



This electronic version (PDF) was scanned by the International Telecommunication Union (ITU) Library & Archives Service from an original paper document in the ITU Library & Archives collections.

La présente version électronique (PDF) a été numérisée par le Service de la bibliothèque et des archives de l'Union internationale des télécommunications (UIT) à partir d'un document papier original des collections de ce service.

Esta versión electrónica (PDF) ha sido escaneada por el Servicio de Biblioteca y Archivos de la Unión Internacional de Telecomunicaciones (UIT) a partir de un documento impreso original de las colecciones del Servicio de Biblioteca y Archivos de la UIT.

(ITU) للاتصالات الدولي الاتحاد في والمحفوظات المكتبة قسم أجراه الضوئي بالمسح تصوير نتاج (PDF) الإلكترونية النسخة هذه والمحفوظات المكتبة قسم في المتوفرة الوثائق ضمن أصلية ورقية وثيقة من نقلًا.

此电子版（PDF版本）由国际电信联盟（ITU）图书馆和档案室利用存于该处的纸质文件扫描提供。

Настоящий электронный вариант (PDF) был подготовлен в библиотечно-архивной службе Международного союза электросвязи путем сканирования исходного документа в бумажной форме из библиотечно-архивной службы МСЭ.



INTERNATIONAL TELECOMMUNICATION UNION

# CCITT

THE INTERNATIONAL  
TELEGRAPH AND TELEPHONE  
CONSULTATIVE COMMITTEE

**YELLOW BOOK**

---

**VOLUME II – FASCICLE II.4**

## **TELEGRAPH AND TELEMATIC SERVICES OPERATIONS AND TARIFFS**

**RECOMMENDATIONS OF THE F SERIES**

---



**VII<sup>TH</sup> PLENARY ASSEMBLY**  
GENEVA, 10–21 NOVEMBER 1980

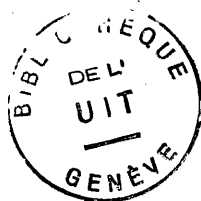
Geneva 1981



INTERNATIONAL TELECOMMUNICATION UNION

# CCITT

THE INTERNATIONAL  
TELEGRAPH AND TELEPHONE  
CONSULTATIVE COMMITTEE



**YELLOW BOOK**

---

**VOLUME II - FASCICLE II.4**

## **TELEGRAPH AND TELEMATIC SERVICES OPERATIONS AND TARIFFS**

**RECOMMENDATIONS OF THE F SERIES**

---



**VII<sup>TH</sup> PLENARY ASSEMBLY**  
GENEVA, 10-21 NOVEMBER 1980

Geneva 1981

ISBN 92-61-00951-4





**CONTENTS OF THE CCITT BOOK  
APPLICABLE AFTER THE SEVENTH PLENARY ASSEMBLY (1980)**

**YELLOW BOOK**

- Volume I**
- Minutes and reports of the Plenary Assembly.
  - Opinions and Resolutions.
  - Recommendations on:
    - the organization and working procedures of the CCITT (Series A);
    - means of expression (Series B);
    - general telecommunication statistics (Series C).
  - List of Study Groups and Questions under study.

**Volume II**

- FASCICLE II.1 – General tariff principles – Charging and accounting in international telecommunications services. Serie D Recommendations (Study Group III).
- FASCICLE II.2 – International telephone service – Operation. Recommendation E.100 - E.323 (Study Group II).
- FASCICLE II.3 – International telephone service – Network management – Traffic engineering. Recommendations E.401 - E.543 (Study Group II).
- FASCICLE II.4 – Telegraph and “telematic services”<sup>1)</sup> operations and tariffs. Series F Recommendations (Study Group I).

**Volume III**

- FASCICLE III.1 – General characteristics of international telephone connections and circuits. Recommendations G.101 - G.171 (Study Group XV, XVI, CMBD).
- FASCICLE III.2 – International analogue carrier systems. Transmission media – characteristics. Recommendations G.211 - G.651 (Study Group XV, CMBD).
- FASCICLE III.3 – Digital networks – transmission systems and multiplexing equipments. Recommendations G.701 - G.941 (Study Group XVIII).
- FASCICLE III.4 – Line transmission of non telephone signals. Transmission of sound programme and television signals. Series H, J Recommendations (Study Group XV).

**Volume IV**

- FASCICLE IV.1 – Maintenance; general principles, international carrier systems, international telephone circuits. Recommendations M.10 - M.761 (Study Group IV).
- FASCICLE IV.2 – Maintenance; international voice frequency telegraphy and facsimile, international leased circuits. Recommendations M.800 - M.1235 (Study Group IV).
- FASCICLE IV.3 – Maintenance; international sound programme and television transmission circuits. Series N Recommendations (Study Group IV).
- FASCICLE IV.4 – Specifications of measuring equipment. Series O Recommendations (Study Group IV).

---

<sup>1)</sup> “Telematic services” is used provisionally.

**Volume V** – Telephone transmission quality. Series P Recommendations (Study Group XII).

**Volume VI**

- FASCICLE VI.1 – General Recommendations on telephone switching and signalling. Interface with the maritime service. Recommendations Q.1 - Q.118 *bis* (Study Group XI).
- FASCICLE VI.2 – Specifications of signalling systems Nos. 4 and 5. Recommendations Q.120 - Q.180 (Study Group XI).
- FASCICLE VI.3 – Specifications of signalling system No. 6. Recommendations Q.251 - Q.300 (Study Group XI).
- FASCICLE VI.4 – Specifications of signalling systems R1 and R2. Recommendations Q.310 - Q.490 (Study Group XI).
- FASCICLE VI.5 – Digital transit exchanges for national and international applications. Interworking of signalling systems. Recommendations Q.501 - Q.685 (Study Group XI).
- FASCICLE VI.6 – Specifications of signalling system No. 7. Recommendations Q.701 - Q.741 (Study Group XI).
- FASCICLE VI.7 – Functional Specification and Description Language (SDL). Man-machine language (MML). Recommendations Z.101 - Z.104 and Z.311 - Z.341 (Study Group XI).
- FASCICLE VI.8 – CCITT high level language (CHILL). Recommendation Z.200 (Study Group XI).

**Volume VII**

- FASCICLE VII.1 – Telegraph transmission and switching. Series R, U Recommendations (Study Group IX).
- FASCICLE VII.2 – Telegraph and “telematic services”<sup>1)</sup> terminal equipment. Series S, T Recommendations (Study Group VIII).

**Volume VIII**

- FASCICLE VIII.1 – Data communication over the telephone network. Series V Recommendations (Study Group XVII).
- FASCICLE VIII.2 – Data communication networks; services and facilities, terminal equipment and interfaces. Recommendations X.1 - X.29 (Study Group VII).
- FASCICLE VIII.3 – Data communication networks; transmission, signalling and switching, network aspects, maintenance, administrative arrangements. Recommendations X.40 - X.180 (Study Group VII).

**Volume IX** – Protection against interference. Series K Recommendations (Study Group V). Protection of cable sheaths and poles. Series L Recommendations (Study Group VI).

**Volume X**

- FASCICLE X.1 – Terms and definitions.
- FASCICLE X.2 – Index of the Yellow Book.

---

<sup>1)</sup> “Telematic services” is used provisionally.

## CONTENTS OF FASCICLE II.4 OF THE YELLOW BOOK

### Series F Recommendations

#### Telegraph and "telematic services" operations and tariffs

Rec. No.		Page
	Protection of the common names of CCITT defined international public services . . . . .	3
Res. No. 13	Protection of the common names of CCITT defined international public services . . . .	3
SECTION 1 — <i>Operating methods for the international public telegram service</i>		
F.1	Operational provisions for the international public telegram service . . . . .	5
F.2	Instructions for the international public telegram service . . . . .	78
F.10	Character error rate objective for telegraph communication using 5-unit start-stop equipment . . . . .	79
SECTION 2 — <i>The gentex network</i>		
F.20	The international gentex service . . . . .	81
F.21	Composition of answer-back codes for the international gentex service . . . . .	85
F.23	Grade of service for long-distance international gentex circuits . . . . .	88
F.24	Average grade of service from country to country in the gentex service . . . . .	88
SECTION 3 — <i>The telegram retransmission system</i>		
F.30	Use of various sequences of combinations for special purposes . . . . .	91
F.31	Telegram retransmission system . . . . .	93
SECTION 4 — <i>Tariffs and accounting methods for the international public telegram service</i>		
F.41	The transferred account telegraph service . . . . .	103
F.42	Charging, accounting and refunds in the international public telegram service . . . . .	109
F.43	Transfer in encoded form of monthly international accounting information . . . . .	119
F.45	Regional tariff recommendations for the international public telegram service . . . . .	119
F.51	Accounting procedure to be applied when a circuit carrying VF telegraphy is replaced by another having a different routing . . . . .	119

Rec. No.		Page
SECTION 5 — <i>Telex</i>		
F.60	Operational provisions for the international telex service . . . . .	121
F.61	The chargeable duration of a telex call . . . . .	136
F.62	Duplex operation in the telex service . . . . .	138
F.63	Additional facilities in the international telex service . . . . .	139
F.64	Determination of the number of international telex circuits required to carry a given volume of traffic . . . . .	140
F.65	Time-to-answer by operators at international telex positions . . . . .	145
F.66	Regional tariff recommendations for the international telex service . . . . .	146
F.67	Charging and accounting in the international telex service . . . . .	146
F.68	Establishment of the automatic intercontinental telex network . . . . .	158
F.69	Plan for telex destination codes . . . . .	164
F.70	Observations on the quality of service in the international telex service . . . . .	168
F.71	Interconnection of private teleprinter networks with the telex network . . . . .	170
F.79	Instructions for the international telex service . . . . .	172
SECTION 6 — <i>Phototelegraph services</i>		
F.80	Provisions about phototelegrams . . . . .	173
F.80 bis	Provisions relating to private phototelegraph calls . . . . .	178
F.82	Rules for phototelegraph calls established over circuits normally used for telephone traffic . . . . .	180
F.83	Rates for phototelegrams and private phototelegraph calls . . . . .	183
F.84	Rules for phototelegraph communications established over radio circuits or combined radio and metallic circuits . . . . .	186
F.85	Rules for international phototelegraph communications to multiple destinations . . . . .	192
SECTION 7 — <i>Statistics and publications on international telegraph services</i>		
F.91	General statistics for the telegraph services . . . . .	199
F.92	Service codes . . . . .	200
F.93	Routing table for offices connected to the gentex service . . . . .	202
F.95	Table of international telex relations and traffic . . . . .	203
F.96	List of destination indicators . . . . .	205
SECTION 8 — <i>Scheduled and leased communication services</i>		
F.100	Scheduled radiocommunication service . . . . .	207
SECTION 9 — <i>Maritime mobile service</i>		
F.110	Operational provisions for the maritime mobile service . . . . .	209
F.111	Charging, accounting and refunds in the maritime mobile service . . . . .	226
F.112	Quality objectives for 50-baud start-stop telegraph transmission in the maritime mobile-satellite service . . . . .	241
F.120	Ship station identification for VHF/UHF and maritime mobile-satellite services . . . . .	242

Rec. No.		Page
F.121	Numbering and selection procedures for maritime mobile radiotelex services . . . . .	247
F.130	Maritime answer-back codes . . . . .	257
F.131	Radiotelex service codes . . . . .	259
F.132	Procedures for use of store-and-forward facilities in the maritime mobile services for ship-originated calls . . . . .	260

SECTION 10 — *Public facsimile service*

F.160	General operational provisions for the international public facsimile services . . . . .	265
F.170	Operational provisions for the international public facsimile service between public bureaux (bureaufax) . . . . .	270
F.180	Operational provisions for the international public facsimile service between subscribers' stations . . . . .	277

SECTION 11 — *Teletex service*

F.200	Teletex service . . . . .	281
-------	---------------------------	-----

SECTION 12 — *Videotex service*

F.300	Videotex service . . . . .	301
-------	----------------------------	-----

---

REMARK

The Questions entrusted to each Study Group for the Study Period 1981-1984 can be found in Contribution No. 1 to that Study Group.

---

CCITT NOTE

Throughout the Series F Recommendations, the asterisk \* used after "Administration(s)" means that recognized private operating agency/agencies are included.

## **FASCICLE II.4**

### **Series F Recommendations**

#### **TELEGRAPH AND “TELEMATIC SERVICES”<sup>1)</sup> OPERATIONS AND TARIFFS**

---

<sup>1)</sup> The term “telematic services” is used provisionally.

**PAGE INTENTIONALLY LEFT BLANK**

**PAGE LAISSEE EN BLANC INTENTIONNELLEMENT**

**PROTECTION OF THE COMMON NAMES OF  
CCITT DEFINED INTERNATIONAL PUBLIC SERVICES**

Resolution No. 13 published in Volume I is reproduced below for the convenience of the reader.

**Resolution No. 13**

**PROTECTION OF THE COMMON NAMES OF CCITT DEFINED  
INTERNATIONAL PUBLIC SERVICES**

*(Geneva, 1980)*

The CCITT,

*considering*

- (a) that CCITT has defined, *inter alia*, the international public services "teletex", "telefax" and "bureaufax" in Service Recommendations;
- (b) that those international public services are characterized by complete end-to-end compatibility;
- (c) that it is desirable to use on a worldwide basis for those CCITT defined international public services their respective common name, i.e. "teletex", "telefax" or "bureaufax", to qualify any service provided in that respect as complying completely with the CCITT definitions for the respective international public service in order to guarantee end-to-end compatibility;
- (d) that it is essential to protect the use of the aforementioned common names;

*noting*

- (a) that within a number of countries, several Recognized Private Operating Agencies (RPOAs) may provide such CCITT defined international public services and may also wish to add further optional user facilities in addition to the respective basic international public service as defined by the CCITT;
- (b) that, for the preceding reason, some RPOAs may wish to use service designations, e.g. XXX/teletex, indicating a combination of a basic international public service as defined by the CCITT with additional optional user facilities;

*resolves to request Administrations\**

- (1) to ensure that any such international public service offered by an Administration\* be denominated by its respective common name, i.e. "teletex", "telefax" or "bureaufax" and comply completely with the respective CCITT definitions for such service;



(2) to endeavour to protect the common names of the CCITT defined international public services "teletex", "telefax" and "bureaufax", *inter alia* through the communication of those names to the national, regional and international authorities for the registration and administration of trade marks and service marks in order to ensure that the said names be not made the subject of trade marks or service marks or if claimed in an application for the registration of trade marks or service marks be made the subject of a disclaimer;

(3) to ensure that in the case of a combination of any such CCITT defined international public services together with further optional user facilities in addition to that basic service, the trade mark or the service mark for such a combined service offered by any RPOA be always combined with the respective common name of the basic CCITT defined international public service, i.e. "teletex", "telefax" or "bureaufax", and that the latter names, in the case of registration of such a trade mark or service mark, be made the subject of a disclaimer;

(4) to inform the Director of the CCITT continuously about the measures taken with regard to resolves (1) to (3) above;

*requests the Director of the CCITT*

to compile the information received in respect of such measures and to make this information available on request for consultation by Administrations\*.

## SECTION 1

### OPERATING METHODS FOR THE INTERNATIONAL PUBLIC TELEGRAM SERVICE

#### Recommendation F.1

#### OPERATIONAL PROVISIONS FOR THE INTERNATIONAL PUBLIC TELEGRAM SERVICE

*(Geneva, 1972; amended at Geneva, 1976 and 1980)*

#### SUMMARY

- Division A — General provisions applying to all methods of working
- Division B — Operational provisions applying to Morse and sounder working
- Division C — Operational provisions applying to printing telegraph systems
- Division D — Telegraph service correspondence

#### *Introductory notes*

- 1 Attention is drawn to Regional Recommendations (see Recommendation F.45) concerning, among other things, the possible introduction of a binary tariff system in Europe.
- 2 Telegram examples given in this Recommendation are only intended to illustrate the correct formatting of telegrams. Groups such as gentex answer-back codes, channel indicators, telegram identification groups, destination indicators, origin indicators and postal codes do not necessarily reflect current usage or routing arrangements in the telegraph offices concerned.
- 3 Letters, figures and signs that are transmitted electrically are shown in the following font: **TLX420216**.
- 4 Marginal reference numbers are shown in italics (e.g. *A60*) for those provisions that parallel the *Telegraph Regulations*, (Geneva, 1973) [1].

## DIVISION A

### GENERAL PROVISIONS APPLYING TO ALL METHODS OF WORKING

#### I. Hours of service of offices

- 1 Duration and closing of service — Legal time

#### II. Classification of correspondence in the international public telegram service

- 1 Telegrams and special services
  - 1.1 Obligatory telegrams
  - 1.2 Optional telegrams and special services

#### III. Preparation and handing in of telegrams

- 1 Plain and secret languages — Acceptance of these languages
- 2 Plain language
- 3 Secret language
- 4 Characters that may be used for the preparation of telegrams
- 5 Order of arrangement of the various parts of a telegram
- 6 Heading
- 7 The address part
  - 7.1 The service indications
  - 7.2 General provisions for the address
  - 7.3 Full address
  - 7.4 Registered address
  - 7.5 Telephonic address
  - 7.6 Telex address
  - 7.7 *Poste restante* or *telegraphe restant* address
  - 7.8 Post office box address
- 8 The text part
  - 8.1 The text
  - 8.2 The signature
- 9 The routine repetition
- 10 Identification and address of the sender
- 11 Cancellation of telegrams at the request of the sender

#### IV. Counting of words

- 1 General provisions
- 2 Counting the number of chargeable words
- 3 Indication of the number of words in the preamble line
- 4 Irregularities in the counting of words

#### V. Routing of telegrams

- 1 Route to be followed by telegrams
- 2 Routing errors

#### VI. Transmission of telegrams

- 1 Order of transmission of telegrams
- 2 Order of transmission of the various parts of a telegram
- 3 Transmission of the heading
- 4 Transmission of the other parts of a telegram
- 5 Reception
- 6 Routine repetition
- 7 Errors and interruptions

**VII. Interruption of telegram communications**

- 1 Diversion of telegrams

**VIII. Delivery at destination**

- 1 General provisions
- 2 Methods of delivery
- 3 Non-delivery and delayed delivery

**IX. Obligatory telegrams**

- 1 Telegrams relating to the safety of life (SVH)
- 2 Government telegrams and telegrams relative to the application of the United Nations Charter
- 3 Meteorological telegrams
- 4 Telegrams concerning persons protected in time of war by the Geneva Conventions of 12 August 1949
- 5 Ordinary private telegrams
- 6 Telegraph service correspondence

**X. Optional telegrams**

- 1 Money order telegrams and postal cheque telegrams
- 2 Letter telegrams
- 3 Franking privilege telegrams
- 4 Press telegrams

**XI. Special services**

- 1 General provisions
- 2 Urgent transmission and delivery
- 3 Prepaid reply
- 4 Confirmation of delivery
- 5 Redirection at the addressee's request
- 6 De luxe form

**XII. Stoppage of telegrams**

- 1 Transmission of certain telegrams as of right – Notification of stoppage

**XIII. Archives**

- 1 Archives
- 2 Inspection of original forms of telegrams – Supplying copies of telegrams

**DIVISION B**

**OPERATIONAL PROVISIONS APPLYING TO MORSE AND SOUNDER WORKING**

**I. Morse code**

- 1 Morse code signals
- 2 Spacing and length of the signals
- 3 Transmission of figures in abbreviated form

- 4 Transmission of signs for which there is no corresponding signal in the Morse code
- 5 Transmission of accented letters (other than e)
- 6 Transmission of groups of figures and letters, of ordinal numbers or of fractions

**II. General transmission rules**

**III. Transmission of telegrams with identical text or comprising more than 50 words**

- 1 Identical texts
- 2 Long telegrams

**IV. Transmission irregularities – Service notes**

**V. Routine repetition – Checking the number of words transmitted – Acknowledgement of receipt**

- 1 Routine repetition, checking the number of words transmitted
- 2 Acknowledgement of receipt

**VI. Transmission procedures**

**DIVISION C**

**OPERATIONAL PROVISIONS APPLYING TO PRINTING TELEGRAPH SYSTEMS**

**I. Transmission signals**

- 1 Transmission signals of International Telegraph Alphabet No. 2
- 2 Transmission of signs for which there is no corresponding signal in the telegraph alphabet
- 3 Transmission of ordinal numbers, groups of figures and letters or of numbers that include fractions

**II. General provisions for transmission of telegrams**

- 1 Calling
- 2 Transmission with running series of numbers
- 3 Routine repetition

**III. General provisions for reception**

**IV. Special provisions for point-to-point operations**

- 1 Transmission of telegrams to tape-printing systems
- 2 Transmission of telegrams to page-printing systems
- 3 Reception

**V. Special provisions for gentex operations**

- 1 General provisions
- 2 Routing
- 3 Answer-back codes
- 4 Responsibility of transmitting or receiving stations
- 5 Procedures before transmission of a telegram

- 6 Actual transmission of a telegram
- 7 Procedures following transmission of a telegram
- 8 Series transmission
- 9 Reception of telegrams
- 10 Abnormal conditions before transmission
- 11 Abnormal conditions during transmission
- 12 Misrouted telegrams
- 13 Service notes
- 14 Service advices (A)
- 15 Use of codes
- 16 Particular provisions for the use of page-printing teleprinters, format converters and/or error correction devices in the gentex service
- 17 Traffic between gentex offices equipped with page-printing teleprinters
- 18 Interworking between tape-printing and page-printing teleprinters
- 19 Special transmission procedures for use with format converters and/or automatic error correction devices
- 20 Service codes and abbreviations to be used in gentex operation

#### **VI. Special provisions for the telegram retransmission system**

- 1 General provisions
- 2 Telegram format
- 3 Procedure for telegrams of more than 300 words
- 4 Treatment of re-runs and put-backs
- 5 Examples of the recommended format
- 6 Interworking between the telegram retransmission system and the gentex network

### **DIVISION D**

#### **TELEGRAPH SERVICE CORRESPONDENCE**

##### **I. Telegraph service correspondence**

- 1 Definitions

##### **II. Service telegrams, service advices and paid service advices**

- 1 General provisions
- 2 Service telegrams
- 3 Service advices and paid service advices
  - 3.1 General provisions
  - 3.2 Procedure
  - 3.3 Wording
  - 3.4 Charging of paid service advices
  - 3.5 Diversions
  - 3.6 Repetition of a telegram

##### **III. Examples of format and wording of service correspondence**

## DIVISION A

### GENERAL PROVISIONS APPLYING TO ALL METHODS OF WORKING

#### I. Hours of service of offices

##### 1 Duration and closing of service — Legal time

- A1 1.1 Each Administration\* shall fix the hours during which its offices shall be open for international service.
- A2 1.2 International communications established between important offices shall, so far as practicable, work without interruption.
- A3 1.3 In relations between offices that are permanently open, the closing of daily sessions shall take place at a time agreed upon between the offices concerned.
- A4 1.4 In relations between offices that are not permanently open, a terminal office may not close before having exchanged all outstanding international telegrams with an office that is open later and before having obtained confirmation that all telegrams have been received.
- A5 1.5 Between two directly communicating offices in different countries, close of work may take place only by agreement between these offices. If these offices have different hours of closing, the office that closes 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, the capital of which has a longitude to the east of the other capital.
- A6 1.6 Offices shall use the legal time of their country or of their zone.

#### II. Classification of correspondence in the international public telegram service

##### 1 Telegrams and special services

###### 1.1 *Obligatory telegrams*

- A7 1.1.1 The following classes of telegrams shall be accepted in the international public telegram service (for the application of service indications, see A62 to A70):

Telegrams relating to the safety of life

Telegrams relative to the application of the United Nations Charter

Government telegrams

Meteorological telegrams

Telegrams concerning persons protected in time of war by the Geneva Conventions of 12 August 1949

Ordinary private telegrams

SERVICE INDICATION

SVH

ETATPRIORITENATIONS

ETATPRIORITE or ETAT

OBS

RCT

## Telegraph service correspondence

Service telegrams or advices	<b>A</b>
Service telegrams or advices relating to serious interruption of telecommunication routes	<b>ADG</b>
Paid service advices	<b>ST</b>
Replies to paid service advices	<b>RST</b>

### 1.2 *Optional telegrams and special services*

**A8** 1.2.1 Administrations\* have the option of admitting the telegrams listed in A10 and telegrams with the special services listed in A11.

**A9** 1.2.2 However, Administrations\* that do not admit the telegrams listed in A10 and/or telegrams with the special services listed in A11 in their own services, must let them pass in transit except in case of suspension of service provided for in Article 20 of the Convention (Malaga-Torremolinos, 1973 [2]).

### **A10** 1.2.3 *Optional telegrams*

	<b>SERVICE INDICATION</b>
Money order telegrams	<b>MANDAT</b>
Postal cheque telegrams	<b>VIREMENT</b>
Letter telegrams	<b>LT</b>
Government letter telegrams	<b>LTF</b>
Franking privilege telegrams (ITU)	<b>CONFERENCE</b>
Press telegrams	<b>PRESSE</b>

### **A11** 1.2.4 *Special services*

Urgent transmission and delivery	<b>URGENT</b>
Prepaid reply	<b>RP<sub>x</sub></b> ( <b>x</b> = amount in gold francs)
Request for confirmation of delivery	<b>PC</b>
Confirmation of delivery	<b>CR</b>
De luxe form	<b>LX</b>
De luxe form of condolence	<b>LXDEUIL</b>
Period of retention of radiotelegrams at land stations	<b>J<sub>x</sub></b> ( <b>x</b> = number of days)
Telephone delivery	<b>TF<sub>x</sub></b> ( <b>x</b> = telephone number)
Telex delivery	<b>TLX<sub>x</sub></b> ( <b>x</b> = telex number)

## III. Preparation and handing in of telegrams

### **1** **Plain and secret languages — Acceptance of these languages**

**A12** 1.1 The text and the signature of telegrams may be expressed in plain language or in secret language. These languages may be used together in the same telegram.

**A13** 1.2 All Administrations\* shall accept, in all their relations, telegrams in plain language. They may refuse to admit, both in acceptance and in delivery, private telegrams wholly or partly in secret language, but they must allow these telegrams to pass in transit, except in the case of suspension defined in Article 20 of the Convention [2].



A14 1.3 The sender of a telegram in secret language must produce the code from which the text or part of the text or the signature of the telegram is compiled if the office of origin or the Administration to which this office belongs asks him for it. This provision shall not apply to government telegrams.

A15 1.4 Government telegrams and service telegrams may be expressed in secret language in all relations.

## **2 Plain language**

A16 2.1 Plain language is that which presents an intelligible meaning in one or more of the languages admitted for international telegraph correspondence; each word and each expression having the meaning normally assigned to it in the language to which it belongs.

A17 2.2 Each Administration shall indicate, from among the languages in use in its country, that (or those) which it wants to be admitted as plain language. Latin and Esperanto may also be admitted. In the absence of advice to the contrary notified through the General Secretariat, Administrations shall be considered as admitting all the languages indicated.

A18 2.3 The text and signature of telegrams from or to China may be drafted in the Chinese phonetic alphabet (issued by the Government of the People's Republic of China) or in groups of four figures or three roman characters listed in the standard code book compiled by the Ministry of Posts and Telecommunications of the People's Republic of China. Such telegrams shall be considered as drafted in plain language.

A19 2.4 Telegrams in plain language are those of which the text and signature are wholly in plain language.

A20 2.5 A telegram in plain language may also contain:

A21 2.5.1 numbers written in letters or figures;

A22 2.5.2 proper names or abbreviated addresses;

A23 2.5.3 groups comprising letters, figures, signs or any combination of them, provided that they *have no secret meaning*. Such groups shall not contain accented letters.

## **3 Secret language**

A24 3.1 Telegrams in secret language are those containing in their text or signature one or more words in secret language.

A25 3.2 Secret language comprises:

A26 3.2.1 groups of letters, figures, signs or any combination of letters, figures or signs *having a secret meaning*. Such groups shall not contain accented letters;

A27 3.2.2 real words belonging to one or more of the languages admitted for telegraph correspondence in plain language that are not used with the meaning normally assigned to them in the language to which they belong and consequently do not form intelligible phrases;

A28 3.2.3 other words or expressions not fulfilling the conditions laid down for plain language.

## **4 Characters that may be used for the preparation of telegrams**

A29 4.1 The original telegram must be written in characters that are used in the country of origin and that have an equivalent in the table of telegraph signals given below:

A30 4.1.1 Letters: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

A31 4.1.2 Figures: 1 2 3 4 5 6 7 8 9 0

A32 4.1.3 Punctuation marks and miscellaneous signs:

Full stop . . . . .	.
Comma . . . . .	,
Colon or division sign . . . . .	:
Question mark . . . . .	?
Apostrophe . . . . .	'
Cross or addition sign . . . . .	+
Hyphen or dash or subtraction sign . . . . .	—
Fraction bar or division sign . . . . .	/
Double hyphen . . . . .	=
Left-hand bracket (parenthesis) . . . . .	(
Right-hand bracket (parenthesis) . . . . .	)

A33 4.1.4 Characters for which some instruments do not provide special signs:

accented letter e . . . . .	é, è, etc.
Roman figures . . . . .	I, II, etc.
multiplication sign . . . . .	×
percentage sign . . . . .	%
per thousand sign . . . . .	‰
quotation marks (inverted commas) . . . . .	“ ”


A34 4.2 The cross sign (+) used as a sign of addition may be utilized in a group but not as an isolated sign.

A35 4.3 Every footnote, insertion, erasure, elimination or correction must be approved by the sender or his representative.

A36 4.4 The following letters may also be used in exceptional cases in relations between countries that accept them:

ä, æ, á, å, ñ, ø, ö, ü

A37 4.5 Roman figures shall be transmitted as Arabic figures. If the sender of a telegram desires the addressee to be informed that Roman figures are intended, he shall write the Arabic figure or figures and shall insert the French word *romain*, or a corresponding word in the language in which the telegram is drafted, in front of each such figure or group of figures.

A38 4.6 As some expressions such as 30<sup>a</sup>, 30<sup>me</sup>, 1<sup>o</sup>, 2<sup>o</sup>, , cannot be reproduced by all instruments, senders must substitute an equivalent that can be telegraphed; thus, for example, for the expressions quoted above: **30 POWER A** (or **30 A**), **TRENTIEME**, **PRIMO**, **SECUNDO**, **B IN DIAMOND**, etc.

A39 4.7 However, if the expressions 30<sup>a</sup>, 30<sup>b</sup>, etc., 30 bis, 30 ter, etc., 30 I, 30 II, etc., 30A, 30B, etc., 30<sup>1</sup>, 30<sup>2</sup>, etc., indicating a house number, appear in the address, the accepting officer shall separate the main number from the number qualifying it, or from the accompanying letters or digits, by a fraction bar. These expressions shall consequently be transmitted in the following form in the address of a telegram: **30/A**, **30/B**, etc., **30/BIS**, **30/TER**, etc., **30/1**, **30/2**, etc., **30/A**, **30/B**, etc., **30/1**, **30/2**, etc.

## 5 Order of arrangement of the various parts of a telegram

A40 5.1 Every telegram must have a heading, which shall include the information needed for identification and, if necessary, for the routing of the telegram.

A41 5.2 The other parts of which a telegram may consist must be arranged as follows:

A42 5.2.1 the address (including the service indications, if any);

A43 5.2.2 the text (including the signature, if any);

A44 5.2.3 the routine repetition (if required).

6        **Heading**

- A45    6.1    The heading of a telegram consists of the lines listed in A46 to A48:
- A46    6.2    the *numbering line* containing the information to identify the telegram (for example the originating office number) or telegram identification group and the serial and/or reference numbers used in transmitting the telegram. The numbering of telegrams to be transmitted over international circuits depends on the particular mode of operation employed. See B67 to B78, C40 to C48 and C172 to C183.
- A47    6.3    the *pilot line* (where this is required) prepared in accordance with C184 to C204.
- A48    6.4    the *preamble line* which consists of:
- A49    6.4.1   The name of the office of origin as it appears in the first column of the *List of Telegraph Offices* [3]:
- A50    6.4.1.1 the name of the office must not be abbreviated or combined into a single word. Examples: **LA UNION** and not **LAUNION**; **S.ALBAN-D'AY** and not **SALBANDAY**;
- A51    6.4.1.2 if necessary, this name may be suffixed by particulars intended to distinguish it from other offices of the locality. Such a suffix should be joined to the name of the office of origin by a fraction bar;  
              Examples: **BERLIN/CHARLOTTENBURG**  
                          **BERLIN/19**;
- A52    6.4.1.3 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;
- A53    6.4.1.4 when a telegram is telephoned to a telegraph office (Exeter, for example) by a customer located somewhere else (Honiton, for example), the office of origin may be transmitted as follows:  
              either a) **HONITON**;  
                  or b) **EXETER TELEPHONED FROM HONITON**;  
                  or c) **EXETER TELEPHONE**;
- A54    6.4.1.5 should a telegram be sent in by telex to a telegraph office (Oslo, for example) by a subscriber located somewhere else (say Sandefjord), the office of origin may be transmitted as follows:  
              either a) **SANDEFJORD**;  
                  or b) **OSLO TELEXED FROM SANDEFJORD**;  
                  or c) **OSLO TELEX**;
- A55    6.4.1.6 it shall be understood that in case c) in both A53 and A54 above the subscriber offering the telegram may not necessarily be in the locality of the telegraph office.
- A56    6.4.2   The number of words, see A153 and A154.
- A57    6.4.3   The date and time of handing in of the telegram. The date and time shall be 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 (see A6).
- A58    6.4.4   Service instructions, if any.
- A59    6.4.4.1 A service instruction is an instruction added to a telegram by the office of origin or by another office to give additional information about the telegram.
- A60    6.4.4.2 The service instructions and the abbreviated form in which they may be indicated are shown in the following list:
- |                                     |              |
|-------------------------------------|--------------|
| Route to be followed                | <b>VIA</b>   |
| Transmitted by an alternative route | <b>DEVIE</b> |

Correction follows

CTF

Telegram sent a second time

AMPLIATION

Name of the code used in drafting a telegram in secret language when this is required by the country of origin or the country of destination

x

- A61 6.4.4.3 These instructions are placed at the end of the preamble line and are not chargeable. The service instruction **VIA**, if not indicated, must always be shown at the end of the preamble line; it may be followed only by the service instruction **DEVIE**.

## 7 The address part

### 7.1 The service indications

- A62 7.1.1 Service indications, if any, shall be shown separately in the first line of the address part. The service indications on a telegram:
- A63 a) identify it as within a particular class of telegram;
- A64 b) denote a special service requested by the sender, or in some cases by the addressee.
- A65 7.1.2 Service indications may be written by the sender in full or abbreviated form. If necessary, the accepting officer shall substitute the appropriate service indications shown in A7, A10 and A11.
- A66 7.1.3 When a single service indication is written as more than one word, the accepting officer shall join the words together. If this distorts the expressions, the accepting officer shall indicate the join by a fraction bar.
- A67 7.1.4 The service indications identifying the class of telegram are shown in A7 and A10.
- A68 7.1.5 If there are several service indications in a telegram, the service indication identifying class shall come first, for example **LT LX**.
- A69 7.1.6 In the case of money order and postal cheque telegrams transmitted at letter rate, the service indication **LT** should be shown first.
- A70 7.1.7 Exceptionally the service indication **URGENT**, if present shall precede the indication of class, for example **URGENT RCT**.

### 7.2 General provisions for the address

- A71 7.2.1 The address must contain all the particulars necessary to ensure delivery of the telegram to the addressee without inquiries or requests for information.
- A72 7.2.2 With three exceptions, every address, to be admissible, must contain at least two words, the first designating the addressee and the second the name of the telegraph office of destination. The exceptions are:
- A73 a) **SVH** telegrams (see A255);
- A74 b) money order telegrams (see A303 to A308);
- A75 c) postal cheque telegrams (see A309 to A314).
- A76 7.2.3 The following categories of address are permitted (where appropriate, supplemented by a postal code designation):
- A77 a) full address;
- A78 b) registered address;
- A79 c) telephonic address;
- A80 d) telex address;
- A81 e) *poste restante* or *telegraphe restant* address;
- A82 f) post office box address.

- A83 7.2.4 When a telegram is addressed to a person at the address of another, the address must contain, immediately after the name of the actual addressee, the expression *chez, care of* or other equivalent expression.
- A84 7.2.5 When the destination is not served by international communication circuits, A234 shall be observed.
- A85 7.2.6 The name of the telegraph office of destination must be placed after the words in the address that designate the addressee and where given, his residence. It must be written as it appears in the first column of the *List of Telegraph Offices* [3].
- A86 7.2.7 If necessary this name may be suffixed by particulars intended to distinguish it from other offices of the locality. Such a suffix should be joined to the name of the office of destination by a fraction bar:
- Example: **BORDEAUX/SAINTPROJET**
- A87 7.2.8 The name of the telegraph office of destination may also be preceded or followed by the postal code as given by the sender. The postal code should be enclosed in brackets by the accepting officer and the whole should be transmitted as one actual word:
- Examples: **LONDON(EC2V6JH)**  
**(00152)ROMA**  
**MOSKVA(K375)**  
**(CH-1200)GENEVE**
- A88 7.2.9 The name of the telegraph office of destination (completed if necessary by the additions shown in A86 and A87) may be followed only by the name of the territorial subdivision or by the name of the country, or by both. If both are used, the name of the territorial subdivision must come immediately after the name of the office of destination.
- A89 7.2.10 When the name of the place given as the destination, or that of the land station chosen for the transmission of a radiotelegram, does not appear in the *List of Telegraph Offices* [3] or the *List of Coast Stations* [4], as the case may be, this name must be followed either by the name of the territorial subdivision, or by the name of the destination country, or by both these names or by other particulars that are considered adequate for the forwarding of the telegram. The same course shall be followed when there are several offices of the same name and the sender is not in a position to furnish definite information from which the official designation of the locality can be identified. In either case, the telegram shall be accepted only at the risk of the sender.
- A90 7.2.11 In radiotelegrams the name of the destination mobile station should be written as it appears in the appropriate ITU List, or, if not so listed, the call sign or other particulars should also be given, if necessary.
- A91 7.2.12 When the different parts of each of the expressions specified in A85 to A90 are not already joined up, the accepting officer shall do so. If this alters the name of the office of destination, the accepting officer shall join the different parts with a fraction bar.
- A92 7.2.13 If the address does not conform with A72 to A75, A89 and A90, the telegram shall be refused.
- A93 7.2.14 In all cases of insufficient address, the telegram shall be accepted only at the risk of the sender, if he insists on sending it. In any event, the sender shall bear the consequences of an insufficient address.

### 7.3 *Full address*

- A94 7.3.1 The full address must, as a general rule, include:
- A95 a) the designation of the addressee;
- A96 b) the name of the street, boulevard, avenue, etc. of his abode together, if necessary, with the number;
- A97 c) the office of destination.
- A98 7.3.2 In the absence of the particulars mentioned in A96, the address must state, so far as possible, the occupation of the addressee or give any other useful information.

- A99 7.3.3 Even for small localities, the designation of the addressee must be supplemented, so far as practicable, by further particulars for the guidance of the delivery office.
- A100 7.3.4 Surnames, given (christian) names, names of firms and particulars of abode shall be accepted as the sender writes them. Any other particulars in the address must be written in the language or languages of the destination country. The name of the office of destination must be written in accordance with the particulars in the first column of the *List of Telegraph Offices* [3].
- A101 7.3.5 In telegrams for China, the Chinese phonetic alphabet, groups of four figures or groups of three roman characters (as provided in A18) may be used to designate the name and abode of the addressee.
- A102 7.3.6 Telegrams may be addressed or delivered to travellers in trains or in aircraft. Such telegrams are accepted only at the sender's risk and the sender must indicate, in the address, in addition to the name of the addressee and the name of the telegraph office of destination:
- A103 a) the word *passenger* or *crew* as appropriate;
- A104 b) the name of the railway station or airport at which the train or aircraft stops;
- A105 c) for trains, the address should also include the number or the name of the train or, in the absence of these particulars, the scheduled time of departure or arrival and the place of departure and destination;
- A106 d) for aircraft, the address must give the name or abbreviation of the airline company and the number or name of the aircraft or, in the absence of these particulars, the flight number or the scheduled time of departure and destination.
- A107 7.3.7 In telegrams bearing such an address, the only service indication admitted shall be **URGENT**.
- A108 7.3.8 Administrations who admit this service shall inform the other Administrations\* thereof through the medium of the General Secretariat.

#### 7.4 *Registered address*

- A109 7.4.1 A registered address is one in which the full address (excluding the office of destination) is replaced by a single conventional or abridged indication.
- A110 7.4.2 Such an address is registered in the destination country and represents the full address of the addressee and, if necessary, instructions for the delivery of his telegrams.
- A111 7.4.3 The right to delivery of telegrams so addressed shall be subject to arrangements between the addressee and the telegraph office of destination.
- A112 7.4.4 When, exceptionally, the registered address is preceded or followed by an additional indication **CHEZ**, **CARE OF** or any other equivalent and/or the name of a third person, it should normally only be used to reconstitute the full address of the addressee.

#### 7.5 *Telephonic address*

- A113 7.5.1 If the sender desires his telegram to be delivered by telephone, he shall write before the address (name of the addressee and the office of destination) the service indication **TFx** (x being the telephone number of the addressee with, if necessary, the name or access number of the network).
- A114 7.5.2 The address thus appears in the following form:

<b>TF873455</b>	or	<b>TFBINDONABBEY246</b>
<b>WILLI SCHUTZ</b>		<b>JOHN BROWN</b>
<b>HAMBURG</b>		<b>WOOL</b>

#### 7.6 *Telex address*

- A115 7.6.1 If the sender desires his telegram to be delivered by telex, he shall write before the address (name of the addressee and the office of destination) the service indication **TLXx** (x being the number of the addressee's telex station).

A116 7.6.2 The address thus appears as follows:

**TLX200745**  
**MARIE DUBOIS**  
**PARIS**

7.7 *Poste restante, or telegraphe restant address*

A117 7.7.1 The address of telegrams intended to be delivered to a *poste restante* or *telegraphe restant* must be composed of:

- A118 a) the name of the addressee including, where possible, his given (christian) name or initials;
- A119 b) the words *poste restante, telegraphe restant* (or the equivalent in a language of the destination country); and
- A120 c) the name of the telegraph office of destination.

A121 7.7.2 Administrations who do not admit telegrams with *poste restante* or *telegraphe restant* as part of the address shall inform other Administrations\* through the medium of the General Secretariat.

A122 7.7.3 Initials alone, figures, given (christian) name only, fictitious names or arbitrary signs of any kind shall not be allowed in the address.

7.8 *Post office box address*

A123 7.8.1 A post office box address must be composed of:

- A124 a) the name of the addressee;
- A125 b) the designation *boîte postale* (or its equivalent in a language of the destination country) with the box number; and
- A126 c) the name of the telegraph office of destination.

A127 7.8.2 The name of the office to which the addressee's post office box belongs should, if necessary, be supplemented by particulars to distinguish it from other local offices.

For example: **DUPONT BOITE POSTALE 275**  
**PARIS/24**

**8 The text part**

8.1 *The text*

A128 8.1.1 The text of a telegram must be written in accordance with A12 to A39.

A129 8.1.2 Telegrams that contain only an address, whether or not preceded by one or more service indications, shall not be admitted.

8.2 *The signature*

A130 8.2.1 A signature shall not be compulsory. It may be written by the sender in any form.

**9 The routine repetition**

A133 9.1 The routine repetition, if required, shall be in accordance with A202 to A205.

**10 Identification and address of the sender**

A134 10.1 The sender of a telegram must prove his identity when requested to do so by the office of origin.

A135 10.2 The office of origin shall recommend that the sender give his name and full address (including, where applicable, his telephone or telex number) so as to be in a position, if necessary, to supply or to ask for any information regarding his telegram.

- A136 10.3 However, the sender must supply these particulars if the special service (for example, PC) requested by him requires them. If he refuses, the office shall be exempted from any obligation to provide the service.

#### **11 Cancellation of telegrams at the request of the sender**

- A137 11.1 The sender of a telegram or his authorized representative may, on establishing his status and identity, cancel his telegram only if it has not been transmitted by the office of origin.

### **IV. Counting of words**

#### **1 General provisions**

- A138 1.1 In the counting of words, a distinction shall be made between:
- A139 1.1.1 the number of actual words—each separate word or group of characters shall be counted as one actual word;
- A140 1.1.2 the number of chargeable words—the provisions for counting the number of chargeable words are shown in A149 to A152.
- A141 1.2 Everything that the sender asks to have transmitted shall be chargeable, with the exception of the route indication and the name of the code used for the wording of a secret language telegram, when this information is required by the origin or the destination country.
- A142 1.3 The following, however, shall not be included in the number of actual and chargeable words nor shall they be transmitted:
- A143 1.3.1 dashes used only to separate on the sender's copy the different words or groups;
- A144 1.3.2 other isolated signs, unless the sender has specifically requested their transmission.
- A145 1.4 The heading (see A45 to A61) and the routine repetition (see A202 to A205) shall not be included in the number of actual and chargeable words.
- A146 1.5 Service indications (if any) shall be included in the number of chargeable words in all chargeable telegrams and in the number of actual words in all telegrams.
- A148 1.6 At the time of acceptance of a telegram of more than fifty words, the accepting officer shall mark, with a symbol, the last word of each section of fifty actual words (irrespective of the rules of charging). The service indications (if any) and the words in the address shall be included in the first section. The symbol shall be followed by a figure showing the number of actual words. The symbols and the figures shall not be included in the number of actual and chargeable words.

#### **2 Counting the number of chargeable words**

- A149 2.1 Words, groups of characters or expressions:
- A150 2.1.1 not exceeding ten characters shall be counted as one chargeable word each;
- A151 2.1.2 exceeding ten characters shall be counted at the rate of one chargeable word for each ten characters or part thereof.
- A152 2.2 The characters to be taken into account for charging purposes are those shown in A30 to A32 or their equivalents as well as, exceptionally those shown in A36. The other characters used in the preparation of telegrams, particularly those indicated in A33, are counted for charging in the form in which they are transmitted or substituted.

#### **3 Indication of the number of words in the preamble line**

- A153 3.1 When the number of chargeable words is the same as the number of actual words it shall be shown as a single number.



- A154 3.2 When the number of chargeable words is different from the number of actual words, both shall be shown, separated by a fraction bar. The number of chargeable words shall be shown first.

#### **4 Irregularities in the counting of words**

- A155 4.1 Except for the case of telegrams originated by a mobile station, the counting of words by the office of origin shall be decisive both for transmission and for the international accounts.
- A156 4.2 In the case of a telegram originated by a mobile station, the counting of words by the land station is decisive.
- A157 4.3 Nevertheless, a transit office or the office of destination shall be entitled to call the attention of the office of origin (or, in the case of a telegram originated by a mobile station, the land station) to counting irregularities.
- A158 4.4 A transit office may not suspend transmission of a telegram because of irregularities in the counting of words.
- A159 4.5 When an office of destination observes that a press telegram does not comply with the conditions prescribed for this class of telegrams (see A338 to A353), it may collect from the addressee the difference between the charge for the press telegram and that for an ordinary private telegram of the same priority.
- A160 4.6 If the addressee refuses to pay the difference referred to in A159, the delivery office may decline to deliver the telegram.
- A161 4.7 In the case of refusal to pay, a service advice outlining the circumstances shall be sent to the office of origin.
- A162 4.8 If the sender, on being informed of the circumstances, agrees to pay the deficiency, a service advice containing this information shall be sent to the office of destination.
- A163 4.9 On receipt of this service advice, the delivery office shall deliver the telegram if it has been withheld.

### **V. Routing of telegrams**

#### **1 Route to be followed by telegrams**

- A164 1.1 The sender may request that his telegram should follow a prescribed route, if the origin Administration\* permits such procedure. In this case he shall write the indication of the appropriate route on his telegram form.
- A165 1.2 If the telegram mentions the route to be followed, the offices concerned shall use this route so far as practicable.
- A166 1.3 If the telegram does not mention the route to be followed, each office from which there are alternative routes shall decide by which route the telegram shall be forwarded.
- A167 1.4 The different routes that telegrams may follow shall be described by concise or abbreviated indications agreed upon by the Administrations\* concerned. Only the agreed indications may be used; arbitrary abbreviations shall not be permitted.
- A168 1.5 The route to be followed, if one is indicated, must always be shown as the service instruction **VIA** and the appropriate route indication at the end of the preamble line. It may be followed only by the service instruction **DEVIE**. However, within the destination country, retransmission of these expressions shall be optional.

#### **2 Routing errors**

- A169 2.1 When the receiving office notices that a telegram has been misrouted and it points out such a mistake to the sending office, the latter shall immediately cancel the telegram by means of a service advice and shall reforward it over the normal route.

- A170 2.2 If, however, the routing error has not been pointed out and the telegram hence continues to its destination, the telegram should not be reforwarded as this might lead to double delivery.

## **VI. Transmission of telegrams**

### **1 Order of transmission of telegrams**

- A171 1.1 The transmission of telegrams shall take place in the following order except where technically impracticable:
- A172 1.1.1 telegrams relating to the safety of life;
- A173 1.1.2 telegrams relative to the application of the United Nations Charter;
- A174 1.1.3 service telegrams or advices relating to serious interruption of telecommunication routes;
- A175 1.1.4 government telegrams with priority;
- A176 1.1.5 meteorological telegrams;
- A177 1.1.6 paid service advices;
- A178 1.1.7 ordinary private telegrams, **RCT** telegrams and press telegrams when urgent transmission and delivery for such telegrams has been requested;
- A179 1.1.8 service telegrams, service advices and telegrams giving confirmation of delivery;
- A180 1.1.9 government telegrams other than those indicated in A175 and A181, ordinary private telegrams, **RCT** telegrams and press telegrams;
- A181 1.1.10 letter telegrams (including government letter telegrams).
- A182 1.2 Every office that receives, on an international circuit, a telegram presented as an **SVH** telegram, a government telegram (see also *A270* and *A271*), a service telegram or a meteorological telegram, shall forward it as such.
- A183 1.3 Except where technically impracticable, telegrams having the same priority shall be transmitted by the sending office in the order of their time of handing in, and by transit offices in the order of their time of receipt.
- A184 1.4 At transit offices, originating telegrams and transit telegrams to be transmitted over the same routes shall, except where technically impracticable, be placed together and transmitted according to the time of handing in or receipt, subject to the order laid down in A171 to A183.

### **2 Order of transmission of the various parts of a telegram**

- A185 2.1 The various parts of a telegram shall be transmitted as follows:
- A186 2.1.1 the heading;
- A187 2.1.2 the address part (including the service indications if any);
- A188 2.1.3 the text part (including the signature, if any);
- A189 2.1.4 the routine repetition if required.
- A190 2.2 Expressions that the accepting officer has joined up shall be transmitted as one actual word.

### **3 Transmission of the heading**

- A191 3.1 The provisions regarding the formation of the heading of a telegram are given in A45 to A61. Following the transmission of the numbering line and the pilot line (if required) the various parts of the preamble line shall be transmitted in the following order:
- A192 3.1.1 the name of the office of origin;
- A193 3.1.2 the number of words;
- A194 3.1.3 the date and time of handing in of the telegram;
- A195 3.1.4 any service instructions.

### **4 Transmission of the other parts of a telegram**

- A196 4.1 Every telegram must be transmitted as received from the sender, subject to the exceptions mentioned in A142 to A144 and A197.
- A197 4.2 Where a telegram received from the sender already bears a repetition of some groups after the signature, the repeated groups shall be used to check the text of the sender's copy, if necessary in consultation with the sender. When the telegram is transmitted, the sender's repetition shall be ignored and a routine repetition prepared in accordance with A202 to A205.
- A198 4.3 With the exception of service indications, which must always be transmitted in the form shown in A7, A10 or A11, and in cases settled by agreement between the various Administrations\*, the use of any abbreviations whatsoever and alterations of any kind shall be prohibited.

### **5 Reception**

- A199 5.1 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 operator 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 the error by service advice.
- A200 5.2 A telegram must not be refused or delayed because of irregularities in the service instructions, service indications, or in the address or text parts. The telegram must be accepted and then, if necessary, a service advice sent to the office of origin requesting rectification.
- A201 5.3 As soon as possible after reception, in each telegram the number of words received shall be compared with the number of words shown in the preamble line. When the number of chargeable and actual words is given, this comparison, except in the case of an obvious error, shall refer only to the number of actual words.

### **6 Routine repetition**

- A202 6.1 Routine repetition means the repetition in whole or in part of a telegram by the office responsible for its transmission. Any such repetition shall be preceded by the abbreviation **COL**.
- A203 6.2 For all telegrams, routine repetition shall be compulsory for isolated figures and mixed groups containing figures in the address or text parts.
- A204 6.3 In telegrams of more than 50 words, routine repetition shall be given at the end of every page.
- A205 6.4 Routine repetition may not be delayed or interrupted to give place to a communication of higher priority except in the case of absolute urgency.

## 7 Errors and interruptions

- A206 7.1 When operators are in doubt as to the accuracy of the transmission or reception, they shall give or request the partial or complete repetition of telegrams that they have either sent or received. Any such repetition shall be preceded by the abbreviation **COL**.
- A208 7.2 Telegrams containing obvious errors can be retained only in cases where the rectifications can be obtained quickly. They must be retransmitted without delay with the service instruction **CTF** at the end of the preamble line. This instruction 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 service advice (**A**).
- A210 7.3 If, through interruption or any other cause, it is not practicable to give or receive the repetition [or acknowledgement of receipt (see B60)], this circumstance shall not prevent the office that has received the telegrams from sending them on, the service instruction **CTF** being inserted at the end of the preamble line, any necessary correction following later.
- A211 7.4 In cases of interruption, the receiving office shall immediately request the completion of an unfinished telegram and, when necessary, give an acknowledgement of receipt (see B60), either by another direct circuit if there is one in service or, if not, by a service advice (**A**), forwarded by whatever means is available.
- A212 7.5 When the transmission of a telegram has not been completed or the acknowledgement of receipt is not received within a reasonable time, the telegram shall be transmitted afresh with the service instruction **AMPLIATION** inserted at the end of the preamble line, except in the case of a money order telegram or a postal cheque telegram. The meaning of this service instruction, **AMPLIATION**, may be indicated on the addressee's copy by the destination office.
- A213 7.6 Where this second transmission is made by a route other than that used originally for forwarding the telegram, only the second transmission must be included in the international accounts. The sending office shall then make the necessary arrangements with the offices concerned, by service advice, with the object of excluding the original transmission of the telegram from the international accounts.

## VII. Interruption of telegram communications

### 1 Diversion of telegrams

- A214 1.1 When the ordinary telegram communications are found to be interrupted, the office beyond which the interruption occurs or an office situated further back having at its disposal alternative routes shall forward the telegrams immediately by one of these routes or, failing that, by post (whenever practicable by registered letter) or by special messenger. The cost of forwarding, other than that of telegraphic transmission, shall be borne by the office that makes use of this method of forwarding. The letter forwarded by post must bear the inscription *Express Telegram*. Telegrams forwarded by telegraph under these conditions shall be marked with the service instruction **DEVIE**, accompanied by the name of the office that effects the diversion. This service instruction shall be transmitted at the end of the preamble line, following the route indication if there is one.
- A215 1.2 The transmission of the first telegram bearing the service instruction **DEVIE** will be considered as taking the place of the official notification of the interruption.
- A217 1.3 In relations between offices connected by short channels of communications, in frontier services with small amounts of traffic and in exceptional cases, the transmission of telegrams by telephone or telex shall also be admitted, by previous arrangement between the Administrations\* concerned.
- A218 1.4 An office that has to resort to a method of retransmission other than telegraph shall address the telegram, according to circumstances, either to the nearest telegraph office in a position to retransmit it or to the office of destination, or to the addressee himself when this retransmission takes place within the destination country. As soon as communication is restored, the telegram shall be transmitted again by telegraph, unless its receipt has already been acknowledged, or, by reason of exceptional congestion of traffic, the retransmission would obviously be prejudicial to the service as a whole. When a telegram is sent direct to the addressee, it shall be accompanied by an advice notifying the interruption of the circuits.

- A219 1.5 In the case of a money order telegram or a postal cheque telegram, the second transmission shall be effected by a service advice indicating that the money order or postal cheque telegram has already been transmitted once and giving the route that it followed.
- A220 1.6 When, for any reason, an office is obliged to forward telegrams to a telegraph office by means other than telegraph or telephone (by post, train, etc.), it shall prepare copies of such telegrams. It shall send these copies accompanied by a numbered abstract and keep the originals. At the same time, if the state of telegraphic communication permits, the office that makes the dispatch shall notify the office to which it is sent by a service advice indicating the number of telegrams forwarded and the time of their dispatch.
- A221 1.7 On the arrival of the mail, the office concerned shall verify that the number of telegrams received agrees with the number of telegrams indicated. If so, it shall acknowledge their receipt on the abstract, which it shall return immediately to the sending office. After the restoration of telegraphic communications, the office shall repeat the acknowledgement of receipt by a service advice in the following form: **RECEIVED 63 TELEGRAMS AS INDICATED IN ABSTRACT NR 18 OF 30 MARCH**. These provisions shall also apply to the case where a telegraph office receives by post a packet of telegrams without previous notice.
- A222 1.8 When a packet of telegrams of which notice has been given does not arrive by the mail indicated, the sending office must be advised at once. According to circumstances, the latter must either transmit the telegrams immediately if telegraphic communications have been restored, or send the telegrams on again by any means of transport available.
- A223 1.9 The office that retransmits, by telegraph, telegrams already transmitted by post, shall notify the office to which they have been directed, by service advice indicating the number of telegrams transmitted in duplicate. When telegrams are retransmitted by telegraph, the service instruction **AMPLIATION** shall be transmitted at the end of the preamble line of each telegram.
- A224 1.10 The same service instruction shall be entered in the preamble line of telegrams transmitted a second time for any other reason.

## VIII. Delivery at destination

### 1 General provisions

- A225 1.1 The addressee of a telegram must prove his identity when requested to do so by the office of destination.
- A226 1.2 On the telegram delivered to the addressee the following information from the preamble line of the telegram handed in at the office of origin shall always be given:
- A227 1.2.1 the name of the office of origin;
- A228 1.2.2 the number of words;
- A229 1.2.3 the date and the time of handing in;
- A230 1.2.4 those service instructions that reach the office of destination.

### 2 Methods of delivery

- A231 2.1 Telegrams shall be delivered by any means available according to their addresses, either to a private house, office, business house, etc., of the addressee, or to a place where he is living or staying temporarily (hotel, etc.) or to a *telegraphe restant*, a *poste restante* or to a post office box.
- A232 2.2 Telegrams shall be delivered to the addressee by telephone or telex as far as practicable where this method of delivery has been requested, unless the regulations of the destination Administration\* are contrary to such a procedure or unless the addressee has specifically requested that his telegrams should not be delivered by telephone or telex.
- A233 2.3 Telegrams may also be delivered by telephone or by telex in accordance with conditions laid down by the Administrations\*.

- A234 2.4 Telegrams addressed to localities not served by international telecommunication circuits may be delivered to their address from a telegraph office of the country in which the place of destination is situated, either by post or, if these services exist, by express or by airmail. Nevertheless, delivery may be effected by such means from a telegraph office of another country when the destination country is not connected to the international telecommunication system or when the destination cannot be reached by the telecommunication system of that country.
- A235 2.5 Telegrams shall be delivered or forwarded to their destination in the order of their receipt and priority, except in the cases specified for the delivery of letter telegrams. **SVH** telegrams as well as government telegrams with priority or telegrams relative to the application of the United Nations Charter shall be delivered without delay.
- A236 2.6 Telegrams addressed to places in the locality served by the telegraph office shall be delivered without delay to their addresses subject to the limitation imposed by the working hours of delivery offices. Telegrams received during the night may be delivered immediately when they are recognized by the office of destination to be of an urgent nature of if they bear the service indication **URGENT**.
- A237 2.7 Telegrams may be delivered either to the addressee, to an adult member of his family, to any person in his service, to his lodgers or guests, or to the receptionist at the hotel or the house, unless the addressee has designated in writing a special representative.
- A238 2.8 If at the address indicated the messenger finds no one willing to accept the telegram on behalf of the addressee, a notice shall be left at the address, and the telegram shall be taken back to the office, to be delivered to the addressee or his representative upon application. However, telegrams for which the delivery is not subject to special precautions, may be placed in the addressee's letter box when there is no doubt regarding his place of residence. When the addressee, after being notified of the arrival of a telegram, does not take delivery within a period not exceeding 48 hours, action shall be taken to notify the office of origin of the delay in delivery in accordance with A243 to A245.
- A239 2.9 Telegrams that have to be placed as *poste restante* in a post office box or forwarded by post shall be handed without delay to the postal service by the telegraph office of destination.
- A240 2.10 Telegrams addressed *poste restante* or delivered by post shall, with respect to delivery and period of retention, be subject to the same rules as postal correspondence. As regards non-delivery they shall be subject to the provisions relative to the non-delivery of telegrams.
- A241 2.11 When a telegram is addressed *telegraphe restant* it shall be claimed at the telegraph counter by the addressee or his duly authorized representative who shall, if so requested, prove his identity.
- A242 2.12 Telegrams to be delivered to passengers in a ship or aircraft may be delivered to the representatives of the shipping line or of the airline. If the ship is entering port, the telegram shall be delivered preferably to the addressee himself, before disembarkation where practicable, and where it does not entail additional expense (for boat hire, for example).

### 3 Non-delivery and delayed delivery

- A243 3.1 When a telegram cannot be delivered, the office of destination shall send, with the minimum delay, a service advice to the office of origin stating the cause of the non-delivery, with the text worded as follows:

**REFERENCES** (full numbering line and date of telegram) **JOHNSTON 14/A VICTORIA STREET** (service indications if any and name and address of telegram exactly as received) **RUCOS** (meaning *undelivered, house no longer exists*) or **RAJSA** (meaning *undelivered, addressee has changed residence without leaving a forwarding address*); other appropriate code words or plain language may also be used. If **RAHOT** (*undelivered, addressee left, forwarded by post to . . .*) is used, see also A407.

*Note* — For a layout of this telegram see D54.

- A244 3.2 The address repeated in the service advice shall also include the name of the office of destination if this information is considered necessary. According to the circumstances, this advice shall be completed with the reason for refusal or with a statement of the charges to be collected from the sender or the person who has given the order to reforward a telegram.

- A245 3.3 When a telegram with *telegraphe restant* or *poste restante* delivery, or a telegram to be delivered to a hotel, club, shipping or tourist agency, etc. has not been claimed by the addressee and is returned to the telegraph service, the office of destination shall without delay notify non-delivery to the office of origin.
- A246 3.4 The office of origin shall check the address and, if it has been altered, rectify it at once by a reply advice. The service advice shall contain any instructions necessary to correct any errors, with the text expressed in the following form:
- REFERENCES** (full numbering line and date of received service advice, numbering line and date of the subject telegram as quoted in the received service advice) **JOHNSTON** (service indications if any and name of addressee) **JEHAT** (meaning *deliver to . . .*); other appropriate code words or plain language may also be used **144/A VICTORIA STREET** (corrected address)
- Note* — For layout of this telegram see D55 and D56.
- A247 3.5 If practicable, when a transit office receives a service advice of non-delivery, it shall check the address from the transit form of the original telegram and, if it observes an error, shall itself transmit to the office of destination the correction in the form indicated in A246. If it does not observe an error, it shall transmit the service advice to the office of origin (see D39).
- A248 3.6 If the address has not been altered, the office of origin, whenever practicable, shall communicate the service advice of non-delivery to the sender. Failure to communicate this advice or delay in doing so shall not give a right to the refund of the charge paid for the telegram.
- A249 3.7 The addressee of a service advice of non-delivery may complete, rectify or confirm the address of the original telegram only by means of a paid service advice (see D21).
- A250 3.8 If, after the service advice of non-delivery has been sent, the telegram is claimed by the addressee, or if the office of destination is able to deliver the telegram without having received a correcting advice, it shall transmit to the office of origin a second service advice advising details of the delivery. The text of this service advice shall be expressed as follows:
- REFERENCES** (full numbering line and date of telegram) **SCHMIDT** (service indications if any and name of addressee) **PYSAT** (meaning *delivered subsequently, cancel advice of non-delivery*); other appropriate code words or plain language may also be used.
- Note* — For a layout of this telegram see D57.
- This second service advice shall not be transmitted when delivery is notified by means of a telegram giving confirmation of delivery (**CR**, see A377).
- A251 3.9 The service advice of delivery shall be communicated to the sender, if he was notified of the non-delivery.
- A252 3.10 When it has not been possible to deliver a telegram to the addressee within a period of 42 days from the date of its receipt at the office of destination, such a telegram may be disposed of, subject to the national regulations of the destination country.

## IX. Obligatory telegrams

### 1 Telegrams relating to the safety of life (SVH)

- A253 1.1 In accordance with Article 25 of the Convention, telegrams relating to the safety of life on land, at sea, in the air or in outer space, and exceptionally urgent epidemiological telegrams of the World Health Organization shall have absolute priority over all other telegrams.
- A254 1.2 **SVH** telegrams, whether sent by an authority or private person, must refer to the safety of life in cases of exceptional urgency which are obviously of general interest.
- A255 1.3 Exceptionally, an **SVH** telegram may be accepted without the name of an addressee.
- A256 1.4 **SVH** telegrams sent by the Headquarters of the World Health Organization or by the regional epidemiological centres of that Organization shall be certified as really being telegrams of exceptional urgency relating to the safety of life.

- A257 1.5 The service indication **SVH** shall be shown before the address. No service indications other than **SVH** shall be admitted in safety of life telegrams. This service indication shall be included in the telegram:
- A258 1.5.1 by the office of origin in the case of an **SVH** telegram handed in at a telegraph office;
- A259 1.5.2 by the receiving land station in the case of an **SVH** telegram following a distress signal from a ship or an aircraft.
- A260 1.6 The text and signature of **SVH** telegrams handed in at a telegraph office shall be in plain language.
- A261 1.7 The accounting rate for **SVH** telegrams and the minimum number of chargeable words shall be the same as for ordinary private telegrams in the same relation.
- A262 1.8 Nevertheless, Administrations may agree between themselves to reduce or to forego the accounting rate for **SVH** telegrams.

## **2 Government telegrams and telegrams relative to the application of the United Nations Charter**

- A263 2.1 Government telegrams are, according to the definition of the Convention [2], telegrams originating with any of the authorities specified below:
- the Head of a State;
  - the Head of a government and members of a government;
  - Commanders-in-Chief of military forces, land, sea or air;
  - diplomatic or consular agents;
  - the Secretary-General of the United Nations; Heads of the principal organs of the United Nations;<sup>1)</sup>
  - the International Court of Justice.
- A264 2.1.1 Replies to government telegrams shall also be regarded as government telegrams.
- A265 2.2 Government telegrams must bear the seal or stamp of the authority that sends them. This shall not be required when the authenticity of the telegram is not in doubt.
- A266 2.3 The right to send a reply as a government telegram shall be established by the production of the original government telegram.
- A267 2.4 The telegrams of consular agents carrying on private business shall only be regarded as government telegrams when they are addressed to an official person and relate to official matters. Telegrams that do not fulfil these latter conditions shall, however, be accepted by telegraph offices and transmitted as government telegrams, but these offices shall at once report the matter to their Administration.
- A268 2.5 In government telegrams for which the sender does not request priority, the service indication **ETAT** shall be shown before the address.
- A269 2.6 In government telegrams for which the sender desires priority the service indication **ETATPRIORITE** shall be shown before the address.
- A270 2.7 Exceptionally, and subject to the application of the provisions of Articles 25 and 36 of the Convention [2], Administrations and recognized private operating agencies shall take the necessary steps to secure a special priority for telegrams relative to the application of the provisions of Chapters VI, VII and VIII of the United Nations Charter, exchanged in an emergency, between the following persons:
- the President of the Security Council;
  - the President of the General Assembly;

<sup>1)</sup> However, the Heads of the specialized agencies of the United Nations are not included among the authorities entitled to send government telegrams (see Resolution No. 34 of the Plenipotentiary Conference of the International Telecommunication Union, Malaga-Torremolinos, 1973 [2]).



- the Secretary-General of the United Nations;
- the Chairman of the Military Staff Committee;
- the Chairman of a regional sub-committee of the Military Staff Committee;
- a representative to the Security Council or to the General Assembly;
- a Member of the Military Staff Committee;
- the Chairman or the Principal Secretary of a committee set up by the Security Council or the General Assembly;
- a person performing a mission on behalf of the United Nations;
- a head of State;
- a minister member of a Government;
- the Administrative Head of a trust territory designated as a strategic area.

- A271 2.7.1 Such telegrams, which do not fall under the class of government telegrams, shall be regarded as government telegrams and shall be accepted only if they bear the personal authorization of one of the officials mentioned above.
- A272 2.7.2 The service indication **ETATPRIORITENATIONS** shall be shown before the address.
- A273 2.7.3 These telegrams shall have priority over all other telegrams (except **SVH** telegrams) in the order of transmission and delivery, including those bearing the service indication **ETATPRIORITE** mentioned in Article 26 of the Convention [2].
- A274 2.8 Telegrams bearing the service indication **ETATPRIORITE** shall be dealt with, in the order of transmission and delivery, after **SVH** telegrams, **ETATPRIORITENATIONS** telegrams and the **ADG** service telegrams or advices relating to serious interruptions of telecommunication routes.
- A275 2.9 Telegrams bearing the service indication **ETAT** shall be dealt with, in the order of transmission, as well as for delivery, as ordinary private telegrams.
- A276 2.10 The minimum number of chargeable words for government telegrams shall be the same as for ordinary private telegrams.
- A277 2.11 The accounting rate for **ETATPRIORITENATIONS**, **ETATPRIORITE** and **ETAT** telegrams should normally be the same as for ordinary private telegrams in the same relations. (Government letter telegrams are covered in A319.) Where special arrangements or regional arrangements concluded under Articles 31 and 32 of the Convention [2] exist, the identity of the government or of the organization should appear in the preamble line using, wherever possible, the two letters of the destination indicator designating the government of the country concerned (or the two letters identifying the organization) followed by a space and the abbreviation **GOVT**.
- A278 2.12 When a request has been made for the routing of a government telegram by a prescribed route, and such request has been accepted, the telegram may not be transmitted by a route other than the requested route unless the sender, duly consulted, has authorized such procedure.
- A279 2.13 Government telegrams that do not fulfil the conditions stated for plain and secret language shall not be refused, but they shall be reported to its Administration by the office that observes the irregularities.
- A280 2.14 Provision *A14* regarding the production at the office of origin of the code from which the text or part of the text has been compiled shall not be applicable to government telegrams.
- A281 2.15 The authorities entitled under the Convention [2] to send government telegrams may send letter telegrams with the service indication **LTF**.

### 3 Meteorological telegrams

- A282 3.1 The term *meteorological telegram* denotes a telegram sent by an official meteorological service or by a station in official relation with such a service, and addressed to such a service or to such a station, and which consists solely of meteorological observations or forecasts. A telegram of this kind must always be regarded as drawn up in plain language.

- A283 3.2 The service indication **OBS** shall be shown before the address. No service indication other than **OBS** shall be admitted in meteorological telegrams.
- A284 3.3 The accounting rate for meteorological telegrams should be the same as for ordinary private telegrams in the same relation reduced by 50 per cent.
- A285 3.4 The minimum number of chargeable words for meteorological telegrams shall be the same as for ordinary private telegrams.
- A286 3.5 On request by the accepting officer, the sender must affirm that the text of his telegram fulfils the conditions prescribed for meteorological telegrams.

