with the international telex service.

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

(3) By agreement between the administrations (or recognized private operating agencies) concerned, the free use of their telex service may, in cases of absolute necessity, be authorized by these administrations (or recognized private operating agencies) for the exchange of telex calls in the extra-European system concerning the working of the international telephone service. These calls shall then be regarded as service telex calls.

(4) By way of reciprocity, the agreements mentioned in the preceding sub-paragraph may provide that, in the same relations and under the same conditions of absolute necessity, the telex service may use, free of charge, the telephone service conducted by the administrations (or recognized private operating agencies) for the exchange of telephone calls relating to the working of the international telex service. These telephone calls shall then be regarded as service telephone calls.

§ 2. Service telex calls may be requested only by persons authorized to do so by their respective administration (or recognized private operating agency).

§ 3. The Chairman of the Administrative Council, the Secretary-General of the Union, the Director of the C.C.I.T.T., the Director and Vice-Director of the C.C.I.R. and the Chairman of the I.F.R.B. are authorized to book, free of charge, service telex calls to administrations (or recognized private operating agencies), relating to the official business of the Union.

§ 4. Service telex calls must be made, as far as possible, outside the busiest hours.

ARTICLE 10

Ordinary private telex calls

Ordinary private telex calls are telex calls, other than service or Government calls, which do not receive any special treatment.

ARTICLE 11

Subscription telex calls

§ 1. Subscription telex calls are those which are arranged to take place daily between the same stations, at the same time, agreed upon in advance, for the same duration, and which have been booked for a specified period.

§ 2. Subscription telex calls must relate exclusively to the personal affairs of the correspondents or those of their firms.

§ 3. (1) Subscription telex calls shall be subject to the acceptance by the person requiring them of a subscription contract. The subscription contract may take effect from any date, but for those taken on a monthly basis the first day of the month shall be regarded as the commencing date. Any balance of payment due for service given prior to that date shall be added to the first monthly account.

(2) The monthly subscription shall be extended from month to month unless it has been cancelled by either party at least eight days before the end of the current month. Nevertheless, by special agreement between the administrations (and/or recognized private operating agencies) concerned, earlier cancellation may be granted, after the first month, subject to eight days notice being given in advance.

(3) A subscription contract made for one or more indivisible periods of seven consecutive days shall not be renewable by tacit agreement.

§ 4. The time and duration of subscription telex calls shall be fixed by the international telex centre or centres concerned, with due regard to the subscriber's request and the commitments and facilities of the service.

§ 5. If, at the time specified in the contract, there is, between the international telex centres concerned, a circuit on which no telex call is in progress and for which there is no priority Governl ment call or SVH call on hand, the call shall be set up at the time fixed. Otherwise, it shalbe set up as soon as possible on the first circuit fulfilling these conditions after the time fixed.

§ 6. A subscription telex call shall be definitely disconnected when the caller gives the signal that the call is ended before the expiry of the duration specified for each subscription call. If, at the end of this duration, the caller has not already given the signal that the call is ended, the operator shall warn the caller and disconnect the call, unless the call can be continued without blocking other traffic.

§ 7. Subscribers shall arrange that their stations shall be free at the time fixed for the call.

ARTICLE 12

Requests for information

A request for information is a request made by a person with the object of ascertaining:

a) whether a certain person, whose name is given, together with the additional details necessary for identification(for example his complete address), is a telex subscriber and, if so, what is his call-number and answer-back code;

b) the name of the person to whom a given call-number or answer-back code in a specified telex system is allotted.

CHAPTER IV

Operation of the telex service

ARTICLE 13

Operating systems

§ 1. Administrations (and/or recognized private operating agencies) shall reach mutual agreement upon the most appropriate method of operation to be applied in the international relations that concern them, account being taken of the undermentioned provisions.

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

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

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

§ 5. If the two networks employ manual switching, the calls must be controlled by the operator of the originating country.

§ 6. (1) If one network employs manual switching and the other automatic switching, the administrations shall reach an agreement allowing the operator of the international telex position in the country using manual switching to select the called subscriber directly where the conditions of §§ 3 and 4 above are fulfilled.

(2) If it is the originating country that has an automatic switching system, the administrations concerned may agree to allow calls from the originating country to arrive automatically at the international telex position in the country of destination.

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

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

a) if the first link is provided by land line or submarine cable and the second or subsequent link by radio;

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

ARTICLE 14

Establishment and disconnection of telex calls by the international telex positions

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

§ 2. For the operation of international telex circuits, the French language shall be used between administrations (and/or recognized private operating agencies) having different languages, in the absence of special agreements between them for the use of other languages.

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

§ 4. In the manual service, calling signals on international circuits must be answered immediately. If, after a suitable period of calling, the centre called does not reply, it shall be asked by any appropriate means to resume the service on the international circuit in question; any international telex centre that is in a position to help in this matter must do so.

§ 5. (1) In the case of manual switchboards in the countries of origin and destination, and when there is congestion on a particular international telex route, recourse may be had to the advance preparation of calls. Preparation shall consist of completing all the operations necessary in order that the two stations (calling and called) may be connected without any loss of time on the international circuit.

(2) On circuits which have not been allocated for the passing of traffic in a single direction, telex calls of the same category are, in principle, established in alternate order; the international telex centres concerned may, by mutual agreement, temporarily change the alternate working hours if, by so doing, the flow of traffic and the maintenance of chronological order, as laid down in Article 18, § 3, would be improved.

(3) Telex calls already prepared must not be delayed for the benefit of calls of higher priority, with the exception of SVH calls.

§ 6. Without prejudice to the provisions of Article 16, the operator directing the calls at the international telex position shall verify that transmission between the correspondents is satisfactory; he shall note the time when the call is established as well as the time when the telex call ends and/or its duration. He shall record service incidents and other items, necessary for the preparation of the international accounts.

§ 7. With the exception of the cases provided for in Article 11, § 6 and Article 15, § 3, and of cases where an infringement of the present Regulations or national instructions has been noted, operators are forbidden to cut off, or break into, an established call which is proceeding normally.

ARTICLE 15

Limitation of the duration of telex calls

§ 1. (1) In general, the duration of ordinary private telex calls and service telex calls shall not be limited.

(2) However, under congestion conditions, the international telex centres concerned may agree to limit the duration of calls to twelve, or even six, minutes.

§ 2. (1) The duration of Government and SVH telex calls shall not be limited.

(2) However, transit administrations (and/or transit recognized private operating agencies) shall have the right, in the case of breakdown, to limit the duration of Government telex calls to twelve minutes when these calls are established through the intermediary of one of their exchanges.

(3) In such a case the operator of the transit country shall advise the controlling operator that restrictions on duration are in force.

§ 3. If the duration of the call is limited, the caller shall be informed, when the call is about to be connected, that it will be cut off after the due time.

ARTICLE 16

Operating procedure on international telex positions

§ 1. (1) If the called subscriber can be obtained directly by the controlling international telex operator, this operator:

a) holds the calling subscriber and selects a free circuit;

b) selects the called subscriber;

c) sets up the call to the called subscriber and obtains the answer-back of the called subscriber which must also be received by the calling subscriber;

d) obtains the answer-back of the calling subscriber which must also be received by the called subscriber;

e) operates the timing equipment;

f) on reception of the clearing signal, clears down the connection.

(2) If the called subscriber is engaged, the controlling international telex operator signals OCC, followed by RAP when the calling subscriber has to be recalled, and then releases the calling subscriber.

§ 2. (1) If the called subscriber is obtained via two international telex positions:

a) the controlling international telex operator holds the calling subscriber and selects a free circuit;

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

c) the controlling international telex operator sends his own answer-back code and signals the particulars of the called subscriber;

d) the operator of the second international telex position:

1) holds the circuit from the controlling international telex position,
2) selects the called subscriber,
3) signals the letters DF to the controlling international telex position,
4) establishes the communication between it and the called subscriber;

e) the controlling international telex operator:

1) establishes the communication with the calling subscriber and obtains the answer-back of the called subscriber, which must, at the same time, be received by the calling subscriber,
2) obtains the answer-back of the calling subscriber which must also be received by the called subscriber,
3) operates the timing equipment,
4) on receiving the clearing signal, clears down the connection.

(2) If the called subscriber is engaged, the operator of the second international telex position signals OCC and clears down the international circuit.

§ 3. (1) If the called subscriber is obtained via more than two international telex positions:

a) the controlling international telex operator holds the calling subscriber and selects a free circuit;

b) the operator at the second international telex position announces himself by his abbreviated name (see § 2 (1)b);

c) the controlling international telex operator sends his own answer-back and signals the particulars of the called subscriber;

d) the operator at the second international telex position extends the call to the third international telex position and signals THRU to the calling international telex position;

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

e) the operator of the third international telex position announces himself by his abbreviated name (see § 2 (1)b);

f) the controlling international telex operator sends his own answer-back and signals the particulars of the called subscriber;

g) the operator of the third international telex position:

1) holds the circuit from the international telex position at which the call is controlled,
2) selects the required subscriber,
3) signals the letters DF to the controlling international telex position,
4) establishes the communication between it and the called subscriber;

h) the controlling international telex operator:

1) establishes the communication with the calling subscriber,
2) obtains the answer-back of the called subscriber, which must also be received by the calling subscriber,
3) obtains the answer-back of the calling subscriber, which must also be received by the called subscriber,
4) operates the timing equipment,
5) on receiving the clearing signal, clears down the connection.

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

(3) If the called subscriber is engaged, the international telex operator of the exchange of arrival should follow the procedure indicated in § 2 (2).

§ 4. (1) When a telex communication has to be established by recalling the calling subscriber (§ 1 (2) above) the operator of the telex position controlling the call will first select from the two correspondents the one he can reach more easily. The procedure will be analogous to that described in paragraphs 1, 2 and 3 above, but before connecting the two subscribers the controlling operator will transmit DF to the calling subscriber to advise him that he is receiving a call which he has previously booked.

(2) The operator may not occupy international telex circuits while awaiting clearance of a busy subscriber line.

§ 5. It is not possible to recall the operator of a telex position to a connection already set up, except when applying C.C.I.T.T. Recommendation U.21 by agreement between administrations (and/or recognized private operating agencies). The operator-recall signal shall be acted upon by the controlling operator only. In the event of the assistance of any other operator being required, it will be obtained by the controlling operator.

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

ARTICLE 17

Code expressions used in the international telex service

In service correspondence the following code expressions should be used:

ABS	Absent subscriber, office closed
BK	I cut off
CFM	Please confirm / I confirm
COL	Collation please / I collate

CRV	Do you receive well / I receive well
DER	Out of order
DF	You are in communication with the called subscriber
E E E	Error
GA	You may transmit / may I transmit ?
INF	Subscriber temporarily unobtainable, call the information service
JFE	Office closed because of holiday
MNS	Minutes
MOM	Wait; waiting
MUT	Mutilated
NA	Correspondence with this subscriber is not admitted
NC	No circuits
NCH	Subscriber's number has been changed
NP	The called party is not, or is no longer, a subscriber
NR	Indicate your call number / my call number is ...
OCC	Subscriber is engaged
OK	Agreed / do you agree ?
P [1] (or figure 0 [1])	Stop your transmission
PPR	Paper
R	Received
RAP	I shall call you back
RPT	Repeat/I repeat
SVP	Please
TAX	What is the charge ? / the charge is ...
TEST MSG	Please send a test message
THRU	You are in communication with a telex position
TPR	Teleprinter
W	Words
WRU	Who is there ?

ARTICLE 18

Priority of telex calls

§ 1. In telex relations with fully automatic selection or when the manual telex service normally provides a demand service, no priority shall be given to certain classes of call.

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

a) telex calls concerning safety of life;

b) service calls concerning the re-establishment of international telecommunication links which have been totally interrupted;

c) Government telex calls for which priority has specifically been requested;

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

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[1] To be repeated until the transmission is brought to a stop.

§ 3. In the international telex centre, calls shall take their priority according to their category and time of receipt at the exchange (see Article 14, § 5 (2)).

CHAPTER V

Booking of telex calls

ARTICLE 19

Way of booking telex calls

In the booking of a call, the telex installation of the subscriber required must be designated by the name of the country, the subscriber's exchange if necessary, and his call-number, as it appears in the official directory of the country concerned.

ARTICLE 20

Validity of telex bookings

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

§ 1. Where all the offices concerned are open continuously:

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

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

§ 2. Where all the offices concerned are not open continuously:

at the telex service closing time at the end of the day.

ARTICLE 21

Modifications of telex bookings

§ 1. In the case of all bookings of telex calls, and subject to the provisions of Article 20 relative to the validity of bookings, the caller may, so long as the required subscriber has not been obtained:

a) cancel his booking,

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

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

§ 2. Modifications of bookings shall be permitted free of charge; the administration (or recognized private operating agency) of origin may, however, make a special charge covering the additional work of recording. This charge shall not enter into the international accounts.

CHAPTER VI

Subscribers' equipment

ARTICLE 22

Characteristics of subscribers' equipment

§ 1. The sent signals of the start-stop equipment used in the telex service are those of International Alphabet No. 2 as mentioned in the Telegraph Regulations.

§ 2. For the answer-back code, it is recommended that an abbreviated name designating the subscriber should be used, followed by the name of the locality where he resides; nevertheless, administrations are at liberty to use any other way of composing the answer-back code, particularly by using the subscriber's number.

§ 3. (1) The subscriber's equipment must be arranged in such a way that a call can be received, the answer-back taken, the message transmitted and the connection cleared without the intervention of the called subscriber.

(2) The motor of the teleprinter will rotate continuously for the duration of an established telex connection.

§ 4. In exceptional cases, administrations may allow subscribers to dispense with the stipulations of paragraph 3 (1) for periods previously notified. In such cases means must be provided for the transmission of one of the appropriate code expressions shown in Article 17 either automatically or, in the case of manual exchange, by the incoming switchboard operator.

CHAPTER VII

General provisions relating to telex correspondence

ARTICLE 23

Restriction on the use of a telex station

§ 1. Administrations reserve the right to suspend the telex service in the cases mentioned in Articles 31 and 32 of the Convention (Geneva, 1959).

§ 2. Administrations and recognized private operating agencies should refuse to make the telex service available to:

a) a telegraph forwarding agency which is known to be organized for the purpose of sending or receiving telegrams for retransmission by telegraphy with a view to evading the full charges due for the complete route;

b) an agency which is known to be organized for the purpose of sending or receiving messages intended for transmission by telegraphy or telex.

CHAPTER VIII

Directories

ARTICLE 24

Compilation of directories

§ 1. As far as possible each administration (or recognized private operating agency) shall publish a directory of its subscribers at least once a year (for example, on 1 April).

§ 2. It is to be recommended that directories should not be larger than 210 × 297 mm (A4).

§ 3. (1) The directory shall be composed of two separate lists, a list of subscribers and a list of answer-back codes.

(2) The list of subscribers shall be drawn up as follows:

a) places where stations are located, classified in alphabetical order,

b) within that classification, subscribers' names, arranged in alphabetical order.

(3) It shall be set out as follows:

Place	Subscriber's name and address	Subscriber's exchange [1]	Call number	Answer-back code

(4) The list of answer-back codes shall be compiled in alphabetical order as follows:

Answer-back code	Subscriber's name and place	Subscriber's exchange [1]	Call number

§ 4. (1) The directories sent to administrations (and/or recognized private operating agencies) of a country shall be set up in roman letters. The call-number published shall be that which the calling subscriber has to transmit in order to obtain the called subscriber after he has followed the procedure prescribed in his own country to gain access to an international circuit.

(2) When directories are written in a language other than the language used in that country, they shall be accompanied by an explanatory note to facilitate the use of such directories. This note shall be drawn up in whatever official language of the Union has been agreed upon by the administrations (and/or recognized private operating agencies) concerned.

§ 5. (1) Once a quarter (for instance, 1 July, 1 October, 1 January) each administration (or recognized private operating agency) shall, if possible, send to the other administrations (or agencies) a supplement to its directory, containing all the changes that have occurred in the position of its network during the preceding quarter.

(2) The arrangement and layout of the supplements must be exactly the same as those of the directories (see §§ 2 and 3 above).

[1] If necessary.

ARTICLE 25

Supply of directories

§ 1. (1) Each administration (or recognized private operating agency) shall supply, free of charge, to the administrations (and/or recognized private operating agencies) with which a telex service exists, a sufficient number of copies of its subscribers' directories for official use.

(2) The number of such copies shall be fixed in advance by mutual agreement and shall be regarded as applying until a request to change it is received. Such request must be made not later than 1 February each year.

§ 2. (1) Each administration (or recognized private operating agency) shall supply, against payment, to the administrations (and/or recognized private operating agencies) with which a telex service exists, a number of its subscribers' directories to be put on sale.

(2) The number of copies intended for sale shall be fixed in advance by mutual agreement and shall be regarded as applying until a request to change it is received. Such requests must be made not later than 1 February each year.

§ 3. (1) A subscriber wishing to obtain a copy of the telex directory of another country must apply to his own administration (or recognized private operating agency).

(2) If an application for its directory is received direct by an administration (or recognized private operating agency) from a subscriber in a foreign country, the request shall be forwarded by that administration (or recognized private operating agency) to the administration (or recognized private operating agency) of the subscriber's country.

§ 4. An administration (or recognized private operating agency) which has supplied directories of its country intended for sale to another administration (or recognized private operating agency) shall indicate the equivalent in gold francs of the sale price of the directories applied in the country of origin plus any postal charges.

CHAPTER IX

Tariffs and charging — Adjustment of charges and reimbursements

ARTICLE 26

Telex rates

§ 1. The unit charge is the charge pertaining to an ordinary private telex call of one minute duration, exchanged during the period of heavy traffic.

§ 2. The amount of the unit charge is fixed on the basis of the gold franc by agreement between the administrations (and/or recognized private operating agencies) concerned.

§ 3. The unit charge expressed in gold francs shall always be the same in both directions in a given relation regardless of the telex route (normal, auxiliary, emergency) used for the establishment of a communication in this relation.

§ 4. (1) With manual or semi-automatic operation:

a) any telex call of three minutes duration or less shall be charged as for three minutes;

b) when the duration of a call exceeds three minutes, a charge per minute shall be made for the period in excess of the first three minutes. Any fraction of a minute shall be charged as for one minute.

(2) In order to avoid too great a dissymmetry in the charges collected, one of the following two methods of charging should be used in the fully automatic international telex service:

a) charging minute by minute,

b) charging by periodic pulses of the type used in the national automatic service.

§ 5. Transit administrations (or recognized private operating agencies) shall abide by the agreements between terminal administrations (or recognized private operating agencies), as far as the charging procedure is concerned.

ARTICLE 27

Chargeable duration of a telex call

§ 1. The chargeable duration of a telex call begins at the moment the connection is established between the calling and the called subscribers.

§ 2. It ends at the moment when the clearing signal given by the calling or called subscriber is transmitted over the international circuit. To this end, the international telex position must be able to receive the clearing signal from both sides.

§ 3. With manual or semi-automatic operation, the operator of the controlling international telex position shall determine the chargeable duration, unless other arrangements have been made by agreement between the administrations (or recognized private operating agencies) concerned, taking into account, where necessary, any difficulties in transmission or any irregularities which he may observe.

§ 3 *bis* When a telex call is controlled by an operator at a telex position in a transit country the chargeable duration of the call shall be notified to the international telex exchange of origin within 24 hours, giving the following details:

The locality and number of the calling subscriber, the locality and number of the called subscriber, the time at which the call began and its chargeable duration in minutes.

Example: Stockholm 1846 to Athens 21460 at 15.46 G.M.T. 3 rpt 3 min.

§ 4. If, after a call, a subscriber claims a reduction in charges as a result of difficulties or irregularities during the call, he may be requested by his administration to supply copies of the message in question as transmitted and received. If the faults are clearly attributable to either of the subscribers, no reduction in the charge shall be made.

ARTICLE 28

Composition of the tariff

§ 1. The rates for telex calls referred to in Article 26 shall be made up of the terminal rates and any transit rate or rates.

§ 2. Each administration (or recognized private operating agency) shall fix its terminal rates and, taking into account the recommendation contained in Article 26, § 5, its transit rates.

§ 3. (1) For the fixing of terminal rates, the territory of the administrations (and/or recognized private operating agencies) concerned may be divided into charge zones.

(2) Where there is a division into charge zones, it is understood that, in a given international relation and over a given route, the terminal rate shall be uniform within each charge zone.

(3) Each administration (or recognized private operating agency) shall fix the number and extent of the charge zones for its services with each of the other administrations (and/or recognized private operating agencies).

(4) It is, however, desirable that the number of charge zones should be kept to a minimum.

ARTICLE 29

Charging during periods of light traffic

§ 1. (1) A reduction in rates during periods of light traffic may be made by special agreement between the administrations (and/or recognized private operating agencies) concerned.

(2) In relations for which such arrangements have been made, the charge applied for any telex call during a period of light traffic equals, as nearly as possible, three fifths (3/5) of the charge which would be applied to such a call during a period in which no such reduction in charge is applied.

§ 2. Administrations (or recognized private operating agencies) shall mutually agree upon the periods of light traffic during which such a reduction in rates may be applied, and also on the charging of telex calls extending into both the period during which no reduction in charge is applied and the period of light traffic.

ARTICLE 30

Charges for Government and SVH telex calls

Government and SVH telex calls shall be charged as ordinary private telex calls.

ARTICLE 31

Charges for subscription telex calls

§ 1. In general, subscription telex calls are subject to the charge for ordinary private telex calls of the same duration exchanged during the same period.

§ 2. However, if a demand service is impossible during certain periods of heavy traffic, as may be determined for each relation by the international telex terminal exchanges concerned, then administrations (and/or recognized private operating agencies) may, by mutual agreement, apply to subscription telex calls a maximum charge equal to twice the charge for an ordinary private telex call of the same duration, exchanged during a period in which no reduction for ordinary private telex calls is applied.

§ 3. When a telex demand service is in force in any particular relation, the administration (and or recognized private operating agency) concerned may agree to accept subscription telex calls lasting longer than 60 minutes. These calls shall be charged at 75 % of the rate for the period during which the subscription call takes place.

§ 4. (1) The monthly subscription charge shall be reckoned on the basis of 30 days.

(2) The monthly subscription charge may, however, be reckoned on the basis of 25 days if the subscriber waives the use of his subscription on any one day of the week, being the same day each week and being specified in advance in the agreement.

(3) The subscription charges for one or more periods of 7 consecutive days shall be reckoned on the basis of 7 days, but no reduction shall be allowed if the subscriber waives the use of one or more calls.

ARTICLE 32

Charges for requests for information

§ 1. It is left to administrations' (or recognized private operating agencies') discretion whether a request for information requiring the use of an international telex circuit should be charged for.

§ 2. When a charge is made, and unless there are special arrangements between the administrations (or recognized private operating agencies) concerned, the charge for the request for information is the same as the corresponding one-minute charge.

ARTICLE 33

Right to round off charges

§ 1. The charges to be collected in accordance with agreements between administrations (and/or recognized private operating agencies) may be rounded up or down to meet the monetary or other convenience of the country of origin.

§ 2. Modifications adopted by virtue of the foregoing paragraph shall apply only to the charge collected in the country of origin and shall not involve any alteration in the share of the charges proper to the other administrations (and/or recognized private operating agencies) concerned. The rates must be rounded up or down to the monetary unit or fraction of the monetary unit in use in the country concerned.

ARTICLE 34

Fixing of monetary equivalents [1]

§ 1. For the collection of charges from the public, each country should, in principle, apply to the rate expressed in gold francs an equivalent in its national currency approaching as nearly as possible the value of the gold franc. However, when the equivalent is not applied or when the equivalent applied is less than the true equivalent, the accounts shall always be prepared in gold francs in conformity with Article 28.

§ 2. (1) Each country should, so far as practicable, notify the General Secretariat of the equivalent it has chosen, as well as the date from which it will collect charges according to this equivalent.

(2) The General Secretariat shall draw up a table of the information it receives and forward it to all Members and Associate Members. It shall also inform them of the date on which new charges based on any new equivalent come into force, and shall bring any subsequent information to their notice.

[1] Common provisions of the Telegraph and Telephone Regulations.

ARTICLE 35

Charges in particular cases — Adjustment of charges and reimbursements

§ 1. (1) With manual or semi-automatic operation, when correspondents experience difficulty in the course of a telex call, the difficulty being due to the telex service, the chargeable duration of the call shall be reduced to the total period during which telex conditions have been satisfactory; the international telex position of origin shall decide, by virtue of Article 27, § 3, whether the charge for the minimum period of three minutes shall be paid.

(2) Any complaint made after the completion of the call shall be investigated by the international exchange of origin. According to circumstances, the international exchange or exchanges concerned shall communicate direct to the international exchange of origin the information which may be necessary for the enquiry.

(3) When a refund must be granted, the international exchange responsible for charging is entitled to modify the entries in the documents used for the establishment of international accounts, if necessary after agreement with the international exchanges affected (Telephone Regulations, 1958, Number 191). Any refunds granted to a subscriber which it has not been possible to deduct from the international accounts before they were sent out shall be borne by the administration (or recognized private operating agency) which levied the charge for which the refund has been made.

§ 2. (1) When, through an action of the correspondents, a subscription call has not taken place or has not lasted for the prescribed duration, no compensation shall be given or reimbursement made.

(2) When, through an action of the telex service, it has not been possible for a subscription call to take place or for it to last for the prescribed duration, such a call shall be replaced by a call of equivalent duration to the unused time, to be exchanged as soon as practicable after the prescribed time, with priority over other calls of the same class. If the call cannot be replaced or made good in this way, only the charge pertaining to the time used shall be included in the international accounts. In reckoning the charge for the time used, the basis shall be the charge relative to the whole time prescribed for a subscription call, and this basic charge shall be equal to one twenty-fifth ($^1/_{25}$) or one thirtieth ($^1/_{30}$) of the total monthly subscription irrespective of the month concerned. For a subscription call contract made for 7 consecutive days, the basic charge shall be equal to one seventh ($^1/_7$) of the total subscription.

§ 3. For any telex call, other than a subscription telex call, in the case of refusal by the calling station or in the absence of a reply from the latter when it is called, the cost of one minute of ordinary private call exchanged between the two stations concerned during the charge period in which the refusal or non-reply took place shall be payable. This charge shall not be posted in the international accounts.

However, administrations and recognized private operating agencies concerned may, by special agreement, collect total charges different from those mentioned above.

§ 4. A call booked to a wrong number and established with the station having that number shall be charged as for a call with a correct number.

However, if the international telex position is advised by the calling subscriber immediately after the establishment of the call, the charge payable for the call to the wrong number may be an amount not exceeding the cost of one minute's telex call for the charge period during which the request for the call to the wrong number was made.

The amount of this charge shall not be entered in the international accounts.

CHAPTER X

Accounting

ARTICLE 36

Accounting

§ 1. (1) Unless otherwise arranged, the charges relating to the telex service shall form the subject of separate monthly accounts to be drawn up by the administration of the country of origin.

(2) In the manual or semi-automatic services, these accounts shall be prepared so as to show for each chargeable period the number of calls and the number of minutes charged in each category grouped according to zones of destination. Furthermore, if the traffic has been transmitted by routes with differing itineraries, the traffic transmitted over each route shall be shown separately with an indication, if the case arises, whether it is an emergency route (see annex 2).

(3) In the automatic service, these accounts shall be prepared in accordance with Recommendation F.67.

§ 2. The administration responsible for establishing a set of monthly accounts must send them direct to each of the administrations concerned.

§ 3. (1) The provisions of the Telephone Regulations dealing with exchange and acceptance of accounts as well as conservation of vouchers and payment of balances are applicable.

(2) By agreement between the administrations (and/or recognized private operating agencies) concerned the accepted monthly accounts shall be included separately in the quarterly telephone or telegraph accounts presented, in accordance with telephone procedure, by the creditor transit and terminal administrations to the debtor terminal administration. Alternatively, separate quarterly accounts in respect of telex traffic may be prepared. The settlement of accounts can then be effected with either the Telephone or the Telegraph Department of the creditor administrations by arrangement.

§ 4. Accounting arrangements concerning the paid supply of directories in accordance with Article 25, paragraph 4, shall be established in the following manner:

At least once a year, and preferably at the end of the current period of the directories concerned, each administration (or recognized private operating agency) which has supplied to another administration (or recognized private operating agency) directories in respect of which payment is due, shall draw up a special account for the amounts due to it for such directory supplies, including postage and/or freight, and send it to the latter administration (or recognized private operating agency) for settlement.

Except where the administrations (or recognized private operating agencies) have agreed otherwise, no accounts shall be established for the paid supply of directories unless the total number delivered to an administration for service requirements and for sale exceeds 50. When the number is 50 or less, all directories shall be delivered free of charge.

CHAPTER XI

Directives for subscribers

ARTICLE 37

Operating procedure for a telex call

For the transmission of a telex call, the subscriber must follow the directions given him in instructions drawn up in accordance with the detailed directives contained in annex 1 of the Regulations.

The instructions to subscribers should also comprise information regarding the code expressions used in the international telex service which are listed in Article 17 of the Regulations.

ANNEX 1

OPERATING PROCEDURE FOR A TELEX CALL

I. *Setting-out of the text*

§ 1. (1) The heterogeneous groups (composed of two or three sorts of characters: letters, figures, signs) are transmitted without spaces or interspacing signs, as well as the homogeneous groups (words, whole numbers ...).

(2) However, when a group, or part of a group, is composed of a whole number and an ordinary fraction, the fraction is separated from the number by means of a dash without space.

Examples :

for " one and three quarters ": 1—3/4
for " three quarters " followed by " eight ": 3/4—8.

§ 2. The inverted commas sign (quotation mark) (" ") shall be signalled by transmitting the apostrophe sign (') twice, at the beginning and end of the text within the inverted commas (quotation marks) (" ").

§ 2*bis* The minutes sign (′) and the seconds sign (″) shall be transmitted by means of the apostrophe sign, transmitted once for the minutes sign, and twice for the seconds sign.

§ 3. To indicate the sign % or ‰, the figure 0, the fraction bar, and the figures 0 or 00 shall be transmitted successively.

§ 3*bis* A whole number, a fractional number, or a fraction followed by a % or ‰ sign, shall be transmitted by joining up the whole number, the fractional number of the fraction to the % or ‰ sign by a dash.

Examples :

for 2%, transmit 2—0/0 and not 20/0
for 4½‰, transmit 4—1/2—0/00 and not 41/20/00.

§ 4. When the accent on a letter is essential to the sense of the text, repeat at the end of the message the group containing such letter, placing this letter between two spaces.

Examples :

ach e te for achète, achet e for acheté.

§ 5. Groups in which figures intervene (particularly numbers) to be repeated at the end of the message.

§ 6. To pass to the beginning of the next line—i.e. to start a new line—press first " carriage return ", then " line-feed ", and again " carriage return ".

§ 7. An error is corrected in the following manner:

a) in manual transmission, the signal " space " and the letter E are signalled alternately three times, restarting the transmission from the last group correctly sent;

b) in perforating, the wrong group and everything following it is " effaced " by depressing the " letter " key.

§ 8. A subscriber preparing a perforated tape for automatic transmission must take care:

a) that the signal " who are you ? " does not appear on the tape;

b) that, in starting a new line, the provisions of § 6 are followed;

c) that the tapes are perforated to the end. He should accordingly finish perforated tapes with a series of " letters " perforations.

§ 9. Letters or signs coupled with the letters F, G and H should not be used in international communications, except in the case of countries with which there are special arrangements. (Each country will inform its subscribers of the letters or signs used in the country as secondaries of letters F, G and H, will mark these distinctively on the keyboard, and will indicate the countries with which there are special arrangements.)

II. *Operating procedure*

§ 10. In manual or semi-automatic working, since the establishment of a connection is always indicated by the transmission, through the intermediary of the international telex position, of the answer-back of the called subscriber, followed by that of the calling subscriber, subscribers should not intervene before the transmission of these two codes is completed.

§ 11. (1) The caller checks whether the answer-back he has received is in fact that of the called subscriber. If it is not, he should interrupt the call and inform the international telex position or reselect the number of the subscriber required.
(2) The calling subscriber can, however, check whether the connection is satisfactory by obtaining the answer-back of the called subscriber.

§ 12. If he considers it desirable, he operates the call bell and ends with the " line-feed " (see § 6) followed by " letters ".

§ 13. The calling subscriber should then proceed as follows:

a) start a new line (see § 6) and send the signal " letters ";

b) send any particulars of the message such as " urgent ", " acknowledge receipt ", etc.

c) start a new line;

d) send the message, starting a new line whenever necessary;

e) start a new line;

f) repeat the groups mentioned in §§ 4 and 5;

g) if there are several messages, each message must be followed by the group to be checked, by the sign + and by starting a new line;

h) after transmission of the message (or, as the case may be, of the last message), and/or of the groups to be checked, has been completed, he sends the signs + ?, followed by " letters ", thus indicating to the correspondent that the latter can transmit in his turn. If he receives no reply, he obtains the answer-back signal of his correspondent, checks it, and then signals his own answer-back;

i) he sends the sign + twice, then " letters ";

j) he gives the clearing signal.

§ 14. If present, the called subscriber answers as soon as he receives notification of the end of transmission (+ ?) in the following manner: he sends the signal " R ", followed by the number of messages received.

§ 15. During an exchange of messages, the following rules must be observed:

a) before each transmission, the signal " letters " must be sent;

b) to interrupt the correspondent, transmit the letter P or the figure 0 until the correspondent stops sending;

c) to invite the correspondent to transmit, signal + ?, followed by the signal " letters ";

d) to ask him to wait, transmit the combination MOM.

§ 16. If during a transmission there has been a pause of more than 30 seconds, transmission is resumed by the signal " letters " and then 2 seconds are allowed to elapse before continuing.

§ 17. If, for any reason, it is necessary to send a test message over an international circuit, one of the following two texts should be used:

VOYEZ LE BRICK GÉANT QUE J'EXAMINE PRÈS DU WHARF
THE QUICK BROWN FOX JUMPS OVER THE LAZY DOG.

ANNEX 2

USE OF EMERGENCY ROUTES

When emergency telex routes are used, the following provisions shall apply, except in the case of arrangements to the contrary among the administrations (and/or recognized private operating agencies) concerned:

1. Charges for telex exchanged exceptionally over emergency routes shall be the same as when the normal route is used.

2. All telex calls exchanged over emergency routes shall be entered in the international accounts for the whole of their chargeable duration.

3. When an emergency route is used, the total rate for the normal route (between the first charge zones of the terminal countries) shall be divided equally among the various administrations concerned with the emergency route in question, whatever may be the nature and length of the circuits used. (When the subscriber's exchange area is beyond the first charge zone, the country of origin shall credit the account of the country of destination with an additional charge equal to the difference between the charge pertaining to the subscriber's exchange area and that pertaining to the first charge zone.) In order that this procedure may be applied in the case of a call involving an international transit exchange, the operator at the transit exchange must in each case advise the operator at the international exchange in the originating country of the emergency route used.

Examples: 1. Switzerland—France. Emergency route: Zurich—Frankfurt.

Total rate for the normal route (between first charge zones): 1 gold franc.
Apportionment if the emergency route is used:

Switzerland—Germany—France: each receives $\frac{1.0}{3} = 0.333$ gold franc.

2. Switzerland—Great Britain. Emergency route: Zurich—Brussels.

Total rate for the normal route: 3.70 gold francs.
Apportionment if the emergency route is used:

Switzerland—France—Belgium—Great Britain: each receives $\frac{3.70}{4} = 0.925$ gold franc.

RECOMMENDATION F.61

USE OF TAPE-PRINTING TELEPRINTERS IN THE TELEX SERVICE

(formerly C.C.I.T. Recommendation H.2, 1951)

The C.C.I.T.T.,

considering

that the administrations are not unanimously of the opinion that the use of page-printers in the telex service should be made obligatory;

that, in these circumstances, it is necessary to define the characteristics of tape-printers used in the telex service to permit their satisfactory interconnection with page-printers;

that the existence of different operating procedures for page- and tape-printers would be highly undesirable,

unanimously declares the view

1. that administrations deciding to authorize the use of tape-printers in the telex service should make the necessary technical arrangements for their satisfactory interworking with page-printers;

2. that such administrations should also issue special instructions to the users of tape-printers to ensure absolute adherence to the page-operating procedure;

3. that tape-printers connected with the telex service should therefore be provided with the following features:

a) end-of-line indicator (character counter);

b) keys permitting the transmission of " carriage return " and " line-feed " signals;

c) confirmation of the receipt of the " carriage return " and " line-feed " signals by printing the symbols agreed in C.C.I.T.T. Recommendation S.4;

4. that, as a result of the use of a uniform operating procedure throughout the telex service, special directory markings to indicate users of tape-printers are unnecessary.

RECOMMENDATION F.62

DUPLEX OPERATION IN THE TELEX SERVICE

(formerly C.C.I.T. Recommendation H. 3, Geneva, 1956, amended at Geneva, 1964)

The C.C.I.T.T.,

considering

a) that the introduction of duplex operation in the international telex service may be of interest;

b) that there is justification for prescribing certain technical directives to be observed by the administrations that desire to carry out trials of duplex operation in the international telex service,

unanimously declares the view

1. that the administrations which decide to authorize duplex operation in the international service should make the requisite technical arrangements to maintain the answerback procedure recommended by the C.C.I.T.T. (cf. Recommendation F.60, Article 22);

2. that the possibility of taking a local record should be maintained for telex installations equipped for duplex operation and, in particular, that these installations should be equipped with two teleprinters when duplex working is not carried out systematically, making use of an automatic transmitter;

3. that, in a case where duplex international telex communication is permitted, the tariffs for the duplex communication should be on the same basis as for simplex communication;

4. that, however, administrations may levy a surcharge on subscribers who can use duplex operation, based either on a flat rate or on each call;

Note. — Duplex telex connections used *exclusively for data transmission* with the purpose of checking errors should not be considered as " duplex operations ".

5. that the rapporteurs of the administrations operating a duplex telex service either internally or in the international system should advise the telex study group of the technical arrangements and operating methods adopted.

RECOMMENDATION F.63

CONFERENCE AND BROADCAST CALLS IN THE INTERNATIONAL TELEX SERVICE

(formerly C.C.I.T. Recommendation H.9, 1954)

The C.C.I.T.T.,

considering

a) that experience is so far insufficient to enable recommendations to be drawn up on the appropriate technical arrangements for establishing international conference or broadcast calls over the telex network;

b) that administrations and recognized private operating agencies should continue to give attention to the methods of operating to be used in the establishment of calls in these categories, because of the difficulties caused when the called subscribers are busy,

unanimously declares the view

that the rapporteurs of the administrations and recognized private operating agencies permitting the establishment of broadcast and conference calls in their internal telex network should advise the competent study group of the technical arrangements and operating procedures employed.

RECOMMENDATION F.64

DETERMINATION OF THE NUMBER OF INTERNATIONAL TELEX CIRCUITS REQUIRED TO CARRY A GIVEN VOLUME OF TRAFFIC

(formerly C.C.I.T. Recommendation H.10, 1954, amended at Mar del Plata, 1968)

The C.C.I.T.T.,

considering

1. that it is essential to provide an adequate number of circuits between two telex networks in order to provide the rapid service stipulated in Recommendation F.60;

2. that the use of tables for the determination of the number of circuits as a function of the traffic to be dealt with during the busy hour is an established practice in all administrations, and is a convenient means of indicating a standard;

3. that international telex circuits may be selected either at manual positions, or via automatic switching equipment, particularly where subscriber-to-subscriber dialling is employed between two networks,

unanimously declares the view

1. that, provisionally, administrations and recognized private operating agencies should use Table A or B below, according to the system of selection employed (i.e. manual selection or automatic selection) in the international service.

2. Administrations should aim for full availability of circuits on intercontinental and ARQ radio routes operated with signalling according to Recommendations U.1 and U.20. Where an administration is unable to provide the full availability, it should provide an availability to achieve not less than 90% of the full availability capacity relative to the number of circuits on the route at a grade of service of 1/50.

General notes

1. If, for the purpose of design (as distinct from the maintenance of a rapid service), it is desired to obtain values of " traffic offered " in erlangs, these may be determined by adding to the figures of " traffic carried " in Tables A and B the respective values of " traffic lost " for the value concerned.

2. Tables A and B are directly applicable only to full availability groups of circuits which are operated either wholly as both-way circuits, or wholly as unidirectional circuits.

Where groups of circuits are divided into both-way and undirectional components, the division and number of circuits in each component will be agreed between administrations.

TABLE A

Traffic capacity table for telex manually selected circuits (Note 1)

Number of circuits	Average intensity for traffic carried in the busy hour, expressed in erlangs, for a grade of service (probability of loss) of:		
(a)	*(b)* 1 in 10	*(c)* 1 in 30 (Note 3)	*(d)* 1 in 50 (Note 3)
1	0.2	0.066	0.034
2	0.9	0.43	0.33
3	1.5	0.89	0.76
4	2.3	1.49	1.29
5	3.2	2.17	1.92
6	(Note 2)	2.92	2.67
7		3.77	3.44
8		4.66	4.25
9		5.56	5.09
10		6.47	5.93
11		7.39	6.79
12		8.31	7.67
13		9.24	8.57
14		10.2	9.48
15		11.1	10.4
16		12.1	11.3
17		13.0	12.3
18		13.9	13.2
19		14.9	14.1
20		15.9	15.0

Note 1. — Table A makes allowance for the manual operator to continue the search for a free line over the group of circuits concerned for a period of 30 seconds if all are engaged, after which the search is abandoned and the call suspended.

Note 2. — Column (b) of Table A will, in general, only be used in respect of small groups of circuits of considerable length, having due regard to the desire to provide a rapid service, as well as to economic considerations.

Note 3. — In all other cases the figures of column (c) shall be used in preference to those of column (d).

Note 4. — Table B is in accordance with the formula of Erlang, and therefore does not allow for a period of search (e.g. delayed hunting or continuous hunting). It is recommended to use for preference the figures corresponding to a probability of loss of 1 in 50.

TABLE B

Traffic capacity table for automatically selected circuits (Note 4)

Number of circuits	Average intensity for traffic carried in the busy hour, expressed in erlangs for a grade of service (probability of loss) of:	
	1/30	1/50
1	0.034	0.020
2	0.289	0.22
3	0.73	0.59
4	1.27	1.07
5	1.88	1.63
6	2.53	2.33
7	3.23	2.87
8	3.95	3.56
9	4.70	4.26
10	5.47	4.98
11	6.25	5.72
12	7.05	6.48
13	7.86	7.25
14	8.68	8.04
15	9.51	8.83
16	10.34	9.63
17	11.18	10.44
18	12.04	11.25
19	12.89	12.07
20	13.75	12.91
21	14.62	13.75
22	15.50	14.60
23	16.38	15.46
24	17.27	16.31
25	18.15	17.16
26	19.05	18.02
27	19.95	18.89
28	20.85	19.75
29	21.75	20.62
30	22.65	21.49
31	23.55	22.36
32	24.46	23.25
33	25.37	24.13
34	26.27	25.01
35	27.18	25.90
36	28.09	26.79
37	29.0	27.69
38	29.92	28.58
39	30.84	29.48
40	31.76	30.38

RECOMMENDATION F.65

TIME-TO-ANSWER BY OPERATORS AT INTERNATIONAL TELEX POSITIONS

(formerly C.C.I.T. Recommendation H.11, 1954)

The C.C.I.T.T.,

considering

a) that a rapid answer to calling signals by the operators at incoming international telex positions is essential to ensure a rapid telex service;

b) that a rapid answer is a very important factor in the efficient utilization of international telex circuits;

c) that the time-to-answer has a direct effect on the costs of staffing and of switchboard provision,

unanimously declares the view

that administrations should endeavour to provide, at international telex terminal exchanges, a sufficient number of incoming operating positions, and of operators, to ensure that the average time taken by operators to answer calling signals does not exceed 10 seconds, and that 95% of calls are answered in 30 seconds or less.