#### 4 Telegrams concerning persons protected in time of war by the Geneva Conventions of 12 August 1949

- A287 4.1 In the following telegrams the service indication **RCT** shall be shown before the address:
- A288 4.1.1 telegrams addressed to prisoners of war, civilian internees or their representatives (prisoners' representatives, internee committees) by recognized relief societies assisting war victims;<sup>2)</sup>
- A289 4.1.2 telegrams that prisoners of war and civilian internees are permitted to send or those sent by their representatives (prisoners' representatives, internee committees) in the course of their duties under the Convention;<sup>2)</sup>
- A290 4.1.3 telegrams sent in the course of their duties under the Conventions by the national information bureaux or the Central Information Agency for which provision is made in the Geneva Conventions, or by delegations of such bureaux or Agency, concerning prisoners of war, civilians who are interned or whose liberty is restricted, or the death of military personnel or civilians in the course of hostilities.<sup>3)</sup>
- A291 4.2 In telegrams bearing the service indication **RCT** the only special services that shall be admitted are the following: urgent transmission and delivery (**URGENT**), prepaid reply (**RPx**), request for confirmation of delivery (**PC**) (if such services are admitted by the origin and destination countries).
- A292 4.3 The accounting rate for telegrams bearing the service indication **RCT** shall be the same as for ordinary private telegrams in the same relation reduced by 75 per cent.
- A293 4.4 The accounting rate for telegrams bearing the service indications **URGENT RCT** shall be the same as for ordinary private telegrams in the same relation.
- A294 4.5 The minimum number of chargeable words for **RCT** telegrams shall be the same as for ordinary private telegrams.
- A295 4.6 As regards priority of transmission and delivery, **RCT** telegrams shall rank with ordinary private telegrams of the same priority.
- A296 4.7 Telegrams sent by prisoners of war, civilian internees or their representatives shall bear the official stamp of the camp or the signature of the camp commandant or one of his deputies.
- A297 4.8 Telegrams sent by the national information bureaux and the Central Information Agency for which provision is made in the Geneva Conventions, or by delegations thereof, as well as telegrams sent by recognized relief societies assisting war victims, shall bear the official stamp of the bureau, agency, delegation or society that sends them.

<sup>2)</sup> Article 71, paragraph 2; Article 74, paragraph 5 and Article 81, paragraph 4 of the Geneva Convention of 12 August 1949, relative to the Treatment of Prisoners of War; Article 104, paragraph 3; Article 107, paragraph 2 and Article 110, paragraph 5 of the Geneva Convention of 12 August 1949, relative to the Protection of Civilian Persons in Time of War.

<sup>3)</sup> Articles 122, 123 and 124 of the Geneva Convention of 12 August 1949, relative to the Treatment of Prisoners of War, Articles 136, 140 and 141 of the Geneva Convention of 12 August 1949, relative to the Protection of Civilian Persons in Time of War.

## 5 Ordinary private telegrams

- A298 5.1 Ordinary private telegrams are obligatory private telegrams other than those bearing the service indications **SVH**, **OBS** or **RCT**. The principles for accounting rates and collection charges for ordinary private telegrams are defined in Recommendation F.42. The order of transmission of ordinary private telegrams is indicated in A178 and A180. Ordinary private telegrams may be attributed special services in which case the relevant service indications in A11 should be shown before the address.
- A299 5.2 The minimum number of chargeable words for ordinary private telegrams shall be fixed at seven.

## 6 Telegraph service correspondence

- A300 6.1 Telegraph service correspondence consists of service telegrams, service advices and paid service advices (see Division D).

## X. Optional telegrams

### 1 Money order telegrams and postal cheque telegrams

#### 1.1 General

- A301 1.1.1 The issue, wording of the text and payment of money order telegrams and postal cheque telegrams are regulated by the Universal Postal Union.
- A302 1.1.2 The transmission of money order telegrams and postal cheque telegrams between Administrations admitting them shall be subject to the same rules as other telegrams, and subject to special provisions regarding diversion of such telegrams.
- 1.2 Money order telegrams
- A303 1.2.1 Money order telegrams shall bear the service indication **MANDAT** as the first line of the address part. Only the service indications **URGENT** or **LT** may precede the service indication **MANDAT**.
- A304 1.2.2 The postal issuing number and any postal service indications (**AVIS PAIEMENT** and **PAIEMENT MAIN PROPRE**) shall be shown on the second line of the address part.
- A305 1.2.3 The office of destination shall be shown as the last line of the address part.
- A306 1.2.4 If the locality in which the post office of payment is situated has no telegraph office, the money order telegram must bear the name of the post office of payment and that of the telegraph office which serves it.
- A307 1.2.5 Money order telegrams may be admitted as letter telegrams. They shall bear the service indication **LT** and be subject to the provisions prescribed for letter telegrams.
- A308 1.2.6 An example of the format of a money order telegram is given in C81.

#### 1.3 Postal cheque telegrams

- A309 1.3.1 Postal cheque telegrams shall bear the service indication **VIREMENT** as the first line of the address part. Only the service indications **URGENT** or **LT** may precede the service indication **VIREMENT**.
- A310 1.3.2 The postal issuing number and, if necessary, the postal service indication (**AVIS INSCRIPTION**) shall be shown on the second line of the address part.
- A311 1.3.3 The office of destination shall be shown as the last line of the address part.
- A312 1.3.4 Postal cheque telegrams may be admitted as letter telegrams. They shall bear the service indication **LT** and be subject to the provisions prescribed for letter telegrams.

A313 1.3.5 In postal cheque telegrams, only the special service urgent transmission and delivery (**URGENT**) shall be admitted.

A314 1.3.6 An example of the format of a postal cheque telegram is given in C82.

## **2 Letter telegrams**

A315 2.1 Letter telegrams are telegrams for which special provisions concerning accounting rates, priority of transmission, and delivery are applied. The minimum number of chargeable words for letter telegrams shall be fixed at twenty-two.

A316 2.2 The accounting rate for letter telegrams shall be the same as those for ordinary private telegrams in the same relation reduced by 50 per cent.

A317 2.3 Administrations\* that do not accept and deliver letter telegrams must admit them in transit; the transit rate applicable to ordinary private telegrams accruing to these Administrations\* shall be reduced by 50 per cent.

A318 2.4 The service indication **LT** (letter telegram) or **LTF** (government letter telegram) shall be shown before the address.

A319 2.5 Letter telegrams bearing the service indication **LTF** shall have the same accounting rate and shall be subject, as regards transmission and delivery, to the same conditions as **LT** telegrams. As regards acceptance, they shall be subject to the same conditions as government telegrams.

A320 2.6 However, the provisions of Article 19 of the Convention [2] (see A423 to A429), relating to stoppage of telegrams, shall not apply to government letter telegrams (**LTF**).

A321 2.7 As regards acceptance, transmission and delivery, letter telegrams shall be subject to the limitations set out in A322 to A332.

A322 2.8 Radiotelegrams shall not be admitted as letter telegrams.

A323 2.9 The text of letter telegrams may be expressed in plain and/or secret language.

A324 2.10 The only special services admitted in letter telegrams shall be the following: prepaid reply (**RPx**), redirection at the addressee's request, telephone delivery (**TFx**), telex delivery (**TLXx**) and de luxe form (**LX** or **LXDEUIL**).

A325 2.11 Telegraphic redirection shall be carried out after the deletion, if necessary, of the service indication **LT** or **LTF**, if these telegrams are not admitted in relations between the redirection and destination countries.

A326 2.12 Letter telegrams exchanged between two countries within the same continental system may not be delivered until after a period of not less than five hours, reckoned from the time of handing in.

A327 2.13 If, in certain relations, the application of A326 results in making the delivery service for letter telegrams substantially equivalent to the delivery service for ordinary private telegrams, the Administrations\* of the countries concerned may take the necessary measures to ensure that letter telegrams shall not be delivered until after 0800 hours local time on the day after the date of handing in.

A328 2.14 The delivery of letter telegrams exchanged between two countries that are not within the same continental system shall take place after 0800 hours local time on the day after the date of handing in.

A329 2.15 If, in certain relations, the application of A328 results in making the delivery service for letter telegrams substantially equivalent to the delivery service for ordinary private telegrams, the Administrations\* of the destination countries concerned may take the necessary measures in order that letter telegrams shall not be delivered until after 1400 hours local time the day after the date of handing in or the second day after 0800 hours.

A330 2.16 If, in certain relations, the application of A328 slows up the delivery of letter telegrams by more than twenty-four hours, the Administrations\* of the destination countries concerned may deliver such letter telegrams after 1400 hours local time on the date of handing in.

A331 2.17 In the context of A326 to A330, continents are regarded as Africa, Asia, Australia (including Oceania), Europe, North America and South America. Normally, a continental system shall comprise all the countries of the respective continent and exceptionally those countries outside that continent that are declared by the respective Administrations to belong to that continental system.

A332 2.18 Letter telegrams may be delivered by post, by messenger, by telephone, by telex or by any other means, according to the decision of the Administration\* to which the office of destination is subject.

### 3 Franking privilege telegrams <sup>4)</sup>

#### 3.1 *Private franking privilege telegrams*

A333 3.1.1 Private ITU franking privilege telegrams are free telegrams exchanged between beneficiaries of franking privileges at ITU conferences and their families.

A334 3.1.2 In private ITU franking privilege telegrams, secret language and/or special services apart from **TFx** shall not be admitted.

#### 3.2 *Official franking privilege telegrams*

A335 3.2.1 Official ITU franking privilege telegrams are free telegrams exchanged between delegates, representatives, members of the Administrative Council, the Secretary-General, the Deputy Secretary-General, the Director of the CCITT, the Director of the CCIR and Members of the IFRB and their Administrations or the seat of the Union, as the case may be.

A336 3.2.2 In official ITU franking privilege telegrams secret language and/or special services apart from **TFx** and **TLXx** shall not be admitted. Exceptionally, however, Heads of delegations or their deputies and members of the Administrative Council may exchange such telegrams in secret language and/or with urgent transmission and delivery.

A337 3.3 Franking privilege telegrams shall bear the service indication **CONFERENCE**.

### 4 Press telegrams

#### 4.1 *Definition and conditions of acceptance*

A338 4.1.1 Press telegrams are telegrams the texts of which are made up of information and news for publication in newspapers and other periodical publications or for radio or television broadcasting. They shall enjoy a special reduced rate.

A339 4.1.2 Press telegrams must be addressed only to newspapers or periodical publications, to news agencies or bureaux, to press services of diplomatic missions or to authorized radio or television broadcasting companies, organizations or stations and not to the name of a person connected in any capacity whatsoever with any of these entities.

A340 4.1.3 Administrations\* may require that press telegrams shall be accepted only from authorized representatives of newspapers, periodical publications, news agencies or bureaux, or press services of diplomatic missions, or authorized radio or television broadcasting companies, organizations or stations. Administrations\* may require the sender of a press telegram to be registered as the accredited correspondent of the addressee and may issue cards of identification without which the telegram need not be accorded press rates.

A341 4.1.4 The service indication **PRESSE** shall be shown before the address.

A342 4.1.5 The only special service allowed is urgent transmission and delivery (**URGENT**), if this service is admitted by the origin and destination countries.

<sup>4)</sup> See *Telegraph Regulations* (Geneva 1973), Opinion No. 1 [1].

#### 4.2 *Contents, wording, languages*

- A343 4.2.1 Subject to A346, press telegrams may contain only material for publication, radio or television broadcasting. They must not contain any passage, announcement or communication having the character of private correspondence, nor any advertisement or communication for insertion in any publication, for radio or television broadcasting whether or not payment is received for such advertisement or communication.
- A344 4.2.2 Stock exchange and market quotations, results of sporting events and meteorological observations and forecasts, with or without explanatory text, shall be admitted in press telegrams.
- A345 4.2.3 In case of doubt, the sender must satisfy the accepting officer that the groups of figures appearing in the telegram actually represent stock exchange and market quotations, results of sporting events or meteorological observations and forecasts.
- A346 4.2.4 Comments relative to the publication or broadcasting of the telegram shall be admitted, provided that such comments are placed between brackets at the beginning or at the end of the text. The number of chargeable words thus added to the text shall not exceed ten per cent of the total number of chargeable words in the text, and shall not exceed twenty. The comments are charged at the same rate as the text.
- A347 4.2.5 Press telegrams must be expressed in plain language, in one of the languages admitted for international telegraph correspondence in plain language, chosen from amongst the following languages:
- A348 a) the French language;
- A349 b) the language of the newspaper, periodical publication or news agency bulletin to which the telegram is addressed or the language in which the radio or television broadcast is carried out;
- A350 c) the national language or languages of the origin or destination countries as designated by the Administrations concerned;
- A351 d) one or more additional languages that may be designated by the origin or destination Administrations as being used in their territories.
- A352 4.2.6 The sender of a press telegram drawn up in accordance with A349 may be required to furnish proof that there is a newspaper, periodical publication or news agency bulletin in the destination country, published in the language chosen, or that the radio or television broadcast is carried out in this language.
- A353 4.2.7 The languages mentioned in A347 to A351 may be used for quotations conjointly with the language in which the telegram is worded.

#### 4.3 *Tariff and charging*

- A354 4.3.1 The accounting rate for press telegrams shall be the same as for ordinary private telegrams in the same relation reduced by 66 2/3 per cent. In relations where press telegrams are exchanged between two countries within the same continental system (see A331), Administrations\* may agree to establish accounting rates for press telegrams that are equivalent to those of ordinary private telegrams reduced by 50 per cent.
- A355 4.3.2 The accounting rate for press telegrams with urgent transmission and delivery shall be the same as for ordinary private telegrams in the same relation.
- A356 4.3.3 The minimum number of chargeable words for press telegrams shall be fixed at fourteen.
- A357 4.3.4 When telegrams presented as press telegrams do not fulfil the conditions set out for such telegrams the service indication **PRESSE** shall be deleted by the office of origin and these telegrams shall be charged for at the rate for ordinary private telegrams with the same priority as that requested for the press telegram.
- A358 4.3.5 The balance of the charge may be collected from the addressee when a telegram that does not meet the conditions set forth for press telegrams reaches the office of destination with the service indication **PRESSE** (see A159 to A163).

#### 4.4 *Miscellaneous*

- A359 4.4.1 Administrations\* that do not admit press telegrams must accept them in transit with transit rates accruing to them in accordance with A354 and A355.
- A360 4.4.2 As regards priority of transmission and delivery, press telegrams shall rank with ordinary private telegrams of the same priority.
- A361 4.4.3 With respect to any matter not provided for in A338 to A360, press telegrams shall be subject to this Recommendation and to special arrangements concluded by Administrations\*.

### XI. Special services

#### 1 General provisions

- A362 1.1 The provisions that form the subject of the other Chapters shall apply in their entirety to telegrams with special services, subject to the modifications prescribed in A364 to A422.
- A363 1.2 In the application of A364 to A422, the special services offered to the public may be combined subject to the class of the telegram and the acceptance of the special services in question by the Administration\* of the office of origin and the office of destination.

#### 2 Urgent transmission and delivery

- A364 2.1 The sender of an ordinary private telegram may obtain priority in transmission and delivery by requesting the special service urgent transmission and delivery (**URGENT**). The service indication **URGENT** shall be shown before the address.
- A365 2.2 The accounting rate for ordinary private telegrams bearing the service indication **URGENT** shall be the same as for ordinary private telegrams in the same relation increased by 100 per cent. The minimum number of chargeable words shall be seven.
- A366 2.3 Telegrams with urgent transmission and delivery shall be transmitted with the priority indicated in A171 to A184. Their precedence among themselves shall be settled by the time of their handing in at the office of origin and receipt at transit offices except where technically impracticable.
- A367 2.4 Administrations\* that accept telegrams with urgent transmission and delivery only in transit must admit them among telegrams of the same origin and destination either on the circuits where there is direct transmission across their territory or in their retransmitting offices. A transit rate equal to double the transit rate for an ordinary private telegram of the same length shall accrue to them as is the case for the other parts of the route. For **RCT** and **PRESSE** telegrams with the service indication **URGENT**, the transit rate shall be equal to that of ordinary private telegrams.

#### 3 Prepaid reply

- A368 3.1 The sender of a telegram may prepay the cost of any telegram to be sent by his correspondent.
- A369 3.2 The service indication **RPx** shall be shown before the address. The **x** shall represent the amount in gold francs and centimes paid for the reply. (Examples: **RP3.00**, **RP3.05**, **RP3.40**.)
- A370 3.3 The office of delivery shall issue to the addressee a voucher for an amount equivalent to that stated in the original telegram. This voucher shall give the right to send, up to its value, a telegram with or without special services, to any destination from any office of the Administration\* to which the office issuing the voucher is subject, or in the case of a radiotelegram addressed to a mobile station, from the station issuing the voucher.
- A371 3.4 The voucher can only be used to pay for a telegram within a period of three months following the date of its issue.
- A372 3.5 When the charge for a telegram paid for by a voucher exceeds the value of the voucher, the excess charge must be paid by the sender using the voucher.

#### 4 Confirmation of delivery

- A373 4.1 The sender of a telegram may ask for notification of the date on, and the time at, which his telegram was delivered to the addressee, by telegram immediately after delivery.
- A374 4.2 This notification shall be given by telegram immediately after delivery of the original telegram.
- A375 4.3 For this purpose the sender must pay a charge equivalent to that for a seven-word ordinary private telegram for the same destination sent by the same route.
- A376 4.4 The service indication **PC** shall be shown before the address.  
*Note* — For a layout of this telegram see D58.
- A377 4.5 Telegrams giving confirmation of delivery (service indication **CR**) shall be treated as service advices, irrespective of the class of the telegram to which they relate. The confirmation shall be expressed as follows:  
**REFERENCES** (full numbering line and date of telegram) **URGENT PC EARL** (service indications if any and name of addressee) **DELIVERED 19/1830** (date and time telegram delivered)  
*Note* — For a layout of this telegram see D59.
- A378 4.6 When the telegram has been posted or delivered in the care of any third party, other than persons at the usual abode of the addressee, the confirmation of delivery shall so state:  
**REFERENCES** (full numbering line and date of telegram) **PC MERCER** (service indications if any and name of addressee) **DELIVERED HOTEL 19/1830** (date and time of delivery to address other than the addressee's home address; could also be **RAILWAY STATION, AIRPORT RECEPTION**, etc.)  
*Note* — For a layout of this telegram see D60.
- A379 4.7 When the telegram is forwarded to its ultimate destination by post, deposited in a *poste restante* or delivered by telephone, by telex, by private telegraph circuit or in the care of any third party, the above-mentioned confirmation shall give the date and time of such forwarding, deposit or delivery.
- A380 4.8 In the case of a radiotelegram the land station shall issue the confirmation of delivery, which must contain the date and time of transmission to the ship or aircraft station:  
**REFERENCES** (full numbering line and date of telegram) **PC MACPHERSON PASSENGER** (service indications if any and name and status of addressee) **TRANSMITTED TO SHIP (or AIRCRAFT) 19/0735** (date and time of transmission to ship or aircraft)  
*Note* — For a layout of this telegram see D61.
- A381 4.9 When a telegram for which confirmation of delivery has been requested cannot be delivered, a service advice reporting the non- delivery shall be sent to the office of origin in the usual way.
- A382 4.10 If later within the period set for retention of the telegram, the telegram can be delivered to the addressee, the confirmation of delivery shall be forwarded immediately.
- A383 4.11 At the end of the period of retention, if the telegram has not been delivered, the charge for a confirmation of delivery may be refunded to the sender on application.

#### 5 Redirection at the addressee's request

- A404 5.1 Any person, furnishing the necessary credentials, may request that telegrams addressed to him be redirected to a new address. Requests for redirection must be made through the medium of a telegraph office. The request can be made either by the addressee or in his name by one of the persons qualified to receive telegrams on behalf of the addressee, see A237. The redirection at the addressee's request shall take the form of a second normal paid telegram with the changed address. The person making such a request shall guarantee the payment.



- A405 5.2 The name of the redirecting office shall be inserted in the preamble line as well as the name of the office of origin. For a telegram from Geneva that is to be redirected from Dresden to London the preamble line consists of:

**GENEVA/DRESDEN 24/23 15 1234**

- A407 5.3 If the new address of a telegram is given at the addressee's abode without an instruction to redirect by telegraph, Administrations\* must redirect a copy of the telegram by post, unless they have been asked to keep the telegram until called for or they redirect by telegraph on their own initiative.

- A407A 5.4 When an office of destination has to redirect by telegraph a telegram with prepaid reply, it shall retain before the address, the service indication **RPx** as received and shall cancel the voucher, if one has been prepared.

- A407B 5.5 The charge paid for reply shall be credited by the redirecting Administration\* to the Administration\* to which the telegram is redirected.

- A407C 5.6 When an office of destination has to redirect by post a copy of a telegram with prepaid reply, it shall attach the voucher to the copy.

- A407D 5.7 When an office of destination has to redirect by telegraph a telegram for which confirmation of delivery has been requested, it shall retain, in front of the address, the service indication **PC**. The confirmation of delivery shall then be issued by the final office of destination with the text worded as follows:

**REFERENCES** (full numbering line and date of telegram) **PC BURNS 143 CLYDEBANK GLASGOW REDIRECTED 73 WALSALLROAD WOLVERHAMPTON** (service indications if any and name of addressee, the full address to which the telegram is redirected) **DELIVERED 20/0920** (date and time of delivery)

*Note* — For a layout of this telegram see D62.

The retention of the service indication **PC** shall not involve further payment for this special service.

- A419 5.8 If the person ordering redirection of the telegram requests that it be transmitted as a telegram at a higher rate per word, he shall be required to pay the corresponding charge. If necessary, the office that accedes to such a request shall delete the original service indication and, if necessary, shall insert the new service indication.

## **6 De luxe form**

- A420 6.1 The sender of a telegram may request the de luxe service for his telegram, which will then be delivered on a special de luxe form and/or in a special envelope.

- A421 6.2 When the sender wishes the de luxe service to be used, the service indication **LX** should be shown before the address of telegrams sent on joyful occasions; for telegrams sent on an occasion of mourning, the service indication **LXDEUIL** should be used.

- A422 6.3 The service shall be organized by special arrangements between the Administrations\* concerned, and any supplementary charge for the service shall not enter into the international accounts. These arrangements shall specify, in particular, the different occasions on which these telegrams may be used.

## **XII. Stoppage of telegrams**

### **1 Transmission of certain telegrams as of right — Notification of stoppage**

- A423 1.1 The right to stop transmission of certain private telegrams as provided for in Article 19<sup>5)</sup> [2] of the Convention shall be exercised by the terminal or transit telegraph offices subject to reference to the appropriate authority, which shall decide without appeal.
- A424 1.2 **SVH** telegrams, government telegrams and service telegrams shall be entitled to transmission as of right. Telegraph offices shall exercise no control over these telegrams.
- A425 1.3 Administrations\* shall undertake to stop, at their respective offices, the acceptance, transmission and delivery of telegrams addressed to telegraphic reforwarding agencies and other organizations set up to forward telegrams on behalf of third parties so as to evade full payment of the charges due for the complete route. The office stopping the telegram shall at once inform the office of origin.
- A426 1.4 Telegrams that have been reforwarded by such an agency may likewise be stopped by the office of ultimate destination.
- A427 1.5 The office of origin must refuse telegrams addressed to a reforwarding agency when it has been notified of the existence of that agency.
- A428 1.6 Administrations\* shall undertake to stop, at their respective offices, telegrams that these offices receive from abroad by any means whatever (post, telegraph, telephone or otherwise) to be reforwarded by telegraph with the object of enabling these messages to evade the full payment of the charges due for the complete route.
- A429 1.7 The origin Administration\* of the telegrams must be notified of the stoppage.

## **XIII. Archives**

### **1 Archives**

- A430 1.1 The original or facsimile copies of telegrams and the relevant documents relating to handing in, transmission (if practicable) and delivery, which should be retained by the Administrations\*, shall be preserved with all precautions necessary to ensure secrecy, until the accounts relative thereto are settled and, in any case, for at least six months counted from the month after that in which the telegram was handed in. Administrations\* may preserve the information by any other means, e.g. magnetic or electronic records.
- A431 1.2 However, should an Administration\* deem it desirable to destroy such documents before the above-mentioned period, and hence is not in a position to carry out an enquiry in respect of the services for which it is responsible, such Administration\* shall bear all the consequences both as regards refund of charges and any difference in international accounts that might otherwise have been observed.

### **2 Inspection of original forms of telegrams — Supplying copies of telegrams**

- A432 2.1 Subject to the exceptions contemplated in Article 22 (No. 114) of the Convention [2], originals or copies of telegrams may be shown only to the sender or the addressee, after verification of his identity, or to the authorized representative of one of them.
- A433 2.2 A charge may be levied by Administrations\* for this service.

---

<sup>5)</sup> **Article 19 of the Convention — Stoppage of Telecommunications**

1 Members (of the Union) reserve the right to stop the transmission of any private telegram which may appear dangerous to the security of the State or contrary to their laws, to public order or to decency, provided that they immediately notify the office of origin of the stoppage of any such telegram or any part thereof, except when such notification may appear dangerous to the security of the State.

2 Members (of the Union) also reserve the right to cut off any other private telecommunications which may appear dangerous to the security of the State or contrary to their laws, to public order or to decency.

- A434 2.3 During the minimum period fixed for preservation of the records (6 months, excluding the month in which the telegram was handed in), the sender and the addressee of a telegram or their authorized representatives shall have the right to obtain certified copies or facsimiles:
- A435 2.3.1 of this telegram;
- A436 2.3.2 of the delivery copy, if this copy or a duplicate of it has been preserved by the destination Administration\*.
- A437 2.4 Administrations\* may fix a charge for copies and facsimiles of originals or of copies delivered in accordance with A432 to A436.
- A438 2.5 Administrations\* shall not be bound to show or to furnish copies or facsimiles of the documents mentioned above unless the senders, the addressees or their authorized representatives furnish the particulars necessary for tracing the telegrams to which their requests relate.

## DIVISION B

### OPERATIONAL PROVISIONS APPLYING TO MORSE AND SOUNDER WORKING

#### I. Morse code

##### 1 Morse code signals

- B1 1.1 The following are the written characters that may be used and the corresponding Morse code signals:

##### B2 1.1.1 Letters

a	· —	i	··	r	· — ·
b	— ···	j	· — — —	s	···
c	— · — ·	k	— · —	t	—
d	— · ·	l	· — · ·	u	·· —
e	·	m	— —	v	·· · —
accented e	· · — · ·	n	— ·	w	· — —
f	·· — ·	o	— — —	x	— · · —
g	— — ·	p	· — — ·	y	— · — —
h	·· · ·	q	— — — —	z	— — · ·

##### B3 1.1.2 Figures

1	· — — — —	6	— · · · ·
2	· · — — —	7	— — · · ·
3	· · · — —	8	— — — · ·
4	· · · · —	9	— — — — ·
5	· · · · ·	0	— — — — —

##### B4 1.1.3 Punctuation marks and miscellaneous signs

Full stop (period) . . . . .	[.]	· — · — · —
Comma . . . . .	[,]	— — · — —

Colon or division sign . . . . .	[:] — — — . .
Question mark (note of interrogation or request for repetition of a transmission not understood) . . . . .	[?] . . — — . .
Apostrophe . . . . .	['] . — — — — .
Hyphen or dash or subtraction sign . . . . .	[-] — . . . . —
Fraction bar or division sign . . . . .	[/] — . . — .
Left-hand bracket (parenthesis) . . . . .	[(] — . — — .
Right-hand bracket (parenthesis) . . . . .	[)] — . — — — .
Inverted commas (quotation marks) (before and after the words) . . . . .	[“ ”] . — . . . .
Double hyphen . . . . .	[=] — . . . —
Understood . . . . .	. . . — .
Error (eight dots) . . . . .	. . . . .
Cross or addition sign . . . . .	[+] . — . — . .
Invitation to transmit . . . . .	— . —
Wait . . . . .	. — . . .
End of work . . . . .	. . . — — — —
Starting signal (to precede every transmission) . . . . .	— . . . . —
Multiplication sign . . . . .	[×] — . . . —

## 2 Spacing and length of the signals

- B5 2.1 A dash is equal to three dots.
- B6 2.2 The space between the signals forming the same letter is equal to one dot.
- B7 2.3 The space between two letters is equal to three dots.
- B8 2.4 The space between two words is equal to seven dots.
- B9 2.5 On the Wheatstone instrument, where perforators are used, the space between two letters shall be equal to one *centre hole* perforation and the space between two words shall be equal to three *centre holes*.

## 3 Transmission of figures in abbreviated form

- B10 3.1 Where there can be no misunderstanding as to the meaning, figures may be repeated in abbreviated form during routine repetitions using the following signals:

1 . —	6 — . . . .
2 . . —	7 — . . .
3 . . . —	8 — . .
4 . . . . —	9 — .
5 . . . . .	0 —

## 4 Transmission of signs for which there is no corresponding signal in the Morse code

- B11 4.1 Signs that have no corresponding signal in the Morse code, but that are acceptable in the writing of telegrams, shall be sent as follows:

### 4.2 *Roman figures*

- B12 4.2.1 Roman figures shall be transmitted as Arabic figures.
- B13 4.2.2 If the sender has written the French word *romain*, or a corresponding word in the language in which the telegram is written, in front of an Arabic figure or group of figures, this word shall be transmitted and the receiving operator shall leave this word on the telegram to be delivered followed by the Arabic figure or group of figures, see A37.

### 4.3 *Multiplication sign*

- B14 4.3.1 For the multiplication sign, the signal corresponding to the letter X shall be transmitted.

#### 4.4 *Percentage or per thousand sign*

- B15 4.4.1 To indicate the signal % or ‰, the figure 0, the fraction bar and the figures 0 or 00 shall be transmitted successively (i.e. 0/0, 0/00).
- B16 4.4.2 A whole number, a fractional number, or a fraction, followed by a % or ‰ sign, shall be transmitted by joining up the whole number, the fraction number, or the fraction to the % or ‰ by a single hyphen.
- Examples: For 2%, transmit 2-0/0 and not 20/0  
For 4 ½ ‰, transmit 4-1/2-0/00 and not 41/20/00

#### 4.5 *Inverted commas (quotation marks)*

- B17 4.5.1 The special signal for inverted commas shall be transmitted before and after the word or words. However, where code converters are used, the apostrophe may be transmitted twice before and twice after the word or words to signal inverted commas (quotation marks).

#### 4.6 *Minute and second signs*

- B18 4.6.1 To transmit the minute (') or second (") signs, when such signs follow figures — for example 1' 15" — the apostrophe signal (· — — — ·) must be used once or twice as appropriate. The signal (· — · — ·) reserved for inverted commas may not be used for the second sign.

### 5 **Transmission of accented letters (other than e)**

- B19 5.1 In relations in which the use of certain accented letters has been authorized by special agreement between Administrations\* the following letters and signals may be used:

ä or æ	· — · —	ñ	— — · — —
á or â	· — — · —	ö or ø	— — — ·
ch	— — — —	ü	· · — —

### 6 **Transmission of groups of figures and letters, of ordinal numbers or of fractions**

- B20 6.1 A group consisting of figures and letters shall be transmitted without spaces between figures and letters.
- B21 6.2 Ordinal numbers composed of figures and letters, 30me, 25th, etc., shall be transmitted in the form **30ME, 25TH**, etc.
- B22 6.3 A number that includes a fraction shall be transmitted with the fraction linked to the whole number by a single hyphen.
- Example: For 1¾, transmit 1-3/4 and not 13/4  
For ¾ 8, transmit 3/4-8 and not 3/48  
For 363½ 4 5642, transmit 363-1/2 4 5642 and not 3631/2 4 5642.

## II. **General transmission rules**

- B23 1 All correspondence between two offices shall begin with the call signal.
- B24 1.1 For calling, the calling office shall transmit the call sign (not more than twice) of the office required, the word **DE** followed by its own call sign, the appropriate service abbreviation to indicate a priority telegram, an indication of the reason for the call and the signal — · — unless there are special rules peculiar to the type of apparatus used. The call shall always be made at hand speed.
- B25 2 The office called must reply immediately by transmitting the call sign of the calling station, the word **DE** followed by its own call sign and the signal — · —
- B26 2.1 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.
- B27 2.2 When an office called does not reply, the call may be repeated at suitable intervals.

- B28 2.3 When the office called does not reply to the repeated call, the condition of the circuit must be examined.
- B29 3 The double hyphen (— . . . —) shall be transmitted either to separate:
- B30 3.1 the preamble from the service indications;
- B31 3.2 the service indications from each other;
- B32 3.3 the service indications from the address;
- B33 3.4 the office of destination from the text;
- B34 3.5 the text from the signature; or
- B36 3.6 the pages of a telegram comprising more than 50 words (B45 to B47).
- B37 4 A transmission, once begun, may not be interrupted to give place to a communication of higher priority except in a case of absolute urgency.
- B38 5 Every telegram shall be terminated with a cross signal (· — · — ·), which shall also be sent after the routine repetition if any.
- B39 6 The end of the transmission shall be indicated by the cross signal (· — · — ·) followed by the *invitation to transmit* signal K (— · —).
- B40 7 The end of work shall be indicated by the office that transmitted the last telegram. The correct indication is the *end of work* signal (· . . — · —).

### III. Transmission of telegrams with identical text or comprising more than 50 words

#### 1 Identical texts

- B41 1.1 When an office has to transmit to the same office more than five telegrams having identical texts and comprising more than 30 words, it may transmit the text once only. In that case, the text shall be transmitted in the first telegram only, and the text of all the telegrams with identical text that follow shall be replaced by the words **TEXT NR ...** (number of first telegram). The same procedure may be adopted when the number of telegrams having identical text is five or less and the text comprises more than 50 words.
- B42 1.2 This procedure necessitates the transmission in succession of all telegrams with identical text.
- B43 1.3 The receiving office must be informed of the transmission of telegrams with identical text by a service note on the following lines:  
**... TELEGRAMS WITH IDENTICAL TEXT FOLLOW**
- B44 1.4 When reception is possible by means of perforated tape, the receiving office should be informed in ample time to allow it to receive telegrams with identical text by tape.

#### 2 Long telegrams

- B45 2.1 A telegram of more than 50 words, e.g. 128 words, shall be transmitted in sections of 50 words (called pages), in the following form:  
**119 AMSTERDAM 128 16 1015 PAGE 1/50 = JONES ... etc.**  
**... BY YOUR = 119 JONES PAGE 2/50 = EFFORTS TO ...**  
**... PLEASE EXPLAIN = 119 JONES PAGE 3/28 = WHY IT ...**
- B46 2.2 The receiving operator shall place these indications at the beginning of the page. The double hyphen, indicating the last word of each page of 50 words, shall be transmitted after that word.
- B47 2.3 If the telegram is in transit, the receiving operator shall reproduce the double hyphen; if the telegram is being received for delivery, he shall indicate each fiftieth word by a small tick.

#### IV. Transmission irregularities — Service notes

- B48 1 To indicate *wait*, the corresponding signal (· — · · ·) shall be transmitted.
- B49 2 If the sending operator becomes aware of an error, he shall stop, give the error signal (· · · · ·), repeat the last word correctly transmitted, and continue the transmission.
- B50 3 If it is necessary to interrupt the transmission for any reason, the procedure shall be as follows until transmission stops.
- B51 3.1 Morse simplex, transmit a series of dots.
- B52 3.2 Morse duplex, transmit the letters **BK**.
- B53 3.3 Once transmission has been stopped, the receiving operator shall repeat the last word correctly received followed by a question mark. The sending operator shall resume transmission from that word.
- B54 3.4 If a repetition is asked for after a long interruption, the telegram and the part of the telegram in question must be precisely indicated.
- B55 4 Service notes (**RQ**, **BQ** or **XQ**) can be interposed between telegrams of a series.

#### V. Routine repetition — Checking the number of words transmitted — Acknowledgement of receipt

##### 1 Routine repetition, checking the number of words transmitted

- B56 1.1 The general rules for routine repetition apply, see A202 to A205.
- B57 1.2 When the traffic is exchanged alternately, telegram by telegram or in series, the routine repetition, where applicable, shall be given by the sending operator.
- B58 1.3 If the receiving operator observes discrepancies between the original transmission and the matter repeated, he shall advise the sending operator by quoting the doubtful words or groups and adding a question mark after them.
- B59 1.4 Where the receiving operator finds a discrepancy between the number of actual words shown in the preamble line and the number received, he shall notify the sending operator by indicating the number of words received, followed by the first letter of each word and the first figure of each number (example: **17 WDS J C R B 2 D** ... etc.). If the sending operator has simply made an error in transmitting 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, if necessary, the transmission of the initials as soon as he is able to rectify or confirm the number of words.

##### 2 Acknowledgement of receipt

- B60 2.1 After the verification of the number of words and the rectification of any errors, the receiving office shall acknowledge to the sending office the receipt of the telegram or telegrams forming the series.
- B61 2.2 A single telegram shall be acknowledged by the letter **R** followed by the number of the telegram received, for example: **R 436**.
- B62 2.3 For an **SVH** telegram, a government telegram with priority, or a telegram relative to the application of the United Nations Charter, receipt shall be acknowledged in the form: **R 436 SVH** or **R 436 ETAT**.

- B63 2.4 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 6 157 162**.
- B64 2.5 If the series includes **SVH** telegrams or government telegrams with priority, the acknowledgement of receipt shall be supplemented by the numbers of these telegrams thus:  
**R 6 157 162 INCLUDING 159 SVH 161 ETAT**
- B65 2.6 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.]
- B66 2.7 The sending operator must request the acknowledgement of receipt immediately after the transmission of an **SVH** telegram, a government telegram with priority or a telegram relative to the application of the United Nations Charter. In such cases, the acknowledgement of receipt shall take the following form:  
**LR SVH 683**

## VI. Transmission procedures

- B67 1 Transmission may be conducted as follows, according to the volume of traffic:
- B68 1.1 alternate transmission of telegrams;
- B69 1.2 alternate transmission in series.
- B70 2 In alternate transmission, the receiving office shall not have the right to interrupt the transmission to give place to a communication of higher priority, except in cases of absolute urgency, see B37.
- B71 3 The exchange of telegrams in alternate order between two offices in direct communication shall follow the rules concerning the order of transmission.
- B72 3.1 A telegram of higher priority in order of transmission shall not count in the alternate order.
- B73 3.2 The office that has just finished a transmission shall have the right to continue when it has telegrams awaiting transmission or when telegrams reach it that are entitled to priority over those that the office in communication has to transmit, unless the latter has already begun its transmission.
- B74 3.3 When an office has finished transmitting, the office that has just received shall transmit in its turn; if the latter has nothing to transmit, the former shall continue to send its traffic. If neither has anything to transmit, the offices shall exchange the *end of work* signal.
- B75 4 When traffic so justifies, and subject to agreement between the offices in communication, telegrams shall be exchanged in series alternately.
- B76 4.1 Telegrams of the same series shall be considered as forming a single transmission. However, each correctly received telegram shall be retained at the receiving position until the next but one telegram begins or for the time normally required to transmit a telegram of average length.
- B77 4.2 Each series shall comprise a maximum of five telegrams. Nevertheless, every telegram containing more than 100 words on the Morse instrument or more than 150 words on sound-reading instruments shall count as a series or terminate a series already in course of transmission.
- B78 4.3 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 with which it is working has no more telegrams of higher priority on hand.



## DIVISION C

### OPERATIONAL PROVISIONS APPLYING TO PRINTING TELEGRAPH SYSTEMS

#### I. Transmission signals

##### 1 Transmission signals of International Telegraph Alphabet No. 2

- C1 1.1 Table 1/F.1 shows the signals of the International Telegraph Alphabet No. 2.
- C2 1.2 The following letters may be used in relations between countries that accept them and that fix the conditions for their transmission:

ä, æ, á, â, ñ, ö, ø, ü

- C3 1.3 In the interests of speed and efficiency in the movement of telegraph traffic and to further the development of a world-wide telecommunication network, the five-unit code, in accordance with International Telegraph Alphabet No. 2, is recommended. However, this provision need not apply to Administrations\* that by mutual agreement in respect of a particular circuit or network have made other arrangements. In such cases, the Administrations\* concerned could provide suitable facilities for converting from their method of operation to the five-unit code of International Telegraph Alphabet No. 2 whenever it becomes desirable to interconnect with offices using the latter system.

- C4 1.4 *Written characters that have a corresponding signal in International Telegraph Alphabet No. 2*

- C5 1.4.1 Letters: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

- C6 1.4.2 Figures: 1 2 3 4 5 6 7 8 9 0

- C7 1.4.3 Punctuation marks and miscellaneous signs:

Full stop . . . . .	.
Comma . . . . .	,
Colon or division sign . . . . .	:
Question mark . . . . .	?
Apostrophe . . . . .	'
Cross or addition sign . . . . .	+
Hyphen or dash or subtraction sign . . . . .	—
Fraction bar or division sign . . . . .	/
Multiplication sign . . . . .	×
Double hyphen . . . . .	=
Left-hand bracket (parenthesis) . . . . .	(
Right-hand bracket (parenthesis) . . . . .	)

C8 1.4.4 Table 1/F.1 shows the direction of current for each element for the transmission of letters, figures and signs:

TABLE 1/F.1  
International Telegraph Alphabet No. 2

Combination number	Letter case	Figure case	Element number <sup>1</sup>						
			Start element	1	2	3	4	5	Stop element
1	A	—	A	Z	Z	A	A	A	Z
2	B	?	A	Z	A	A	Z	Z	Z
3	C	:	A	A	Z	Z	Z	A	Z
4	D	Note 2	A	Z	A	A	Z	A	Z
5	E	3	A	Z	A	A	A	A	Z
6	F	Note 3	A	Z	A	Z	Z	A	Z
7	G		A	A	Z	A	Z	Z	Z
8	H		A	A	A	Z	A	Z	Z
9	I	8	A	A	Z	Z	A	A	Z
10	J	Audible Signal	A	Z	Z	A	Z	A	Z
11	K	(	A	Z	Z	Z	Z	A	Z
12	L	)	A	A	Z	A	A	Z	Z
13	M	.	A	A	A	Z	Z	Z	Z
14	N	,	A	A	A	Z	Z	A	Z
15	O	9	A	A	A	A	Z	Z	Z
16	P	0	A	A	Z	Z	A	Z	Z
17	Q	1	A	Z	Z	Z	A	Z	Z
18	R	4	A	A	Z	A	Z	A	Z
19	S	'	A	Z	A	Z	A	A	Z
20	T	5	A	A	A	A	A	Z	Z
21	U	7	A	Z	Z	Z	A	A	Z
22	V	=	A	A	Z	Z	Z	Z	Z
23	W	2	A	Z	Z	A	A	Z	Z
24	X	/	A	Z	A	Z	Z	Z	Z
25	Y	6	A	Z	A	Z	A	Z	Z
26	Z	+	A	Z	A	A	A	Z	Z
27	Carriage-return <sup>4</sup>		A	A	A	A	Z	A	Z
28	Line-feed <sup>4</sup>		A	A	Z	A	A	A	Z
29	Letter-shift <sup>5,6</sup>		A	Z	Z	Z	Z	Z	Z
30	Figure-shift <sup>6</sup>		A	Z	Z	A	Z	Z	Z
31	Space		A	A	A	Z	A	A	Z
32	Not normally used		A	A	A	A	A	A	Z

**Notes:**

<sup>1</sup> For element numbers 1 to 5 in perforated tape working:

A represents no perforation;  
Z represents a perforation.

A and Z have the meaning assigned to them in [1].

<sup>2</sup> a) To operate the answerback unit of the corresponding instrument in the international telex and gextex services.

b) Available for the internal service of Administrations\*.

<sup>3</sup> Available for the internal service of each Administration\*.




<sup>4</sup> For page printers.


<sup>5</sup> Also used as *erasure* in case of automatic working.

<sup>6</sup> Combination Nos. 29 (letter-shift) and 30 (figure-shift) shall not affect the spacing movement, except where their reception is indicated by printing a symbol (see C9).

- C9 1.4.5 Administrations\* that wish to indicate the reception or transmission of certain combinations shall effect this by printing the symbols shown in Table 2/F.1.

TABLE 2/F.1

Combination Number	Case	Symbol
4	figure	
10	figure	(see Note 1) 
27	either	←
28	either	=
29	either	↓
30	either	↑
31	either	△
32	either	

*Note 1* – The pictorial representation shown is a schematic of  which may also be used when equipment allows.

*Note 2* – Each alphabetic representation is to be considered as a single symbol. It may occupy either one or more positions on a printed or displayed line, depending on the implementation.

- C10 1.4.6 To indicate a *blank*, the signal *space* shall be transmitted.

- C11 1.4.7 To indicate a transmission error, the letter **E** and the signal *space* shall be repeated alternately three times. Transmission shall be resumed beginning with the last word correctly sent. When transmitting with perforated tape and provision exists for eliminating incorrectly perforated characters, such means of correction shall be used. (If automatic error correction devices are used, see C165.)

- C12 1.4.8 To indicate *wait*, the characters **MOM** shall be transmitted.

## 2 Transmission of signs for which there is no corresponding signal in the telegraph alphabet

- C13 2.1 Signs that have no corresponding signal in a telegraph alphabet but that are acceptable in the writing of telegrams, shall be sent as follows:

- C14 2.1.1 *Accented é or è*: The letter **E** shall be transmitted. When an accent on the **E** is essential to the meaning, the transmitting operator shall repeat the word in the routine repetition putting a space either side of the **E** to be accented to indicate to the receiving operator that the accent must be inserted by hand.

### 2.1.2 *Roman figures*:

- C15 2.1.2.1 Roman figures shall be transmitted as Arabic figures.

- C16 2.1.2.2 If the sender has written the French word *romain*, or a corresponding word in the language in which the telegram is written, in front of an Arabic figure or group of figures, this word shall be transmitted and the receiving operator shall leave this word on the telegram to be delivered, followed by the Arabic figure or group of figures, see A37.
- C17 2.1.3 *Addition sign (+)*: Transmit the cross sign (+).
- C18 2.1.4 *Subtraction sign (-)*: Transmit the dash (-).
- C19 2.1.5 *Multiplication sign (×)*: Transmit the letter X.
- C20 2.1.6 *Division sign (÷)*: Transmit the colon (:).
- C21 2.1.7 *Division sign (/)*: Transmit the fraction bar (/).
- C22 2.1.8 *Percentage sign (%)*: Successively transmit the figure 0, the fraction bar and the figure 0 (example: 0/0).
- C23 2.1.9 *Per thousand sign (‰)*: The ‰ sign shall be indicated by transmitting the figure 0 followed by the fraction bar and the figures 00 (example: 0/00).
- C24 2.1.10 *Combination of numbers and % or ‰*: A whole number, a fractional number, or a fraction, followed by a % or a ‰ sign, shall be transmitted by joining up the whole number, the fractional number or 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**
- C25 2.1.11 *Inverted commas (quotation marks) (")*: Transmit the apostrophe (') twice at the beginning and end of the text within the inverted commas (" ").
- C26 2.1.12 *Minute (') and second (") signs*: The minute sign and the second sign shall be transmitted by means of the apostrophe sign, transmitted once for the minute sign, and twice for the second sign.
- 3 Transmission of ordinal numbers, groups of figures and letters or of numbers that include fractions**
- C27 3.1 Ordinal numbers composed of figures and letters: 30<sup>me</sup>, 25<sup>th</sup>, etc., shall be transmitted in the form of **30ME**, **25TH**, etc.
- C28 3.2 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.
- C29 3.2.1 If, however, the expressions 30<sup>a</sup>, 30<sup>b</sup>, etc., 30bis, 30ter, etc., 30 I, 30 II, etc., 30 A, 30 B, etc., 30<sup>l</sup>, 30<sup>2</sup>, etc. indicating a house number, appear in the address of a telegram, the accepting 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/A**, **30/B**, etc., **30/1**, **30/2**, etc.
- C30 3.3 Except as provided in C29, groups consisting of figures and letters must be transmitted as set forth in the telegram.  
 Examples: 3B is transmitted as **3B**  
 AG 25 is transmitted as **AG 25**
- C31 3.4 A number that 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**  
 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**.

## II. General provisions for transmission of telegrams

### 1 Calling

- C32 1.1 Correspondence between two offices shall begin with the call signal. However, on circuits operated by start-stop apparatus, unless a different arrangement has been made, the apparatus must be connected in such a way that the transmitting office may start transmission of telegrams without a special call or previous notice to the receiving office.
- C33 1.2 A transmission, once begun, may not be interrupted to give place to a communication of higher priority except in case of absolute urgency.
- C34 1.3 To call another office, the calling office shall transmit the call sign or abbreviated name of the office required and the word **DE** followed by its own identification, unless there are special rules peculiar to the type of apparatus used.
- C35 1.4 On circuits operated by start-stop apparatus, Administrations\* may agree that the apparatus be equipped with an answer-back unit so that the transmitting office may satisfy itself that a circuit is in good order and that the receiving apparatus, whose identity is thus verified, is ready to work. Calling shall be effected by transmitting the signals *figure-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.
- C36 1.5 The office called must reply immediately, except in the case of start-stop correspondence, subject to C35.
- C37 1.6 If the office called is unable to receive, it shall give the *wait* signal **MOM**. If it expects the wait to exceed ten minutes, the reason and probable duration shall be given.
- C38 1.7 When an office called does not reply, the call may be repeated at suitable intervals.
- C39 1.8 When the office called does not reply to the repeated call, the condition of the circuit must be examined.

### 2 Transmission with running series of numbers

- C40 2.1 Each Administration\* shall have the right to number in series telegrams to be transmitted over international circuits. In each case it shall notify its intention to the Administrations\* concerned.
- C41 2.2 The serial number shall be transmitted at the beginning in the numbering line. Administrations\* shall each decide as far as it is concerned, whether the office number shall be transmitted. If so, it will be included in the numbering line.
- C42 2.3 When serial numbers are used, all telegrams shall be numbered in unbroken series. A special series may be used for each section or circuit by agreement between the Administrations\* concerned. This series shall then differ from the series used for the other sections or circuits by distinguishing figures or a prefix composed of letters. A special series may be assigned to each class of telegram.
- C43 2.4 Offices in correspondence shall agree upon the start and finish of the series of numbers.
- C44 2.5 The offices in correspondence shall agree whether to start the new series of numbers each day with the numbers 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 each day before starting the new series.
- C45 2.6 When telegrams have to be diverted and it has been accepted by the transit office in question that their serial numbers should not be altered because they have already been prepared for transmission, the office that effects the diversion shall inform by service advice the office to which the telegrams would otherwise have been transmitted and the office to which they are actually transmitted. The receiving office to which the telegrams should have been sent shall indicate on its list the numbers of the telegrams which it is informed are being diverted.

- C46 2.7 In all other cases, telegrams that are to be diverted shall receive new serial numbers.
- C47 2.8 When the receiving office observes that a serial number is missing, it must inform the sending office at once in order that the necessary inquiries may be made.
- C48 2.9 When it is necessary to strike out a serial number that has already been used, the transmitting office shall inform the receiving office by service advice.

### **3 Routine repetition**

- C49 3.1 The routine repetition (A202 to A205) shall be given by the sending operator immediately after the telegram. In the case of multi-page telegrams, routine repetition shall be transmitted immediately after each page of the telegram.

## **III. General provisions for reception**

- C50 1 When reception is unintelligible, the operator shall act according to the special rules given for the different methods of operation (C83 to C92, C129 to C137).
- C51 2 If there is a discrepancy between the number of actual words shown in the preamble line and the number received or any other irregularities the operator shall act according to the special provisions given for the different methods of operation (C87 to C93, C142 to C151, C220 to C223).
- C52 3 When any discrepancy or irregularity does not arise from a mistake in transmission, the rectification 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 indicated by the office of origin or any other irregularity shall be admitted, the telegram being forwarded, meanwhile, with the service instruction "Correction to follow ..." transmitted in the abbreviated form [example: **CTF ... WORD(S)**], the meaning of which shall be indicated by the office of destination on the copy delivered to the addressee. The correction shall be requested by service advice from the office of origin by the office that has inserted the service instruction **CTF ...**
- C53 4 If there is a difference between the transmission and the routine repetition, the operator shall notify his correspondent by an **RQ** quoting the doubtful passages. If necessary, he shall also repeat the word preceding and the word following.
- C54 5 Repetitions shall be requested and given briefly and clearly.

## **IV. Special provisions for point-to-point operations**

### **1 Transmission of telegrams to tape-printing systems**

- C55 1.1 The double hyphen (=), which is always preceded by a space but must never be followed by a space, shall be transmitted either to separate:
- C56 1.1.1 the preamble line from the service indications;
- C57 1.1.2 the service indications from each other;
- C58 1.1.3 the service indications from the address;
- C59 1.1.4 the office of destination from the preceding parts of the address;
- C60 1.1.5 the office of destination from the text;
- C61 1.1.6 the text from the signature; or
- C63 1.1.7 the pages of a telegram comprising more than 50 words (see C65).

- C64 1.2 Each telegram shall be terminated by a cross (+), which is also transmitted after the routine repetition, if any. The cross must always be preceded and followed by a space.
- C65 1.3 A telegram of more than 50 words, e.g. 128 words, shall be transmitted in sections of 50 words (called pages), in the following form:  
**119 AMSTERDAM 128 16 1015 PAGE 1/50 =JONES ... etc.**  
**... BY YOUR =119 JONES PAGE 2/50 =EFFORTS TO ...**  
**... PLEASE EXPLAIN =119 JONES PAGE 3/28 =WHY IT ...**
- C66 1.4 The receiving operator shall place these indications at the beginning of the page. The double hyphen, indicating the last word of each section of 50 words, shall be transmitted after that word.
- C67 1.5 On tape-printing teleprinters the receiving operator at the transit office shall maintain the double hyphen. At the office of destination, it shall be deleted and each fiftieth word shall be indicated by a small tick.
- C68 1.6 If the sending operator becomes aware of an error, he shall stop, give the signal *error* (C11), repeat the last word correctly transmitted and continue the corrected transmission. When perforated- tape transmission devices enabling incorrectly punched characters to be eliminated are used, the signals corresponding to these characters shall be erased by letter-shifts.
- C69 1.7 Example of format to be used in tape-printing systems:  
**MOH143<sup>1</sup> KIEV 12 18 0830<sup>2</sup> =URGENT =KARL MUELLER**  
**ROSSMARKT 13/1 =HAMBURG =WIR KOMMEN SCHON HEUTE**  
**ABEND =KARIN + COL 13/1 +**

<sup>1</sup> Distinguishing letters and/or serial number (C40 to C48).

<sup>2</sup> Preamble line, the parts referred to in A48 to A61.

## 2 Transmission of telegrams to page-printing systems

- C70 2.1 When page-printing teleprinters are used for reception, the transmitting office or offices should transmit traffic to the receiving office without error according to the layouts shown in the following examples, C79 to C82.
- C71 2.2 Each line of the address part (with the exception of the service indication line) must consist of not more than 43 characters (including spaces) and must be preceded by the realignment function. The office of destination must always appear on a separate line.  
Example: **MR FRANK CONTI US DELEGATION ILO CONFERENCE**  
**EUROPEAN UNO HEAD OFFICE**  
**GENEVE**
- C72 2.3 Every other line must consist of not more than 69 printing characters (including spaces).
- C73 2.4 So far as practicable the transmitting operator should transmit each word as a whole and should avoid dividing words between the end of line and the beginning of the next.
- C74 2.5 The sending office should eliminate errors before transmission.
- C75 2.6 Telegrams of more than 50 actual words should be divided into sections of 50 actual words, called pages, in accordance with A148. These pages should 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, on which the identification number is repeated, by three line-feeds (see C80).
- C76 2.7 In telegrams of more than 50 words, routine repetition, if any, shall be given at the end of every page.
- C78 2.8 When preparing telegrams in page format that may be circulated over the gentex network or via the telegram retransmission system, the additional provisions contained in C94 to C241 should be observed.

<=  
 ZCZC LPA264 LGE906 PLG408<=<sup>1</sup>  
 FRXX CO GBLG 020<=<sup>2</sup>  
 LONDON/LG 20 26 1405<==<sup>3</sup>

DUPONT<=  
 15 RUE DE LA REPUBLIQUE<=  
 NANTES<==

JOHN AND SUE LEAVE BY ROAD TODAY EXPECTED TO ARRIVE<=  
 EARLY TOMORROW<=  
 DAD<==<sup>4</sup>

COL 15<==

NNNN<sup>5</sup>

- <sup>1</sup> Distinguishing letters and/or serial number (C40 to C48).
- <sup>2</sup> The pilot line may be omitted when transmitting to systems that do not demand it.
- <sup>3</sup> Preamble line, the parts referred to in A48 to A61.
- <sup>4</sup> Minimum of five spaces before the signature.
- <sup>5</sup> ten letter-shifts follow NNNN, except in relations that do not require them.

<=  
 ZCZC GWB608 MKA296 AZT044<=  
 GBLV HL URNY 076<=<sup>1</sup>  
 NEW YORK 76/72 10 1826 PAGE 1/50<==

LT<=  
 SOAPBOX<=  
 LIVERPOOL<==

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<==

COL 00503 MODEV6 1<==

AZT044 SOAPBOX PAGE 2/22<==

URGENT X CAN WE SHIP 5000 LBS K685 EX PUK ON<=  
 BRAEMAR SAILING LONDON MARCH 18 X CABLE<=  
 MACKENZIES KAMPALA IMMEDIATELY<=  
 SMITHCO<==<sup>2</sup>

COL 5000 K685 18<==

NNNN<sup>3</sup>

- <sup>1</sup> The pilot line may be omitted when transmitting to systems that do not demand it.
- <sup>2</sup> Minimum of five spaces before the signature.
- <sup>3</sup> Ten letter-shifts follow NNNN except in relations that do not require them.



C81 2.11 Example: *Money order telegram with postal service indications*

<=  
ZCZC AKW112 MDT8067<=  
INBY CJ GBMT 022<=<sup>1</sup>  
LONDON/MT 22/21 26 1130<===

MANDAT<=  
2793 AVIS PAIEMENT<=  
BOMBAY<===

BRADFORD 10610 GB MOHD YOUNAS 500 FIVEHUNDRED RUPEES<=  
M JEAN 1)DE/BIASE 74 APOLLO BUNDO HAPPY BIRTHDAY<===

COL 2793 10610 500 1)DE/BIASE 74<=====

NNNN<sup>2</sup>

<sup>1</sup> The pilot line may be omitted when transmitting to systems that do not demand it.

<sup>2</sup> Ten letter-shifts follow NNNN except in relations that do not require them.

C82 2.12 Example: *Postal cheque telegram*

<=  
ZCZC ABC123 BBAA8371<=  
FRPA CJ CHBX 017<=<sup>1</sup>  
BERN/1/SCHANZENPOST 17/16 15 1105<===

VIREMENT<=  
34688 AVIS INSCRIPTION<=  
PARIS<===

ANTON SCHMIDT 30-53998 BERNE 500 CINQCENTS FRANCS FRANCAIS<=  
PIERRE DUBOIS 56-231089<===

COL 34688 30-53998 500 56-231089<=====

NNNN<sup>2</sup>

<sup>1</sup> The pilot line may be omitted when transmitting to systems that do not demand it.

<sup>2</sup> Ten letter-shifts follow NNNN except in relations that do not require them.

### 3 Reception

C83 3.1 When reception is unintelligible the receiving operator shall interrupt the transmitting office or cause the transmission to be interrupted.

C84 3.2 To interrupt transmission from an office, transmit a succession of letters **P** or figures **0** or, on duplex circuits, transmit a call followed by the abbreviation **BK** and an audible signal which may be repeatedly transmitted.

C85 3.3 When interrupting the transmitting office, the reason for the interruption shall be given (paper, multilined, etc.) and the last word, to which a question mark must be added, or the number of the last telegram correctly received (**LR ...**) shall be indicated.

C86 3.4 The sending operator shall go back and continue the transmission from that word or telegram, after having been instructed to continue by **GA**, **RPT AA ...**, etc.

C87 3.5 If there is a difference between the number of actual words shown in the preamble line and the number received, the operator shall send an **RQ** to the transmitting office, indicating the serial number of the telegram in question, the abbreviation **CK**, the number of words received, and the first letter of each word and the first figure of each number. In telegrams with more than ten actual words it is admissible to indicate each fifth or tenth actual word instead of the first letter or figure of each word or group. In this

case the indicated words shall be preceded by the abbreviation **FVS** (fives) or **TNS** (tens) respectively. For the words behind the last indicated fives or tens, the first letter of each word or the first figure of each number shall be given. If the sending operator has simply made an error in transmitting the number of words, he shall reply by a **BQ** indicating and confirming the actual number of words; if not, he shall rectify by an appropriate **BQ** the passage found to be incorrect according to the words and/or initial letters or figures of the words received.

C88 3.6 In telegrams divided into pages, the receiving operator shall give only the necessary information for the page containing the error.

C89 3.7 Examples of **RQ** and **BQ** for transmission to an office where tape-printers are in use for reception.

**RQ 186 CK 8 JCRB2DW4 +**  
**RQ 187 CK 17 FVS 210 WINDOW CARGO C F +**  
**RQ 188 RPT ... +**  
**BQ 187 CK 17 OK +**

C90 3.8 In **RQ** and **BQ** for transmission to an office where page-printers are used for reception, the layouts shown in examples C91 and C92 may be used. Where it has been agreed otherwise the procedure in C93 applies.

C91 3.8.1 Example: **RQ**

<=  
**ZCZC LAJ913 QLB619<=**  
**HXXHK CN GBLB 000<=**<sup>1</sup>  
**LONDON/LB<=** ==

**RQ<=**  
**HONGKONG<=** ==

**JAL836/AKZ429/13 LT BENBOW LONDON<=**  
**4TH ZCD<=** == == == == == == == ==

NNNN<sup>2</sup>

<sup>1</sup> The pilot line may be omitted when transmitting to systems that do not demand it.

<sup>2</sup> Ten letter-shifts follow NNNN except in relations that do not require them.

C92 3.8.2 Example: **BQ**

<=  
**ZCZC JAL861 XYZ137<=**  
**GBLB CN HXXHK 000<=**<sup>1</sup>  
**HONGKONG<=** ==

**BQ<=**  
**LONDON/LB<=** ==

**LAJ913/QLB619/13 JAL836/AKZ429/13 LT<=**  
**BENBOW LONDON 4TH 0935<=** == == == == == == == ==

NNNN<sup>2</sup>

<sup>1</sup> The pilot line may be omitted when transmitting to systems that do not demand it.

<sup>2</sup> Ten letter-shifts follow NNNN except in relations that do not require them.

C93 3.8.3 **RQ** and **BQ** can also be transmitted to offices using page-printers for reception in the form shown in C87 to C89, but shall then be preceded by a carriage-return, a line-feed and a letter-shift and shall be terminated by — instead of the final cross — a carriage-return, ten line-feeds and ten letter-shifts.

## V. Special provisions for gentex operations

### 1 General provisions

- C94 1.1 The gentex network is made up of telegraph offices of the 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. Either tape-printing or page-printing teleprinters are used for transmission and reception.
- C95 1.2 When page-printing teleprinters are provided for the transmission and/or reception of telegrams the particular provisions and the format of C157 to C161 must be observed.

### 2 Routing

- C96 2.1 Instructions for the routing of telegrams appear in the routing lists available to operators.
- C97 2.2 Telegrams to an office that appears in the routing list shall be routed to the gentex office listed as serving that office, account being taken of C99, if appropriate.
- C98 2.3 Telegrams to an office that does not appear in the routing list shall be routed in accordance with the instructions given at the beginning of the routing list of the country in which the office is located.
- C99 2.4 Telegrams to limited service gentex offices shall be routed in accordance with the instructions appearing against these offices in the routing lists.

### 3 Answer-back codes

- C100 3.1 The answer-back code used in the gentex service includes:
- C101 3.1.1 the figures representing the call number;
- C102 3.1.2 for large offices, when necessary, one or two letters identifying the position;
- C103 3.1.3 name (in full or abbreviated) of the office;
- C104 3.1.4 one or two letters identifying the country (see C107).
- C105 3.2 The answer-back code of special positions dealing with service notes and advices, when they exist, includes the group of letters **INQ** (standing for *inquiries*) after the name of the office.
- C106 3.3 The answer-back code of specialized incoming positions for overflow traffic includes the group of letters **DEB** (standing for *débordements*) after the name of the office but does not include the call number.
- C107 3.4 The letter or letters identifying the country are shown, for each country, in column 3 of the *Routing Table for Offices Taking Part in the Gentex Service* [6] (Recommendation F.93).

### 4 Responsibility of transmitting or receiving stations

- C108 4.1 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 correct procedure.
- C109 4.2 He can provide this proof by producing the original of the telegram, the local record if there is one and by verifying that the called station's answer-back code was received without error.
- C110 4.3 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 any erroneous passages.

## **5 Procedures before transmission of a telegram**

- C111 5.1 At the calling station, the telegram may be provided with a reference number, which will be transmitted before the preamble line and will serve as an additional means of identifying the telegram if required.
- C112 5.2 To set up the call with the required office, the operator of the calling station proceeds, according to the rules of his network, to obtain the required number, which is made up of:
- the prefix giving access to the called country from the calling station;
  - the number of the called office.
- C113 5.3 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.
- C114 5.4 If the answer-back code received is not the code expected, the reason may be one of the following:
- C115 5.4.1 the answer-back code belongs to an overflow position which can receive the telegram; transmission of the telegram can therefore begin;
- C116 5.4.2 a wrong station has been obtained. The operator sends the signal **BK**, gives the clearing signal, and again tries to put the call through to the office required.
- C117 5.5 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 C126 and C127.
- C118 5.6 If the calling station receives the busy signal, the call shall be repeated after approximately two minutes. If the second call is unsuccessful, a third call shall be made after a further two minutes. If the busy signal is again received, telegrams shall be diverted to that telegraph office in the same country shown in the routing list as the office required in such cases.
- C119 5.7 When a call is sent to a gentex office in a country providing diversion to an overflow position, connection with the required gentex office or an overflow position may be delayed. The operator of the calling station is informed thereof by reception of **MOM**. He will then await subsequent routing of his call.

## **6 Actual transmission of a telegram**

- C120 6.1 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 C55 to C69 or C159 to C161. The routine repetition shall always be effected by the operator at the calling station.
- C121 6.2 After transmission of the telegram, the operator obtains the answer-back code of the called station and then transmits his own.
- C122 6.3 For interconnection between a gentex office and a telegram retransmission centre see C227 to C241.

## **7 Procedures following transmission of a telegram**

- C123 7.1 Following the exchange of answer-back codes, the operator of the calling station gives the clearing signal.

## **8 Series transmission**

- C124 8.1 When a calling station has several telegrams for the same office, once the calling station has made contact with that office, the operator checks the answer-back code in accordance with C113, and then transmits the telegrams one after the other taking into account C120 and, if appropriate, C227 to C241. In this case, one exchange of the answer-back codes takes place between the end of one telegram and the beginning of the following one.

## 9 Reception of telegrams

- C125 9.1 The called station checks the telegram or telegrams received in accordance with the provisions of A199 to A201. If correction is necessary a request must be sent by **RQ** note to the transmitting office (see C142 to C151). When receiving from a telegram retransmission centre the request must be sent as prescribed in C220 to C223.

## 10 Abnormal conditions before transmission

- C126 10.1 Should the operator of a calling station notice, during the setting up of a call, anything that seems to him due to faulty lines or equipment he shall, if possible, transmit **DER BK** and give the clearing signal.
- C127 10.2 After approximately two minutes, he shall try to call again. 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. He shall then report the fault.
- C128 10.3 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 C127.

## 11 Abnormal conditions during transmission

- C129 11.1 If the operator at the called station notes any errors in the text of a telegram that 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.
- C130 11.2 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 by sending **P** (in either shift) repeatedly until transmission stops. He shall then send **MUT RPT ALL**.
- C131 11.3 If the operator at the called station cannot stop a transmission, or if the text received when the transmission is resumed continues to be mutilated, he shall send **DER BK** and give the clearing signal.
- C132 11.4 If the answer-back code of the called station is not received or is incorrectly received at the end of transmission of a telegram, the calling station sends **DER BK** and gives the clearing signal.
- C133 11.5 The calling station then proceeds once more to call the required office and recommences transmission of the telegram including the service instruction **AMPLIATION** at the end of the preamble line. However, in the case of money order or postal cheque telegrams, the repetition 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.
- C134 11.6 The procedure described under C133 above is also applied when the call is accidentally interrupted during transmission by the calling station.
- C135 11.7 If a call is accidentally interrupted during transmission, or if a call has been cleared after transmission of **BK**, the called office holds the texts received until the calling office resumes transmission. If transmission is not resumed within twenty minutes, the called office sends a service note to the calling office, requesting any corrections or repetitions that may be necessary.
- C136 11.8 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 received text shall be kept for enquiry purposes. The name of the receiving station and the time of receipt shall be marked on the form. Since the receiving station cannot, in such circumstances, transmit a request to the transmitting station, the telegram will be lost if the transmitting station has failed to notice the fault.
- C137 11.9 Shortage of paper can in certain machines cause the clearing signal to be sent 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.

## 12 Misrouted telegrams

- C138 12.1 If during the transmission of a telegram, the receiving operator notices that it has been misrouted:
- C139 12.1.1 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.
- C140 12.1.2 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.
- C141 12.2 If the fact that the telegram has been misrouted 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.

## 13 Service notes

- C142 13.1 When reception of a telegram is checked and mistakes are noted, a service note (**RQ**) shall be transmitted to the office that has transmitted the telegram. This latter office transmits the reply by a service note (**BQ**) as quickly as possible.
- C143 13.2 The same treatment shall be given to calls for service notes (**RQ**) or (**BQ**) as to those for a telegram.
- C144 13.3 A request or reply (**RQ**) or (**BQ**) must contain the following indications:
- C145 13.3.1 **RQ** or **BQ**;
- C146 13.3.2 office to which the **RQ** or **BQ** note is being sent;
- C147 13.3.3 time at which transmission of the telegram has finished (or, if given by the automatic switching equipment, time at which the call was set up);
- C148 13.3.4 designation of the telegram in question by the handing-in number (and, if applicable, the reference number) of the telegram followed by that of the operating position that has transmitted the telegram, separated by a fraction bar (e.g. **17/385/TE**);
- C149 13.3.5 the request or reply itself.
- C150 13.3.6 Examples:  
For **RQ**:  
**RQ LYON 1030 17/385/TE 9 W =CFLAM8ABH +**  
For **BQ**:  
**BQ AMSTERDAM 1030 17/385/TE 9 W OK +**  
For **RQ** (in the case of an irregularity in a page of a long telegram):  
**RQ LYON 1030 376/TE PAGE 3 =RPT WA ... +**
- C151 13.4 If a reply to an (**RQ**) note has not been received after a maximum period of 20 minutes, a second (**RQ**) note including the code word **RAF**SO, shall be transmitted 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 (see C52). The same applies when it is obvious from the outset that the clarification of an irregularity will be delayed (for instance, after the closing time of a telegraph office).

## 14 Service advices (A)

- C152 14.1 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**).
- C153 14.2 Requests that are transmitted one or more days after the telegram has been received shall be made by means of service advices (**A**).

## 15 Use of codes

- C154 15.1 Service notes and advices shall make use of the codes listed in C168 and also the five-letter codes appearing in *Codes and Abbreviations for the Use of International Telecommunication Services* [7] (Recommendation F.92).
- C155 15.2 The codes listed in C168 shall also be used when, in exceptional circumstances, operators have to communicate while a call is still connected.
- C156 15.3 The expression **UTCOD** (*use the gentex code*) should be used to inform the corresponding office that it is necessary to use the code expression of the gentex service.

## 16 Particular provisions for the use of page-printing teleprinters, format converters and/or error correction devices in the gentex service

- C157 16.1 If the necessary arrangements have been made with the other Administrations\*, provisions C159 to C167 shall be observed.
- C158 16.2 Unless otherwise specified hereafter, the special provisions for gentex operations (see C94 to C156) are applicable.

## 17 Traffic between gentex offices equipped with page-printing teleprinters

- C159 17.1 Provisions C70 to C82 or C160 and C161 should be followed, the format being slightly modified to meet the requirements of the gentex service.
- C160 17.1.1 Example:

☒ <= <sup>1</sup>  
16250Z OSLO N<=  
4071TC FFM D<=  
ZCZC 18<= <sup>2</sup>  
NOOO CQ DPFF 014<= <sup>3</sup>  
FRANKFURT AM MAIN/9 14/13 25 0935<= ==

RP2.50<=  
INTERFER<=  
OSLO<= ==

ARRIVING WEDNESDAY KLM FLIGHT 308 KINDLY<=  
ARRANGE HOTEL RESERVATION<=  
JUDY<= == <sup>4</sup>

COL RP2.50 308<= == == == == == ==

NNNN ☒ <= <sup>1,5</sup>  
16250Z OSLO N<=  
4071TC FFM D

<sup>1</sup> Method of operating in accordance with C113 and C123. The symbol ☒ indicates the *Who are you?* signal.