RECOMMENDATION F.66

RATES FOR TELEX CALLS

(Geneva, 1956, amended at New Delhi, 1960, Geneva, 1964 and Mar del Plata, 1968)

The C.C.I.T.T.,

considering

a) the results of the enquiry made to determine the net cost of an international telex call in the " European System ";

b) the desirability of recommending uniform standards which countries might use in fixing the various component parts of telex charges (allowance being made for the switching system used),

unanimously declares the view

that administrations and recognized private operating agencies of the European system should fix their terminal and transit quotas independently of all relationship with the rates charged in the telephone service;

that, where this suggestion is adopted, administrations and recognized private operating agencies should, in determining their quotas in the telex service, as far as possible, take into consideration the information contained in the following table;

that transit administrations which wish to use a uniform method for calculating their quotas for direct transit and transit with repetition, may adopt a quota of 0.03 gold franc per 100 kilometres of crow-flight distance;

that administrations may add the charge they consider appropriate for the extension of the call on their national network; it is noted, however, on the basis of information received, that the amount to be added should not in general be more than 0.12 gold franc per one-minute unit.

Guidance on the establishment of rates for one-minute telex calls in the European system

Terminal traffic [1] (international section of the route)			Transit traffic [1]		
Operational method	Fixed circuit cost and switching cost for each international telex centre (gold fr.)	Circuit cost for 100 km crowflight distance [2] (gold fr.)	Operational method	Fixed cost (gold fr.)	Cost for 100 km crowflight distance [2] (gold fr.)
Manual service	0.280	0.020	Direct transit [3]		
Semi-automatic outgoing service	0.280	0.020	a) manual operation	—	0.020
			b) semi-automatic operation	—	0.020
			c) automatic operation	—	0.017
Semi-automatic incoming service	0.070	0.020	Transit with interconnected v.f. telegraph circuits [3]		
Fully automatic outgoing service	0.143	0.017	a) manual operation	0.070	0.020
			b) semi-automatic operation	0.057	0.020
Fully automatic incoming service	0.067	0.017	c) automatic operation	0.053	0.017
			Transit switching	to be determined according to switching costs, depending on system used.	

[1] The relevant cost studies were undertaken in the years 1960 and 1961.

[2] For the calculation of charges in respect of circuit distances, any fraction less than 50 km may be rounded up to a maximum of 50 km, and any fraction between 50 and 100 km may be rounded up to 100 km.

[3] Transit administrations which wish to use a uniform method for calculating their quotas for direct transit and transit with repetition may adopt a quota of 0.03 gold franc per 100 km of crow-flight distance.

RECOMMENDATION F.67

ACCOUNTING IN THE FULLY AUTOMATIC INTERNATIONAL TELEX SERVICE

(New Delhi, 1960, amended Mar del Plata, 1968)

With fully automatic international telex operation, the charge for calls will, in general, be automatically registered on subscribers' meters and administrations generally will no longer have tickets available for working out the distribution of charges on the basis of the chargeable duration of calls.

On the other hand, according to Recommendation U.1, in the case of fully automatic switching between subscribers, the call-connected signal should start the equipment for determining the charge for the call.

Some networks delay the start of metering in order to avoid charging ineffective calls when preceded by a " call-connected " signal.

For these reasons, the start of charging for calling subscribers may differ considerably from one network to another; it has been possible to note differences of 15 seconds between these starts for different networks.

The chargeable duration that is used in the establishment of international accounts is not necessarily the same as that used in the subscribers' accounts. The duration taken into consideration in the international accounts can be fixed precisely and independently of the characteristics of the network.

For these reasons, the C.C.I.T.T. *unanimously recommends that :*

1. The accounts for the fully automatic international telex service should be based on the chargeable duration of a call, calculated from a conventional start fixed at between 5 to 7 seconds after the *start* of the call-connected signal and the end of the chargeable duration fixed at between 0.3 and 1 second after the start of the clearing signal.

This conventional start is valid for calls charged on a minute-by-minute basis and for those charged by periodic pulse metering.

2. With the agreement of the transit administrations concerned, two administrations may, if they wish, apply one of the following three methods for the establishment of their international accounts:

a) by basing them on the chargeable durations recorded for subscribers, when the outgoing administration possesses equipment capable of showing these durations;

b) by basing them on the total (actual) duration of calls measured on international circuits in the outgoing international exchange by means of appropriate meters. When, in relations where signalling systems are used which make it impossible to assess the call durations without excessive complications, the administrations measure the total occupation time of the outgoing circuits; a correction factor should be applied to the traffic figures so as to assess, in total actual call duration, the traffic which is to serve as the basis for preparing the accounts. The corrections to be applied should be determined by agreement between the administrations concerned.

c) accounting may be dispensed with, or a lump-sum settlement applied, by agreement between the administrations concerned.

3. If a system of circuits is used both for gentex operation and for automatic telex operation, the method described under 1 b may be allowed only if the meters concerned are not operated in the case of gentex calls.

If a circuit is capable of fully automatic and semi-automatic use, and if, further, the method mentioned under 1 b is applied, the equipment in the international outgoing exchange should be capable of identifying semi-automatic calls so that the meters concerned are not operated in the case of semi-automatic calls.

4. Measurements of the call-duration shall be made according to the country of destination. When the country of destination comprises several charging areas, these measurements will ordinarily be made according to the charging area.

5. The measurement of call-durations made by the outgoing international exchange to a given country of destination need not necessarily distinguish between routes involving different transit countries, provided that the traffic is transmitted over direct circuits which constitute the normal route. If no distinction is made, then for international accounting purposes, the total volume of traffic sent via each route is assumed to be proportional to the number of circuits in service in the various routes.

6. To avoid the need for an analysis of routes actually taken by a call beyond a transit exchange when several routes involving different transit countries to the destination in question are possible from the transit exchange the distribution of transit traffic over these different routes shall be taken to be the same as the distribution of traffic originating at the transit exchange for the destination concerned. The distribution between the routes shall be assessed by the administration of the transit exchange and communicated to the administration of the outgoing country every six months.

7. Traffic representing test or service calls, expressed in minutes, should be deducted from the international accounts. If this deduction cannot be made directly (and this is especially the case with the method described under 1 b, the administrations concerned should decide between themselves, after taking sample metering if necessary, on the percentage of such traffic to be deducted from the traffic measured.

In international accounts, the traffic expressed in minutes relating to wrong numbers should not be deducted since the over-all duration of this type of call is very small in relation to the total traffic.

When free calls are allowed (for example during international telecommunication conferences), deductions may be made in the international accounts by the administration of the country on whose territory a conference is held.

8. The arrangements concerning the acceptance of international accounts, as defined in the Telex Regulations, shall apply to automatic traffic.

9. The degree of accuracy of the call-duration measuring apparatus should be $\pm$ 2% for a set of measurements covering an adequate number of calls which, in light traffic

relations, may lead to acceptance of the fact that 2% accuracy should be obtained on the over-all measurements for a year but not for each of the partial measurements made during that year (monthly measurements, for example, if the monthly interval is retained for the establishment of international accounts).

RECOMMENDATION F.68

ESTABLISHMENT OF THE AUTOMATIC INTERCONTINENTAL TELEX NETWORK

(Geneva, 1964, amended at Mar del Plata, 1968)

PREAMBLE. — DEFINITIONS CONNECTED WITH THE NUMBERING OF TELEX SUBSCRIBERS AND THE ROUTING OF TELEX AND GENTEX CALLS IN INTERCONTINENTAL SERVICE

These definitions are proposed to facilitate the reading of recommendations and surveys on the question of intercontinental telex and gentex traffic; they have been derived to a large extent from the definitions submitted by telephone experts for studying the analogous problem in intercontinental telephone operation and adapted to the special features of the telex and gentex services.

Preliminary note. — The word "continent" is not necessarily used in its geographical sense: traffic characteristics may cause countries of geographically different continents to be included in one continent (within the meaning of these definitions).

A. Circuits

A *national* circuit is one connecting two exchanges in the same country.

An *international* circuit is one connecting two exchanges in different countries, whether or not they are in different continents.

A *continental* circuit is one established between two exchanges in the same continent.

An *intercontinental* circuit is one connecting two exchanges situated in different countries in different continents.

An *intercontinental transit* circuit is an intercontinental circuit used primarily for routing intercontinental transit traffic.

B. Exchanges

A *national* exchange is the termination centre for national circuits only.

An *international* exchange is a centre where international circuits, and in general national circuits, terminate.

A *continental* exchange is an international centre where the international circuits terminating there are solely continental circuits.

Intercontinental transit exchange : An exchange of this type would be directly connected to intercontinental transit circuits and would provide facilities to interconnect intercontinental transit circuits and trunks to terminal exchanges. It would also provide facilities for the interconnection of intercontinental transit circuits.

Terminal international exchange : An international exchange of this type would not be connected directly to intercontinental transit circuits, but would gain access to the intercontinental transit network through one (or more) intercontinental transit exchanges.

C. Connections

International connection : any connection between two stations situated in different countries, whether established between different continents or one continent.

Continental connection : connection established between stations within the same continent.

Intercontinental connection : connection established between two different continents.

D. Numbering

Subscriber's national telex number : Set of figures to be dialled by a caller in the same country to obtain this subscriber.

In national telex networks, when abridged call numbers are used for local or short-distance traffic, the abridged number is called the *local number.*

Prefix giving access to the long-distance automatic telex network : In national telex networks, when abridged call numbers are used for local or short-distance traffic, an access prefix should be selected to give access to the higher level network (long-distance level).

Prefix giving access to the international automatic telex network : This expression is taken to mean the digit or digits which a subscriber must dial (if necessary after the prefix giving access to the automatic long-distance telex network) to obtain access to the automatic switched telegraph equipment for international telex traffic.

Prefix giving access to the intercontinental automatic telex network : This expression is taken to mean the digit or digits which a subscriber must dial (if necessary after the prefix giving access to the international telex network) to obtain access to automatic switched telegraph equipment for intercontinental transit telex traffic.

The country of origin is free to use only a common " access prefix to the international network " instead of two different prefixes for access to the international network and the intercontinental network.

Telex network identification code. Letter or group of two letters serving to identify the subscribers or stations of a country (or a network in a country).

Telex destination code : A group of digits characterizing, for routing purposes, the subscribers or stations of a country, or of a network in a country.

E. Routing

Normal route : A normal route between two given international exchanges comprises all these circuits used without distinction as first-choice circuits.

Alternative route : A route used when all the circuits over the normal route happen to be fully occupied.

Overflow [1] (or automatic diversion): In the case of a call which cannot find a free circuit on the normal route at an outgoing international or transit exchange, there is a provision of overflow so that the call can be automatically routed through an alternative route from the exchange where the congestion of the normal route was recognized.

Re-routing : For congestion occurring at an intermediate transit exchange, re-routing will serve so that a call can be re-made through an alternative route from the outgoing international exchange.

Emergency route : A route used in case of complete interruption or major breakdown of the normal and alternative routes.

RECOMMENDATION FOR THE ESTABLISHMENT OF THE AUTOMATIC INTERCONTINENTAL TELEX NETWORK

Intercontinental telex traffic is rapidly growing; in particular, the development of automatic subscriber dialling in intercontinental relations has been made possible by the provision of intercontinental coaxial cable systems. The time differences between terminal countries in such relations and the consequent differences in the hours of peak traffic loading may make it economical to employ tandem transit routing to a much greater extent than has been necessary in the European network. The development of a comprehensive plan for the economical employment of tandem routing depends, amongst other considerations, on agreement on numbering and routing plans.

A world-wide service includes countries which are served by several telex networks; a telex subscriber's call number in a world-wide service must contain all the digits to be transmitted by the caller in order to establish the connection, irrespective of the routing channel.

To facilitate automatic routing and charging for calls, the number of digits to be examined by the charging equipment must be limited.

For these reasons, the C.C.I.T.T. *unanimously declares the following view :*

General characteristics of the network :

1. It must be possible to establish the intercontinental network by means of:

— submarine or underground cable telegraph circuits,

— telegraph circuits on radio channels,

— and, in future, telegraph circuits via telecommunication satellites.

2. When cable circuits and radio circuits exist between two intercontinental transit exchanges, all such circuits must, for automatic selection purposes, be regarded as included in a single system.

3. In principle, the circuits will be operated in both directions.

[1] The term " overflow " also designates an operation different from automatic diversion (see definition 35.10 in the *List of Definitions*).

4. The traffic to be routed over these circuits may be either telex or gentex traffic; it nay be either transit or terminal traffic.

5. a) Countries (or networks) should be connected by direct circuits where this can be ustified taking into account the relative economics of transit switching and both-way vorking where the time difference between the terminal centres makes this a significant actor.

b) Where it is not practicable to provide direct circuits, the number of transit exchanges nvolved in a normally routed call should be reduced in so far as possible.

c) Where the same group of circuits carries traffic originated by subscribers in the coun- ry providing facilities and transit traffic originated by another country, the administra- ion providing the transit exchange shall ensure that the transit calls receive a grade of ervice not inferior to that given to their own subscribers.

. Identification of telex subscribers

a) For international purposes, a subscriber's national number should be accompanied y one or two letters, called the *telex network identification code*, characterizing:

— either the subscriber's country, if in that country there is only one telex network, or

— the telex network to which the subscriber belongs in a country where there are several networks operated by different agencies.

An identification code is especially valuable for countries possessing several telex net- vorks operated by different companies and when national numbers do not clearly distin- guish between such networks. In such circumstances, it is recommended that the identifica- ion code should be clearly published in national directories. Furthermore, administrations nd private agencies shall ask subscribers to give every possible publicity to their telex dentification letters (by including them in the letter-heads of their correspondence for example).

b) In case the answer-back codes of telex apparatus used in the intercontinental ervices comprise one or two characteristic letters of the name of the country, these letters nust be the same as the telex network identification code of the country concerned.

c) For administrations using two-character telex network identification codes these odes should be the same as the identification codes of their country (or network) for the nessage retransmission system [1].

d) The list of identification codes will be issued by the C.C.I.T.T.

Note. — If in any country the telex and gentex networks are separate, two identification codes might e necessary, one for telex and the other for gentex.

. Routing

a) On international circuits digits only will be transmitted for selection control.

b) For each country, or for each network in countries possessing several telex net- works, a group of two or three digits—*the telex destination code*—will uniformly

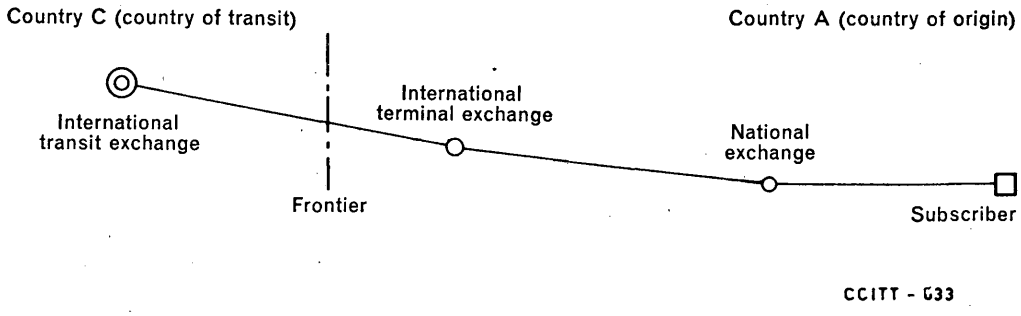
[1] See Recommendations F.31 and F.96.

characterize each country or network for the purposes of selection in intercontinental transit circuits. (See Recommendation F.69 for list of telex destination codes.)

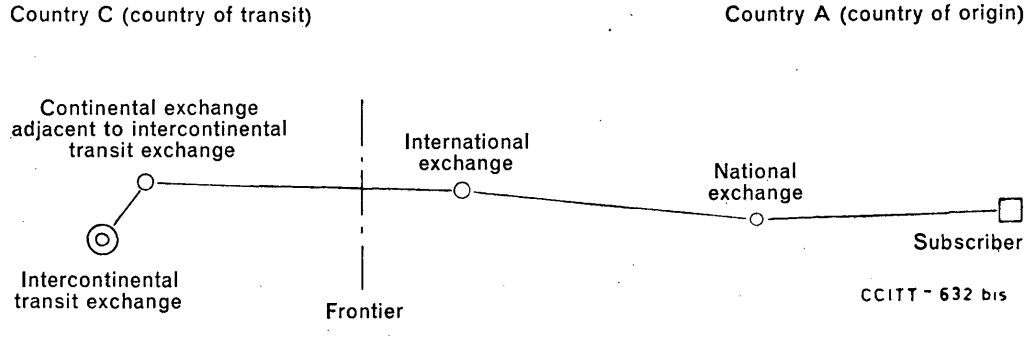
c) The access prefix to be dialled in an outgoing country by a subscriber wanting to put through a call to another country via the intercontinental transit network shall be decided on by the administration responsible for the calling subscriber. This is a matter for internal regulation.

d) There are two possibilities in relations between the international exchange of the outgoing country and an intercontinental exchange:

d.1) There are direct trunk circuits between the international exchange in the outgoing country and the intercontinental exchange. On these circuits, it should suffice to transmit the destination code of the country required, followed by the national number of the subscriber required.



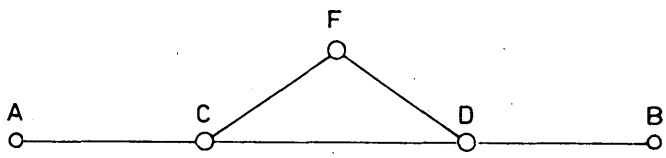
d.2) There are no such direct trunk circuits. There are then direct circuits between the international exchange in the outgoing country and the international continental exchange in the transit country, adjacent to the intercontinental exchange. Hence this adjacent exchange will have to be traversed to reach the intercontinental network.



Code 00 should be used as the standard access prefix for traversing a continental exchange; a country which might experience difficulty in accepting this 00 code may choose another code for traversing its continental exchange, subject to a bilateral agreement with the other administration concerned.

8. *Overflow*

Provision must be made for the possibility of using overflow; the putting into operation of overflow is a question of the network situation, as it will often be preferable to create new telegraph circuits on a congested route rather than to bring overflow into service. Be it noted that the overflow method should be considered only if the peak hours at CD are different from those at CF and FD; otherwise, it is to be feared that change-over switching equipment F will become saturated.



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9. *Automatic re-routing*

The complications resulting from automatic re-routing would be out of all proportion to the benefits to be expected therefrom.

10. *Charging*

Charging should be done at the outgoing network. It should be independent of route.

The responsibility of an intercontinental transit exchange should be limited to providing connection between the calling exchange or subscriber and the required exchange or number. Any requirements for timing, booking calls, repeated attempts, etc., should, in principle, be the responsibility of the originating exchange.

Since charging, applied by the outgoing network, has to be independent of the routing, this means that the charging system used for some radio circuits (i.e. charging based on the number of characters actually transmitted) might not be applicable and that charging of telex calls would have to be based on call duration, regardless of whether they are set up over radiotelegraph or cable circuits (see Recommendation U.23).

11. *Quality of service*

The following standards are suggested:

a) *Direct intercontinental circuits—cable*

   i) one lost call in 20 for manual or semi-automatic service with 30 seconds operator search.

   ii) one lost call in 30 for fully automatic service.

b) *Circuits between transit exchanges on transit routes, i.e. where the transit traffic amounts to at least 20 % of the traffic on the route*

   i) Continental routes—one lost call in 50.

ii) Intercontinental cable routes—one lost call in 30 for manual or semi-automatic service with 30 seconds operator search.

iii) Intercontinental routes, fully automatic—one lost call in 50.

12. *Use of radiotelegraph circuits with ARQ equipment*

Fully automatic operation on a radiotelegraph circuit incorporating ARQ equipment can be considered only if this circuit possesses adequate stability.

Before incorporating a circuit with ARQ equipment in the fully automatic switching network, the administrations (or the R.P.O.A.s) must carry out extended trials.

These trials should be made under normal traffic conditions, over a minimum period of three consecutive hours chosen from the busy period (or periods), when heavy traffic is foreseen to occur on the route under consideration (allowing for the traffic, whether terminal or transit, which prevails on the route according to the season).

The condition which must be fulfilled before a circuit can be accepted for use in fully automatic network is that its mean efficiency factor, measured over periods of 20 consecutive seconds each, shall not fall below 80% for more than 10% of the total time involved in the measurements.

The measurements must be repeated as often as will be necessary for the administration to have an assessment of the suitability of the circuit.

The attention of the administrations is drawn to the fact that, before offering fully automatic transit working on a radio route incorporating ARQ equipment, the grade of service on the route under consideration must be in accordance with that proposed in Recommendation F.68, point 11. b, i.e. only one call lost in 50.

If these conditions are not complied with, it would be better to retain semi-automatic operation.

RECOMMENDATION F.69

PLAN FOR TELEX DESTINATION CODES

(Geneva, 1964)

Recommendation F.68 (paragraph 7.b) recommends that, for each country (or for each telex network in countries with several telex networks) a group of digits—called a telex destination code—should be used to identify each country (or network) in a uniform manner for controlling the selection of intercontinental transit circuits.

The C.C.I.T.T. therefore has to set up a world-wide list of telex destination codes; for this purpose it has been necessary to decide whether such codes should comprise always three digits or whether they should be made up of one, two or three digits.

The advantages of uniform three-digit codes are:

1) By allocating the same size code to all countries difficulties would not arise as to the relative importance of the various countries with regard to the telex service.

2) Uniform codes afford some simplification of the design of register—particularly transit registers.

3) For the European system a uniform three-digit system could be readily compiled by adding a uniform digit to the range of two-digit codes already in use by a number of European administrations.

The advantages of a mixed one, two, three, digit arrangement are:

1) The use of shorter length codes reduces the risk of errors by calling subscribers.

2) The storage capacity of registers can be kept to a minimum by allocating shorter codes to systems having long subscribers' numbers.

3) The holding time of circuits could be kept to a minimum.