<sup>2</sup> Transmission serial number.

<sup>3</sup> The pilot line may be omitted when transmitting to systems that do not demand it.

<sup>4</sup> Minimum of five spaces before the signature.

<sup>5</sup> Ten letter-shifts follow NNNN except in relations that do not require them.

- C161 17.2 Administrations\* may nevertheless mutually agree to ignore the provision that the transmission should be free of errors.

## 18 Interworking between tape-printing and page-printing teleprinters

- C162 18.1 When tape-printing teleprinters are used to transmit page format they should generally be equipped in accordance with Recommendation S.5 and operated in accordance with C70 to C82. When page-printing teleprinters are used to transmit towards tape-printing teleprinters, C70 to C82 or C160 and C161 should be followed.

## 19 Special transmission procedures for use with format converters and/or automatic error correction devices

- C163 19.1 Besides the transmission procedure laid down in C120, it is admissible:
- C164 19.1.1 that gentex offices equipped with tape-printing teleprinters may use the double hyphen (=; combination No. 22, figure case) whenever the carriage-return and line-feed signals (combinations Nos. 27 and 28) are used in the format C70 to C82 (notwithstanding C55 to C63). 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;
- C165 19.1.2 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 C68.
- C166 19.2 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 telegram will have to be cancelled by transmitting the expression ANUL space ANUL and ten double hyphens. The telegram in question must then be transmitted again including all the exchanges of answer-back codes.
- C167 19.3 By mutual agreement between Administrations\*, the foregoing procedures may also be adopted when format converters or error-correcting devices are not employed in order to enable operators to observe a uniform transmission procedure.

## C168 20 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
CLA	Class of telegram
COL	Collation: Please give/I give routine repetition
CRV	How do you receive?
CTF	Correction to follow
DBL	Double word(s)
DEB	Overflow position



<b>DER</b>	Out of order
<b>DER BK</b>	Out of order, I cut off
<b>DER MOM</b>	Bad reception, do not cut off, we are testing the line
<b>DETR ...</b>	I am re-routing to .../Re-route to .../Alternative route?
<b>DIF</b>	Different
<b>DTE</b>	Date of handing-in
<b>E E E</b>	Error signal
<b>FIG</b>	Figure(s)
<b>FVS</b>	Fives
<b>GA</b>	You may transmit
<b>IND</b>	Answer-back code
<b>INQ</b>	Position specializing in the handling of service notes and advices
<b>LTR</b>	Letter(s)
<b>MNS</b>	Minutes
<b>MOM</b>	Please wait!
<b>MOM PPR</b>	Please wait! I have paper trouble
<b>MUT</b>	Mutilated
<b>NA BK</b>	Correspondence with this telegraph office is not admitted. I cut off
<b>NC</b>	No circuit
<b>NCH</b>	Number changed
<b>NOT R</b>	Not received
<b>NP</b>	The called number is not/no longer in use
<b>NR</b>	Number
<b>OCC</b>	Busy
<b>O/D</b>	Telegraph office of destination
<b>OK</b>	Agreed
<b>OMTD</b>	Omitted
<b>O/O</b>	Telegraph office of handing-in
<b>P (in either shift) repeated</b>	Stop your transmission
<b>PBL</b>	Preamble of telegram
<b>PPR</b>	Paper
<b>QGA</b>	May I transmit?
<b>QOK</b>	Do you agree?
<b>R ...</b>	Received ...
<b>RAFSO</b>	Second application
<b>RAP</b>	I shall call you again
<b>REF ...</b>	With reference to ...
<b>ROUTE</b>	Route to .../I am routing to .../Route?
<b>RPFR</b>	Please prepare your reperforator
<b>RPFR TXT</b>	Prepare your reperforator because of long or difficult text or because of telegrams having the same text
<b>RPT</b>	Repeat please/I repeat
<b>RPT AA ...</b>	Repeat all after ...
<b>RPT AB ...</b>	Repeat all before ...
<b>RPT ALL</b>	Repeat the whole telegram
<b>RPT BN ...</b>	Repeat all between ... and ...
<b>RPT SRL NR ...</b>	Repeat reference number given by the transmitting office ...

<b>RPT TG NR</b>	Repeat telegram number
<b>RPT TXT</b>	Repeat text
<b>RPT WA ...</b>	Repeat word after ...
<b>RPT WB ...</b>	Repeat word before ...
<b>RQ</b>	Announcement of a request
<b>SIG</b>	Signature
<b>SRL NR</b>	Reference number given by a gentex transmitting office
<b>SVIN</b>	Service indication
<b>SVP</b>	Please
<b>TCHN</b>	Technical service/I shall advise the technical service
<b>TEST MSG</b>	Please send a test message
<b>TG</b>	Telegram
<b>TG NR ...</b>	Telegram number given by the handing-in office ...
<b>TNS</b>	Tens
<b>TPLE</b>	Triple word(s)
<b>TPR</b>	Teleprinter
<b>TXT</b>	Text
<b>UTCOD</b>	Use the gentex code
<b>W</b>	Word(s)
<b>WEFXU</b>	Waiting reply to our service advice
<b>WTG</b>	We are waiting/I am waiting
<b>XXXXX</b>	Error signal
<b>+ ?</b>	I have finished my transmission. Do you wish to transmit?

## VI. Special provisions for the telegram retransmission system

### 1 General provisions

- C169 1.1 The offices where telegrams enter or leave the telegram retransmission system are linked to at least one retransmission centre; such offices are described as *linked* offices. In the case of a particular telegram, the linked office through which the telegram enters the system is known as the linked entry office, the linked office through which the telegram leaves the system is known as the linked exit office. These offices may be identical with the office of origin or destination of the telegram.
- C170 1.2 The provisions of this Chapter have been drawn up for fully automatic working but may be used for semi-automatic and manual working.
- C171 1.3 Each telegram must be treated independently, even if several telegrams for the same destination arrive in series at a linked entry office.

### 2 Telegram format

- C172 2.1 The first line of the telegram (known as the numbering line) shall be preceded by a carriage-return, a line-feed and a letter-shift. The numbering line shall start with:
- C173 2.1.1 *The start-of-message signal (SOM)*
- C174 2.1.1.1 This signal is made up by the sequence of combinations **ZCZC** followed by:

C175 2.1.2 *The channel sequence number*

C176 2.1.2.1 Telegrams transmitted over a channel shall be numbered according to a series of numbers for each channel. The channel sequence number will therefore be composed of three letters characteristic of the channel used (channel indicator) followed by a number showing the order of this telegram in the series sent over this channel. The channel sequence numbers shall be in sequence from **001** to **999** and change automatically from **999** to **001** at the end of a numbering cycle.

C177 2.1.2.2 When the telegram passes from one channel to another in a network each new channel sequence number shall be inserted immediately after the start-of-message signal. The channel sequence numbers will appear in the numbering line of the telegram in the opposite order to that in which the telegram passed through the network.

C178 2.1.2.3 The channel sequence number shall be transmitted as:

- space;
- three letters constituting the channel indicator;
- figure-shift;
- three figures constituting the number in the series on the channel.

C179 2.1.2.4 Service advices, and **XQ**, **BQ**, **RQ**, will be numbered in the channel series unless agreed otherwise by the Administrations and recognized private operating agencies concerned. The channel sequence number(s) is followed by:

C180 2.1.3 *The telegram identification group (TIG)*

C181 2.1.3.1 The telegram identification group enables the office of origin to recognize the telegram. This group must not exceed 15 printing characters, which may be composed of any combination of letters and/or figures. (The necessary shifts must, of course, be added to the group, but no space may be introduced 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.)

C182 2.1.3.2 The telegram identification group shall be transmitted as:

- space;
- letter-shift (if necessary);
- not more than 15 printing characters;

followed by:

C183 2.1.4 *End of line*

- carriage-return;
- line-feed;

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

C184 2.2 The second line of the telegram (known as the pilot line) shall start with:

C185 2.2.1 *The destination indicator*

C186 2.2.1.1 This indicator is extracted from the *List of Destination Indicators and Telex Network Identification Codes* [8], issued by the ITU, and consists of four letters; the first two characterize the destination country (or a particular network in the destination country) and the following two letters characterize an office of that country.

C187 2.2.1.2 The destination indicator shall be transmitted as:

- letter-shift;
- four letters;

followed by:

C188 2.2.2 *The priority and tariff indicator*

C189 2.2.2.1 This indicator consists of two letters.

C190 2.2.2.2 The *first letter* will designate priority of transmission according to the following table:

- A** Telegrams relating to safety of life (**SVH**)  
Telegrams relating to the application of the United Nations Charter (**ETATPRIORITENATIONS**)  
Service telegrams or advices relating to serious interruption of telecommunication routes **ADG**
- B** Government telegrams with priority (**ETATPRIORITE**)  
Meteorological telegrams (**OBS**)  
Service telegrams with urgent transmission and delivery  
Service advices with urgent transmission and delivery  
Paid service advices  
Ordinary private telegrams with urgent transmission and delivery  
**RCT** telegrams with urgent transmission and delivery  
Press telegrams with urgent transmission and delivery
- C** Service telegrams  
Service advices  
Telegrams giving confirmation of delivery  
Government telegrams other than those indicated under **B** or **H**  
Ordinary private telegrams  
**RCT** telegrams  
Press telegrams
- H** Letter telegrams (including government letter telegrams)

This table takes account of the order of transmission given in A171 to A181.

C191 2.2.2.3 A telegram that has been abnormally delayed can be upgraded to a higher priority group. Such promotion can be effected only in the linked entry office; in this case, a category **H** telegram could be marked **C** and a category **C** telegram marked **B**, but a telegram with lower priority than **A** can never be promoted to category **A**.

C192 2.2.2.4 The *second letter* will designate the tariff class to be used according to the following table:

- D** Press telegrams with urgent transmission and delivery
- E** EFM telegrams
- F** Radiotelegrams routed via a foreign land station
- G** GLT telegrams
- J**<sup>1</sup> Money order and postal cheque telegrams
- K** Government telegrams where preferential rate is to be charged
- L** Letter telegrams
- M** Meteorological telegrams
- N** Non-chargeable telegrams
- O** Ordinary private telegrams
- P** Press telegrams
- Q**<sup>1</sup> Telegrams involving special accounting features
- R** **RCT** telegrams
- U** Telegrams (other than **RCT** and press telegrams) with urgent transmission and delivery
- V**<sup>1</sup> Divided telegrams
- X** For use by transit offices when inserting the pilot line on transit telegrams
- Y** Government full-rate telegrams
- Z** Government letter-rate telegrams

<sup>1</sup> where there is a choice of tariff indicator the one marked with a <sup>1</sup> takes precedence.

C193 2.2.2.5 The priority and tariff indicator shall be transmitted as:

- space;
- two letters;

followed by:

C194 2.2.3 *The origin indicator.*

C195 2.2.3.1 The origin indicator consists of four letters; the first two will be the same as those used in the destination indicators for the originating Administration or network; the third and fourth will represent:

C196 a) a particular city or town within that country or network; or

C197 b) the office or department to which service correspondence regarding the telegram should be addressed.

C198 2.2.3.2 The origin indicator shall be transmitted as:

- space;
- four letters;

followed by:

C199 2.2.4 *The number of chargeable words*

C200 2.2.4.1 The number of chargeable words shall be transmitted in the form of a three-figure number (for example **009**) using the number of chargeable words shown in the preamble line (not the minimum) for the telegram in question (see C214). For a non-chargeable telegram the number **000** will be shown.

C201 2.2.4.2 The number of chargeable words shall be transmitted as:

- space;
- figure-shift;
- three figures;

followed by:

C202 2.2.5 *A customer identification group* (optional): characterizing the customer for accounting purposes. This group can be composed of any combination of letters and/or figures. It will not be transmitted beyond the first retransmission centre.

C203 2.2.5.1 The customer identification group shall be transmitted as:

- space;
- the customer identification group;

followed by:

C204 2.2.6 *End of line*

- carriage-return;
- line-feed;

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

C205 2.3 The third line (known as the preamble line) followed by the remainder of the telegram. The preamble line, service indications, if any, the address, the text, the signature and/or routine repetition, if any, shall be transmitted taking into account C70 to C78 and using the format shown in C79 to C82, C91, C92 and C224 to C226.

C206 2.4 *The end-of-message signal (EOM)* shall be transmitted as:

- letter-shift;
- NNNN;
- ten letter-shifts (except when not required).

- C207 2.5 If the operator, in preparing a telegram, detects an error in the set-up of the numbering line or the pilot line, he must destroy the part already set up and start his telegram again. But if the transmission of these two lines has already started, the operator shall send the code expression **ANUL** space **ANUL** followed by ten line-feeds and the end-of-message signal.

### **3 Procedure for telegrams of more than 300 words**

- C208 3.1 Telegrams of more than 300 actual words shall be divided into separate telegrams of 300 actual words, plus one telegram for the remainder, unless this remainder is less than 10 words.
- C209 3.2 This division shall be made by the Administration\*; it shall not be the sender's responsibility.
- C210 3.3 When the original telegram has been divided, the resulting telegrams shall:
- C211 3.3.1 be transmitted in accordance with C172 to C207; where the service indication **RPx** and/or the service instruction **PERCEVOIR** are included in the original telegram they shall only be shown on the first division of the telegram;
- C212 3.3.2 bear the special tariff indicator **V**. In such cases this tariff indicator will replace the tariff indicator that would have been shown had the telegram not been divided;
- C213 3.3.3 be paged in accordance with C75 but the pages shall be numbered in a continuous series for all the divisions of the original telegram and not in a separate series for each division of the telegram;
- C214 3.3.4 bear the same telegram identification group and the same preamble line; the number of chargeable words shown in the pilot line shall be the number for that division of the telegram.
- C215 3.4 An example for treatment of a long telegram of more than 300 words is given in C225.

### **4 Treatment of re-runs and put-backs**

#### **4.1 Definitions**

##### **C216 4.1.1 Re-run**

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

##### **C217 4.1.2 Put-back**

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

#### **4.2 General procedures**

- C218 4.2.1 Re-runs and put-backs should only consist of information 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.

- C219 4.2.2 When put-back and re-run procedures are no longer possible, the request for a copy of an individual telegram should be included in a service advice to the office sending the series (or the office of origin, if appropriate), which should embody the copy in the text of a reply service advice (see D50).

- C220 4.2.3 In the case of mutilation or other irregularities in a received telegram, the procedure shall be as follows:

- C221 4.2.3.1 If there is a mutilation to the text of a telegram, a difference between the number of actual words shown in the preamble line and the number received or a discrepancy in the routine repetition, the incident will be dealt with by end-to-end servicing (see D23) since the mutilation or discrepancy will be noted in practice only at the linked exit office.

C222 4.2.3.2 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, which will then re-run the telegram in question.

C223 4.2.3.3 For inquiries about a telegram whose telegram 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, number of words, etc.).

#### 4.3 *Automatically generated re-runs and put-backs*

C223A 4.3.1 Where a centre can automatically generate re-runs and put-backs, these should normally be available on request from another directly connected centre during the 24 hours following the original transmission of the telegrams in question.

C223B 4.3.2 Automatic re-run of a maximum of ten telegrams may be requested in a single service advice.

C223C 4.3.3 Automatic put-back of a maximum of 100 telegrams may be requested in a single service advice.

C223D 4.3.4 The telegrams referred to in a request for automatic re-run or put-back shall all bear the same original channel indicator (see C176).

C223E 4.3.5 In accordance with C218 above, automatic re-runs and put-backs should take place over the channel used for the transmission of the original telegram(s). However, they may also be sent over the original route, but not necessarily over the original channel, if the two Administrations\* concerned have agreed to this course in advance.

C223F 4.3.6 If a request for an automatic re-run or put-back cannot be met fully by a centre, a service advice should be sent to the requesting centre quoting the channel sequence numbers of the telegrams for which no repetition has been given.

C223G 4.3.7 The precise formats to be used and other operating details may vary according to the two centres concerned in a given relation. The preferred arrangements are described in Recommendation F.31, § 11.

## 5 Examples of the recommended format

C224 5.1 *Example of a telegram with less than 50 words*

```
<=  
ZCZC GEB099 WY79<= 1  
GBLD HL URWA 012 57825<= 2,3  
WASHINGTON DC 12 13 1205<= ==  
  
LT<=  
MIDBANK<=  
LONDON/EC1<= ==  
  
FORWARD SOONEST PRESENT ACCOUNT BALANCE<=  
JONES NUMBER 78A765<=  
JOHNSON<= == 4  
  
COL LONDON/EC1 78A765<= == == == == == ==  
  
NNNN 5
```

<sup>1</sup> Not more than 15 printing characters for the identification group of the telegram.

<sup>2</sup> The pilot line may be omitted when transmitting to systems that do not demand it.

<sup>3</sup> The customer identification group will not be transmitted beyond the first retransmission centre.

<sup>4</sup> Minimum of five spaces before the signature.

<sup>5</sup> Ten letter-shifts follow NNNN, except in relations that do not require them.

FIRST PAGE

<=  
ZCZC GEB099 WY79<= <sup>1</sup>  
GBLD HV URWA 302 57825<= <sup>2,3</sup>  
WASHINGTON DC 438/436 13 1205 PAGE 1/50<= ==

LT<=  
MIDBANK<=  
LONDON/EC1<= ==

text<= ==

COL LONDON/EC1<= == ==

SECOND PAGE

WY79 MIDBANK PAGE 2/50<= ==

text<= ==

COL ...<= == ==

THIRD PAGE

WY79 MIDBANK PAGE 3/50<= ==

text<= ==

COL ...<= == ==

SIXTH PAGE

WY79 MIDBANK PAGE 6/50<= ==

text<= ==

COL ...<= == == == == == == ==

NNNN<sup>5</sup>

SEVENTH PAGE

<=  
ZCZC GEB102 WY79<= <sup>1</sup>  
GBLD HV URWA 136 57825<= <sup>2,3</sup>  
WASHINGTON DC 438/436 13 1205 PAGE 7/50<= ==

LT<=  
MIDBANK<=  
LONDON/EC1<= ==

text<= ==

COL LONDON/EC1<= == ==



EIGHTH PAGE

WY79 MIDBANK PAGE 8/50<== ==

text<== ==

COL ...<== == ==

NINTH PAGE

WY79 MIDBANK PAGE 9/36<== ==

text<==

signature<== == =<sup>4</sup>

COL ...<== == == == == == ==

NNNN<sup>5</sup>

<sup>1</sup> Not more than 15 printing characters for the identification group of the telegram.

<sup>2</sup> The pilot line may be omitted when transmitting to systems that do not demand it.

<sup>3</sup> The customer identification group will not be transmitted beyond the first retransmission centre.

<sup>4</sup> Minimum of five spaces before the signature.

<sup>5</sup> Ten letter-shifts follow NNNN, except in relations that do not require them.

C226 5.3 *Examples for RQ, BQ (or XQ) (see also notes a to d)*

<==

ZCZC LAJ913 QLB619 RQ000<==

HXHK CN GBLB 000<==<sup>1</sup>

LONDON/LB<== ==

RQ<==

HONGKONG<== ==

JAL836/AKZ429/13 LT BENBOW LONDON<==

4TH ZCD<== == == == == == ==

NNNN<sup>2</sup>

<==

ZCZC JAL861 XYZ137 BQ000<==

GBLB CN HXHK 000<==<sup>1</sup>

HONGKONG<== ==

BQ<==

LONDON/LB<== ==

LAJ913/QLB619/13 JAL836/AKZ429/13 LT<==

BENBOW LONDON 4TH 0935<== == == == == == ==

NNNN<sup>2</sup>

<sup>1</sup> The pilot line may be omitted when transmitting to systems that do not demand it.

<sup>2</sup> Ten letter-shifts follow NNNN, except in relations that do not require them.

*Notes* — a) The two letters **RQ**, **BQ** (and **XQ**) as appropriate shall form the first two letters of the telegram identification group in the first line;

b) the routine repetition is not required; it may be transmitted by Administrations\* that want to give this further protection to their traffic;

c) **RQ, BQ and XQ** will be numbered in the normal series, unless otherwise agreed by the Administrations\* concerned;

d) the preamble line may be reduced to the office of origin only.

## 6 Interworking between the telegram retransmission system and the gentex network

- C227 6.1 The special provisions for gentex operation (C94 to C168), except as specified below, will be applied to traffic between gentex telegraph offices and telegram retransmission centres in both directions.
- C228 6.2 Administrations\* will designate the gentex offices open to traffic with telegram retransmission centres and will publish this information in the *Routing Table for Offices Taking Part in the Gentex Service* [6] (Recommendation F.93) and in the *List of Indicators for the Telegram Retransmission System and Telex Network Identification Codes* [8] (Recommendation F.96).
- C229 6.3 The format and arrangements described in C172 to C226 shall apply except that channel sequence numbering is not applicable in either direction on the channels connecting the two systems.
- C230 6.4 In the direction gentex to telegram 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 nor exceed 15 printing characters.
- C231 6.5 In the direction telegram retransmission system to gentex all preceding channel sequence numbers and the telegram identification group will be transmitted.
- C232 6.6 The transmission of each telegram should be immediately preceded and followed by the exchange of the answer-back codes.
- C233 6.7 By mutual agreement of the Administrations\* concerned 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.
- C234 6.8 *Exceptions to provisions C55 to C168*
- C235 6.8.1 The signals, service codes and abbreviations (bell signal, **RPFR**, **MOM**, etc.) proper to the gentex service to announce or to draw attention to an abnormal situation must not be used.
- C236 6.8.2 Except where otherwise agreed, only the clearing signal may be used to interrupt transmission. In this case the calling station shall recommence transmission at the beginning of the interrupted telegram.
- C237 6.8.3 The service notes **RQ/BQ/XQ** should be transmitted in the form of service advices.
- C238 6.8.4 An error noted after the end-of-message signal **NNNN** has been sent will be corrected by sending a service advice.
- C239 6.8.5 Except where otherwise agreed, the answer-back code of the receiving station correctly received at the end of transmission serves as proof of reception for all classes of telegrams.
- C240 6.8.6 Repetition of a telegram that has already been completely transmitted will be effected in the form of a service advice (see D32 to D39 and D50). The service instruction **AMPLIATION** is not used (see C133).

☒ <=  
 1299RC NYC UI<=  
 4144A DARMST D<=  
 ZCZC DP4144A154<=<sup>1</sup>  
 UINY HQ DPDA 028<=<sup>2</sup>  
 JUGENHEIM A D BERGSTRASSE 28/25 12 1926<==

LT RP20.00<=  
 MISS GISELLA COHEN 67 BROADSTREET<=  
 NEWYORK(10004)<==

1000 DOLLARS CABLED TO NEWYORK THROUGH SWISS<=  
 BANK CORPORATION STOP PLEASE CABLE IF NOT<=  
 RECEIVED LOVE<=  
 DADDY<==<sup>3</sup>

COL RP20.00 67 NEWYORK(10004) 1000<==

NNNN ☒ <=<sup>4,5</sup>  
 1299RC NYC UI<=  
 4144A DARMST D

- <sup>1</sup> In the direction gentex to telegram retransmission system only the telegram identification group shall be transmitted. In the direction telegram retransmission system to gentex all preceding channel sequence numbers and the telegram identification group will be transmitted.  
<sup>2</sup> The pilot line may be omitted when transmitting to systems that do not demand it.  
<sup>3</sup> Minimum of five spaces before the signature.  
<sup>4</sup> Ten letter-shifts follow NNNN, except in relations that do not require them.  
<sup>5</sup> The symbol ☒ indicates the *Who are you?* signal.

## DIVISION D

### TELEGRAPH SERVICE CORRESPONDENCE

#### I. Telegraph service correspondence

##### 1 Definitions

- D1* 1.1 *Service telegrams* are telegrams that relate to public international telecommunication and are exchanged between:
- D2* 1.1.1 Administrations;
- D3* 1.1.2 Recognized private operating agencies;
- D4* 1.1.3 Administrations and recognized private operating agencies;
- D5* 1.1.4 Administrations and recognized private operating agencies on the one hand and the Secretary-General of the ITU on the other hand.

- D6 1.2 *Service advices* relate to details of service or to the working of circuits and telegraph offices and to transmission of traffic. They shall be exchanged between telegraph offices.
- D7 1.3 *Paid service advices* are initiated by the sender or addressee of any telegram to give instructions or to obtain information about that telegram.

## II. Service telegrams, service advices and paid service advices

### 1 General provisions

- D8 1.1 Service telegrams and service advices must be used only where essential and must be worded as briefly as possible. Telegraph offices and all persons authorized to use service telegrams shall take all necessary steps to restrict, so far as practicable, the number and length of those telegrams.
- D9 1.2 Service telegrams may be exchanged between Administrations and recognized private operating agencies on the one hand and the Secretary-General of the ITU, the Chairman of the Administrative Council of the ITU, the Director of the CCITT, the Director of the CCIR and the Chairman of the IFRB and all persons authorized to use service telegrams on the other hand relating to the official business of the ITU.
- D10 1.3 They shall be expressed in French or in English unless the Administrations\* concerned have agreed to use another language.
- D11 1.4 They shall be transmitted free of charge in all relations except in the cases specified in D14. <sup>6)</sup>
- D12 1.5 Service telegrams and service advices shall be denoted by one of the following service indications:  
1.5.1 service telegrams or advices relating to serious interruption of telecommunication routes – **ADG**  
1.5.2 service telegrams or advices – **A**
- D13 1.6 The priority of transmission of service telegrams, service advices and paid service advices is shown in A171 to A181.
- D14 1.7 The provisions of this Chapter shall not be considered as authorizing the free transmission by mobile radio stations of service telegrams relating exclusively to the telegraph service, nor the free transmission over the telegraph system of service telegrams relating exclusively to the service of mobile stations, nor the free transmission by any telecommunication route of service telegrams on the business of a competing route.
- D15 1.8 By agreement between the Administrations\* concerned, the free use of the telephone and telex services may be authorized by these Administrations\* for the transmission of service telegrams and service advices and for the exchange of calls relating to the working of the international telegram service. These calls shall then be regarded as service calls.
- D16 1.9 By way of reciprocity, the agreements mentioned in D15 may provide that, in the same relations, the telephone and telex services may use free of charge the telegram service conducted by the Administrations\* for the transmission of telegrams relating to the working of the international telephone and telex services. These telegrams shall then be regarded as service telegrams.

<sup>6)</sup> It is agreed that recognized private operating agencies shall not be obliged to accept free of charge service telegrams originating in or destined for the United States of America and Canada or in transit through the United States of America or Canada that do not concern operation of the telegraph service and have not been sent by or addressed to an Administration\* actually operating an international telegraph service.

## **2 Service telegrams**

- D17 2.1 Service telegrams must contain in the preamble line the name of the office of origin, the number of actual words and the date and time of issue or handing in. Service telegrams may have a signature. (See D51.)
- D18 2.2 Service telegrams must bear a registered address (see A109).
- D19 2.3 The text of service telegrams may be expressed in secret language in all relations.

## **3 Service advices and paid service advices**

### **3.1 General provisions**

- D20 3.1.1 The object of a service advice concerning a telegram already transmitted or in course of transmission is in most cases either to correct an error or to give instructions about the telegram. Such service advices are initiated by one of the offices having taken part in the transmission of the original telegram.
- D21 3.1.2 During the minimum period for preservation of records, after first, if necessary, establishing their status and identity, the sender or the addressee (or their authorized representative) of any telegram that has been transmitted may, by paid service advice, either:
- a) give instructions as to the delivery of the telegram following receipt of a service advice notifying its non-delivery; or
  - b) have information obtained as to the identity of the sender.
- D22 3.1.3 Paid service advices shall be denoted by one of the following service indications:
- 3.1.3.1 paid service advice — **ST**
  - 3.1.3.2 reply to a paid service advice — **RST**

### **3.2 Procedure**

#### **3.2.1 End-to-end servicing**

- D23 3.2.1.1 End-to-end servicing is a mode of operation in which the service advices and paid service advices are passed between the office of origin and the office of destination of the relevant telegram without interception at transit offices for the purposes of adding the serial and/or the channel sequence numbers of the original telegram as references.
- D24 3.2.1.2 This mode of operation should be used whenever practicable.

#### **3.2.2 Follow-on service advices**

- D25 3.2.2.1 A follow-on service advice is a voluntary correction or inquiry initiated by the office of origin of the subject telegram. The originating office shall quote as reference the following particulars of the original telegram (see D56):
- D26 a) the serial numbers shown in the numbering line together with the date (the number(s) and date in one group separated by a fraction bar);
  - D27 b) the service indications (if any);
  - D28 c) the name of the addressee;
  - D29 d) the address (excluding the office of destination);
  - D30 e) the signature (if any).
- D31 3.2.2.2 The service advice should, as far as practicable, be forwarded on the same route as the original telegram. Transit offices may add their own serial number to the references given.

### 3.2.3 *Return service advices (including paid return service advices)*

- D32 3.2.3.1 A return service advice is a notification or an enquiry (request service advice) initiated by the office receiving a telegram or a reply (reply service advice) to a service advice received.
- D33 3.2.3.2 Return service advices (except reply service advices, see D37) shall quote as references the following particulars of the original telegram:
- D34 a) all the serial numbers shown in the numbering line together with the date (the number(s) and date in one group separated by a fraction bar);
- D35 b) service indications (if any);
- D36 c) the name of the addressee.
- D37 3.2.3.3 In reply service advices the reference numbers and the date should be those of the request service advice followed by a space and the references of the subject telegram given in the request service advice.
- D38 3.2.3.4 Return service advices shall be addressed to the office of origin of the subject telegram or the request service advice.
- D39 3.2.3.5 Any transit office that can, without inconvenience or delay, collect the information needed for acting on the service advice shall do so, otherwise it shall send the service advice on to its destination.

### 3.3 *Wording*

- D40 3.3.1 Service advices and paid service advices must contain in the preamble line the name of the office of origin, the number of actual words and the date and time of issue (see D52). Paid service advices must also include the number of chargeable words.
- D41 3.3.1.1 Offices may add to the name of the office of origin the name, in abbreviated form, of the branch issuing the service advice;
- D42 3.3.1.2 The address part of a service advice or a paid service advice shall include the relevant service indication and the name of the office of destination with, if necessary, the additions mentioned in D41 if any (see D53).
- D43 3.3.2 The text of a service advice or a paid service advice shall quote all the particulars necessary to facilitate the tracing of the subject telegram in accordance with D25 to D30 and D32 to D37.
- D44 3.3.3 Service advices and paid service advices shall preferably be worded by using the code expressions appearing in *Codes and Abbreviations for the Use of International Telecommunication Services* [7].
- D45 3.3.4 Examples of format and wording of service advices and paid service advices are shown in D52 to D62.

### 3.4 *Charging of paid service advices*

- D46 3.4.1 The sender or the addressee initiating a paid service advice must guarantee the payment of the following sums:
- D47 3.4.1.1 the cost of the telegram conveying the request (at the rate of an ordinary private telegram);
- D48 3.4.1.2 if necessary, the cost of a reply telegram (at the rate of an ordinary private telegram). In this case a charge equivalent to seven words must be collected for the reply.

### 3.5 Diversions

- D49 3.5.1 If interruptions have intervened on the route followed by the original telegram, the office transmitting the service advice on another route shall, if practicable, mark the service advice **DEVIE**. In addition, the service advice must include particulars of the route used by the original telegram. In this case, the reply service advice must be transmitted by the same route as the original service advice if the route followed by the original telegram has not yet been re-established at the time when the reply service advice is sent.

### 3.6 Repetition of a telegram

- D50 3.6.1 Where a repetition of an individual telegram is required by an office using the special provisions for the telegram retransmission system, the request shall be included in a service advice to the office sending the series (or the office of origin, if appropriate). The repetition should be included in the text of a reply service advice deleting any start-of-message and end-of-message signals on the subject telegram.

### III. Examples of format and wording of service correspondence

D51 (see D17 and D18)

<=  
**ZCZC GHA402 SVC529** <=  
**GBLB CN HXSV 000** <=  
**HONGKONG x 6 0838** <==

**A** <=  
**POETE** <=  
**LONDON** <==

**text** <=  
**signature** <==  
**COL ...** <=====

NNNN (ten letter-shifts)

D52 (see D40)

<=  
**ZCZC GHA444 SVC711** <=  
**GBBM CN HXSV 000** <=  
**HONGKONG x 6 0840** <==

**A** <=  
**BIRMINGHAM** <==

**text** <==

**COL ...** <=====

NNNN (ten letter-shifts)

D53 (see D41 and D42)

<=  
**ZCZC LBA123 SG42** <=  
**INBY CN GBLB 000** <=  
**LONDON/MRC x 4 1030** <==

**A** <=  
**BOMBAY** <==

**text** <==

**COL ...** <=====

NNNN (ten letter-shifts)

x indicates number of actual words.

D54 (see A243)

<=  
ZCZC ASV632 LHZ221 QLH53<=  
GJBA CN GBLH 000<=  
LONDON/LH 7 19 1841<== ==

A<=  
BAHRAIN<== ==

ZLH082/VSA197/COF5259/19TH JOHNSTON<=  
14/A VICTORIASTREET RUCOS<== ==

COL ZLH082/VSA197/COF5259/19TH 14/A<== == == == == == == ==

NNNN (ten letter-shifts)

D55 (see A246)

<=  
ZCZC ZLH971 VSA197 LD39<=  
GBLH CN GJBA 000<=  
BAHRAIN 8 20 1005<== ==

A<=  
LONDON/LH<== ==

ASV632/LHZ221/QLH53/19TH ZLH082/VSA197/COF5259/19TH<=  
JOHNSTON JEAT 144/A VICTORIASTREET<== ==

COL LONDON/LH ASV632/LHZ221/QLH53/19TH<=  
ZLH082/VSA197/COF5259/19TH 144/A<== == == == == == == ==

NNNN (ten letter-shifts)

D56 (see A246)

<=  
ZCZC AWL927 QLBU556<=  
NGLS BN GBLB 000<=  
LONDON/LB 16/12 4 1650<== ==

ST<=  
LAGOS<== ==

LWA125/4TH/AWL737/TLB663/4TH LT SMITH 66 VICTORIAROAD<=  
SIGN FRED JEAT 166 VICTORIAROAD<== ==

COL LWA125/4TH/AWL737/TLB663/4TH 66 166<== == == == == == == ==

NNNN (ten letter-shifts)



D57 (see A250)

<=  
ZCZC HGA456 LDC222 QLD12 <=  
HXSX CN GBLD 000 <=  
LONDON/LD 5 19 1145 <== ==

A <=  
HONGKONG <== ==

CLD234/GHB197/CA2653/18TH SCHMIDT PYSAT <== ==

COL CLD234/GHB197/CA2653/18TH <== == == == == == ==

NNNN (ten letter-shifts)

D58 (see A376)

<=  
ZCZC ASV673 RBA918 HA71 <=  
GJBA BQ WBBN 020 <=  
BARBADOS 20 19 1155 <== ==

URGENT PC <=  
EARL PO BOX 763 <=  
BAHRAIN <== ==

URGENT HAVE YOUR AUTHORITY PURCHASE <=  
LANDTRACT 263/B BEFORE MIDDAY BARBADOS TIME 23RD <=  
BRYANT <== ==

COL 763 263/B 23RD <== == == == == == ==

NNNN (ten letter-shifts)

D59 (see A377)

<=  
ZCZC BRA936 VSA266 LD63 <=  
WBBN CN GJBA 000 <=  
BAHRAIN 8 20 0935 <== ==

CR <=  
BARBADOS <== ==

ASV673/RBA918/HA71/19TH URGENT PC EARL <=  
DELIVERED 19/1830 <== ==

COL ASV673/RBA918/HA71/19TH 19/1830 <== == == == == == ==

NNNN (ten letter-shifts)

D60 (see A378)

<=  
ZCZC ASV276 MRZ001<=  
GJBA CN GBMR 000<=  
MANCHESTER 8 20 1050<== ==

CR<=  
BAHRAIN<== ==

ZMR363/VSA636/AC240/19TH PC MERCER<=  
DELIVERED HOTEL 19/1830<== ==

COL ZMR363/VSA636/AC240/19TH 19/1830<== == == == == == == ==

NNNN (ten letter-shifts)

D61 (see A380)

<=  
ZCZC ZGW198 VSA628 LD86<=  
GBGW CN GJBA 000<=  
BAHRAIN 10 20 1145<== ==

CR<=  
GLASGOW<== ==

ASV499/GWZ276/PF29/18TH PC MACPHERSON PASSENGER<=  
TRANSMITTED TO SHIP 19/0735<== ==

COL ASV499/GWZ276/PF29/18TH 19/0735<== == == == == == == ==

NNNN (ten letter-shifts)

D62 (see A407D)

<=  
ZCZC HGA125 BMC130<=  
HXSX CN GBBM 000<=  
WOLVERHAMPTON 14 20 1330<== ==

CR<=  
HONGKONG<== ==

GW19/CGW245/GHB397/LC6621/19TH PC BURNS 143 CLYDEBANK GLASGOW<=  
REDIRECTED 73 WALSALLROAD WOLVERHAMPTON DELIVERED 20/0920<== ==

COL GW19/CGW245/GHB397/LC6621/19TH<=  
143 73 20/0920<== == == == == == == ==

NNNN (ten letter-shifts)

## References

- [1] *Final Acts of the World Administrative Telegraph and Telephone Conference, Telegraph Regulations, Telephone Regulations*, ITU, Geneva, 1973.
- [2] *International Telecommunication Convention*, Malaga-Torremolinos, ITU, Geneva, 1973.
- [3] *List of telegraph offices open for international service*, 24th edition, ITU, Geneva, 1976.
- [4] *List of coast station*, List IV, Part IV, Volume I, 8th edition (published every two years), ITU, Geneva, 1980.
- [5] CCITT Definition: *Position A; position Z*, Vol. X, Fascicle X.1 (Terms and Definitions).
- [6] *Routing table for offices taking part in the gentex service*, 6th edition, ITU, Geneva, 1980.
- [7] *Codes and abbreviations for the use of the international telecommunication services*, 3rd edition, ITU, Geneva, 1975.
- [8] *List of indicators for the telegram retransmission system and telex network identification codes*, 4th edition, ITU, Geneva, 1979.

## Recommendation F.2

### INSTRUCTIONS FOR THE INTERNATIONAL PUBLIC TELEGRAM SERVICE

(Geneva, 1976)

The CCITT,

considering

Resolution No. 1 of the World Administrative Telegraph and Telephone Conference (Geneva, 1973) [1],

unanimously declares the view

(1) that Administrations\* should apply the detailed operational procedures laid down in the *Instructions for the International Public Telegram Service*;

(2) that these *Instructions* consist of Recommendation F.1 and Recommendation F.42.

## Reference

- [1] *Final Acts of the World Administrative Telegraph and Telephone Conference, Telegraph Regulations, Telephone Regulations*, Resolution No. 1, ITU, Geneva, 1973.

**CHARACTER ERROR RATE OBJECTIVE  
FOR TELEGRAPH COMMUNICATION  
USING 5-UNIT START-STOP EQUIPMENT**

*(based on former Recommendations F.10 and F.11  
as shown in Volume II.B of the Green Book; Geneva, 1976)*

The CCITT,

*considering*

- (a) that it would be useful to have a common standard for assessing the quality of telegraph communications;
- (b) that the error rate of a telegraph communication [1] would be suitable for this purpose;
- (c) that a defined error rate objective should be established;
- (d) that all forms of current wideband transmission techniques have intrinsic characteristics that make some errors economically unavoidable;
- (e) that occasional bursts of errors occur (errors that are concentrated into a relatively short time interval, i.e. seconds);

*unanimously declares the view*

- (1) that the quality of service must be the same for telegraph communication in the public telegram service, the telex service and the leased circuit service;
- (2) that the objective, irrespective of transmission media and intervening equipment, should be an error rate not greater than 3 in 100 000 alphabetic telegraph signals transmitted;
- (3) that the error rate objective should have not less than a 95% probability;
- (4) that, in the determination of error rate, measurements should be made for relatively long time periods, i.e. for at least several hours (see Note 1);
- (5) that the effects of operator error rates (e.g. in the public telegram service) and of local ends and their terminations (e.g. teleprinters) should be excluded when determining the error rate.

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

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

**Reference**

- [1] CCITT Definition: *Error rate of a telegraph communication*, Vol. X, Fascicle X.1 (Terms and Definitions).

**PAGE INTENTIONALLY LEFT BLANK**

**PAGE LAISSEE EN BLANC INTENTIONNELLEMENT**

## SECTION 2

### THE GENTEX NETWORK

#### Recommendation F.20

##### THE INTERNATIONAL GENTEX SERVICE

*(based on former Recommendations F.20 and F.22 as shown in Volume II.B of the Green Book; Geneva, 1976)*

The CCITT,

*unanimously declares the view*

- (1) that the following provisions should be adopted for the gentex service;
- (2) that Administrations\* should make arrangements for their offices to apply these provisions.

#### 1 General

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

1.2 The gentex network is operated by fully automatic switching.

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

#### 2 Call-numbers and answer-back codes

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

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

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

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

#### 3 Equipment of positions in telegraph offices

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

3.2 Positions shall be equipped for the following:

- the setting-up of calls;
- the clearing of calls;
- reception of the bell (figure J) signal;
- an alarm or transmission of the clearing signal if the paper runs out.

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

- equipment out of service;
- tape broken;
- faulty tape feed.

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

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

#### 4 Routing lists

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

- a) the telegraph offices connected to the gentex network. The sign  $\diamond$  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 that, while not connected, normally deal with a fair amount of international traffic.

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

- a) in the first column, the alphabetical list of the offices chosen in accordance with § 4.1 above (names of telegraph offices connected to the gentex network are in heavy type);
- b) in the second column, the call-number of the gentex office to be called for routing traffic to the office shown in the first column, with no restriction sign (a space is left in this column for inserting the prefix or prefixes to obtain access to the country concerned);
- c) in the third column, the answer-back codes of the offices connected to the gentex network, or of the gentex office serving an office that is not connected to this network (without the characteristic letter or letters of the specialized receiving positions);
- d) in the fourth column, the service hours of offices connected to the gentex network or of the gentex office serving an unconnected office, or the indication *office which merely transmits*; service hours are given in local time. Some offices work different hours on Sundays and public holidays, in which case the column is sub-divided and a list of public holidays is given at the beginning of the list. The abbreviations used in this column have the following meanings:
  - N = office permanently open (day and night)
  - P = office with extended service
  - = office closed
- e) in the fifth column, the name of the gentex office that should be called for alternative routing when the office given in the third column is closed, out of order or engaged. This information may also be provided in the preliminary note.

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

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

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

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

TABLE 1/F.20

GERMANY (Fed. Rep. of)

Bureau télégraphique  <i>Telegraph office</i>  Oficina telegráfica	Central gentex desservant le bureau <i>Gentex office serving the office</i> Central géntex que sirve la oficina					Détournement en cas de clôture du service, d'occupation ou de dérangement du central gentex  <i>Alternative routing when the gentex office is closed, engaged or out of order</i>  Desviación en caso de cierre del servicio, de ocupación o de avería de la central géntex	
	Pré- fixe  <i>Pre- fix</i>  Pre- fijo	N° d'appel  <i>Call No.</i>  N.º de llamada	Indicatif  <i>Answer-back code</i>  Distintivo	Heures de service (H.E.C.) <i>Service hours (C.E.T.)</i> Horas de servicio (H.E.C.)			
				Lundi au Vendredi  <i>Monday to Friday</i>  De lunes a viernes	Samedi  <i>Saturday</i>  Sábado		Dimanches et jours fériés  <i>Sundays and holidays</i>  Domingos y días festivos
1	2	3	4a	4b	4c	5	
Aachen	8311	8311 AACHEN D	N	N	N	7711 FREIB D	
Aalen, Wuertt	7411	7411 ULM D	N	N	N		
Achern, Baden	7511	7511 OFFBG D	07-22	07-22	07-19		
Ahrensburg	2071	2071 HAMB D	N	N	N		
	2031*	2031 HAMB D					
Alfeld, Leine	9111	9111 HAN D	N	N	N	4811 GSSN D	
	9031*	9031 HAN D					
Alsdorf, Rheinl	8311	8311 AACHEN D	N	N	N		
Alsfeld	4911	4911 FULDA D	07-22	07-22	07-21		
Altena, Westf	3111	3111 DTMD D	N	N	N		
	3031*	3031 DTMD D				5111 MCHN D 5031* MCHN D	
Altoetting	5611	5611 TRAUN D	07-22	07-20	07-20		
Amberg, Oberpf	6511	6511 RGSB D	N	N	N		
Andernach	4411	4411 KBLZ D	N	N	N		
Ansbach, Mittelfr	6111	6111 NBG D	N	N	N		
	6031*	6031 NBG D				3111 DTMD D 3031* DTMD D	
Arnsberg, Westf	3811	3811 MESCH D	07-22	07-22	07-22		
Arolsen	9411	9411 KASSEL D	N	N	N		
Aschaffenburg	4071	4071 FFM D	N	N	N		
	4031*	4031 FFM D					
Augsburg	5311	5311 AUGSB D	N	N	N		
Backnang	7111	7111 STGT D	N	N	N		
	7031*	7031 STGT D	N				
Bad Aibling	5111	5111 MCHN D	N	N	N		
	5031*	5031 MCHN D					
Bad Berleburg	3211	3211 SIEGEN D	07-22	07-22	07-22	3111 DTMD D 3031* DTMD D	
Bad Ems	4411	4411 KBLZ D	N	N	N		

\*Positions de réception avec téléimprimeurs sur page - *Receiving positions with page-printers* - Posiciones de recepción con teleimpresores en página.



TABLE 2/F.20

NUMÉROS D'APPEL DES POSITIONS SPÉCIALISÉES EN RÉP. FÉD. D'ALLEMAGNE  
 CALL NUMBERS OF SPECIALIZED POSITIONS IN FED. REP. OF GERMANY  
 NÚMEROS DE LLAMADA DE LAS POSICIONES ESPECIALIZADAS EN REP. FED. DE ALEMANIA

Service  <i>Service</i>  Servicio	Numéro d'appel  <i>Call Number</i>  Número de llamada	Texte des émetteurs d'indicatifs  <i>Text of answer-back codes</i>  Texto de los transmisores de distintivo
1	2	3
Position de renseignement – <i>Information position</i> – Posición de información: Frankfurt am Main ..... Hamburg .....	4058 2058	4058 FFM INF 2058 HAMB INF
Position de réception des avis de dérangement – <i>Position for reception of faulty notices</i> – Posición de recepción de avisos de avería: Frankfurt am Main ..... Hamburg .....	4051 2051	4051 FFM TCHN 2051 HAMB TCHN
Position de mesure de la distorsion arithmique – <i>Position for the measurement of start-stop distortion</i> – Posición de medida de la distorsión aritmética: Frankfurt am Main ..... Hamburg .....	4054 2054	410961 TPRMPL 210961 TPRMPL
Emetteur central de texte avec distorsion – <i>Central transmitter of text with distortion</i> – Transmisor central de texto con distorsión: Frankfurt am Main ..... Hamburg .....	4041 2041	} pas d'émetteur d'indicatif no answer-back code no hay transmisor de distintivo
Emetteur central de texte sans distorsion – <i>Central transmitter of text without distortion</i> – Transmisor central de texto sin distorsión: Frankfurt am Main ..... Hamburg .....	4045 2045	

## 5 Telegram routing

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

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

## 6 Overflow

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

## 7 Prohibition of communications with telex subscribers in other countries

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

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

## 8 Operation of the gentex service

8.1 The gentex service shall be operated in accordance with provisions C94 to C168 in Recommendation F.1.

### Recommendation F.21

#### COMPOSITION OF ANSWER-BACK CODES FOR THE INTERNATIONAL GENTEX SERVICE

*(Geneva, 1958; amended at New Delhi, 1960,  
Geneva, 1964, 1972 and 1976)*

The CCITT,

*considering*

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

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

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

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

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

- T to indicate a position specializing in transmission;
- R to indicate a position specializing in reception;

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

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

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

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

*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,
- the figures of the call-number by which the office is to be called when a telegram is sent to it [in some large offices a position (or group of positions) may specialize in dealing with service advices, and in this case it is provided with a special call-number and answer-back code — see § (6) below],
- letter-shift,
- space,
- letters indicating as explicitly as possible the name of the office,
- space,
- the characteristic letters of the name of the country, in accordance with the code listed under § (9) below,
- letter-shift.

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

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

- carriage-return,
- line-feed,
- figure-shift,
- the call number as indicated under § (2),
- letter-shift,
- one or two letters chosen in accordance with Table 1/F.21,
- space,
- the name of the office,
- space,
- the characteristic letters of the name of the country,
- letter shift;

TABLE 1/F.21

Size of office	For a specialized outgoing position	For a specialized incoming position
Large office	one letter from <b>A</b> to <b>L</b>	one letter from <b>Z</b> to <b>O</b>
Very large office	the letter <b>T</b> and one letter from <b>A</b> to <b>Z</b>	the letter <b>R</b> and one letter from <b>A</b> to <b>Z</b>
Exceptionally large office	the letter <b>T</b> or the letter <b>S</b> and one letter from <b>A</b> to <b>Z</b>	the letter <b>R</b> or the letter <b>Q</b> and one letter from <b>A</b> to <b>Z</b>

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

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

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

- carriage-return,
- line-feed,
- figure-shift,
- the call-number of the specialized position or group of positions,
- letter-shift,
- space,
- the name of the office,
- space,
- letters **INQ**,
- letter-shift;

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

- carriage-return,
- line-feed,
- letter-shift,
- position identification letter(s),
- space,
- the name of the office,
- space,
- letters **DEB**,
- letter-shift;

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

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

CS Czechoslovakia  
GB United Kingdom

I Italy  
L Luxembourg

#### Reference

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

#### Recommendation F.23

##### GRADE OF SERVICE FOR LONG-DISTANCE INTERNATIONAL GENTEX CIRCUITS

*(formerly CCIT Recommendation F.18, Geneva, 1956;  
amended at Geneva, 1976)*

The CCITT,

*considering*

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

*unanimously declares the view,*

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

#### Recommendation F.24

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

*(New Delhi, 1960)*

The CCITT,

*considering*

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

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

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

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

*unanimously declares the view*

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

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

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

**PAGE INTENTIONALLY LEFT BLANK**

**PAGE LAISSEE EN BLANC INTENTIONNELLEMENT**

## SECTION 3

### THE TELEGRAM RETRANSMISSION SYSTEM

#### Recommendation F.30

#### USE OF VARIOUS SEQUENCES OF COMBINATIONS FOR SPECIAL PURPOSES

*(New Delhi, 1960; amended at Geneva, 1964, 1972, 1976 and 1980)*

The CCITT,

*unanimously declares the following views:*

- 1 When it is necessary to provide for switching of telegrams to different routes in semi-automatic or fully automatic telegram retransmission systems, the beginning and ending of each telegram are identified by the insertion of start-of-message and end-of-message signals.
- 2 The start-of-message signal consists of the sequence **ZCZC** in letter case.
- 3 The end-of-message signal consists of the sequence **NNNN** in letter case.
- 4 The equipment that recognizes the start-of-message and end-of-message signals may be designed to do so by searching only for the sequence of four combinations corresponding to **ZCZC** or **NNNN** respectively (i.e. combinations 26, 3, 26, 3 or 14, 14, 14, 14 in International Telegraph Alphabet No. 2 regardless of whether they are in letter or figure case).
- 5 Table 1/F.30 lists other sequences of combinations used for special purposes.



TABLE 1/F.30

Purpose of sequence	Sequence of combinations	Printed indication		Recommendation reference
		Letter case	Figure case	
Connection of reperforator (or equivalent device)	3 3 3 3	CCCC	::::	S.4 [1]
Disconnection of reperforator (or equivalent device)	6 6 6 6	FFFF	Note 1	S.4 [1]
Suppression of delay signals	8 8 8 8	HHHH	Note 1	S.4 [1], U.22 [2]
Ready for test	11 11 11 11	KKKK	((((	R.79 [3], R.79 bis [4]
Switching a reader (or equivalent device) into circuit by remote control	11 12 11 12	KLKL	()()	S.4 [1]
End of message or enabling of delay signals	14 14 14 14	NNNN	,,,,	F.1, F.31, S.4 [1], U.22 [2]
Change of alphabet	19 19 19 19	SSSS	''''	S.15 [5]
Error signal	24 24 24 24 24	XXXXX	/////	F.1 (C 165)
Start of message	26 3 26 3	ZCZC	++:	F.1, F.31
End of input	26 26 26 26	ZZZZ	++++	F.200

*Note 1* – As noted in Recommendation F.1, § C8, the figure case of combinations 6, 7 and 8 is available for the internal service of each Administration.

#### References

- [1] CCITT Recommendation *Use of International Telegraph Alphabet No. 2*, Vol. VII, Fascicle VII.2, Rec. S.4.
- [2] CCITT Recommendation *Signals indicating delay in transmission on calls set up by means of synchronous systems with automatic error correction by repetition*, Vol. VII, Fascicle VII.1, Rec. U.22.
- [3] CCITT Recommendation *Automatic tests of transmission quality on telegraph circuits between switching centres where no regeneration is involved*, Vol. VII, Fascicle VII.1, Rec. R.79.
- [4] CCITT Recommendation *Automatic tests of transmission quality of telegraph circuits between switching centres where regeneration is involved*, Vol. VII, Fascicle VII.1, Rec. R.79 bis.
- [5] CCITT Recommendation *Use of the telex network for data transmission at 50 bauds*, Vol. VII, Fascicle VII.2, Rec. S.15.

## TELEGRAM RETRANSMISSION SYSTEM

(Geneva, 1964; amended at Mar del Plata, 1968,  
Geneva, 1972 and 1976)

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

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

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

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

*unanimously declares the following view*

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

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

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

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

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

2.1.2 *The channel sequence number*

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

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

The channel sequence number shall be transmitted as:

- space;
- three letters constituting the channel indicator;
- figure-shift;
- three figures constituting the number in the series on the channel.

Service advices and XQ, BQ, RQ, will be numbered in the channel series unless agreed otherwise by the Administrations and recognized private operating agencies concerned. The channel sequence number(s) is followed by:

### 2.1.3 *The telegram identification group (TIG)*

The telegram identification group enables the office of origin to recognize the telegram. This group must not exceed 15 printing characters, which may be composed of any combination of letters and/or figures. In the special case of a telegram from the gentex network to the telegram retransmission system, the telegram identification group will be the only reference in the numbering line and will consist of two letters identifying the originating country or a particular network therein (in accordance with Recommendation F.96), the call number of the gentex office followed by one or two letters identifying the gentex position and the serial number of the telegram which that position is transmitting. (The necessary shifts must of course be added to the group, but no space must be introduced 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.)

The telegram identification group shall be transmitted as:

- space;
- letter-shift (if necessary);
- not more than 15 printing characters;

followed by:

### 2.1.4 *End of line*

- carriage-return;
- line-feed;

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

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

#### 2.2.1 *The destination indicator*

This indicator is extracted from the *List of Destination Indicators and Telex Network Identification Codes* [1], and consists of four letters; the first two characterize the destination country (or a particular network in the destination country) and the following two letters characterize an office of that country (see also § 5 below).

The destination indicator shall be transmitted as:

- letter-shift;
- four letters;

followed by:

#### 2.2.2 *The priority and tariff indicator*

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

The first letter will designate the priority of transmission and the second letter will designate the tariff class to be used.

The letters used for the priority indicators are A, B, C and H. Those used for the tariff indicators are D, E, F, G, J, K, L, M, N, O, P, Q, R, U, V, X, Y and Z. Letters I, S, T and W are available for assignment when required. The meaning given to the letters is shown in Recommendation F.1, C190 and C192. Administrations\* may agree mutually to accept additional tariff indicators.

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

The priority and tariff indicator shall be transmitted as:

- space;
- two letters;

followed by:

### 2.2.3 *The origin indicator*

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

- a) a particular city or town within that country or network; or
- b) the office or department to which service correspondence regarding the telegram should be addressed.

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

The origin indicator shall be transmitted as:

- space;
- four letters;

followed by:

### 2.2.4 *The number of chargeable words*

The number of chargeable words shall be transmitted in the form of a three-figure number (for example **009**) using the number of chargeable words shown in the preamble line (not the minimum) for the telegram in question (see § 3.4 below). For a non-chargeable telegram the number **000** will be shown.

The number of chargeable words shall be transmitted as:

- space;
- figure-shift;
- three figures;

followed by:

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

The customer identification group shall be transmitted as:

- space;
- the customer identification group;

followed by:

### 2.2.6 *End of line*

- carriage-return;
- line-feed;

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

2.3 The third line of the heading is the *preamble line* and shall be transmitted as shown in Recommendation F.1, A191 to A195, including any service instructions, followed by:

- carriage-return;
- three line-feeds;

followed by:

## 2.4 *The address part*

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

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

The service indication line is transmitted as:

- letter-shift (if necessary);
- the service indications;
- carriage-return;
- line-feed;

followed by:

#### 2.4.2 *The address lines*

Each line of the address must not exceed 43 characters (including spaces). The office of destination (as it is shown in the *List of Telegraph Offices* [2]) must always appear by itself as the last line.

The address of a telegram shall be transmitted as:

- letter-shift (if necessary);
- the address (one or more lines as required);
- carriage-return;
- line-feed;
- name of the office of destination;
- carriage-return;
- three line-feeds;

followed by:

#### 2.5 *The text part*

##### 2.5.1 *The text shall be transmitted as:*

- letter-shift (if necessary);
  - text;
  - carriage-return;
  - line-feed  
(if signature present)
- or — three line-feeds  
(if no signature present)

##### 2.5.2 *The signature shall be transmitted as:*

- minimum five spaces;
- signature;
- carriage-return;
- three line-feeds, or if there is no routine repetition, ten line-feeds.

##### 2.6 *The routine repetition shall be transmitted as:*

- COL;
- space;
- collated groups;
- carriage-return;
- ten line-feeds.

##### 2.7 *The end-of-message signal (EOM) shall be transmitted as:*

- letter-shift;
- NNNN;
- ten letter-shifts (except where not required).

#### 2.8 *Format examples*

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

### 3 Procedure for telegrams of more than 300 words

3.1 Telegrams of more than 300 actual words shall be divided into separate telegrams each of 300 actual words, plus one telegram for the remainder, unless this remainder is less than 10 words.

3.2 This division shall be made by the Administration\*, it shall not be the sender's responsibility.

3.3 When the original telegram has been divided, the resulting telegrams shall:

3.3.1 be transmitted in accordance with the procedure outlined in § 2 above;

3.3.2 bear the special tariff indicator V. In such cases this tariff indicator will replace the tariff indicator that would have been shown had the telegram not been divided;

3.3.3 be paged in accordance with Recommendation F.1, C75, but the pages shall be numbered in a continuous series for all the divisions of the original telegram and not in a separate series for each division of the telegram;

3.3.4 bear the same telegram identification group and the same preamble line; the number of chargeable words shown in the pilot line shall be the number for that division of the telegram.

3.4 An example of the format for a telegram of more than 300 words is given in Recommendation F.1, C225.

*Note* — Where the service indication **RPx** and/or the service instruction **PERCEVOIR** are included in the original telegram they shall only be shown on the first division of the divided telegram.

### 4 Choice of destination indicator

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

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

TABLE 1/F.31

#### Rules for selecting the destination indicator

	A  A single network in destination country	B  Several networks in destination country	C
		Telegram showing routing	Telegram not showing routing
1. Destination town directly connected with telegram retransmission system, or to which a destination indicator is allocated	Use destination indicator given in the <i>List</i> against the town concerned	Use destination indicator with the two letters for the network in the <i>List</i> followed by the two letters for the town in the <i>List</i>	Use destination indicator with the two letters for <i>unrouted</i> for the country concerned followed by the two letters for the town in the <i>List</i>
2. Other destinations	Use destination indicator <i>all others</i> given in the <i>List</i> for destination country	Use destination indicator with two letters for the network in the <i>List</i> , followed by the two letters corresponding to <i>all others</i> for the country concerned	Use destination indicator with the two letters for <i>unrouted</i> for the country concerned, followed by two letters for <i>all others</i> for the country

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

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 of the destination indicators for the country according to the internal routing of the country.

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

## **5 Routing**

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

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

## **6 Tolerances as to the format and checking of format**

6.1 Switching equipment shall tolerate:

- a) a space and letter-shift transposition or a space and figure-shift transposition in a sequence normally prescribed as having to be a space followed by a shift;
- b) the repetition of a function signal, except for the space between the destination indicator and the priority indicator;
- c) the reception of characters between successive end-of-message signals and start-of-message signals (for example: spurious signals, letter-shifts or other functional signals) without affecting the proper functioning of the equipment. (Any transmission from the sending end of a channel between an end-of-message signal and the subsequent start-of-message signal should be limited to those characters that have a function at the receiving end of the channel.)

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

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

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

## **7 Protection against loss of telegrams**

7.1 *Transmission*

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

7.1.2 The numbering procedure to be used if the transmission of the telegram fails and it is terminated by the code expression ANUL ANUL followed by the EOM sequence is the subject of further discussion by Study Group I under Question 4/I [3].

## 7.2 Reception

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

7.2.2 The action to be taken with the channel sequence number of a telegram that is terminated by the code expression **ANUL ANUL** followed by the EOM sequence is the subject of further discussion by Study Group I under Question 4/I [3].

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

## 8 Starting of motors

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

8.2 However, the two Administrations\* concerned may agree to operate a channel with terminal equipment fitted with time-delay devices to start and stop the motor. They will agree mutually on arrangements for controlling the start of the motor. The provisions of Recommendation S.7 [4] seem to be the most applicable.

## 9 Use of tape-printing equipment

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

## 10 Offices operated semi-automatically or manually

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

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

## 11 Automatic service procedures

### 11.1 Repetition, re-runs and put-backs

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

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

### 11.2 Mutilation

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

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

11.2.2 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 then re-run the telegram in question;



11.2.3 for inquiries about a telegram whose telegram 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.

### 11.3 *Automatic service advices*

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

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

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

11.3.4 A preamble line must appear in these advices, but it may be in an abbreviated form, e.g. a date/time group only.

11.3.5 Automatic service advices and notes that are generated automatically need not bear a normal address part, provided that they contain an agreed code as the first line of the text part. As far as possible, offices that prepare such advices manually should follow this same layout. If they are not able to for any reason, their service advices and notes should conform to the layout for ordinary private telegrams in § A.1.

11.3.6 The text must commence with a code designating the action required. Composition of these codes is the subject of further discussion by Study Group I under Question 4/I [3].

### 11.4 *Automatic re-runs and put-backs*

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

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

11.4.3 Automatic put-back of a maximum of 100 telegrams may be requested in a single service advice.

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

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

11.4.6 Request advices should preferably conform to the layout in § A.2.

11.4.7 If a request for an automatic re-run or put-back cannot be met fully by a centre, a service advice should be sent to the requesting centre quoting the channel sequence numbers of the telegrams for which no repetition has been given.

11.4.8 When such notes advising failure are generated automatically, they should preferably conform to the layout in § A.3.

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

11.4.10 Failure notes should be sent in place of the re-run or put-back if it cannot be given, or following a re-run or put-back if it is incompletely given. These notes should be sent over the route or circuit proper to the repetition.

## 11.5 *Automatically generated notes*

11.5.1 Where automatically generated notes are not numbered in the normal sequence and where automatic action is not required, the numbering line shall be composed as follows:

**ZCZC ABC000 or ZCZC XQ**

11.5.2 Automatically generated notes are, for example, circuit control notes, continuity checks, etc.

## 11.6 *Telegram retransmission centre failure*

11.6.1 In the case of a total system failure affecting a telegram retransmission centre, a service note including a numbering line consisting only of **ZCZC XQ** and having a special destination indicator **XQXQ** in the pilot line may be used to notify all connected Administrations\*.

11.6.2 The message may take the form shown in Example 4 in Annex A.

### ANNEX A

(to Recommendation F.31)

#### Format examples

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

<=  
↓ ZCZC→AOE↑262→↓LDB↑814→↓PLD↑606<=<sup>1</sup>  
↓ AASD→CO→GBLD→↑018<=  
↓ LONDON↑/↓LD→↑18/16→22→1430<==<sup>2</sup>  
  
↓ PC<=  
HARRIS→CO→↓SOUTHERNHIGHWAY<=  
SYDNEY<==  
  
CONGRATULATIONS→ON→YOUR→PROMOTION→AND<=  
BEST→WISHES→FOR→THE→FUTURE<=  
→→→→JOHN<==<sup>3</sup>  
  
COL→↑2462<==

↓ NNNN↓↓↓↓↓↓↓↓↓<sup>4</sup>

##### A.2 *Service advice requesting automatic re-run or put-back*

<=  
ZCZC ABC567<=  
XXZZ BN YYXQ 000<=<sup>5</sup>  
011043<==  
  
xx<=<sup>6</sup>  
CBA444<==<sup>7</sup>

NNNN

A.3 *Service note advising retrieval failure*

<=  
ZCZC ABC789<=  
XXXQ BN YYXQ 000<=<sup>5</sup>  
291159<==

xx<=<sup>6</sup>  
NACNE CBA 100 112<=====

NNNN

A.4 *Service note advising failure of a telegram retransmission centre*

<=  
ZCZC→XQ<=  
XQXQ→BN→GBSV→000<=  
081145<==

BK→STOP→TO→LONDON<=====

NNNN

*Notes:*

- <sup>1</sup> Channel sequence numbers and telegram identification group (see § 2.1 of this Recommendation).
- <sup>2</sup> Preamble line, the parts referred to in Recommendation F.1, A191 to A195.
- <sup>3</sup> Minimum of 5 spaces before the signature.
- <sup>4</sup> 10 letter-shifts follow NNNN except in relations where they are not required.
- <sup>5</sup> The combinations **XQ** and **ZZ** as the third and fourth letters of indicators and the indicator **XQXQ** are reserved for these types of application — See Recommendation F.96.
- <sup>6</sup> **xx** is the code indicating either a re-run or a put-back.
- <sup>7</sup> **CBA444** is the channel sequence number either of the first telegram to be re-run or the first telegram in the series to be put-back. In the case of a re-run request, each successive channel sequence number for the required telegrams should be entered on a separate following line.
- <sup>8</sup> Every number for which a repetition cannot be given should be entered.

**References**

- [1] *List of indicators for the telegram retransmission system and the telex network identification codes*, 4th edition, ITU, Geneva, 1979.
- [2] *List of telegraph offices open for international service*, 24th edition, ITU, Geneva, 1976.
- [3] CCITT — Question 4/I, Contribution COM I-No. 1, Study Period 1981-1984, Geneva, 1981.
- [4] CCITT Recommendation *Control of teleprinter motors*, Vol. VII, Fascicle VII.2, Rec. S.7.
- [5] CCITT Recommendation *Standardization of page-printing start-stop equipment and cooperation between page-printing and tape-printing start-stop equipment (ITA No. 2)*, Vol. VII, Fascicle VII.2, Rec. S.5.

## SECTION 4

### TARIFFS AND ACCOUNTING METHODS FOR THE INTERNATIONAL PUBLIC TELEGRAM SERVICE

#### Recommendation F.41

#### THE TRANSFERRED ACCOUNT TELEGRAPH SERVICE

*(Mar del Plata, 1968; amended at Geneva, 1976)*

#### 1 Definition

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

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

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

#### 2 General

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

- a) telegrams;
- b) telex calls from a public booth;
- c) phototelegrams handed in at public telegraph offices;
- d) switched data calls through a public telegraph office <sup>1)</sup>;
- e) public document facsimile service at a public telegraph office.

2.2 In principle TA telegraph services can be requested only by the holder of a TA card (see § 4 below) and only on presentation of the card.

2.3 The TA service is an optional service. The Administrations\* that agree to participate in it shall inform the ITU General Secretariat thereof and shall also indicate which of the telegraph services mentioned in § 2.1 above are provided in the TA service. The General Secretariat shall keep a table of the information received (see § 5 below).

---

<sup>1)</sup> At the time of publication there were no CCITT Recommendations dealing with this service.

### 3 Requests for admission

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

- a) the full name of the person (or full title of the corporate body) wishing to use the TA service;
- b) the full name and address of the person or corporate body responsible for payment of the charges;
- c) duration of validity requested for the TA card.

3.2 The request for admission to the TA service shall be submitted to the Administration\* of:

- a) the country in which the person or corporate body responsible for payment of charges is resident; or
- b) any other country participating in the service.

3.2.1 In case a), admission to the TA service may be authorized directly by the Administration\* receiving the request.

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

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

### 4 TA cards

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

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

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

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

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

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

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

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

- 1) The General Secretariat so that advice may be placed in the next ITU *Operational Bulletin*; and
- 2) Administrations\* with whom it is thought TA traffic may be lodged against the TA card.

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

4.5.5 Notwithstanding the requirement in § 4.5.4, if the TA card is used in accordance with all other relevant provisions governing the TA service then the authorizing Administration\* remains liable for payment of charges to the Administration\* accepting the TA traffic.

4.6 The authorizing Administration\* shall cause the following to be inserted on each TA card:

- 1) The card number comprised of:
  - a) two letters indicating the Administration\* that issued the card [these letters shall be taken from the *List of Indicators for the Telegram Retransmission System* [1] (Recommendation F.96)];
  - b) a number composed of a maximum of 6 digits, allocated by the Administration\* issuing the card;
  - c) two letters, chosen as in a), indicating the Guarantor Administration\*.
- 2) the expiration date;
- 3) the name of the card holder;
- 4) the signature of the card holder;
- 5) the full name of the issuing Administration\*;
- 6) the name and address of the person or corporate body responsible for the payment of TA charges;
- 7) the signature of an officer of the issuing Administration\*.

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

## 5 TA Table

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

- 1) the name of the Administration\* and the abbreviation applicable to it (such abbreviations shall be taken from the *List of Indicators for the Telegram Retransmission System* [1]);
- 2) any surcharges or special charges applicable;
- 3) the address to which correspondence concerning the operation of the TA service should be sent;
- 4) any special observations or instructions;
- 5) appropriate advice if the Administration\* does not agree both to guarantee TA cards for its own customers and to accept TA cards guaranteed by other Administrations\*;
- 6) the telegraph services provided.

## 6 Treatment of TA traffic

6.1 Except for surcharges and special charges (see § 7 below), 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 origin country, TA telegrams may be completed by various indications for the purpose of accounting checks. Such indications should be deleted before transmission of the telegrams over the international network or appear, only if they are essential, at the end of the preamble line. These should consist of the indication TA, followed or not by other indications.

## 7 Surcharges and special charges

7.1 The origin Administration\* and the Guarantor Administration\* may levy a surcharge for each TA telegram, telex call, phototelegram, switched data call or facsimile message/call.

7.2 The Administration\* that issues a TA card may also levy a special charge to cover the cost of preparing the card.

7.3 These surcharges shall accrue to the Administration\* that levies them.

## **8 Accounting**

8.1 Traffic of the TA service shall not be distinguished from other traffic in the international accounts exchanged between Administrations\*. In particular, the indication TA shall not be mentioned in the monthly traffic accounts.

## **9 Establishment and exchange of TA accounts**

9.1 The origin Administration\* of the telegram/call 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:

- 1) name of the origin Administration\*;
- 2) month of acceptance of TA telegrams, telex calls, phototelegrams, switched data calls or facsimile messages/calls;
- 3) name and address of the Administration\* responsible for collecting the charges;
- 4) name of person or corporate body that has undertaken to pay the charges, together with the address when known;
- 5) country and, if possible, office of acceptance;
- 6) office of destination and, if necessary, the country;
- 7) identification group of the card and name of card holder;
- 8) date of acceptance of the TA traffic;
- 9) name of addressee, or telex number and answer-back code of recipient;
- 10) class of correspondence;
- 11) number of chargeable words for telegrams, chargeable time for telex or switched data calls or size and/or charging scale for phototelegrams and facsimile messages/calls;
- 12) total charges, including surcharges in the currency of the origin country;
- 13) total charges in gold francs (or other agreed currency), together with the relevant conversion rate.

9.2 Any TA accounts omitting these details may be referred back to the origin Administration\* and the credit due to it reduced by the total of the rejected accounts.

9.3 A monthly recapitulatory statement of TA accounts shall be prepared by the origin Administration\* for each Guarantor Administration\*. This statement shall recapitulate the individual accounts of the persons or organizations responsible for the payment of TA traffic charges.