4) The maximum number of digits to be examined for routing and other purposes could be kept to a minimum by allocating shorter codes to systems in which the first two digits of the subscriber's number have to be examined in accordance with Recommendation U.7. Similarly, where a country has more than one intercontinental exchange the allocation of a shorter code would enable the routing of traffic to be controlled by the examination of a minimum number of digits.

Mixed two-digit and three-digit destination codes have most advantages.

For these reasons, the C.C.I.T.T. *unanimously declares the following view:*

1. that telex destination codes shall comprise two or three digits.

Note. — In examining the North American position, it was not possible to allocate a single-digit code which would have satisfied access to both the telex (RCA, ACR, WUI and WU domestic) networks and the TWX network in the United States. Therefore it was decided to allocate the first digit 2 to a series of two-digit and three-digit codes serving the whole of the American area north of Panama.

2. With regard to the allocation of the first digit:

0 — not to be used as first digit

1 — reserved for possible use for special services

2 — North America and adjacent areas

3 — South America and adjacent areas

4, 5, 6 — Europe, U.S.S.R. and adjacent areas

7 — Pacific and adjacent areas

8 — Middle East, Far East and adjacent areas

9 — Africa, Near East and adjacent areas.

Notes. — a) In the proposed allocation, first digit 1 is reserved for possible use for special services, e.g., for generating a series of codes for routing calls to destinations over circuits permitting the use of telegraph signals other than conventional telex.

b) The geographical boundaries of the continents have not been rigidly followed to permit maximum flexibility within the code system.

3. A second digit in the range 1 to 6 indicates a two-digit code, while a second digit of 7, 8, 9 or 0 indicates either a two- *or* a three-digit code. (This arrangement allows a high

degree of flexibility in code allocation, together with the shortest discrimination time for determining whether a two- or a three-digit code is involved, on most calls.)

4. The number of two-digit codes available is rather restricted. It is undesirable to allocate these to serve individual networks, in particular countries where several networks exist but do not have a co-ordinated internal numbering scheme.

5. It is not advisable to allocate all possible two-digit codes, so as to maintain some flexibility to allow future development in world telex traffic to be taken into account.

6. The list of telex distinction codes, as established by the World-wide Plan Committee, (Mexico, 1967) is annexed to this recommendation.

7. a) The Member and Associate Member countries of the Union not mentioned in this list who wish to take part in the intercontinental automatic telex service should ask the Director of the C.C.I.T.T. for the assignment of an *available* three-digit destination code; in their request they may indicate the available three-digit code preferred.

The attention of these countries is drawn to the fact that, apart from the codes already assigned, only three-digit codes in which the second digit is 0, 7, 8 or 9 can be assigned to them.

b) If the requests submitted by Member and Associate Member countries of the Union involve a change in the telex destination codes already assigned to them, or if requests for two-digit codes are made, or if the Director of the C.C.I.T.T. finds difficulty in satisfying a request submitted in accordance with 7 a, these requests will be referred to the Plan Committee.

c) Additions and changes which are accepted will be published in a notification of the I.T.U. General Secretariat.

ANNEX

(to Recommendation F.69)

First list of telex destination codes

(Mexico City, 1967)

(See, *in fine*, the explanation of the notes and abbreviations)

200 Cuba
201 Dominican Rep. (R.C.A. network)
202 idem (A.A.C.R. network)
203 Haiti (Republic of)
204 Available
205 Puerto Rico (R.C.A.C. network)
206 idem (A.A.C.R. network)
207 idem (C. and W. network)
208 Available
and 209
21 Canada (except TWX network)
22 Mexico
23 United States of America (except TWX network)
24 Available
25 United States of America (TWX network)
26 Canada (TWX network)
270 St. Pierre and Miquelon
271 Guatemala
272 Honduras (Republic of)
273 Nicaragua

274 El Salvador (Republic of)
275 British Honduras
276 Costa Rica
277 Available
278 Panama (TROPICAL network)
279 idem (A.A.C.R. network)
28*
290 Bermuda
291 Jamaica
292 British Virgin Islands
293 Cayman Islands
294 Trinidad and Tobago
295 Guyana
296 to
299 Available
300 to
303 Available
304 Surinam (Netherlands)
305 Paraguay
306 Available
307 Bolivia (W.C.A. network)
308 Ecuador (PTT network)
309 Ecuador (A.A.C.R. network)
31 Venezuela (Republic of)
32 Uruguay (Oriental Republic of)
33 Argentine (Republic)
34 Chile
35 Colombia (Republic of)
36 Peru
37*
38 Brazil
390 Netherlands Antilles (Netherlands)
391 Available
392 Barbados
393 Antigua
394 Dominica
395 Grenada
396 Montserrat
397 St. Kitts
398 St. Lucia
399 St. Vincent
400 Canary Islands (Spain)
401 Available
402 Luxembourg
403 Spain
404 Portugal
405 Gibraltar
406 Malta
407 Morocco (Kingdom of)
408 Algeria (Alg. Dem. and Pop. Rep.)
409 Tunisia
41 Federal Republic of Germany
42 France
43 Italy
44 Netherlands (Kingdom of the)
45 Switzerland (Confederation of)
46 Belgium
47 Austria
48*
490 [1]
491 Iraq (Republic of)
492 Syrian Arab Republic
493 Jordan (Hashemite Kingdom of)
494 Lebanon
495 Saudi Arabia (Kingdom of)
496 Kuwait (State of)
497 [2]
498 [3]
499 [3]
500 Ireland
501 Iceland
502 Faroe Islands (Denmark)
503 Available
504 Vatican City State
505 to
509 Available
51 United Kingdom of Great Britain and Northern Ireland
52 Available
53 Available
54 Sweden
55 Denmark
56 Norway
57 Finland
58*
59*
600 Available
601 Greece
602 Available
603 Bulgaria (People's Republic of)
604 Albania (People's Republic of)
605 Cyprus (Republic of)
606 Israel (State of)
607 Turkey

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* May be allotted to a 2-digit code or broken down into ten 3-digit codes.

[1] It is pointed out that the use of the code 490 has been the subject of bilateral agreements published in I.T.U. notification 984 of 10 July 1966 (see also notifications 992 and 1004).

[2] See I.T.U. notification 1004 of 10 March 1968.

[3] See I.T.U. notification 992 of 10 March 1967.

608 Available
and 609
61 Hungarian People's Republic
62 Yugoslavia (Fed. Soc. Rep. of)
63 Poland (People's Republic of)
64 Union of Soviet Socialist Republics
65 Roumania (Soc. Republic of)
66 Czechoslovak Socialist Republic
67*
68*
69 [4]
700 Available
701 Fiji Islands
702 French Polynesia
703 New Guinea and Papua (Australia)
704 Hawai (United States of America) (R.C.A. network)
705 idem (A.C.R. network)
706 New Caledonia
707 Wallis and Futuna
708 Available
and 709
71 Australia (Commonwealth of)
72 Japan
73 Indonesia (Republic of)
74 New Zealand
75 Philippines (Republic of the)
76 Available
77*
78*
79*
800 Mongolian People's Republic
801 Korea (Republic of)
802 Hong-Kong
803 Ceylon
804 Available
805 Viet-Nam (Republic of)
806 Southern Yemen
807 Available
808 Macao
809 Available
81 India (Republic of)
82 Pakistan
83 Burma (Union of)
84 Malaysia
85 China
86 Thailand
87 Singapore (Republic of)
88 Iran
89*
900 Somali Republic
901 Libya (Kingdom of)
902 Zambia (Republic of)
903 Burundi (Republic of)
904 Malawi
905 Nigeria (Fed. Republic of)
906 Senegal (Republic of the)
907 Rhodesia
908 Territory of South-West Africa
909 Rwanda (Republic of)
91 United Arab Republic
92 Available
93 Available
94 Ghana
95 South Africa (Republic of)
960 Available
961 Reunion (France)
962 Botswana
963 Lesotho
964 Swaziland
965 to
969 Available
970 Cameroon (Fed. Republic of)
971 Central African Republic
972 Dahomey (Republic of)
973 Gabon Republic
974 Mauritania (Islamic Republic of)
975 Niger (Republic of the)
976 Chad (Republic of)
977 Togolese Republic
978 Upper Volta (Republic of)
979 French Territory of the Afars and Issas
980 Ethiopia
981 Congo (Rep. of the) (Brazzaville)
982 Congo (Dem. Republic of the)
983 Ivory Coast (Republic of the)
984 Sudan (Republic of the)
985 Mali (Republic of)
986 Malagasy Republic
987 Kenya
988 Uganda
989 Tanzania (United Rep. of) (mainland)
990 Zanzibar (Tanzania)
991 Angola

[4] It is pointed out that the use of code 69 has been the subject of bilateral agreements published in I.T.U. notifications 980 of 10 March 1966 and 1011 of 10 October 1968.

992	Mozambique	996	Gambia
993	Cape Verde Islands	997	Liberia (Republic of)
994	Comoro Islands	998	Sierra Leone
995	Guinea (Republic of)	999	Equatorial Guinea

NOTES

A.A.C.R. = All America Cables and Radio, Inc.
C. and W. = Cable and Wireless, Ltd.
R.C.A. = Radio Corporation of America.
R.C.A.C. = Radio Corporation of America Communications, Inc.
W.C.A. = West Coast of America Telegraph Co. Ltd.

APPENDIX

Ref. *Notifications 980 and 1011*

In its relations with the German Democratic Republic, the Administrations of the People's Republic of Bulgaria, of the Hungarian People's Republic, of the People's Republic of Poland, of the Socialist Republic of Roumania, of the Czechoslovak Socialist Republic and the Union of Soviet Socialist Republics will use the following code for telex traffic:

	Telex
German Democratic Republic	69

Ref. *Notifications 984, 992, 995, 1004*

In its relations with Bahrain, Qatar, the Sultanate of Muscat and Oman, and the Trucial States, the Administration of the United Kingdom of Great Britain and Northern Ireland will use the following codes for telex traffic:

	Telex
Bahrain	490
Qatar	497
Sultanate of Muscat and Oman	498
Trucial States	499

RECOMMENDATION F.70

OBSERVATIONS ON THE GRADE OF SERVICE IN THE INTERNATIONAL TELEX SERVICE

(Mar del Plata, 1968)

1. Administrations (or private operating agencies) are recommended to draw up a programme for telex observations designed to evaluate the quality of the service given to subscribers in their automatic and semi-automatic international services.

2. It would be desirable for administrations (or R.P.O.A.s) to exchange statistics on the quality of service directly, and as soon as possible after they have been made in accordance with Table 1.

TABLE 1

International telex service observations

Administration (or R.P.O.A.) .....
Traffic outgoing from ..... to .....
Period of observation from ..... 19.. to ..... 19..
Period of day observations made from ..... G.M.T. to ..... G.M.T.
Route busy hours (outgoing) ..... G.M.T. .....
Total number of calls observed .....
Mode of operation used .....

			(a)	(b)
EFFECTIVE CALLS	Percentage	1		
	Average setting up time (s)	2		
	* Average chargeable time (min and s)	3		
INEFFECTIVE CALLS	Percentage	4		
	Average setting up time (s)	5		
ANALYSIS OF INEFFECTIVE CALLS OR CALL ATTEMPTS (PERCENTAGE OF TOTAL CALLS)	Cut-offs during selection of calls	6		
	Cut-off during call progress	7		
	DER	8		
	Lack of out-going international circuits	9		
	NC in distant network	10		
	OCC	11		
	NP	12		
	ABS	13		
	Mutilations	14		
	Wrong number obtained	15		
	NCH	16		
	NA	17		
		18		
		19		

(a) Information down the table relates to outgoing traffic to one administration (or R.P.O.A.).

(b) Information is the average of outgoing traffic to all administrations using similar auto or semi-auto services.

* Inclusion of column 3 is provisional; decision will be taken by subsequent study.

3. Observations should be made of outgoing traffic at a point decided upon by the responsible administration (or R.P.O.A.). The number of observations in each relation should be sufficiently numerous to be representative of the traffic concerned, i.e. at least two hundred observations, if practicable.

4. The observing administration (or R.P.O.A.) should decide how frequently observations will be forwarded, but statistics should be exchanged at least once a year.

5. When forwarding the results of observations, administrations (or R.P.O.A.s) should also include the average results of observations made on all outgoing traffic routed over similar automatic or semi-automatic international services.

How to complete Table 1

1. Administrations (or R.P.O.A.s) who are unable to provide all the detailed information corresponding to row 3 and to rows 6 to 17 may omit or group information. Where information is grouped the row headings should be amended to show which terms are included, e.g. it may be necessary to group rows 11 and 12 and to use a new heading to read OCC/NP (rows 11 and 12.)

2. On the other hand, administrations (or R.P.O.A.s) who are able to provide additional useful information not listed in rows 6 to 17 may utilize 18 and 19 for this purpose.

3. When it is not possible to provide information in a particular row of Table 1, the row should be left blank, but if observations are made and no results are obtained the figure zero (0) should be inserted.

4. When observations recorded in a particular row do not relate to the row heading exclusively, but also contain other reasons for ineffective calls, the fact should be explained in a footnote, e.g. OCC may indicate not only " subscriber is engaged " but other service information resulting from service signal conversions at a transit exchange.

5. The following explanations are given for particular rows:

Rows 1 to 3: Effective calls are those calls on which a charge is made or were successfully completed to service positions.

Rows 4 to 5: Ineffective calls include all calls or call attempts which did not result in an effective call.

Rows 2 and 5: The setting up time is defined as the period of time from the initiation of the call on the international circuit until the initiation of the return of either the call connected signal or a service signal indicating that the call has been unsuccessful.

Row 3: The chargeable duration is the time on which the charge for the call is calculated. This may be either the charge to the subscriber or the charge in the international accounts, whichever is more convenient.

SECTION 6

OPERATING METHODS FOR FACSIMILE AND PHOTOTELEGRAPH SERVICE

RECOMMENDATION F.80

PROVISIONS ABOUT PHOTOTELEGRAMS

(Geneva, 1958, amended at New Delhi, 1960 and at Mar del Plata, 1968)

The C.C.I.T.T., *having regard* to Chapter XXV of the Telegraph Regulations,

(unanimously) declares the view

that the following rules be adopted for the phototelegraph service.

A. FIELD OF APPLICATION

1. These rules apply to phototelegrams in the European system (exchanged between public stations or between public stations and private stations) and in the extra-European system (exchanged between public stations).

2. The rules governing the method of communication between phototelegraph stations are embodied in Recommendations F.82 and F.84.

B. GENERAL

1. Private stations may be authorized by the administrations concerned to exchange phototelegrams with public stations.

2. In the European system, private stations may communicate direct with public stations providing that the characteristics of their equipment conform with the C.C.I.T.T. Recommendations.

However, in connections where radio circuits are used for phototelegraph transmission, the private station may hand in a phototelegraph only at a public station of its own country.

3. In the extra-European system phototelegraph transmissions through public stations only shall be admitted.

4. Administrations which do not operate a phototelegraph service can accept phototelegrams handed in at their telegraph offices for despatch by post to the phototelegraph office of another country.

5. Phototelegrams to countries not connected to the phototelegraph system shall be allowed. In this case the sender should indicate the public station to which the phototelegram should be sent. The receiving phototelegraph station shall reforward such phototelegrams by prepaid letter direct to the addressee, by the fastest postal route.

6. Administrations and recognized private operating agencies shall agree upon the working hours of their phototelegraph offices. The hours during which private offices are open shall be fixed by the private organization concerned.

C. Conditions of acceptance

1. In order to ensure satisfactory transmission of a phototelegram it is recommended that senders should be advised to avoid the use of the colours blue, lilac, green or yellow, or gilt print, or prints on yellow, red or grey paper, which lack the qualities necessary for good transmission, and to avoid handing in phototelegrams with very weak contrasts or inadequate definition.

2. If, after the sender has been informed that the general quality of the original phototelegram is not suitable for satisfactory transmission, he insists on handing it in, the phototelegram shall only be accepted at the risk of the sender. In this case the service instruction " risques expéditeur " shall be included in the preamble.

3. Phototelegrams must be rectangular in shape. Each administration shall decide what is the maximum format capable of being sent in a single transmission by all the machines used by that administration. However, in relations where apparatus is used permitting the single transmission of greater areas, administrations may authorize larger sizes.

4. Phototelegrams of larger dimensions than those admitted in the relation concerned must be divided into parts by the sender. The order of transmission of the parts must be indicated.

In phototelegraph transmission a strip of the edges of the phototelegram may be lost on two opposite sides of the document to be transmitted. For this reason care should be taken when dividing a phototelegram to see that there is no loss at the separation line. If there is any doubt, the sender may be advised to authorize the division of the phototelegram by the phototelegraph station.

5. It may happen that the format of phototelegrams is enlarged or diminished during a phototelegraph transmission, owing to the different characteristics of the sending and receiving apparatus. If this is so, however, the phototelegram will be reproduced with the same proportions as the original.

D. Arrangement of the parts of a phototelegram

1. Every phototelegram must bear an address. Signature shall be optional. Both address and signature may be written on a telegram form in which case they shall be transmitted free of charge. If written on the phototelegram, they shall form part of the area of the phototelegram to be transmitted.

2. The indications of special services shall be written in the abbreviated form as shown in section I (rest with the same wording as in F.80, D.6).

3. Every phototelegram shall include a preamble. The relevant instructions shall be the same as those for the preamble of a telegram. But the number of words shall be replaced by a statement of the charging step.

E. Handing in a phototelegram

1. A phototelegram may be handed in:

— at the counter of an authorized telegraph office;

— directly at a public station (handing in by messenger).

A phototelegram from a private station which is received by a public station for delivery to the addressee or for retransmission shall be considered as having been handed in at the public station (handing in by phototelegraphy).

2. Depending on the method used, the time of handing in shall be:

— the time of acceptance at the counter of a telegraph office,

— the time of acceptance by the public station (in the case of direct handing in),

— the time of arrival at the public station (service from a private station to a public station).

F. Transmission of phototelegrams

1. Phototelegrams of the same rank shall be transmitted by the outgoing station in the order in which they are handed in, and by the intermediate stations in the order of reception.

2. A phototelegram to a private station shall, after closure of its office or if its equipment is out of order, be routed to another station of the incoming country only by agreement with the sender.

3. A transmission that is unsuccessful because of adverse transmission conditions should be repeated as soon as circumstances permit.

4. But if the sender could be informed of unsatisfactory transmission conditions and if he insists upon attempt at transmission being made, the phototelegram shall be accepted only at the risk of the sender.

In this case the service instruction " risques expéditeur " shall be included in the preamble. If the copy received at the receiving phototelegraph station is not satisfactory after a maximum of three attempted transmissions, no further re-runs should, in principle, be attempted. The sender should be notified of the circumstances.

5. Except in the case specified in B.5 the sender may not request that a phototelegram should follow a prescribed route.

G. Delivery of phototelegram

1. Phototelegrams received by a public station shall be delivered unless they are to be retransmitted. A phototelegram may be delivered to an addressee in the locality where the public receiving station is located:

— by messenger;
— through personal collection by the addressee.

2. A phototelegram transmitted from a public station to a private station shall be considered as delivered to the addressee (delivery by phototelegraphy).

3. Phototelegrams addressed to localities that are not connected to the phototelegraph network shall be delivered by post. They shall be considered as postal correspondence from the time they are handed over to the postal service.

4. For special reasons, a phototelegram may be kept on hand at a public station—at the sender's request—until a private station re-calls it (collection by phototelegraphy).

A public station having phototelegrams on hand intended for a private station shall not act on a request for transmission made by the private station until it has satisfied itself of the identity of the latter.

5. Depending on the method applied, the time of delivery of a phototelegram shall be:

— the time of delivery to the addressee;
— the time when the addressee, having been informed of the received phototelegram, expresses the intention of sending a private messenger;
— the time when the transmission is terminated, in service from a public station to a private station;
— the time of handing over to the postal service in the case of delivery by post.

H. Charging

The rates for phototelegrams, in the European system, exchanged between public stations, and between public stations and private stations and the charges for special services are governed by section A of Recommendation F.83.

The rates for phototelegrams in the extra-European system are governed by section B of Recommendation F.83.

I. Special services

a) *In the European system*

1. The following special services are admitted for phototelegrams exchanged between public stations:

urgent	URGENT
prepaid reply x	RPx
despatch to the sender of a print from the received film	KP

However, the special services URGENT and KP are optional.

The prepaid reply voucher RPx may be used either to send another phototelegram or to send any other telegram.

2. The special service URGENT is also admitted in the case of phototelegrams transmitted from private stations to public stations, in connections where this service exists for telephone traffic.

A lightning call ECLAIR may be requested by a private station for transmission to a public station, subject to the conditions laid down for the telephone service. However, the public station shall treat the received phototelegram as an urgent phototelegram.

3. The following special services are admitted for phototelegrams exchanged between stations and for phototelegrams transmitted by private stations to public stations:

Telegraphic notification of delivery	PC	Registered poste restante	GPR
x addresses	TMx	Telegraph restante	TR
Communicate all addresses	CTA	Day delivery	JOUR
Express paid	XP	Night delivery	NUIT
Despatch to destination by express post	POSTXP	x copies in addition to the first, to be delivered to the addressee	Kx
Registered post	PR	Delivery to the addressee of the negative film instead of the positive print	FILM
Poste restante	GP		

However, the special services TMx, CTA, XP, Kx and FILM are optional. The special service NUIT is admitted only if the office responsible for delivery is permanently open.

b) *In the extra-European system*

4. Except where administrations or recognized private operating agencies introduce restrictions, the relevant special services for phototelegrams in the extra-European systems shall be the same as for phototelegrams in the European system.

J. Refunds and rebates

a) *Between public stations*

1. A phototelegram may be cancelled only by notification to the office of origin by the sender or his authorized representative.

2. In the case of a phototelegram cancelled before transmission has begun, the charge paid shall be refunded, but the administration or recognized private operating agency concerned may retain a cancellation charge.

The latter shall be equal to one-third of the phototelegram first step charge in the service in question, when the call has been partly or completely set up.

3. If cancellation is requested after transmission has begun or is over, no charges shall be refunded.

4. In principle the provisions of paragraphs 2 and 3 above shall apply also to phototelegrams payable by the addressee or by a third party.