9.4 A maximum of three copies of the recapitulatory statement and also of the individual statements shall be sent to the Guarantor Administration\*.

9.5 The recapitulatory statement and the attached individual accounts may be sent to the Guarantor Administration\* either direct or through another Administration\* that has accounting relations with the Guarantor Administration\*.

9.6 A period of up to three months following the acceptance of the traffic may be allowed for the preparation and dispatch of these accounting documents to the Administration\* concerned.

9.7 Any complementary information required for monthly TA statements shall be requested by the Guarantor Administration\* from the Administration\* that 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 § 10 below).

9.8 Adjustments arising from discrepancies unresolved on expiry of the three months referred to in 9.7 shall be settled in subsequent accounts, as agreed between the Administrations\* concerned.

## 10 Settlement of TA accounts

10.1 In the absence of alternative settlement procedures agreed between the Administration\* concerned, settlement of quarterly TA balances shall be effected in accordance with the settlement provisions of the *International Telecommunication Convention* [2] and the *Telegraph Regulations* [3] annexed thereto.

## 11 Liability for collection of charges

11.1 The Administration\* that has accepted responsibility for the collection of charges guarantees payment of the TA charges to other Administrations\*.

## 12 Entry into force

12.1 The new plastic card shall be issued as from 1 January 1977.


12.2 Administrations\* will honour both types of cards up to and including 31 December 1977.

12.3 By 1 January 1978 Administrations\* will have replaced all cards issued prior to 1 January 1977 by the new plastic card.

### ANNEX A

(to Recommendation F.41)

#### Reproduction and specifications of international standardized plastic TA card

UNION INTERNATIONALE DES TELECOMMUNICATIONS		
1. CARD NUMBER	2. EXPIRY DATE	
3. NAME OF THE CARD HOLDER		
4. SIGNATURE OF CARD HOLDER		
SERVICES TELEGRAPHIQUES 電報業務 SERVICIOS TELEGRAFICOS TELEGRAPH SERVICES TELEГРАФНЫЕ СЛУЖБЫ		

5. NAME OF ISSUING ADMINISTRATION
6. NAME AND ADDRESS OF PAYER
7. SIGNATURE OF ISSUING OFFICER



## ANNEX B

(to Recommendation F.41)

### Instructions for filling in international TA cards

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

#### *Section No. 1*

The composition of the card number (or identification group) is specified in the provisions governing the TA service (see § 4.6 of this Recommendation).

#### *Section No. 2*

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

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

#### *Section No. 3*

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

#### *Section No. 4*

Ensure the holder of the card signs here.

#### *Section No. 5*

Enter here the full name of the issuing Administration\*.

#### *Section No. 6*

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

#### *Section No. 7*

The signature of an officer of the issuing Administration\*.

## ANNEX C

(to Recommendation F.41)

### Terms of issue

C.1 This card is not transferable.

C.2 This card must be produced when telegrams or phototelegrams are handed in to a telegraph office and when telex calls, switched data calls or facsimile messages/calls are requested at public booths.

C.3 The holder must enter his name and title (Mr., Mrs., etc.) and the number of this card on the telegrams or phototelegrams handed in.

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

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

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

#### References

- [1] *List of indicators for the telegram retransmission system and telex network identification codes*, 4th edition, ITU, Geneva, 1979.
- [2] *International Telecommunication Convention*, Malaga-Torremolinos, ITU, Geneva, 1973.
- [3] *Final Acts of the World Administrative Telegraph and Telephone Conference, Telegraph Regulations, Telephone Regulations*, ITU, Geneva, 1973.

#### Recommendation F.42

### CHARGING, ACCOUNTING AND REFUNDS IN THE INTERNATIONAL PUBLIC TELEGRAM SERVICE

(Geneva, 1972; amended at Geneva, 1976 and 1980)

#### Introductory notes

1 Attention is drawn to Regional Recommendations (see Recommendation F.45) concerning, among other things, the possible introduction of a binary tariff system in Europe. Further study is required with a view to possible amendments to Recommendations F.1 and F.42.

2 Marginal reference numbers are shown in italics (e.g. *A2*) for those provisions that parallel the *Telegraph Regulations* [1].

#### DIVISION A

### ACCOUNTING RATES AND COLLECTION CHARGES

#### I. Accounting rates

##### 1 Composition of accounting rates

- A1 1.1 The accounting rates shall be established per word. They may, however, be established according to the number of printing characters or the duration of the transmission.
- A2 1.2 The overall accounting rate shall be made up of the sum of:
  - A3 1.2.1 the terminal rates of the origin and destination countries;
  - A4 1.2.2 the transit rates of intermediate Administrations\*, whose territory, installations or circuits are used for the transmission of telegrams;
  - A5 1.2.3 where the case arises, the rates for any connecting circuits provided by radio, by submarine cable or by any other means.
- A6 1.3 In conformity with Article 30 of the Convention [2], the overall accounting rate shall be expressed in gold francs. The overall accounting rate shall be the same between the offices of any two countries by the same route and in the two directions.

- A7 1.4 The rate defined in A6 shall serve for the establishment of international accounts.
- A8 1.5 The overall accounting rate to be applied between two countries should in principle be that which, by application of the rates indicated in A3 to A5, gives the lowest figure.
- A9 1.6 Administrations\* may by agreement fix the overall accounting rate applicable in a given relation and may divide that rate into terminal shares payable to the terminal countries and, where appropriate, into transit shares payable to the transit countries.
- A10 1.7 For each chargeable telegram, a minimum accounting rate shall be fixed that corresponds to the accounting rate for seven chargeable words; however, for letter telegrams, this minimum accounting rate shall be fixed at twenty-two chargeable words (see Recommendation F.1, A315), and for press telegrams of fourteen chargeable words (see Recommendation F.1, A356).
- A11 1.8 The overall accounting rate shall exclude any fiscal tax or duty (see A20).

## **2 Fixing of accounting rates**

- A12 2.1 The Administrations or, at the discretion of the Administrations, the recognized private operating agencies, shall fix their terminal and transit rates taking into account the provisions of Section 4 of the Series F Recommendations, and the real cost. The terminal rates fixed by an Administration\* for a particular relation with another country shall be the same regardless of which route is used.
- A13 2.2 Administrations\* shall notify their terminal and transit rates to the General Secretariat.
- A13A Each Administration\* should fix and publish at least *one* (minimum) terminal rate expressed in gold francs (see § A13). Footnotes to the effect that the terminal rate of one country corresponds to that fixed by the other country for a certain traffic relation, if the terminal rate of the latter country is higher than that of the former one, should be permissible.
- A14 2.3 The normal route (or routes) corresponds to the overall accounting rate as defined in A8 or A9.
- A15 2.4 If routes other than the normal routes are established between two terminal countries, the total transit rate for these routes may be reduced to the amount of the total transit rate over the normal route(s). This transit rate shall be shared by agreement between the transit Administrations\* concerned.

## **3 Interval before application of new accounting rates**

- A16 3.1 No new rate and no modification, either general or of detail, relative to the accounting rates shall be effective for countries other than those that establish the new rate or rate modification until fifteen days after it has been notified by the General Secretariat in the *Operational Bulletin* or, if necessary, in a circular telegram, excluding the dates of these communications, and it shall not be applied until the first of the month following the expiration of this period.
- A17 3.2 For radiotelegrams originating in mobile stations, modifications of telegraph rates shall not be applicable until a month after the period fixed in A16.

# **II. Collection charges**

## **1 Fixing of collection charges**

- A18 1.1 The collection charges shall be established per word. They may, however, be established according to the number of printing characters or the duration of the transmission.
- A19 1.2 Each Administration\* shall, subject to the applicable provisions of national law, fix the charges to be collected from its public. In fixing these charges Administrations\* should make every effort to avoid too large a difference between the charges applicable in each direction of the same relation.

- A20 1.3 Any country which for its own benefit levies a fiscal tax on international telegrams shall collect this tax in addition to the charges and only from senders of telegrams deposited in its territory.
- A21 1.4 The charge to the public in the origin country should in principle be the same, in a given relation, regardless of the route used for transmission of telegrams.
- A22 1.5 If, however, the sender, taking advantage of the option allowed to him (see Recommendation F.1, A164), has prescribed a route to be followed that is not one of the normal or established routes, he must pay the charge proper to that route.
- A23 1.6 For each chargeable telegram Administrations\* shall collect a minimum charge corresponding to seven chargeable words. However, for letter telegrams this minimum charge shall be fixed at twenty-two chargeable words, and for press telegrams at fourteen chargeable words.

## **2 Collection of charges**

- A24 2.1 The charges shall normally be collected from the sender, except when otherwise provided for in A28 to A30.
- A25 2.2 When a charge is due on delivery, the telegram shall be delivered to the addressee only on payment of the amount due.
- A26 2.3 If the charge due on delivery is not collected from the sender or addressee, the loss shall be borne by the Administration\* of delivery.
- A27 2.4 Administrations\* shall, as far as practicable, take measures (by obtaining, when necessary, a deposit from the sender) to ensure that when charges payable on delivery are not collected, either through the addressee's refusal to pay or through inability to find him, they shall be recovered from the sender, except where A28 to A30 provide otherwise.

## **3 Telegrams payable by the addressee or a third party — the TA service**

- A28 3.1 Administrations\* may, either by participating in the Transferred Account Telegraph Service (the TA service) provided for in Recommendation F.41, or by special agreement and at the express request of the addressee or other party undertaking payment, admit telegrams of all classes without payment of charges in the origin country. These charges shall be collected from the addressee or other party undertaking payment.
- A29 3.2 In the cases specified in A28, the origin Administration\* and/or the Administration\* responsible for the collection of charges may apply a surcharge.
- A30 3.3 If the amount due in respect of charges and surcharges provided for in A28 and A29 is not collected, the loss shall be borne by the Administration\* responsible for the collection.

## **4 Prohibition of rebates**

- A31 4.1 Administrations\* shall not grant rebates on the rates appearing in the applicable official tariff lists to senders or addressees of telegrams in any form whatsoever (for example, per word, per telegram, by means of discounts, etc.).

## **5 Errors in collection**

- A32 5.1 If, owing to an error, a telegram is undercharged, the balance necessary to make up the full charge must be collected from the sender, in accordance with the internal regulations of each country.
- A33 5.2 Amounts overcharged in error shall be refunded to the sender in accordance with the internal regulations of each country.

## DIVISION B

### ACCOUNTING

#### I. General Provisions

- B1 1 The gold franc as defined by Article 30 of the Convention [2] shall be used as the monetary unit in the establishment of the international accounts.
- B2 2 Unless otherwise agreed upon, the origin Administration\* shall prepare the account of the accounting rates in respect of all telegrams that it has transmitted and forward the account to each of the Administrations\* concerned (see B3 to B6).
- B3 2.1 In direct relations the origin Administration\* shall credit the destination Administration\* and transit Administrations\*, if any, with the share of the accounting rates accruing to each of them.
- B4 2.2 In indirect relations the origin Administration\* shall credit the transit Administration\*, with the shares of the overall accounting rates accruing to it and the destination Administration\*. The transit Administration\* shall credit the destination Administration\* with the share of the accounting rates accruing to the latter.
- B5 2.3 When two or more transit Administrations\* are involved, each transit Administration\* shall credit the next Administration\* with the total share of the accounting rates accruing to the latter and all the Administrations\* beyond its territory.
- B6 2.4 In the case of telegrams exchanged between countries within the same continental system, the origin Administration\* may, by agreement with all Administrations\* concerned, prepare the account of the accounting rates due in respect of all sections of the route to the destination, indicating separately the share that accrues to each Administration\*.
- B7 3 The Administration\* of the Member country of the Union in direct relation with the Administration\* of a country that is not a Member of the Union shall settle the accounts between the latter and the other contracting Administrations\* to which it has been intermediary in transmission.

#### II. Establishment of accounts

- B8 1 The accounts should normally be based on the number of words transmitted during the month, distinction being made between the various classes of telegram, and account being taken:
- B9 1.1 when necessary, of certain special charges (detailed in B15);
- B10 1.2 of the minimum accounting rate(s) as specified in A10.
- B11 2 The accounting rates applicable to telegrams transmitted with the charges to be collected on delivery or through operation of the transferred account telegram service provided for in Recommendation F.41, should be entered into the accounts in the regular manner.
- B12 3 The accounting rate that serves as the basis for division between Administrations\* should be that which results from the ordinary application of the accounting rates arranged between the Administrations\* concerned, without regard to errors in charging which may have occurred.
- B13 4 The number of chargeable words indicated by the office of origin should serve as the basis for the application of the accounting rate, except in cases where, following an error in transmission, a correction has been made by agreement between the office of origin and the office with which it is in correspondence.

- B14 5 Accessory charges, with the exception of those that are the subject of B15 and of charges not recovered by the office of destination and collected by any other office, should be excluded from the accounts. Re-direction charges collected from the addressee at the end of the route, as well as charges relative to paid service advices and to **SVH** telegrams for which the charges have not been collected by the office of origin or the office of re-direction, shall also be excluded from the accounts. This rule shall be subject to the following exception.
- B15 5.1 The amount collected in advance for a prepaid reply should be entered in the accounts and should accrue in its entirety to the destination Administration\* of the telegram with the prepaid reply. The charge for a telegram paid for, wholly or partly, by means of a reply paid voucher shall be included in the accounts and divided between the Administrations\* concerned as if it had been prepaid. The amounts collected for reply telegrams as part of the charge for service advices (**ST**) should not, however, be entered in the international accounts; they should accrue in their entirety to the Administration\* that has collected them, in the same way as the charges for service advices.
- B16 6 When the transmission diverges from the route established by agreement in accordance with *A9*, the overall accounting rate shall be divided by agreement among all Administrations\* that have cooperated in the transmission of the telegram. Failing such agreement the provisions of B18, B19 and B20 shall apply.
- B17 6.1 When the traffic diverges from the route that served as the basis for fixing the accounting rate, the accounting rate available from the point where that route was left should be divided between the Administrations\* that have cooperated in the transmission of the telegram, including the one that effected the diversion. This division should be effected as follows:
- B18 6.1.1 the terminal rates should remain unchanged;
- B19 6.1.2 the transit rates of Administrations\* concerned in the diversion may if they agree be reduced proportionately in such a way that the total of the reduced transit rates shall be equal to the total of the transit rates for this section by the normal route;
- B20 6.1.3 alternatively, the transit rates of Administrations\* that have not previously agreed to the diversion should remain unchanged.
- B21 6.2 Telegrams transmitted exceptionally by telephone or telex shall be accounted for as telegrams.
- B24 7 When telegrams exchanged between bordering countries follow an indirect route, the Administration\* that has transmitted the telegrams should credit the one that has received the telegrams with the amount of the normal accounting rates under the conditions prescribed in B1 to B7, unless otherwise arranged.
- B25 8 Administrations\* may, by agreement of all parties involved, establish the accounts on the basis of a statistical or any other formula.

### III. Exchange and verification of accounts

- B26 1 Unless otherwise agreed upon, the Administration\* responsible for collecting the charges shall establish a monthly account showing all the amounts owed and forward it to the Administrations\* concerned.
- B27 2 The accounts shall be sent as promptly as possible but in any case before the end of the third month following that to which they relate.
- B28 3 In principle, an account shall be considered as accepted without the need for specific notification of acceptance to the Administration\* that sent it.

B29 4 Nevertheless, any Administration\* shall have the right to query the data in question during a period of two months after the receipt of the account but only to the extent necessary to bring any differences within mutually agreed limits.

B30 5 In the absence of a specific agreement, it is recommended that enquiries related to monthly accounts should not be made unless the differences involved exceed those shown in the following table:

<i>Amount of the Creditor's Account</i>	<i>Difference Exceeding</i>
a) less than 10 000 gold francs	100 gold francs
b) from 10 000 to 300 000 gold francs	1% of the total of the creditor's account
c) more than 300 000 gold francs	3000 gold francs

As soon as the difference involved no longer exceeds these limits, the revision should be stopped.

B31 6 However, to avoid repetition of differences that are too small to entail a revision of the accounts, an Administration\* may draw the attention of the corresponding Administration\*, which has prepared the monthly account, to obvious errors and the latter Administration\* must take action on this information as soon as practicable to avoid similar errors occurring in the future.

B32 7 In relations where specific agreements do not exist, a quarterly settlement statement showing the balances from the monthly accounts for the period to which it relates shall be prepared as quickly as possible by the creditor Administration\* and be forwarded in duplicate to the debtor Administration\* which, after verification, shall return one of the copies endorsed with its acceptance.

#### IV. Payment of balances of accounts

B33 1 Payment of balances shall be made in accordance with Article 11 and Appendix 1 of the *Telegraph Regulations* [1].

### DIVISION C

#### PARTIAL AND TOTAL REFUND OF CHARGES

##### I. General provisions

###### 1 Conditions and procedure for refunds

C1 1.1 On request or following a claim regarding the performance of the service, a refund shall be made to the person who made the payment, subject to the conditions specified in C7 to C41.

C2 1.2 All claims for a refund of charges must be presented within four months from the date on which the telegram was handed in.

C3 1.3 In general, every claim should be presented to the origin Administration\* and, whenever possible, should be accompanied by written evidence.

C4 1.4 The claim may, however, be made by the addressee to the destination Administration\*, which shall decide whether it can take the necessary action or whether it should forward the claim to the origin Administration\*.

C5 1.5 When a claim is recognized as well-founded by the Administrations\* concerned, subject to the conditions specified in C42, C43 and C52, the prescribed refund shall be made by the origin Administration\*.

- C6 1.6 A sender who does not reside in the country in which he tendered his telegram may make his claim to the origin Administration\* through another Administration\*. In this case the Administration\* that received the claim shall, if necessary, be deputed to effect the refund.

## **2 Procedures between Administrations\***

- C6A 2.1 The Administration\* receiving a claim for a refund of charges shall initiate an investigation and if necessary shall send an inquiry to the destination Administration\*.
- C6B 2.2 On receipt of an enquiry as in C6A above concerning a claim for a refund of charges, the appropriate office of the Administration\* concerned shall normally endeavour to complete the investigation in one month from the date of receiving the inquiry. In any case the Administration\* concerned shall reply to the originating Administration\* within one month.
- C6C 2.3 If an investigation into a claim for refund of charges cannot be completed within one month in accordance with C6B, the Administration\* that originally received the claim shall advise the sender accordingly.
- C6D 2.4 If no final reply is received from the destination Administration\* within 60 days from the date of the initial inquiry, then the investigation shall be considered closed and refund of charges shall be undertaken in accordance with C42 to C56.
- C6E 2.5 In principle, claims are forwarded to the central Administration indicated in the ITU *List of Addresses* [3]. However, any Administration may ask through a notification addressed to the ITU General Secretariat that complaints concerning its service should be forwarded to a specially appointed office. In such cases, the postal address of this office (including any telegraphic address and telex number and answer-back code) shall also be included in the ITU *List of Addresses* [3].

## **II. Cases of refund of charges**

### **1 Telegrams not delivered to their destination or delivered too late**

- C7 1.1 The total charge for a telegram that has not been delivered or has been delivered to the addressee too late shall be refunded subject to the conditions indicated in C8 to C21. The refund shall not be made if non-delivery or delay is the result of an insufficient address or indistinct writing by the sender.
- C8 1.2 Provision C7 applies for any telegram that, through the fault of the telegram service, has not reached the destination or has not been delivered to the addressee or to a postal service within a period of:
- C9 1.2.1 6 hours in the case of a telegram exchanged between two countries within the same continental system that are connected by a direct telegraph circuit;
- C10 1.2.2 12 hours in the case of a telegram exchanged between two countries within the same continental system but that are not connected by a direct telegraph circuit;
- C11 1.2.3 12 hours in the case of a telegram exchanged between two countries that are not within the same continental system but that are connected by a direct telegraph circuit;
- C12 1.2.4 24 hours in all other cases.
- C13 1.3 The periods of 12 and 24 hours mentioned above shall be reduced by half for SVH telegrams, telegrams relative to the application of the United Nations Charter, government telegrams with priority, meteorological telegrams, and also for ordinary private telegrams, RCT telegrams and press telegrams when urgent transmission and delivery for such telegrams has been requested, and for paid service advices.
- C14 1.4 In the context of C9 to C12, continents are regarded as Africa, Asia, Australia (including Oceania), Europe, North America and South America. Normally a continental system shall comprise all the countries of the respective continent and exceptionally those countries outside that continent that are declared by the respective Administrations to belong to that continental system.



- C15 1.5 Except for letter telegrams, for which the delay in delivery shall be calculated from the moment when such telegrams should normally have been delivered in accordance with the provisions of Recommendation F.1, A326 to A329, the time periods indicated in C8 to C13 above shall be reckoned from the time of acceptance of the telegram.
- C16 1.6 The following shall not be included in the time periods indicated above:
- C17 1.6.1 The period during which offices are closed in respect of any relation when that is the cause of delay;
- C18 1.6.2 the night period;
- C19 1.6.3 the time occupied in postal conveyance;
- C20 1.6.4 the time occupied in express conveyance;
- C21 1.6.5 the period of retention of radiotelegrams at the land station, or on board a mobile station, as well as the time taken for the transmission over the radio circuits.
- C22 1.7 If the telegram has been the subject of a service advice of non-delivery because the address has been inadequate or has not been registered and if, later, the address has been corrected or supplemented by a paid service advice at the sender's request, the time periods for delivery shall be calculated as from the moment when this paid service advice was issued.

## **2 Telegrams that have been stopped or cancelled**

- C23 2.1 The total charge shall be refunded for any telegram that has been stopped in the course of transmission as the result of the interruption of a route, subject to the office of origin's having been advised of the stoppage of the telegram concerned.
- C24 2.2 The total charge shall be refunded for any telegram stopped through the application of the provisions of Articles 19 and 20 of the Convention [2].
- C25 2.3 For a telegram cancelled at the request of the sender before its transmission has begun, the charge shall be refunded.

## **3 Alterations or omissions**

- C26 3.1 The total charge for the telegram shall be refunded when the name of the office of origin or the date of acceptance have been changed or altered in course of transmission with the result that the telegram has not fulfilled its purpose.
- C27 3.2 The charge for a word or words omitted in transmission shall be refunded, unless the total charge is refunded by application of C28, or the error has been remedied by means of a service advice.
- C28 3.3 Unless the error has been remedied by means of a service advice, the total charge for a telegram shall be refunded when errors have been made in transmission or by omission of words and the origin Administration\* is satisfied that, in consequence, the meaning of a plain language telegram has been altered or rendered unintelligible.

## **4 Prepaid reply vouchers**

- C29 4.1 The total charge for the original telegram, including the amount for the prepaid reply, shall be refunded when the prepaid reply has obviously failed to fulfil its purpose owing to an error of service in the original telegram or in the reply telegram or in the treatment of one of these telegrams.
- C30 4.2 When the addressee, for any reason, does not use the voucher and it is surrendered to an office of the Administration\* of the origin or destination country, the value of the voucher shall be refunded to the sender of the telegram if application is made either by him or by the addressee within a period of four months following the date of issue of the voucher.
- C31 4.3 The amount paid for the reply shall be refunded, even without a claim from the sender of the original telegram, provided it is possible to find and identify him, when the prepaid reply voucher has been refused by the addressee of the telegram or not delivered because the addressee cannot be found. In the latter case, the destination Administration\* will arrange for the refund to the sender of the amount of the unused voucher by informing the origin Administration\*.

C32 4.4 When the amount of the prepaid reply voucher is greater than the charge for the telegram paid for by means of the voucher, the difference between the two amounts shall be refunded to the sender of the original telegram on condition that the difference is equal to at least five gold francs (g. fr. 5.00) and that application is made within four months of the date of issue of the voucher.

C33 4.5 Refund of prepaid reply amounts shall be borne in accordance with C52.

## **5 Special services**

C34 5.1 The charges for special services not performed because of an error of service and also the charge for the relevant service indications shall be refunded.

C35 5.2 The charge for a request for confirmation of delivery and the charge for the corresponding service indication **PC** may be refunded to the sender on application when the **CR** telegram has not been forwarded because it has proved impossible to deliver the telegram.

C36 5.3 The total charge for a request for confirmation of delivery and the charge for the corresponding service indication shall be refunded when the **CR** telegram has been delivered to the sender of the original telegram after the time periods laid down in C8 to C12 and C15, reckoning from the moment when the telegram is delivered to the addressee.

## **6 Miscellaneous provisions**

C37 6.1 In the case provided for in C7 to C22, C23 and C26 to C28, the refund shall apply only to the actual telegrams that have failed to be delivered or that have been cancelled, delayed or altered, including unused accessory charges, but not to telegrams that may have been caused, or rendered useless, by the non-delivery, delay or alteration.

C38 6.2 When a land station advises the office of origin that a radiotelegram cannot be transmitted to the destination mobile station, the origin Administration\* refunds the sender the mobile station charge where this has been applied and the charges for any special services not performed.

C39 6.3 If a land station does not receive an acknowledgement of receipt in respect of a transmitted radiotelegram, the charges for any special services that have not been carried out shall be refunded only when it has been shown that the radiotelegram gives rise to a refund.

C40 6.4 When errors due to the telegram service have been corrected by service advice within the time periods resulting from the application of C8 to C21, no refund shall be due for the original telegram.

C41 6.5 When errors due to the telegram service have not been corrected by service advices but by telegrams exchanged directly between the sender and the addressee, no refund shall be granted for such telegrams.

## **III. Refund of charges in different cases**

### **1 Refund of charges in cases specified in C7 to C41**

C42 1.1 Whenever refund of charges arises from an error of service, it shall be borne by the origin Administration\* if the amount to be refunded based on the overall accounting rate for the whole or part of the telegram concerned does not exceed fifty gold francs (g. fr. 50.00) (see C44).

C43 1.2 In cases where the amount to be refunded as specified in C42 exceeds fifty gold francs (g. fr. 50.00), such refund shall be borne by the Administrations\* that have participated in the handling of the telegram, each of them foregoing the share of the overall accounting rate that has accrued to it.

- C44 1.3 In reckoning the limit of fifty gold francs (g. fr. 50.00) only the overall accounting rate per chargeable word of the original telegram shall be considered, excluding the charges for special services (e.g. **RPx**, **PC**, etc.).
- C45 1.4 The origin Administration\* shall refund the charge without preliminary inquiry if:
- C46 1.4.1 in case of non-delivery, the sender produces a statement by the office of destination certifying that the telegram was not received;
- C47 1.4.2 in case of delay or alteration, the sender proves the delay or alteration by producing the copy of the telegram delivered to the addressee or a certified copy or facsimile of the telegram;
- C48 1.4.3 in case of the reply paid voucher's not being used, the sender produces the said voucher.
- C49 1.5 The decision of the Administration\* that makes the refund shall be without appeal when the refund has been in conformity with this Recommendation.
- C50 1.6 When a refund has to be shared by the various Administrations\* concerned in the transmission, the origin Administration\* shall circulate the claim to the Administrations\* in question with a view to the application of C43. The origin Administration\* shall also have the right to circulate any complaint, when, in the interest of the service, it considers an inquiry to be necessary.
- C51 1.7 In cases provided for in C43, refund of the charges applicable to a special service not performed shall be borne by the Administration\* to which the charge has accrued.
- C52 1.8 Refund of the whole or part of the charge paid for a reply when the voucher has not been used or has only been partly used, shall be borne by the origin Administration\*, if the sum to be refunded does not exceed fifty gold francs (g. fr. 50.00). Refund of prepaid reply amounts exceeding fifty gold francs (g. fr. 50.00) shall be borne by the destination Administration\* subject to the actual amount's having been included in a monthly telegraph account.
- C53 1.9 In the cases contemplated in C43, when a claim has been made and circulated within the period fixed in C2 and the result has not been notified within the period fixed for the preservation of records, the Administration\* that received the claim shall refund the charge claimed and the refund shall be shared by the various Administrations\* that participated in the forwarding of the telegram.
- C54 1.10 Refund of charges for paid service advices shall be borne by the Administration\* that collected the charges.

## **2 Special provisions regarding refund of charges in the case of stoppage of telegrams**

- C55 2.1 The refund of the charge for a telegram stopped by virtue of Articles 19 and 20 of the Convention [2] shall be borne by the Administration\* responsible to the Member that stopped the telegram. The limit fixed in C42 does not apply.
- C56 2.2 When, however, that Member has notified in accordance with Article 20 of the Convention [2], the suspension of certain kinds of traffic, refund of charges of telegrams of this kind shall be borne by the origin Administration\* from the day following that on which the notification reached it.

## **References**

- [1] *Final Acts of the World Administrative Telegraph and Telephone Conference, Telegraph Regulations, Telephone Regulations*, ITU, Geneva, 1973.
- [2] *International Telecommunication Convention*, Malaga-Torremolinos, ITU, Geneva, 1973.
- [3] *List of addresses of Administrations, recognized private operating agencies, international or regional organizations concerned with telecommunications, and scientific or industrial organizations participating in CCI activities*, 6th edition, ITU, Geneva, 1979.

**Recommendation F.43**

**TRANSFER IN ENCODED FORM OF MONTHLY  
INTERNATIONAL ACCOUNTING INFORMATION**

*(Geneva, 1976; amended at Geneva, 1980)*

See Recommendation D.190 in Fascicle II.1

**Recommendation F.45**

**REGIONAL TARIFF RECOMMENDATIONS FOR  
THE INTERNATIONAL PUBLIC TELEGRAM SERVICE**

*(Geneva, 1976)*

The regional tariff groups have drawn up the following Recommendations concerning tariffs for the international public telegram service for application within their respective regions:

- D.302 R – Determination of the accounting-rate shares and collection charges for the international public telegram service applicable to telegrams exchanged between countries in Europe and the Mediterranean Basin (Fascicle II.1).

**Recommendation F.51**

**ACCOUNTING PROCEDURE TO BE APPLIED  
WHEN A CIRCUIT CARRYING VF TELEGRAPHY  
IS REPLACED BY ANOTHER HAVING A DIFFERENT ROUTING**

*(Geneva, 1956; amended at New Delhi, 1960 and Geneva, 1976)*

The CCITT,

*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 disregarded. If the total number of hours is less than 2 the same procedure is followed (11 hours or less to be disregarded, as expressed in § 1 above).

**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:

$$A = \frac{\text{number of days of change-over} \times 100}{25}$$

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 public telegram and telex services:

4.1 for each diverted voice-frequency system the A% shall be calculated separately in the normal way;

4.2 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 *public telegram 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 Recommendation F.42, B3 to B5 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 Recommendation F.42, B6, the Administration\* responsible for preparing the accounts shall send sufficient extra copies of the accounts to the origin Administration\* 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 Administration\* concerned, the Administration(s)\* that, in accordance with 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\* that 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 §§ 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.

13.1 *Public telegram 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.

13.2 *Telex service*: Charges shall be apportioned in accordance with Recommendation F.67, Division D, § 12.

13.3 *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

#### Recommendation F.60

#### OPERATIONAL PROVISIONS FOR THE INTERNATIONAL TELEX SERVICE

*(based on former Recommendation F.60 as shown in Volume II.B of the Green Book;  
Geneva, 1976; amended at Geneva, 1980)*

#### 1 Introduction

##### 1.1 Scope

1.1.1 These provisions fix the rules to be followed in the international telex service. Telex is a telegraph service for subscribers whereby they can communicate directly and temporarily between themselves using start-stop telegraph equipment operating at 50 bauds and with International Telegraph Alphabet No. 2 (see Recommendation F.1, C8).

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

##### 1.2 Definitions

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

##### **emergency routes**

*F: voies de secours*

*S: rutas de emergencia*

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

##### **Government telex calls**

*F: communications télex d'Etat*

*S: comunicaciones télex de Estado*

Those telex calls originating with one of the authorities which enjoy the advantages of Government Telegrams and Telephone Calls, in accordance with the *International Telecommunication Convention* [1].

##### **international telex position**

*F: position télex internationale*

*S: posición télex internacional*

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

### **ordinary private telex calls**

*F: communications télex privées ordinaires*

*S: comunicaciones télex privadas ordinarias*

All telex calls other than:

- i) service telex calls, including requests for information and franking privilege telex calls;
- ii) safety of life telex calls;
- iii) government telex calls.

### **primary routes**

*F: voies primaires*

*S: rutas primarias*

The circuits normally used in a given relation.

### **safety of life telex calls**

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

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

Those telex calls requested in accordance with Article 25 of the *International Telecommunication Convention* [1].

### **secondary routes**

*F: voies secondaires*

*S: rutas secundarias*

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

### **service telex calls**

*F: communications télex de service*

*S: comunicaciones télex de servicio*

Those telex calls that relate to the working of the international telecommunication services.

### **(telex) relation**

*F: relation (télex)*

*S: relación (télex)*

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

## **1.3 International telex circuits — Routes**

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

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

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

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

1.3.5 In this respect, the Administrations\* shall conform, as far as possible, with the principles recommended by the CCITT as regards the constitution and maintenance of circuits and installations.

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

#### 1.4 *Duration of service — Legal time*

1.4.1 Each Administration\* shall fix the working hours of its centres.

1.4.2 Automatic international telex centres are in principle continuously open.

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

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

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

## 2 **Classes of telex call**

### 2.1 *General*

2.1.1 Accepted classes of telex call are:

- a) ordinary private telex calls;
- b) service telex calls, including requests for directory information between telex centres and franking privilege telex calls.

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

- a) safety of life telex calls;
- b) Government telex calls.

### 2.2 *Service telex calls*

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

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

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

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



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

2.2.6 Franking privilege telex calls are considered as service telex calls and are admitted on a reciprocal and optional basis (see *Telegraph Regulations* [3], Opinion No. 1, § 3).

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

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

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

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

### 3 Operation of the telex service

#### 3.1 *Operating systems*

3.1.1 The telex service is operated:

- automatically;
- semi-automatically; or
- manually.

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

#### 3.2 *Automatic operation*

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

3.2.2 To establish an international call in the automatic service the subscriber shall normally select:

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

3.2.3 In the automatic service no priority shall be given to the various classes of call.

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

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

### 3.3 *Semi-automatic and manual operation*

#### 3.3.1 *General provisions*

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

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

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

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

3.3.1.5 The technical services responsible for the maintenance of telex circuits are recommended to use the abbreviations given in the *List of service abbreviations for maintenance of telegraph circuits*, annexed to Recommendation R.90 [4].

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

#### 3.3.2 *Booking of telex calls*

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

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

Where all the offices concerned are open continuously:

- a) at midnight if the telex call has been booked before 10 p.m. on the same day;
- b) at 8 a.m. if the telex call has been booked after 10 p.m. the previous evening;
- c) in each case the times indicated shall be those of the originating telex centre.

Where all the offices concerned are not open continuously:

at the telex service closing time at the end of the day.

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

- a) cancel his booking;
- b) specify the time after which the booking should be cancelled;
- c) change the number of the station required within the destination country.

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

#### 3.3.3 *Priority of telex calls*

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

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

- a) calls concerning safety of life;
- b) service calls concerning the re-establishment of international telecommunication links that have been totally interrupted;
- c) Government calls for which priority has specifically been requested;
- d) Government calls for which priority has not been requested, ordinary private calls, service calls other than those mentioned in b).

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

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

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

- a) if the first link is provided by landline, satellite, microwave link or submarine cable and the second or subsequent link by ARQ radio;
- b) if the call is booked with the operator in the transit country and connection with the subscriber in the origin country is established semi-automatically.

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

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

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

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

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

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

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

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

### 3.3.5 *Limitation of the duration of telex calls*

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

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

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

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

### 3.3.6 *Operating procedure on international telex positions*

#### 3.3.6.1 *Single operator case*

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

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

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

#### 3.3.6.2 *Two-operator case*

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

- a) the controlling international operator holds the calling subscriber and selects a free circuit;
- b) the operator at the second international position announces himself by the abbreviated name of his telex exchange <sup>1)</sup>;
- c) the controlling international operator sends his own answer-back code and signals the particulars of the called subscriber;
- d) the operator of the second international position:
  - i) holds the circuit from the controlling international position,
  - ii) selects the called subscriber,
  - iii) signals the letters **DF** to the controlling international position,
  - iv) establishes the connection between it and the called subscriber;

<sup>1)</sup> 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 controlling international operator:
  - i) establishes the connection with the calling subscriber and obtains the called subscriber's answer-back which must, at the same time, be received by the calling subscriber,
  - ii) obtains the calling subscriber's answer-back, which must also be received by the called subscriber,
  - iii) operates the timing equipment,
  - iv) clears down the connection on receiving the clearing signal.

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

### 3.3.6.3 *Multiple operator case*

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

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

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

3.3.6.3.3 If the called subscriber is engaged, the international operator of the destination exchange signals **OCC** and clears down the international circuit.

### 3.3.6.4 *Subscriber recall*

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

3.3.6.4.2 The operator may not occupy international telex circuits while awaiting clearance of a busy subscriber line.

### 3.3.6.5 *Operator recall*

3.3.6.5.1 It is not possible to recall the operator of a telex position to a connection already set up, except when applying Recommendation U.21 [5] by agreement between Administrations\*. The operator-recall signal shall be acted upon by the controlling operator only. In the event of the assistance of any other operator being required, it will be obtained by the controlling operator.

### 3.3.6.6 *Instructions for foreign subscribers*

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

## 3.4 *Characteristics of subscribers' equipment*

3.4.1 The signals sent by the start-stop equipment used in the telex service are those of International Telegraph Alphabet No. 2 as shown in Recommendation F.1, C8.

### 3.4.2 *Answer-back composition*

3.4.2.1 The answer-back code should include:

- a) the subscriber's number;
- b) if required, the machine identity letter or letters;
- c) optionally, an (abbreviated) name designating the subscriber;
- d) the telex network identification code, preceded by a space.

3.4.2.2 Preferably the various parts of the answer-back code should be arranged in the order shown in 3.4.2.1. Nevertheless, if Administrations\* alter on a network basis the form of existing answer-back codes or open new networks they must ensure that the answer-back code is composed in the form shown above.

3.4.2.3 Where a telex subscriber has more than one telex line and automatic hunting facilities are provided, the answer-back code of each machine of the group should, apart from the machine identification letter(s), be identical.

3.4.2.4 If the order shown in § 3.4.2.1 is applied, the series of 20 signals in the answer-back code, as shown in Recommendations S.6 [6], should be as follows:

- a) for machines without identification letters:
  - figure-shift or (if permanently fitted or required by the network) letter-shift;
  - carriage-return;
  - line-feed;
  - the national call number of the subscriber or (if letter-shift is fitted in the first position) figure-shift followed by the national call number of the subscriber;
  - letter-shift;
  - space;
  - letters indicating as explicitly as possible the name of the telex subscriber;
  - space;
  - the one or two letters of the telex network identification code (code listed in column 5 of the *List of Indicators for the Telegram Retransmission System and Telex Network Identification Codes* — Part A [7]);
  - letter-shift (if permanently fitted or required by the network);
- b) for machines with identification letters:
  - figure-shift or (if permanently fitted or required by the network) letter-shift;
  - carriage return;
  - line-feed;

- the national call number of the subscriber, or (if letter-shift is fitted in the first position) figure-shift followed by the national call number of the subscriber;
  - letter-shift;
  - machine identification letter(s);
  - space;
  - letters indicating as explicitly as possible the name of the telex subscriber;
  - space;
  - the one or two letters of the telex network identification code;
  - letter-shift (if permanently fitted or required by the network);
- c) for machines without identification letters and whose answer-back code does not include letters indicating the (abbreviated) name of the subscriber:
- figure-shift or (if permanently fitted or required by the network) letter-shift;
  - carriage return;
  - line-feed;
  - the national call number of the subscriber or (if letter-shift is fitted in the first position) figure-shift followed by the national call number of the subscriber;
  - letter-shift;
  - space;
  - the one or two letters of the telex network identification code;
  - carriage-return;
  - line-feed;
  - letter-shift (if permanently fitted or required by the network);
- d) for machines with identification letters, but whose answer-back codes does not include letters indicating the (abbreviated) name of the subscriber:
- figure-shift or (if permanently fitted or required by the network) letter-shift;
  - carriage-return;
  - line-feed;
  - the national call number of the subscriber or (if letter-shift is fitted in the first position) figure-shift followed by the national call number of the subscriber;
  - letter-shift;
  - machine identification letter(s);
  - space;
  - the one or two letters of the telex network identification code;
  - carriage-return;
  - line-feed;
  - letter-shift (if permanently fitted or required by the network).

3.4.2.5 Should the signals in the answer-back code not fill the places available, the unused places should be filled by the necessary number of letter-shifts, which should preferably be inserted before the telex network identification code.

3.4.2.6 For the particular case of answer-back codes generated by teleprinters (or equivalent terminal devices) on ships, see Recommendation F.130.

3.4.3 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.

3.4.4 The motor of the teleprinter will rotate continuously for the duration of an established telex connection.

3.4.5 In exceptional cases, Administrations\* may allow subscribers to dispense with the stipulations of § 3.4.3 for periods previously notified. In such cases means must be provided for the transmission of one of the appropriate code expressions either automatically or, in the case of a manual exchange, by the incoming switchboard operator.

### 3.5 *Restriction on the use of a telex station*

3.5.1 Administrations reserve the right to suspend the telex service in the cases mentioned in Articles 19 and 20 of the Convention [1].

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

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

### 3.6 *Subscribers' operating procedure for telex calls*

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

### 3.7 *Directories*

#### 3.7.1 *Compilation of directories*

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

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

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

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

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

*Example:*

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

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

*Example:*

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



3.7.1.3.2 The list of answer-back codes shall be compiled in numerical order.

*Example:*

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

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

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

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

3.7.1.6 Each directory should also contain:

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

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

3.7.1.8 To facilitate reference in international telex centres to a number of directories issued by various Administrations\*, the orientation of the printing on the spine should be similar to that used in this fascicle (II.4). When directories are stored vertically on a bookshelf, the telex network identification codes should all be horizontal (like II.4) and other particulars, which cannot conveniently be printed horizontally, should all read from bottom to top (like *RECOMMENDATIONS* . . .).

## 3.7.2 *Supply of directories*

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

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

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

3.7.2.4 An Administration\* that has supplied directories of its country intended for sale to another Administration\* shall indicate the equivalent in gold francs of the sale price of the directories applied in the country of origin plus any postal charges.

## 4 Miscellaneous provisions

### 4.1 *Code expressions used in the international telex service*

#### 4.1.1 In service correspondence the following code expressions should be used:

<b>ABS</b>	Absent subscriber/office closed
<b>ANUL</b>	Delete
<b>BK</b>	I cut off
<b>CFM</b>	Please confirm/I confirm
<b>CI <sup>2)</sup></b>	Conversation impossible
<b>COL</b>	Collation please/I collate
<b>CRV</b>	Do you receive well?/I receive well
<b>DER</b>	Out of order
<b>DF</b>	You are in communication with the called subscriber
<b>FMT</b>	Format error
<b>GA</b>	You may transmit/may I transmit?
<b>INF</b>	Subscriber temporarily unobtainable, call the information service
<b>ITL</b>	I transmit later
<b>JFE</b>	Office closed because of holiday
<b>MNS</b>	Minutes
<b>MOM</b>	Wait/waiting
<b>MUT</b>	Mutilated
<b>NA</b>	Correspondence with this subscriber is not admitted
<b>NC</b>	No circuits
<b>NCH</b>	Subscriber's number has been changed
<b>NI</b>	No line identification available
<b>NP</b>	The called party is not, or is no longer, a subscriber
<b>NR</b>	Indicate your call number/my call number is ...
<b>OCC</b>	Subscriber is engaged
<b>OK</b>	Agreed/do you agree?
<b>P <sup>3)</sup></b>	Stop your transmission
(or figure 0 <sup>3)</sup> )	
<b>PPR</b>	Paper
<b>R</b>	Received
<b>RAP</b>	I shall call you back
<b>RPT</b>	Repeat/I repeat
<b>RSBA</b>	Retransmission still being attempted
<b>SSSS</b>	Change of alphabet
<b>SVP</b>	Please
<b>TAX</b>	What is the charge?/the charge is ...
<b>TEST MSG</b>	Please send a test message
<b>THRU</b>	You are in communication with a telex position
<b>TPR</b>	Teleprinter
<b>W</b>	Words
<b>WRU</b>	Who is there?
<b>XXXXX</b>	Error

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

<sup>3)</sup> To be repeated until the transmission is brought to a stop.

## 4.2 *Printing of telex numbers*

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

Telex 31005 SHELL NL

4.2.2 In those cases where there is no number in the answer-back code the word *Telex* should be followed by the telex number and the complete answer-back within inverted commas, for example:

Telex 24935 "LAPORTCHEM LDN"

### ANNEX A

(to Recommendation F.60)

#### Operating procedure for telex calls

##### A.1 *Setting up a telex call*

A.1.1 In the automatic service the subscriber selects the telex number required. The establishment of a connection is recognized by the reception of the answer-back from the wanted subscriber. The caller checks whether the answer-back he has received is in fact that of the appropriate subscriber. If it is not, he disconnects and reselects the number of the subscriber required. When the caller has received the correct answer-back he releases his own answer-back before starting the transmission of a message.

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

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

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

##### A.2 *Setting out the message*

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

- a) name and place of the sender, preceded by the word **FROM**;
- b) name and place of the addressee, preceded by the word **TO**;
- c) if required, name and place of information addressee(s), preceded by the word **COPY**.

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

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

- a) start a new line and mention own reference, if any, and the date of dispatch;
- b) start a new line and indicate the priority of the message, if desirable, such as **URGENT**, **VERY URGENT**, etc.;
- c) start a new line and indicate the subject if appropriate and/or the name of the person or department for whose attention the message is intended;

- d) start a new line and mention any references, such as **REF YOUR TELEX 123 OF 15.7, REF YOUR LETTER 456 OF 25.7, REF OUR TELECON**, etc.;
- e) start a new line and transmit the text of the message;
- f) after having completed the message, start a new line and transmit a plus sign (+) indicating the end of the message;
- g) obtain the answer-back of the called subscriber, check it in order to be sure that the connection is still in good order and generate own answer-back;
- h) if there are more messages, they should be separated from each other by at least 8 line-feeds, after the exchange of the answer-backs as mentioned in g);
- i) after transmission of the last message and the exchange of the answer-backs send at least 8 line-feeds and give the clearing signal.

### A.3 Additional instructions

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

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

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

Examples: for 2‰ transmit **2-0/0** or **2 PER CENT**  
for 4½‰, transmit **4-1/2-0/00** or **4-1/2 PER MILLE**

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

Examples: **1500 (1500)**  
**1500 REPEAT 1500**  
**NOT REPEAT NOT**

A.3.4 To pass to the beginning of the next line, i.e. to start a new line, first press carriage-return and then line-feed.

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

- a) In manual transmission, by the sequence **XXXXX** (letter X repeated five times and followed by a space)<sup>4)</sup> joined to the erroneous word.

Example: **PLEASE DISPATCH FITXXXXX FIVE PARCELS**

- b) In automatic transmission, when preparing perforated tape, by *backspacing* (if necessary by counting the number of characters to be erased, including spaces and shifts, and backspacing by that number) to the erroneous character and then operating the letter-shift key to erase all the characters up to and including the last punched character. Then start again with the character to be sent immediately after the last correctly punched character.
- c) If the procedure mentioned under b) for one reason or other cannot be followed, an error could be corrected as indicated under a).
- d) If an error is detected after the transmission of a message but before the exchange of the answer-backs it should be corrected by clearly indicating under the text of the message what change is required, e.g.:

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

**DELETE 4TH WORD 2ND LINE**

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

<sup>4)</sup> It is to be noted that the sequence **E E E** (space and letter E repeated three times followed by a space and repetition of the last correct word) is in use but is not preferred.

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

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

- a) the signal *Who are you?* (figure case D) does not appear on the tape, in order to prevent the text from being garbled by the returned answer-back of the other party;
- b) the procedure mentioned in § A.3.4 above is followed;
- c) the tape is perforated to the end with a series of letter-shifts.

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

#### References

- [1] *International Telecommunication Convention*, Malaga-Torremolinos, ITU, Geneva, 1973.
- [2] *Table of international telex relations and traffic*, ITU, Geneva, (annual publication).
- [3] *Final Acts of the World Administrative Telegraph and Telephone Conference, Telegraph Regulations, Telephone Regulations*, Opinion No. 1, § 3, ITU, Geneva, 1973.
- [4] CCITT Recommendation *Organization for locating and clearing faults in international telegraph switched networks*, Vol. VII, Fascicle VII.1, Rec. R.90, Annex A.
- [5] CCITT Recommendation *Operator recall on a telex call set up on a radiotelegraph circuit*, Vol. VII, Fascicle VII.1, Rec. U.21.
- [6] CCITT Recommendation *Characteristics of answer-back units (ITA No. 2)*, Vol. VII, Fascicle VII.2, Rec. S.6.
- [7] *List of indicators for the telegram retransmission system and telex-network identification codes*, 4th edition, ITU, Geneva, 1979 (Part A).

#### Recommendation F.61

##### THE CHARGEABLE DURATION OF A TELEX CALL

*(based on former Recommendations F.60 and F.67 as shown in Volume II.B of the Green Book; Geneva, 1976)*

#### General considerations

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.

#### 1 Fully automatic service

(a) With fully automatic international telex operation, call durations are registered automatically. Administrations\* may not have tickets available for working out the distribution of charges on the basis of the chargeable duration of calls.

(b) In accordance with the relevant Recommendations for signalling in the telex service, the call-connected signal should start the equipment for determining the chargeable duration of the call in the case of automatic switching between subscribers.

(c) Some networks delay the start of charging in order to avoid charging ineffective calls when preceded by a *call-connected* signal.

(d) Consequently, 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.

For these reasons, the CCITT

*unanimously recommends*

1.1 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:

1.1.1 charging minute by minute;

1.1.2 charging by periodic pulses of the type used in the national automatic service.

1.2 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 and 7 seconds after the *start* of the call-connected signal and the end of the chargeable duration fixed not later than 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.

1.3 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:

1.3.1 by basing them on the chargeable durations recorded for subscribers, when the outgoing Administration\* possesses equipment capable of showing these durations;

1.3.2 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 that 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 that is to serve as the basis for preparing the accounts. The corrections to be applied should be determined by agreement between the Administrations\* concerned.

1.3.3 accounting may be dispensed with, or a lump-sum settlement applied, by agreement between the Administrations\* concerned.

1.4 If a group of circuits is used both for gentex operation and for automatic telex operation, the method described under § 1.3.2 may be allowed only if the meters concerned are not operated in the case of gentex calls.

1.5 If a circuit is capable of fully automatic and semi-automatic use, and if, further, the method mentioned under § 1.3.2 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.

1.6 The degree of accuracy of the call-duration measuring equipment 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 overall 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).

## **2 Semi-automatic and manual service**

The CCITT

*unanimously recommends*

2.1 The chargeable duration of a telex call begins at the moment the connection is established between the calling and the called subscribers.

2.2 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.

2.3 With manual or semi-automatic operation:

2.3.1 any telex call of three minutes duration or less shall be charged as for three minutes;

2.3.2 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.

2.4 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\* concerned, taking into account, where necessary, any difficulties in transmission or any irregularities that he may observe.

2.5 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;
- its chargeable duration in minutes.

Example: STOCKHOLM 1846 TO ATHENS 21460 AT 1546 GMT 3 RPT 3 MNS

#### Recommendation F.62

##### DUPLEX OPERATION IN THE TELEX SERVICE

*(formerly CCIT Recommendation H.3, Geneva, 1956;  
amended at Geneva, 1964 and 1976)*

The CCITT,

*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 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\* that decide to authorize duplex operation in the international service should make the requisite technical arrangements to maintain the answer-back procedure recommended by the CCITT;
- (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 cases where duplex international telex communication is permitted, the tariffs for duplex calls should be on the same basis as for simplex calls;
- (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 calls used *exclusively for data transmission* with the purpose of checking errors should not be considered as *duplex operations*.

- (5) that the Administrations\* operating a duplex telex service either internally or in the international system should advise the CCITT of the technical arrangements and operating methods adopted.

ADDITIONAL FACILITIES IN THE INTERNATIONAL TELEX SERVICE

(Geneva, 1980)

The CCITT,

considering

(a) that the introduction of additional facilities in the international telex service is of interest and desirable;

(b) the need to standardize facilities that may be provided by Administrations\* and that may be available on an international basis;

TABLE 1/F.63

Additional facilities in the international telex service <sup>a)</sup>

Facility	Definition reference <sup>b)</sup>	Relevant Recommendations
<i>Calling facilities</i>		
Automatic calling	1.1	S.16 [2], S.19 [3]
<i>Subscriber call information</i>		
Line identification by the network	2.2	
<i>Facilities offered in the case of unsuccessful attempts, delayed or redirected calls</i>		
Call redirection	3.5	
Changed address interception	3.6	U.41 [4]
<i>Access to other networks or special services</i>		
Interworking between networks <sup>c)</sup>	4.1	F.71
Private network	4.2	
Store-and-forward	4.10	
Delayed delivery	4.12, 4.13	
<i>Categories of special or privileged users</i>		
Access barred	5.4	
Public booths	5.13	
<i>Facilities for setting up multi-address calls</i>		
Broadcast call	6.2	
Conference call	6.3	

<sup>a)</sup> A non-restrictive interpretation should be made of Table 1/F.63, such that those facilities not included in the table are not thereby excluded from the international telex service – the decisions to be taken on this matter depending on a further study of each specific facility.

<sup>b)</sup> References are to Study Group IX's list of definitions, for which see Annex 2 to Question 21/IX [1].

<sup>c)</sup> The intent in including this facility is to cover the interconnection with the telex service of private networks, etc. Interconnection with Teletex and Videotex is for further study.



*unanimously declares the view that*

(1) Administrations\* should give attention to the operational methods to be used in the establishment of calls in the international telex service as indicated in Recommendation F.60;

(2) when implementing new-generation exchanges, Administrations\* should consider the provision in the international telex service of the additional facilities listed in Table 1/F.63.

#### **References**

- [1] CCITT – Question 21/IX, Annex 2, Contribution COM IX-No. 1, Study Period 1981-1984, Geneva, 1981.
- [2] CCITT Recommendation *Connection to the telex network of an automatic terminal using a V.24 DCE/DTE interface*, Vol. VII, Fascicle VII.2, Rec. S.16.
- [3] CCITT Recommendation *Calling and answering in the telex network with automatic terminal equipment*, Vol. VII, Fascicle VII.2, Rec. S.19.
- [4] CCITT Recommendation *Changed address interception and call redirection in the telex service*, Vol. VII, Fascicle VII.1, Rec. U.41.

#### **Recommendation F.64**

##### **DETERMINATION OF THE NUMBER OF INTERNATIONAL TELEX CIRCUITS REQUIRED TO CARRY A GIVEN VOLUME OF TRAFFIC**

*(formerly CCIT Recommendation H.10, 1954;  
amended at Mar del Plata, 1968 and Geneva, 1976)*

The CCITT,

*considering*

(a) 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;

(b) 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;

(c) that international telex circuits may be selected either at manual positions, or via automatic switching equipment, particularly where subscriber-to-subscriber selection is employed between two networks;

*unanimously declares the view*

(1) that Administrations\* should use Tables 1/F.64 or 2/F.64 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 in accordance with Recommendations U.1 [1], U.11 [2], U.12 [3] and U.20 [4]. 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 one in 50.

#### **1 Introduction**

1.1 Table 1/F.64 shows values for manual traffic carried. If for the purpose of design (as distinct from the maintenance of rapid service) it is desired to obtain values for offered traffic in erlangs, these may be determined by adding the respective values of lost traffic to the figures for carried traffic in Table 1/F.64.

TABLE 1/F.64

Traffic capacity table for manually selected telex 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:		
	1 in 10 (Note 2)	1 in 30 (Note 3)	1 in 50 (Note 3)
<i>a</i>	<i>b</i>	<i>c</i>	<i>d</i>
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		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 1/F.64 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 1/F.64 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*.

N K	Availability			
	10	50	N	
100	64.0	84.1	88.0	
102	65.3	85.9	89.9	
104	66.5	87.6	91.9	
106	67.8	89.4	93.8	
<b>[N]</b>				
Circuits				
196	125.4	170.4	182.2	
198	126.7	172.2	184.2	
200	128.0	174.1	186.2	

FIGURE 1/F.64

An example for using Table 2/F.64

TABLE 2/F.64

Traffic capacity table for automatic circuits

N \ K	K	10	20	30	50	... N
	A					
1						0.02
2						0.22
3						0.60
4						1.09
5						1.66
6						2.28
7						2.94
8						3.63
9						4.34
10		5.08				5.08
11		5.68				5.84
12		6.29				6.61
13		6.90				7.40
14		7.52				8.20
15		8.15				9.01
16		8.77				9.83
17		9.40				10.7
18		10.0				11.5
19		10.7				12.3
20		11.3	13.2			13.2
21		12.0	13.9			14.0
22		12.6	14.7			14.9
23		13.3	15.4			15.8
24		13.9	16.2			16.6
25		14.6	16.9			17.5
26		15.2	17.7			18.4
27		15.9	18.4			19.3
28		16.5	19.2			20.2
29		17.2	19.9			21.0
30		17.8	20.7	21.9		21.9
31		18.5	21.5	22.7		22.8
32		19.2	22.2	23.5		23.7
33		19.8	23.0	24.3		24.6
34		20.5	23.8	25.1		25.5
35		21.1	24.6	26.0		26.4
36		21.8	25.3	26.8		27.3
37		22.5	26.1	27.6		28.3
38		23.1	26.9	28.4		29.2
39		23.8	27.7	29.2		30.1
40		24.4	28.4	30.0		31.0
41		25.1	29.2	30.8		31.9
42		25.8	30.0	31.7		32.8
43		26.4	30.8	32.5		33.8
44		27.1	31.6	33.3		34.7
45		27.8	32.3	34.1		35.6
46		28.4	33.1	34.9		36.5
47		29.1	33.9	35.8		37.5
48		29.8	34.7	36.6		38.4
49		30.4	35.5	37.4		39.3
50		31.1	36.3	38.2	40.3	40.3

TABLE 2/F.64  
(cont'd)

N \ K	K	10	20	30	50	... N
	A					
50		31.1	36.3	38.2	40.3	40.3
51		31.8	37.1	39.1	41.1	41.2
52		32.4	37.9	39.9	42.0	42.1
53		33.1	38.7	40.7	42.8	43.1
54		33.8	39.4	41.6	43.7	44.0
55		34.4	40.2	42.4	44.6	44.9
56		35.1	41.0	43.2	45.4	45.9
57		35.7	41.8	44.1	46.3	46.8
58		36.4	42.6	44.9	47.2	47.8
59		37.1	43.4	45.7	48.0	48.7
60		37.7	44.2	46.6	48.9	49.6
61		38.4	45.0	47.4	49.8	50.6
62		39.1	45.8	48.2	50.6	51.5
63		39.7	46.6	49.1	51.5	52.5
64		40.4	47.4	49.9	52.4	53.4
65		41.0	48.2	50.8	53.3	54.4
66		41.7	49.0	51.6	54.1	55.3
67		42.4	49.8	52.4	55.0	56.3
68		43.0	50.6	53.3	55.9	57.2
69		43.7	51.4	54.1	56.7	58.2
70		44.4	52.2	55.0	57.6	59.1
71		45.0	53.0	55.8	58.5	60.1
72		45.7	53.8	56.6	59.4	61.0
73		46.3	54.6	57.5	60.2	62.0
74		47.0	55.4	58.3	61.1	62.9
75		47.6	56.2	59.2	62.0	63.9
76		48.3	57.0	60.0	62.9	64.9
77		49.0	57.8	60.9	63.8	65.8
78		49.6	58.6	61.7	64.6	66.8
79		50.3	59.4	62.6	65.5	67.7
80		50.9	60.2	63.4	66.4	68.7
81		51.6	61.0	64.3	67.3	69.6
82		52.2	61.8	65.1	68.2	70.6
83		52.9	62.6	66.0	69.0	71.6
84		53.6	63.4	66.8	69.9	72.5
85		54.2	64.2	67.6	70.8	73.5
86		54.9	65.0	68.5	71.7	74.5
87		55.5	65.9	69.3	72.6	75.4
88		56.2	66.7	70.2	73.5	76.4
89		56.8	67.5	71.0	74.3	77.3
90		57.5	68.3	71.9	75.2	78.3
91		58.1	69.1	72.7	76.1	79.3
92		58.8	69.9	73.6	77.0	80.2
93		59.4	70.7	74.4	77.9	81.2
94		60.1	71.5	75.3	78.8	82.2
95		60.7	72.3	76.2	79.7	83.1
96		61.4	73.1	77.0	80.5	84.1
97		62.0	73.9	77.9	81.4	85.1
98		62.7	74.7	78.7	82.3	86.0
99		63.3	75.5	79.6	83.2	87.0
100		64.0	76.3	80.4	84.1	88.0

TABLE 2/F.64  
(concluded)

N \ K	K	10	20	30	50	... N
		A				
100		64.0	76.3	80.4	84.1	88.0
102		65.3	77.9	82.1	85.9	89.9
104		66.5	79.6	83.8	87.6	91.9
106		67.8	81.2	85.5	89.4	93.8
108		69.1	82.8	87.3	91.2	95.7
110		70.4	84.4	89.0	93.0	97.7
112		71.7	86.0	90.7	94.8	99.6
114		72.9	87.6	92.4	96.6	101.6
116		74.2	89.3	94.1	98.3	103.5
118		75.5	90.9	95.8	100.1	105.5
120		76.8	92.5	97.5	101.9	107.4
122		78.1	94.1	99.3	103.7	109.4
124		79.3	95.7	101.0	105.5	111.3
126		80.6	97.3	102.7	107.3	113.3
128		81.9	99.0	104.4	109.1	115.2
130		83.2	100.6	106.1	110.9	117.2
132		84.5	102.2	107.9	112.7	119.1
134		85.7	103.8	109.6	114.5	121.1
136		87.0	105.4	111.3	116.3	123.1
138		88.3	107.0	113.0	118.1	125.0
140		89.6	108.7	114.7	119.9	127.0
142		90.8	110.3	116.5	121.7	128.9
144		92.1	111.9	118.2	123.5	130.9
146		93.4	113.5	119.9	125.3	132.9
148		94.7	115.1	121.6	127.1	134.8
150		96.0	116.7	123.4	128.9	136.8
152		97.2	118.3	125.1	130.7	138.8
154		98.5	120.0	126.8	132.5	140.7
156		99.8	121.6	128.5	134.3	142.7
158		101.1	123.2	130.3	136.1	144.7
160		102.4	124.8	132.0	137.9	146.6
162		103.6	126.4	133.7	139.7	148.6
164		104.9	128.0	135.4	141.5	150.6
166		106.2	129.6	137.2	143.3	152.6
168		107.5	131.2	138.9	145.1	154.5
170		108.8	132.9	140.6	146.9	156.5
172		110.0	134.5	142.3	148.7	158.5
174		111.3	136.1	144.1	150.5	160.4
176		112.6	137.7	145.8	152.3	162.4
178		113.9	139.3	147.5	154.1	164.4
180		115.2	140.9	149.2	155.9	166.4
182		116.4	142.5	151.0	157.7	168.3
184		117.7	144.1	152.7	159.6	170.3
186		119.0	145.7	154.4	161.4	172.3
188		120.3	147.3	156.2	163.2	174.3
190		121.6	148.9	157.9	165.0	176.3
192		122.8	150.6	159.6	166.8	178.2
194		124.1	152.2	161.3	168.6	180.2
196		125.4	153.8	163.1	170.4	182.2
198		126.7	155.4	164.8	172.2	184.2
200		128.0	157.0	166.5	174.1	186.2

1.2 Table 1/F.64 is directly applicable only to full-availability groups of circuits that are operated either wholly as bothway circuits, or wholly as unidirectional circuits.

1.3 Table 2/F.64 shows values for traffic offered in the automatic service and is directly applicable to full-availability groups and groups with availabilities between 10 and 50.

Given the traffic offered (A) in erlangs and the availability (K), the number of circuits required to provide a loss probability (B) of 0.02 may be determined from Table 2/F.64. Groups of up to 200 circuits and availabilities of 10, 20, 30, 50 and N circuits (N circuits corresponding to full availability) are covered. The method of applying the table is shown in Figure 1/F.64.

1.4 Where groups of circuits are divided into bothway and unidirectional components, the division and number of circuits in each component will be agreed between Administrations\*.

#### References

- [1] CCITT Recommendation *Signalling conditions to be applied in the international telex service*, Vol. VII, Fascicle VII.1, Rec. U.1.
- [2] CCITT Recommendation *Telex and gentex signalling on intercontinental circuits used for intercontinental automatic transit traffic (Type C signalling)*, Vol. VII, Fascicle VII.1, Rec. U.11.
- [3] CCITT Recommendation *Terminal and transit control signalling system for telex and similar services on international circuits (Type D signalling)*, Vol. VII, Fascicle VII.1, Rec. U.12.
- [4] CCITT Recommendation *Telex and gentex signalling on radio channels (synchronous 7-unit systems affording error correction by automatic repetition)*, Vol. VII, Fascicle VII.1, Rec. U.20.

#### Recommendation F.65

##### TIME-TO-ANSWER BY OPERATORS AT INTERNATIONAL TELEX POSITIONS

*(formerly CCIT Recommendation H.11, 1954;  
amended at Geneva, 1976)*

The CCITT,

*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, wherever possible, Administrations\* should give priority to the answering of incoming calling signals at international terminal exchanges and should endeavour to ensure that 95% of calls are answered within 30 seconds.

REGIONAL TARIFF RECOMMENDATIONS FOR THE  
INTERNATIONAL TELEX SERVICE

(Geneva, 1976)

The regional tariff groups have drawn up the following Recommendations concerning tariffs for the international telex service for application within their respective regions:

- D.201 R Determination of the accounting rate shares and collection charges in telex relations between countries in Africa (Fascicle II.1)
- D.301 R Determination of the accounting rate shares and collection charges in telex relations between countries in Europe and the Mediterranean Basin (Fascicle II.1)
- D.401 R Accounting rates applicable to telex relations between countries in Latin America (Fascicle II.1).

Recommendation F.67

CHARGING AND ACCOUNTING IN THE INTERNATIONAL TELEX SERVICE

(Geneva, 1976)

DIVISION A

EXPLANATION OF TERMS

**1 (telex) relation**

*F: relation (télèx)*

*S: relación (télèx)*

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

**2 origin country (or Administration\*)**

*F: pays (ou Administration\*) d'origine*

*S: país (o Administración\*) de origen*

The origin country is the country in which the calling subscriber is located.

**3 destination country (or Administration\*)**

*F: pays (ou Administration\*) de destination*

*S: país (o Administración\*) de destino*

The destination country is the country in which the called subscriber is located.

- 4 terminal country (or Administration\*)**  
*F: pays (ou Administration\*) terminal(e)*  
*S: país (o Administración\*) terminal*

A terminal country is both an origin country and a destination country in a given relation.

- 5 transit country (or Administration\*)**  
*F: pays (ou Administration\*) de transit*  
*S: país (o Administración\*) de tránsito*

A transit country is a country through which traffic is routed between two terminal countries.

- 5.1 direct-transit country**  
*F: pays de transit direct*  
*S: país de tránsito directo*

A transit country through which traffic is routed on direct circuits, i.e. on circuits provided for the exclusive use of other countries.

- 5.2 switched-transit country**  
*F: pays de transit en commutation*  
*S: país de tránsito con conmutación*

A transit country through which traffic is routed by switching in an international transit exchange.

- 6 international circuit**  
*F: circuit international*  
*S: circuito internacional*

A circuit between two international exchanges situated in different countries is called an *international circuit*.

- 6.1 continental circuit**  
*F: circuit continental*  
*S: circuito continental*

An international circuit between two international exchanges situated in two different countries in the same continent.

- 6.2 intercontinental circuit**  
*F: circuit intercontinental*  
*S: circuito intercontinental*

An international circuit between two international exchanges in different continents.

- 7 national extension**  
*F: prolongement national*  
*S: prolongación nacional*

A national extension is that part of the connection which extends from the national side of the international exchange to the subscriber.

- 8 Remuneration for shared use and exclusive use**

- 8.1 remuneration for shared use of circuits and equipment**  
*F: rémunération pour utilisation en commun des circuit et des installations*  
*S: remuneración por utilización compartida de circuitos e instalaciones*

The expression *remuneration for shared use* refers to the remuneration paid to the Administration\* of a country P that makes its facilities available to a number of Administrations\* of other countries  $L_1, L_2, \dots, L_n$  for the routing of different international traffic streams. It may apply either to circuits or to switching equipment.



Under the control of the owner, the use of such facilities may be shared in any appropriate manner with other Administrations\* (including the Administration\* that owns them). The latter sets the price for the shared use of its facilities:

- a) either according to the number of traffic units; or
- b) by a fixed amount covering a certain period of time and based on the estimated volume of traffic and its time characteristics.

## 8.2 remuneration for exclusive use of circuits

*F: rémunération pour utilisation exclusive des circuits*

*S: remuneración por utilización exclusiva de los circuitos*

8.2.1 The remuneration for exclusive use is the remuneration paid to the Administration\* that makes its circuits available for direct transit, each circuit being assigned on an exclusive basis. The volume of traffic, its origin and its fluctuations in time are not the concern of the owner Administration\* and have no effect on the amount of the remuneration, which is paid circuit by circuit. The owner does not control the traffic routed over the circuit. This is the conventional lease arrangement between Administrations\*.

8.2.2 For further clarification, it should be mentioned that:

- a) the general term *lease* used until now applied only to the case cited in § 8.2.1 where exclusive use is granted;
- b) the term *owner* in these definitions refers to an Administration\* that receives the remuneration and that grants the rights to another Administration\*. The owner may have real ownership or the indefeasible right of use of the facilities.

## 9 accounting rate

*F: taxe de répartition*

*S: tasa de distribución*

The accounting rate is the rate per traffic unit agreed between the Administrations\* for a given relation that is used for the establishment of international accounts.

## 10 collection charge

*F: taxe de perception*

*S: tasa de percepción*

The collection charge is the charge collected by an Administration\* from its public for the use of the international telex service. The establishment of that charge is a national matter.

## 11 flat-rate price (per circuit) procedure

*F: méthode de rémunération forfaitaire par circuit*

*S: procedimiento de remuneración a tanto alzado por circuito*

The flat-rate price procedure is a procedure that consists of remunerating an Administration\* on the basis of a flat-rate price per circuit.

## 12 traffic-unit price procedure

*F: méthode de rémunération par unité de trafic*

*S: procedimiento de remuneración en función de las unidades de tráfico*

The traffic-unit price procedure is the procedure whereby remuneration of an Administration\* is based on traffic units.

## 13 Traffic unit

The traffic unit that is recommended for use in the traffic-unit price procedure is one minute of call duration as defined in Recommendation F.61.

## DIVISION B

### COLLECTION CHARGES

#### 1 Fixing of collection charges

1.1 The collection charges shall be established per traffic unit.

1.2 Each Administration\* shall, subject to the applicable provisions of national law, fix the charges to be collected from its public. In fixing these charges, Administrations\* should make every effort to avoid too large a difference between the charges applicable in each direction of the same relation.

1.3 Any country that for its own benefit levies a fiscal tax on calls in the international telex service shall collect this tax in addition to the charges and only from senders of calls originating in its territory.

1.4 The charge to the public in the origin country should in principle be the same, in a given relation, regardless of the route used.

1.5 In considering the collection charges for a relation in which automatic and semi-automatic working both exist, each Administration\* should decide to fix its charges either:

- a) by establishing different charges for each method of operation; or
- b) by establishing a single collection charge weighted according to the volume of each type of traffic.

1.6 Safety of life and Government telex calls shall be charged as ordinary private telex calls.

## DIVISION C

### REMUNERATION OF DESTINATION AND TRANSIT ADMINISTRATIONS\*

#### 1 General

1.1 Procedures relating to remuneration of Administrations\* of destination and transit countries are as follows:

1.2 Destination Administrations\* will be remunerated by a procedure whereby the origin Administration\* keeps its revenue and remunerates the destination Administration\* for the facilities made available, including the international circuit, the international exchange and the national extension <sup>1)</sup> either:

- a) on the basis of a flat-rate price per circuit (called the flat-rate price procedure); or
- b) on the basis of traffic units carried (called the traffic-unit price procedure).