5. The charges collected shall be refunded to the sender if the phototelegram does not reach its destination, except if it has been sent by post.

6. If the addressee lives in the locality of the incoming station, the charges shall also be refunded if the period between handing in and the time when the phototelegram is delivered to the addressee exceeds 8 hours in the European system, or 20 hours in the extra-European system.

When a phototelegram is sent by post to the outgoing public station, the time required for the postal delivery shall not be counted against the phototelegraph service. In this case the time of arrival at the public station should be taken into consideration when calculating any delay.

If the addressee does not live in the locality of the incoming station the periods specified above which justify a refund shall be reckoned from the time of handing in to the time of delivery to the postal service.

There shall be no refund of a charge that has been collected if the phototelegram includes in its preamble the service instruction " risques expéditeur ".

b) *From a public to a private station*

7. The points covered in 1 to 4 above are also applicable when the phototelegram is cancelled or when it is refused by the addressee.

8. Charges may not in general be refunded or waived, unless transmission has failed to take place or has been faulty, owing to circuit interruption or to faults in the apparatus of the public station. Refund of charges shall be left to the discretion of the administration to which the public station belongs.

c) *From a private station to a public station*

9. The provisions for the cancellation of telephone calls also apply to the cancellation of phototelegraph calls.

10. If the cancellation of a phototelegram is requested after transmission has begun or is over, no refund shall be made. On the contrary, the administration of the outgoing country shall collect the surcharge required for the intervention of the public station.

If the private station desires, the received phototelegram will be sent to this station by post.

11. If, in the case of retransmission by a public station, cancellation is requested before the next circuit has been provided but after the phototelegram has been received by the public station responsible for the proposed retransmission, the sender shall pay at least the charge normally applicable to terminal phototelegraph traffic on the route followed.

12. The provisions of 5 and 6 above shall apply as regards the waiving of charges when phototelegrams are not delivered or are delivered too late.

K. ACCOUNTS

a) *Between public stations*

1. Accounting methods for charges levied for traffic between public stations shall be the same as for telegraph charges. These accounts shall constitute a special section in the telegraph accounts.

2. The accessory charges for the special services indicated in section I shall be excluded from the accounts, with the exception of those relating to prepaid reply RPx, express paid XP, despatch to destination by express post POSTXP, multiple phototelegram TMx, despatch to the sender of a print from the film received KP and to extra copies for delivery to the addressee Kx.

b) *From a public station to a private station*

3. Accounting methods for charges levied for these phototelegrams shall be the same as for telegraph charges; when the accounts are established by the country of destination, the public station shall inform the international phototelegraph position in its country of the particular scale of charges pertaining to each phototelegram. The latter station, when booking the call, shall pass this information on to the IPP in the country of destination for accounting purposes.

This accounting shall constitute a special section in the telegraph accounts. The special surcharge for use of the public station is retained by the administration governing the public station.

c) *From a private station to a public station*

4. Accounting methods for charges in connection with the use of telephone circuits are governed by Recommendation F.80 *bis*.

The special surcharge applying to the use of a public station is retained by the administration operating the public station.

5. The supplementary charges for special services are not included in the international accounts. They are retained by the administration operating the public station.

RECOMMENDATION F.80 *bis*

PROVISIONS RELATING TO PRIVATE PHOTOTELEGRAPH CALLS

(Mar del Plata, 1968)

The C.C.I.T.T.,

considering

1. that private phototelegraph stations require to communicate with one another;

2. that in accordance with the provisions in Recommendation F.80 private stations also have the possibility of handing-in of phototelegrams to public phototelegraph stations;

3. that suitable connections should be made available to private stations,

(unanimously) declares the view

that the following provisions should be observed for international phototelegraph calls:

A. FIELD OF APPLICATION

1. These provisions apply to calls between private stations or between (outgoing) private stations and (incoming) public stations.

2. The rules governing phototelegrams exchanged between private stations and public stations are embodied in Recommendation F.80.

B. GENERAL

1. Private phototelegraph stations may be authorized by the administrations concerned to communicate with one another and to exchange phototelegrams with public stations.

2. Administrations and/or recognized private operating agencies undertake to set up connections for such transmissions or to make suitable leased circuits available to private stations at their request.

C. CONDITIONS OF ACCEPTANCE

1. In the European system, private stations may communicate with all (public, private) phototelegraph stations connected to the international phototelegraph network.

2. When phototelegraph links are established on radio circuits in the extra-European system and in the European system, direct calls between or with private stations are not allowed.

3. Calls between private stations set up on the international phototelegraph network are allowed without any time limit. However, when telephone traffic is subjected to restrictions, the exchange of phototelegraph calls between private stations may be delayed or limited by agreement between the terminal centres concerned.

4. Connections with a public station may be made available to a private station only during the business hours of the public phototelegraph office. However, the public station may not close until it has accepted all the phototelegrams which the private station has announced it wishes to hand in.

5. The conditions under which booked phototelegraph calls are made available are specified in Recommendation F.82.

D. CHARGING

Charges for phototelegraph calls between private stations or between an (outgoing) private station and an (incoming) public station, the charges for the special services and the shares accruing to administrations are governed by section A of Recommendation F.83.

E. Special services

The special urgent service and the lightning service shall be allowed in relations where such services exist for telephone traffic.

F. Rebates

1. The provisions relating to withdrawal of a booking or refusal of telephone calls are also applicable to phototelegraph calls between private stations or between (outgoing) private stations and (incoming) public stations.

a) *Calls between private stations*

2. No charge is collected when, on account of faulty circuits, the transmission has not taken place or has not been concluded provided that the operator who accepted the request for the phototelegraph call has been informed of the situation.

3. To obtain rebates when it is seen that, after interruption of the call, the transmission was faulty, the phototelegraph station having paid the charge for the queried call should apply to its administration, accompanying its request for a rebate with the original of the picture and the faulty proof received at the other end.

b) *Calls from a private station to a public station*

4. Charges shall not in general be waived unless transmission has failed to take place or has been defective owing to circuit interruption or to faults in the apparatus at the public station. Rebates shall be left to the discretion of the administration to which the public station belongs.

G. Accounting

1. The accounts of charges for phototelegraph calls between private stations or between a (outgoing) private station and a (incoming) public station are established in the same way as the accounts for telephone charges; they shall be shown in a special section of the telephone accounts.

2. If the administration agrees to grant a rebate after a call has been cleared the charge for the phototelegraph call shall be refunded and the note " charge not collected owing to faulty transmission " entered in the international accounts established by this administration. This presupposes of course that the accounting service must be informed of the decision to grant the rebate, with all the necessary information to identify the call in question. In this way, each country concerned with the queried phototelegraph call defrays its share of the refund.

RECOMMENDATION F.82

RULES FOR PHOTOTELEGRAPH COMMUNICATIONS ESTABLISHED OVER CIRCUITS NORMALLY USED FOR TELEPHONE TRAFFIC

(Geneva, 1958, amended at New Delhi, 1960, Geneva, 1964, and Mar del Plata, 1968)

The C.C.I.T.T.,

considering

a) that, in international phototelegraph communications, the time of occupation of international telephone circuits often greatly exceeds the duration of the actual phototelegraph call;

b) that this drawback results *in part* from the inadequacy of existing rules on the setting-up, supervising and clearing of phototelegraph calls over circuits normally used for telephone traffic, even if these circuits have been designated in advance as capable of carrying phototelegraph communications;

c) that phototelegraph communications between public stations on the one hand, and public and private stations on the other, require close collaboration between the telegraph and telephone services of the various administrations and recognized private operating agencies;

d) that, on the other hand, phototelegraph communications between private stations do not concern the telegraph services, although it is desirable for all phototelegraph communications between public stations, between public and private stations, and between private stations to be established in the same way,

unanimously declares the view

that the following rules should be applied to the provision of international phototelegraph connections:

A. Field of application

§ 1. The Rules below define the operating procedure to be followed in the international phototelegraph service when phototelegraph calls are set up on circuits normally used for telephone traffic.

They do not apply to phototelegraph transmissions on circuits in permanent use for that purpose or on leased circuits.

§ 2. These Rules define the procedure applicable to the setting up, supervision and clearing of international phototelegraph calls:

— between public stations.
— between a public and a private station,
— between private stations.

§ 3. The procedure applicable to connections established over radio circuits or combined radio and metallic circuits is defined in Recommendation F.84.

B. General provisions

§ 4. In relations where telephone circuits are used for both the phototelegraph service and the telephone service, the administrations concerned shall assign by mutual agreement a certain number of circuits for phototelegraph transmissions, taking into account the usual requirements of both phototelegraphy and the telephone service.

§ 5. These circuits shall be specially marked at terminal exchanges and repeater stations with a view to the protection of the phototelegraph transmissions.

§ 6. The telephone circuits used for international phototelegraph transmissions shall, as far as practicable, be four-wire circuits.

For phototelegraph transmission, they shall normally be disconnected from the switching equipment used for telephone calls.

Interconnection of circuits for setting up phototelegraph calls should be four-wire-four-wire, as far as possible, both on the international and the national side.

§ 7. Administrations shall designate in each " international phototelegraph terminal centre " an authority responsible for the international phototelegraph communications. This authority is in a position to carry out, or cause to be carried out, all the operations necessary for the establishment of international phototelegraph communications. This authority shall henceforth be called the international phototelegraph position (IPP).

Administrations are recommended to centralize, as far as possible, in one place all the technical, operational and charging procedure necessary in an international centre when telephone circuits are used for phototelegraph communications.

§ 8. A booking for a phototelegraph call emanating from a public or private phototelegraph station is routed to (or arrives directly at) the IPP of the country of origin responsible for setting up the international phototelegraph call which has been booked. This IPP then becomes the control IPP for establishing the call.

C. Setting-up, supervision and clearing of international phototelegraph calls

§ 9. If the telephone service on the international circuit needed for setting-up a phototelegraph call is operated with advance preparation, requests for phototelegraph calls rank in the order in which they are accepted among requests for telephone calls of the same category.

§ 10. In this case the control IPP advises the telephone office responsible for these circuits that a phototelegraph transmission is to take place. The control IPP agrees with the telephone service on the probable time at which the phototelegraph transmission will be taking place.

The IPPs shall proceed as follows when setting-up an international call:

a) The control IPP transmits the following information as quickly as possible to the IPP of destination:

- — designation of the transmitting station;
- — designation of the station of destination;
- — probable time at which the phototelegraph call will take place;
- — where necessary, indication of the subscriber responsible for the charges, and, in addition:

aa) for calls requested by public stations:

- — category of phototelegram to be transmitted,
- — date and time of handing-in of the phototelegram;

ab) for calls requested by private stations:
— category of call requested,
— date and time of the request.

b) The IPP of destination shall take the necessary steps to advise immediately the phototelegraph station of destination by telephone that a phototelegraph transmission is about to take place.

c) If the called phototelegraph station is in a position to receive the phototelegram call at the time fixed, the IPP of destination informs the control IPP. At the said time, the two IPPs take the necessary steps, in agreement with the telephone service, to establish the communication. Care must be taken to avoid interrupting telephone calls in progress.

d) If the called phototelegraph station is not in a position to receive the call at the time fixed, the IPP of destination fixes the time when the transmission is to take place, taking into account the information received from the receiving phototelegraph station. It then communicates the time fixed to the control IPP, which informs the calling station.

e) The control IPP then takes the necessary measures, in agreement with the telephone service, to establish the phototelegraph communication between the stations concerned at the agreed time.

§ 11. If the telephone service involved is demand service, the outgoing IPP shall take an available circuit for the phototelegraph call, after ensuring that telephone calls in progress are not interrupted; it shall use this circuit to call the incoming IPP.

a) To establish a phototelegraph call, it shall transmit the data mentioned under 10.a above to the incoming IPP, except for the probable time of the phototelegraph call.

b) The incoming IPP shall take the necessary steps to advise immediately the called phototelegraph station by telephone that a phototelegraph transmission is about to take place.

c) If the called phototelegraph station is in a position to receive the phototelegraph call immediately, the two IPPS shall straight away establish the necessary communication.

d) If the called phototelegraph station is not in a position to receive the call immediately, the IPP of destination fixes the time when the transmission is to take place, taking into account the information received from the receiving phototelegraph station. It then communicates the time fixed to the control IPP, which informs the calling station. The two immediately clear the international telephone circuit.

e) At the time agreed upon, the outgoing IPP shall take the necessary steps to establish the phototelegraph communication.

§ 12. The control IPP shall note the time when the phototelegraph communication starts.
The beginning of the communication is the moment when the connection with the called station is offered to the caller. When the international circuit is extended towards a national PP at the caller's end, the latter shall determine the beginning of the communication and indicate it to the IPP in its country when the communication is cleared (see paragraph 14).

§ 13. The control IPP supervises the transmission in progress:

a) on the transmission (go) path by means of a device enabling it to check, without risk of interference, that transmission is taking place,

b) on the (return) path by means of a device enabling it to listen to service conversation from the phototelegraph receiving station.

Intervention in the circuits should be avoided after communication has been established, unless such intervention has been requested by one of the IPPs or one of the phototelegraph stations connected.

§ 14. After consulting the receiving phototelegraph station, the calling phototelegraph station announces the end of the call either direct to its IPP, or, in the case of extension of an international circuit, to the national PP on which it depends.

The latter must inform its IPP as quickly as possible, giving the time at which it received notice of the end of the call. The control IPP notes the end-of-transmission time and immediately communicates the notice announcing the end to the incoming IPP, and, if necessary, to the transit IPP, which must inform the control IPP of any country through which the additional path passes.

The outgoing and incoming IPPs and any transit IPPs then take the necessary measures to restore the international circuit to the telephone service without delay.

It is recommended that the called station should likewise announce the end of communication so that the called station may be cleared more quickly.

§ 15. Unless the administrations concerned decide to the contrary, the terminal IPPs do not come to an agreement on the chargeable duration, since this is determined by the control IPP.

D. Special procedures for phototelegraph stations

§ 16. For each phototelegram to be transmitted, the outgoing public station shall prepare a narrow tape comprising the preamble and address (and, if necessary, the signature and special service indications), unless these indications have been written on the phototelegram by the sender.

This tape is transmitted with the phototelegram.

§ 17. As soon as the communication is established, the interconnected phototelegraph stations proceed to adjust the apparatus and to transmit, in accordance with the instructions of the receiving station, adopting the following order of operations:

a) if necessary, agreement on the index of co-operation and speed of transmission, then synchronization adjustment by means of the synchronization frequency;

b) adjustment of the white level;

c) adjustment of the black level;

d) phasing of apparatus;

e) start;

f) transmission.

§ 18. If the phototelegram is passed to a public station by a private station, the public station shall ask the private station, if necessary, for information regarding establishment of the preamble and conditions of delivery to the addressee.

E. Faulty transmissions

§ 19. In the case of fault conditions, the control IPP shall immediately make arrangements to clear the fault or make another circuit available.

§ 20. When, after completion of the call, it is seen that the transmission was faulty, the receiving phototelegraph station shall inform its IPP. If it so desires, the receiving phototelegraph station can make a new booking with its IPP for a phototelegraph call, in the manner defined in § 8, and its IPP then takes the necessary steps immediately to establish a new phototelegraph communication with the sending station.

If the phototelegraph station which receives the faulty picture and books a new call is a private station, its attention should be drawn to the fact that both calls will be chargeable if the faults in the picture are not due to the telephone or telegraph services.

RECOMMENDATION F.83

RATES FOR PHOTOTELEGRAMS AND PRIVATE PHOTOTELEGRAPH CALLS

(Geneva, 1958, amended at New Delhi, 1960 and Mar del Plata, 1968)

The C.C.I.T.T.,

considering

a) that phototelegraph calls are set up on circuits normally used for telephone traffic,

b) that the holding time of these circuits used depends not only on the duration of the phototelegraph transmission proper but on the time needed to prepare the call and return the circuits used to the telephone service,

c) that when a phototelegram is handled, the cost includes the handing in and delivery expenses as well as the cost of using public phototelegraph stations,

considering, furthermore,

d) that the phototelegraph equipment in service may have different drum diameters;

e) that the duration of transmission of a phototelegram is in fact the essential criterion for the calculation of the charge to be applied;

f) that this duration depends simply on the dimension along the axis of the drum on the transmitting equipment;

g) that the chargeable duration for phototelegrams should be related to the drum diameter of the sending equipment;

h) that charging of phototelegrams on the basis of their surface area should continue to be applied only in cases where the administrations or recognized private operating agencies concerned explicitly agree to do so,

unanimously declares the view

A. IN THE EUROPEAN SYSTEM

a) Phototelegrams deposited by a public station, either with another public station or with a private station, should be charged for according to the same principle, i.e. a fixed tariff, with various charging steps;

b) Charges for phototelegraph calls between private stations or between a private (outgoing) station and a public (incoming) station should be reckoned at the same rates as telephone calls, depending on the charging period concerned (heavy-traffic or light-traffic period).

However, the charge for the actual period of use should be increased by a surcharge of four minutes corresponding to the time needed to prepare the call and restore the circuits to the telephone service.

In addition, for calls from a private station to a public station, the administration [1] responsible for the public station should levy a special charge for the use of the public station.

Phototelegraph calls booked by a public station

c) The rates for phototelegrams between public stations, with the exception of charges for special services, and the shares of charges accruing to administrations [1] should be calculated in accordance with the following table:

Scale of rates	Dimensions of phototelegram				Total charge in gold francs (to be levied at outgoing end)	Share accruing to		
	1st side for the following drum diameters			2nd side (chargeable length)		outgoing administration [1]	transit administration [1]	incoming administration [1]
	66 mm	70 mm	88 mm					
1st step				1.5 *D* or less	20+12*y*	10+12*a*	12*b*	10+12*a*
2nd step	⩽ 18 cm	⩽ 20 cm	⩽ 24 cm	over 1.5 *D* up to 2 *D*	20+15*y*	10+15*a*	15*b*	10+15*a*
3rd step				over 2 *D* up to 2.5 *D*	20+18*y*	10+18*a*	18*b*	10+18*a*
	increased by 3*y* per step for each extra 0.5 *D* (*D* = diameter of the drum of the sending phototelegraph apparatus)							

d) The rates for phototelegrams transmitted by a public station to a private station and the shares of charges accruing to administrations [1] should be calculated in accordance with the following table:

[1] or recognized private operating agency(ies).

Scale of rates	Dimensions of phototelegram				Total charge in gold francs (to be levied at outgoing end)	Share accruing to		
	1st side for the following drum diameters			2nd side (chargeable length)		outgoing administration [1]	transit administration [1]	incoming administration [1]
	66 mm	70 mm	88 mm					
1st step				1.5 *D* or less	10+12*y*	10+12*a*	12*b*	12*a*
2nd step	⩽ 18 cm	⩽ 20 cm	⩽ 24 cm	over 1.5 *D* up to 2 *D*	10+15*y*	10+15*a*	15*b*	15*a*
3rd step				over 2 *D* up to 2.5 *D*	10+18*y*	10+18*a*	18*b*	18*a*
	increased by 3*y* per step for each extra 0.5 *D* (*D* = diameter of the drum of the sending phototelegraph apparatus)							

e) The lengths of phototelegrams are measured in centimetres, a fraction of a centimetre being reckoned as a full centimetre.

f) For divided phototelegrams, the charge is calculated separately for each part.

g) For an " Urgent " phototelegram, the charge shall be doubled.

Phototelegraph calls booked by a private station

h) The charge for a phototelegram transmitted by a private station to a public station deposited by phototelegraphy, or vice versa, at the request of the private stations (collected by phototelegraphy) and the shares accruing to administrations [1] should be calculated as follows:

Charge	In gold francs	Share accruing to the		
		administration [1] of the country of the private station	transit administration [1]	administration [1] of the country of the public station
Total	10+(*C*+4)*y*			
to be collected on behalf of the private station	(*C*+4)*y*	(*C*+4)*a*	(*C*+4)*b*	10+(*C*+4)*a*
to be collected on behalf of the public station	10			

i) Charges for phototelegraph calls between private stations, and the shares accruing to administrations [1] are calculated in accordance with the following table:

[1] or recognized private operating agency(ies).

Total charge (in gold francs) to be collected at the outgoing end	Share accruing to the		
	outgoing administration [1]	transit administration [1]	incoming administration [1]
$(C+4)y$	$(C+4)a$	$(C+4)b$	$(C+4)a$

j) If a private station books an URGENT or LIGHTNING phototelegraph call, the rates for the corresponding unit telephone call should be applied.

k) In relations where reversed-charge phototelegraph calls are allowed, the rules governing such calls should be agreed upon by the administrations [1] concerned.

Special services

l) The surcharges for the special services allowed for phototelegrams exchanged between public stations and phototelegrams deposited by private stations with public stations are as follows:

TMx	3 gold francs for each copy after the first
Kx	2 gold francs for each copy after the first
POSTXP	2 gold francs for each copy after the first
PR, GPR	1 gold franc for each copy after the first
KP	(for service between public stations): 2 gold francs for the copy and an additional surcharge of 0.80 gold franc for despatch of the copy by registered letter.

m) For phototelegrams that have been split up with the special service indication TMx or Kx, the surcharges for these special services shall be reckoned separately for each section.

n) The surcharges for the special services PC and XP are the same as for telegrams. The other special services are not liable to a surcharge.

o) The surcharges for special services for phototelegrams handed in by a private station at a public station shall be collected from the addressee.

p) For multiple phototelegrams deposited by a private station with a public station, the surcharge for intervention by a public station (the table under section h above) should be divided equally between the addressees.

Notes. — In the tables shown above

y is the charge (in gold francs) for a unit telephone call (1 minute) for the phototelegraph transmission;

a and b are the shares of the charge y accruing to the terminal and transit administrations [1];

C signifies the duration (in minutes) counted from the moment the phototelegraph connection with the called station is offered to the caller until the moment the calling station signals the end of the communication.

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[1] or recognized private operating agency(ies).

B. IN THE EXTRA-EUROPEAN SYSTEM

a) Charges for phototelegrams in the extra-European system (exchanged between public stations) and the apportionment thereof, shall be settled by agreement between the administrations [1] concerned on the basis of the length or surface area of the phototelegrams.

b) If charging is based on the surface area of the phototelegram, the first charging step is equal to an area of 150 cm^2 or part thereof, each subsequent charging step being equal to 100 cm^2, which is already applied in most cases.

c) The lengths of phototelegrams are measured in centimetres, a fraction of a centimetre being reckoned as a full centimetre.

d) The charge is doubled for Urgent phototelegrams, in relations where this service is offered.

e) For divided phototelegrams, the charge shall be reckoned on the basis either of the aggregate length of the various parts, or of the aggregate surface of the phototelegram, in accordance with the charging method specified in paragraph a.

f) The charges for phototelegrams shall be levied by the administration [1] of the country of origin.

f) *bis* In relations where reversed-charge for phototelegrams is allowed, the rules governing such calls should be agreed upon by the administrations [1] concerned.

Special services

g) Except where administrations [1] introduce amendments, the surcharges for the special services allowed for phototelegrams exchanged between public stations of the extra-European system shall be the same as in the European system (see A 1 to n).

h) The accessory charges for special services shall be collected by the administration [1] of the country of origin.

RECOMMENDATION F.84

RULES FOR PHOTOTELEGRAPH COMMUNICATIONS ESTABLISHED OVER RADIO CIRCUITS OR COMBINED RADIO AND METALLIC CIRCUITS

(Geneva, 1964, amended at Mar del Plata, 1968)

The C.C.I.T.T.,

considering

a) that the phototelegraph service is steadily developing in the extra-European system;

[1] or recognized private operating agency(ies).

b) that the provisions regarding phototelegraph calls set up over circuits normally used for telephone traffic (Recommendation F.82) differ considerably from the procedures to be applied when radio paths are used;

c) that, moreover, world-wide phototelegraph transmissions often entail the interconnection of radio and metallic circuits;

d) that it may take an excessively long time to provide the combined radio and metallic circuits when the metallic section and the radio section are not available at the same time,

(unanimously) declares the view

that the following Rules should apply to the provision of international phototelegraph communications set up over radio circuits.

A. FIELD OF APPLICATION

§ 1. The following Rules define the procedure to be followed for operating in the international phototelegraph service when phototelegraph calls are set up over radio circuits or combined radio and metallic circuits.

They do not concern phototelegraph transmissions on leased radio circuits or by broadcasting.

§ 2. These Rules govern the setting-up, supervision and clearing of international phototelegraph calls between public stations.

B. CONDITIONS OF ACCEPTANCE

§ 3. Private phototelegraph stations shall not be allowed to exchange phototelegraph calls on circuits making use of radio. But administrations (or recognized private operating agencies) may allow a public station in the outgoing country to arrange, subject to its supervision, for a phototelegraph transmission from a private station to pass directly to the radio circuit, or a public station in the incoming country to forward, subject to its supervision, a phototelegram addressed to a private station to that private station, without retransmission, providing for this purpose (if necessary) a national circuit extension of the international phototelegraph link.

§ 4. A phototelegram received from a private station by a public station for retransmission, or one which has been routed by a public station directly to the radio circuit, is considered as having been handed in at the public station (handing-in by phototelegraphy).

Note. — In the case of retransmission, the handing-in time is the time of arrival at the public station, whereas for ordinary direct transmission it is the time when the transmission begins.

§ 5. A phototelegram received on the radio circuit by a public station and retransmitted by the latter to a private station, or one which has been directed without retransmission to a private station, is considered as having been delivered to the addressee (delivery by phototelegraphy).

Note. — The time of delivery is the time at which the retransmission or direct transmission ends.

C. GENERAL PROVISIONS

§ 6. When no metallic circuit can be made available for phototelegraphy, the administrations (or recognized private operating agencies) concerned may agree to allocate certain radio

circuits for phototelegraph transmissions, and may allocate frequencies to these circuits, making due allowance for the normal requirements of phototelegraphy.

§ 7. The radio circuits designated for phototelegraph communications should be both-way channels, so that the phototelegraph stations may exchange service information about the transmission.

If the direction of phototelegraph transmission does not suit speech transmission (communication by Morse Code only for example, F4 emission), the reverse direction should as far as possible be a telephone channel.

§ 8. Since every retransmission unduly delays the phototelegram and may make for poor picture reproduction, a combined metallic and radio circuit should as far as possible be made available for the phototelegraph transmission if the terminal phototelegraph station is not at the same place as the radio service office.

§ 9. In practice, undue delay will arise in setting up such joint circuits when the metallic and radio sections are not available at the same time. Every effort should be made to avoid any waiting by the radio section for interconnection with the metallic section. Hence the metallic section should be available a reasonable time in advance, before the radio circuit becomes available.

§ 10. If it is impossible to set up the second section of a mixed phototelegraph circuit within a reasonable time after the first section has been set up, the phototelegraph station at the point of interconnection receives the phototelegram and retransmits it as soon as the circuit in the direction of destination is available. To maintain transmission performance, storage equipment should as far as possible be used to this end.

§ 11. However, if several pictures are to be transmitted in series, the interconnection between the metallic and radio sections should in any event be prepared beforehand.

§ 12. With mixed phototelegraph circuits, the public phototelegraph station in the place where the radio terminal office is shall be responsible for effecting the junction between the international radio circuit and the telephone circuit (national or international), and shall supervise the procedures governing phototelegraph transmission (control station).

The public station which operates the radio circuit shall be responsible for the same duties if there are direct junction lines between it and some private stations.

§ 13. To ensure smooth co-operation between public phototelegraph stations at the ends of the radio circuit, the personnel there employed should, if possible, have an adequate grounding in English and French. They should in any event be thoroughly familiar with the Morse code and the international abbreviations laid down for phototelegraph service calls (see *Codes and abbreviations for the use of the international telecommunication services*, published by the I.T.U. General Secretariat).

§ 14. Administrations are recommended to make a number of direct four-wire circuits available between the radio office and the public phototelegraph station, and to make them on the terminal switching panel, with a view to protecting the phototelegraph transmissions.

§ 15. The public phototelegraph stations at the ends of the radio path must send, if necessary, the call sign laid down by the Radio Regulations (Chapter V, Article 19, Numbers 735-742, Geneva, 1959). This call sign must be sent over the outgoing circuit during intervals between phototelegraph transmissions, and on the return circuit during intervals between service messages.

D. Establishment, supervision and clearing of a phototelegraph communication on a radio circuit

§ 16. The public phototelegraph stations at the ends of the radio route shall proceed as follows in setting up an international communication:

a) After having consulted the radio authorities, the outgoing public station at the end of the radio circuit should at once transmit a service advice (a numbered message) to the incoming public station, giving the following data:

— name of the transmitting station;
— name of the station of destination;
— the category of phototelegram to be transmitted;
— the date and time of handing-in;
— name of the addressee;
— special service instructions such as Kx, TMx, etc., if any;
— number of phototelegrams on hand;
— frequency allocated for the phototelegraph communication in the direction from the outgoing country;
— time at which the phototelegraph communication will probably take place.

b) After consulting its radio authorities, the incoming public station urgently transmits a reply in the form of a service advice with the following data:

— agreement on the time proposed, *or*,
nominating the time at which the transmission must take place,
— the frequency allocated to the return channel, i.e., in the direction from the incoming country.

c) The outgoing phototelegraph station shall then inform the radio office of the above particulars.

d) At the time agreed upon, the two phototelegraph stations shall take action to set up the communications, in co-operation with the radio offices concerned.

e) The administrations (or recognized private operating agencies) concerned must take care to see that XQ service advices are transmitted and delivered to the public stations of destination with all possible speed.

§ 17. The radio offices at the two ends of the radio route shall supervise the transmission:

a) On the outgoing transmission, by a device which makes it possible to ascertain, without risk of disturbance, whether a transmission is proceeding;

b) On the return channel, by a device enabling the service information sent from the receiving phototelegraph station to be heard.

After the call has been set up nobody should break into the circuits, unless asked to do so by one of the phototelegraph stations concerned.

§ 18. By agreement, the two phototelegraph stations shall inform their particular radio authorities of the end of the communication. These latter shall take immediate steps to break off the communication.

§ 19. The outgoing public station notes the number of phototelegrams transmitted, the relevant reference numbers and the charging scale, together with the time at which each transmission has started and finished.

E. Establishment, supervision and clearing of a phototelegraph communication on a combined wire and radio circuit

§ 20.

a) Extension of the radio circuit on the sending side

aa) *Extension in the country where the radio circuit terminates*

Any national public station or a private station wishing to transmit a phototelegram to a country with which such communications take place by radio, shall so inform the international public station providing the radio circuit in question.

Extension to another country

The public stations of countries for which a transit service has been arranged shall get into touch via international phototelegraph positions (IPPs) with the international public station serving the radio circuit in question.

ab) In setting up the radio circuit, the public stations at the ends of the radio path shall proceed as described in D above.

ac) Once agreement has been reached on the time of transmission, the international public station at the outgoing side of the radio circuit shall inform the transmitting station either direct or via the IPPs.

ad) At the same time, it shall ask the IPP to set up a connection (national or international) with the terminal station in question, at the same time saying when this circuit will have to be available.

The IPP shall proceed as described in Recommendation F.82 in making the wire section available at the right time.

ae) When the radio section has been set up, the outgoing international public station shall be responsible for interconnection and shall become the controlling station for the mixed circuit.

b) Extension of the radio circuit on the receiving side.

ba) *Extension in the country where the radio circuit terminates*

If, when the radio circuit is set up, it appears that the phototelegram is to be routed towards another public station or a private station the international public station operating the radio circuit on the receiving side shall communicate with the receiving station in question, to inform it of this and of the time at which the transmission will probably take place.

Extension to another country

In this case, the international public station operating the radio circuit on the incoming side sends this information to the public station of the country of destination, via the IPPs.

bb) At the same time, it shall arrange for the national (or international) circuit to be made available at the right time, as in ad above.

bc) When the radio section is ready, the incoming international public station shall take over the interconnection and become control station for the mixed circuit.

bd) For the transmission of a series of phototelegrams which have to be routed to different receiving stations, the outgoing international public station must warn the public station at the other end of the radio circuit in time, so that the latter may arrange for provision of the metallic circuit to the new station of destination during the preceding phototelegraph transmission.

c) Extension of the radio circuit on both sides.

The provisions given under a and b above shall apply simultaneously.
The two public stations at the ends of the radio section shall become control stations.

§ 21. The controlling station shall direct operations in connection with the phototelegraph transmission and shall invite the transmitting station to comply with the receiving station's instructions.

When there are two control stations, the incoming one shall repeat the service communications towards the control transmitting station.

§ 22. The control stations shall make one copy of every phototelegram transmitted over the mixed circuit. If the phototelegram received by the station of destination is unsatisfactory, whereas that received by a control station is satisfactory, repetition of the transmission may be limited to the second (or even third) section of the full circuit, if this section has proved faulty.

§ 23. The radio offices and PPs taking part in setting up the call shall supervise transmission as described in paragraph 17 above and in paragraph 13 of Recommendation F.82.

§ 24. After the transmitting station has indicated the end of transmission and the station of destination has notified agreement, the two public stations at the ends of the radio section shall announce the end of the communication to their own radio authorities and to any PP which may have made a wire circuit available.

The first-named shall take immediate action to release the radio circuit, while the latter shall release the wire circuit as soon as possible.

§ 25. The public stations in the originating and transit countries shall note the number of phototelegrams transmitted, the relevant reference numbers and the charging scale, together with the times when each transmission has started and finished.

F. Setting-up, supervision and clearing of a phototelegraph call on a route consisting of two radio circuits

§ 26. The radio route required to set up an international call may have to consist of two radio circuits in series. It may also be necessary to interconnect them by a national circuit, if the transmitting and receiving stations are very distant from each other, or by an international circuit, if the two radio circuits terminate in different countries.

§ 27. In this case, the phototelegraph stations shall proceed as follows:

a) The public station (A) at the outgoing end of the first radio circuit shall advise the public station (B) at the other end of this circuit of the call request by transmitting the following data:

— name of the transmitting station;
— name of the receiving station.

Station B then becomes the " control station " for the establishment of the entire connection.

b) The control station undertakes to set up two partial connections to be available at the same time: a forward connection with the incoming station *and* a connection back to the transmitting station, following the procedure described in D or E, as appropriate.

c) When both partial connections have been set up, the control post becomes responsible for interconnection and ensures that the terminal stations are in communication.

In the case of combined wire and radio circuits, the public stations at the ends of each radio circuit become control stations in accordance with the Rules in section E (paragraph 22).

§ 28. The communication is supervised in accordance with paragraph 23.

§ 29. When the end of transmission has been signalled, the two public stations at the ends of the radio route shall proceed as outlined in paragraph 24 above.

In addition, the outgoing public station A on the radio route must inform the corresponding station B in the transit country so that the latter may take appropriate action.

§ 30. The public station in the country of origin and the control stations shall note the transmissions made as indicated in paragraph 25.

G. SPECIAL PROCEDURES FOR PHOTOTELEGRAPH STATIONS

§ 31. For each phototelegram to be transmitted, the outgoing public station shall prepare a narrow tape comprising the preamble and address (and, if necessary, the signature and special service indications) unless these indications have been written on the phototelegram by the sender.

This tape is transmitted with the phototelegram.

§ 32. If the phototelegram is to be transmitted by a private station, the public station in the country of origin which provides the extension to the sending private station shall draw the attention of the private station to the fact that it must prepare for transmission a narrow tape as prescribed in paragraph 31 above.

§ 33. As soon as the communication is established, the interconnected phototelegraph stations proceed to adjust the apparatus and to transmit in accordance with the instructions of the receiving station, adopting the following order of operations:

a) if necessary, agreement on the index of co-operation, the transmission speed and the direction of traverse;

b) adjustment of the white signal;

c) adjustment of the black signal;

d) phasing of apparatus;

e) start;

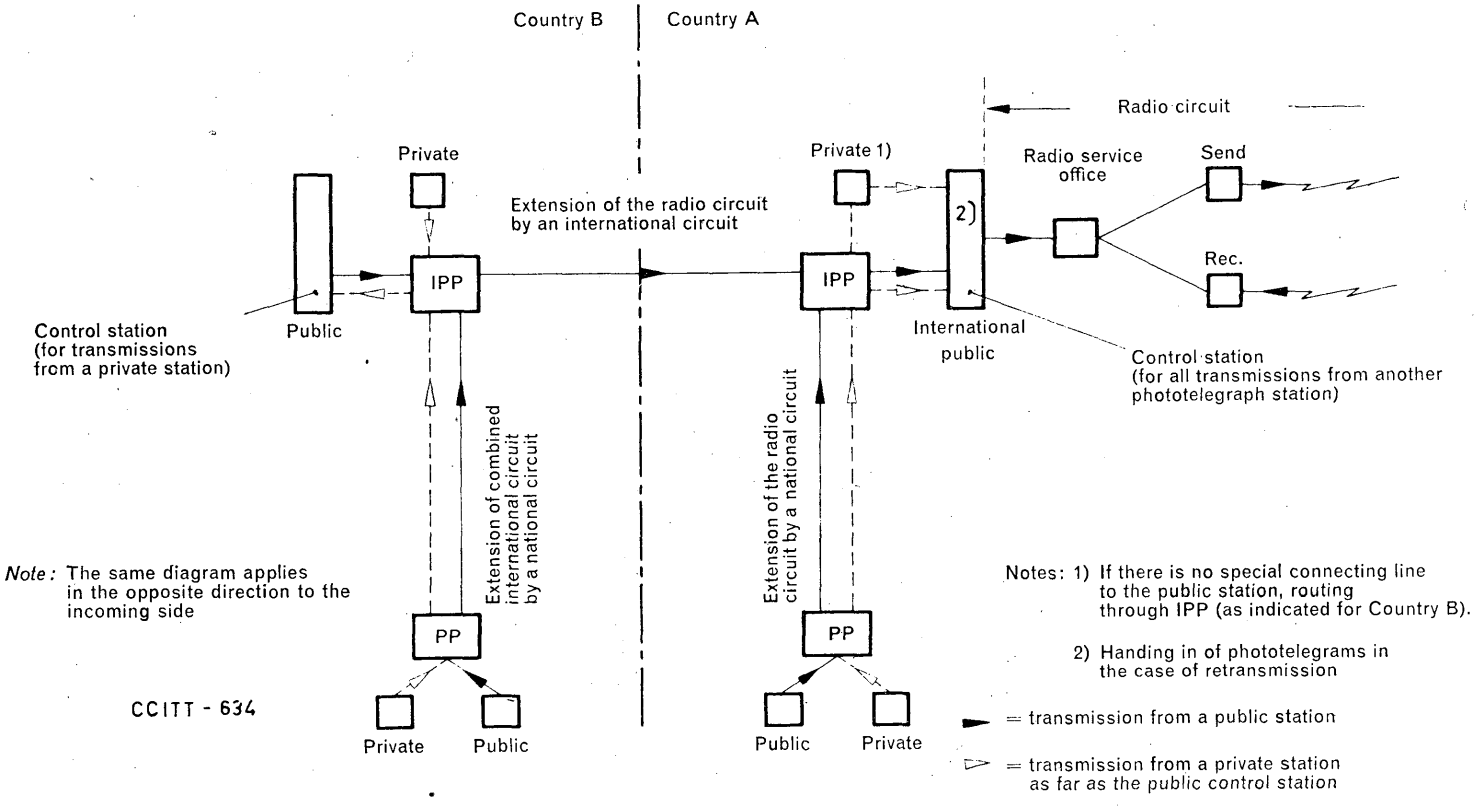
f) transmission.

H. FAULTY TRANSMISSIONS

§ 34. In the event of faults, the public control station shall immediately take all the necessary steps to ascertain which section of the whole link is affected. Depending on the circumstances, it shall accordingly warn the radio service office or the IPP so that they may take the necessary action to clear the fault or make another circuit available, if possible.

§ 35. When, after a break in the call, it is apparent that the transmission was defective, the incoming control station at the end of the radio circuit must be informed. This control station will retransmit the phototelegram with the aid of the copy taken during the first transmission, when the latter has been satisfactory.

§ 36. Otherwise, it shall ask for a new phototelegraph call with the control station at the other end of the radio path or with the transmitting station, as the case may be. A private station which has received a faulty picture must, in any case, ask the relevant public station in its country for a repetition of the phototelegraph transmission. The public station must point out that the new call will be chargeable if the faults in the picture are not the responsibility of the telephone or telegraph service.



Phototelegraph transmission over a radio circuit or combined wire and radio circuits

SECTION 7

STATISTICS AND PUBLICATIONS ON INTERNATIONAL TELEGRAPHY

RECOMMENDATION F.91

GENERAL TELEGRAPH STATISTICS

(formerly C.C.I.T. Recommendation F.5, Geneva, 1956, amended at Mar del Plata, 1968)

It is useful to have general statistics concerning the telegraph facilities provided by each country; on the other hand, the statistics should not contain information the interpretation of which can be doubtful, or information the assembling of which should involve administrations in a great deal of work.

The general statistics should contain only items typical of the telegraph facilities of the country concerned, such as traffic in the general public service and information on the telex network.

For these reasons, the C.C.I.T.T. *unanimously recommends*

that the General Secretary of the Union should draw up the general telegraph statistics in accordance with the formula in the annex to this Recommendation.

ANNEX

(to Recommendation F.91)

General telegraph statistics for the year...

1. *Population of country according to latest census* .....
2. *Area of country (in square kilometres)* .....
3. *General telegraph service*

   3.1 Telegraph traffic

      3.1.1 Internal traffic of the country

         3.1.1.1 number of originated telegrams [1]

         3.1.1.2 number of originated phototelegrams

[1] In thousands.

3.1.2 International traffic

3.1.2.1 number of originated full-rate telegrams [1]
3.1.2.2 number of originated letter-telegrams [1]
3.1.2.3 number of originated phototelegrams

4. *Telex service network*

4.1 Number of connections

a) having access to the international network .....

b) having no access to the international network .....

4.2 Originated international telex traffic

4.2.1 Number of chargeable minutes [1]

DEFINITION OF TERMS USED IN THE ANNEX

General telegraph service : A telegraph service for the use of the public, providing for the acceptance and delivery of telegrams.

Telex service : A telegraph service enabling the subscribers to communicate directly and temporarily among themselves, by means of start-stop apparatus and of circuits of the public telegraph network.

Originated phototelegrams : A phototelegram handed in at a public phototelegraphic station either directly or through a private phototelegraphic station.

Connection : Permanent circuit between a telex station and the switching centre which services it.

Explanatory notes for compiling the statistics

Under 3.1.1.1 and 3.1.2.1 are also to be included telegrams with special services (e.g. Urgent).
Under 4.1 are to be counted the lines carrying revenue-producing traffic; service connection lines are not therefore to be included.

RECOMMENDATION F.92

SERVICE CODES

(formerly C.C.I.T. Recommendation F.6, Geneva, 1956, amended at New Delhi, 1960)

The C.C.I.T.T.,

considering

that it would be useful for the operating services of administrations and recognized private operating agencies to have a book containing the various codes used in the international telegraph service;

[1] In thousands.

that it would be desirable for such a book to contain the codes and abbreviations commonly used in other telecommunication services, as well as the codes used in international telegraphy;

that the various codes now in use, if assembled in a single volume, might provide the basis for a more unified system of service codes,

unanimously declares the view

1. that the various codes and abbreviations commonly used in international telecommunication services should be assembled in one volume and published by the General Secretariat of the I.T.U.;

2. that this publication should be called: *Codes and abbreviations for the use of the international telecommunication services*, published by the International Telecommunication Union;

3. that the contents thereof should be arranged in three main sections, headed:

Decoding,
Coding,
Miscellaneous.

considering

1. that in its Recommendation F.6 (1956), the C.C.I.T. included the following instructions for the publication of this book:

a) The codes suggested for inclusion (in whole or in part) in the proposed book are summarized, classified and numbered below, together with references to their origins, when these are not apparent:

Code documents already adopted internationally

I. Telegraph Regulations *(Paris Revision, 1949)*.

II. Radio Regulations *(Atlantic City, 1947)*, appendix 9, section I — The " Q " Code as a whole — see page 251 *et seq.*

III. Radio Regulations *(Atlantic City, 1947)*, appendix 9, section II — Miscellaneous abbreviations and signals — see page 270 *et seq.*

IV. Radio Regulations *(Atlantic City, 1947)*, appendix 11, paragraph 3 (1) — Spelling analogy code — see page 275 *et seq.*

Code documents which are now recommendations adopted by Plenary Assemblies

V. C.C.I.R., VIIth Plenary Assembly, 1953, Recommendation 141 — SINPO Code. Tabulation and footnotes a to d — see pages 188 and 189 *(London, 1953)*.