<sup>1)</sup> This element will have due regard to the location of the international exchange and the distribution of the international traffic within the destination country.

1.2.1 In either case, the price will be fixed by the destination Administration\*.

1.3 Transit Administrations\* will be remunerated for facilities made available, either:

1.3.1 by the *flat-rate price procedure* relating in the main to direct transit operations; or

1.3.2 by the *traffic-unit price procedure* relating in the main to switched transit operations.

## 2 Remuneration of the destination Administration\*

### 2.1 *Flat-rate price procedure*

2.1.1 Under this procedure the destination Administration\* receives payment for the facilities made available by a flat-rate price fixed by it as a price per circuit. The price per circuit would cover:

- a) The international circuit section provided by the destination Administration\*;
- b) the use of its international exchange;
- c) the national extension <sup>1)</sup>.

2.1.2 In fixing these flat-rate prices, Administrations\* of countries within the same region should follow the principles in CCITT Recommendations.

### 2.2 *Traffic-unit price procedure*

2.2.1 Under this procedure, the destination Administration\* receives payment on the basis of the price fixed by it per traffic unit. This price will be related to the facilities made available and will take account of:

- a) the international circuit section provided by the destination Administration\*;
- b) the use of its international exchange;
- c) the national extension <sup>1)</sup>.

2.2.2 In fixing these traffic-unit prices, Administrations\* of countries within a region should follow the principles in CCITT Recommendations.

### 2.3 *Simplification of accounts and use of traffic sampling*

2.3.1 In certain conditions, terminal Administrations\* may agree not to exchange international accounts when, for example:

- a) the balance of settlement of their accounts is normally negligible;
- b) the *terminal countries'* traffic levels in both directions are more or less equal;
- c) there is approximate equivalence as regards their national extension <sup>1)</sup>.

2.3.2 Traffic sampling may be used for the establishment of international accounts when the countries involved in a given traffic relation so agree. This sampling may then avoid the necessity for continuous traffic measurements. For example, the samples could cover five working days and could be taken at regular intervals, such as once a year or four times a year, or they could be taken on the occasion of any significant change in the number of circuits in the given relation. Sampling is particularly useful when traffic in any international relationship is reasonably stable.

---

<sup>1)</sup> This element will have due regard to the location of the international exchange and the distribution of the international traffic within the destination country.

### 3 Remuneration of transit Administrations\*

#### 3.1 *Flat-rate price procedure*

3.1.1 It is recommended that in the case of direct transit via other countries, the Administrations\* of these direct transit countries should be remunerated for the exclusive use of the facilities made available on the basis of a flat-rate price per circuit.

3.1.2 Under the flat-rate price procedure, the terminal Administrations\* will ensure that the best possible use is made of the circuits because, if those Administrations\*:

- a) provide too few circuits, they pay the penalty in the form of the lower quality of service they offer to their subscribers;
- b) provide too many circuits, they will have to pay more in remuneration and will be penalized financially.

3.1.3 The flat-rate price is fixed by the transit Administration\*. In fixing these flat-rate prices, the Administrations\* of countries within a region should follow the principles in CCITT Recommendations regarding the establishment of recommended values for facilities provided.

#### 3.2 *Traffic-unit price procedure*

3.2.1 When transit traffic is not handled on direct circuits, the remuneration for the transit routing in the case of traffic passing by switched transit through one or more countries should be made to the Administration\* of the first transit exchange used, which fixes a price per unit of handled traffic. This price should also include the remuneration to the other transit Administrations\*, if any, and to the destination Administration\*, where appropriate.

3.2.2 The procedure of remuneration to the first transit Administration\* for the entire routing of the traffic (remuneration of the first transit exchange) is necessary to meet the situation where traffic may be routed through subsequent transit exchanges, each of which, under automatic operation, will be unable to identify the origin country of the traffic. This procedure makes the source of the traffic irrelevant for the establishment of accounts. Depending on the accounting methods in force between Administrations\*, the remuneration of the first transit centre may or may not include payments for use of the facilities of the destination country.

#### 3.3 *Establishment of a switched-transit relation*

3.3.1 Before switching traffic via a transit exchange, the origin Administration\* will request the country in which the first switching transit exchange is situated for a price quotation per transit traffic unit to the destination country.

3.3.2 The Administration\* of the country to which the first transit exchange belongs advises the price per traffic unit for handling the traffic from the transit exchange to the destination country, including remuneration of the latter country where appropriate. This price may be set by the Administration\* to which the transit exchange belongs on the basis either of a special study or of a price already fixed for the transit routing to the same terminal country of traffic originating in other countries.

3.3.3 The Administration\* of any country with traffic to be routed in transit may, of course, find it advisable to consult the Administrations\* of several countries to ascertain which transit routing is the most economical.

3.3.4 The consultations by the origin Administration\* regarding the transit routing (by switching) of its traffic should be in accordance with the principles of the international routing plan described in Recommendation F.68.

#### 3.4 *Calculation of the remuneration to the first transit Administration\* on the basis of traffic units*

3.4.1 Remuneration to the Administration\* of the switched-transit country depends on the number of traffic units handled by its transit exchange.

3.4.2 For the establishment of international accounts, the origin Administration\* should determine the volume of traffic in minutes of call duration routed each month towards each destination country through this transit exchange.

3.4.3 An alternative version of this system can be contemplated when the traffic to the destination country routed via a given international transit centre is sufficiently stable; the origin Administrations\* and the first transit exchange might then agree to settlement on the basis of an estimated number of traffic units determined by means of traffic sampling and subject to periodic revision (such as once a year or four times a year).

#### 4 Accounting rate division — Method of remuneration for terminal and transit Administrations\*

4.1 In relations where the procedures previously described for remuneration in this Recommendation are not applied, Administrations\* concerned may agree to divide the total accounting rate into terminal shares payable to the terminal Administrations\* and, where appropriate, into transit shares payable to the transit Administrations\*.

### DIVISION D

### ACCOUNTING

#### 1 General

1.1 The following arrangements are recommended for the drawing up, exchange and acceptance of monthly telex accounts between Administrations\*.

1.2 Each origin and, where appropriate, transit Administration\* shall prepare and forward monthly accounts. These should be drawn up separately on forms of the types shown as Forms 1 and 2 in Annex A.

1.3 The choice of form to be used for the accounts should be decided by the Administration\* that prepares the accounts, after consultation with the other Administration\* concerned. It may be convenient to use separate forms for originated and transit traffic.

1.4 The traffic details that must be included in the account are only those that are necessary for the purpose of international accounting. However, by agreement between the Administrations\* concerned, traffic information that is not essential for the accounts (e.g. the number of calls where this does not affect the accounting) may be included on the account forms.

1.5 Figure 1/F.67 is inserted to illustrate the following paragraphs, which relate to the preparation of monthly accounts.

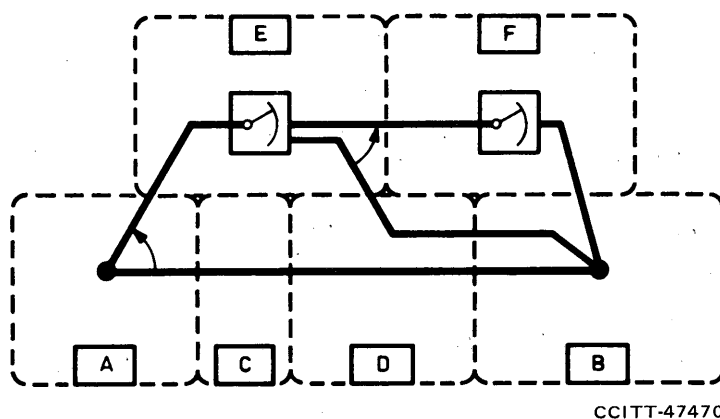


FIGURE 1/F.67

## **2 For traffic on direct circuits A to B**

2.1 A shall prepare and forward to B (where appropriate via direct transit countries, C and D respectively) a monthly account crediting the amounts due from A to each of them under whatever accounting procedure has been agreed with each of them (i.e. either the traffic-unit price or the flat-rate price procedure). If the destination country is remunerated under the traffic-unit price procedure, the flat-rate amounts for direct-transit countries should be divided in appropriate shares (normally equal) between the two terminal countries and the traffic-unit per minute price for passage through those transit countries should be divided in the same proportion between the two terminal countries. The application of this rule is necessary if the traffic accounting between the two terminal countries is to be fair, as this traffic-unit per minute price should be used by each terminal Administration\* as a factor to be multiplied by the volume of outgoing traffic, which may not be the same in the two directions. Thus A will credit to B the traffic-unit price of B plus (normally) one-half of the traffic-unit price attributable to the transit of C and D.

## **3 For traffic on the route A to B via switched transit country E**

3.1 A shall prepare and forward to E a monthly account crediting E for all A's traffic to B via E, at the rate quoted by E to cover both:

- a) the transit of E and where appropriate of non-switched transit countries D or F respectively,
- b) the remuneration due to B.

3.2 A shall not include this traffic in its monthly account with B.

## **4 Accounting to be done by E in the cases described in § 3 above**

4.1 E shall prepare and forward to D, F and B respectively a monthly account crediting to each of them the amounts due to them in respect of traffic originating in E, and shall include in these accounts the amounts due to them for traffic from A (and any other countries transited by E). However, if the method of remuneration from E to D, F or B is flat-rate price procedure, then E shall in principle, retain the amount received from A (or any other countries upstream from E) relating to the section through the country being remunerated by the flat-rate price procedure.

## **5 General remarks on the preparation of accounts**

5.1 In the preparation of monthly accounts, the following should be taken into account.

5.2 Separate entries should be made in respect of traffic passed over secondary or emergency routes that involve special remuneration.

5.3 The measurement of call durations made by the outgoing international exchange to a given destination country need not necessarily distinguish between routes involving different transit countries, provided that the traffic is transmitted over direct circuits that 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 on the 15th of each month.

5.4 To avoid the need for an analysis of routes actually taken by calls 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 transit Administration\* and communicated to the outgoing Administration\* every six months.

5.5 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 § 1.3.2 in Recommendation F.61), 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.

5.6 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.

## **6 Supply of directories**

6.1 Accounting arrangements concerning the paid supply of directories in accordance with Recommendation F.60, § 3.7.2 shall be established in the following manner.

6.2 At least once a year, and preferably at the end of the current period of the directories concerned, each Administration\* that has supplied to another Administration\* 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\* for settlement. These amounts may be included in the monthly telex accounts.

6.3 Except where the Administrations\* 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.

## **7 Queries relating to monthly accounts**

7.1 In the absence of a specific agreement, it is recommended that queries relating to monthly accounts should not be made unless the differences involved exceed those shown in the following table (where references to gold francs should be read as applying equally to other accounting units):

<i>Amount of the account</i>	<i>Difference exceeding</i>
a) less than 10 000 gold francs	100 gold francs
b) from 10 000 to 300 000 gold francs	1% of the total of creditor's account
c) more than 300 000 gold francs	3000 gold francs

7.2 These limits shall apply separately to each of Forms 1 and 2.

7.3 Queries shall not be further pursued once the difference involved no longer exceeds these limits.

7.4 Query may be justified, however, where a difference that does not qualify for query in an individual month appears to recur in subsequent months. In the case of a difference of opinion regarding the chargeable duration of a call or calls, the opinion of the origin Administration\* shall prevail. Nevertheless, each Administration\* shall have the right to advise the origin Administration\* of obvious errors in the monthly account.

## **8 Adjustments and refunds**

8.1 For the accounting procedure in the case of adjustments and refunds see division E of this Recommendation.

## **9 Checks of accounting data**

9.1 Data relating to Forms 1 or 2 can be subject to sampling checks if the destination Administration\* considers it desirable. These traffic samples will be taken as follows:

9.2 On a given day the destination Administration\* has observations made of a number of calls chosen at random. For each of these the route concerned, the time, the called subscriber's number and the identity of the caller are determined. Before noon on the following day the destination Administration\* asks the origin Administration\* to indicate the chargeable duration shown on the records for each of these calls.

9.3 An accounting check may also be made. In particular cases, where justified by the volume of traffic and by special agreement between Administrations\*, an official of the Administration\* receiving the account can visit the Administration\* that draws up the account, to see how the accounts are drawn up and to verify that the details of these calculations are as accurate as possible.

## **10 Keeping of vouchers**

10.1 The vouchers that have served for the establishment of accounts should be preserved until those accounts have been settled, or in any case for at least six months.

## **11 Settlement of accounts**

11.1 Accounts will be settled in accordance with Article 11 and Appendix 1 of the *Telegraph Regulations* [1].

## **12 Use of emergency routes**

12.1 When emergency telex routes are used, the following provisions shall apply, except in the case of arrangements to the contrary among the Administrations\* concerned.

12.2 Charges for telex calls exchanged over emergency routes shall be the same as when the normal route is used.

12.3 All telex calls exchanged over emergency routes shall be entered in the international accounts for the whole of their chargeable duration.

12.4 When an emergency route is used, the total rate for the normal route 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. 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.

### **12.5 Examples :**

12.5.1 Switzerland – France. Emergency route: Zurich – Frankfurt.

Total rate for the normal route:  $x$  gold francs.

Apportionment if the emergency route is used:

Switzerland – Germany – France: each receives  $x/3$  gold francs.

12.5.2 Switzerland – Great Britain. Emergency route: Zurich – Brussels.

Total rate for the normal route:  $y$  gold francs.

Apportionment if the emergency route is used:

Switzerland – France – Belgium – Great Britain: each receives  $y/4$  gold francs.

## **13 Accounting for telex calls circulated over international routes for which accounting rates have not been established**

13.1 Normally, when calls are circulated over international routes for which accounting rates have not been established:

- a) these calls shall be treated in the international accounts as if they had been sent via the primary route;  
or
- b) if no relation has been opened between two terminal countries they shall not be included in the international accounts;

provided that such calls do not exceed 25 minutes per month in any intercontinental relation or 100 minutes per month in any continental relation. The origin Administration\* shall be responsible for keeping a check on the total duration of such calls, and for arranging to remunerate the Administrations\* concerned if the above limits are exceeded.

13.2 However, if the amount of such traffic becomes significant or if, for any other reason, any one of the Administrations\* involved wishes to have a proper accounting rate established, then all the Administrations\* concerned should consult together and establish the accounting rate and divisions thereof to be used for such traffic.



## ANNEX A

(to Division D, Recommendation F.67)

## Monthly telex account

## FORM 1

Traffic from ..... To ..... For ..... 19 .....

Month	Item	Number of minutes	Credit of B		Credit of C		Credit of D	
			Share of rate per minute	Total	Share of rate per minute	Total	Share of rate per minute	Total
1	2	3	4	5	6	7	8	9
		1405	2.40	3372.00	1.40	1967.00	1.20	1686.00
Totals .....			—		—		—	

*Explanatory notes for Form 1*

1. In the heading, the Administration\* initiating the account in respect of transit traffic should insert the word *transiting* in place of *from*.

2. If the account does not relate strictly to a calendar month (e.g. because of the arrangements for reading traffic meters in the automatic service), the period covered by the account should be shown.

3. Column 1, *Month* should contain the calendar month to which the data relates (e.g. in the case of transit traffic particularly, this would usually be earlier than the month of the account).

4. The form should have a *Credit of* column for each country to be remunerated.

5. Column 2, *Item* should be used and possibly sub-divided to specify any distinction required for international accounting purposes, number of calls or call classification, etc.

6. Columns 4, 6 and 8 *Share of rate per minute* should show the amount for one minute payable to the Administration\* concerned.

7. Columns 5, 7 and 9 the *Total* should be obtained by multiplying the amount in columns 4, 6 and 8 respectively by the number of minutes in column 3.

# FORM 2

Account from \_\_\_\_\_ for telex traffic sent to \_\_\_\_\_

for \_\_\_\_\_ 19 \_\_\_\_\_

Month	From	To	Number of		Share of rate per minute	Amount due
			Calls	Minutes		
1	2	3	4	5	6	7
			37	100	4.5	450.00
			—	400	1.5	600.00

## *Explanatory notes for Form 2*

1. In the heading, the name of the Administration\* initiating the account should be shown as the *from* country and the name of the Administration\* to whom the account is directed should be shown as the *to* Administration\*.

2. If the account does not relate strictly to a calendar month (e.g. because of the arrangements for reading traffic meters in the automatic service), the period covered by the account should be shown.

3. Column 1, *Month*, should contain the calendar month to which the data relates.

4. Columns 2 and 3. These should contain a separate entry for each different combination of *from* and *to* Administration\*. Terminating and transit traffic should be grouped separately, and the latter should be further sub-divided between direct transit and switched transit if different accounting rates apply to each of these categories.

5. Column 4, *Number of calls* may be used to show the number of calls where this is necessary for international accounting purposes.

6. Column 6, *Share of rate per minute*, indicates the share due to the *to* Administration\* and, where applicable, the Administrations\* beyond.

7. Column 7 *Amount due*, (to the *to* Administration\*), should include the amount due to that Administration\*, and for transit traffic also for the amounts due to Administrations\* beyond.

## DIVISION E

### ADJUSTMENT OF CHARGES AND REFUNDS

1 If 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 of the charge shall be made. If the difficulty was due to the telex service, the chargeable duration of the call shall be reduced to the total period during which telex conditions were satisfactory.

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 directly to the international exchange of origin the information that may be necessary for the inquiry.

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.

4 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.

5 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.

6 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.

7 The amount of this charge shall not be entered in the international accounts.

#### Reference

- [1] *Final Acts of the World Administrative Telegraph and Telephone Conference, Telegraph Regulations, Telephone Regulations, Article 11, Appendix 1, ITU, Geneva 1973.*

#### Recommendation F.68

### ESTABLISHMENT OF THE AUTOMATIC INTERCONTINENTAL TELEX NETWORK

(Geneva, 1964; amended at Mar del Plata, 1968, and Geneva, 1976 and 1980)

#### 1 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 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).

## 1.1 *Circuits*

1.1.1 A **national circuit** is one connecting two exchanges in the same country.

1.1.2 An **international circuit** is one connecting two exchanges in different countries, whether or not they are in different continents.

1.1.3 A **continental circuit** is one established between two exchanges in the same continent.

1.1.4 An **intercontinental circuit** is one connecting two exchanges situated in different countries in different continents.

1.1.5 An **intercontinental transit circuit** is an intercontinental circuit used primarily for routing intercontinental transit traffic.

## 1.2 *Exchanges*

1.2.1 A **national exchange** is the termination centre for national circuits only.

1.2.2 An **international exchange** is a centre where international circuits, and in general national circuits, terminate.

1.2.3 A **continental exchange** is an international centre where the international circuits terminating there are solely continental circuits.

1.2.4 **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.

1.2.5 **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.

## 1.3 *Connections*

1.3.1 **international connection**: Any connection between two stations situated in different countries, whether established between different continents or one continent.

1.3.2 **continental connection**: Connection established between stations within the same continent.

1.3.3 **intercontinental connection**: Connection established between two different continents.

## 1.4 *Numbering*

1.4.1 **subscriber's national telex number**: Set of figures to be selected by a caller in the same country to obtain this subscriber.

1.4.2 **local number**: In national telex networks, when abridged call numbers are used for local or short-distance traffic, the abridged number is called the *local number*.

1.4.3 **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).

1.4.4 **prefix giving access to the international automatic telex network**: This expression is taken to mean the digit or digits that a subscriber must select (if necessary after the prefix giving access to the automatic long-distance telex network) to obtain access to the automatic telegraph switching equipment for international telex traffic.

1.4.5 **prefix giving access to the intercontinental automatic transit telex network**: This expression is taken to mean the digit or digits that a subscriber must select (if necessary after the prefix giving access to the international telex network) to obtain access to automatic telegraph switching equipment for intercontinental transit telex traffic.

1.4.6 The origin country 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.

1.4.7 **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).

1.4.8 **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.

## 1.5 *Routing*

1.5.1 **automatic alternative routing:** A facility whereby a call, which cannot find a free circuit on the primary route at an international outgoing exchange, is automatically diverted to a secondary route.

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

1.5.3 **primary Routes:** The circuits normally used in a given relation.

1.5.4 **rerouting:** When congestion occurs at an intermediate transit exchange, rerouting permits a call to be remade via a secondary route from the outgoing international exchange.

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

## 2 **Recommendation for the establishment of the automatic intercontinental telex network**

The CCITT,

*considering*

(a) that intercontinental telex traffic is rapidly growing; in particular, the development of automatic subscriber selection in intercontinental relations has been made possible. 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 among other considerations, on agreement on numbering and routing plans;

(b) that a worldwide service includes countries that are served by several telex networks. A telex subscriber's call number in a worldwide service must contain all the digits to be transmitted by the caller in order to establish the connection, irrespective of the routing channel;

(c) that to facilitate automatic routing and charging for calls, the number of digits to be examined by the charging equipment must be limited;

*unanimously declares the following view*

### 2.1 *General characteristics of the network*

2.1.1 It must be possible to establish the intercontinental network by means of:

- a) submarine or underground cable telegraph circuits;
- b) telegraph circuits via telecommunication satellites; and
- c) telegraph circuits on radio channels.

2.1.2 When circuits via various transmission facilities exist between two intercontinental transit exchanges, all such circuits must, for automatic selection purposes, be regarded as included in a single system.

2.1.3 Administrations\* will agree on whether a given group of circuits should be operated on a one-way, bothway or partially divided basis.

2.1.4 The traffic to be routed over these circuits may be either telex or gentex traffic; it may be either transit or terminal traffic.

2.1.5 Countries (or networks) should be connected by direct circuits where this can be justified taking into account the relative economics of transit switching and bothway working where the time difference between the terminal centres makes this a significant factor.

2.1.6 Where it is not practicable to provide direct circuits, the number of transit exchanges involved in a normally routed call should be reduced in so far as possible.

2.1.7 Where the same group of circuits carries traffic originated by subscribers in the country providing facilities and transit traffic originated by another country, the Administration\* providing the transit exchange shall ensure that the transit calls receive a grade of service not inferior to that given to their own subscribers.

## 2.2 *Identification of telex subscribers*

2.2.1 For international purposes, a subscriber's national number should be accompanied by one or two letters, called the *telex network identification code*, characterizing either:

- a) the subscriber's country, if in that country there is only one telex network; or
- b) the telex network to which the subscriber belongs in a country where there are several networks operated by different agencies.

2.2.2 An identification code is especially valuable for countries possessing several telex networks operated by different companies and when national numbers do not clearly distinguish between such networks. In such circumstances, it is recommended that the identification code should be clearly published in national directories. Furthermore, Administrations\* shall ask subscribers to give every possible publicity to their telex identification letters (by including them in the letterheads of their correspondence for example).

2.2.3 The answer-back codes for subscriber equipment used in intercontinental telex services should include the telex network identification code allocated to the country or network concerned (see Recommendation F.60, § 3.4.2).

2.2.4 For Administrations\* using two-character telex network identification codes these codes should be the same as the identification codes of their country (or network) for the telegram retransmission system (see Recommendations F.31 and F.96).

2.2.5 The one-character telex network identification code X is used to identify mobile stations that may be connected to the international telex network, regardless of the transmission medium used (maritime mobile-satellite, VHF, HF). The two-character codes commencing with X will not be allocated to national telex networks.

2.2.6 The list of telex network identification codes has been compiled by the CCITT and published in accordance with Recommendation F.96.

*Note* — If in any country the telex and gentex networks are separate, two identification codes might be necessary, one for telex and the other for gentex.

## 2.3 *Routing*

2.3.1 On international circuits digits only will be transmitted for selection control.

2.3.2 For each country, or for each network in countries possessing several telex networks, a group of two or three digits — the *telex destination code* — will uniformly characterize each country or network for the purposes of selection in intercontinental transit circuits. (See Recommendation F.69 for the list of telex destination codes.)

2.3.3 The access prefix to be selected 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.

2.3.4 There are two possibilities in relations between the international exchange of the outgoing country and an intercontinental exchange:

2.3.4.1 There are direct trunk circuits between the international exchange in the outgoing country and the intercontinental exchange (see Figure 1/F.68). On these circuits, it should suffice to transmit the destination code of the country required, followed by the national number of the subscriber required;

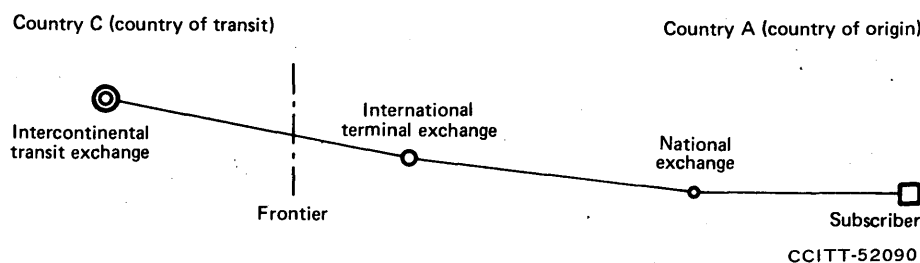


FIGURE 1/F.68

2.3.4.2 There are no such direct trunk circuits (see Figure 2/F.68). 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.

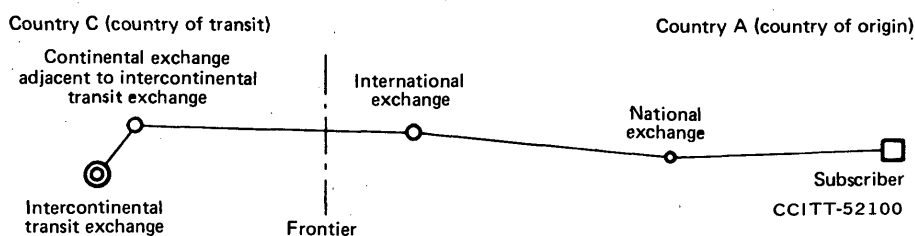


FIGURE 2/F.68

2.3.5 Code 00 should be used as the standard access prefix for traversing a continental exchange. A country that 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.

## 2.4 Automatic alternative routing

2.4.1 Provision must be made for the possibility of using automatic alternative routing (see Figure 3/F.68). The putting into operation of automatic alternative routing 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 automatic alternative routing into service. Be it noted that the automatic alternative routing method should be considered only if the peak hours on CD are different from those on CF and FD; otherwise, it is to be feared that transit switching equipment F will become saturated.

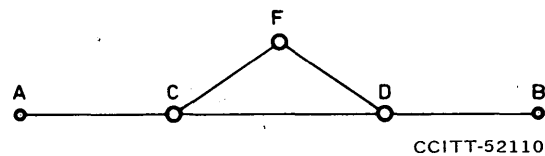


FIGURE 3/F.68

## 2.5 *Automatic re-routing*

2.5.1 The complications resulting from automatic re-routing would be out of all proportion to the benefits to be expected therefrom.

## 2.6 *Call recording*

2.6.1 In principle the originating exchange is responsible for timing calls, booking calls, repeated attempts, etc. The responsibility of an intercontinental transit exchange should be limited to providing a connection between the calling exchange or subscriber and the required exchange or subscriber.

2.6.2 In accordance with Recommendation U.23 [1], the elapsed time is normally taken as the basis for fixing the chargeable duration even where calls are routed over HF radio circuits fitted with ARQ equipment on the first or subsequent links in the connection.

## 2.7 *Grade of service*

2.7.1 Refer to Recommendation F.64.

## 2.8 *Use of radiotelegraph circuits with ARQ equipment*

2.8.1 Fully automatic operation on a radiotelegraph circuit incorporating ARQ equipment can be considered only if this circuit possesses adequate stability.

2.8.2 Before incorporating a circuit with ARQ equipment in the fully automatic switched network, the Administrations\* must carry out extended trials.

2.8.3 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, that prevails on the route according to the season).

2.8.4 The condition that must be fulfilled before a circuit can be accepted for use in a 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.

2.8.5 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 only one call lost in 50.

2.8.6 If these conditions are not complied with, it would be better to retain semi-automatic operation.

## Reference

- [1] CCITT Recommendation *Use of radiotelegraph circuits with ARQ equipment for fully automatic telex calls charged on the basis of the elapsed time*, Vol. VII, Fascicle VII.1, Rec. U.23.



PLAN FOR TELEX DESTINATION CODES

(Geneva, 1964; amended at Geneva, 1972, 1976 and 1980)

The CCITT,

*considering*

(a) that for controlling the selection of international transit circuits, a group of digits, called a *telex destination code*, should be used to identify each country (or network) in a uniform manner;

(b) that the CCITT therefore has to set up a worldwide list of telex destination codes; for this purpose it has been necessary to decide whether such codes should always comprise three digits or whether they should be made up of one, two or three digits;

(c) that the advantages of uniform three-digit codes are:

- i) 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;
- ii) uniform codes afford some simplification of the design of registers — particularly transit registers;
- iii) 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;

(d) that the advantages of a mixed one, two or three-digit arrangement are:

- i) the use of shorter length codes reduces the risk of errors by calling subscribers;
- ii) the storage capacity of registers can be kept to a minimum by allocating shorter codes to systems having long subscribers' numbers;
- iii) the holding time of circuits could be kept to a minimum;
- iv) 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 a subscriber's number have to be examined in accordance with Recommendation U.7 [1]. Similarly, where a country has more than one international 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;

(e) that mixed two-digit and three-digit destination codes have most advantages.

*unanimously declares the 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 that 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 digits 2 and 3 to a series of two-digit and three-digit codes serving the whole of the American area.

2 With regard to the allocation of the first digit:

- 0 — not to be used as first digit
- 1 — available for additional destination codes
- 2 — North America and adjacent areas
- 3 — South America and adjacent areas
- 4 } — Europe, U.S.S.R. and adjacent areas
- 5 }
- 6 }
- 7 — Pacific and adjacent areas
- 8 — Middle East, Far East and adjacent areas
- 9 — Africa, Near East and adjacent areas.

*Note 1* — 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.

*Note 2* — The geographical boundaries of the continents have not been rigidly followed to permit maximum flexibility within the code system.

3 The number of two-digit codes available is rather restricted. It is undesirable to allocate these to serve individual networks in countries where several networks exist but do not have a coordinated internal numbering scheme.

4 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.

5 The list of telex destination codes, as established by the World Plan Committee (Paris, 1980) is given in Annex A.

6 The Member countries of the Union not mentioned in this list that wish to take part in the international automatic telex service should ask the Director of the CCITT for the assignment of an *available* three-digit destination code. In their request they may indicate the available three-digit code preferred. Where the numbering scheme for the appropriate region is exhausted, a code from another region may be allocated.

7 If the requests submitted by Member countries of the Union involve a change in the telex destination codes already assigned to them, or if the Director of the CCITT finds difficulty in satisfying a request submitted in accordance with § 6, these requests will be referred to Study Group I for guidance on technical issues, any allocation of a specific code number being decided by the World Plan Committee.

8 Additions and changes that are accepted will be published in the ITU *Operational Bulletin*. They will become effective on the first day of the third month following publication.

## ANNEX A

(to Recommendation F.69)

## List of telex destination codes

(Mexico City, 1967; Venice, 1971; Geneva, 1975 and Paris, 1980)

200	Alaska (United States of America) (RCA)	403	Malta (Republic of) (GTC)
201	Dominican Republic (RCA)	404	Portugal
202	Dominican Republic (AACR)	405	Gibraltar
203	Haiti (Republic of)	406	Malta (Republic of) (Telemalta)
204	St. Pierre and Miquelon	407	Morocco (Kingdom of)
205	Puerto Rico (RCAC)	408	Algeria (Algerian Democratic and Popular Republic)
206	Puerto Rico (AACR)	409	Tunisia
207	Puerto Rico (C & W and WUI)	41	Germany (Federal Republic of)
208	Virgin Islands and St. Croix	42	France
209	Puerto Rico (PRCA)	43	Italy
21	Canada (except TWX)	44	Netherlands (Kingdom of the)
22	Mexico	45	Switzerland (Confederation of)
23	United States of America (except TWX)	46	Belgium
240 to 249	Available	47	Austria
25	United States of America (TWX)	480 to 489	Available
26	Canada (TWX)	490	Bahrain (State of)
270 to 279	Available	491	Iraq (Republic of)
28	Cuba	492	Syrian Arab Republic
290	Bermuda	493	Jordan (Hashemite Kingdom of)
291	Jamaica	494	Lebanon
292	British Virgin Islands	495	Saudi Arabia (Kingdom of)
293	Cayman Islands	496	Kuwait (State of)
294	Trinidad and Tobago	497	Qatar (State of)
295	Guyana	498	Oman (Sultanate of)
296	Turks and Caicos Islands	499	Available
297	Bahamas (Commonwealth of the)	500	Ireland
298	Martinique (French Dept. of)	501	Iceland
299	Guadeloupe (French Dept. of)	502	Faroe Islands (Denmark)
300	Guiana (French Dept. of)	503	Greenland (Denmark)
301 to 303	Available	504	Vatican City State
304	Surinam (Republic of)	505 to 509	Available
305	Paraguay (Republic of)	51	United Kingdom of Great Britain and Northern Ireland
306	Falkland Islands and Dependencies (Malvinas)	52	Spain
307	Bolivia (Republic of) (WCA)	530 to 539	Available
308	Ecuador	54	Sweden
309	Bolivia (Republic of) (ENTEL)	55	Denmark
31	Venezuela (Republic of)	56	Norway
32	Uruguay (Oriental Republic of)	57	Finland
33	Argentine Republic	580	Maritime mobile service (available)
34	Chile	581	Marisat Atlantic
35	Colombia (Republic of)	582	Marisat Pacific
36	Peru	583	Marisat Indian Ocean
371	Belize	584	Marisat Odessa
372	Guatemala	585	Marisat Makhodka
373	El Salvador (Republic of)	586	} Maritime mobile service (available)
374	Honduras (Republic of)	587	
375	Nicaragua	588	
376	Costa Rica	589	} Available
377	Panama (Republic of) (TROPICAL)	590 to 600	
378	Panama (Republic of) (AACR)	601	
379	Panama (Republic of) (COMSAT/WUI)	602	Greece
38	Brazil (Federative Republic of)	603	Available
390	Netherlands Antilles	604	Albania (People's Republic of)
391	Anguilla (Netherlands)	605	Cyprus (Republic of)
392	Barbados	606	Israel (State of)
393	Antigua	607	Turkey
394	Dominica	608	Available
395	Grenada	609	Available
396	Montserrat	61	Hungarian People's Republic
397	St. Kitts	62	Yugoslavia (Socialist Federal Republic of)
398	St. Lucia	63	Poland (People's Republic of)
399	St. Vincent	64	Union of Soviet Socialist Republics
400	Available	65	Roumania (Socialist Republic of)
401	Available	66	Czechoslovak Socialist Republic
402	Luxembourg		

67	Bulgaria (People's Republic of)	897 to 898	Available
680 to 689	Available	899	Democratic People's Republic of Korea
69	German Democratic Republic	900	Somali Democratic Republic
700	Guam (United States of America) (RCA)	901	Libyan Arab Republic
701	Fiji	902	Zambia (Republic of)
702	French Polynesia	903	Burundi (Republic of)
703	Papua New Guinea	904	Malawi
704	Hawaii (United States of America) (RCA)	905	Nigeria (Federal Republic of)
705	Hawaii (United States of America) (AACR)	906	Senegal (Republic of the)
706	New Caledonia and Dependencies	907	Rhodesia
707	Wallis and Futuna	908	Namibia
708	Hawaii (United States of America) (WUI)	909	Rwanda (Republic of)
709	Hawaii (United States of America) (WUH)	91	Egypt (Arab Republic of)
71	Australia	920 to 938	Available
72	Japan	939	Ascension
73	Indonesia (Republic of)	94	Ghana
74	New Zealand	95	South Africa (Republic of)
75	Philippines (Republic of the)	960	St. Helena
760	Mariana Islands	961	Reunion (French Dept. of)
761 to 769	Available	962	Botswana (Republic of)
770	American Samoa	963	Lesotho (Kingdom of)
771	New Hebrides	964	Swaziland (Kingdom of)
772	Cook Islands	965	Seychelles
773	Hawaii (United States of America)	966	Mauritius
774	Available	967	Sao Tome and Principe (Democratic Republic of)
775	Nauru (Republic of)	968	Available
776	Niue Island	969	Guinea-Bissau (Republic of)
777	Tonga (Kingdom of)	970	Cameroon (United Republic of)
778	Solomon Islands	971	Central African Republic
779	Western Samoa	972	Benin (People's Republic of)
780	Bangladesh (People's Republic of) <sup>a)</sup>	973	Gabon Republic
781 to 789	Available	974	Mauritania (Islamic Republic of)
79	Afghanistan (Republic of)	975	Niger (Republic of the)
800	Mongolian People's Republic	976	Chad (Republic of the)
801	Korea (Republic of)	977	Togolese Republic
802	Hongkong	978	Upper Volta (Republic of)
803	Sri Lanka (Ceylon) (Republic of)	979	Djibouti (Republic of)
804	Lao People's Democratic Republic	980	Ethiopia
805	Viet Nam (Socialist Republic of)	981	Congo (People's Republic of the)
806	Yemen (People's Democratic Republic of)	982	Zaire (Republic of)
807	Khmer Republic	983	Ivory Coast (Republic of the)
808	Macao	984	Sudan (Democratic Republic of the)
809	Brunei	985	Mali (Republic of)
81	India (Republic of)	986	Madagascar (Democratic Republic of)
82	Pakistan	987	Kenya (Republic of)
83	Burma (Socialist Republic of the Union of)	988	Uganda (Republic of)
84	Malaysia	989	Tanzania (United Republic of) (mainland)
85	China (People's Republic of)	990	Zanzibar (Tanzania)
86	Thailand	991	Angola (People's Republic of)
87	Singapore (Republic of)	992	Mozambique (People's Republic of)
88	Iran	993	Cape Verde (Republic of)
890	Available	994	Comoros (State of the)
891	Nepal	995	Guinea (Revolutionary People's Republic of)
892	Available	996	Gambia (Republic of the)
893	United Arab Emirates (Emirtel)	997	Liberia (Republic of)
894	Available	998	Sierra Leone
895	Yemen Arab Republic	999	Equatorial Guinea (Republic of)
896	Maldives (Republic of)		

<sup>a)</sup> The remaining combinations in the series 78 will not be allocated until the stock of spare 3-digit codes for the region is exhausted.

#### Reference

- [1] CCITT Recommendation *Numbering schemes for automatic switching networks*, Vol. VII, Fascicle VII.1, Rec. U.7.

**OBSERVATIONS ON THE QUALITY OF SERVICE  
IN THE INTERNATIONAL TELEX SERVICE**

*(Mar del Plata, 1968; amended at Geneva, 1976)*

- 1** Administrations\* 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\* to exchange statistics on the quality of service directly, and as soon as possible after they have been made in accordance with Table 1/F.70.
- 3** Observation should be made of outgoing traffic at a point decided upon by the responsible Administration\*. The 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\* 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\* should also include the average results of observations made on all outgoing traffic routed over similar automatic or semi-automatic international services.

**TABLE 1/F.70**  
**International telex service observations**

Administration\* .....

Traffic outgoing from ..... to .....

Period of observation from ..... 19..... to ..... 19.....

Period of day observations made from ..... UTC to ..... UTC

Route busy hours (outgoing) ..... UTC to ..... UTC

Total number of calls observed .....

Mode of operation used .....

			a	b
<b>EFFECTIVE CALLS</b>	Percentage	1		
	Average setting-up time(s)	2		
	Average chargeable time (min and s)	3		
<b>INEFFECTIVE CALLS</b>	Percentage	4		
	Average setting-up time(s)	5		
<b>ANALYSIS OF INEFFECTIVE CALLS OR CALL ATTEMPTS (PERCENTAGE OF TOTAL CALLS)</b>	Cut-offs during selection of calls	6		
	Cut-offs during call progress	7		
	<b>DER</b>	8		
	Lack of outgoing international circuits	9		
	NC in distant network	10		
	<b>OCC</b>	11		
	<b>NP</b>	12		
	<b>ABS</b>	13		
	Mutilations	14		
	Wrong number obtained	15		
	<b>NCH</b>	16		
	<b>NA</b>	17		
		18		
		19		

<sup>a</sup> Information down the table relates to outgoing traffic to one Administration\*.

<sup>b</sup> Information is the average of outgoing traffic to all Administrations\* using similar automatic or semi-automatic services.

*Notes on how to complete Table 1/F.70*

1. Administrations\* that 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\* that 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/F.70, 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 that were successfully completed to service positions.  
Rows 4 to 5: Ineffective calls include all calls or call attempts that 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.

**Recommendation F.71**

**INTERCONNECTION OF PRIVATE TELEPRINTER NETWORKS  
WITH THE TELEX NETWORK**

*(Geneva, 1980)*

The CCITT,

*considering*

- (a) the operational provisions for the international telex service laid down in Recommendation F.60;
- (b) that in various countries possessing public telex networks there also exist numerous private teleprinter networks using their own exchanges and conforming with the national regulations of the country concerned;
- (c) that the owners of these private networks are frequently substantial users of the telex service employing multiple subscriber lines;
- (d) that, consequently, it is very desirable to allow the through-connection of calls between teleprinters connected to private exchanges and those connected to the public telex network;
- (e) that in the telephone service the ability to establish calls between stations connected to private and public exchanges has long been available;
- (f) that the operation of the international public telex service must be neither hampered nor limited by private exchanges and hence the conditions for interconnection of the two types of network should be standardized;

*declares the following view*

- 1 Any terminal in a private network that may be directly connected (circuit switched) to a terminal in the international telex network must conform to the relevant requirements for terminals in the telex network as laid down in the Series S Recommendations.

2 A private network must not be allowed to provide communication between two external telex stations. For the provisions concerning interconnection between international leased circuits and the telex network, see Recommendation D.1 [1].

3 Where a private network uses a message store-and-forward system, it may be authorized to accept and deliver messages from and to the public network. The signals from the private network must always conform with the telex network's signalling standards.

4 When a private network connected to the telex network offers an external caller the facility of selecting a given extension directly, this should be clearly indicated in the public telex directory.

5 Either two-stage or single stage selection may be used as a means of automatic selection of a subsidiary station in the private network by an external caller.

6 For two-stage selection the following provisions should be applied:

- 1) The first stage of the selection should designate the called private network, using a conventional national subscriber number. Following the normal telex procedure, this sequence should start the selection process, resulting in the caller's being connected to a teleprinter (or any other appropriate device in the private network) that is ready to record a message. For networks where the called telex subscriber's answer-back is tripped automatically, this answer-back code must designate and be common to the whole of the private network concerned.
- 2) Application of the second stage by the calling telex subscriber is optional. The selection sequence used to designate a particular extension station may have a special composition for the network that is quite independent of the national telex numbering scheme, but it must always consist of teleprinter characters.
- 3) If the caller wishes to use the second stage of selection, he advises the private network by sending the sequence **VXXV** (combination 24, 22, 24 and 22 successively), to which the network responds with a proceed-to-select signal  $\Leftarrow \downarrow \text{GA} \rightarrow$  (combinations 27, 28, 29, 7, 1 and 31 successively).
- 4) This optional second stage of selection is ignored by the telex network. The corresponding selection time in the private network is charged in the same way as a telex call. The composition of the answer-back codes transmitted, where appropriate, after the second stage of selection may therefore be left to the discretion of the subscriber.

7 Where single-stage selection is used for connection to extension stations, the following provisions should be applied.

- 1) The single sequence used to select an extension station must be in the form of a national subscriber number, comprising a number to designate the called private network followed by further digits to specify the particular station required. When the caller sends this full sequence of digits, through-connection to the required extension is achieved, first by selection in the public network then in the private network. For networks where the called telex subscriber's answer-back is automatically tripped, the answer-back sent when the complete connection has been set up is specific to the selected extension.
- 2) If the caller wishes to communicate, not with any specific subsidiary extension, but with a teleprinter (or any other appropriate device in the private network) that is ready to record a message, the selection sequence should consist of the number designating the private network followed by the figure **0**.
- 3) If the caller only sends a selection sequence specifying the private network (i.e. neither **0**, nor a specific extension number nor an end-of-selection signal is added), the call should be automatically diverted after a period of 10 s to a main station.
- 4) If the caller specifies a particular extension station that is engaged or otherwise unavailable, the call should be automatically diverted to a main station.



- 5) . With single-stage selection, the answer-back codes for all stations, including extension stations, must comply with the requirements in Recommendation F.60 for the composition of telex answer-back codes.

#### Reference

- [1] CCITT Recommendation *General principles for the lease of international (continental and intercontinental) private leased telecommunication circuits*, Vol. II, Fascicle II.1, Rec. D.1.

#### Recommendation F.79

### INSTRUCTIONS FOR THE INTERNATIONAL TELEX SERVICE

(Geneva, 1976)

The CCITT,

*considering*

Resolution No. 3 of the World Administrative Telegraph and Telephone Conference (Geneva, 1973) [1],

*unanimously declares the view*

- (1) that Administrations\* should apply the detailed operational procedures laid down in the *Instructions for the International Telex Service* [2];
- (2) that these *Instructions* consist of the following portions of the relevant Series F Recommendations:
- a) Recommendation F.60, §§ 1, 2, 3.1, 3.2, 3.3, 3.6, 4 and Annex A;
  - b) Recommendation F.61, § 2;
  - c) Recommendation F.67, Division E.

#### References

- [1] *Final Acts of the World Administrative Telegraph and Telephone Conference, Telegraph Regulations, Telephone Regulations*, Resolution No. 3, ITU, Geneva, 1973.
- [2] *Instructions for the operation of the international telex service*, ITU, Geneva, 1977.

## SECTION 6

### PHOTOTELEGRAPH SERVICES

#### Recommendation F.80

#### PROVISIONS ABOUT PHOTOTELEGRAMS

*(Geneva, 1958; amended at New Delhi, 1960, Mar del Plata, 1968,  
Geneva, 1972, 1976 and 1980)*

The CCITT,

*having regard to*

Chapter XXV of the *Telegraph Regulations* (Geneva Revision, 1958),

*unanimously declares the view*

that the following rules be adopted for the phototelegram service.

#### **1 Field of application**

1.1 These rules apply to phototelegrams in both continental and intercontinental relations (exchanged between public stations or between public stations and private stations). The provisions concerning the exchange of phototelegraph calls between private stations or from private to public stations are embodied in Recommendation F.80 *bis*.

1.2 The rules governing the method of communication between phototelegraph stations are embodied in Recommendations F.82 and F.84.

#### **2 General**

2.1 Private stations may be authorized by the Administrations concerned to exchange phototelegrams with public stations.

2.2 In both continental and intercontinental relations, private stations communicate directly with public stations providing that the characteristics of their equipment conform with the CCITT Recommendations.

2.3 However, in connections where radio circuits are used for phototelegraph transmission, the private station may hand in a phototelegram only at a public station of its own country.

2.4 Administrations\* that do not operate a phototelegraph service can accept phototelegrams handed in at their telegraph offices for dispatch by post to the phototelegraph office of another country.

2.5 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.

2.6 Administrations\* 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.

### **3 Conditions of acceptance**

3.1 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.

3.2 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 EXPEDITEUR** shall be included in the preamble.

3.3 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 equipment is used permitting the single transmission of greater areas, Administrations\* may authorize larger sizes.

3.4 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.

3.5 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.

3.6 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 equipment. If this is so, however, the phototelegram will be reproduced with the same proportions as the original.

### **4 Arrangement of the parts of a phototelegram**

4.1 Every phototelegram must bear an address. Signature shall be optional. The address, the signature and the indications for the special services shall form part of the phototelegram to be transmitted.

4.2 The indications for special services shall be written in the abbreviated form shown in § 9 below. In all cases they should be placed before the address.

4.3 Every phototelegram shall include a preamble. The relevant instructions shall be the same as those for the preamble line of a telegram. But the number of words shall be replaced by a statement of the charging step.

### **5 Handing in a phototelegram**

5.1 A phototelegram may be handed in:

- at the counter of an authorized telegraph office;
- directly at a public station (handing in by messenger).

5.2 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).

- 5.3 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).

## 6 Transmission of phototelegram

6.1 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.

6.2 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.

6.3 A transmission that is unsuccessful because of adverse transmission conditions should be repeated as soon as circumstances permit.

6.4 But if the sender could be informed of unsatisfactory transmission conditions and if he insists upon an attempt at transmission being made, the phototelegram shall be accepted only at the risk of the sender. In this case the service instruction **RISQUES EXPEDITEUR** 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.

6.5 Except in the case specified in § 2.5, the sender may not request that a phototelegram should follow a prescribed route.

## 7 Delivery of phototelegram

7.1 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.

7.2 A phototelegram transmitted from a public station to a private station shall be considered as delivered to the addressee (delivery by phototelegraphy).

7.3 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.

7.4 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.

7.5 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.

## 8 Charging

8.1 The rates for phototelegrams in continental and in intercontinental relations exchanged between public stations or from a public station to a private station are governed by Recommendation F.83.

## 9 Special services

### 9.1 *In continental relations*

9.1.1 The following special services are admitted for phototelegrams exchanged between public stations:

Urgent . . . . .	<b>URGENT</b>
Prepaid reply x . . . . .	<b>RPx</b>

However, these services are optional. The prepaid reply voucher **RPx** may be used either to send another phototelegram or to send any other telegram.

9.1.2 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.

9.1.3 The following special services are admitted for phototelegrams exchanged between stations and for phototelegrams transmitted by private stations to public stations:

Request for confirmation of delivery . . . . .	<b>PC</b>
Delivery to the addressee of the negative film instead of the positive print . . . . .	<b>FILM</b>

However, these services are optional.

### 9.2 *In international relations*

9.2.1 Except where Administrations\* introduce restrictions, the relevant special services for phototelegrams in intercontinental relations shall be the same as for phototelegrams in continental relations.

## 10 Refunds

### 10.1 *Between public stations*

10.1.1 The sender of a phototelegram or his authorized representative may, on establishing his status and identity, cancel his phototelegram only if it has not been transmitted by the office of origin.

10.1.2 The charge paid for a phototelegram that has been cancelled shall be refunded, but the Administration\* 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.

10.1.3 In principle the provisions of § 10.1.2 above shall also apply to phototelegrams payable by the addressee or by a third party.

10.1.4 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.

10.1.5 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.

10.1.6 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.

10.1.7 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.

10.1.8 There shall be no refund of a charge that has been collected if the phototelegram includes in its preamble the service instruction **RISQUES EXPEDITEUR**.

## 10.2 *From a public station to a private station*

10.2.1 The points covered in §§ 10.1.1 to 10.1.3 above are also applicable when the phototelegram is cancelled or when it is refused by the addressee.

10.2.2 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 public station's equipment. Refund of charges shall be left to the discretion of the Administration\* to which the public station belongs.

## 10.3 *From a private station to a public station*

10.3.1 The provisions for the cancellation of telephone calls also apply to the cancellation of phototelegraph calls.

10.3.2 If a phototelegram is cancelled, 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.

10.3.3 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.

10.3.4 The provisions of §§ 10.1.4 to 10.1.8 above shall apply as regards the waiving of charges when phototelegrams are not delivered or are delivered too late.

# 11 **Accounts**

## 11.1 *Between public stations*

11.1.1 Accounting methods for charges levied for traffic between public stations shall be the same as for telegram charges. These accounts shall constitute a special section in the telegraph accounts.

11.1.2 Charges for the special services indicated in § 9 above shall be excluded from the accounts, with the exception of those relating to prepaid reply **RPx**.

## 11.2 *From a public station to a private station*

11.2.1 Accounting methods for charges levied for these phototelegrams shall be the same as for telegram charges. When the accounts are established by the destination country, 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 destination country for accounting purposes.

11.2.2 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.

## 11.3 *From a public station to a private station*

11.3.1 Accounting methods for charges in connection with the use of telephone circuits are governed by Recommendation F.80 *bis*.

11.3.2 The special surcharge applying to the use of a public station is retained by the Administration\* operating the public station.

11.3.3 The charges for special services are not included in the international accounts. They are retained by the Administration\* operating the public station.

**PROVISIONS RELATING TO PRIVATE PHOTOTELEGRAPH CALLS**

*(Mar del Plata, 1968; amended at Geneva, 1972, 1976 and 1980)*

The CCITT,

*considering*

- (a) that private phototelegraph stations require to communicate with one another;
- (b) that, in accordance with Recommendation F.80, private stations also have the possibility of handing-in of phototelegrams to public phototelegraph stations;
- (c) 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.

**1 Field of application**

1.1 These provisions apply to calls between private stations or between (outgoing) private stations and (incoming) public stations.

1.2 The rules governing phototelegrams exchanged between private stations and public stations are embodied in Recommendation F.80.

**2 General**

2.1 Private phototelegraph stations may be authorized by the Administration concerned to communicate with one another and to exchange phototelegrams with public stations.

2.2 Administrations\* undertake to set up connections for such transmissions or to make suitable leased circuits available to private stations at their request.

**3 Conditions of acceptance**

3.1 Private stations may communicate with all (public and private) phototelegraph stations connected to the international phototelegraph network.

3.2 When phototelegraph links are established on radio circuits in intercontinental relations and in continental relations, direct calls between or with private stations are not allowed.

3.3 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.

3.4 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 that the private station has announced it wishes to hand in.

3.5 The conditions under which booked phototelegraph calls are made available are specified in Recommendation F.82.

#### **4 Charging**

4.1 Charges for phototelegraph calls in continental and in intercontinental relations exchanged between private stations or from a private station to a public station are governed by Recommendation F.83.

#### **5 Special services**

5.1 The special urgent service shall be allowed in relations where it exists for telephone traffic.

#### **6 Refunds**

##### **6.1 General**

6.1.1 The provisions relating to cancellation of a telephone call request or refusal of a call are also applicable to phototelegraph calls between private stations or between (outgoing) private stations and (incoming) public stations.

##### **6.2 *Calls between private stations***

6.2.1 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.

6.2.2 To obtain refunds 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 refund with the original of the picture and the faulty proof received at the other end.

##### **6.3 *Calls from a private station to a public station***

6.3.1 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 public station's equipment. Refunds shall be left to the discretion of the Administration\* to which the public station belongs.

#### **7 Accounting**

7.1 The accounts of charges for phototelegraph calls between private stations or between an (outgoing) private station and an (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.

7.2 If the Administration\* agrees to grant a refund after a call has been cleared, the charge for the phototelegraph call shall be refunded and will not be included in the international accounts.

7.3 If the refund is granted only after dispatch of the international accounts, the cost of it shall be borne by the Administration\* that posted the relevant charge to its account.



**RULES FOR PHOTOTELEGRAPH CALLS ESTABLISHED OVER CIRCUITS  
NORMALLY USED FOR TELEPHONE TRAFFIC**

*(Geneva, 1958; amended at New Delhi, 1960, Geneva, 1964,  
Mar del Plata, 1968, and Geneva, 1972)*

The CCITT,

*considering*

(a) that, in international phototelegraph communications, the occupation time 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, supervision 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 calls;

(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\*;

(d) that, on the other hand, phototelegraph communications between private stations do not concern the telegraph services, although it is desirable for all phototelegraph calls 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.

**1 Field of application**

1.1 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.

1.2 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.

1.3 The procedure applicable to connections established over radio circuits or combined radio and metallic circuits is defined in Recommendation F.84.

**2 General provisions**

2.1 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.

2.2 These circuits shall be specially marked at terminal exchanges and repeater stations with a view to the protection of the phototelegraph transmissions.

2.3 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.

2.4 Administrations\* shall designate in each international phototelegraph terminal centre an authority responsible for the international phototelegraph calls. 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 calls. This authority shall henceforth be called the *international phototelegraph position* (IPP).

2.5 Administrations\* are recommended to centralize, as far as possible, in one place all the technical, operational and charging procedures necessary in an international centre when telephone circuits are used for phototelegraph calls.

2.6 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 origin country responsible for setting up the international phototelegraph call that has been booked. This IPP then becomes the control IPP for establishing the call.

### 3 Setting up, supervision and clearing of international phototelegraph calls

3.1 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.

3.2 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.

3.3 The IPPs shall proceed as follows when setting up an international call.

3.3.1 The control IPP transmits the following information as quickly as possible to the destination IPP:

- designation of the transmitting station;
- designation of the destination station;
- probable time at which the phototelegraph call will take place;
- where necessary, indication of the subscriber responsible for the charges; and, in addition:
  - a) for calls requested by public stations:
    - category of phototelegram to be transmitted;
    - date and time of handing-in of the phototelegram.
  - b) for calls requested by private stations:
    - category of call requested;
    - date and time of the request.

3.3.2 The destination IPP shall take the necessary steps to advise immediately the destination phototelegraph station by telephone that a phototelegraph transmission is about to take place.

3.3.3 If the called phototelegraph station is in a position to receive the phototelegraph call at the time fixed, the destination IPP informs the control IPP. At the said time, the two IPPs take the necessary steps, in agreement with the telephone service, to establish the call. Care must be taken to avoid interrupting telephone calls in progress.

3.3.4 If the called phototelegraph station is not in a position to receive the call at the time fixed, the destination IPP 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.

3.3.5 The control IPP then takes the necessary measures, in agreement with the telephone service, to establish the phototelegraph call between the stations concerned at the agreed time.

3.4 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.

3.4.1 To establish a phototelegraph call, it shall transmit the data mentioned under § 3.3.1 above to the incoming IPP, except for the probable time of the phototelegraph call.

3.4.2 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.

3.4.3 If the called phototelegraph station is in a position to receive the phototelegraph call immediately, the two IPPs shall straight away establish the necessary connection.

3.4.4 If the called phototelegraph station is not in a position to receive the call immediately, the destination IPP 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.

3.4.5 At the time agreed upon, the outgoing IPP shall take the necessary steps to establish the phototelegraph call.

3.5 The control IPP shall note the time when the phototelegraph call starts. The beginning of the call 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 call and indicate it to the IPP in its country when the call is cleared (see § 3.7 below).

3.6 The control IPP supervises the transmission in progress:

- a) on the transmitting (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 the call has been established, unless such intervention has been requested by one of the IPPs or one of the phototelegraph stations connected.

3.7 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.

3.7.1 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.

3.7.2 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.

3.7.3 It is recommended that the called station should likewise announce the end of transmission so that the called station may be cleared more quickly.

3.8 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.

#### **4 Special procedures for phototelegraph stations**

4.1 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.

4.2 As soon as the call is established, the interconnected phototelegraph stations proceed to adjust the equipment 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 cooperation 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;
- e) start;
- f) transmission.

4.3 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.

## 5 Faulty transmissions

5.1 In the case of fault conditions, the control IPP shall immediately make arrangements to clear the fault or make another circuit available.

5.2 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 § 2.6, with the sending station.

5.3 If the phototelegraph station that 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, Mar del Plata, 1968,  
Geneva, 1972, 1976 and 1980)*

The CCITT,

*considering*

- (a) that phototelegraph calls are frequently 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 also 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\* concerned explicitly agree to do so;

*unanimously declares the view*

## **1 In continental relations**

### **1.1 General**

1.1.1 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.

1.1.2 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).

1.1.3 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 to restore the circuits to the telephone service.

1.1.4 In addition, for calls from a private station to a public station, the Administration\* responsible for the public station should levy a special charge for the use of the public station.

### **1.2 Phototelegraph calls booked by a public station**

1.2.1 The rates for phototelegrams between public stations, with the exception of charges for special services, and the shares of charges accruing to Administrations\* should be calculated in accordance with Table 1/F.83.

TABLE 1/F.83

Scale of rates	Dimensions of phototelegram				Total charge in gold francs (to be levied at outgoing end)	Share accruing to the		
	1st side for the following drum diameters			2nd side (chargeable length)		Outgoing Administra- tion*	Transit Administra- tion*	Incoming Administra- tion*
	66 mm	70 mm	88 mm					
1st step				1.5 <i>D</i> or less	20 + 12 <i>y</i>	10 + 12 <i>a</i>	12 <i>b</i>	10 + 12 <i>a</i>
2nd step	≤18 cm	≤20 cm	≤24 cm	over 1.5 <i>D</i> up to 2 <i>D</i>	20 + 15 <i>y</i>	10 + 15 <i>a</i>	15 <i>b</i>	10 + 15 <i>a</i>
3rd step				over 2 <i>D</i> up to 2.5 <i>D</i>	20 + 18 <i>y</i>	10 + 18 <i>a</i>	18 <i>b</i>	10 + 18 <i>a</i>

1.2.2 The rates for phototelegrams transmitted by a public station to a private station and the shares accruing to Administrations\* should be calculated in accordance with Table 2/F.83.

1.2.3 The lengths of phototelegrams are measured in centimetres, a fraction of a centimetre being reckoned as a full centimetre.

1.2.4 For divided phototelegrams, the charge is calculated separately for each part.

1.2.5 For an **URGENT** phototelegram, the charge shall be doubled.

### **1.3 Phototelegraph calls booked by a private station**

1.3.1 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 phototelegraph) and the shares accruing to Administrations\* should be calculated in accordance with Table 3/F.83.

TABLE 2/F.83

Scale of rates	Dimensions of phototelegram				Total charge in gold francs (to be levied at outgoing end)	Share accruing to the		
	1st side for the following drum diameters			2nd side (chargeable length)		Outgoing Administra- tion*	Transit Administra- tion*	Incoming Administra- tion*
	66 mm	70 mm	88 mm					
1st step				1.5 <i>D</i> or less	10 + 12 <i>y</i>	10 + 12 <i>a</i>	12 <i>b</i>	12 <i>a</i>
2nd step	≤18 cm	≤20 cm	≤24 cm	over 1.5 <i>D</i> up to 2 <i>D</i>	10 + 15 <i>y</i>	10 + 15 <i>a</i>	15 <i>b</i>	15 <i>a</i>
3rd step				over 2 <i>D</i> up to 2.5 <i>D</i>	10 + 18 <i>y</i>	10 + 18 <i>a</i>	18 <i>b</i>	18 <i>a</i>

Note 1 -  $D$  = the diameter of the drum of the sending phototelegraph equipment.

Note 2 - For the meaning of  $a$ ,  $b$  and  $y$ , see Notes after § 1.3.2.

Note 3 - Where the 2nd side (chargeable length) exceeds 2.5  $D$ , the total charge in both §§ 1.2.1 and 1.2.2 is increased by 3 $y$  per step for each extra 0.5  $D$ .

TABLE 3/F.83

Charge	In gold francs	Share accruing to the		
		Administration* of the country of the private station	Transit Administration*	Administration* 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			

1.3.2 Charges for phototelegraph calls between private stations, and the shares accruing to Administrations are calculated in accordance with Table 4/F.83.

TABLE 4/F.83

Total charge in gold francs to be collected at the outgoing end	Share accruing to the		
	Outgoing Administration*	Transit Administration*	Incoming Administration*
( $C$ + 4) $y$	( $C$ + 4) $a$	( $C$ + 4) $b$	( $C$ + 4) $a$

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\*;

$C$  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 call.

1.3.3 If a private station books an **URGENT** phototelegraph call, the rates for the corresponding unit telephone call should be applied.

1.3.4 In relations where reversed-charge phototelegraph calls are allowed, the rules governing such calls should be agreed upon by the Administrations\* concerned.

#### 1.4 *Special services*

1.4.1 The surcharge for the special service **PC** is the same as for telegrams. The other special services are not liable to a surcharge.

1.4.2 The surcharges for special services for phototelegrams handed in by a private station at a public station shall be collected from the addressee.

### 2 **In intercontinental relations**

2.1 When submarine cable or satellite circuits are used for phototelegraph traffic, charges for phototelegrams and for phototelegraph calls shall be based on the same principle as in continental relations (see the provisions in § 1 above).

2.2 The same charges shall be applied if, in case of need, phototelegrams in these traffic relations are exceptionally transmitted by an HF radio channel. (In this case, only the exchange of phototelegrams between public stations is admitted. Phototelegraph transmissions from or to a private station should be made in accordance with Recommendation F.84.)

2.3 In traffic relations where *radio circuits* are the only means of communication, the unit charges (y) for phototelegrams (exchanged between public stations) and the appointment thereof shall be settled by agreement between the Administrations\* concerned on the basis of the length of the phototelegrams. In any case, the different scales of rates should be the same as for phototelegrams in continental relations. The chargeable length is measured in centimetres, a fraction of a centimetre being reckoned as a full centimetre. The originating Administration\* collects the charges for phototelegrams.

2.4 For divided phototelegrams in intercontinental relations, the charge is calculated separately for each part.

2.5 Unless Administrations\* have introduced changes, the surcharges for the special services allowed for phototelegrams in intercontinental relations shall be the same as those in continental relations (see § 1.4 above).

#### **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,  
Geneva, 1972, 1976 and 1980)*

The CCITT,

*considering*

- (a) that the phototelegraph service is steadily developing in intercontinental relations;
- (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, worldwide 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.

## **1 Field of application**

1.1 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.

1.2 These rules govern the setting up, supervision and clearing of international phototelegraph calls between public stations.

## **2 Conditions of acceptance**

2.1 Private phototelegraph stations shall not be allowed to exchange phototelegraph calls on circuits making use of radio. But Administrations\* 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.

2.2 A phototelegram received from a private station by a public station for retransmission, or one that 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.

2.3 A phototelegram received on the radio circuit by a public station and retransmitted by the latter to a private station, or one that 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.

## **3 General provisions**

3.1 When no metallic circuit can be made available for phototelegraphy, the Administrations\* 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.

3.2 The radio circuits designated for phototelegraph communications should be bothway 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.

3.3 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.



3.4 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.

3.5 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.

3.6 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.

3.7 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 that operates the radio circuit shall be responsible for the same duties if there are direct junction lines between it and some private stations.

3.8 To ensure smooth cooperation between public phototelegraph stations at the ends of the radio circuit, the personnel employed there 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*, [1]).

3.9 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.

3.10 The public phototelegraph stations at the ends of the radio path must send, if necessary, the call sign laid down by the *Radio Regulations* (Article 25, Numbers 2055-2081), [2]. 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.

#### **4 Establishment, supervision and clearing of a phototelegraph call on a radio circuit**

4.1 The public phototelegraph stations at the ends of the radio route shall proceed as follows in setting up an international call:

4.1.1 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 destination station;
- the category of phototelegram to be transmitted;
- the date and time of handing-in;
- name of the addressee;
- service indications, if any;
- number of phototelegrams on hand;
- frequency allocated for the phototelegraph call in the direction from the outgoing country;
- time at which the phototelegraph call will probably take place.

4.1.2 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.

4.1.3 The outgoing phototelegraph station shall then inform the radio office of the above particulars.

4.1.4 At the time agreed upon, the two phototelegraph stations shall take action to set up the call in cooperation with the radio offices concerned.

4.1.5 The Administrations\* concerned must take care to see that **XQ** service advices are transmitted and delivered to the destination public stations with all possible speed.

4.2 The radio offices at the two ends of the radio route shall supervise the transmission :

- a) on the outgoing transmission, by a device that 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.

4.3 By agreement, the two phototelegraph stations shall inform their particular radio authorities of the end of the call. These latter shall take immediate steps to break off the call.

4.4 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.

## **5 Establishment, supervision and clearing of a phototelegraph call on a combined wire and radio circuit**

### **5.1 *Extension of the radio circuit on the sending side***

- 5.1.1 a) *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.
- b) *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.

5.1.2 In setting up the radio circuit, the public stations at the ends of the radio path shall proceed as described in § 4 above.

5.1.3 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 directly or via the IPPs.

5.1.4 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.

5.1.5 The IPP shall proceed as described in Recommendation F.82 in making the wire section available at the right time.

5.1.6 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.

### **5.2 *Extension of the radio circuit on the receiving side***

- 5.2.1 a) *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.
- b) *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 destination country via the IPPs.

5.2.2 At the same time, it shall arrange for the national (or international) circuit to be made available at the right time, as in § 5.1.4 above.

5.2.3 When the radio section is ready, the incoming international public station shall take over the interconnection and become control station for the mixed circuit.

5.2.4 For the transmission of a series of phototelegrams that 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 destination station during the preceding phototelegraph transmission.

### 5.3 *Extension of the radio circuit on both sides*

5.3.1 The provisions given under § 5.1 and § 5.2 above shall apply simultaneously.

5.3.2 The two public stations at the ends of the radio section shall become control stations.

5.4 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.

5.5 The control stations shall make one copy of every phototelegram transmitted over the mixed circuit. If the phototelegram received by the destination station 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.

5.6 The radio offices and PPs taking part in setting up the call shall supervise transmission as described in § 4.2 above and in Recommendation F.82, § 3.5.

5.7 After the transmitting station has indicated the end of transmission and the destination station has notified agreement, the two public stations at the ends of the radio section shall announce the end of the call to their own radio authorities and to any PP that 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.

5.8 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.

## 6 **Setting up, supervision and clearing of a phototelegraph call on a route consisting of two radio circuits**

6.1 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.

6.2 In this case, the phototelegraph stations shall proceed as follows.

6.2.1 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.

6.2.2 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 §§ 4 or 5 as appropriate.

6.2.3 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 § 5 (in particular 5.5 above).

6.3 The call is supervised in accordance with § 5.6 above.

6.4 When the end of transmission has been signalled, the two public stations at the ends of the radio route shall proceed as outlined in § 5.7 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.

6.5 The public station in the origin country and the control stations shall note the transmissions made as indicated in § 5.8 above.

## **7 Special procedures for phototelegraph stations**

7.1 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 service indications) unless these indications have been written on the phototelegram by sender. This tape is transmitted with the phototelegram.

7.2 If the phototelegram is to be transmitted by a private station, the public station in the origin country that 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 § 7.1 above.

7.3 As soon as the call is established, the interconnected phototelegraph stations proceed to adjust the equipment 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 cooperation, the transmission speed and the direction of traverse;
- b) adjustment of the white signal;
- c) adjustment of the black signal;
- d) phasing;
- e) start;
- f) transmission.

## **8 Faulty transmissions**

8.1 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 of the IPP so that they may take the necessary action to clear the fault or make another circuit available, if possible.

8.2 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.

8.3 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 that 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 services.

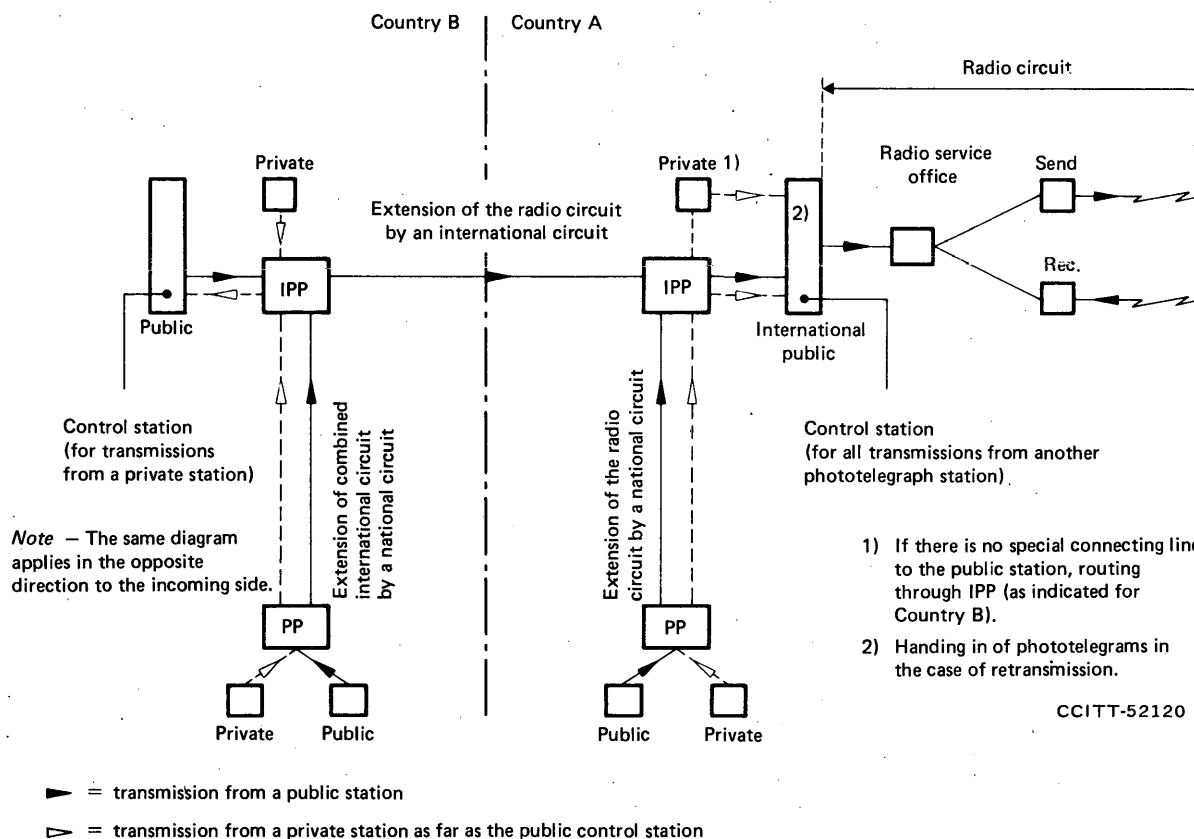


FIGURE 1/F.84  
Phototelegraph transmission over a radio circuit or combined wire and radio circuits

#### References

- [1] *Codes and abbreviations for the use of the international telecommunication services*, 3rd edition, ITU, Geneva, 1975.
- [2] *Radio Regulations*, Article 25, Numbers 2055-2081, ITU, Geneva, 1976 edition, revised in 1979.

#### Recommendation F.85

### RULES FOR INTERNATIONAL PHOTOTELEGRAPH COMMUNICATIONS TO MULTIPLE DESTINATIONS

(Geneva, 1972)

The CCITT,

considering

(a) 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;

(b) 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);

(c) that the participants in a multiple call may be both public stations and private stations (primarily press agencies);

(d) that press agencies are anxious to transmit pictures to their customers (newspaper offices) directly — without retransmission;

(e) that in the case of transmission by series, the agencies also wish to add or disconnect certain customers between two successive transmissions;

(f) that operation over the international part of the collective connection should not be held up by modifications in an incoming country;

*considering further*

(g) that dissemination equipment can be set up either in the offices of Administrations\* or on the premises of private enterprises;

(h) that press agencies operate private phototelegraph networks for their own requirements;

(i) 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*

(j) 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 that are part of the collective link are governed by Recommendations F.82, F.83 and F.84.

## **1 Conditions of acceptance**

1.1 A multiple call may be requested for *primary dissemination* to various destination countries (international dissemination) and for *secondary dissemination* in the incoming countries (national dissemination). Simultaneously a national dissemination in the origin country can be combined with the international dissemination.

1.2 Private stations of a receiving country participating in a multiple call (generally press agencies) are allowed to effect simultaneously with reception *further dissemination* to other private stations (generally newspaper offices).

1.3 *Further dissemination* may be made 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.

1.4 The primary dissemination (including, where necessary, dissemination in the origin country) and the secondary dissemination must be effected by the Administration\* concerned.

1.5 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 § 3.4 below), 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.

1.6 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.

1.7 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 (in accordance with Recommendation F.84).

## **2 Setting up and constitution of a multiple call connection**

2.1 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.

2.2 For relations employing radio circuits, the calling party shall contact the international public station of his country (see § 1.7 above).

2.3 The IPP of the origin country (see Figure 1/F.85, country A) shall inform the IPPs of the destination countries (countries B, C and D) giving the names of the called participants and the time at which the transmission is to take place (see § 5.2 below). 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.

2.4 The incoming IPPs shall arrange, where necessary, to make facilities available for national dissemination to participants in the multiple call (see § 5.3 below). If only one participant is designated in an incoming country (C), the international circuit shall be switched directly to the receiving station in question.

2.5 In relations employing a radio circuit, the outgoing public station, to enable national dissemination facilities to be set up in the incoming 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.

2.6 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.

2.7 An intermediate connection with the international dissemination shall be requested in a transit country (B and X) for destination countries (D and Y) that it is not possible to connect directly with the dissemination effected by the origin country.

2.8 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 farther down the circuit.

2.9 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 refund). 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.

2.10 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).

## **3 Extension of a multiple call**

3.1 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.

3.2 The routing to public network circuits of a phototelegraph transmission received on a leased circuit (see Ag 1 of country D) is not allowed.

3.3 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 farther down the circuit.

3.4 Should an Administration\* ensure itself (see § 1.5 above) 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. 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.

## 4 Speech circuit

4.1 The speech circuit is a leased telephone circuit that provides a direct connection between the site of the transmitting equipment 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 allows timely notice to be given of the end of the multiple call and, further, it is a suitable means for determining exactly the chargeable duration of the call.

4.2 The speech circuit may, however, be replaced by a telephone connection set up from the transmitting station over the general telephone network.

## 5 General provisions

5.1 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.

5.2 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, if need be) of the time at which transmission is to take place.

5.3 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.

5.4 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.

5.5 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 that have arisen. Whatever course the caller decides to take, the part of the call that has taken place will be charged for.

5.6 When a request is made to extend to other relations a call (simple or multiple) that 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.

## 6 Charging

6.1 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:

### 6.2 *Charging for the wire section*

6.2.1 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.

6.2.2 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 destination countries, 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, is independent 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).

6.2.3 The *accessory charge* for secondary dissemination (i.e. to main receiving stations in a destination country) 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 also be 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.

6.2.4 In the case of simple prolongation of an international circuit (country C), a surcharge of four minutes only is levied.

6.2.5 The provisions of § 6.2.3 also apply to the origin country if a national dissemination is effected simultaneously with the international dissemination.

6.2.6 The *total charge* is calculated by the origin country, taking into account the accessory charges communicated by the incoming countries concerned. It shall be collected exclusively from the calling party.

6.2.7 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.

### 6.3 *Charging for the radio section*

6.3.1 If a radio circuit is included in the international dissemination facilities (see § 1.7 above), charges are based on the number of phototelegrams transmitted simultaneously over the radio circuit.

6.3.2 The circuit set up between the control IPP and the public station serving the radio circuit is not subject to charging.

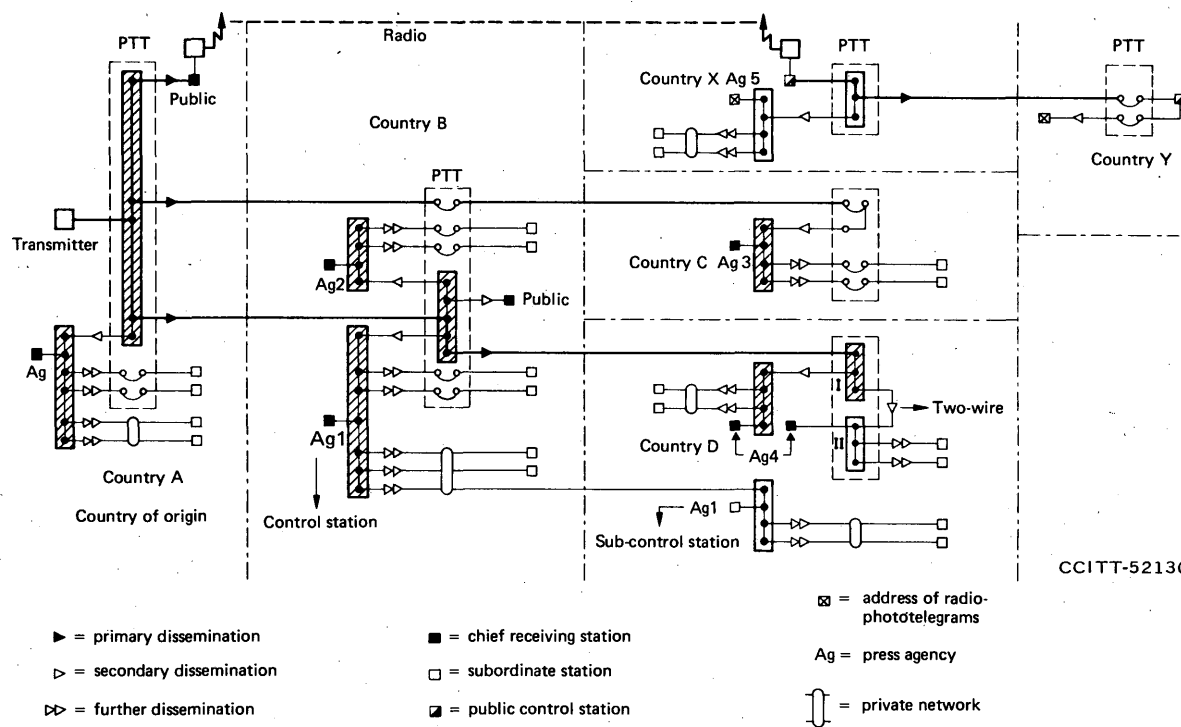
6.3.3 The *total charge* for this part of the multiple call is reckoned by applying the rates for phototelegrams exchanged between the outgoing country and the various destination countries beyond the far terminal of the radio circuit, taking into account the number of addressees in each incoming country.

6.3.4 It shall be fixed entirely by the outgoing control station and collected exclusively from the transmitting station.

6.3.5 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).

### 6.4 *Charging for further dissemination*

6.4.1 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.



CCITT-52130

FIGURE 1/F.85  
Phototelegraph transmissions to multiple destinations

**PAGE INTENTIONALLY LEFT BLANK**

**PAGE LAISSEE EN BLANC INTENTIONNELLEMENT**

## SECTION 7

### STATISTICS AND PUBLICATIONS ON INTERNATIONAL TELEGRAPH SERVICES

#### Recommendation F.91

##### GENERAL STATISTICS FOR THE TELEGRAPH SERVICES

*(formerly CCIT Recommendation F.5, Geneva, 1956;  
amended at Mar del Plata, 1968 and Geneva, 1976)*

The CCITT,

*considering*

(a) that 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 would involve Administrations in more work than is warranted by the usefulness of the information.

(b) that the general statistics should contain only items typical of the telegraph facilities of the country concerned, such as traffic in the public telegram service and the scale of the telex network.

*unanimously recommends*

(1) that the General Secretariat of the Union should gather all the telegraph statistics indicated in the Annex to this Recommendation;

(2) that this information should be published annually;

(3) that this information may be included in a publication containing other statistics requested by other CCITT Recommendations such as the Recommendation C.1 [1].

#### ANNEX A

(to Recommendation F.91)

##### Telegraph statistics for the year . . . .

1. Population of country according to latest census

2. Public telegram service

2.1 Number of national telegrams originated <sup>1</sup>

2.2 Number of full-rate international telegrams originated <sup>1,2</sup>

2.3 Number of international letter-telegrams originated <sup>1</sup>

<sup>1</sup> In thousands of paid telegrams.

<sup>2</sup> Including URGENT telegrams.

3. Telex service

3.1 Number of subscriber lines <sup>3</sup>

3.2 Originated international telex traffic in thousands of chargeable minutes

4. Phototelegram service

4.1 Number of international phototelegrams originated <sup>4</sup>

<sup>3</sup> Lines on which calls are paid (i.e. excluding service and gentex connections) and which have access to the international telex network, whether by direct connection or through translation equipment.

<sup>4</sup> Phototelegrams handed in at a public phototelegraph office either directly or through a private phototelegraph station.

**Reference**

[1] CCITT Recommendation *Yearbook of common carrier telecommunication statistics*, Vol. I, Rec. C.1.

**Recommendation F.92**

**SERVICE CODES**

*(formerly CCIT Recommendation F.6, Geneva, 1956;  
amended at New Delhi, 1960, Geneva, 1972 and 1976)*

The CCITT,

*considering*

(a) that it would be desirable for all codes and abbreviations commonly used in telecommunication services to be published in one book;

(b) 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 ITU General Secretariat;

2 that this publication should be called *Codes and abbreviations for the use of the international telecommunication services* [1];

3 that the contents thereof should be arranged in three main sections, headed *Decoding, Coding and Miscellaneous*;

4 that the contents should comprise in whole or in part the codes or code documents listed below:

4.1 The service indications and service instructions as a whole as shown in CCITT Recommendation F.1;

4.2 The *Q* Code as a whole as shown in the Appendices to the *Radio Regulations* [2];

4.3 The miscellaneous abbreviations and signals as a whole as shown in the Appendices to the *Radio Regulations* [2];

- 4.4 The Phonetic Alphabet and Figure Code as a whole as shown in the Appendices to the *Radio Regulations* [2];
- 4.5 The SINPO Code together with the footnotes as shown in the Appendices to the *Radio Regulations* [2];
- 4.6 The SINPFEMO Code together with the footnotes as shown in the *Radio Regulations* [2];
- 4.7 The tables indicating overall rating for radiotelegraphy and telephony as shown in the Appendices to the *Radio Regulations* [2];
- 4.8 The code expressions used in the international telex service as a whole as shown in CCITT Recommendation F.60;
- 4.9 The service codes and abbreviations to be used in gentex operation as a whole as shown in CCITT Recommendation F.1;
- 4.10 The five-letter code groups as necessary from the former Cable and Wireless Ltd. *Service Code* book;
- 4.11 The Z Code as necessary from the former Cable and Wireless Ltd. *Service Code* book;
- 4.12 The spelling codes for telephone operators as shown in the CCITT *Instructions for the International Telephone Service* [3];

5 that the material in the sections referred to in § 3 above should be set out as follows:

5.1 *Decoding section*

5.1.1 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.

5.1.2 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.

5.2 *Coding section*

This section should comprise:

5.2.1 The five-letter group codes taken from the former Cable and Wireless Ltd. *Service Code*. This material should be alphabetically classified according to the fields of operation in which the codes are used.

5.2.2 A second part, consisting of groups of codes according to the use made of them, thus:

- a) The code expressions used in the international telex service;
- b) The service codes and expressions to be used in gentex operation;
- c) The service indications and service instructions used in the public telegram service;
- d) The miscellaneous abbreviations and signals taken from the *Radio Regulations* [2];

5.2.3 The codes and abbreviations from the foregoing services should be arranged in alphabetical order.

5.3 *Miscellaneous section*

The following should appear in the Miscellaneous section, separately, and each with its own heading:

- a) SINPO Code;
- b) SINPFEMO Code;

- c) Phonetic Alphabet and Figure Code;
- d) Spelling Code for telephone operators;
- e) Q Code as shown in the Appendices to the *Radio Regulations* [2];
- f) Z Code;
- g) Overall rating for radiotelegraphy and radiotelephony;

6 that 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);

7 that Study Group I, being responsible inter alia for the Series F Recommendations on telegraph operation, will periodically undertake the necessary amendments to Recommendation F.92 in the light of new requirements, taking due account of the relevant decisions by Administrative Conferences of the ITU and by Plenary Assemblies of the CCIR and CCITT.

#### References

- [1] *Codes and abbreviations for the use of the international telecommunication services*, 3rd edition, ITU, Geneva, 1975.
- [2] *Radio Regulations*, ITU, Geneva, 1976 edition, revised in 1979.
- [3] CCITT, *Instruction for the international telephone service, (1st October 1981)*, ITU, Geneva, 1981.

#### Recommendation F.93

##### ROUTING TABLE FOR OFFICES CONNECTED TO THE GENTEX SERVICE

*(formerly CCIT Recommendation F.14;  
revised at Geneva, 1958 and 1976)*

The CCITT,

in view of Recommendation F.20, § 4,

*considering*

that gentex offices need information about the routing of traffic to the offices connected to the gentex service.

*unanimously declares the view*

(1) that the ITU General Secretariat should issue a document containing the routing lists supplied by the countries connected to the gentex service, in accordance with Recommendation F.20, § 4.;

(2) that changes in these lists, if notified after this document is published, should be communicated by means of the ITU *Operational Bulletin*.

TABLE OF INTERNATIONAL TELEX RELATIONS AND TRAFFIC

(formerly CCIT Recommendation H.12, 1954; amended at Geneva, 1964,  
Mar del Plata, 1968 and Geneva, 1976)

The CCITT,

*considering*

(a) that Resolution No. 4 of the *World Administrative Telegraph and Telephone Conference* (Geneva, 1973) [1] lays down that the General Secretariat should publish, among other things, a list of telex circuits and a list of telex routes;

(b) that it would be of interest to compile the following particulars for each telex relation in one and the same list: routing, number of circuits available in the relation for direct routing (i.e. without switching in a transit country), itinerary and type of circuits, mode of operation and outgoing traffic in the relation;

*unanimously declares the following view*

1 All Administrations of countries taking part in the international telex service should submit to the Secretary-General of the ITU, 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 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 This list should be prepared on the basis of the annexed 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* [2].



## ANNEX A

(to Recommendation F.95)

Year.....<sup>4</sup>

**List of international telex relations and outgoing traffic for Switzerland and the Principality of Liechtenstein<sup>1,2</sup>**  
 Number of subscriber lines<sup>3</sup> on 31 December ...<sup>4</sup>

Relation to <sup>5</sup>	Routing <sup>6</sup>		Number of circuits <sup>9,10</sup>						Operating Mode for outgoing calls <sup>11</sup>	Annual outgoing traffic in chargeable minutes
	Direct or Transit <sup>7</sup>	Transit network or international transit exchange <sup>8</sup>	Outgoing only			Bothway				
			Cable	Radio	Satellite	Cable	Radio	Satellite		
1	2	3	4	5	6	7	8	9	10	11
Abu Dhabi	Tr	Bahrain	-	-	-	-	-	-	S	7635
Alaska	Tr	New York	-	-	-	-	-	-	S	165
Algeria	D	Forf.	7	-	-	-	-	-	A	85171
Austria	D	-	39	-	-	-	-	-	A	1781670
Bangladesh	D	Forf.	-	-	-	-	-	1	M	7119
Belgium	D	Forf.	41	-	-	-	-	-	A	2051921
Canada	D	Forf.	6	-	11	4	-	5	A	234674
Finland	D	Forf.	12	-	-	-	-	-	A	368539
Senegal	Tr	Paris	-	-	-	-	-	-	S	20881
Czechoslovakia	D	Forf.	11	-	-	-	-	-	A	234563
Tunisia	D	Forf.	5	-	-	-	-	-	A	58721
Zaire	Tr	Brussels	-	-	-	-	-	-	S/M	23442

<sup>1</sup> The list should be prepared by and for every country (in the sense of a geographical entity) that provides outgoing international telex traffic.

<sup>2</sup> 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.

<sup>3</sup> Lines on which calls are paid (i.e. excluding service and gentex connections) and which have access to the international telex network, whether by direct connection or through translation equipment.

<sup>4</sup> Statistical year.

<sup>5</sup> The relations should be listed in French alphabetical order (reference should be made to the *List of Addresses* [3] issued by the General Secretariat).

<sup>6</sup> Both primary and secondary (but not emergency) routes should be shown where appropriate.

<sup>7</sup> For direct circuits, insert D in this column, otherwise insert Tr.

<sup>8</sup> If direct circuits (D), show the transit countries taking part in the distribution of telex charges in the relation, use the telex network identification codes of the networks concerned, but if they are telex circuits charged on a lump sum basis, insert Forf. For transit relations (Tr) show only the location of the first international transit centre traversed after leaving the origin country and, where more than one network operates in that transit location, the particular network should be indicated by adding its telex network identification code in brackets.

<sup>9</sup> Mention the number only in respect of a direct relation (i.e. without switching in any other countries that may be crossed).

<sup>10</sup> 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 HF radio or satellite. In the *Radio* column, indicate the number of circuits making use of an HF radio path.

<sup>11</sup> Show the operating mode for all relations in the outgoing country by one of the following abbreviations:

A — Automatic — subscribers can select subscribers in the other country directly.

S — Semi-automatic — the operator selects subscribers in the destination country manually.

M — Manual — intervention by at least two operators is required.

## References

- [1] *Final Acts of the World Administrative Telegraph and Telephone Conference, Telegraph Regulations, Telephone Regulations*, Resolution No. 4, ITU, Geneva, 1973.
- [2] *Table of international telex relations and traffic*, ITU, Geneva, (yearly publication).
- [3] *List of addresses of administrations, recognized private operating agencies, international or regional organizations concerned with telecommunications, and scientific or industrial organizations participating in CCI activities*, 6th edition, ITU, Geneva, 1979.

## LIST OF DESTINATION INDICATORS

(Geneva, 1964; amended at Geneva, 1972, 1976 and 1980)

The CCITT,

*considering*

that to facilitate the operation of the 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;

*unanimously declares the following view*

1 A destination indicator must be assigned to each office directly connected with the telegram retransmission system. Offices handling a large amount of international traffic should also be assigned a destination indicator. In each country at least one destination indicator (an *all others* indicator) must be chosen for offices not assigned their own destination indicator.

2 Each destination indicator consists of four letters. The first two letters<sup>1)</sup> characterize, in a uniform way, a particular destination country or a particular network in the destination country. The third and fourth letters characterize the office of destination in that country or network. An additional combination of the first and second letters is required for an *unrouted* indicator in countries where there are competing networks to allow for the case where the office of origin has no special preference for routing a telegram over a specific network.

### 3 Particular combinations

3.1 The last letter of an *all others* indicator will always be X.

3.2 Where there is only one indicator for all the offices in a country, the last two letters should be XX.

3.3 The combinations SV, MV, XQ and YQ as the third and fourth letters of indicators should preferably be reserved for the segregation of particular types of telegram at gateway cities or at major international telegraph offices. (See Recommendation F.31, §§ 2.2.3 and 4.5 on the use of such special combinations, among other things, in origin indicators and in destination indicators for return service advices.)

3.4 Destination indicators having ZZ as the third and fourth letters should be strictly reserved for automatic service advices, which are designed to trigger an automatic action at a connected telegram retransmission centre. (See Recommendation F.31, § 11.3.)

---

<sup>1)</sup> As noted in Recommendation F.68, for Administrations\* using two-character telex network identification codes, these codes should be the same as the first two characters used to characterize their country (or network) in their destination codes for the telegram retransmission system.

3.5 Destination indicators having **X** as the first letter should not be allocated to any specific destination country or network. The destination indicator **XQXQ** is reserved for use in emergency broadcast messages described in Recommendation F.31, § 11.6.

#### **4 Structure of the List**

4.1 A list of destination indicators will be maintained by the Secretary-General in accordance with notifications by Administrations\*.

4.2 As far as possible the whole of the four-letter destination indicators should be such that any indicator differs in at least two letters from any other.

4.3 Discontinued country (or network) indicators shall not be reallocated for a period of at least two years.

4.4 Offices connected directly with the telegram retransmission system are specially identified in the *List*.

4.5 Origin indicators for the special use of Administrations\* in accordance with § 2.2.3 of Recommendation F.31 should be included in a separate part of the *List*.

4.6 Another part should list two-letter indicators to be used in the preamble line of **ETATPRIORITENATIONS**, **ETATPRIORITE** or **ETAT** telegrams to designate international organizations (see provision A277 in Recommendation F.1).

#### **5 Publication**

5.1 The *List* will be issued and sold through the General Secretariat of the Union.

5.2 It will be kept up to date by means of amendments published in the ITU *Operational Bulletin*. The amendments will become effective on the first day of the third month following publication.

## SECTION 8

### SCHEDULED AND LEASED COMMUNICATION SERVICES

#### Recommendation F.100

##### SCHEDULED RADIOCOMMUNICATION SERVICE

*(formerly Chapter XXVII of the Telegraph Regulations,  
Geneva Revision, 1958; Geneva, 1972)*

The CCITT,

*unanimously declares the view*

that the following rules be adopted for the scheduled radiocommunication service.

#### 1 General

1.1 These rules are to be observed in the scheduled radiocommunication service in which radiocommunications are transmitted to one or more destinations.

1.2 Only those senders and addressees who satisfy the provisions and conditions agreed between the Administrations\* concerned shall be allowed to participate in this service.

#### 2 Conditions of acceptance

2.1 Transmissions over the scheduled radiocommunication service must consist only of information and news relating to politics, commerce, etc., and must contain no communication of a private nature and no messages on behalf of third parties. They may include, however, brief indications as to how they should be passed on and to whom, provided that the time required to transmit them does not exceed 5 per cent of the total time taken to transmit the information or news, or, where appropriate, 5 per cent of the number of words of which the information or news consists.

2.2 The sender shall communicate to the Administration of the country of emission the addresses of any intended recipient or recipients.

2.3 The radiocommunications may be expressed either in plain language or in secret language, as decided by the Administrations of the countries of emission and of reception. In the absence of special arrangements between the Administrations concerned, the only languages authorized for plain language shall be French, one of the languages designated by the country of origin or one of the languages of one of the countries of reception. The Administrations of the countries of emission and of reception shall reserve to themselves the right to require the deposit of the codes used.

2.4 The radio transmissions shall bear, as the address, an arbitrary word placed immediately before the text.

### **3 Conditions of transmission**

3.1 The Administration of the country of emission shall communicate to the other Administrations the address of any person residing in their territory for whom the radiocommunications are intended. It shall notify, in addition, in respect of each addressee, the date fixed for the first reception, the name of the emitting station and the address of the sender. The Administrations shall notify one another of any changes which occur in the number and the addresses of the senders and recipients.

3.2 Where the services are operated by recognized private operating agencies, Administrations may authorize such agencies to communicate the notifications required under the preceding paragraph.

3.3 Each Administration shall take, as far as is practicable, suitable measures to ensure that only the stations authorized for this special service of communication make use of the radiocommunications in question and then only of those intended for them. The provisions of the Convention relating to the secrecy of telecommunications shall apply to these radiocommunications.

3.4 These radiocommunications shall be transmitted at fixed times.

### **4 Conditions of reception**

4.1 The Administration of the country of reception shall decide whether reception shall be permitted in its country. It may authorize the direct reception of such communications by the addressees designated by the sender or may itself make reception equipment available to the addressees to this end. It shall notify the Administration of the country of emission of the conditions under which reception takes place.

### **5 Charging**

5.1 The charge to be collected from the sender shall be fixed by the Administration of the country of emission.

5.2 Apart from any charges levied for the establishment and working of private receiving stations or for the lease of receiver equipment, the addressees of these radiocommunications may be subjected by the Administration of their country to the payment of a receiver charge, the amount and method of assessment of which shall be decided on by that Administration.

5.3 The charges for these radiocommunications shall not enter into the international accounts.

## SECTION 9

### MARITIME MOBILE SERVICE

#### Recommendation F.110<sup>1)</sup>

#### OPERATIONAL PROVISIONS FOR THE MARITIME MOBILE SERVICE

*(Provisionally adopted 1977; amended at Geneva, 1980)*

##### *Introductory Notes*

1 Pursuant to Resolutions Nos. Mar2 – 22 and Mar2 – 23 and Recommendation Mar2 – 18 of the *World Administrative Maritime Radio Conference* [1], the CCITT drew up Recommendations F.110 and D.90/F.111 concerning operational and accounting provisions for the Maritime Mobile Service. Having accepted the conclusions of the CCITT studies, the *World Administrative Radio Conference* [2], adopted texts dealing with the basic principles on operating and accounting procedures, leaving the detailed application of these principles to be covered by CCITT Recommendations.

2 Article 66 (No. 5085) of the *Radio Regulations* [3] specifies that the provisions of the *Telegraph Regulations* [4] and the *Telephone Regulations* [4], taking into account CCITT Recommendations, shall apply to radiocommunications in so far as the relevant provisions of the *Radio Regulations* do not provide otherwise.

3 Since, in accordance with Article 69 of the *Radio Regulations* [3], Article 66 enters into force on 1 January 1981, the provisions of this Recommendation shall also be applicable from that date.

4 Marginal reference numbers are shown in italics (e.g. A21) for those provisions that parallel the *Radio Regulations* [3]. References commencing with the letters J, K, L and M concern provisions in Divisions J, K, L and M respectively of Recommendation D.90/F.111 entitled *Charging, accounting and refunds in the Maritime Mobile Service*.

5 For the purpose of this Recommendation the term *Maritime Mobile Service* should be understood to embrace the Maritime Mobile-Satellite Service as well as the MF, HF, VHF and UHF radio media, unless specifically stated otherwise.

6 Throughout this Recommendation the asterisk (\*) used after *Administration(s)* means that recognized private operating agency/agencies are included. However, where this reference is made in respect of notification by Administrations to the General Secretariat of the ITU, this applies only to recognized private operating agencies that have been authorized by Administrations to carry out such notification.

7 For the purpose of this Recommendation, the terms *mobile station* and *land station* should be considered as analogous to *ship station* and *coast station* respectively used in the *Radio Regulations* [3].

<sup>1)</sup> This Recommendation is also included in the Series E Recommendations under the number E.200 (Fascicle II.2).

## CONTENTS

### DIVISION A — *General*

- 1 *Definitions*
- 2 *Order of priority*

### DIVISION B — *Radiotelegrams*

- 1 *Preparation and handing-in of radiotelegrams*
  - 1.1 Plain language
  - 1.2 Indication of station of origin
  - 1.3 Use of accounting authority identification codes by mobile stations
  - 1.4 Time of handing-in
  - 1.5 Address
- 2 *Counting of words*
- 3 *Routing of radiotelegrams*
- 4 *Transmission of radiotelegrams*
  - 4.1 Doubtful reception
  - 4.2 Long-distance radiocommunications
  - 4.3 Routine retransmission by mobile stations
  - 4.4 Period of retention of radiotelegrams at land stations
- 5 *Advice of nondelivery*
- 6 *Radiomaritime letters*
- 7 *Special services*
- 8 *Special conditions relating to the maritime mobile-satellite service*

### DIVISION C — *Radiotelex*

- 1 *General*
  - 1.1 Routing of calls
  - 1.2 Information to be supplied, as necessary, by the calling party
  - 1.3 Call duration
  - 1.4 Validity of requests
  - 1.5 Exchange of radiotelegrams by radiotelex
- 2 *Traffic from mobile stations*
  - 2.1 Manual service
  - 2.2 Single-operator service
  - 2.3 Semiautomatic service
  - 2.4 Automatic service
  - 2.5 Procedures
- 3 *Traffic to mobile stations*
  - 3.1 Manual procedure
  - 3.2 Single-operator procedure
  - 3.3 Semiautomatic procedure
  - 3.4 Automatic procedure

## DIVISION D – Radiotelephone

### 1 General

- 1.1 Language to be used
- 1.2 Priority
- 1.3 Routing of calls
- 1.4 Information to be supplied by the calling party
- 1.5 Call duration
- 1.6 Validity of requests
- 1.7 Exchange of radiotelegrams by radiotelephony

### 2 Traffic from mobile stations

- 2.1 Manual service
- 2.2 Single-operator service
- 2.3 Semiautomatic service
- 2.4 Automatic service
- 2.5 Procedures

### 3 Traffic to mobile stations

- 3.1 Manual procedure
- 3.2 Single-operator procedure
- 3.3 Semiautomatic procedure
- 3.4 Automatic procedure

## DIVISION A

### GENERAL

#### 1 Definitions

A1 1.1 The **controlling operator** is the first land-based operator handling the radiotelegram, radiotelex call or radiotelephone call in the direction from mobile station.

A2 1.2 *Accounting authority identification code*

For the meaning of this term see J2.

A3 to A20 not allocated

#### 2 Order of priority

A21 2.1 The order of priority for communications<sup>2)</sup> in the maritime mobile service shall be as follows, except where impracticable in a fully automated system in which, nevertheless, communications described in A22 shall receive priority.

A22 a) Distress calls, distress messages and distress traffic;

A23 b) Communications preceded by the urgency signal;

A24 c) Communications preceded by the safety signal;

<sup>2)</sup> The term *communications* as used in A21 to A32 means radiotelegrams, radiotelephone calls and radiotelex calls.



- A25 d) Communications relating to radio direction-finding;
- A26 e) Communications relating to the navigation and safe movement of aircraft engaged in search and rescue operations;
- A27 f) Communications relating to the navigation, movements and needs of ships, and weather observations messages destined for an official meteorological service;
- A28 g) Radiotelegrams relative to the application of the United Nations Charter (**ETATPRIORITE-NATIONS**);
- A29 h) Government radiotelegrams with priority (**ETATPRIORITE**) and government calls for which priority has been expressly requested;
- A30 i) Service communications relating to the working of the telecommunication service or to communications previously exchanged;
- A31 j) Government communications other than those shown in A29, ordinary private communications, RCT radiotelegrams and press radiotelegrams;
- A32 k) Radiomaritime letters.

## DIVISION B

### RADIOTELEGRAMS

#### 1 Preparation and handing-in of radiotelegrams

##### 1.1 Plain language

- B1 1.1.1 Groups of letters and figures from the *International Code of Signals* are considered as plain language in radiotelegrams.

##### 1.2 Indication of station of origin

- B2 1.2.1 When, because of duplication of names, the name of a station is followed by its call sign, the latter shall be joined to the name of the station by a fraction bar.

Examples: **OREGON/OZOC** (not **OREGONNOZOC**);  
**ROSE/DDOR** (not **ROSEDDOR**).

- B3 1.2.2 When a land station retransmits a radiotelegram received from a mobile station, it shall transmit, as office of origin, the name of the mobile station in which the radiotelegram originated as this name appears in the appropriate list of stations, followed by its own name. Where appropriate, B2 shall also apply.

- B4 1.2.3 In order to avoid any confusion with a telegraph office or a fixed station of the same name, the land station may, if desirable, complete the indication of the name of the mobile station of origin by the word **SHIP** or **AIRCRAFT**, placed before the station of origin.

##### 1.3 Use of accounting authority identification codes by mobile stations

- B5 1.3.1 The mobile station operator should, as a standard operating procedure, give the *accounting authority identification code* (AAIC) at the end of the preamble line. If the AAIC is missing, the land station operator should request **QRC?**

#### 1.4 *Time of handing-in*

B6 1.4.1 In the transmission of radiotelegrams originating in a mobile station, the date and time of handing-in at this station are given by two groups of figures in the preamble line, the first indicating the day of the month (1 to 31) and the second consisting of a group of figures (0000 to 2359) indicating the hours and the minutes.

B7 1.4.2 The time of handing-in is indicated in Coordinated Universal Time (UTC).

*Note* – For practical operating purposes, UTC may be considered as equivalent to Greenwich Mean Time (GMT).

#### 1.5 *Address*

B8 1.5.1 The address of radiotelegrams destined for mobile stations must be as complete as possible and must include:

- B9 a) the name or the designation of the addressee, with supplementary particulars, if necessary;
- B10 b) the name of the mobile station followed, when necessary, by its call sign, the latter joined by a fraction bar to the name of the station as shown in the *List of Ship Stations* [5];
- B11 c) the name of the land station through which the radiotelegram is to be forwarded, as it appears in the appropriate list of stations.

B12 1.5.2 If the mobile station does not appear in the *List of Ship Stations* [5], the sender should, if possible, indicate the nationality and route followed by the mobile station.

B13 1.5.3 However, the name and call sign required under B10 may be replaced, at the risk of the sender, by particulars of the passage made by such mobile station, indicated by the names of the ports or airports of departure and of destination, or by any equivalent indication.

B14 1.5.4 Mobile stations not supplied with the international *List of Telegraph Offices* [6] may add to the name of the telegraph office of destination:

- the name of the territorial subdivision,
- the destination or country,
- both of the above,

if it is doubtful whether, without such addition, the radiotelegram could be correctly routed without difficulty.

B15 1.5.5 The controlling operator retains or deletes the particulars in B14 or further amends the name of the office of destination as is necessary or sufficient for forwarding the radiotelegram to its proper destination.

## 2 **Counting of words**

B16 2.1 The word count of the office of origin is decisive in the case of radiotelegrams destined for mobile stations, and that of the controlling operator is decisive in the case of radiotelegrams originating in mobile stations.

B17 2.2 If two land stations participate in the handling of a radiotelegram, the decision of the controlling operator accepting the radiotelegram from the originating mobile station will prevail and will be valid for international accounting.

## 3 **Routing of radiotelegrams**

B18 3.1 Radiotelegrams should be routed via the land station that is considered most suitable in relation to the mobile station concerned.

- B19 3.2 However, to expedite or to facilitate the routing of radiotelegrams to a land station, a mobile station may transmit them to another mobile station. The latter shall dispose of such radiotelegrams in the same manner as if they originated with itself (see B39 to B42).
- B20 3.3 If the sender of a radiotelegram handed in at a mobile station has indicated the land station to which he desires his radiotelegram to be sent, the mobile station shall, in order to effect this transmission to the land station indicated, wait, if necessary until the conditions specified in B18 and B19 are fulfilled.
- B21 3.4 In order to facilitate disposal of traffic, and subject to such restrictions as individual Administrations may impose, land stations may, in exceptional circumstances and with discretion, without incurring additional charges, exchange radiotelegrams and service messages relating thereto.

#### **4 Transmission of radiotelegrams**

##### **4.1 Doubtful reception**

- B22 4.1.1 In the mobile service, when communication becomes difficult, the two stations in communication should make every effort to complete the radiotelegram in course of transmission. The receiving station may request not more than two repetitions of a radiotelegram of which the reception is doubtful.
- B23 4.1.2 If this triple transmission is ineffective, the radiotelegram is kept on hand in case a favourable opportunity for completing its transmission occurs.
- B24 4.1.3 If the transmitting station considers that it will not be possible to re-establish communications with the receiving station within twenty-four hours, it proceeds as follows:
- B25 4.1.4 If the transmitting station is a mobile station, it immediately informs the sender of the reason for the non-transmission of his radiotelegram. The sender may then request:
- B26 a) that the radiotelegram be transmitted through another land station or through other mobile stations; or
- B27 b) that the radiotelegram be held until it can be transmitted without additional charge; or
- B28 c) that the radiotelegram be cancelled.
- B29 4.1.5 If the transmitting station is a land station, it applies the provisions of B43 to B54 to the radiotelegram.
- B30 4.1.6 When a mobile station subsequently transmits a radiotelegram thus held to the land station that incompletely received it, this new transmission must bear the service instruction **AMPLIATION** at the end of the preamble line of the radiotelegram.
- B31 4.1.7 However, if the radiotelegram is transmitted to another land station subject to the same Administration\*, the new transmission must bear, at the end of the preamble line, the service instruction **AMPLIATION VIA ...** (insert here the call sign of the land station to which the radiotelegram was transmitted in the first instance) and the Administration\* in question may claim only the charges relating to a single transmission.
- B32 4.1.8 The other land station, which thus forwards the radiotelegram, may claim from the mobile station of origin any additional charges resulting from the transmission of the radiotelegram between itself and the office of destination.
- B33 4.1.9 When the land station designated in the address as the station by which the radiotelegram is to be forwarded cannot reach the destination mobile station and has reason to believe that such mobile station is within the service area of another land station of the Administration\* to which it is itself subject, it may, if no additional charge is incurred thereby, forward the radiotelegram to this other land station.

- B34 4.1.10 A station of the mobile service that has received a radiotelegram and has been unable to acknowledge its receipt in the usual way, must take the first favourable opportunity to give such acknowledgement.
- B35 4.1.11 When the acknowledgement of receipt of a radiotelegram transmitted between a mobile station and a land station cannot be given direct, it is forwarded through another mobile or land station by service advice if the latter is able to communicate with the station that has transmitted the radiotelegram in question. In any case, no additional charge shall result.

#### 4.2 *Long distance radiocommunications*

- B36 4.2.1 Administrations\* reserve the right to organize a long-distance radiocommunication service between land stations and mobile stations, with deferred acknowledgement of receipt or without any acknowledgement of receipt.
- B37 4.2.2 Each Administration\* designates the land station or stations participating in the long-distance radio service. An indication to this effect shall appear in the *List of Coast Stations* [7].
- B38 4.2.3 When there is doubt about the accuracy of any part of a radiotelegram transmitted under either of the systems mentioned in B36, the indication *doubtful reception* is entered on the copy delivered to the addressee, and the doubtful words or groups of words are underlined. If words are missing, blanks are left in the places where these words should be.

#### 4.3 *Routine retransmission by mobile stations*

- B39 4.3.1 When a land station cannot reach the mobile station for which a radiotelegram is destined, the land station may, in order to forward the radiotelegram to its destination, have recourse to the help of another mobile station provided that the latter consents. The radiotelegram is then transmitted to this other mobile station. The help of the latter is given free of charge.
- B40 4.3.2 The same provision is also applicable to traffic from mobile stations to land stations, when necessary.
- B41 4.3.3 The station assisting in the free retransmission in accordance with B39 and B40 must enter the service abbreviation **QSP** ... (name or call sign of the mobile station) at the end of the preamble line of the radiotelegram.
- B42 4.3.4 In order that a radiotelegram thus forwarded may be considered as having reached its destination, the station that has made use of this indirect route must have obtained the regular acknowledgement of receipt, either direct or by an indirect route, from the mobile station for which the radiotelegram was destined or from the land station to which it was to be forwarded, as the case may be.

#### 4.4 *Period of retention of radiotelegrams at land stations*

- B43 4.4.1 When it has not been possible for a land station to transmit a radiotelegram to a mobile station by the morning of the fifth day (not including the day of handing-in), the land station treats the radiotelegram as undelivered and notifies the sender accordingly.
- B44 4.4.2 The sender of a radiotelegram destined for a mobile station may specify the number of days during which the land station may hold the radiotelegram. In that case, the service indication **Jx** (x days), specifying the number of days (ten at the most) exclusive of the day of handing-in of the radiotelegram, shall be shown before the address. When it has not been possible for a land station to transmit a radiotelegram bearing the service indication **Jx** within the prescribed period, the land station treats the radiotelegram as undelivered and informs the sender accordingly.
- B45 4.4.3 For the refund of charges to the sender, see provision C38 in Recommendation F.42.
- B46 4.4.4 The periods mentioned in B43 and B44 shall be ignored if the land station is sure that the mobile station will soon come within its service area.

- B47 4.4.5 On the other hand, the lapse of those periods is not awaited when the land station is sure that the mobile station, being in course of a voyage, either has definitely left its service area or will not enter it.
- B48 4.4.6 If there is reason to believe that no other land station of the Administration\* to which it is subject is or will be in touch with it, the land station cancels the radiotelegram as far as concerns the section between itself and the mobile station and informs the office of origin, which notifies the sender.
- B49 4.4.7 In the contrary case, the land station forwards the radiotelegram to the land station believed to be in touch with the mobile station, provided, however, that no additional charge results therefrom.
- B50 4.4.8 The land station that carries out the redirection alters the address of the radiotelegram by placing after the name of the mobile station that of the new land station charged with the transmission and adding at the end of the preamble line the service instruction **REDIRECTED FROM ... RADIO**, which must be transmitted throughout the course of the radiotelegram.
- B51 4.4.9 If, within the limits of the requisite period of retention of radiotelegrams, the land station that has redirected a radiotelegram to another land station is subsequently in a position to transmit the radiotelegram direct to the destination mobile station, it does so by inserting the service instruction **AMPLIATION** at the end of the preamble line.
- B52 4.4.10 It shall then transmit to the land station to which the radiotelegram had been redirected a service advice informing the latter of the transmission of the said radiotelegram.
- B53 4.4.11 When a radiotelegram cannot be transmitted to a mobile station owing to the arrival of the latter in a port near the land station, the latter station may, according to circumstances, forward the radiotelegram to the mobile station by other means of communication, at the same time informing the office of origin by service advice of the delivery.
- B54 4.4.12 In this case (B53), the land station charge is retained by the Administration\* to which the land station is subject and the mobile station charge is refunded to the sender by the origin Administration\*.

## **5 Advice of nondelivery**

- B55 5.1 When, for any reason, a radiotelegram originating in a mobile station and destined for a place on land cannot be delivered to the addressee, an advice of non-delivery is addressed to the land station or the telegraph office that received the radiotelegram.
- B56 5.2 After checking the address, the land station forwards the advice, when possible, to the mobile station, if necessary by way of another land station of the same country or of a neighbouring country, as far as existing conditions or special agreements permit.
- B57 5.3 When a radiotelegram received at a mobile station cannot be delivered, that station so informs the office or mobile station of origin by a service advice.
- B58 5.4 In the case of a radiotelegram originating on land, this service advice is sent, whenever possible, to the land station through which the radiotelegram passed, or, if necessary, to another land station of the same country or of a neighbouring country, as far as existing conditions or special arrangements permit.
- B59 5.5 In such cases the name or call sign of the station from which the radiotelegram was received is quoted.

## **6 Radiomaritime letters**

- B60 6.1 Each Administration\* may organize a service of radiomaritime letters between mobile stations and its land stations.
- B61 6.2 Such correspondence is transmitted by radio between the mobile and the land stations.

- B62 6.3 They may be forwarded on the land section:
- B63 a) wholly or partly by post (ordinary or airmail);
- B64 b) exceptionally by telegraph, in which case delivery is subject to the periods of delay fixed for letter telegrams.
- B65 6.4 Radio retransmission of radiomaritime letters is not permitted in the mobile service.
- B66 6.5 Radiomaritime letters shall be addressed only to places in the country in which the land station is situated, unless it is indicated in the *List of Coast Stations* [7] that the station concerned will accept such traffic for onward transmission by post to places in other countries.
- B67 6.6 Radiomaritime letters bear the service indication **SLT**. This indication precedes the address.
- B68 6.7 Except as otherwise provided in B60 to B70, radiomaritime letters may be accepted, taking into account CCITT Recommendations relating to letter telegrams, if the telegram service is used to convey radiomaritime letters.
- B69 6.8 The address must enable delivery to be effected without enquiry or requests for information. Registered or abbreviated addresses are admitted when, exceptionally, radiomaritime letters are forwarded telegraphically on the land section.
- B70 6.9 Radiomaritime letters rank, for radio transmission, after ordinary radiotelegrams on hand. Those that have not been transmitted within 24 hours of handing-in are sent concurrently with ordinary radiotelegrams.

## **7 Special services**

- B71 7.1 Telegrams with special services are admitted, provided that the Administrations\* concerned accept them.
- B72 7.2 Refer to Recommendation F.1, A362 to A422 for the provisions concerning special services that may be applied for telegrams.

## **8 Special conditions relating to the Maritime Mobile-Satellite Service**

- B73 8.1 In the Maritime Mobile-Satellite Service the transmission of radiotelegrams should normally be permitted by radiotelex only.
- B74 8.2 The radiotelegram service in B73 should be arranged in such a way that automatic retransmission is possible.

# **DIVISION C**

## **RADIOTELEX**

### **1 General**

#### **1.1 Routing of calls**

- C1 1.1.1 A radiotelex call should be set up via the land station that is considered most suitable in relation to the mobile station concerned.
- C2 1.1.2 For radiotelex calls in the direction land station to mobile station, the caller should give the geographical position if possible and may also indicate the land station to be used. Such requests should be respected as far as is practicable.

C3 1.1.3 For radiotelex calls in the direction mobile station to land station, the mobile station shall call the land station it desires to use. The land station shall either handle the call itself or advise the mobile station to use another land station that is more suitable to the mobile station.

1.2 *Information to be supplied, as necessary, by the calling party*

C4 1.2.1 Calls to a mobile station:

- a) telex number and/or answer-back code of the calling subscriber;
- b) telex number of the mobile station;
- c) name or call sign of the mobile station;
- d) telex number and/or name of the land station to be used, or the approximate geographical position of the mobile station.

C5 1.2.2 Calls from a mobile station:

- a) telex number of the mobile station;
- b) the *accounting authority identification code (AAIC)* in the single-operator or manual service (see Annex A to Recommendation F.111);
- c) destination country and/or network;
- d) called subscriber's telex number and/or answer-back code.

1.3 *Call duration*

C6 1.3.1 The chargeable duration of a call will be fixed at the end of the call:

- a) in the direction from mobile station by the controlling operator;
- b) in the direction to mobile stations:
  - by the land station operator in manual and single-operator service;
  - by the operator of the international position of the outgoing country in the semiautomatic service.

C7 1.3.2 If two land stations participate in the handling of the call, the opinion of the land station that has accepted the call from the originating mobile station shall prevail.

C8 1.3.3 When, through any fault of the service, difficulty is experienced in the course of a call, the chargeable duration shall be reduced automatically or manually to the total time during which transmission conditions were satisfactory, taking into account CCITT Recommendations (F.60 and F.61).

1.4 *Validity of requests*

C9 1.4.1 If it becomes obvious that the required mobile station cannot be reached by the land station, the caller should be informed as soon as possible in order to have the call cancelled.

C10 1.4.2 In an automatic service any information concerning the failure to set up a call shall be sent back to the calling subscriber. The standardized expressions and abbreviations will be used to account for this failure.

1.5 *Exchange of radiotelegrams by radiotelex*

C11 1.5.1 Stations of the Maritime Mobile Service that are equipped for radiotelex may transmit and receive radiotelegrams by means of radiotelex.

C12 1.5.2 Stations of the Maritime Mobile-Satellite Service should normally transmit and receive radiotelegrams by means of radiotelex only.

## **2 Traffic from mobile stations**

### **2.1 Manual service**

- C13 2.1.1 The land station operator applies manual procedures if single-operator (C14), semiautomatic (C15) or automatic working (C16) is not possible.

### **2.2 Single-operator service**

- C14 2.2.1 The land station operator selects the called subscriber directly via the automatic telex network if semiautomatic (C15) or automatic working (C16) is not possible.

### **2.3 Semiautomatic service**

- C15 2.3.1 The telex operator of the international exchange of the land station country selects the called subscriber directly if automatic procedures (C16) cannot be applied.

### **2.4 Automatic service**

- C16 2.4.1 Whenever possible, automatic procedures should be used; i.e. the calling subscriber should contact the called subscriber directly without the aid of an operator.
- C17 2.4.2 After connection with the desired land station is established, the mobile station should select directly the appropriate telex destination code (Recommendation F.69) and the number of the subscriber of an Administration's\* telex network.

### **2.5 Procedures**

- C18 2.5.1 The manual, semiautomatic and automatic procedures for the terrestrial telex network, as laid down in Recommendation F.60 and F.61, should be taken into account.

## **3 Traffic to mobile stations**

### **3.1 Manual procedure**

#### **3.1.1 Booking**

- C19 3.1.1.1 The subscriber should make his booking at the international telex centre of the outgoing country or network.
- C20 3.1.1.2 If conditions permit, the international telex position should select the foreign land station in question directly. Otherwise the international telex position of the land station country should be selected to give the necessary assistance to obtain contact with the land station in question.

#### **3.1.2 Setting-up**

- C21 3.1.2.1 The land station operator obtains the caller directly or with the assistance of his own international telex position, which selects the caller. Otherwise he selects his own international telex position in order to be connected to the international telex position of the outgoing country, which then selects the caller.
- C22 3.1.2.2 Within 24 hours of the call's termination, the land station shall pass the following information to the international telex centre of the origin country, where it is recorded for charging and accounting purposes:
- a) the calling subscriber's telex number;
  - b) the mobile station's call sign;
  - c) the chargeable duration of the call;
  - d) the land station charge to be collected;
  - e) the mobile station charge to be collected.



3.2 *Single-operator procedure (direct access by the calling subscriber to a foreign land station)*

3.2.1 *Booking*

- C23 3.2.1.1 The subscriber selects the foreign land station in question using automatic direct selection and submits the call details to the land station operator.
- C24 3.2.1.2 Where an Administration\* permits its subscribers to book a call directly with a land station in another country, the charges set by the land station must be levied by the calling subscriber's Administration\*.
- C25 3.2.1.3 In addition to the information in C4, the calling subscriber must designate his national telex network.
- C26 3.2.1.4 As an alternative to C24 and C25, land stations may accept direct calls from foreign subscribers provided that the calling subscriber supplies the name and address of a party in the land station's country that will take responsibility for the payment of charges.
- C27 3.2.1.5 The procedures described in C24 and C26 may only be applied when an appropriate bilateral agreement exists between the two Administrations\* concerned. If such an agreement does not exist, the land station should refuse such calls to avoid accounting difficulties.
- C28 3.2.1.6 In C23 and C26 above, the call to the foreign land station will be charged as an ordinary international telex call for its entire duration, regardless of whether it merely serves the purpose of booking the radiotelex call or whether the land station can extend the connection to the mobile station without having to recall the originating subscriber.

3.2.2 *Setting-up*

- C29 3.2.2.1 When demand operation cannot be used, the caller will be disconnected until the mobile station is available. The land station operator then recalls the caller using automatic direct selection; the land station's country being considered as the outgoing country for the call.
- C30 3.2.2.2 In case C29, the land station includes in the bill:
- a) the landline charge;
  - b) the land station charge;
  - c) the mobile station charge.
- C31 3.2.2.3 When demand operation has been used, the bill made out by the land station operator includes only:
- a) the land station charge;
  - b) the mobile station charge.
- C32 3.2.2.4 All information regarding collection of charges for single-operator calls (see C14) should be submitted by the land station Administration\* on a regular basis to be determined by the Administrations\* involved.
- C33 3.2.2.5 The methods to be used in collecting the charges are described in Recommendation F.111.

3.3 *Semiautomatic procedure (access by the calling subscriber to his international exchange for the establishment of a direct connection)*

- C34 3.3.1 If automatic working is not possible, the telex operator of the international exchange of the outgoing country receives the booking and selects the mobile station directly. The procedures of Recommendation F.60, § 3.3 shall be applied.

### 3.4 *Automatic procedure (direct access by the calling subscriber to the called subscriber)*

- C35 3.4.1 Whenever possible automatic procedures should be used; i.e. the calling subscriber should contact the called subscriber directly without the aid of an operator.
- C36 3.4.2 The subscriber of an Administration's\* telex network should select the appropriate address code, including the mobile station number, and if necessary the ocean area number, to connect him through a land station with which his Administration\* has established routing of maritime traffic for the ocean area desired.
- C37 3.4.3 If the subscriber, for some technical reason, cannot establish contact with the mobile station directly, semiautomatic (C34) or single-operator (C23) procedures should be used.
- C38 3.4.4 On international telex links the destination code 58x will be used in accordance with Recommendation F.69, unless otherwise agreed bilaterally.

## DIVISION D

### RADIOTELEPHONE

#### 1 General

##### 1.1 *Language to be used*

- D1 1.1.1 Where applicable and where language difficulties exist, the abbreviations and signals in Appendix 14 of the *Radio Regulations* [3] and the *Phonetic Alphabet and Figure Code* in Appendix 24 of the *Radio Regulations* should be used in radiotelephone communications between land stations and mobile stations.

##### 1.2 *Priority*

- D2 1.2.1 Apart from the general order of priority shown in A21 to A32, radiotelephone calls shall have precedence, so far as possible, over other telephone calls of the same class.

##### 1.3 *Routing of calls*

- D3 1.3.1 A radiotelephone call should be set up via the land station that is considered most suitable in relation to the mobile station concerned.
- D4 1.3.2 For radiotelephone calls in the direction land station to mobile station, the caller should give the geographical position if possible and may also indicate the land station to be used. Such requests should be respected as far as is practicable.
- D5 1.3.3 For radiotelephone calls in the direction mobile station to land station, the mobile station shall call the land station it desires to use. The land station shall either handle the call itself or advise the mobile station to use another land station that is more suitable to the mobile station.

1.4 *Information to be supplied by the calling party*

D6 1.4.1 Calls to a mobile station:

- a) complete telephone number of the calling subscriber;
- b) appropriate identification of the mobile station;
- c) name of the land station to be used or the approximate geographical position of the mobile station;
- d) name of the called party, if applicable. All calls to mobile stations in the maritime mobile service are treated as personal calls, with the possible exception of the Maritime Mobile-Satellite Service.

D7 1.4.2 Calls from a mobile station:

- a) appropriate identification of the mobile station;
- b) the *accounting authority identification code (AAIC)* in the single-operator or manual service (see Annex A to Recommendation F.111);
- c) the information specified in Article 60 of the *Instructions for the International Telephone Service* [8].

1.5 *Call duration*

D8 1.5.1 The chargeable duration of a call will be fixed at the end of the call:

- a) in the direction from the mobile stations by the controlling operator;
- b) in the direction to mobile stations;
  - by the land station operator in manual and single-operator service;
  - by the operator of the international centre of the outgoing country in the semiautomatic service.

D9 1.5.2 If two land stations participate in the handling of the call, the opinion of the land station that has accepted the call from the originating mobile station shall prevail.

D10 1.5.3 When, through any fault of the service, difficulty is experienced in the course of a call, the chargeable duration shall be reduced automatically or manually to the total time during which transmission conditions were satisfactory, taking into account CCITT Recommendations.

1.6 *Validity of requests*

D11 1.6.1 If not cancelled by the caller or refused by the addressee, requests for calls from land to mobile stations:

- a) in the VHF and MF bands shall remain valid until 0800 local time on the day following the day on which the request was made;
- b) in the HF band shall remain valid until 0800 local time on the second day following the day on which the request was made.

D12 1.6.2 However, if it becomes obvious that the required mobile station is outside the coverage area of the land station, the caller shall be informed as soon as possible in order to have the call cancelled.

D13 1.6.3 All requests for calls from mobile stations to land shall be cancelled where the call is not immediately attended to or on completion of the successive attempts provided for by the rules of each Administration\*, unless there has been an express request to the contrary by the calling mobile station, which shall be able to determine the waiting period for listening in on the land station frequency with a view to making a further attempt to set up the call.

1.7 *Exchange of radiotelegrams by radiotelephony*

D14 1.7.1 Stations of the Maritime Mobile Service that are equipped for radiotelephony may transmit and receive radiotelegrams by means of radiotelephony. Stations of the Maritime Mobile-Satellite Service should normally transmit and receive radiotelegrams by means of radiotelex only.

## **2 Traffic from mobile stations**

### **2.1 Manual service**

- D15 2.1.1 The land station operator applies manual procedures if single-operator (D16), semiautomatic (D17) or automatic working (D18) is not possible.

### **2.2 Single-operator service**

- D16 2.2.1 The land station operator selects the called subscriber directly via the automatic telephone networks if semiautomatic (D17) or automatic working (D18) is not possible.

### **2.3 Semiautomatic service**

- D17 2.3.1 The telephone operator of the international exchange of the land station country selects the called subscriber directly if automatic procedures cannot be applied.

### **2.4 Automatic service**

- D18 2.4.1 Whenever possible, automatic procedures should be used; i.e. the calling subscriber should contact the called subscriber directly without the aid of an operator.

- D19 2.4.2 After connection with the desired land station is established, the mobile station should select directly the appropriate telephone country code (Recommendation E.163 [9]) and the number of the subscriber of an Administration's\* telephone network.

### **2.5 Procedures**

- D20 2.5.1 The manual, semiautomatic and automatic procedures for the terrestrial telephone network, as laid down in Recommendation E.141 [10] and the *Instructions for the International Telephone Service* [8] should be taken into account.

## **3 Traffic to mobile stations**

### **3.1 Manual procedure**

#### **3.1.1 , Booking**

- D21 3.1.1.1 The subscriber should make his booking at the international centre of the outgoing country.
- D22 3.1.1.2 If conditions permit, the international position should select the foreign land station in question directly. Otherwise the international position of the land station country should be selected to give the necessary assistance to obtain contact with the land station in question.

#### **3.1.2 Setting-up**

- D23 3.1.2.1 The land station operator obtains the caller directly or with the assistance of his own international telephone centre, which selects the caller. Otherwise he selects his own international telephone centre in order to be connected to the international telephone centre of the outgoing country, which then selects the caller.

- D24 3.1.2.2 After the call's termination, the land station shall pass the following information to the international telephone centre of the country of origin, where it is recorded for charging and accounting purposes:
- a) the calling subscriber's telephone number;
  - b) the mobile station's name and/or call sign;
  - c) the chargeable duration of the call;
  - d) the land station charge to be collected;
  - e) the mobile station charge to be collected.

- D25 3.1.2.3 Otherwise all information regarding collection of charges should be submitted to the caller's Administration\* on a regular basis to be determined by the Administrations\* involved.

### 3.2 *Single-operator procedure (direct access by the calling subscriber to a foreign land station)*

#### 3.2.1 *Booking*

- D26 3.2.1.1 The subscriber selects the foreign land station in question using automatic direct selection. The land station operator records the call details.
- D27 3.2.1.2 Where an Administration\* permits its subscribers to book a call directly with a land station in another country, the charges set by the land station must be levied by the calling subscriber's Administration\*.
- D28 3.2.1.3 In addition to the information in D6, the calling subscriber must designate his country and national telephone number.
- D29 3.2.1.4 As an alternative to D26 and D27, land stations may accept direct calls from foreign subscribers provided that the calling subscriber supplies the name and address of a party in the land station's country that will take responsibility for the payment of charges.
- D30 3.2.1.5 The procedures described in D27 and D29 may only be applied when an appropriate bilateral agreement exists between the two Administrations\* concerned. If such an agreement does not exist, the land station should refuse such calls to avoid accounting difficulties.
- D31 3.2.1.6 In D26 and D29 above, the call to the foreign land station will be charged as an ordinary international telephone call for its entire duration, regardless of whether it merely serves the purpose of booking the radiotelephone call or whether the land station can extend the connection to the mobile station without having to recall the originating subscriber.

#### 3.2.2 *Setting-up*

- D32 3.2.2.1 When demand operation cannot be used, the caller will be disconnected until the mobile station is available. The land station operator then recalls the caller using automatic direct selection, the land station country being considered as the outgoing country for the call.
- D33 3.2.2.2 In case D32, the land station includes in the bill:
- a) the landline charge;
  - b) the land station charge;
  - c) the mobile station charge.
- D34 3.2.2.3 When demand operation has been used, the bill made out by the land station operator includes only:
- a) the land station charge;
  - b) the mobile station charge.

- D35 3.2.2.4 All information regarding collection of charges for single-operator calls (see D16) should be submitted by the land station Administration\* on a regular basis to be determined by the Administrations\* involved.
- D36 3.2.2.5 The methods to be used in collecting the charges are described in Recommendation F.111.
- 3.3 *Semiautomatic procedure (access by the calling subscriber to his international exchange for the establishment of a direct connection)*
- D37 3.3.1 If automatic working is not possible, the telephone operator of the international exchange of the outgoing country receives the booking and selects the mobile station directly. Normal international semiautomatic telephone procedures shall be applied.
- 3.4 *Automatic procedure (direct access by the calling subscriber to the called subscriber)*
- D38 3.4.1 Whenever possible, automatic procedures should be used; i.e. the calling subscriber should contact the called subscriber directly without the aid of an operator.
- D39 3.4.2 The subscriber of an Administration's\* telephone network should select the appropriate address code, including the mobile station number and if necessary the ocean area number, to connect him through a land station with which his Administration\* has established routing of maritime traffic for the ocean area desired.
- D40 3.4.3 If the subscriber, for some technical reason, cannot establish contact with the mobile station directly, semiautomatic (D37) or single-operator (D26) procedures should be used.

## References

- [1] *Final Acts of the World Administrative Maritime Radio Conference*, ITU, Geneva, 1974.
- [2] *Final Acts of the World Administrative Radio Conference (WARC)*, ITU, Geneva, 1979.
- [3] *Radio Regulations*, ITU, Geneva, 1979.
- [4] *Final Acts of the World Administrative Telegraph and Telephone Conference, Telegraph Regulations, Telephone Regulations*, ITU, Geneva, 1973.
- [5] *List of ship stations*, ITU, Geneva, 1981.
- [6] *List of telegraph offices open for international service*, ITU, Geneva, 1976.
- [7] *List of coast stations*, ITU, Geneva, 1980.
- [8] *Instructions for the international telephone service, (1st October 1981)*, ITU, Geneva, 1981.
- [9] CCITT Recommendation *Numbering plan for the international telephone service*, Vol. II, Fascicle II.2, Rec. E.163.
- [10] CCITT Recommendation *Instructions for the international telephone service*, Vol. II, Fascicle II.2, Rec. E.141.

## CHARGING, ACCOUNTING AND REFUNDS IN THE MARITIME MOBILE SERVICE

(Provisionally adopted 1977; amended at Geneva, 1980)

### Introductory Notes

- 1 Pursuant to Resolutions Nos. Mar2 – 22 and Mar2 – 23 and Recommendation Mar2 – 18 of the *World Maritime Administrative Radio Conference*, [1] the CCITT drew up Recommendations E.200/F.110 and F.111 <sup>1)</sup> concerning operational and accounting provisions for the Maritime Mobile Service. Having accepted the conclusions of the CCITT studies, the *World Administrative Radio Conference*, [2] adopted texts dealing with the basic principles on operating and accounting procedures, leaving the detailed application of these principles to be covered by CCITT Recommendations.
- 2 Article 66 (No. 5085) of the *Radio Regulations* [3] specifies that the provisions of the *Telegraph Regulations* [4] and the *Telephone Regulations* [4], taking into account CCITT Recommendations, shall apply to radiocommunications in so far as the relevant provisions of the *Radio Regulations* do not provide otherwise.
- 3 Since, in accordance with Article 69 of the *Radio Regulations* [3], Article 66 enters into force on 1 January 1981, the provisions of this Recommendation shall also be applicable from that date.
- 4 With regard to mobile station charges (K11 to K19 below), Resolution No. 315 of the *World Administrative Radio Conference* [2] specifically resolved to adopt the recommended date of 31 December 1987 for the abolition of mobile station charges for public correspondence in the maritime mobile service.
- 5 Marginal reference numbers are shown in italics (e.g. L51) for those provisions that parallel the *Radio Regulations* [3]. References commencing with the letters A, B, C and D concern provisions in Divisions A, B, C and D respectively of Recommendation E.200/F.110 entitled *Operational provisions for the maritime mobile service*.
- 6 For the purpose of this Recommendation the term *Maritime Mobile Service* should be understood to embrace the Maritime Mobile-Satellite Service as well as the MF, HF, VHF and UHF radio media, unless specifically stated otherwise.
- 7 Throughout this Recommendation the asterisk (\*) used after *Administration(s)* means that recognized private operating agency/agencies are included. However, where this reference is made in respect of notification by Administrations to the General Secretariat of the ITU, this applies only to recognized private operating agencies that have been authorized by Administrations to carry out such notification.
- 8 For the purpose of this Recommendation, the terms *mobile station* and *land station* should be considered as analogous to *ship station* and *coast station* respectively used in the *Radio Regulations* [3].

## CONTENTS

### DIVISION J – General

#### 1 Definitions

### DIVISION K – Charging

#### 1 General

##### 1.1 General

##### 1.2 Tariff changes

##### 1.3 Radiocommunications between mobile stations

<sup>1)</sup> This Recommendation appears in the Series D Recommendations as Recommendation D.90 (Fascicle II.1).

- 2     *Radiotelegrams*
  - 2.1 General
  - 2.2 Special charging arrangements
- 3     *Radiotelephone and radiotelex calls*
  - 3.1 Land station and landline charges
  - 3.2 Special charges

#### DIVISION L — *Accounting*

- 1     *General*
- 2     *Establishment of accounts*
  - 2.1 Maritime accounts
  - 2.2 International accounts
  - 2.3 Accounting for single-operator service
- 3     *Exchange and verification of maritime accounts*
- 4     *Payment of balances*
- 5     *Archives*

#### DIVISION M — *Refunds*

- 1     *Radiotelegrams*
  - 1.1 General
  - 1.2 Radiomaritime letters
- 2     *Radiotelephone and radiotelex calls*

##### *Annex A — Identification of accounting authorities*

- 1     Code format
- 2     Allocation
- 3     Notification
- 4     Publication
- 5     Examples

##### *Annex B — Specimen form of statement of maritime accounts*

#### DIVISION J

##### GENERAL

#### 1     Definitions

##### J1   1.1   accounting authority

*F: autorité chargée de la comptabilité*

*S: autoridad encargada de la contabilidad*

The Administration of the country that has issued the licence for a mobile station (or the recognized private operating agency or other entity/entities designated by the Administration in accordance with L1 to L6) to whom maritime accounts in respect of mobile stations licensed by that country may be sent.



J2 1.2 **accounting authority identification code (AAIC)**

*F: code d'identification de l'autorité chargée de la comptabilité (CIAC)*

*S: código de identificación de la autoridad encargada de la contabilidad (CIAC)*

The discrete identification code of accounting authority responsible for the settlement of maritime accounts (see Annex A).

J3 1.3 **maritime account**

*F: compte maritime*

*S: cuenta radiomarítima*

The account issued by the Administration\* operating a land station in respect of telecommunication traffic exchanged between the land station and a mobile station.

J4 1.4 **landline charge**

*F: taxe de ligne*

*S: tasa de línea*

The charge relating to transmission over the general network of telecommunication channels, national and international.

J5 1.5 **land station charge**

*F: taxe terrestre*

*S: tasa terrestre*

The charge relating to the use of facilities provided by the land station in the maritime mobile services or by the earth station in the Maritime Mobile-Satellite Service. In the Maritime Mobile-Satellite Service, this charge shall include all space segment costs. An Administration\* may also choose to present its total land station charge in its component parts.

J6 1.6 **mobile station charge**

*F: taxe de station mobile*

*S: tasa de estación móvil*

The charge relating to the use of facilities provided by the station.

## DIVISION K

### CHARGING

#### 1 General

##### 1.1 General

K1 1.1.1 The charges for radiocommunications consist of:

K2 a) the landline charges;

K3 b) the land station charges;

K4 c) the mobile station charges (if any);

K5 d) any charges for special services for telegrams that have to be considered in the accounting;  
and

K6 e) any special charges for special facilities.

- K7 1.1.2 The landline charge for national telecommunication channels applicable to radiocommunications between a mobile station and the country of the land station is notified in gold francs to the ITU General Secretariat by the land station Administration\*.
- K8 1.1.3 The landline charges applicable to radiocommunications between a mobile station and a country other than that of the land station, are the collection charges fixed or applied for telecommunication services in the international relation concerned; they shall be notified in gold francs to the ITU General Secretariat by the land station Administration\*.
- K9 1.1.4 The land station charges shall be expressed in gold francs; Administrations\* shall notify to the ITU General Secretariat the charges fixed by them.
- K10 1.1.5 The landline and land station charges notified to the ITU General Secretariat in accordance with K7 to K9 will be published in the *List of Coast Stations* [5].
- Note* — For countries that have not introduced banded collection charges for international services, only a limited number of charges, for routes in frequent use, will be published. Administrations\* of these countries should indicate to the ITU General Secretariat which charges should be published in the *List of Coast Stations* [5].
- K11 1.1.6 Where mobile station charges are applied, the Administration of the country that has issued the licence shall so notify the ITU General Secretariat for inclusion of this information in the *List of Ship Stations* [6].
- K12 1.1.7 Mobile station charges may be applied in the radiotelegram, radiotelephone and radiotelex services in the MF and HF bands. They shall not be applied in the VHF service, in the Maritime Mobile-Satellite Service nor in any service with automatic operation; however, mobile station charges may also be applied for radiotelegrams transmitted via VHF.
- K13 1.1.8 Mobile station charges shall be abolished for traffic exchanged after 2359 hours UTC <sup>2)</sup> 31 December 1987.
- K14 1.1.9 Until 31 December 1987, the following standardized mobile station charges shall be applied worldwide:
- K15 a) radiotelegrams, 0.40 gold francs per ordinary word;
  - K16 b) radiotelephone calls in the MF band, 1.50 gold francs per minute;
  - K17 c) radiotelephone calls in the HF band, 2.00 gold francs per minute;
  - K18 d) radiotelex calls in the MF and HF bands, 1.50 gold francs per minute.
- K19 1.1.10 The Administration of the country that has issued the licence for a mobile station may authorize it to collect on board and to retain mobile station fees when mobile station charges are no longer applicable. The Administration may set an upper limit to these fees.
- K20 1.1.11 Mobile stations must be acquainted with the tariffs necessary for charging. However, they are authorized, where necessary, to obtain such information from land stations. Charges furnished by land stations are expressed in gold francs.

<sup>2)</sup> For practical operating purposes, Coordinated Universal Time (UTC) may be considered as equivalent to Greenwich Mean Time (GMT).

## 1.2 *Tariff changes*

- K21 1.2.1 New or modified charges shall not come into effect for international traffic for countries other than that which establishes the charges until the first day of the month following the expiry of the following periods, counted from the day after the dispatch of the first notification by the ITU General Secretariat:
- K22 a) for traffic from mobile station to land, 1 month and 15 days;
- K23 b) for traffic from land to mobile station, 15 days, except that for changes to bring charges into line with those on competing routes the period shall be 10 days.

## 1.3 *Radiocommunications between mobile stations*

- K24 1.3.1 When a single land station is used as an intermediary between mobile stations, two land station charges are collected. If the land station charge applicable to traffic with the origin mobile station is different from that applicable to traffic with the destination mobile station, the sum of these two charges is collected.
- K25 1.3.2 When it is necessary to use two land stations as intermediaries between two mobile stations, the land station charge for each station is collected and also the landline charge for the section between the two land stations.