VI. C.C.I.R., VIIth Plenary Assembly, 1953, Recommendation 141 — SINPFEMO Code. Tabulation and footnotes as in V above.

VII. C.C.I.T., VIIth Plenary Assembly, 1953, Recommendation H.1, Article 26. Code expressions used in the international telex service.

Code documents of recognized private operating agencies

VIII. Cable and Wireless Ltd. Service Code.

IX. Cable and Wireless Ltd. " Z " Code.

X. Cable and Wireless Ltd. Facsimile Reporting Code.

XI. Italcable. " Dizionario delle Abbreviazioni Telegrafiche ".

b) From the code documents numbered I to XI, the following should be included, without alteration, in the book:

III. Radio Regulations. Miscellaneous abbreviations and signals, as amended by the VIIIth Plenary Assembly of the C.C.I.R.

IV. Radio Regulations. Spelling analogy code.

V. SINPO Code, taking into account the amendments made by the VIIIth Plenary Assembly of the C.C.I.R.

VI. SINPFEMO Code, taking into account the amendments made by the VIIIth Plenary Assembly of the C.C.I.R.

VII. Code expressions used in the international telex service.

X. Cable and Wireless Ltd. Facsimile Reporting Code.

The remaining codes, Nos. I, II, VIII, IX, and XI should be included in part only. The material selected for retention as it stands, or with slight changes, is shown in the appendices on pages 338 to 346 of the C.C.I.T. *Violet Book*.

c) The accepted code documents proved, on examination by the C.C.I.T., to be of two fundamentally different kinds, namely:

C.1 Those containing a series of individual codes and abbreviations, each comprising a letter group with an assigned meaning. All accepted code documents except those mentioned in C.2 below belong to this category;

C.2 Those of different form, namely:

SINPO
SINPFEMO
The spelling analogy code
The Cable and Wireless Facsimile Reporting Code.

Clearly, the four items mentioned in C.2 above belong to the " Miscellaneous " section, since no question of separate arrangement of coding and decoding arises as a practical issue.

The material referred to in C.1 above should be set out as follows:

Decoding section

In this section, all code letter groups and abbreviations, irrespective of their source, should be listed in alphabetical order down the left-hand side of the page with their meaning given on the right.

The " Q " and " Z " Codes should be excluded from this alphabetical sequence, although there should be cross references in the relevant places in the sequence showing where these two codes may be found elsewhere in the book, i.e., in the " Miscellaneous " section.

Coding section

This section should comprise:

The five-letter group codes appearing in appendix I to the Telegraph Regulations *(Paris Revision*, 1949), plus those taken from the Cable and Wireless Service Code, but excluding

duplications. This material should be classified according to the fields of operation in which the codes are used. The Cable and Wireless Service Code provides the basis pattern of layout required, and the few additional codes in appendix I to the Telegraph Regulations should be merged in this layout.

A second part, consisting of groups of codes according to the use made of them, thus:

" Telex codes "

" Miscellaneous telegraph codes ", comprising:

Miscellaneous abbreviations and signals, and miscellaneous codes and abbreviations taken from the International Telegraph Regulations.

The codes and abbreviations from the foregoing services should be arranged in alphabetical order.

Miscellaneous section

The following should appear in the Miscellaneous section, separately, and each with its own heading:

Document V	SINPO
Document VI	SINPFEMO
Document IV	Spelling Analogy Code
Document X	Cable and Wireless, Ltd. Facsimile Reporting Code
Document II	" Q " Code (series QRA-QUZ)
Document IX	" Z " Code, Cable and Wireless Ltd.

It might be argued with some justification that both the " Q " Code (alphabetical arrangement and the " Z " Code should appear in the Decoding Section, and that the " Q " Code (functional arrangement) should appear in the Coding Section.

Both codes, however, are subject to special qualifying instructions; for example, some code letter groups may have numbers added to them, i.e., QRK/1-5 and ZSI/1-5. Moreover, the " Q " Code has a dual significance in that the letter code group can be used as either a question or an answer. Since the question of special instructions can more conveniently be covered when the " Q " and " Z " Codes appear as separate entities, the C.C.I.T. considered it best to place them in the Miscellaneous section, where all material is arranged in this way.

2. that, in accordance with these instructions, the General Secretariat published a first edition of *Codes and abbreviations for the use of the international telecommunication services* in 1958;

3. that fairly numerous additions and modifications therein are to be proposed;

4. that the time is not ripe for unification of the various codes; and that, before such unification is attempted, the first edition should be reviewed with a view to a second edition;

5. that it would be more convenient for those using the book of *Codes and abbreviations* if, in future, it were to appear in three separate booklets (one for each language), the existing format being retained,

unanimously declares the view

that henceforward the book of *Codes and abbreviations for use in international telecommunication services* should appear in three separate booklets (one in English, one in French, and one in Spanish), but retaining the same format as the first edition.

Note. — The second edition of the book of *Codes and abbreviations for the use of the international telecommunication services* was published in 1963.

RECOMMENDATION F.93

ROUTING TABLE FOR OFFICES CONNECTED TO THE GENTEX SERVICE

(formerly C.C.I.T. Recommendation F.14, revised Geneva, 1958)

The C.C.I.T.T.,

in view of C.C.I.T.T. Recommendation F.22, Article 14,

considering

that gentex offices need information about the routing of traffic to the offices connected to the gentex service and the offices which, while not being attached thereto, nevertheless normally have to deal with a good deal of international traffic;

that for the time being there is no call to include this information in the *List of telegraph offices open for international traffic* ,

unanimously declares the view

that the I.T.U. General Secretariat should issue a document containing the routing lists published by the countries connected to the gentex service, in accordance with Article 14 of Recommendation F.22 of the C.C.I.T.T., dealing with regulations for the gentex service;

that changes in these lists, if notified after this document is published, should be communicated by means of the I.T.U. General Secretariat Notifications.

RECOMMENDATION F.95

TABLE OF INTERNATIONAL TELEX RELATIONS AND TRAFFIC

(formerly C.C.I.T. Recommendation H.12, 1954, amended Geneva, 1964, Mar del Plata, 1968)

Recommendation F.60, Article 3, § 8, lays down that the General Secretariat should publish each year a list of telex circuits and a list of telex routes.

It would be of interest to indicate the following particulars for each telex relation in one and the same list: routing, number of circuits available on the relation for direct

List of international telex relations and outgoing traffic for Switzerland and the Principality of Liechtenstein [1, 2]

Year ... [4]

Number of telex connections [3] on 31 December [4] ...

1	2		3						4	5	6
Relation to [5]	Normal routing [6]		Number of circuits [9, 10]						Mode of operation for outgoing calls [11]	Annual outgoing traffic in chargeable minutes	Comments [12]
	D [7] Tr	Transit country or international transit exchange [8]	Specialized outgoing			Mixed					
			Cable	Radio	Satellite	Cable	Radio	Satellite			
Algeria	Tr	Paris	—	—	—	—	—	—		9 759	automatic transit
Argentine	D	—	—	—	—	—	2	—		31 850	
Australia	Tr	Vancouver London								11 083	
Austria	D	—	17	—	—	—	—	—	A1	711 502	
Belgium	D	F	19	—	—	—	—	—	A1	836 977	
Canada	D	Forf	—	—	—	6	—	—	SA	26 425	
Finland	D	D, DK, S	5	—	—	—	—	—	A1	90 125	
Greece	D	—	—	—	—	—	6	—	ML	107 640	
Roumania	D Tr	A, H (Budapest)	—	—	—	1	—	—	SA	53 302	automatic transit
Tunisia	Tr	Paris Rome	—	—	—	—	—	—	—	9 353	

[1] The list should be prepared by and for every country (in the sense of a geographical entity) which provides outgoing international telex traffic (e.g. Algeria, Netherlands Antilles, Argentina, Australia, Austria, Belgium, Bermudas, etc.).

[2] If there are several telex networks in one country, a single list should be prepared for that country. Similarly, in column 1, such a country should be described under a single relation and the traffic figures and number of circuits should be given as global figures.

[3] Lines on which calls are paid, i.e. lines without service connections.

[4] Statistical year.

[5] The relations should be listed in French alphabetical order (reference should be made to the List of Addresses issued by the General Secretariat).

[6] If the normal route involves two (or more) international transit centres, the first transit centre traversed after leaving the outgoing country should be given.

[7] If direct circuits, insert " D " in this column; otherwise insert " Tr ".

[8] If direct cable circuits, show the transit countries taking part in the distribution of telex charges in the relation, using the telex network indentification codes of the countries concerned; but if they are telex circuits charged on a lump sum basis, insert " Forf ".

[9] Mention the number only in respect of a direct relation (i.e. without switching in any other countries that may be crossed).

[10] In the " cable " column, indicate the number of circuits set up on cables, overhead lines, radio relay links, etc., i.e. by any means other than h.f. radio. In the " radio " column, indicate the number of circuits making use of an h.f. radio path.

[11] Show the mode of operation on direct circuits in the outgoing country by one of the following abbreviations:

A1 subscribers can dial subscribers in the other country directly,
SA the operator dials subscribers in the other country manually,
ML intervention by a manual operator is required at both terminals.

[12] If the circuits are used for both telex and gentex services, insert " GX " in this column on the appropriate line. Any other useful information should be shown in this column, such as " automatic transit " when an automatic transit exchange is involved.

routing (i.e. without switching in a transit country), itinerary and type of circuits, mode of operation and outgoing traffic in the relation.

For this purpose, the C.C.I.T.T. *unanimously declares the view :*

1. That all administrations of countries taking part in the international telex service should submit to the Secretary-General of the I.T.U., between 1 January and 30 April of each year, a list based on the position on 31 December of the preceding year, describing the telex routes, direct telex circuits, mode of operation used on these circuits and telex traffic for each relation on which outgoing telex calls have been established.

If a telex service exists with a particular country to which no telex traffic was sent during the year in question, this relation should not be included in the list.

2. That this list should relate to outgoing traffic that has originated in the country responsible for the list.

It should indicate normal routing for outgoing calls, the transit countries taking part in the distribution of telex charges on direct circuits, the number of telex circuits that could be used by traffic from that country, the mode of operation for outgoing calls on these circuits, and the volume of annual outgoing traffic, in chargeable minutes, for the relation under consideration.

3. That this list should be prepared on the basis of the following table (in which figures are given purely by way of example).

4. The General Secretariat should publish these lists each year, at the latest in September, in a document entitled *Table of international telex relations and traffic.*

RECOMMENDATION F.96

LIST OF DESTINATION INDICATORS

(Geneva, 1964)

To facilitate the operation of a message retransmission system in accordance with Recommendation F.31, destination indicators must be established uniformly and a list of them placed at the disposal of the offices engaged in this operation.

For these reasons the C.C.I.T.T.

unanimously declares the following view :

1. Each office directly connected with the message retransmission centre must be equipped with a destination indicator; towns handling a large international traffic should also be equipped with a destination indicator; at least one destination indicator must be chosen in each country for offices not equipped with their own destination indicator (a so-called " all others " indicator).

2. A destination indicator will consist of four letters; the first two letters will characterize, in standard fashion, a particular country of destination (or a particular network

therein), and the following two letters will characterize the office of destination in the country or network.

Should there be several competing networks in a country, and should the office of origin have no special preference for routing the telegram over a specific network, an additional 2-letters indicator for the whole country is envisaged.

The last letter of an " all others " indicator will always be the letter X.

3. A list of destination indicators will be drawn up by the C.C.I.T.T. secretariat in consultation with the administrations and recognized private operating agencies.

As far as possible the whole of the 4-letter destination indicators should be such that any indicator differs in at least two letters from any other [1].

Offices connected directly with the message retransmission network will be specially identified in this list.

4. The list will be issued and sold through the General Secretariat of the Union.

Any subsequent alterations to this list will be published by way of the Notifications.

Note 1. — For the choice of the destination indicator shown in the list to be introduced in the pilot line of a message, see Recommendation F.31.

Note 2. — The two letters which characterize a country (or network) in the list of destination indicators will, in general, also be the identification letters existing for the intercontinental telex service (see Recommendation F.68).

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[1] The R.C.A. Company has offered its help in supervising the application of this rule.

QUESTIONS
APPLYING TO TELEGRAPH OPERATION AND TARIFFS
ENTRUSTED TO STUDY GROUP I FOR THE PERIOD 1968-1972

Chairman: Mr. A. GOMES (United States)
Vice-Chairman: Mr. S. PARAMOR (United Kingdom)

VOLUME II-B — Questions

IMPORTANT NOTICE

1. An asterisk indicates that a question is urgent, i.e. that the study of the question has to be completed before the Vth Plenary Assembly.

2. Since Special Study Group D was set up by the Plenary Assembly, all questions relating to pulse code modulation (p.c.m.) have been assigned to this Study Group for the time being.

The Chairman of Special Study Group D will make arrangements with the other Chairmen for effecting liaison with the other Study Groups concerned as work progresses.

3. When a question is of interest to more than one Study Group and no Joint Study Group has been set up to deal with it, the mention of the other Study Group(s) concerned is intended for the information of the members of the Study Group to which the question has been assigned, to enable them to arrange for the necessary co-ordination *within their national* administrations, in accordance with a decision of the IVth Plenary Assembly.

Question No.	Title	Remarks
1/I*	Counting of words	
2/I*	New principles for telegraph tariffs	
4/I	Telegraph services for " transferred accounts "	Keep S.G. II informed
6/I	Use of Telegraph Alphabet No. 5	See also Questions 9/VIII and 1/A, Point C; to be studied by the Joint Working Party ALP
8/I	World-wide routing plan for telex and gentex services	Also Question 8/X. To be studied by the Joint Working Party TGX
9/I	Revision of Rules for the Gentex Service	
10/I	Retransmission of messages	Also Question 10/X
11/I	Observations on the grade of service in telex traffic	Of concern to S.G. X
14/I	Revision of the Telex Regulations	
17/I	Simultaneous phototelegraph transmission to multiple destinations	Keep S.G. II informed
18/I	Unification of service codes	
23/I*	Revision of the International Telegraph Regulations	
24/I	Tabulation of public message traffic	Of concern to S.G. VIII
25/I*	Deletion of money order telegrams and postal cheque telegrams	
26/I	Data transmission statistics	
27/I	Phototelegram rates in the extra-European system	
28/I	Telegraph tariffs in the extra-European system	
29/I	Intercontinental phototelegraph calls	Keep S.G. II informed
30/I	Joint use of the public message and telex services	

* Urgent question.

Question 1/I* — Counting of words

(former Question 40/21, 1951-1960; Resolution No. 3 of the Geneva Conference, 1958; continuation of Question 1/I, 1964-1968, amended at Mar del Plata, 1968)

The Administrative Telegraph and Telephone Conference, Geneva, 1958,

considering

that the regulations in Chapter IX of the Telegraph Regulations relating to the counting of words, although they have been carefully revised, still present certain difficulties both in operation and to users,

instructs

the C.C.I.T.T. to pursue its study concerning the counting of words, taking account of the proposals submitted to the Telegraph and Telephone Conference, Geneva, 1958.

Study of this question should be continued, taking as a basis the following proposal from the Australian Administration:

Telegrams (including letter-telegrams) should be expressed in words of plain language —defined in provision No. 140 of the present Telegraph Regulations—and in groups of letters, figures, signs, fragments of words in plain language, up to a limit of 15 characters between spaces.

The charging would be effected as follows:

— a chargeable word for each word in plain language not exceeding 15 characters (plus one word for each 15 characters or fraction of 15 in excess);
— a chargeable word for each five characters in a group (plus one word for a fraction of five in excess).

Administrations are requested to make counts to ascertain:

a) the percentage of loss of revenue in relation to the present situation that could result from the approval of the proposed new regulations;

b) the factor by which the present tariffs would be multiplied should compensation for loss of revenue be judged desirable;

c) the new percentage which might be applied to letter-telegrams if this category were maintained.

Note. — Proposal No. 1 drawn up by the IIIrd Plenary Assembly of the C.C.I.T.T. for submission to the next Administrative Telegraph and Telephone Conference (*Blue Book*—Volume II, page 243) is withdrawn.

Question 2/I* — New principles for telegraph tariffs

(continuation of Question 39/21, 1957-1960, amended at Mar del Plata, 1968)

New tariff principles for telegrams. Study of the principles which could be followed for the purpose of establishing tariffs for telegrams which would not be based on the words " pure and simple ".

Study of this question should be based on the principle that telegraph tariffs consist of two components:

a) a fixed component for deposit and delivery operations;

b) a second component in proportion to the length of the telegrams.

Studies should be continued in the first place on a continental scale.

The possibility of extending it to the intercontinental system should be examined at a later stage, taking into account, if necessary, the results obtained after study of Question 28/I.

Question 4/I — Telegraph services for " transferred accounts "

(continuation of Question 4/I, 1964-1968, amended at Mar del Plata, 1968)

Revision of the Regulations governing the transferred accounts service. Possible simplifications of the special card for this service (see Recommendation F.41).

Study of " bulk " issue of credit cards.

Question 6/I — Use of Telegraph Alphabet No. 5

(Question 6/I, 1964-1968, amended at Mar del Plata, 1968)

1. Study of points arising from the implementation of Recommendations V.3 (International Alphabet No. 5) and V.4 (General structure of signals of International Alphabet No. 5 code).

2. Further study of the definitions and use of certain control characters such as " shift-out ", " shift-in ", ESC (escape), DLE (data link escape), etc.

Note 1. — This question, common to Study Groups I, VIII (Question 9/VIII) and Special A (Question 1/A, Point C) is to be studied first by the Joint Working Party ALP. The study will be made in conjunction with the I.S.O.

Note 2. — For this study, see Supplements Nos. 1, 2, 3 and 4 of Volume VIII of the *White Book*.

Question 8/I — World-wide routing plan for telex and gentex services

(continuation of Question 8/I, 1964-1968, amended at Mar del Plata, 1968)

Continuation of the study of the world-wide routing plan for telex and gentex services with a view to amending Recommendations F.68, F.69 and U.11 on the basis of experience acquired in intercontinental operation of the telex and gentex networks.

Preparation of a world-wide routing plan for telex and gentex services. (See Supplement No. 9 of Volume VII of the *White Book* and annex to Question 8/X, Volume VII of the *White Book*.)

Note. — This question, common to Study Groups I and X (Question 8/X) and also of interest to Study Group IX, is to be studied first by the Joint Working Party TGX.

Question 9/I — Revision of Rules for the Gentex Service

(Geneva, 1964)

Modifications to be made to the text of Recommendations concerning the gentex network so as to take account of the practical experience gained in operating this network and the results of its development.

In particular, the study of modifications to be made to Recommendation F.22 so as to facilitate the interworking between gentex and message retransmission networks.

Question 10/I — Retransmission of messages

(continuation of Question 10/I, 1961-1964, amended at Geneva, 1964 and at Mar del Plata, 1968)

Supplement to the study of international telegraph systems using message relay techniques with automatic or semi-automatic switching of messages and storage.

The study of Question 10/I should be pursued, in particular with regard to the following points:

a) treatment of incomplete messages;

b) control functions and their automation;

c) the automatic counting of words (see Question 1/I);

d) additional tariff indicators to facilitate automatic accounting.

Note. — This question interests Study Group X, in particular the studies of point b).

Question 11/I — Observations on the grade of service in telex traffic

(Question 21/21, 1957-1960, amended at Geneva, 1964 and at Mar del Plata, 1968)

Study of any amendments which may have to be made to the table annexed to Recommendation F.70.

Note. — This question interests Study Group X.

Question 14/I — Revision of the Telex Regulations

(continuation of Question 24/21, 1957-1960)

Study of possible amendments to the Telex Regulations:

a) with regard to the actual regulations,

b) with regard to rates.

Question 17/I — Simultaneous phototelegraph transmission to multiple destinations

Should simultaneous phototelegraph transmission to multiple destinations be envisaged in the international service ?

If so, what operating and tariff methods should be used for these calls ?

Study Group I drew up a draft recommendation on this subject as shown in the annex to this Question.

This draft Recommendation may involve certain points which need to be discussed further. The administrations and recognized private operating agencies concerned are therefore requested to examine this draft in detail, so that Study Group I may quickly form a final conclusion on this subject.

ANNEX

Draft Recommendation F.85 (provisional numbering) — Rules for international phototelegraph communications to multiple destinations

The C.C.I.T.T.,

considering

1. that it seems advisable to provide for rules to which the administrations may refer in the case where they decide to allow calls enabling several phototelegraph stations in different countries to receive a transmission simultaneously;

2. that for multiple calls of this kind *international dissemination* (i.e. a distribution of the transmission to different countries) is necessary and possibly *national dissemination* in the incoming countries (i.e. to the various receiving stations belonging to the same national network);

3. that the participants in a multiple call may be both public stations and private stations (primarily press agencies);

4. that press agencies are anxious to transmit pictures to their customers (newspaper offices) directly—without retransmission;

5. that in the case of transmission by series, the agencies also wish to add or disconnect certain customers between two successive transmissions;

6. that operation over the international part of the collective connection should not be held up by modifications in an incoming country;

considering further

7. that dissemination equipment can be set up either in the offices of administrations or on the premises of private enterprises;

8. that press agencies operate private phototelegraph networks for their own requirements;

9. that private enterprises should be allowed under certain conditions to use their own equipment and networks to effect an additional dissemination service to their customers;

and recognizing

10. that satisfactory transmission of phototelegrams to multiple destinations can be obtained only if all the countries concerned employ a uniform mode of operation;

unanimously declares the view

that multiple calls may be allowed in the international service to enable several phototelegraph stations in different countries to receive a transmission from a transmitting station simultaneously.