## 2 **Radiotelegrams**

### 2.1 *General*

- K26 2.1.1 The land station charge and the mobile station charge are fixed on the basis of a word charge.
- K27 2.1.2 The total charge of radiotelegrams is collected from the sender, with the exception of charges applicable to radiotelegrams to be redirected at the request of the addressee (as provided in Recommendation F.1).
- K28 2.1.3 No additional charge shall be made when acknowledgement of receipt of a radiotelegram is made through another mobile station or land station by service advice, or when an intermediate mobile station assists in the forwarding of a radiotelegram.

### 2.2 *Special charging arrangements*

#### 2.2.1 *Radiotelegrams of immediate general interest*

- K29 2.2.1.1 No charge for radio transmission in the Maritime Mobile Service is made for radiotelegrams of immediate general interest, provided that they are:
- K30 a) distress messages or replies thereto;
- K31 b) radiotelegrams originating in mobile stations notifying the presence of icebergs, derelicts, mines and other dangers to navigation, or announcing cyclones and storms;
- K32 c) radiotelegrams originating in mobile stations announcing unexpected phenomena threatening air navigation or the sudden occurrence of obstacles at airports;
- K33 d) radiotelegrams originating in mobile stations notifying sudden changes in the position of buoys, the working of lighthouses, devices connected with buoyage, etc.; or
- K34 e) service radiotelegrams relating to the maritime mobile service.

#### 2.2.2 *Radiotelegrams relating to medical advice*

- K35 2.2.2.1 No charge for radio transmission is made for radiotelegrams relating to medical advice provided that:
- K36 a) they are exchanged directly between mobile stations and land stations that are shown in the *List of Radiodetermination and Special Service Stations* [7] as providing such a service, and,
- K37 b) they are addressed in accordance with the conditions indicated in that List.

### 2.2.3 *Meteorological radiotelegrams*

- K38 2.2.3.1 Land station charges and mobile station charges applicable to meteorological radiotelegrams (see Recommendation F.1) should be reduced by at least 50 per cent in all relations.

### 2.2.4 *Radiotelegrams concerning persons protected in time of war*

- K39 2.2.4.1 Radiotelegrams concerning persons protected in time of war by the *Geneva Conventions* of 12 August 1949, are accepted under the conditions specified in § 4 of the Annex to the *Telegraph Regulations* [4] taking into account CCITT Recommendation F.1.
- K40 2.2.4.2 The land station charges and the mobile station charges for these **RCT** radiotelegrams shall be decreased in the same proportion as specified for **RCT** telegrams in CCITT Recommendation F.1.

### 2.2.5 *Press radiotelegrams*

- K41 2.2.5.1 For those land stations that accept press radiotelegrams, for the relations admitted, the land station charge and the mobile station charge should be the same as those for ordinary private radiotelegrams reduced by 50 per cent.
- K42 2.2.5.2 Press radiotelegrams are subject to any landline press rate that may be in force in the land station country or between the land station and destination countries.

### 2.2.6 *Radiomaritime letters*

- K43 2.2.6.1 Except as otherwise provided in K44 to K47, radiomaritime letters may be accepted, taking into account CCITT Recommendations relating to letter telegrams, if the telegram service is used to convey radiomaritime letters.
- K44 2.2.6.2 The total charge shall include the postal charge (by ordinary letter or airmail letter) due for delivery in the land station country.
- K45 2.2.6.3 An additional charge may be collected where delivery is to be made to a country other than that of the land station.
- K46 2.2.6.4 The following charges are added where applicable:
- K47 a) charges due for special services;
- K48 b) the landline charge when transmission on the land section is exceptionally by telegraph.

## 3 **Radiotelephone and radiotelex calls**

### 3.1 *Land stations and landline charges*

- K49 3.1.1 If no uniform charges apply in respect of the land stations of a country, different land station charges shall be fixed for the MF, HF and VHF bands and for the Maritime Mobile-Satellite Service.
- K50 3.1.2 If, due to the lack of technical facilities, no extra charges apart from the normal international landline charges can be levied by the origin Administration\*, no land station charges will be collected for international automatic VHF radiotelephone calls in the to-mobile station direction, if so decided by the land station Administration\*. The *List of Coast Stations* [5] shall indicate which Administrations\* accept such calls without levying land stations charges.
- K51 3.1.3 The unit charge is the charge for an ordinary private call of one-minute duration except when provision K55 is applied for automatic operation.

- K52 3.1.4 The minimum charge for a manual, single-operator or semiautomatic call is three units.
- K53 3.1.5 Automatic calls should be charged by one of the following two methods, taking into account CCITT Recommendations:
- K54 a) charging minute by minute;
- K55 b) charging by periodic pulses of the type used in the national automatic service.
- K56 3.1.6 The charge for a call is normally collected from the calling party with the exception of collect calls (if collect calls are admitted). For collect calls, the charge shall be payable by the called party.
- K57 3.1.7 When handled through a land station, the chargeable duration of a manual or single-operator call will be fixed at the end of the call by the land station; if two land stations are participating in the handling of the call, the opinion of the land station that accepted the call from the originating mobile station will prevail.
- K58 3.1.8 The decision of the land station according to K57 will also be valid for international accounting.
- 3.2 *Special charges*
- K59 3.2.1 The special charges for personal radiotelephone calls (from mobile station to land) and collect calls, if admitted, shall be applied with manual or semiautomatic operation.
- K60 3.2.2 No special charges for personal radiotelephone calls to mobile stations handled by manual or single-operator service shall be applied in the Maritime Mobile Service, with the possible exception of the Maritime Mobile-Satellite Service.
- K61 3.2.3 The charge of special call facilities shall be calculated on the basis used for an international call, applied to either:
- K62 a) the landline charge only; or
- K63 b) all components of the call charge.
- K64 3.2.4 When the booking of a radiotelephone call that is liable to the payment of a special charge (for example, a collect call) is accompanied by a booking of a personal call, only one special charge shall be collected.

## DIVISION L

### ACCOUNTING

#### 1 General

- L1 1.1 Charges for radiocommunications from ship to shore shall in principle, and subject to national law and practice, be collected from the maritime mobile station licensee:
- L2 a) by the Administration that has issued the licence, or
- L3 b) by a recognized private operating agency, or
- L4 c) by any other entity or entities designated for this purpose by the Administration referred to in L2.

- L5 1.2 The Administration or the recognized private operating agency or the designated entity (or entities) is referred to in this Recommendation as the *accounting authority*.
- L6 1.3 Each accounting authority will be allocated a discrete identification code (see Annex A).
- L7 1.4 The name(s) and address(es) of the accounting authority(ies) with their respective identification codes shall be notified to the ITU General Secretariat for inclusion in the *List of Ship Stations* [6]. The number of such accounting authorities responsible for mobile stations licensed by the Administration concerned shall be limited as far as possible and should not exceed 25.
- L8 1.5 For responsibility for payment of accounts rendered in accordance with L1 to L7, see L60 to L63.

## 2 Establishment of accounts

### 2.1 Maritime accounts

- L9 2.1.1 In the case of radiocommunications originating in mobile stations, the land station Administration\* shall debit the accounting authority for the origin mobile station with:
- L10 a) the land station charges;
  - L11 b) the landline charges;
  - L12 c) the total charges collected for prepaid replies;
  - L13 d) any charges for special services for telegrams;
  - L14 e) where appropriate, the special charges for radiotelephone calls with special facilities;
  - L15 f) where appropriate, postal charges on radiomaritime letters.
- L16 2.1.2 The accounting for radiocommunications originating in mobile stations shall be based on accounting data gathered in the land station country, recording:
- L17 a) the mobile station identification;
  - L18 b) the accounting authority identification code, if applicable;
  - L19 c) the number of the addressee, including country and area codes;
  - L20 d) chargeable duration;
  - L21 e) start of the conversation time, if applicable;
  - L22 f) traffic category.
- L23 2.1.3 In the case of radiocommunications, handled by manual or single-operator service, addressed to mobile stations and originating in a country other than that of the land station, the land station Administration\* shall, unless otherwise agreed as provided for in L30, debit the origin Administration\* with:
- L24 a) the land station charges; and
  - L25 b) the mobile station charges, if any.
- L26 2.1.4 As regards automatic and semiautomatic radiocommunications, see L42 and L43.
- L27 2.1.5 In the case of a radiotelegram that has been forwarded by the land station to a mobile station in port by means other than radio (see B53 and B54), only the land station charge shall be debited.
- L28 2.1.6 In the case of a completed radiocommunication in the direction to a mobile station, the land station Administration\* credits the accounting authority for the destination mobile station with:
- L29 a) the mobile station charges, (if any), and
  - L30 b) the total charge collected for prepaid reply, if occasion arises.

- L31 2.1.7 In the case of radiocommunications exchanged between mobile stations:
- L32 2.1.8 Through the medium of a single land station: the land station Administration\* debits the accounting authority for the origin mobile station with the appropriate charges. Thereafter, if occasion arises, the provisions of L28 to L30 are applied.
- L33 2.1.9 Through the medium of two land stations: the first land station Administration\* debits the accounting authority for the origin mobile station with the appropriate charges, taking into account L9 to L15. Thereafter, L23 to L27 and, if occasion arises, the provisions of L28 to L30 are applied by the second land station, the first land station being regarded as the office of origin as far as the accounts are concerned.
- L34 2.1.10 For accounting purposes, collect calls shall be regarded as originating in the destination country or mobile station.
- L35 2.1.11 Accounts are prepared monthly by the land station Administration\* and rendered by it to:
- L36 a) the accounting authority responsible for the mobile station (see L9 to L15 and L28 to L30);
- L37 b) the origin Administration\* (see L23 to L25) with the exception referred to in L41.

## 2.2 *International accounts*

- L38 2.2.1 The international landline charges for radiotelegrams, radiotelephone calls and radiotelex calls shall be included in the international telegram, telephone and telex accounts respectively and shall be accounted for in accordance with the provisions of the *Telegraph Regulations* and *Telephone Regulations* [4], taking into account CCITT Recommendations. The agreed international accounting rates shall apply.
- L39 2.2.2 The country on whose territory is established a land station serving as intermediary for the exchange of radiocommunications between a mobile station and another country, is considered, as far as the application of landline charges is concerned, as the origin or destination country and not as a transit country.
- L40 2.2.3 Except as provided for in L42, land station charges and mobile station charges shall, in principle, not be entered in the international telegram, telephone and telex accounts.
- L41 2.2.4 However, by previous agreements, Administrations\* may establish a system by which the land station charges and the mobile station charges are included in the international accounts by the origin Administration\*.
- L42 2.2.5 In the case of automatic or semiautomatic radiocommunications addressed to mobile stations and originating in a country other than that of the land station, the land station charges shall be included in the international telegram, telephone or telex accounts by the origin Administration\* on the basis of chargeable duration automatically recorded for automatic traffic, or by the operator of the international centre for semiautomatic traffic.
- L43 2.2.6 The accounting for the charges relating to radiocommunications addressed to mobile stations, originating in the land station country and exchanged through a Maritime Mobile-Satellite System, shall be based on similar recordings as prescribed in L42.

## 2.3 *Accounting for single-operator service*

- L44 2.3.1 Except as otherwise provided, the following provisions apply to single-operator radiotelephone and radiotelex services, in which land subscribers and land station operators of different countries call each other without the aid of an intermediate operator.
- L45 2.3.2 The operating and charging procedures are described in Recommendation F.110.

- L46 2.3.3 The billing and settlement procedures for single-operator radiomaritime calls to mobile stations are as follows:
- L47 2.3.4 Except as provided for in L49, the call details are forwarded at least monthly to the Administration\* in question in the caller's country.
- L48 2.3.5 The Administration\* charges the call in its internal billing system and includes the total amount in a quarterly statement of accounts to the credit of the land station Administration\*.
- L49 2.3.6 In the case of collect radiotelephone calls to a mobile station in the international Maritime Mobile Service (if admitted by the land station Administration\*), the total amount of the bill shall be debited to the mobile station licensee in the maritime accounts (see L9 to L15).
- L50 2.3.7 If bilaterally agreed between the Administrations\* concerned, the land station Administration\* may collect the charge by presenting a bill directly either to the foreign subscriber who booked the call or to his registered representative in the land station country.

### 3 Exchange and verification of maritime accounts

- L51 3.1 Exchange and verification of accounts shall be carried out in accordance with the *Telegraph Regulations* and the *Telephone Regulations* [4], taking into account CCITT Recommendations.
- L52 3.2 The accounts, in duplicate, shall be sent as promptly as possible but in any case before the end of the third month following that to which they relate.
- L53 3.3 Radiotelegrams, radiotelephone calls and radiotelex calls shall be entered individually with all necessary particulars, in the monthly accounts that serve as a basis for the accounting mentioned in this division.
- L54 3.4 The entries in accounts shall be spaced in such a way that the duplicate of the account can be divided and used for the accounting with the mobile station licensee by the accounting authority for the mobile station. The entries shall be grouped under mobile station name and call sign, with a total charge shown for each mobile station.
- L55 3.5 However, Administrations\* may establish accounts for each mobile station with all necessary particulars mentioned above. These individual accounts shall be included in a recapitulatory statement.
- L56 3.6 A specimen statement is given in Annex B.
- L57 3.7 In principle, an account shall be considered as accepted without the need for specific notification of acceptance to the Administration\* that sent it.
- L58 3.8 As soon as possible after receipt of the maritime account, the accounting authority should notify the Administration\* of preliminary rejections; i.e. the mobile stations contained within the maritime account that are not or are no longer their responsibility.
- L59 3.9 However, any accounting authority shall have the right to question the contents of an account for a period of six months after dispatch of the account.
- L60 3.10 All maritime accounts shall be paid by the accounting authority without delay and in any case within six months after dispatch of the account. The invoice numbers and the traffic period covered by the payment should be quoted at the time of payment.
- L61 3.11 If international maritime accounts remain unpaid after 6 months, the Administration that has licensed the mobile station shall on request take all possible steps, within the limits of applicable national law, to ensure settlement of the accounts from the licensee.



L62 3.12 In the case referred to in L59, if the account is seriously delayed in transit, the receiving accounting authority should at once notify the originating Administration\* that queries and payment may be delayed. However, the delay shall not exceed three months from the date of receipt of the account.

L63 3.13 The debtor accounting authority may refuse the settlement and adjustment of accounts presented more than 18 months after the date of handing-in of the radiotelegrams or the date of establishment of the radiotelephone calls or radiotelex calls to which the accounts relate.

#### 4 Payment of balances

L64 4.1 Payment of balances shall be carried out in accordance with the *Telegraph Regulations* and the *Telephone Regulations* [4], taking into account CCITT Recommendations.

#### 5 Archives

L65 5.1 The originals of radiotelegrams and documents relating to radiotelegrams, radiotelephone calls and radiotelex calls shall be held by the Administrations\* with all necessary precautions from the point of view of secrecy, until the settlement of the relative account and, in any case, for at least six months counting from the month in which the accounts were sent. Administrations\* may preserve the information by any other means, e.g. magnetic or electronic records.

L66 5.2 However, should an Administration\* deem it desirable to destroy the originals of radiotelegrams or any other documents or records mentioned in L65 before the above-mentioned period, and hence not be in a position to carry out an inquiry in respect of the services for which it is responsible, such Administration\* shall bear all the consequences both as regards refund of charges and any difference in the accounts in question that might otherwise have been observed.

### DIVISION M

#### REFUNDS

##### 1 Radiotelegrams

###### 1.1 General

M1 1.1.1 The provisions of Recommendation F.42, Division C shall apply with the following exceptions.

###### 1.2 Radiomaritime letters

M2 1.2.1 When a radiomaritime letter fails to reach its destination due to the failure of the postal service, only the charges in respect to the services not carried out are refunded.

M3 1.2.2 Refund of charges is admitted when, through the fault of the telegraph or radiotelegraph service, a radiomaritime letter has not reached its destination, as well as in the cases provided for in Article 12 of the *Telegraph Regulations* [4] taking into account CCITT Recommendations.

## 2 Radiotelephone and radiotelex calls

- M4 2.1 When, through any fault of the service, the booking of a call is not followed by the calling and called stations being placed in communication, no charge shall be payable. If the amount of the charge has been paid, it shall be refunded.
- M5 2.2 In order to simplify operating and accounting procedures, Administrations\* may decide that no charge shall be payable when a requested connection has not been set up, whatever the reason.
- M6 2.3 However, Administrations\* may decide to collect charges in cases where there is no fault of service. In that case the basis of charging shall be notified to the ITU General Secretariat for inclusion in the *List of Coast Stations* [5].
- M7 2.4 When, through any fault of the service, difficulty is experienced in the course of a call, the chargeable duration of the call shall be reduced to the total time during which transmission conditions have been satisfactory, taking into account CCITT Recommendations.

### ANNEX A

(to Recommendation F.111)

#### Identification of accounting authorities

##### A.1 Code format

A.1.1 Each accounting authority will be allocated a discrete *Accounting Authority Identification Code* (AAIC) consisting of two parts as follows:

- a) the first part will be two letters denoting the country in which the accounting authority is based, using the *List of Destination Indicators* (for use in the *Telegram Retransmission System*) published in accordance with Recommendation F.96;
- b) the second part will be numeric, denoting the particular accounting authority.

##### A.2 Allocation

A.2.1 The AAIC will be allocated by the Administration of the country in which the accounting authority is based, regardless of whether or not the accounting authority concerned is responsible for mobile stations licensed by that Administration.

A.2.2 This means that the limitation of accounting authorities to 25 refers only to the number of accounting authorities responsible for accounting for mobile stations licensed by that Administration and not necessarily to the number of accounting authorities based within the Administration's country.

A.2.3 It may be possible therefore that the number of AAICs will exceed 25 for any one country but that there are still only 25 accounting authorities (not necessarily all based within that country) that are responsible for accounting for mobile stations licensed by that Administration.

##### A.3 Notification

A.3.1 Having been allocated a code by the Administration of the country in which the accounting authority is based, the accounting authority will notify the Administration of each country that has recognized it as an accounting authority for mobile stations licensed by that Administration, of its AAIC. The Administration concerned should notify the ITU of the AAIC, at the same time any notification is required by the ITU concerning the accounting authority; for example, when an Administration notifies the ITU of an accounting authority's address for inclusion in the *List of Ship Stations* [6], it should include the AAIC.

A.3.2 Each accounting authority is responsible for ensuring that all mobile stations for which it accounts are notified of its AAIC and that these mobile stations are aware of their responsibilities in using the AAIC when transmitting radio traffic.

A.3.3 When an accounting authority accepts responsibility for a mobile station, which may previously have been the responsibility of some other accounting authority, it must ensure that the mobile station is advised immediately of the new AAIC.

#### A.4 Publication

A.4.1 The Administration of the country in which the accounting authority is based is responsible for notifying the ITU of the AAIC allocated.

A.4.2 An Administration that accepts an accounting authority outside its own country is responsible for notifying the ITU of this fact and at the same time notifying the AAIC.

A.4.3 The information should be published in the ITU *List of Ship Stations* [6] as follows:

- a) under the Administration's entry, the address of the accounting authorities authorized to account for mobile stations licensed by the Administration should be listed along with their AAIC;
- b) each Administration will have another list showing all the accounting authorities based within that Administration with their AAICs.

List *a*) should not exceed 25. List *b*) may exceed 25.

There should also be an alphabetical list of *all* accounting authorities giving their AAIC.

A.4.4 From these three lists it will be possible to extract the name and address of an accounting authority when only the AAIC is known, to find the AAIC when only the name and address are known and to determine which accounting authorities are authorized to account for mobile stations of a particular registry.

A.4.5 In the body of the ITU *List of Ship Stations* [6] the AAIC of the accounting authority concerned should be shown in column 11 against each mobile station's entry.

#### A.5 Examples

##### A.5.1 Allocation of accounting authority identification code (AAIC)

Country that licensed the mobile station	Country where the accounting authority is located and where the AAIC is allocated (see § A.2.1)	Accounting authority is one of the maximum of 25 (according to L7) designated by	AAIC
Netherlands	Netherlands	Netherlands	NL...
Netherlands	United Kingdom	Netherlands	GB...
United Kingdom	Netherlands	United Kingdom	NL...
Belgium	Netherlands	Belgium	NL...
Belgium	Belgium	Belgium	BE...
etc.			

A.5.2 *List a)* (according to § A.4.3)

Administration that issued the licence	AAIC	Name and address	Country
Afghanistan	AF01	—	Afghanistan
"	GB41	—	United Kingdom
"	NL02	—	Netherlands
Italy	IU01	—	Italy
"	IU02	—	Italy
"	BE11	—	Belgium
"	GB41	—	United Kingdom
"	NL02	—	Netherlands
"	NO03	—	Norway
Zambia	ZA01	—	Zambia
"	BE11	—	Belgium
"	IU02	—	Italy
"	NL07	—	Netherlands
	etc.		

In this list, the number of accounting authority identification codes per country is limited to a maximum of 25.

A.5.3 *List b)* (according to § A.4.3)

Country where the accounting authority is based	AAIC	Name and address
Afghanistan	AF01	—
"	AF02	—
"	AF03	—
Albania	AB01	—
"	AB02	—
Zambia	ZA01	—
"	ZA02	—

In this list, the AAIC starts always with the destination indicator (according to Recommendation F.96). This list is not limited per country.

(to Recommendation F.111)

Account between country A and country B

in respect of { radiotelegrams  
radiotelephone calls  
radiotelex calls

sent through the land stations of country A during the month of .....

[illegible]

## References

- [1] *Final Acts of the World Administrative Maritime Radio Conference*, ITU, Geneva, 1974.
- [2] *Final Acts of the World Administrative Radio Conference (WARC)*, ITU, Geneva, 1979.
- [3] *Radio Regulations*, ITU, Geneva, 1976 edition, revised in 1979.
- [4] *Final Acts of the World Administrative Telegraph and Telephone Conference, Telegraph Regulations, Telephone Regulations*, ITU, Geneva, 1973.
- [5] *List of Coast Stations*, List IV; Part IV, Vol. I, 8th edition (published every 2 years), ITU, Geneva, 1980.
- [6] *List of Ship Stations*, List V, 21st edition, ITU, Geneva, 1981.
- [7] *List of Radiodetermination and Special Service Stations*, List VI, Vol. II, 7th edition, ITU, Geneva, 1980.

## Recommendation F.112

### QUALITY OBJECTIVES FOR 50-BAUD START-STOP TELEGRAPH TRANSMISSION IN THE MARITIME MOBILE-SATELLITE SERVICE

(Geneva, 1980)

The CCITT,

*considering*

(a) that proper interworking of this telegraph transmission with the international telegraph services must be ensured;

(b) CCITT Recommendation F.10 concerning character error rate for telegraph communications,

*unanimously recommends*

that, for the coast-earth station-to-mobile terminal and mobile terminal-to-coast-earth station links, sufficient margin should be included to overcome adverse propagation conditions. The objective should be that propagation conditions should not contribute any character errors for at least 95% of all calls with mobile terminals within the satellite service area. With the exception of blockage effects, propagation conditions should not contribute more than 8 errors in 100 000 characters with a 99% confidence level for mobile terminals at the edge of the service area.

*Note* — This Recommendation corresponds to CCIR Recommendation 552, Kyoto, 1978.

**SHIP STATION IDENTIFICATION FOR VHF/UHF AND  
MARITIME MOBILE-SATELLITE SERVICES<sup>2)</sup>**

(Geneva, 1980)

**1 Introduction**

1.1 The purpose of this Recommendation is to specify a method by which an internationally unique ship station identification may be assigned to all the ships participating in the Maritime Mobile Services, and to facilitate the introduction of international automatic VHF/UHF and Satellite Maritime Services.

**1.2 Terminology**

The following terms are used in this Recommendation:

**a) Maritime Mobile (Terrestrial) Service**

*F: service mobile maritime (de Terre)*

*S: servicio móvil marítimo (terrenal)*

conventional Maritime Mobile Services such as the HF Maritime Service, the MF Maritime Service and the VHF Maritime Service (as defined in the *Radio Regulations* [1]).

**Maritime Mobile-Satellite Service**

*F: service mobile maritime par satellite*

*S: servicio móvil marítimo por satélite*

as defined in the *Radio Regulations* [1].

**b) coast station**

*F: station côtière*

*S: estación costera*

radio station on land in the Maritime Mobile (Terrestrial) Service.

**shore station**

*F: station terrienne côtière*

*S: estación terrena costera*

earth station on land in the Maritime Mobile-Satellite Service.

**c) ship station identity**

*F: identité de la station de navire*

*S: identidad de estación de barco*

the ship's identification  $X_1, X_2 \dots X_k$  transmitted on the radio path.

**ship station number**

*F: numéro de station de navire*

*S: número de estación de barco*

the number that identifies a ship for access from a public network and forms part of the international number to be dialled or keyed by a public network subscriber.

<sup>1)</sup> This Recommendation is also included in the Recommendations of the E and Q Series under the numbers E.210 (Fascicle II.2) and Q.11 *ter* (Fascicle VI.1).

<sup>2)</sup> See also CCIR draft Recommendation entitled "Assignment and use of Maritime Mobile Service identities".

d) **coast (shore) station identity**

*F: identité de la station côtière (terrienne)*

*S: identidad de estación costera (terrena costera)*

the coast (shore) station identification  $X_1, X_2 \dots X_k$  transmitted on the radio path.

1.3 **Basic considerations**

The considerations that form the basis of this ship station identification system are:

- a) that every ship shall have a unique ship station identity;
- b) that the same unique ship station identity should be used in both VHF/UHF and Maritime Mobile-Satellite Systems;
- c) that the same unique ship station identity should be used for all telecommunication services, particularly for radiotelex and radiotelephony;
- d) that it is desirable that the ship station number and the ship station identity be the same;
- e) that the capacity of the ship station identification system shall be sufficient to admit all ships wanting, or required, to participate in the various Maritime Mobile Services at present and in the foreseeable future;
- f) that access to Maritime Mobile Services via the existing international network in automatic operation should follow the relevant and appropriate CCITT Recommendations;
- g) that the ship identify system shall be a numerical system, and should use the full range of decimal digits;
- h) that two or three of the digits,  $X_1X_2X_3$ , of the ship station identity shall indicate the ship's nationality;
- i) that there are important differences in national networks that promote different approaches to automation of Maritime Mobile Services;
- j) that a numerical assignment plan should consider current telephone and telegraph network limitations while it permits change to support future requirements.

2 **Ship station identification**

2.1 *Ship station identity*<sup>3), 4)</sup>

Ship station identity is established as nine digits. It should be assigned to take into account the implications relating to it in the public switched networks.

$$X_1X_2X_3X_4X_5X_6X_7X_8X_9$$

The initial three digits define the nationality of the ship as indicated in the following sections.

2.2 *Ship station number*

The ship station number defines the ship station within the public switched network and this information is transmitted to a coast or shore station. In the VHF/UHF Maritime Service the ship station number may be different from the ship station identity to relate to national network needs.

3 **Assignment of ship station identification**

3.1 *Assignment of blocks of numbers*

Blocks of numbers should be assigned to countries so that individual Administrations\* may systematically assign ship station identities within those blocks.

<sup>3)</sup> A seven-digit ship station identity is used in the current generation of the Maritime Satellite System.

<sup>4)</sup> Some international telex centres are limited to seven digits.



### 3.2 Identification of ship's geographical region

The first digit of each ship station identity is intended to identify the geographical region to which the nationality (registry) of the ship relates. Only the digits 2 through 7 are used for this purpose to identify easily the world's regions as follows:

- 2 – Europe
- 3 – North America
- 4 – Asia (except Southeast Asia)
- 5 – Oceania and Southeast Asia
- 6 – Africa
- 7 – South America.

Arrangements may therefore be made to systematically assign a ship station identity to each ship as soon as national blocks are allocated. The digits zero (0), one (1), eight (8) and nine (9) are allocated for other purposes as indicated below.

### 3.3 Identification of ship's nationality

Since blocks of the ship station identities would be systematically assigned by country, a ship's nationality can be determined by analyzing the first three digits of its ship station identity.

The digits to be analyzed are called Nationality Identification Digits (NID). Examples of the nationality identification digits for ships are given in Table 1/F.120.

TABLE 1/F.120

Country	Nationality Identification Digits (NID)	Ship Station Identifies
P	231	from 231 000 000 to 231 999 999
Q	233, 234	from 233 000 000 to 234 999 999
R	236, 237 238	from 236 000 000 to 238 999 999
S	240 - 249	from 240 000 000 to 249 999 999

## 4 Assignment of nationality identification digits

Each NID represents a discrete capacity assigned according to a plan that relates assigned capacity to ship population. The plan is to be developed by a competent World Administrative Radio Conference (WARC) and administered by the Secretary-General of the ITU.

## 5 Group calls

$X_1 = 0$ ,  $X_2 = 1$  to 9 are assigned to indicate a group call to a group of ships having a community of interest. Such calls may be barred in the public switched network and/or at the coast/shore stations. Control of group calls may also be achieved by the use of special group service access to the coast/shore stations.

## 6 Coast/shore station identity

$X_1 = 0$ ,  $X_2 = 0$  are assigned to indicate coast/shore station identities. The use of such identities may be barred in the public switched network and/or the coast/shore stations.

## 7 Future expansion of the ship station identification system

$X_1 = 1$  as in the format 1 XXXXXXXX has been reserved for future expansion.

## 8 Evolutionary expansion of ship station identities as applied to Maritime Mobile (Terrestrial) Services

8.1 The plan permits the identification of ships whose communications requirements are inter-regional, regional or national. The plan is intended to allow the automation of Maritime Mobile Services on public switched networks, where feasible, as the demand for ship station identities increases for the automatic service. This demand is considered in stages defined by the number of digits in ship station numbers required to satisfy automatic communication needs. A minimum number of digits is used for *ship station numbers* at any given time to permit countries with network restrictions to provide a maximum of automation. Trailing zeros are added to the ship station numbers (received from an automatic network) to form nine-digit ship station identities on the radio path. The  $X_1X_2X_3$  digits are shown as nationality identification digits in Table 2/F.120.

TABLE 2/F.120

Stage	Ship station number	Digits on the automatic network	Ship station identity	Digits on the radio path
1	NID $X_4X_5X_6$	6	NID $X_4X_5X_6$ 000	9
2	NID $X_4X_5X_6X_7$	7 a), b)	NID $X_4X_5X_6X_7$ 00	9
3	NID $X_4X_5X_6X_7X_8$	8	NID $X_4X_5X_6X_7X_8$ 0	9

- a) Due to network limitations, some countries may choose to withhold the first digit of the NID and insert it automatically at the coast station to retain automatic access to all ships whose NIDs have identical first digits (ships of the same geographical area). However, the application of this technique should be avoided if possible to minimize ambiguity.
- b)  $X_2 = 8$  and 9 should only be assigned when requirements have made it absolutely necessary. This will permit those countries that cannot yet transmit a 7-digit ship station number in stage 2 to use the abbreviated regional and national numbers 8Y and 9 according to § 8.3 for as long as the digits  $X_2 = 8$  and 9 have not been assigned in the area of their  $X_1$ .

8.2 In stage 1, those countries that would identify VHF/UHF calls and plan to automate VHF in a single stage of subscriber selection would have full access to all ships if they were able to assign six digits to ship station numbering in their networks. The plan contemplates mutual cooperation to extend this stage as long as possible by judicious ship station identity assignments to satisfy requirements for automatic VHF/UHF in the face of network limitations.

8.3 Additional ship station numbering techniques may be used to expand network access to more ship stations in stages 1 and 2. These techniques permit an extension of the time periods during which stages 1 and 2 apply. For example:

*Ship station number*

8Y  $X_4X_5X_6X_7$   
9  $X_4X_5X_6X_7X_8$

*Ship station identity*

$N_yI_yD_y$   $X_4X_5X_6X_7$  00  
 $N_nI_nD_n$   $X_4X_5X_6X_7X_8$  0

In this arrangement, the digits 8Y may be 80 to 89 to define as many as ten foreign NIDs (shown as  $N_y I_y D_y$ ) to permit automatic calling of ships of particular nationalities. The coast station would be required to translate a given 8Y to a particular foreign NID. The digit 9 may be used to indicate the nationality identification digits for ships of the same nationality as the network and the coast station. The coast station would be required to translate 9 to one particular national NID (shown as  $N_n I_n D_n$ ). National application of these techniques could be adopted to provide an efficient use of ship station numbers.

## **9 Ship station identity for the Maritime Mobile-Satellite Service**

The international numbering plans would permit up to nine digits for ship station identity and ship station numbering to be used in association with country codes 87X for telephony and destination codes 58X for telex, where X may indicate ocean area or system.

## **10 Considerations related to ship station identity assignment**

An efficient allocation of ship station identity will permit an extension of the time period in which stage 1 applies. The specific manner in which the optional techniques indicated in §§ 8.1 and 8.3 are applied depends on the needs of a given Administration to achieve an optimum result. Special consideration should be given to the assignment of ship station identities for ships engaged in regional and national traffic so that spare capacity remains available for inter-regional traffic when transition from stage 1 to stage 2 takes place.

### **ANNEX A**

(to Recommendation F.120)

#### **National network diversity and automation of VHF/UHF service**

A.1 National network numbering and routing requirements provided to satisfy national subscriber population and service needs result in widely varying abilities to support automatic VHF/UHF service. The following diverse approaches have been recognized and should be expected.

A.1.1 The inability of some networks to carry as few as six digits for ship station number purposes will tend to defer automation indefinitely in some instances.

A.1.2 Some countries will find it practical to provide for automation on the basis of six digits for ship station numbering in accordance with the proposed plan in this Recommendation. When seven digits are required (in stage 2) the practice of not dialling the initial digit of the nationality identification digits may be adopted to maintain as much automation as feasible. Refer also to § 8.1.

A.1.3 Some countries may find it practical to use national network numbering to define ship station numbers that are translated to ship station identities at one or more coast stations and perhaps support this with locator services.

A.1.4 Some countries may find it practical to use two-stage selection, e.g. in the telephone service a second stage of subscriber dialling with multifrequency push-button equipment may be already available or provided specifically for subscribers particularly interested in maritime services.

A.1.5 Some countries may now, or later, provide for centralized maritime centres that may support automatic location and call routing facilities. The use of such maritime centres would enable the application of ship station numbers of up to nine digits between countries with such centres.

#### **Reference**

- [1] *Radio Regulations*, ITU, Geneva, 1979.

NUMBERING AND SELECTION PROCEDURES FOR MARITIME MOBILE RADIOTELEX SERVICES <sup>1), 2)</sup>

(Geneva, 1980)

**1 Introduction**

**1.1 The purpose of this Recommendation is:**

- a) to standardize the numbering and selection procedures for subscribers in the international telex service calling ship stations in the maritime mobile radiotelex services, and
- b) to standardize the procedures for calling a subscriber, or an operator, in the international telex service from ship stations. Adoption of such procedures will facilitate the introduction and development of the automatic Maritime Mobile Service.

**1.2 Related CCITT Recommendations are:**

- F.60 Operational provisions for the international telex service
- F.68 Establishment of the automatic intercontinental telex network
- F.69 Plan for telex destination codes
- F.79 Instructions for the international telex service
- F.110/E.200 Operational provisions for the Maritime Mobile Service
- F.120/E.210 Ship station identification for VHF/UHF and Satellite Maritime Mobile Services
- F.130 Maritime answer-back codes
- F.131 Radiotelex service codes
- F.132 Procedure for use of store-and-forward facilities in the Maritime Mobile Services for ship-originated calls
- E.211 Numbering and dialling procedures for VHF/UHF and maritime mobile-satellite telephone services
- U.61 [1] Detailed requirements to be met in interfacing the international telex network with maritime satellite systems

**1.3 The following basic considerations were taken into account when formulating this Recommendation:**

- a) Each ship will be allocated a unique nine-digit ship station identity according to the numbering scheme in CCITT Recommendation F.120.
- b) It will be necessary to transmit the ship station identity, or part thereof (ship station number), through a diverse range of national and international telex networks to facilitate automation of maritime mobile systems.
- c) Any routing and numbering technique adopted should require minimal change to the international telex service.
- d) It is desirable that a ship should possess one ship station identity for all telecommunication services (e.g. radiotelephony, radiotelex) and all maritime mobile systems (e.g. VHF/UHF satellite).
- e) It is desirable that the procedures for telephony and telex should be as similar as possible.

<sup>1)</sup> As in Recommendations F.110 and F.111 the term Maritime Mobile Service is intended to also include the Maritime Mobile-Satellite Service.

<sup>2)</sup> This Recommendation has been designed to be as similar as possible to Recommendations E.211 [2] and Q.11 *quarter* concerning numbering and dialling procedures for access to radiotelephone services.

## 2 Maritime Mobile-Satellite Service

### 2.1 General

2.1.1 Maritime Mobile-Satellite Services are international in nature and international procedures will be adopted to provide access to these services. For some purposes, a maritime mobile-satellite system can be regarded as analogous to a national network and the ship terminals as subscribers within that network.

2.1.2 For automatic shore-originated calls, international selection procedures will be adopted using an international access code, the 58s telex destination code and a ship station number.

2.1.3 For automatic ship-originated calls to terrestrial subscribers, international selection procedures will be used, including a standardized access code, e.g. all ships in all ocean areas will use the same access code to identify an automatic international call.

2.1.4 In addition, access codes will be adopted to identify other functions for the satellite system.

Table 1/F.121 lists the allocation of the access codes for use when automatic ship-to-shore telex service is introduced. Additional access codes may be required and these can be added, using the spare decimal numeric denominations.

It is desirable to have one set of access codes for all services (telephone, telex and data). The access codes listed in Table 1/F.121 can be used where applicable for telephone and data services and, if necessary, additional access codes for these services may be assigned by the competent Study Group.

Close cooperation between the competent Study Groups will be necessary when assigning new access codes.

The use of some access codes could be barred to some customers.

2.1.5 The access code will be sent over the radio path to the coast earth station but would not be used outside the satellite system. Hence, an access code to the coast earth station would not be used in the international telex network.

### 2.2 Procedures for shore-to-ship calls

2.2.1 A shore based subscriber calling a ship in a maritime mobile satellite system will select a numbering sequence as given in Table 2/F.121.

2.2.2 The numbering sequence requires the subscriber to know the satellite coverage area in which the ship is located.

2.2.3 The ship station number can be identical to the ship station identity.

### 2.3 Procedures for ship-to-shore calls

2.3.1 The setting-up of a connection between the ship earth station and a coast earth station can be achieved in various ways and for this reason is not addressed in this Recommendation.

#### 2.3.2 Calling a terrestrial subscriber

2.3.2.1 A ship subscriber will select the access code followed by the full international telex number required, whether or not the coast earth station is located in the called subscriber's country. Hence, the numbering sequence selected by a ship subscriber will be of the form given in Table 3/F.121.

#### 2.3.3 Calling an operator

2.3.3.1 A ship subscriber will select the access code followed by a second digit to identify the type of operator required.

TABLE 1/F.121

## Allocation of telephone prefixes and telex access codes

Category	Prefix or access code		Application	Remarks
	Digit 1	Digit 2		
Automatic calls (international)	0	0	Automatic calls using international number	
Automatic calls (national)	0		Automatic calls using national (significant) number	Not to be used for maritime satellite systems
Operator	1	1	International outgoing operator	These codes may be followed by 2- or 3-digit telex destination codes (on an optional basis). See §§ 2.3.3 et 3.4.2
	1	2	International information service	
	1	3	National operator	For VHF/UHF use
	1	4	National information service	Other applications are for further study
	1	5	Radiotelegram service	For further study
Automatic facilities	2	1	Store-and-forward (international)	For VHF/UHF use
	2	2	Store-and-forward (national)	Other applications are for further study
	2	3-9	Reserved for future use	
Specialized assistance	3	1	Maritime enquiries	Ship location, authorization, telegrams, etc.
	3	2	Medical advice, etc.	Precise procedures to be specified after further study
	3	3	Technical assistance	
	3	4	Person-to-person calls	For telephone use only
	3	5	Collect calls	
	3	6	Credit card calls	
	3	7	Time and charges requested at end of call	
	3	8	Medical assistance	Precise procedures to be specified after further study
	3	9	Maritime assistance TOW	

TABLE 1/F.121 (continuation)

Category	Prefix or access code		Application	Remarks
	Digit 1	Digit 2		
Ship reporting facilities	4	1	Meteorological reports	Precise procedures to be specified after further study
	4	2	Navigational hazards and warnings	
	4	3	Ship position reports	
Information retrieval	5	1	Meteorological forecasts	Precise procedures to be specified after further study
	5	2	Navigational warnings	
	5	3	Videotex (international) over telephone network	
	5	4	Videotex (national) over telephone network	
	5	5	News (international)	
	5	6	News (national)	
Specialized use	6		Administration specialized use	Digits following digit 6 will be allocated on a national basis
—	7		Spare	
—	8		Spare	
Test	9		Reserved for test numbers	

TABLE 2/F.121

$A_1$	International access code (see Notes 1 and 2)
58	Maritime telex destination code
s	Ocean area and satellite system
$NIDX_4 - X_n$	Ship station number
+	End of selection

*Note 1* — In some countries where the subscribers can select the international carrier, the international access code (which may consist of up to 3 digits) constitutes the first stage of a two-stage selection sequence for shore-to-ship calls.

*Note 2* — The use of an international access code is a national option.

TABLE 3/F.121

00	Access code for automatic call
$I_1 I_2 I_3$	2- or 3-digit telex destination code
$N_1 - N_n$	National call number of the subscriber
+	End of selection

TABLE 4/F.121

Numbering sequence				Type of operator
Access code		Optional digits	End of selection	
<i>Digit 1</i>	<i>Digit 2</i>			
1	1	$I_1 I_2 I_3$	+	International operator
1	2	$I_1 I_2 I_3$	+	International enquiries

2.3.3.2 Some Administrations may wish to operate a system whereby shipboard subscribers insert after the operator access code a country code (e.g.  $I_1 I_2 I_3$ ). The insertion of the country code will allow the call to be routed to a relevant operator. If an Administration operating such a system receives an operator access code without the optional digits, then the call must still be connected to an appropriate operator. Similarly, if an Administration not operating such a system receives an operator access code followed by optional digits then the optional digits should be ignored and the call connected to the operator denoted by the access code alone.

2.3.3.3 Each Administration may decide which operators to provide, where they are to be located and how the call would be routed. If a request is received from a ship for a type of operator that the Administration does not provide, then the call will be routed to an operator convenient for that Administration.

## 2.4 Procedures for ship-to-ship calls

2.4.1 Selection procedures for ship-to-ship calls will be similar to those for ship-to-shore calls, using the maritime telex destination code 58s. The numbering sequence selected by the ship subscriber will be of the form given in Table 5/F.121.

This format will be used whether or not the ships are in the same ocean area.



TABLE 5/F.121

00	Access code for automatic call
58	Maritime telex destination code
s	Ocean area and satellite system
NIDX <sub>4</sub> - X <sub>n</sub>	Ship station number
+	End of selection

2.4.2 Each Administration operating a coast earth station may decide whether to switch ship-to-ship traffic within an ocean area at the coast earth station or at an international telex switching centre.

## 2.5 Procedures for other services

2.5.1 Provision is made in Table 1/F.121 for the allocation of access codes for other services. The use of certain of these codes is the subject of further study.

## 2.6 group calls

2.6.1 Group calls to ship stations are calls comprising a message sent simultaneously to all ships within a predetermined group. There will be no return link from the ship station and the calling subscriber will therefore not know which ship stations within the group have actually received the message. When the international network is used to permit an authorized telex terminal to access a shore station for the purpose of making a group call to ships then the following operational provisions should apply.

2.6.2 Only authorized subscribers or authorized operators will be permitted to use the service. Calls from unauthorized subscribers or operators may be barred in the outgoing country, but will in any case be barred at the coast earth station. The authorization of subscribers and operators will be provided as a result of agreement with the Administrations concerned and the satellite system operating authority.

2.6.3 The technical signalling procedures are described in Recommendation U.61 [1].

2.6.4 The numbering sequence given in Table 6/F.121 will be selected by the shore-based calling subscriber.

TABLE 6/F.121

A <sub>1</sub>	International access code
58	Maritime telex destination code
s	Ocean area and satellite system
0X <sub>2</sub> - X <sub>n</sub>	Group number
+	End of selection

*Note* — X<sub>2</sub> will not equal 0 (for further study in conjunction with Recommendation F.120, in respect of the allocation of digits in the group numbering scheme).

2.6.5 The subscriber must not start sending the message before the service signal GA has been received from the coast earth station.

### 3 VHF/UHF Maritime Mobile Service

#### 3.1 General

3.1.1 VHF/UHF maritime mobile services are more localized than maritime mobile-satellite services. National procedures will be adopted to provide access to the VHF/UHF maritime mobile services.

#### 3.2 Procedures for shore-to-ship calls

3.2.1 Individual Administrations will wish to automate their maritime services in their own timescales and suit their own service requirements and network limitations. However, any scheme adopted by an Administration should be compatible with other schemes and should not inhibit progression towards a worldwide maritime service. In view of the restrictions imposed by national networks on shore-originated calls, three levels of operation have been identified to ensure that future evolution of the service can take place.

##### 3.2.2 Level 1: Manual or single-operator service operation

3.2.2.1 Some Administrations will operate the VHF/UHF service on a manual or single operator basis (see Recommendation F.110).

3.2.2.2 It will be necessary to ensure that the facilities are compatible with essential services in any automatic scheme.

##### 3.2.3 Level 2: Minimum automation

3.2.3.1 The caller controls access to the relevant coast station and forwards the number of the required ship, i.e. there is no intelligent system in the network able to indicate the location of the ship, hence, the customer is required to identify the location of the ship.

3.2.3.2 The level of automation requires a minimum of equipment, the required functions mainly consisting of interfacing with the network, call control, signalling over the radio channels and operational control of the radio channels. There would be a requirement to permit coexistence of the manual service and the automatic service.

3.2.3.3 An example of a numbering sequence for a subscriber in one country calling a ship off the coast of another country is given in Table 7/F.121. Access to the coast station is provided by dedicated number combinations taken from the national numbering plan.

TABLE 7/F.121

$A_1$	International access code
$I_1 I_2 I_3$	2- or 3-digit telex destination code
$V_1 - V_n$	Code to identify VHF/UHF maritime service
$C_1 - C_n$	Code to identify coast station
$NIDX_4 - X_n$	Ship station number
+	End of selection

The number of digits in the codes  $V_1 - V_n$  and  $C_1 - C_n$  will vary from one country to another and may only comprise one digit, as the maximum international significant number of 12 digits must be taken into account. If the ship was off the coast of the subscriber's own country then the national access code would be selected instead of the international access code and the destination code.

### 3.2.4 Level 3: Automatic service using ship location centres

3.2.4.1 The caller gains access to a *ship location centre* servicing the ships of a particular country, part of a country or a group of countries and forwards the number of the required ship. An intelligent system is introduced into the network so that it can indicate the VHF/UHF station through which the ship can be contacted. The network is then responsible for routing the call on the basis of a known ship's location. All ships participating within the relevant area must report their radio location to a coast station as required, preferably on an automatic basis.

3.2.4.2 Equipment additional to level 2 of operation would be necessary, particularly in relation to the network's responsibility for locating and registering the location of the ship.

3.2.4.3 An example of a numbering sequence suitable for a subscriber in one country calling a ship off the coast of another country for this level of operation is given in Table 8/F.121.

TABLE 8/F.121

$A_1$	International access code
$I_1 I_2 I_3$	2- or 3-digit telex destination code
$V_1 - V_n$	Code to identify VHF/UHF service
$NIDX_4 - X_n$	Ship station number
+	End of selection

The code  $V_1 - V_n$  will vary in length from one country to another. If the ship was off the coast of the subscriber's own country, the national access code could be selected instead of the international access and telex destination codes.

### 3.3 Implementation of automatic schemes in national networks – Shore-originated calls

3.3.1 In some instances it may be necessary to introduce variations of the numbering schemes given in §§ 3.2.3 and 3.2.4; examples of such instances follow.

#### 3.3.2 Two-stage selection

3.3.2.1 Some countries find it preferable to use a two-stage selection technique. A subscriber would select a coast station or maritime centre and would be offered a second selection stage to facilitate the insertion of the ship station number.

3.3.2.2 If the first selection stage is used to provide access to a particular coast station, the scheme would be associated with level 2 of operation. If the first selection stage is used to provide access to a maritime centre that is able to locate the ship, then levels 2 or 3 of operation would be appropriate.

#### 3.3.3 Digit insertion (1 + 6) arrangement

3.3.3.1 When ship station numbers become seven digits in length (stage 2 of the numbering plan Recommendation F.120), some countries will be unable to transmit the full seven digits through their national networks. As the first digit of an NID indicates the zone (continent) in which a country is located, a technique may be adopted on

a zonal (continental) basis in which the first digit of the NID is not selected by the subscriber. The digit would then be inserted at the coast station (and/or Maritime Centre) on the assumption that the NID is allocated to a country in the same zone as the coast station (and/or Maritime Centre).

3.3.3.2 Access to ships with NIDs not applicable to the zone in which the coast station is located would be given on a manual basis by countries operating the 1 + 6 system.

3.3.3.3 The digit insertion technique can be associated with levels 2 and 3 of operation.

#### 3.3.4 *National numbering and conversion arrangement*

3.3.4.1 Some countries may find it necessary temporarily to allocate ships' numbers compatible with their national numbering plans.

3.3.4.2 When a ship enters the service area of a VHF/UHF coast station, the ship station's identity would be forwarded by the coast station to its parent Maritime Centre. The Maritime Centre would then assign, temporarily, a national telex number that would correspond to the ship station identity of the ship. This pair of numbers would be stored at the Maritime Centre and the coast station.

3.3.4.3 A shore based subscriber calling this ship would access the Maritime Centre and use the ship station number to obtain the corresponding temporary national telex number. Once this is available the call could be completed automatically from the Maritime Centre. Alternatively, the call could be completed by the caller either on a manual, semiautomatic or automatic basis as appropriate.

3.3.4.4 The temporary national telex number would be used for routing the call to the serving VHF/UHF coast station. At that point the corresponding ship station identity, which would be stored at the coast station, would be sent over the radio path to extend the connection to the ship.

#### 3.4 *Procedures for ship-to-shore calls*

3.4.1 Ship-originated calls are less restricted than shore-originated calls by national network limitations and no levels of operation are required. To standardize selecting procedures for VHF/UHF ship-originated calls, international selection procedures will be adopted and automatic coast stations throughout the world will act upon such numbering sequences. To allow for ships that rarely leave the coast of a particular country, another technique has been identified whereby national selection procedures can also be used. Whether or not to adopt this technique would be decided by each Administration.

#### 3.4.2 *Calling a terrestrial subscriber*

3.4.2.1 A ship subscriber will select the access code followed by the required international number, whether or not the coast station is located in the required subscriber's country. Hence, the numbering sequence will be of the form given in Table 9/F.121.

TABLE 9/F.121

00	Access code for automatic call
I <sub>1</sub> I <sub>2</sub> I <sub>3</sub>	2- or 3-digit telex destination code
N <sub>1</sub> - N <sub>n</sub>	National call number of the subscriber
+	End of selection

3.4.2.2 Where national procedures are used, a ship subscriber will select the access code followed by the required number belonging to the country of the coast station through which the call is being connected. Hence, the numbering sequence would be of the form given in Table 10/F.121.

TABLE 10/F.121

0	Access code for automatic call-coast station country
$N_1 - N_n$	National call number of the subscriber
+	End of selection

3.4.2.3 The end-of-selection signal may not be required over the radio path. In this case it must be inserted by the coast station.

### 3.4.3 *Calling an operator*

3.4.3.1 A ship subscriber will select an operator access code, the second digit identifying the type of operator required.

3.4.3.2 Table 11/F.121 illustrates the principle involved for four types of operator.

TABLE 11/F.121

Numbering sequence				Type of operator
Access code		Optional digits	End of selection	
<i>Digit 1</i>	<i>Digit 2</i>			
1	1	$I_1 I_2 I_3$	+	International operator
1	2	$I_1 I_2 I_3$	+	International enquiries
1	3		+	National operator
1	4		+	National enquiries

*Note* — The use of optional digits is the same as described in § 2.3.3.2.

3.4.3.3 Each Administration may decide which operators to provide, where they are to be located and how the call would be routed. If a request is received from a ship for a type of operator that the Administration does not provide, then the call will be routed to an operator convenient for that Administration.

### 3.5 *Procedures for ship-to-ship calls (via coast station)*

3.5.1 If the two ships are not off the coast of the same country, the ship subscriber will select the access code and the appropriate procedure outlined in §§ 3.2 and 3.3 will be followed.

3.5.2 If the ships are off the coast of the same country, then the coast station would act upon the above procedure, but the national procedure of selecting the access code followed by the national number of the ship could be adopted.

### 3.6 *Group calls*

3.6.1 If group calls are required for the VHF/UHF service the group call identities should be of the same format as for the Maritime Mobile-Satellite Service (§ 2.6).

## 4 **HF/MF Maritime Mobile Service**

(This subject needs further study.)

## 5 **Store-and-forward facility for ship-originated calls in VHF/UHF and the Maritime Mobile Service and the Maritime Mobile-Satellite Service**

5.1 It may be required that radiotelex calls from ship stations be routed via a store-and-forward facility.

### 5.2 *Procedures for ship-to-shore calls*

5.2.1 The ship station subscribers will select an access code followed by a second digit identifying the store-and-forward facility.

5.2.2 The subscriber will then provide the number of the called subscriber using the procedure in accordance with Recommendation F.132.

## 6 **Store-and-forward facilities for land-originated calls**

(This subject requires further study.)

### **References**

- [1] CCITT Recommendation *Detailed requirements to be met in interfacing the international telex network with maritime satellite systems*, Vol. VII, Fascicle VII.1, Rec. U.61.
- [2] CCITT Recommendation *Numbering and dialling procedures applicable for VHF/UHF and maritime mobile-satellite telephone services*, Vol. II, Fascicle II.2, Rec. E.211.

## **Recommendation F.130**

### **MARITIME ANSWER-BACK CODES**

The CCITT,

*considering*

(a) that it is technically feasible to interconnect certain radiocommunication systems in the Maritime Mobile Service<sup>1)</sup> with the international telex network in order to provide a radiotelex service between ships and telex subscribers, in accordance with Recommendation F.110;

(b) that Recommendation F.60 specifies the operational provisions for the international telex service, and, in particular, for the composition of answer-back codes;

<sup>1)</sup> As in Recommendations F.110 and F.111, the term Maritime Mobile Service is intended to include also the Maritime Mobile-Satellite Service.

(c) that, since no single Administration is responsible for the allocation of answer-back codes to ships in the way that such codes are administered in individual national telex networks, some rules further to those set down in Recommendation F.60 are desirable, for example to facilitate automatic operation in the ship-to-shore direction and to simplify the handling of inquiries concerning calls to or from ships;

(d) that, to the extent possible, the alphabetic portion of maritime answer-back codes should provide a means for detecting possible mutilation of the numerical portion, particularly in the case of ship-to-shore calls where it may be used for charging and accounting purposes,

*unanimously declares*

that, at least in cases where interconnection with the international telex network is desired, answer-back codes generated by teleprinters (or equivalent terminal devices) on ships shall comply with the following requirements.

1 Regardless of the transmission medium used (e.g. maritime-mobile satellite, HF "direct printing", VHF), the answer-back code, as printed out for a distant subscriber, shall include the following three components in the order indicated:

- a) the "ship station's number" of 6, 7 or 8 digits (see § 2 below);
- b) the "ship's (abbreviated) name" of 4 letters (see § 3 below);
- c) the letter X, preceded by a space, as a "telex network identification code" reserved for mobile stations (see Recommendation F.68).

2 The 6, 7 or 8 digits of the ship station's number are those allocated by the licensing Administration\* in accordance with Recommendation F.120 with the final 3, 2 or 1 zeroes respectively deleted.

3 The letters comprising the ship's (abbreviated) name [§ 1b) above] should be chosen with the guidance and under the control of the licensing Administration\* with a view not only to identifying the ship (or the company, or the fleet, as is most appropriate) in a clear manner for a distant subscriber, but also to providing a means for checking the ship station's number as recorded in the answer-back code. The name should not include shifts, figures or signs. Where a ship has been allocated a 6- or 7-digit number, in principle the ship's (abbreviated) name should not need to be changed when the numbering plan is modified to incorporate 7- or 8-digit numbers.

4 The series of twenty combinations in International Telegraph Alphabet No. 2 comprising the answer-back code shall be allocated as follows:

- a) figure-shift, or (if permanently fitted) letter-shift;
- b) carriage-return;
- c) line-feed;
- d) the ship station's number, or (if a letter-shift is fitted in the first position) figure-shift followed by the ship station's number;
- e) letter-shift;
- f) space, which should however be omitted if both the ship station's number consists of 8 digits and a letter-shift is fitted in the first position;
- g) the ship's (abbreviated) name;
- h) space;
- i) if necessary, a letter-shift or letter-shifts to bring the total number of combinations in the answer-back code up to twenty;
- j) the letter X;
- k) letter-shift.

5 The technical requirements for answer-back generators are laid down in Recommendation S.6 [1].

#### **Reference**

- [1] CCITT Recommendation *Characteristics of answer-back units (ITA No. 2)*, Vol. VII, Fascicle VII.2, Rec. S.6.

## RADIOTELEX SERVICE CODES

(Geneva, 1980)

The CCITT,

*considering*

(a) that it is technically feasible to interconnect certain radiocommunication systems in the Maritime Mobile Service and the Maritime Mobile-Satellite Service with the international telex network in order to provide a radiotelex service between ships and telex subscribers in accordance with Recommendation F.110;

(b) that Recommendation F.60 specifies the code expressions used for service correspondence in the international telex service;

(c) that whilst it is desirable for the same service code expressions to be used in the radiotelex service as in the international telex service, because of the nature of the service the reasons for the uses of these codes may vary;

(d) that agreement as to the circumstances when specific codes are used is desirable;

*recommends the following*

(1) In general for shore-to-ship calls the telex service codes specified in Recommendation F.60 should be used. However, the telex service codes listed below should be used by the radiotelex service in the following circumstances:

**ABS** – *Absent subscriber/office closed* (to be used when radio contact cannot be established, i.e. radio equipment is faulty, the ship is outside the coverage area or the terminal is turned off);

**DER** – *Out of order* (to be used when the radio path and associated handshaking procedure is accomplished normally but the teleprinter fails to respond to the **WRU** signals);

**NC** – *No circuits* (to be used when congestion occurs in either the network or switching equipment);

**NP** – *The called party is not or is no longer a subscriber* (to be used when the ship number received is invalid);

**NA** – *Correspondence with this subscriber is not admitted* (to be used if the ship's number is barred or if unauthorized group calls are attempted);

**OCC** – *Subscriber engaged* (to be used if the ship station is engaged).

*Note* – See also Recommendation U.61 [1].

(2) For ship-to-shore calls all service codes generated in the international telex service, as specified in Recommendation F.60, should be capable of being returned and presented to the calling ship subscriber.

### Reference

- [1] CCITT Recommendation *Detailed requirements to be met in interfacing the international telex network with maritime satellite systems*, Vol. VII, Fascicle VII.1, Rec. U.61.



**PROCEDURES FOR USE OF STORE-AND-FORWARD FACILITIES  
IN THE MARITIME MOBILE SERVICES FOR SHIP-ORIGINATED CALLS <sup>1)</sup>**

*(Geneva, 1980)*

The CCITT,

*considering*

(a) that CCIR is currently studying the introduction of an automatic maritime VHF/UHF service also to be used for radiotelex;

(b) that relevant CCIR and CCITT Recommendations concerning direct printing services need to be taken into account;

(c) that store-and-forward equipment may be required for technical or operational reasons to interface the Maritime Mobile Services with the international telex network;

(d) that it is advantageous to specify identical procedures for all Maritime Mobile Services in order:

- to simplify the operational instructions to ship subscribers;
- to avoid ambiguity in choosing the correct procedures;
- to permit the use of the same facility on land;
- to ensure that the same procedures are used in all countries offering store and forward facilities to ships;

*recommends the following procedures*

**1 Access procedures**

1.1 In automatic maritime services the access is provided by two-digit numbers in accordance with Recommendation F.121.

1.2 The setting-up procedure on the radio path will follow procedures defined by the CCIR.

**2 Answer-back generated by the store-and-forward facility**

2:1 The composition of the answer-back of store and forward equipment shall be in accordance with Recommendation F.60, § 3.4.2.4.

**3 Procedure for forwarding messages to the store-and-forward facility**

**3.1 Procedure for forwarding messages**

3.1.1 The procedure to be followed after the connection has been established is shown in Table 1/F.132.

---

<sup>1)</sup> Where store-and-forward facilities are used in the Maritime Mobile-Satellite Service and existing MF and HF mobile services it may be advantageous to follow similar procedures.

TABLE 1/F. 132  
Procedures for forwarding of messages to the store-and-forward equipment

Direction	Signal	Remarks
B	Answer-back (store-and-forward equipment)	
B	WRU	Follows immediately after the answer-back
F	Answer-back	
B	M/S	Message or status?
F	M+	Message
B	TLX NR	Request for telex number of required subscriber
F	Telex Number	
F	+	End of selection
B	CFM TLX NR	Confirmation of received telex number (invalid formats should be indicated by the service signal NA)
B	Confirmation of telex number	
F	+	+ if telex number is confirmed otherwise see § 3.4.3
B	GA	Send message
F	Message	
F	≤≡↑++++	End of information of the forward path
B	REF NR xxxx	Reference number of message
B	Date and time <sup>a)</sup>	
B	Answer-back	
B	WRU	
F	Answer-back	
B	M/S	More messages/status
F	M+, S+ or clear-down	

B Backward, i.e. sent to the calling subscriber by the store-and-forward equipment.

F Forward, i.e. sent to the store-and-forward equipment by the calling subscriber.

<sup>a)</sup> ISO standard for date and time.

3.1.2 The telex number of the required subscriber must be followed by a + (end of selection).

3.1.3 In the confirmation, the telex number must be sent in exactly the same way as received (i.e. with end-of-selection signals). The calling subscriber acknowledges the confirmation by sending + if the telex number is correct.

3.1.4 Procedure for correcting errors is shown in § 3.4.4.

3.1.5 All messages shall be terminated by an end-of-information on the forward path signal. It is proposed that this should be the sequence ≤≡↑++++. If an end-of-information on the forward path signal is not received, the message shall not be accepted by the system.

## 3.2 Reference number

3.2.1 All messages should be identified by a reference number that is sent automatically by the store-and-forward equipment to the calling subscriber.

## 3.3 Limitation of storage capacity

3.3.1 If there is no storage available when a call is received, the equipment should return NC followed by the clearing signal. This signal should be sent when the signal M+ has been received from the calling subscriber.

3.3.2 The Administration\* may require that messages exceeding a given number of characters are not accepted. If so, this should be brought to the attention of the subscribers by proper instructions. If such limits are set, they should have such values that only messages of unusual length would be refused (e.g. 10 000 characters).

3.3.3 If a message exceeds the preset limit, the store-and-forward equipment should transmit to the ship a stream of character **P** or **0** until transmission ceases from the calling subscriber. A service text (for example, **OVERFLOW**) should then be transmitted. If transmission does not cease within a given time, the connection must be cleared without returning a service text.

#### 3.4 *Abnormal events*

3.4.1 If the calling subscriber deviates from the defined procedure, the store-and-forward equipment shall clear the connection with the service signal **FMT** (format error).

3.4.2 If pauses in the transmission exceeding 30 seconds occur or if more than 69 identical characters are received successively, the service text **BK** (in the latter case possibly preceded by a stream of character **P** or **0**) should be returned and the connection be released. The message must not be delivered.

3.4.3 The time-out also applies in principle to pauses between backward signals sent by the store-and-forward equipment and the next forward signal from the subscriber. However, shorter time-outs may be chosen for certain signals such as **WRU**/answer-back and between digits of the telex numbers.

3.4.4 If the confirmation of the telex number does not match the original or if the telex number is received with **NA**, the subscriber should correct the error by re-entering the number.

### 4 **Retransmission of messages by the store-and-forward equipment**

#### 4.1 *Procedures*

4.1.1 Retransmission of messages to a land subscriber shall follow normal setting-up procedures of the telex network.

4.1.2 A service text should be inserted in front of the message indicating that it is a message retransmitted by a store-and-forward facility followed by the calling subscriber's answer-back.

4.1.3 Messages to destinations that are not obtainable automatically from the country in which the store-and-forward facility is located, should be forwarded to an operator for onward transmission.

4.1.4 If the store-and-forward equipment receives a stream of character **P** or **0** when transmitting, the transmission shall stop. Such messages may be sent later according to the procedures defined in § 4.2.

#### 4.2 *Ineffective retransmission attempts*

##### 4.2.1 **OCC, NC**

4.2.1.1 If the store-and-forward equipment receives an **OCC** or an **NC** service signal followed by clear, it must wait at least 3 minutes before repeating the attempt.

4.2.1.2 If the called subscriber is still unavailable after a maximum of five such attempts, a further series of a maximum of five attempts may be initiated after a delay of at least 15 minutes. This call series may be repeated once.

4.2.1.3 Further such calls may be attempted with one-hour intervals over a total period of, for example, 6 hours.

4.2.1.4 If the subscriber remains unavailable after these call series, the call should be abandoned and the calling subscriber be informed (§ 4.3).

#### 4.2.2 ABS, NA, NCH, NP, DER

4.2.2.1 If the equipment receives an **ABS, NA, NCH, NP** or **DER** service signal followed by clear, only one further attempt may be made after a minimum period of 2 seconds.

4.2.2.2 In the event of a second failure, the call should be abandoned and the ship subscriber be informed (§ 4.3).

#### 4.2.3 Clear

4.2.3.1 If the equipment receives a clearing signal without previous reception of a service signal it must wait 2 seconds before a second attempt.

4.2.3.2 If the same phenomenon occurs three times in succession, a second series of 3 calls may be made again after a delay of 15 minutes. If this series of calls produces the same result, the call should be abandoned and the calling subscriber be informed (§ 4.3).

#### 4.2.4 Interruption

4.2.4.1 If the connection to the called subscriber is interrupted (with or without service signals) while the message is in the process of being transmitted, a further attempt should be made after a minimum period of 2 seconds.

4.2.4.2 When, on such a further attempt, one of the service signals, **OCC, NC, NA, NCH, NP, ABS, DER** or a clearing signal without a preceding service signal is received, the equipment should follow the procedure of §§ 4.2.1, 4.2.2 or 4.2.3 as required.

4.2.4.3 The whole message must be sent when the connection to the called subscriber is re-established.

#### 4.3 Automatic advice of retransmission or of nondelivery

4.3.1 The store-and-forward equipment should be capable of automatically informing the calling subscriber that a message has been retransmitted. If a message has not been retransmitted the calling subscriber should be informed of the reason.

4.3.2 The information returned for retransmitted messages should at least include:

- a) the reference number of the message;
- b) the called telex number;
- c) the answer-back as received from the called subscriber;
- d) the date and time when the message was retransmitted.

4.3.3 For messages that have been abandoned the following information should be returned:

- a) the number of call attempts;
- b) the last received service signal;
- c) the date and time when the call was abandoned.

4.3.4 If the answer-back from a calling ship complies with Recommendation F.130, the number of the calling subscriber may be derived from the answer-back. In this case back-indication as described above would be possible.

4.3.5 If the ship's answer-back does not comply with Recommendation F.130 it might be impossible for the equipment to return a "retransmitted" or "nondelivered" indication. This matter will require further study.

4.3.6 The procedures for back-indication should be the same as for retransmission of messages (§§ 4.1 and 4.2).

#### 4.4 Inquiry of retransmitted/nondelivered information by the subscriber

4.4.1 It should be possible for the calling subscriber to obtain the status of any message that he has forwarded to the system but of which he has not received any retransmitted or nondelivered information.

4.4.2 Retransmitted/nondelivered information that has not been returned to the ship should be retained for at least five days.

4.4.3 Information concerning retransmission or nondelivery as defined in §§ 4.3.2 and 4.3.3 should be given upon request by the subscriber. If the inquiry concerns a call for which the last retransmission attempt has not yet been made, the service signal **RSBA** (retransmission still being attempted) should be returned.

4.4.4 It should be possible for the subscriber to delete any nondelivered message except messages in the process of being retransmitted.

4.4.4.1 The store-and-forward equipment must check whether the message belongs to that subscriber before it is deleted.

4.4.5 The procedure for status information and deletion of messages is shown in Table 2/F.132.

TABLE 2/F. 132  
Status inquiry and deletion of messages

Direction	Signal	Remarks
B	Answer-back (from store-and-forward equipment)	
B	WRU	
F	Answer-back	
B	M/S	
F	S+	Request for status
B	REF NR	What reference number?
F	xxxx+	Reference number (store and forward equipment checks whether this reference number belongs to the calling subscriber; if not, <b>NA</b> should be returned).
B	Status	Information as defined in § 4.4.3
B	+?	End of transmission
F <sup>a)</sup>	xxxx+	If there is more than one message
B	Status	
B	+?	
F <sup>a)</sup>	ANUL xxxx+	If the message is to be deleted
B	+? or NA	+? if the message is deleted; <b>NA</b> if the message for some reason cannot be deleted (e.g. in the process of being transmitted, or belongs to another subscriber)

B Backward, i.e. sent to the calling subscriber by the store-and-forward equipment.

F Forward, i.e. sent to the store-and-forward equipment by the calling subscriber.

<sup>a)</sup> Repeated until calling subscriber clears the connection. The clearing sequence may be preceded by exchange of answer-backs.

## SECTION 10

### PUBLIC FACSIMILE SERVICE

#### Recommendation F.160

#### GENERAL OPERATIONAL PROVISIONS FOR THE INTERNATIONAL PUBLIC FACSIMILE SERVICES <sup>1)</sup>

(Geneva, 1980)

#### 1 General provisions

##### 1.1 General considerations

##### *Considering:*

- a) the growing importance of facsimile (see § 1.2.1) as a means of communication in international relations;
- b) the need of users to have facsimile services (see § 1.2.5) available at international level for the exchange of users' documents, whether between subscriber stations or through the intermediary of public stations;
- c) that facsimile services cover a part of the needs not met by other methods of telecommunication;
- d) that, in accordance with the Series T Recommendations, facsimile services may be operated using various methods of transmission and switching;
- e) that the characteristics specified in the relevant Series T Recommendations in respect of standardization of equipment for operating facsimile services promote these services and simplify operational questions;
- f) that the use of universal terms to regulate operating procedures for facsimile services between manual terminals would avoid difficulties of understanding that could arise in relations between users speaking different languages;
- g) that universal terminology would be desirable at international level with regard to facsimile services;

it is important that the Administrations\* be requested to observe common provisions in respect of the operation of facsimile services in all relations.

---

<sup>1)</sup> See Resolution No. 13 at the beginning of this fascicle.

## 1.2 Terminology

### 1.2.1 facsimile

*F: télécopie*

*S: facsimil*

Reproduction of all forms of graphics, handwritten or printed material, in the sense of a distant reproduction of the original within the limits and characteristics specified by the relevant Recommendations.

### 1.2.2 facsimile terminal (facsimile machine)

*F: terminal de télécopie (télécopieur)*

*S: terminal facsimil (aparato facsimil)*

Machine used for the transmission and/or receipt of documents in facsimile services.

### 1.2.3 subscriber's facsimile station

*F: poste d'abonné de télécopie*

*S: estación facsimil de abonado*

Equipment made available to a facsimile service subscriber, including a facsimile terminal, access to the appropriate public telecommunication networks as well as connecting and possible additional equipment.

### 1.2.4 public facsimile station

*F: poste public de télécopie*

*S: estación facsimil pública*

Equipment operated by an Administration\* in a facsimile bureau open to the public, including a facsimile terminal, access to the telecommunication networks (with possible use of dedicated circuits) as well as connecting and possible additional equipment.

### 1.2.5 facsimile service

*F: service de télécopie*

*S: servicio facsimil*

Telecommunication service offered for the purpose of transmitting documents between facsimile machines.

### 1.2.6 facsimile on private networks

*F: télécopie sur réseaux privés*

*S: facsimil por redes privadas*

With regard to facsimile communications on private networks, circuits leased must be used in accordance with the instructions contained in Recommendation T.10 [1] and the general Series D Recommendations.

### 1.2.7 international public facsimile service

*F: service public international de télécopie*

*S: servicio facsimil público internacional*

A telecommunication service between facsimile stations in different countries. These services may be classified in two categories:

- a) public facsimile service between subscribers' stations (use of a public telecommunication network);
- b) public facsimile service between Administrations\* public bureaux (see § 1.2.8) (use of a public telecommunication network or dedicated circuits).