The provisional rules below define the procedure to be followed for multiple destination calls. The conditions for ordinary connections which are part of the collective link are governed by Recommendations F.82, F.83 and F.84.

A. Conditions of acceptance

§ 1. A multiple call may be requested for *primary dissemination* to various countries of destination (international dissemination) and for *secondary dissemination* in the incoming countries (national dissemination).

Simultaneously a national dissemination in the country of origin can be combined with the international dissemination.

§ 2. Among the private stations of a country of destination, only enterprises that are exclusively authorized by the respective administration to receive the simultaneous transmission directly (primarily press agencies) will be allowed as participants in the multiple call.

§ 3. However, a press agency may effect, simultaneously with reception, *further dissemination* to its customers (newspaper offices) either over a private network or over circuits of the public network made available by the administration.

In the latter case, the further dissemination is allowed only within the country where the main receiving station is situated.

§ 4. The primary dissemination (including where necessary dissemination in the country of origin) and the secondary dissemination must be effected by the administration concerned.

§ 5. Any further dissemination over a private network shall in any case be effected by the agency to which the network belongs.

When circuits on the public network are used for dissemination to subordinate stations, the administration concerned shall decide who should effect this further dissemination.

For technical and operational reasons (see §§ 20 and 21), it is preferable that every further dissemination should be carried out by the agency by means of its own distribution equipment, provided that the equipment has been inspected and approved by the administration.

§ 6. In any case, the installation at the main station shall be such that the operator using it can so control operations as to ensure that the subordinate stations cannot enter into communication with the transmitting station.

§ 7. For relations employing radio circuits, the station making the simultaneous transmission may propose to the international public station of its country that the radio circuit be included in the international dissemination facilities. If this is agreed to, the public station becomes an actual participant in the multiple call but the phototelegraph transmission is routed under its control directly to the radio circuit.

B. SETTING-UP AND CONSTITUTION OF A MULTIPLE CALL CONNECTION

§ 8. To obtain a multiple call, the transmitting station shall contact the international phototelegraph position (IPP) of its country and indicate, separately for each country, which phototelegraph stations are to receive the simultaneous transmission.

Requests should be made as soon as possible, and in any case not later than two hours before the transmission is to take place, to enable the administrations concerned to make arrangements to set up the call.

§ 9. For relations employing radio circuits, the calling party shall contact the international public station of his country (see § 7).

§ 10. The IPP of the country of origin (see Figure 1, country A) shall inform the IPPs of the countries of destination (countries B, C and D) giving the names of the called participants and the time at which the transmission is to take place (see § 25). So as not to surcharge the outgoing IPP, the incoming IPPs shall, at the same time, be asked to set up an international connection from their own end at the scheduled time.

§ 11. The incoming IPPs shall arrange, where necessary, to make facilities available for national dissemination to participants in the multiple call (see § 26).

If only one participant is designated in an incoming country (country C), the international circuit shall be switched directly to the receiving station in question.

§ 12. In relations employing a radio circuit, the outgoing public station, to enable national dissemination facilities to be set up in the incoming country (country X) at the appropriate time, shall indicate to the public station at the other end of the radio section the names of the addressees of the phototelegrams to be transmitted.

The outgoing public station shall make the necessary arrangements to set up the radio circuit at the scheduled time in accordance with the procedure laid down in Recommendation F.84.

§ 13. An intermediate connection with the international dissemination shall be requested in a transit country (countries B and X) for countries of destination (countries D and Y) which it is not possible to connect directly with the dissemination effected by the country of origin.

§ 14. The outgoing IPP is the control IPP for the multiple call (i.e. as far as the main receiving stations). If an intermediate connection with the international dissemination service has been set up, the transit IPP acts as the sub-control IPP for the part of the multiple call further down the circuit.

§ 15. The control IPP notes the time when the multiple call begins and ends and the time and duration of any interruption or irregularity that may occur during transmission (for the purpose of calculating a rebate).

The start of the call is the moment at which the multiple connection has been placed at the disposal of the caller. The end of the call is the moment at which it is released by the transmitting station.

§ 16. On clearing the multiple call, the control IPP must notify the incoming IPPs concerned of the time at which the call began and ended (to ensure conformity with the national dissemination charges).

C. Extension of a multiple call

§ 17. When a private dissemination is added to the multiple call, the administration shall merely make the required circuits available to the user. The individual calls shall then be set up successively to the calling station and shall be charged from the moment they are made available.

§ 18. The routing to public network circuits of a phototelegraph transmission received on a leased circuit (see Ag 1 of country D) is not allowed.

§ 19. Each press agency is the control station for the connections with its customers. In secondary private dissemination (see Ag 1 in country D), the second connecting station becomes the sub-control station for the part further down the circuit.

§ 20. Should an administration ensure itself (see § 5) the further dissemination on the public network (country D), two separate distribution panels (I and II, country D) will be necessary to connect the incoming circuit separately to the main station (Ag 4) and to its group of customers.

To prevent subordinate stations from coming in on the international part of the collective call, the interconnection between I and II must be made by a one-way channel. The private enterprise (Ag 4) must direct the operations for which it is responsible in the two sections of the further dissemination facilities.

§ 21. Since the administration is responsible for making its dissemination facilities available at the right time, and in view of the operational difficulties, in particular resulting from any change required in this part of the further dissemination, this mode of operation is not recommended.

D. Speech circuit

§ 22. The speech circuit is a leased telephone circuit which provides a direct connection between the site of the transmitting apparatus and the control IPP. This type of connection expedites the procedures preparatory to the call and enables rapid action to be taken to overcome any difficulties experienced during transmission. It also enables to give notice of the right moment, and the end of the multiple call, and is a suitable means for determining exactly the chargeable duration of the call.

§ 23. The speech circuit may, however, be replaced by a telephone connection set up from the transmitting station over the general telephone network.

E. General provisions

§ 24. The setting-up of a multiple call may involve unforeseen delays, in practice, particularly when radio circuits are included in the collective connection or when intermediate connection centres are used in the international dissemination sector.

For these reasons, it is impossible for administrations to give any guarantee that a multiple call will be made available at a specific time.

§ 25. It is for the control IPP to estimate the time required to make the requested call available. For this purpose it shall, if necessary, ask the public station at what time the radio circuit will be set up.

It must inform all IPPs (incoming and transit, in case of need) of the time at which transmission is to take place.

§ 26. The incoming IPPs must do their utmost to respect the scheduled time for setting up the international connection to the control (or sub-control) IPP.

To avoid any delay in commencing the simultaneous transmission because of arrangements to be made in an incoming country, the national extension (dissemination or simple prolongation) should in all cases be ready before the international circuit is made available.

§ 27. If a called station is unable to accept the call at the scheduled time, the incoming IPP shall so inform the control IPP.

It will be for the station requesting the multiple call to decide whether transmission should be held up until the station is ready to receive, or whether the station should be brought in later or whether it should be excluded from the call.

In any case, the call charge begins from the time the caller is informed of the position.

§ 28. When it is not possible to set up an international or national connection required for the multiple call within six minutes after the appointed time, the control IPP shall draw the caller's attention to the difficulties which have arisen. Whatever course the caller decides to take, the part of the call which has taken place will be charged for.

§ 29. When a request is made to extend to other relations a call (simple or multiple) which has already begun, it must be regarded as a new call request. This call will be made available to the caller as soon as it is set up, and will be charged for separately from that time. The caller must indicate the time at which it should be combined with the original call.

F. CHARGING

§ 30. Multiple calls from a public station raise no problems as regards charging. Each phototelegram is charged individually, even in cases where the same picture forms subjects of different phototelegrams transmitted simultaneously.

For calls from a private station, the following provisions are to be observed:

a) *Charging for the wire section*

§ 31. The charge for that part of a multiple call which is constituted by circuits of the telephone network should be composed of a main charge and possible accessory charges.

§ 32. The *main charge* is reckoned by applying the rates for single phototelegraph calls in the relations between the outgoing country and the international centres of the countries of destination, regardless of the number of correspondents (main receiving stations) in the incoming countries. However, the surcharge of four minutes provided for single calls (see Recommendation F.83) is increased to eight minutes in the case of multiple calls.

Note. — The calculation of the main charge, which relates solely to the international part of the collective call, independently of the itinerary between the outgoing country and the incoming country.

The latter may be set up:

— either via a direct international circuit (A-B)

— or by the interconnection of two (or more) international circuits in one (or more) transit countries (A-B-C)

— or by intermediate connection in a third country (A-B-D).

§ 33. The *accessory charge* for secondary dissemination (i.e. to main receiving stations in a country of destination) shall be fixed by the incoming country, taking into account:

— national connections set up beyond the international incoming centre;

— a special surcharge due to making national distribution circuits available simultaneously.

To obtain a uniform surcharge, it is recommended that a supplement of eight minutes in addition to the actual call duration be also charged in the national system.

Note. — In calculating the accessory charge, no account is taken of connections with participants who are permanently connected (by leased circuits) to the incoming IPP.

§ 34. In the case of simple prolongation of an international circuit (country C), an accessory charge of four minutes only is levied.

§ 35. The provisions of § 33 apply also to the country of origin if a national dissemination is effected simultaneously with the international dissemination.

§ 36. The *total charge* is calculated by the country of origin, taking into account the accessory charges communicated by the incoming countries concerned; it shall be collected exclusively from the calling party.

The main charge shall be divided among the various countries concerned in accordance with the rules applicable to single phototelegraph calls (see Recommendation F.83). The accessory charges are allocated to each of the administrations concerned.

b) *Charging for the radio section*

§ 37. If a radio circuit is included in the international dissemination facilities (see § 7), charges are based on the number of phototelegrams transmitted simultaneously over the radio circuit.

The circuit set up between the control IPP and the public station serving the radio circuit is not subject to charging.

§ 38. The *total charge* for this part of the multiple call is reckoned by applying the rates for phototelegrams exchanged between the outgoing country and the various countries of destination beyond the far terminal of the radio circuit, taking into account the number of addressees in each incoming country.

§ 39. It shall be fixed entirely by the outgoing control station and collected exclusively from the transmitting station.

It shall be divided among the countries concerned in accordance with the rules governing accounts for phototelegraph calls between public stations (see Recommendation F.80).

c) *Charging for further dissemination*

§ 40. Charges for national calls set up at the request of a main receiving station, with a view to further dissemination, are collected from the calling party and are not included in international accounts.

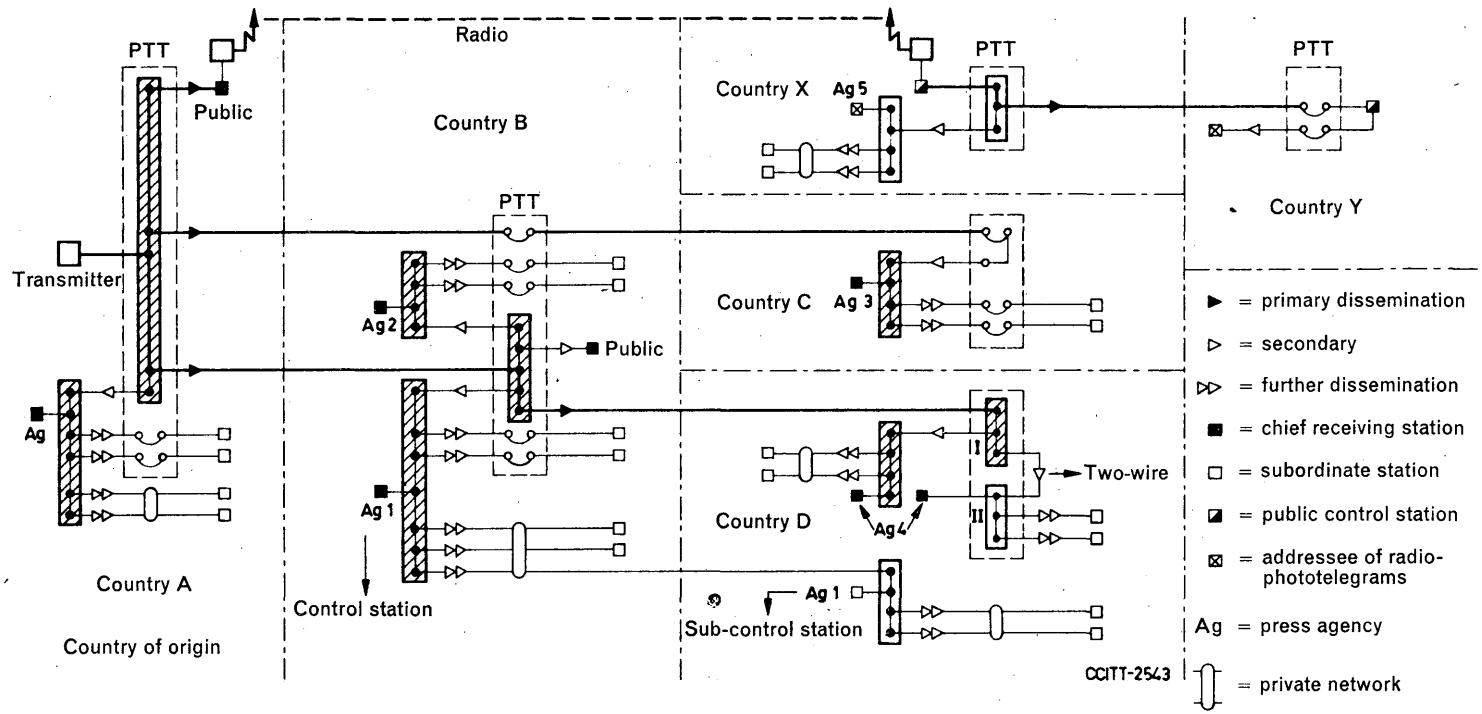

FIGURE 1. — **Phototelegraph transmissions to multiple destinations**

Question 18/I — Unification of service codes

(Question 10/21, 1957-1960, amended at Mar del Plata, 1968)

Revision and bringing up to date of codes used in the international telecommunication services *(Green Book)*.

Note 1. — Amendments to these codes should be submitted in the form of contributions to Study Group I.

Note 2. — Attention is drawn to C.C.I.R. Recommendation 437 (Oslo) on this subject, in which the C.C.I.R. considers that the continuation of studies on the unification of service codes would not be warranted.

Note 3. — Some differences in code expressions are to be found between the I.T.U. Code Book *(Green Book)* and some C.C.I.T.T. Recommendations such as F.1, F.22 and F.60.
It is necessary to include these codes in C.C.I.T.T. Recommendations. Consequently for the publication of the next C.C.I.T.T. Book, these code expressions should be brought into line with those appearing in the *Green Book*.

Note 4. — The abbreviations of Recommendation R.90 will not be included in the *Green Book*.

Question 23/I* — Revision of Telegraphic Regulations in accordance with Resolution No. 36 of the Plenipotentiary Conference of Montreux

The following Resolution No. 36 was issued by the Plenipotentiary Conference of Montreux:

The Plenipotentiary Conference of the International Telecommunication Union (Montreux, 1965),

considering

a) that certain provisions of the Telegraph and Telephone Regulations revised by world administrative conferences cover the same ground as certain Recommendations of the C.C.I.T.T.;

b) that most technical and operational questions and certain tariff questions relating to telegraphy and telephony are dealt with in C.C.I.T.T. Recommendations;

c) that it is advisable to reduce Union expenditure by shortening the duration of world administrative conferences dealing with telegraph or telephone questions;

is of the opinion

that it would be desirable to simplify the Telegraph and Telephone Regulations annexed to the International Telecommunication Convention;

instructs the International Telegraph and Telephone Consultative Committee

1. to ascertain which provisions of the Telegraph and Telephone Regulations are, or could be, the subject of C.C.I.T.T. Recommendations and could accordingly be omitted from the Regulations; and

2. to submit proposals for this purpose to the next Plenary Assembly of the C.C.I.T.T.;

resolves

that after consideration and approval by the C.C.I.T.T. Plenary Assembly, the proposals for simplification shall be submitted to the next world administrative conference dealing with telegraph and telephone questions.

The study required by the Resolution with respect to the Telegraph Regulations was assigned to Study Group I as Question 23/I entitled " Revision of the Telegraph Regulations ".

The work already begun in preparing a draft simplified set of international telegraph regulations and the C.C.I.T.T. Recommendations that will supplement them should be continued.

Attention should be paid to the chapter on word counting if a definitive reply is given to Question 1/I; and to Chapter IV—Tariffs and charging—if the difference between the collection rate and the accounting rate were to be introduced in the telegraph service.

The transfer of some provisions of the Radio Regulations and Additional Radio Regulations to the Telegraph Regulations will have to be examined (see Resolution No. 37 of the Plenipotentiary Conference, Montreux, 1965).

The work already achieved in the Revision of the International Telegraph Regulations is contained in documents AP IV/27 and AP IV/28.

Question 24/I — Tabulation of public message traffic

(Mar del Plata, 1968)

1. With the increasing use of page working in the public message service and the delivery of page copy to members of the public there is a demand for telegrams to be transmitted and delivered in tabulated form.

2. Enquiries have been made for the transmission of tabulated data suitable for direct presentation to a computer. The existing prohibition of mixed letter and figure groups has prevented the acceptance of this traffic. However, the Australian proposal to allow mixed groups, if accepted, would allow for the acceptance of such traffic, and provide an additional source of revenue.

3. On routes where page working is used and where the telegram is to be delivered by hand or by telex there is no technical objection to tabulation but it would seem reasonable for the administration preparing the tabulated message to be reimbursed for the operating time involved.

4. Administrations preparing tabulated messages should be entitled to raise a surcharge equivalent to the charge for two words for each line of tabulation. This surcharge will be retained by the sending administration and will not affect the word check shown in the preamble of the message.

5. The sender of a tabulated message must hand in the message in the manner prescribed by the sending administration and accept the risk that the method of delivery will not retain the tabulated form. Nevertheless, administrations shall deliver such messages in tabulated form if at all possible.

Question 25/I* — Deletion of money order telegrams and postal cheque telegrams

(Mar del Plata, 1968)

It is proposed that the present Chapter XVIII (Money order telegrams and postal cheque telegrams) be deleted from the Telegraph Regulations.

In principle, a money order telegram is a message sent by one post office to another concerning the transfer of a certain sum.

The rules governing money order telegrams and postal cheque telegrams were introduced in the 1885 Regulations and, according to them, such telegrams are to be regarded as a special category of telegram. Nowadays it seems quite unnecessary to have special rules governing the transfer of the relatively small sums involved.

For telegrams sent by banks, for example, concerning the transfer of very large sums, there are no special rules.

Deletion of the Regulations in question would bring about a desirable reduction in the number of categories of telegram and would avoid the special rules they contain concerning, for instance, the category indications, obligatory repetition, etc.

This study should be made on the national scale in conjunction with the postal services.

Question 26/I — Data transmission statistics

(Mar del Plata, 1968)

In view of the increasing development of data transmission in the national and international services, it would seem wise to envisage collecting statistical data to complete information of the kind already compiled for the telegraph and telephone services.

The study of a draft system of data transmission statistics should therefore be undertaken.

As preliminary information the following might be included in the statistics:

Public networks for data transmission

1. *Use of the public telephone network:*

   Number of modems for 200 bauds . . . . . .
   Number of modems for 600/1200 bauds . . . . . .
   Number of modems for more than 1200 bauds . . . . . .
   Number of modems for parallel transmission . . . . . .

2. *Use of the telex network:*

   Number of stations transmitting data [1] . . . . . .

3. *Special network(s) for data transmission:*

   Number of stations . . . . . .

[1] Telex stations using the procedure foreseen by C.C.I.T.T. Recommendation V.10, paragraph I.b.

Question 27/I — Phototelegram rates in the extra-European system

(Mar del Plata, 1968)

Study of phototelegram rates in the extra-European system.

Question 28/I — Telegraph tariffs in the extra-European system

(Mar del Plata, 1968)

Study of a tariff system permitting the application of a single tariff for telegrams addressed to countries within a particular zone.

Comments.—The telegraph rates applied at present in the extra-European system contain discrepancies which can only be explained by reasons dating back to the origin of telegraphy and the co-existence in the same relation of submarine cable and radiotelegraph links.

It is difficult to explain to users why, from a given country, the rates for telegrams to countries that are neighbours on another continent may sometimes vary by as much as 100 per cent.

Provisions to remedy this situation should therefore be studied. For example a charging system by zones, the size of which would have to be determined, could serve as a basis for this study.

Question 29/I — Intercontinental phototelegraph calls

(Mar del Plata, 1968)

Recommendation F.82 specifies the provisions to be observed for international phototelegraph calls set up on circuits normally used for continental telephone traffic.

Since circuits via submarine cable or satellite are being used more and more for the intercontinental telephone service, it is desirable to study whether the rules set out in Recommendation F.82 are likewise applicable to these other types of circuits or whether special rules should be laid down for their use in phototelegraph transmissions.

Note. — The studies should also include the case in which satellite or submarine-cable circuits have to be extended by land circuits.

Question 30/I — Joint use of the public message and telex services

(Mar del Plata, 1968)

Comments

1. The telex service enables two subscribers to be put in contact, but when a telex subscriber wishes to pass a message to an addressee in a foreign country, who is not a subscriber, he has to pass through the public message service.

2. It may be queried whether the organization of a service enabling this subscriber to transmit his message directly to the foreign country's public office nearest to the receiver would be of value. The conditions of delivery (by telephone, special bearer or post) would have to be examined.

3. The possibility of the sender asking for his message to be transmitted directly from the first public telegraph exchange equipped for switched service to a telex subscriber in a foreign country should also be considered.

Note 1. — A service of this type exists in some countries on the national scale (Teltex service).

Note 2. — For information, there is a service called " Telexogram " admitted in some European countries.

Note 3. — For information, there is a service called " Fonotelex " based on the combined use of the telephone and telex services and admitted by the Administration of Denmark for the incoming and outgoing national and international services.

Information on these services should be submitted by the administrations concerned.

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