### 1.2.8 public facsimile bureau

*F: bureau public de télécopie*

*S: oficina facsímil pública*

An Administration's\* public bureau responsible for accepting, transmitting, receiving and delivering facsimile documents.

### 1.3 General characteristics of the facsimile service

#### 1.3.1 Specification and classification of compatible terminals shall be in accordance with:

- a) the relevant Series T Recommendations for transmission of facsimile documents over telephone-type circuits;
- b) the Series T Recommendation that is under study for transmission of facsimile documents over data networks (see Questions 7/VIII [2] and 8/VIII [3]);
- c) current national legislation.

#### 1.3.2 The facsimile service may utilize:

- a) the public switched telephone network (or circuits allocated for DATEL service); and/or
- b) a public data transmission network; and/or
- c) a network allocated to that application; and/or
- d) dedicated circuits between public facsimile bureaux.

### 1.4 Restrictions on the use of a facsimile service

1.4.1 Administrations reserve the right to suspend facsimile services in the circumstances described in Articles 19 and 20 of the *Convention* [4].

1.4.2 Administrations\* shall refuse to make facsimile services available to an agency that is known to be organized for the purpose of sending or receiving documents for third parties and for retransmission by any means in order to avoid the payment of the full charges normally levied for such correspondence.

1.4.3 Administrations\* shall refuse to make facsimile services available to a client whose activities may be regarded as an infringement of the functions of an Administration\* in providing a public telecommunication service.

## 2 General operational provisions for the international public facsimile service

### 2.1 Scope

2.1.1 The provisions set out below shall apply to facsimile documents transmitted on the public telecommunication networks, in particular on the public switched telephone network, or on public data networks (or circuits allocated for DATEL service) in international relations:

- a) between subscribers' facsimile stations (Recommendation F.180);
- b) between public facsimile bureaux (Recommendation F.170).

*Note* — Provisions applicable to facsimile documents transmitted between subscriber stations and public bureaux (and vice versa) are to be prepared as part of the study of Question 10/I [5] (see § 2.5).

### 2.2 Quality of service

2.2.1 The quality of service depends on the normal characteristics of the network used and of the facsimile terminals, in particular their scanning and reproduction parts.

2.2.2 Terminal-to-terminal quality shall be checked by various measurements. In particular, the quality of the scanning and reproduction functions may be checked:

- a) between manually operated terminals;
- b) between a terminal operated manually and an automatic terminal;



- c) between automatic terminals;

by:

- i) automatic transmission of a test chart to check the reproduction system of the destination terminal;
- ii) transmission of a chart on paper to check the scanning system on the transmitting terminal or the reproduction system of the destination terminal.

The standardized CCITT test chart shall be used for this purpose.

#### 2.2.3 Administrations\* shall perform test and measurement services:

- a) to locate faults and to restore service on the public network excluding terminal equipment; or
- b) to locate and to clear faults, including those involving the terminals.

### 2.3 *Terminal identification*

2.3.1 Identification of terminals is effected following the procedures laid down in Recommendations T.30 [6] and the relevant Series T Recommendation under study [see § 1.3.1 b) above].

### 2.4 *Enquiries and complaints*

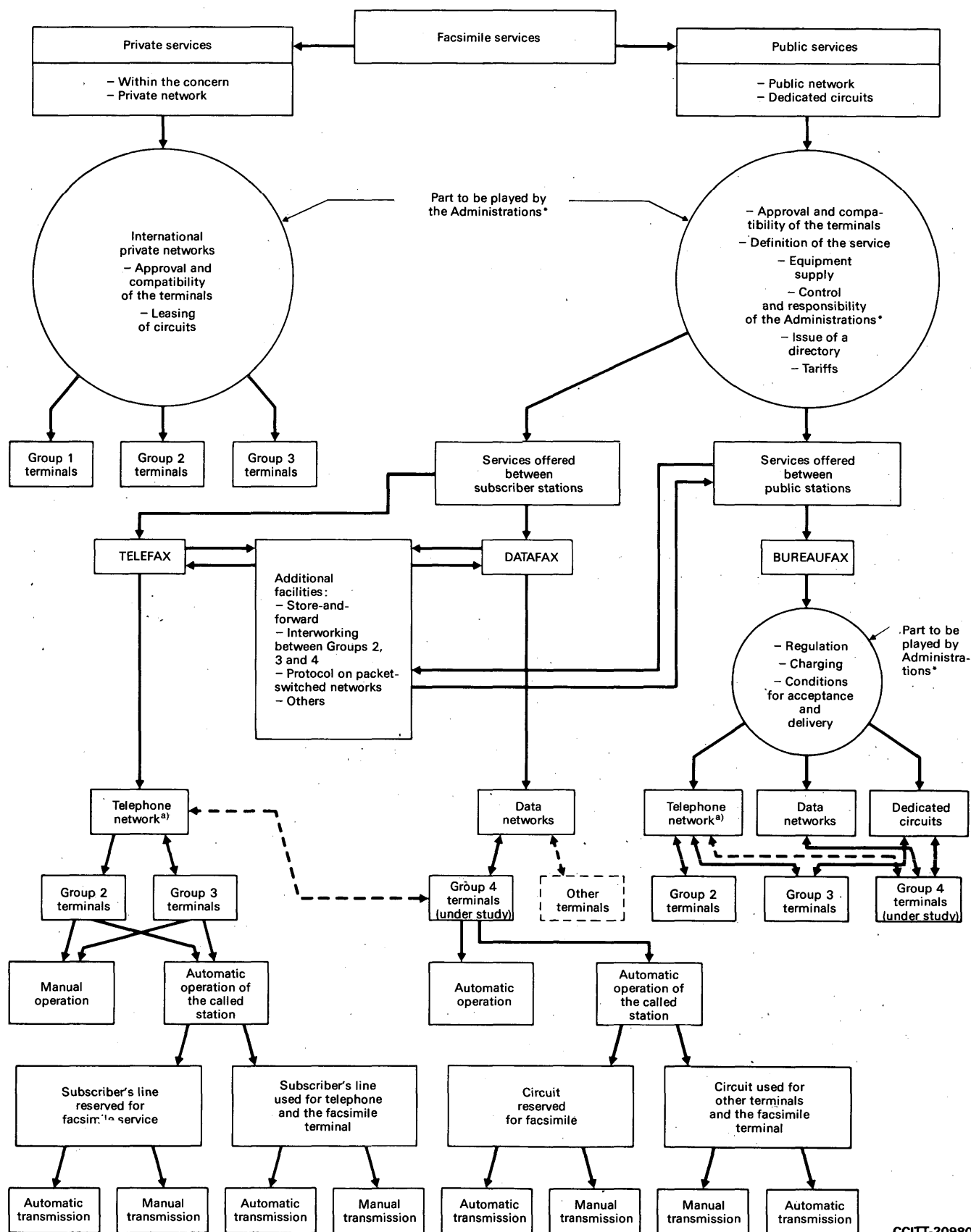
2.4.1 Enquiries and complaints services shall be provided by Administrations\*.

### 2.5 *Types of international public facsimile services* (see Figure 1/F.160)

2.5.1 The international public facsimile services include:

- a) the facsimile service between subscribers' stations (Recommendation F.180);
- b) the facsimile service between public bureaux (Recommendation F.170);

*Note* – Operation of the international public facsimile service between subscribers' stations and public bureaux (and vice versa) is the subject of Question 10/I [5], the study of which will enable new provisions to be drawn up.



CCITT-20980

<sup>a)</sup> Or on circuits allocated for DATEL service.

Note – Further refinement will be needed as the study progresses.

FIGURE 1/F. 160  
Types of facsimile service

## References

- [1] CCITT Recommendation *Document facsimile transmissions on leased telephone-type circuits*, Vol. VII, Fascicle VII.2, Rec. T.10.
- [2] CCITT – Question 7/VIII, Contribution COM VIII-No. 1, Study Period 1981-1984, Geneva, 1981.
- [3] CCITT – Question 8/VIII, Contribution COM VIII-No. 1, Study Period 1981-1984, Geneva, 1981.
- [4] *International Telecommunication Convention*, Malaga-Torremolinos, ITU, Geneva, 1973.
- [5] CCITT – Question 10/I, Contribution COM I-No. 1, Study Period 1981-1984, Geneva, 1981.
- [6] CCITT Recommendation *Procedures for document facsimile, transmission in the general switched telephone networks*, Vol. VII, Fascicle VII.2, Rec. T.30.

## Recommendation F.170

### OPERATIONAL PROVISIONS FOR THE INTERNATIONAL PUBLIC FACSIMILE SERVICE BETWEEN PUBLIC BUREAUX (BUREAUFAX)<sup>1)</sup>

(Geneva, 1980)

## 1 General provisions

1.1 In accordance with the general conditions of Recommendation F.160, Administrations\* may operate an international public facsimile service between public bureaux provided that terminals are compatible or compatibility is ensured by the network from the standpoint of the characteristics specified in the relevant Recommendations and in accordance with bilateral or multilateral agreements.

*Note* – The operation of the international public facsimile service between public bureaux and subscribers' stations (and inversely) forms the subject of Question 10/I [1].

1.2 Facsimile terminals may be manual, have automatic operation of the called station or be fully automatic. The operational procedures applicable in relations between the different types of stations are set out in Recommendation T.30 [2] for use of the public switched telephone network, and are under study for use of a public data network (see Questions 7/VIII [3] and 8/VIII [4]).

## 2 Conditions for acceptance

2.1 Documents for facsimile transmission shall normally be accepted up to a maximum size ISO A4 (210 × 297 mm). Exceptionally, documents of a larger size may be accepted by bilateral agreement between those Administrations\* concerned, for example the size 215 × 355 mm.

2.2 For faithful transmission, the contents of documents must leave minimal margins in blank on all four sides. With regard to the ISO A4 format, the following four figures show the guaranteed reproducible areas for the following cases:

a) least favourable cases of use:

- for Group 2 machines: Figure 1/F.170;
- for Group 3 machines: Figure 3/F.170;

b) objectives to be attained by Administrations\* and manufacturers in providing adequate subscriber service:

- for Group 2 machines: Figure 2/F.170;
- for Group 3 machines: Figure 4/F.170.

*Note 1* – The shaded part in the figures represents the guaranteed reproducible area.

*Note 2* – With regard to formats other than A4 which have been bilaterally agreed, a margin of 10 mm on all four sides of the documents should be observed. On this basis, the guaranteed reproducible area would be 195 × 260 mm for the North American standard and 195 × 335 mm for the "legal" standard.

<sup>1)</sup> See Resolution No. 13 at the beginning of this fascicle.

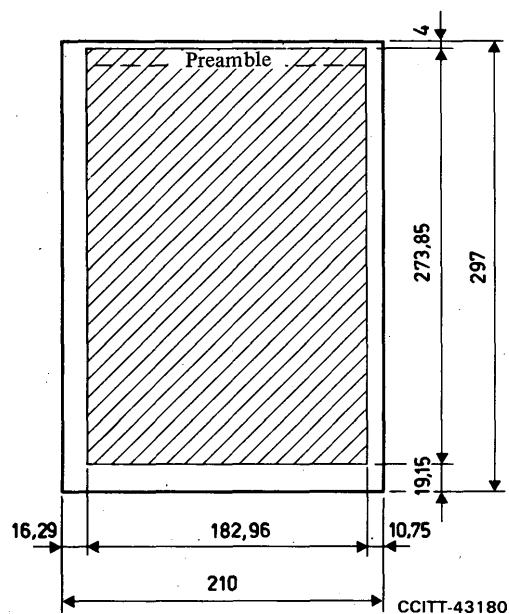


FIGURE 1/F. 170

Dimensions and location of the reproducible area of an A4 format document (in mm) for Group 2 machines under the least favourable conditions (information supplied by former Study Group XIV)

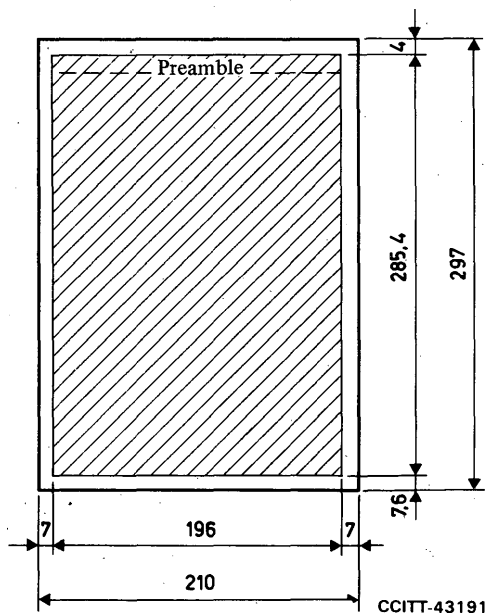


FIGURE 2/F. 170

Dimensions and location of the reproducible area of an A4 format document (in mm) for Group 2 machines, which Administrations\* must endeavour to achieve in the Bureaufax service

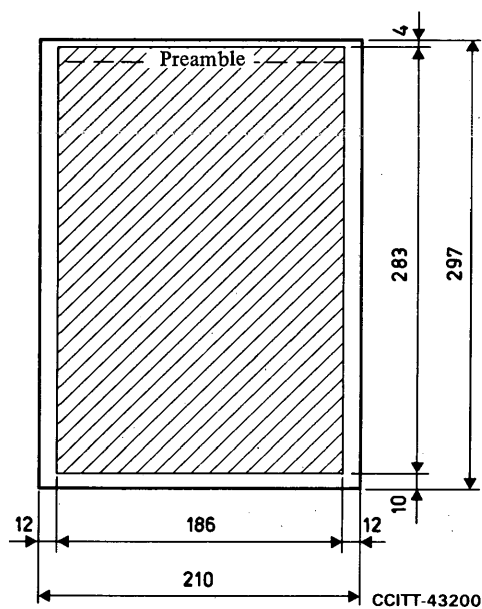


FIGURE 3/F. 170

Dimensions and location of the reproducible area of an A4 format document (in mm) for Group 3 machines under the least favourable conditions (information supplied by former Study Group XIV)

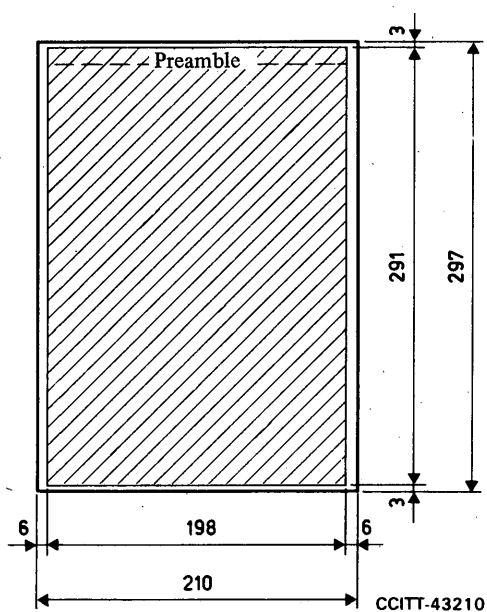


FIGURE 4/F. 170

Dimensions and location of the reproducible area of an A4 format document (in mm) for Group 3 machines, which Administrations\* must endeavour to achieve in the Bureaufax service

2.3 Where the area to be transmitted exceeds the area reproducible by facsimile, a document may be divided by the sender or by the accepting public bureau, who shall indicate the order in which the parts must be transmitted.

2.4 Care must be taken to ensure that there is no loss of the reproducible part transmitted.

2.5 To ensure the satisfactory facsimile transmission of a document, senders should be advised not to submit documents with insufficiently sharp contrast or inadequate definition.

2.6 If the customer presents a document containing colours or half-tones, he should be informed that, with existing equipment, faithful reproduction at the distant end will not be possible as printing will be in black and white only.

2.7 If, after having been informed that the quality of the document to be transmitted is unsuitable for satisfactory facsimile transmission (this includes all photographs and documents in colour), the sender of the document still insists on its transmission, it shall be accepted by the public bureau only at the sender's own risk. In this event the service instruction **RISQUES EXPEDITEUR** may be inserted in the preamble to the facsimile document provided national legislation so permits. When the facsimile document comprises more than one page, the pages concerned by the service instruction **RISQUES EXPEDITEUR** shall be clearly designated.

2.8 Administrations\* shall reserve the right to refuse the transmission of documents in the circumstances described in Articles 19 and 20 of the *Convention* [5].

### 3 Composition of a facsimile document

3.1 Every facsimile transmission shall include a preamble, a detailed address and the document to be transmitted.

3.2 The preamble should consist of the following:

- a) designation of the origin bureau;
- b) designation of the destination bureau;
- c) a serial number containing the time and date of acceptance and a document identification number;
- d) the number of pages and the page number;
- e) service instructions, if any;
- f) the preamble may contain routing information if required.

3.3 The address must contain all the particulars necessary to ensure the routing and delivery of the facsimile document without inquiries or requests for information. As a general rule, it should indicate:

- a) the designation of the addressee;
- b) his complete postal address including if possible the postal code;
- c) the telephone number of the addressee when known;
- d) the call number of the addressee's facsimile station where delivery by facsimile (at the national level) is desired, although it may not be possible to guarantee delivery by this means.

3.4 All written or printed matter, drawings, or any other documents may form the subject of a document for facsimile transmission, subject to the limitations referred to under conditions for acceptance in § 2 above.

3.5 A signature is optional.

### 4 Document acceptance

4.1 A document for facsimile transmission may be handed in at the counter of a public bureau, or be accepted by such other means as designated by the Administration\* responsible for the public bureau.

4.2 Where a message is to be transmitted, the sender may use a facsimile document form, if available, for this purpose instead of submitting his own document for transmission. The facsimile document form should have a centralized inner frame delimiting the contents (reproducible) part of the form. The preamble information shall be contained in a printed band at the top of the form, as indicated in Figures 1/F.170 to 4/F.170. Where more than one page is to be transmitted, it will not be necessary to repeat all the preamble information on each page of the facsimile document form. Only the serial number, the page number and the service instructions are mandatory. The address, as indicated in § 3.3, should be inserted immediately beneath the preamble information on the first page of the document.

4.3 A document to be transmitted need not necessarily be a facsimile document form. In this case, the document submitted for transmission must permit the insertion, inside the reproducible format frame, of the preamble and address information (possibly using a printed band corresponding to the top part of a facsimile document form for this purpose). However, if this is not possible or other reasons dictate, the preamble and address information may be inserted on a separate sheet (e.g. on a facsimile document form), which should carry the message **DOCUMENT FOLLOWS**.

4.4 The accepting public facsimile bureau shall recommend that the sender give his name and his full address and telephone number so as to be able, if required, to provide him with any information or to request him for any details concerning his facsimile document. These details are not transmitted unless they constitute part of the document.

4.5 The sender of a facsimile document shall be required to establish his identity if called upon to do so by the accepting public facsimile bureau.

## **5 Transmission**

5.1 In principle, documents shall be transmitted by a public bureau in the order in which they are accepted.

5.2 The receiving public bureau should acknowledge the satisfactory receipt of a facsimile document to the transmitting public bureau.

5.3 A transmission prevented by adverse conditions shall be repeated as soon as conditions allow.

5.4 If a facsimile document received at the destination public facsimile station is unsatisfactory after a maximum of three attempts, in principle no further attempts shall be made. The sender will be informed of the situation.

5.5 If transmission cannot be effected by the outgoing public bureau within 4 hours of acceptance by the public facsimile bureau, the sender shall be informed as soon as possible.

5.6 On no account will the destination public bureau request repeat transmissions in an attempt to improve the quality of facsimile reproduction in cases where the service instruction **RISQUES EXPEDITEUR** has been inserted in the preamble of the relevant pages.

## **6 Delivery**

6.1 A facsimile document received at a destination public facsimile bureau shall be collected by the addressee or his authorized representative or else be delivered by the bureau in accordance with the appropriate methods provided by the Administration\* concerned.

6.2 Where a facsimile document is received and satisfactorily retransmitted by the public facsimile bureau to the national subscriber's station, it shall be considered to have been delivered to the addressee.

6.3 The destination public facsimile bureau shall record the time of receipt of each facsimile document and the time and method of despatch to the addressee.

6.4 According to the method used at the national level, the time of delivery of a facsimile document shall be, for example:

- a) the time of delivery to the addressee; or
- b) the time when the addressee, having been informed of the receipt of the facsimile document, expressed the intention of collecting it or sending for it at the counter; or
- c) in the service from a public station to a subscriber's station, the time when transmission is completed; or
- d) in the case of postal dispatch to the addressee, the moment of handing over to the postal service (except where a national agreement controls the routing of the document to the addressee).

6.5 The addressee of a facsimile document must establish his identity if required to do so by the destination public facsimile bureau.

6.6 The addressee of a facsimile document with the service instruction **RISQUES EXPEDITEUR** inserted in the preamble shall be obliged to accept the quality of facsimile reproduction offered without recourse to further improvement.

6.7 When a facsimile document cannot be delivered to the addressee, the public bureau of destination shall inform the origin public bureau accordingly.

## **7 Archives**

7.1 The maintenance of archives shall be at the discretion of the individual Administrations\* concerned who will decide on the most suitable arrangements so as to answer any subsequent queries, in particular on the international accounts.

7.2 Should an Administration\* deem it desirable to destroy the relevant documents before the expiration of the period during which international accounts may be challenged in accordance with the *Telephone/Telegraph Regulations* [6], and hence is not in a position to carry out an enquiry in respect of the services for which it is responsible, such Administration\* shall bear any difference in the international account or any refund of charges that may arise.

## **8 Charging, refunds and accounting**

8.1 Charging principles, refund of charges and international accounting for the transmission of documents in the international public facsimile service between public bureaux are governed by Recommendation D.70 [7].

## **9 Cancellation**

(This item is to be the subject of further study.)

## **10 List of public bureaux**

10.1 Administrations\* shall compile a list of bureaux participating in the Bureau fax service on the public switched telephone network and on public data networks (or on any networks allocated for facsimile application).

10.2 The list shall contain, in alphabetical order, names of bureaux:

Column 1: names of bureaux equipped with public facsimile stations.

Column 2: any supplementary routing information regarding the selection of the appropriate receiving bureau for the address shown on the document, e.g. postal codes for places for which that particular bureau has the local routing responsibility.

Column 3: international call numbers of the public bureaux listed under Column 1 with an indication of the network to be used.

Column 4: the service hours of the public bureaux listed in Column 1 (hours UTC). This column shall be subdivided into Monday-Friday/Saturday/Sunday and holidays. Holidays shall be indicated at the head of the list of the country concerned.

Column 5: the names of the public bureaux to be called upon for re-routing in the event of service closure, equipment failure or busy condition of the public facsimile stations of the public bureaux listed in Column 1.

Column 6: the type(s) of terminal at the public facsimile stations of the public bureaux listed in Column 1, from the standpoint of the characteristics specified in the relevant Recommendations (group number and indication of "automatic" or "manual"); for automatic terminals details of the identification should be given.

Column 7: comments and observations.

10.3 Administrations\* shall send their list of Bureau fax bureaux and any subsequent changes to that list to the General Secretariat of the ITU.

10.4 The ITU General Secretariat shall issue a document containing these lists arranged in accordance with § 10.2 above.

10.5 Amendments to the ITU list shall be published in the ITU *Operational Bulletin* in accordance with the changes announced by Administrations\*.



**11      Bureaufax service via the public switched telephone network, via a public data network or via facilities dedicated to Bureaufax service**

11.1    The special provisions applicable in the case of international public facsimile service via the public switched telephone network are normally those indicated in § 5 of Recommendation F.180.

11.2    Special provisions applicable in the case of international public facsimile service via a public data network are being studied.

**ANNEX A**

(to Recommendation F.170)

**List of expressions for use in the operation of facsimile services**

English	French	Local language
1. <i>Identification of facsimile station</i>		
1.1   Public facsimile station ... here.		
1.2   Subscriber's facsimile station ... here.		
1.3   Who are you?		
1.4   Give your call number in ... (language).		
2. <i>Transmission/reception</i>		
2.1   I have a facsimile document for you.		
2.2   Are you ready to receive?		
2.3   I am ready to receive.		
2.4   Are you ready to send?		
2.5   I am ready to send.		
2.6   Please switch over to facsimile machine.		
2.7   I am switching over to facsimile machine.		
2.8   How many pages in the facsimile document?		
2.9   The facsimile document consists of ... pages.		
2.10   Transmission speed: ... minutes.		
2.11   Have you finished?		
2.12   I have finished.		
2.13   We can terminate the call.		
3. <i>Transmission quality and irregularities</i>		
3.1   Facsimile document well received.		
3.2   Facsimile document badly received, repeat in full.		
3.3   Facsimile document badly received, repeat page(s) ...		
3.4   Bad connection, will call you back.		
3.5   Bad connection, am cutting off, call me back.		
3.6   My facsimile machine is defective.		
4. <i>Routing</i>		
4.1   Please route facsimile document to ...		
4.2   I cannot accept the facsimile document.		
4.3   Can you accept traffic for ... ?		
4.4   Routing error.		
5. <i>Miscellaneous</i>		
5.1   Tell us what to do.		
5.2   Wait a moment.		
5.3   Find somebody who speaks ... (language).		
5.4   I am giving you someone who speaks ... (language).		
5.5   I cannot understand you.		
5.6   Please call me by telex at number ...		

## References

- [1] CCITT Question 10/I, Contribution COM I-No. 1, Study Period 1981-1984, ITU, Geneva, 1981.
- [2] CCITT Recommendation *Procedures for document facsimile transmission in the general switched telephone network*, Vol. VII, Fascicle VII.2, Rec. T.30.
- [3] CCITT Question 7/VIII, Contribution COM VIII-No. 1, Study Period 1981-1984, ITU, Geneva, 1981.
- [4] CCITT Question 8/VIII, Contribution COM VIII-No. 1, Study Period 1981-1984, ITU, Geneva, 1981.
- [5] *International Telecommunication Convention*, Malaga-Torremolinos, ITU, Geneva, 1973.
- [6] *Final Acts of the World Administrative Telegraph and Telephone Conference, Telegraph Regulations, Telephone Regulations*, ITU, Geneva, 1973.
- [7] CCITT Recommendation *General tariff principles for the international public facsimile service between public bureaux (BUREAUFAX service)*, Vol. II, Fascicle II.1, Rec. D.70.

## Recommendation F.180

### OPERATIONAL PROVISIONS FOR THE INTERNATIONAL PUBLIC FACSIMILE SERVICE BETWEEN SUBSCRIBERS' STATIONS <sup>1)</sup>

(Geneva, 1980)

#### 1 General

1.1 In accordance with the general conditions in Recommendation F.160, facsimile subscribers' stations may participate in the subscriber facsimile service operated over the public telecommunication network, provided that their installations are compatible or that compatibility is ensured by the network, in terms of the characteristics specified in the relevant Recommendations.

1.2 Administrations\* shall establish the conditions and procedures for connecting facsimile subscriber station terminals to the public telecommunication networks in accordance with their regulations, where appropriate.

1.3 Facsimile terminals may be manual, automatic for incoming calls or fully automatic. The operating procedures applicable in relations between the different types of stations are set out in Recommendation T.30 [1] for the public switched telephone network and are under study for the public data network (see Questions 7/VIII [2] and 8/VIII [3]).

*Note* — The operation of the public international facsimile service between subscribers' stations and public bureaux (and vice versa) is the subject of Question 10/I [4] (see Recommendation F.160, § 2.5).

#### 2 Conditions of acceptance

2.1 Calls between subscribers' stations participating in the subscriber facsimile service shall in principle be accepted without any limits on duration. Nevertheless, the procedures prescribed for the public networks used shall also apply to the facsimile service between subscribers' stations.

2.2 Conditions relating to maximum format, quality of paper to be used and other practical and operational aspects shall be limited and prescribed by the characteristics of facsimile terminals, as laid down in the relevant Recommendations.

---

<sup>1)</sup> See Resolution No. 13 at the beginning of this fascicle.

### **3 Tariffs, refunds and accounting**

3.1 Tariffs, refund of charges and international accounting for the transmission of facsimile documents in the international public facsimile service between subscribers' stations shall be governed by Recommendation D.71 [5].

### **4 Directories**

4.1 As far as possible, each Administration\* shall publish a directory of its subscribers participating in the public subscriber-to-subscriber facsimile service.

4.2 As far as possible, the directory shall contain, at least, in alphabetical order of subscribers:

- the subscriber's surname, given first name or exact designation;
- the subscriber's address;
- the call number of the subscriber facsimile station;
- the type of facsimile terminal in terms of characteristics specified in the relevant Recommendations (group number and indication "automatic" or "manual");
- the type of connection of the terminal (to the public telecommunication network).

### **5 International public facsimile service between subscribers' stations via the public switched telephone network (Telefax)**

#### **5.1 *Terminal equipment***

5.1.1 The facsimile terminals using the public switched telephone network shall be in accordance with the relevant Series T Recommendations.

#### **5.2 *The network***

5.2.1 The Telefax facsimile service shall be provided over the public switched telephone network (or the international DATEL network as appropriate: some Administrations\* feel that this type of service may be provided using DATEL circuits or telephone-type circuits assigned to the DATEL service).

#### **5.3 *Procedures for the transmission of documents***

##### **5.3.1 *Control procedures***

5.3.1.1 Terminals of the Telefax service may:

- be manual;
- have automatic operation of the called station;
- be fully automatic.

5.3.1.2 The operational procedures applicable to the Telefax service are to be found in Recommendation T.30 [1].

##### **5.3.2 *Terminal identification***

5.3.2.1 In the manual service, it is assumed that terminal identification is established by normal telephone conversation.

5.3.2.2 In the case of automatic operation at the called station, an answering tone of 2100 Hz shall identify connection to a non-voice terminal. Additionally an automatic identification (verbal or digital) may be used with Group 2 machines and shall be used with Group 3 machines.

5.3.2.3 In the fully automatic service a written identification is required. (This point is for further study.)

*Note* — From the service point of view, automatic and digital identification of Group 3 terminals *et seq* must in the future be regarded as compulsory and no longer as optional.

#### 5.4 *Service name*

##### 5.4.1 *Telefax*

5.4.1.1 The public facsimile service between subscriber stations on the public switched telephone network (or circuits intended for DATEL) shall be known as the Telefax service.

5.4.1.2 It is assumed that all terminals forming a part of the international Telefax service shall be “hardwired” (the question of the use of acoustic couplers is for further study).

5.4.1.3 The service shall consist of the Telefax 2 and Telefax 3 services.

##### 5.4.2 *Telefax 2*

5.4.2.1 Telefax service using Group 2 terminals shall be known as Telefax 2.

5.4.2.2 Administrations\* wishing to establish an international Telefax 2 service shall ensure that all terminals conform to the appropriate Recommendations and that international operational procedures and service quality (§ 2.2 in Recommendation F.160) are observed.

##### 5.4.3 *Telefax 3*

5.4.3.1 Telefax service using Group 3 terminals shall be known as Telefax 3.

5.4.3.2 Administrations\* wishing to establish an international Telefax 3 service shall ensure that all terminals conform to the appropriate Recommendations and that international operational procedures and service quality (§ 2.2 in Recommendation F.160) are observed.

#### 5.5 *Interworking between services*

5.5.1 Interworking between Telefax 2 and Telefax 3 services is desirable insofar as it is technically feasible.

5.5.2 Interworking with other services — The entire problem of interworking is under study.

#### 5.6 *Complementary services*

Studies are in progress for increasing the value of the Telefax service by complementary services.

#### **References**

- [1] CCITT Recommendation *Procedures for document facsimile transmission in the general switched telephone network*, Vol. VII, Fascicle VII.2, Rec. T.30.
- [2] CCITT Question 7/VIII, Contribution COM VIII-No. 1, Study Period 1981-1984, Geneva, 1981.
- [3] CCITT Question 8/VIII, Contribution COM VIII-No. 1, Study Period 1981-1984, Geneva, 1981.
- [4] CCITT Question 10/I, Contribution COM I-No. 1, Study Period 1981-1984, Geneva, 1981.
- [5] CCITT Recommendation *General tariff principles for the public facsimile service between subscriber stations (TELEFAX service)*, Vol. II, Fascicle II.1, Rec. D.71.

**PAGE INTENTIONALLY LEFT BLANK**

**PAGE LAISSEE EN BLANC INTENTIONNELLEMENT**

## SECTION 11

### TELETEX SERVICE <sup>1)</sup>

#### Recommendation F.200

### TELETEX SERVICE <sup>1)</sup>

(Geneva, 1980)

#### 1 Introduction

##### 1.1 Scope

1.1.1 This Recommendation fixes the rules to be followed in the automatic international Teletex service.

1.1.2 Teletex is an international service, offered by Administrations\*, enabling subscribers to exchange correspondence on an automatic memory-to-memory basis via telecommunication networks.

1.1.3 It is intended that the service requirements accommodate a suitable communicating office typewriter as one type of basic Teletex terminal.

1.1.4 The basic element of the correspondence between people using the service is the page, as the smallest unit of text treated as an entity. No restrictions shall exist as far as the operator procedures for generation of the text or the positioning of text within the printable area on a page are concerned.

*Note 1* — This does not necessarily imply that the characters used to construct a graphic symbol are transmitted in the same sequence as that in which they are keyed.

*Note 2* — This does not necessarily imply that the order in which text on a page is transmitted is the same as that in which it was keyed.

*Note 3* — If a graphic symbol that is not in the basic Teletex character repertoire is generated, the service cannot guarantee that it will be represented in a recognizable form at the receiving terminal.

1.1.5 It is not the intention of the new service to compete with or to duplicate public data services, although the use of Teletex for transmission of data (e.g. to question a data bank) may be a possible by-product.

---

<sup>1)</sup> See Resolution No. 13 at the beginning of this fascicle.

1.1.6 Questions of an essentially technical nature concerning the Teletex service are dealt with by other Recommendations.

## 1.2 *Service definitions*

### 1.2.1 *General*

1.2.1.1 The Teletex service provides — in addition and in parallel to the existing Telex service — communication between terminals, which are used for the preparation, editing and printing of correspondence.

1.2.1.2 It is an essential characteristic of the Teletex service that it provides a basic level of compatibility between all terminals participating in the service.

### 1.2.2 *Basic requirements*

1.2.2.1 The basic requirements of the Teletex service are as follows:

- a) A basic level of compatibility is provided between any two terminals both nationally and internationally so that they may communicate character-coded information to each other. This is to be achieved by requiring that terminals comply with Recommendations S.60 [1], S.61 [2], S.62 [3] and S.70 [4].
- b) It is for each Administration\* to decide on the network(s) on which the Teletex service will be carried. There shall be no restriction on the type of network to be used.
- c) It should be possible to extend the Teletex service to any number of countries.
- d) The graphic character repertoire of any office typewriter keyboard that satisfies the provisions of Recommendation S.61 [2] and that is acceptable to the national Administrations\* for use within the Teletex service should be permitted as a source.
- e) In order to enable private use applications, such as, for example, encryption, there should be no technical limitation on the bit sequence of the subscribers' information that may be transmitted.
- f) Local mode operation will not be disturbed by incoming calls under normal operating conditions.
- g) A received Teletex message can be printed or displayed otherwise as decided by the recipient and the terminal characteristics. If the message is printed, the receiving subscriber will be furnished with a document that is identical with that produced by the sending subscriber as far as its contents, layout and format are concerned.
- h) It is intended that the service should require no changes to the Recommendations for existing services or networks.
- i) The Teletex service will provide the ability to interwork in both directions with the telex service by means of conversion facilities.
- j) Facilities for providing a permanent copy (not necessarily on paper) of every message should exist at every Teletex installation.

### 1.2.3 *Standardized options*

1.2.3.1 It is recognized that some subscribers may need to use their Teletex terminals to communicate nationally and internationally using service features that are not included in the Teletex basic requirements, but that are, nonetheless, frequently used in office text equipment. A number of CCITT-standardized options should, therefore, be defined. However, the provision of any option in a service leads to some degree of incompatibility and the number of standardized options should be restricted, as shown below, to those features for which a clear international need can be foreseen.

1.2.3.2 The standardized options should provide means for:

- a) different character spacings (initially 12 and 15 pitch);
- b) different metric values for line spacing (initially 3.175 mm and 5 mm);
- c) selection of different graphic rendition of any selected portion of the text;
- d) indication that special stationery should be used;
- e) use of a wide range of character repertoires other than the Teletex basic character repertoires (both national and application-orientated);

- f) use of mixed modes of operation such as facsimile coded information;
- g) specification of an increased printable area (page formats on ISO A4 and A4L paper size);
- h) escape into national and private options.

*Note 1* — Administrations\* are encouraged to ensure that standardized and nationally defined options are used in such a way as to minimize the need for the introduction of private use options.

*Note 2* — There is a need for further study as the service develops. Changes may be required to this list.

### 1.3 *Definitions of terms used in the Teletex service*

1.3.1 The terms listed in Annex B have the definitions given there when used in these provisions.

### 1.4 *Duration of service*

1.4.1 In principle the Teletex service offered by Administrations\* shall normally operate on a fully automatic basis and be open continuously.

### 1.5 *Classes of call*

1.5.1 There are two accepted classes of call:

- a) ordinary private Teletex calls;
- b) service calls, including franking privilege calls. (Where Administrations\* choose to allow service calls via semiautomatic or manual operation these calls shall be permitted.)

*Note* — The methods of treating service calls for accounting purposes (see also Recommendation F.60, § 2.2) require further study and possible liaison with Study Group III.

### 1.6 *Restrictions on the use of the Teletex service*

1.6.1 Administrations reserve the right to suspend the Teletex service in the cases mentioned in Articles 19 and 20 of the *Convention* [5].

1.6.2 Administrations\* shall refuse to make the Teletex service available to an agency that is known to be organized for the purpose of sending or receiving messages for third parties and for retransmission by any means in order to avoid the full charges normally levied for such correspondence.

1.6.3 Administrations\* shall refuse to make Teletex service available to a client whose activities may be regarded as an infringement of the functions of an Administration\* in providing a public telecommunication service.

## 2 **Network requirements**

2.1 It is the responsibility of Administrations\* to decide in which network(s) the Teletex service is to be provided. The term Teletex network, as used in this Recommendation, shall be taken to mean a network on which Teletex service is provided.

2.2 Three possibilities are considered below:

- a) Teletex in a Circuit Switched Public Data Network (CSPDN) (it is possible for a CSPDN to be simulated by a modern switching system used also for telex);
- b) Teletex in a Packet Switched Public Data Network (PSPDN);
- c) Teletex in a Public Switched Telephone Network (PSTN).

Interworking between Teletex terminals supported on any network must be possible.

2.3 The international connection shall use international data transmission facilities. Exceptionally, bilateral agreements to use other means may be made where necessary.



2.4 Connection between PSTNs may use international telephone circuits.

2.5 Each Administration\* is normally responsible for the outgoing traffic and for providing the interface to the destination network.

2.6 International routes shall be capable of supporting user data rates of 2400 bit/s (see applicable Recommendations).

*Note* — It is recognized that national implementations of a Teletex service on varying types of network may involve national operation at different information throughput rates. It should be noted that in these cases buffering and/or flow control may be required (see Recommendations S.60 [1], S.62 [3] and S.70 [4]).

### 3 Numbering plan

3.1 Considering that it is the responsibility of each Administration to decide on the network(s) to be used for the Teletex service in accordance with the options noted in § 2, the Teletex numbering plan must accommodate these options.

3.2 The Teletex numbering plan is based on the individual numbering plans of each of these networks, i.e. Recommendation E.161 [6] for PSTNs and Recommendation X.121 [7] for Public Data Networks (PDN).

3.3 Each of these numbering plans provides for international calls between similar networks.

3.4 The numbering plan for PDNs (Recommendation X.121 [7]) provides for calls to national and international PSTNs.

3.5 As the numbering plan for PSTNs does not provide for calls to PDNs, those Administrations\* that use the PSTN nationally for the Teletex service must provide for call set-up procedures to give access to the national Teletex service in the other countries on PDN.

### 4 Character repertoire

4.1 The basic Teletex character repertoire of graphic characters and control functions for the international Teletex service and the coding of these characters for transmission between stations are found in Recommendation S.61 [2].

4.2 Other recognized national and/or application-oriented character repertoires can be used. These repertoires should only be used after registration by the CCITT and in accordance with the rules given in Recommendation S.61 [2].

4.3 To indicate the use of a subset of the Teletex graphic character repertoire a control function IGS (Identify Graphic Sub-repertoire) is used.

4.4 Each IGS is registered by the CCITT and each Administration\* can ask for registration of one or more IGSs following the rules specified in the appropriate Recommendation.

### 5 Operation of the Teletex service

#### 5.1 General

5.1.1 The Teletex service in each country and the international interconnection between countries or networks shall use automatic switching so that it is possible for any Teletex subscriber to reach any other Teletex subscriber using fully automatic selection. This shall not, however, preclude, on a *purely interim basis*, the use of manual call set-up by international operators, where the calling terminal is served from a PSTN in which international call access to another PSTN serving the called terminal cannot be automatically provided.

*Note 1* — Special requirements may in these instances be applicable to the terminals in order not to affect unduly the grade of service.

*Note 2* — The feasibility of this approach requires further study.

5.1.2 It is a requirement to allow the through-connection of a call between a Teletex terminal connected to a private automatic branch exchange (or similar systems) and those connected to public exchanges used for the Teletex service.

5.1.3 A virtual dialogue mode of operation, which appears to the subscriber as a conversational mode, should be possible, although this is not a basic requirement of the Teletex service initially. (This point is for further study.)

5.1.4 Mixed modes of operation within the Teletex service using specialized techniques such as facsimile as well as character-coded text will be important facilities for the Teletex service in the future.

5.1.5 Two-Way Alternate (TWA) communication is a capability of the Teletex service, which also includes One-Way Communication (OWC); the calling subscriber will have full control of the Teletex call. Two-way Simultaneous (TWS) communication is not regarded as a basic requirement for the Teletex service and is for further study.

## 5.2 *Call phases*

5.2.1 The operations for each call may be divided into the following three phases:

a) Preparation

- preparation of the information in local mode;
- loading of the information into a memory.

b) Transmission (in principle, automatic)

- call establishment;
- pre-information phase (see Note);
- information transfer from memory to memory (see Note);
- post information phase (see Note);
- call clearing.

*Note* – During these parts of the transmission phase the network must be transparent with respect to control procedures.

c) Output

- emptying the memory.

*Note* – The information may consist of one or more Teletex documents each consisting of one or more Teletex pages.

5.2.2 The control procedures as specified in Recommendation S.62 [3] shall be used as end-to-end communication procedures between any terminals in the basic service.

5.2.3 The network independent basic transport service for Teletex is specified in Recommendation S.70 [4].

5.2.4 The network-dependent control procedures for the Teletex service should be those that are defined for that network on which the Teletex service is provided (see the relevant Recommendations).

5.2.5 Further information should be available in the end-to-end control procedures, which may be used by a terminal to identify additional information found in a document. Details of the additional document information are for further study.

## 5.3 *Call identification*

### 5.3.1 *General*

5.3.1.1 The Teletex procedures include the exchange of reference information prior to sending any document. This reference information includes identification of the parties to the call as well as the date and time. Also, supplementary reference information is exchanged during a call to allow reference to an individual document or page for error recovery or other purposes.

5.3.1.2 This reference information, taken together, is defined to be printable on a single line called the *call identification line*. Use of this information is a local decision except in recovering from an interrupted transmission. In the case of automatic linking, the use of this information is for further study.

### 5.3.2 Format of the call identification line

5.3.2.1 The call identification line is comprised of 4 fields as follows:

- Field 1: identification of the called terminal;
- Field 2: identification of the calling terminal;
- Field 3: date and time;
- Field 4: supplementary reference information.

5.3.2.2 Presentation of this information may be made on the first or last line on each page of a document or on only one page of a document, or it may be omitted. The maximum allowable number of printable lines transmitted per page is reduced by one to allow optional printing of the call identification line. The choice of whether and where this presentation is made is a local decision except in certain recovery situations.

5.3.2.3 Where the transmission of a document is interrupted for any reason, the call identification line is to be printed or otherwise displayed at the point of interruption as well as at the point at which transmission is resumed as defined in Recommendation S.62 [3].

5.3.2.4 When the call identification line is presented the format shown in Figure 1/F.200 is used.

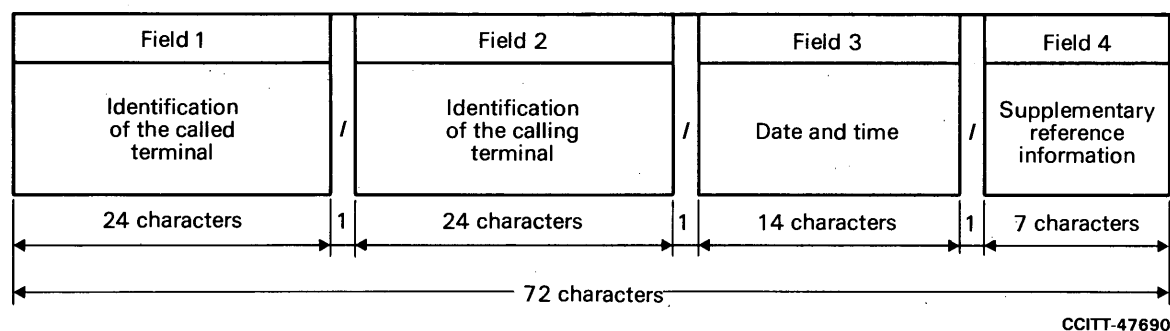


FIGURE 1/F. 200  
Format of the call identification line

5.3.2.5 Field 1 (identification of the called terminal) contains the identification of the called terminal in the format defined in § 8.5. It is originated in the control procedures by the called terminal.

5.3.2.6 Field 2 (identification of the calling terminal) contains the identification of the calling terminal in the format defined in § 8.5. It is originated in the control procedures by the calling terminal.

5.3.2.7 Field 3 (date and time) contains the date and time reference information showing the year, month, day, hour and minute in the fixed format of 14 characters thus YY-MM-DD-HH-MM. This field is originated in the control procedures by the calling terminal. (*Note* – the calling terminal may obtain this information from the network, an internal clock or manual input.) This time represents the local time at the calling terminal and is intended to represent the time of call origination.

5.3.2.8 Field 4 (supplementary reference information) contains a document reference number, a hyphen (coding 2/13) as a separator and a page reference number as defined in Recommendation S.62 [3]. This field has a fixed length of seven character positions and is originated in the control procedures by the terminal that is sending the associated documents.

5.3.2.9 Each of the fields of the call identification line is separated by the solidus (/) character (coding 2/15).

5.3.2.10 Only graphic characters of the Teletex graphic character repertoire corresponding to those of International Telegraph Alphabet No. 2 are used in the call identification line.

## 5.4 *Special services*

5.4.1 Since the effectiveness of the Teletex service will be increased by the availability of special facilities such as those given in the list of examples below, Administrations\* should give attention to their early introduction:

- storage in the network (e.g. delayed delivery);
- abbreviated address calling;
- multi-address calling;
- line identification by the network;
- automatic date and time indication;
- indication of charge.

5.4.2 Most of these facilities will be provided by the network on a national basis and it should be borne in mind that the Teletex service will be carried by different networks.

5.4.3 They may also be provided from the Teletex terminal instead of, or as well as, from the network.

5.4.4 The network should not impose any limitations on optional and private use applications.

## 6 *Interworking with other services*

### 6.1 *General*

6.1.1 In order to promote the use of the Teletex service it is necessary to enable interworking to take place with other services. Interworking with telex is described in § 6.2 below. Interworking with other services such as facsimile and Videotex is envisaged and may form the basis of separate Recommendations.

6.1.2 Teletex should require no changes to the Recommendations for existing services or networks used to carry the Teletex service.

### 6.2 *Interworking with telex*

#### 6.2.1 *General*

6.2.1.1 The implementation of national interworking between the Teletex and telex services, which should be provided, is a matter for the Administration\* concerned.

6.2.1.2 International interworking should also be provided, and in this case the following three general principles should be adopted:

- a) Interworking should be entirely automatic and no operator intervention should be necessary.
- b) Because some Administrations\* may be unable to provide conversion facilities, basic interworking on international connections will be at 50 bauds.
- c) Where two Administrations\* both have a Teletex service, or at least suitable conversion equipment, the possibility of a bilateral agreement to use an international Teletex connection should be studied. It is recommended that, where possible, an international Teletex connection should be used provided that the practical operational difficulties (e.g. tariff, routing and conversion problems) can be overcome.

#### 6.2.2 *Basic interworking service*

##### 6.2.2.1 *Conversion*

6.2.2.1.1 The Teletex terminal should be capable of selecting a sub-set of its graphic character repertoire corresponding to International Telegraph Alphabet No. 2 and of restricting the length of a line to 69 characters; the necessary conversion between the services (e.g. of service procedures, signalling transmission rates and codings) should be provided within the networks. The existing specifications apply to the telex terminals.

6.2.2.1.2 Any implementation of telex to Teletex interworking must take account of the various networks on which Teletex may be provided in different countries (e.g. CSPDN, PSPDN, PSTN).

#### 6.2.2.2 Location of the conversion Facilities in the case of international traffic

6.2.2.2.1 There are two possible situations to be considered in the basic service as shown in Figure 2/F.200.

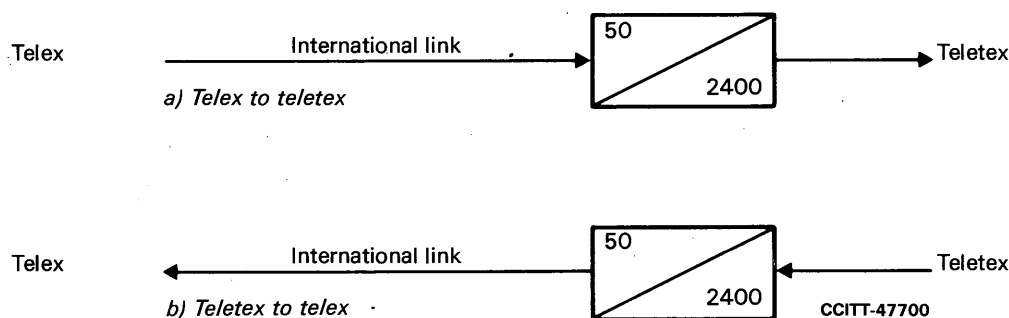


FIGURE 2/F. 200

6.2.2.2.2 Because the various countries will introduce the Teletex service at different times, it must always be assumed that the conversion facility is in the same country as the Teletex station, as far as the basic interworking service is concerned.

#### 6.2.2.3 Method of interworking

A storage method should be used for the conversion procedure. In this way each subscriber line is held only as long as is required for sending or receiving a message, and the entire message is temporarily stored in the conversion facility. It is particularly important that the Teletex subscriber line is held only as long as is absolutely required to send or receive a message at a rate of 2400 bit/s. The times necessary to establish and clear a call have to be added to the transmission time.

#### 6.2.3 Service requirements for interworking from a telex terminal to a Teletex terminal

6.2.3.1 The procedure for making the call should appear to the telex operator to be the same as for any other telex call.

6.2.3.2 The telex subscriber should not be charged for unsuccessful calls, that is, when his message fails to reach the Teletex subscriber.

6.2.3.3 The storage capacity of the conversion facility may impose a limit on the length of messages. This is acceptable provided the calling subscriber is notified appropriately.

6.2.3.4 Initially, international working should be on a single call basis, but the possibility of multi-address facilities should be borne in mind for the future.

6.2.3.5 It is the responsibility of the Administration\* operating the conversion facility to arrange alternative means of disposing of undelivered messages, bearing in mind that it will not always be possible to recall the calling telex subscriber, but that he may already have been charged for the call.

6.2.3.6 The Teletex terminal must be capable of properly reproducing a telex text. However, the conversion facility must provide any necessary re-arrangement of the text, such as paging.

6.2.3.7 Conversational mode is not required.

#### 6.2.4 *Service requirements for interworking from a Teletex service to a telex terminal*

6.2.4.1 The Teletex terminal shall provide to the conversion facility a telex mode. In this mode it shall:

- a) transmit only the character repertoire of the International Telegraph Alphabet No. 2 with the code frame of Teletex characters;
- b) restrict the line length to 69 characters or less;
- c) insert the control characters carriage-return and line-feed at the appropriate positions.

6.2.4.2 The message should appear to the receiving telex station as a normal telex message.

6.2.4.3 The provision of an acknowledgement following a successful call is a matter for national consideration, but an indication of failure, and the cause of failure, should be given when a message is undelivered.

6.2.4.4 The implementation of interworking with telex must not reduce the quality of service on the Teletex network as a result of excessive Teletex holding time caused, for example, by difficulties in setting up the telex connection.

6.2.4.5 Conversational mode is not required.

#### 6.2.5 *Basic Teletex/telex interworking*

6.2.5.1 The principles for telex to Teletex interworking are illustrated graphically in Figure 3/F.200. §§ 6.2.5.2 and 6.2.5.3 also apply to this direction of working.

6.2.5.2 If a call is cleared by the telex subscriber or by other means before having sent the EOI signal, the conversion facility shall establish the second call and transmit the text received so far to the Teletex terminal.

6.2.5.3 In the case of unsuccessful calls the conversion facility shall make four attempts at 5-second intervals. At each attempt, the **MOM** signal followed by service signals, if appropriate, shall be sent to the waiting telex terminal. If all of these attempts are unsuccessful, the conversion facility shall send the service message **ITL TTX Ø** (ITL = I transmit later) to the waiting telex terminal and clear down. It shall then be the responsibility of the Administration\* operating the conversion facility to effect delivery of the message by whatever means are available (see § 6.2.3.5 above).

6.2.5.4 The principles for Teletex to telex interworking are illustrated graphically in Figure 4/F.200.

### 7 **Quality of service**

#### 7.1 *General*

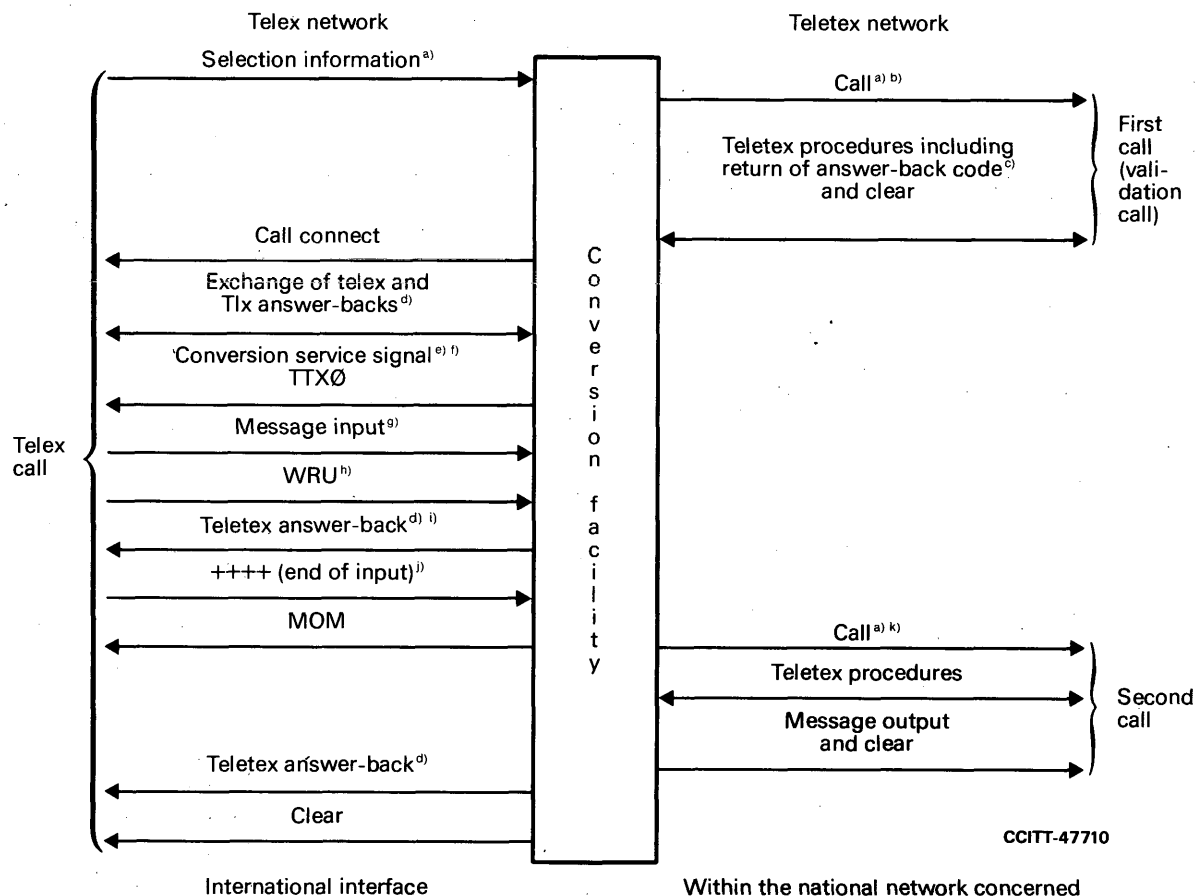
7.1.1 The Teletex service provides any subscriber with the facility to communicate a text, or other suitable data, to any other subscriber nationally and internationally.

#### 7.2 *Terminal*

7.2.1 The quality of the service depends, among other things, on the ability of the called terminal to receive calls.

7.2.2 A memory is required in the receiving terminal so that an operator may be ensured undisturbed operation when working in local mode. A memory is also necessary to bridge the difference in speeds between reception from line and transfer to secondary storage media.

7.2.3 In order to ensure an adequate grade of service, on circuit switched networks it should be an objective that the total loss probability of calls to a Teletex number should not exceed 0.05. The need for and definition of an equivalent criterion for packet switched networks is for further study.



a) If the call number of the Teletex subscriber is longer than 12 digits, a special procedure may be necessary, possibly using two-stage selection. This point is for further study.

b) The requirement for this validation call is a national matter, and it may be omitted provided that the Administration\* is able to validate the called number satisfactorily by other means.

c) See Recommendation S.60 [1].

d) The Teletex answer-back sent to the telex subscriber is a rearranged Teletex terminal identification, as follows:

↑	←	=	National Teletex subscriber number	↓	→	Mnemonic abbreviation
1	1	1	up to 12	1	1	
← 20 characters →						

where

↑ is figure-shift, ← is carriage-return, = is line-feed, ↓ is letter-shift and → is space.

i) The Teletex number incorporated in this Teletex answer-back shall not include the additional information (Part 3 of the terminal identification).

ii) If the length of the Teletex answer-back above exceeds 20 characters, including control characters, the final part of the mnemonic abbreviation shall be omitted so as to reduce the total length of 20 characters.

iii) If the length of the Teletex answer-back above is less than 20 characters, unused character positions shall be filled in accordance with Recommendation F.60.

e) There shall be an interval between the sending of the Teletex answer-back and the sending of the conversion service signal (under study).

f) TTX = telex/Teletex conversion facility.

Ø = telex network identification code as provided in Recommendations F.60 and F.68.

g) If the caller clears without the end-of-message sequence that should follow, the network will endeavour to deliver the message as received. However, customers must be clearly warned that the network cannot guarantee delivery in these circumstances.

h) This procedure is recommended but not mandatory. See Recommendation F.60.

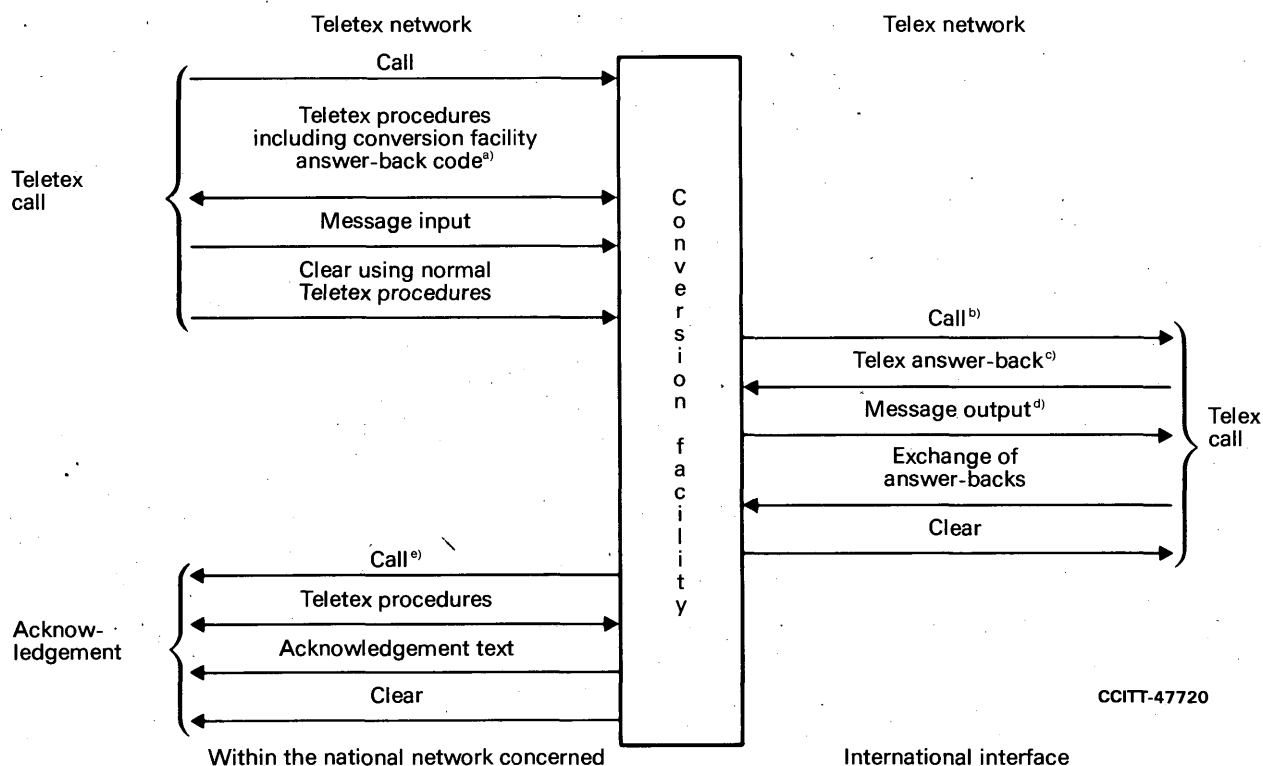
i) This answer-back is sent from the conversion facility.

j) The end-of-input (EOI) signal is the plus symbol repeated four times (++++).

k) When the EOI signal is received, the conversion facility shall immediately establish the second call to the Teletex terminal.

l) Further study may be required to take into account the requirements of automatic telex terminals.

FIGURE 3/F. 200  
Interworking in the telex to Teletex direction



- <sup>a)</sup> In accordance with Recommendation S.60 [1], the following information shall be interchanged during the handshaking:
- the conversion facility and Teletex terminal identifications;
  - the expected telex answer-back in order to ensure an automatic check (not mandatory);
  - the originating terminal's date and time;
  - a call reference provided by the conversion facility and used in any subsequent advice of delivery or non-delivery.

- <sup>b)</sup> The number of call attempts to be made, if OCC or similar conditions are met, is a national matter.

- <sup>c)</sup> The conversion facility shall interchange the answer-backs (rearranged Teletex and the telex answer-backs).

If the calling Teletex terminal has provided the expected answer-back, the conversion facility shall check to see if it matches with that received from the called telex terminal. If at least two calls have been set up without a successful match of the answer-back, the call shall be considered unsuccessful and shall be cleared.

If the expected telex answer-back is not provided by the calling Teletex terminal the telex call may be established by the conversion facility without an automatic check.

- <sup>d)</sup> The output will be prefixed by a text that indicates that the call is being made by an automatic installation. If any signal is received from the telex terminal during the message output from the conversion facility, the call shall be regarded as unsuccessful and shall be cleared.

- <sup>e)</sup> This acknowledgment call is mandatory if the telex call is unsuccessful but optional if the telex call succeeds.

FIGURE 4/F. 200  
Interworking in the Teletex to telex direction



7.2.4 It is understood that the total loss probability ( $P_E$ ) is composed of the loss probability due to incoming traffic ( $P_i$ ), outgoing traffic ( $P_o$ ) and due to temporary memory overload ( $P_m$ ).  $P_m$  should not exceed 0.005 at a traffic intensity of 2 received messages per busy hour.

*Note* — It is recognized that in the case of terminals provided on PSTNs the call set-up time may increase the value of  $P_o$  to such an extent that the overall loss probability in § 7.2.3 above cannot be met.

7.2.5 The values specified above for total loss probability shall apply to all types of traffic (e.g. character-coded text, facsimile and data). For the purpose of calculation it is assumed that 20% of the 24-hour total traffic occurs in the busy hour. The foregoing values assume a skewed distribution for the character content of normal business correspondence; the distribution having a mean value of 1600 characters (including approximately 400 characters "header" information), a standard deviation of 800 characters and a mode of 1214 characters.

7.2.6 The characteristics of the subscriber terminal, as described in § 8 are of relevance to this matter.

### 7.3 *Error protection*

7.3.1 To ensure call integrity, error protection will be provided by Teletex control procedures (see Recommendations S.62 [3] and S.70 [4]). The error rate on the pre-information, information and post-information phases should not exceed 1 in  $10^6$  characters.

### 7.4 *International routes*

7.4.1 The capacity of the routes between countries also has an important influence on the quality of the service. For that reason, the number of circuits provided between any two networks should be such that in the route busy hour not more than one call in 50 is lost due to a lack of international circuits. (See Recommendation S.62 [3].)

### 7.5 *Duration of service*

7.5.1 The national and international facilities of the Teletex service, including the Teletex/telex conversion facilities, shall be open continuously.

7.5.2 Teletex subscriber equipments for which call numbers are published in the directories shall, in principle, be available to accept calls continuously.

### 7.6 *Observations on the quality of the service*

7.6.1 Administrations\* should make observations to evaluate the quality of the Teletex service internally as required and internationally at least as described below.

7.6.2 Administrations\* should arrange to exchange statistics on the quality of the service at least once a year.

7.6.3 It is desirable that the statistics provide the information contained in Annex A (a first draft only — based on Recommendation F.70).

7.6.4 Observations should be made at such points and in such quantity as to provide a representative sample of at least 200 calls for each period on each route and to take into account the effects of store-and-forward services.

7.6.5 When exchanging statistics, Administrations\* should forward not only statistics of the route concerned but also comparable statistics for either all international Teletex traffic or Teletex traffic over similar routes.

## 8 Subscriber terminals

### 8.1 General

8.1.1 In order to support a high quality of service, a signalling rate of 2.4 kbit/s on the subscriber line wherever possible is recommended. (The 2.4 kbit/s rate refers to the information transmission speed as seen by the subscribers' equipment.)

8.1.2 The facilities required in terminals connected to the international Teletex service are listed in the following.

### 8.2 Character repertoire

8.2.1 The terminal shall have the ability to generate characters of the basic international Teletex character repertoire (see Recommendation S.61 [2]).

8.2.2 A terminal must be able to receive and store all the characters of the basic Teletex character repertoire.

8.2.3 The terminal shall have the ability to represent as legibly as possible all graphic characters of the basic international Teletex repertoire and to respond to control characters.

8.2.4 No constraints should be made on the type of printer technology employed.

### 8.3 Storage

#### 8.3.1 General

8.3.1.1 The Teletex terminal will have memory for storage to be used for both local and communication functions.

#### 8.3.2 Receiving capability

8.3.2.1 The ability of a terminal to receive incoming traffic is a prerequisite for the terminal to answer the call. This ability must be sufficient to meet the quality of service as specified in § 7 of this Recommendation.

*Note* — The control procedures may allow for negotiation of storage capability between terminals. This matter is for further study.

8.3.2.2 If during a call the ability of the receiving terminal to continue to accept traffic is jeopardized (e.g. memory threshold reached) an indication of this condition will be passed to the sending terminal by the control procedures to permit the orderly termination and resumption of the transmission.

#### 8.3.3 Interruption of local mode

8.3.3.1 Appropriate indicators signifying the presence of a message, as well as receive storage full will be provided to allow for interruption of local mode operation to permit presentation of Teletex message(s).

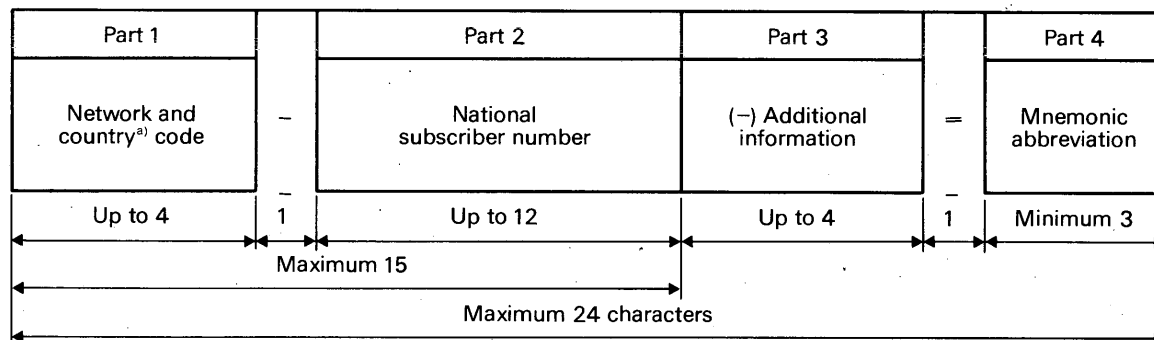
### 8.4 Alarms/indicators

8.4.1 Alarm indicators (visual and/or audible) are required in the terminal to signify each of the following conditions:

- a) receiving storage contains one or more messages;
- b) receiving storage threshold reached;
- c) output medium (e.g. paper) low.

## 8.5 Terminal identification

8.5.1 Each terminal in the Teletex service shall have a unique identification. The different parts of the terminal identification are contiguous as shown in Figure 5/F.200 and no characters other than those specified there are used.



<sup>a)</sup> Country or geographical area code.

CCITT-47730

FIGURE 5/F. 200  
Format of the terminal identification

8.5.2 Part 1 (network and country <sup>1)</sup> code) contains the relevant information about the network and country concerned in accordance with the principles of Recommendation X.121 [7] <sup>2)</sup>.

8.5.3 Part 2 (national subscriber number) is the number of the main station or of the private branch exchange. It will be the complete call number including any national area code applicable within the country concerned, by means of which a subscriber can be reached by other subscribers of the same country and on the same network <sup>2)</sup>. This part is separated from Part 1 by a hyphen (coding 2/13).

8.5.4 Part 3 (additional information), when used, begins with a hyphen (coding 2/13) and may be used to indicate a sub-address. Use of this part for special service signals (e.g. diversion to an overflow position, intermediate storage in the private branch exchange) in the case of private branch exchanges is for further study.

8.5.5 Part 4 (mnemonic abbreviation) will consist of a minimum of three letters as information for the identification of the connected subscriber. Both capital and small letters can be used and mixed. Only non-accented letters A-Z and a-z must be used (coding 4/1 to 5/10 and 6/1 to 7/10).

The use of capital or small letters does not change the interpretation of the mnemonic. The mnemonic abbreviation must always be preceded by the character = (equals sign, coding 3/13).

8.5.6 The parts of the terminal identification are justified to the left and the format is fixed at a length of 24 characters. If the total number of characters in parts 1 to 4 is less than 24, the format must be filled to 24 characters by the addition of space characters (coding 2/0) immediately following part 4.

8.5.7 The directories issued by Administrations\* must include a full representation of the Teletex subscriber's terminal identifications.

<sup>1)</sup> Country or geographical area code.

<sup>2)</sup> These are not necessarily the numbers used in call establishment.

## 8.6 *Format of Teletex pages*

### 8.6.1 *Objectives*

8.6.1.1 It is an objective of the Teletex service to achieve as much similarity as possible to existing operating procedures of office machines. Another objective is to establish a basic, defined mode of operation common to all machines used in the service. Therefore, a minimum basic requirement is defined, and all terminals used in the Teletex service shall comply with this minimum basic requirement. This, however, does not preclude the possibility that terminals may by prior agreement operate in modes different from these basic minimum requirements.

### 8.6.2 *General*

8.6.2.1 The maximum printable areas for various standard paper sizes are defined in Recommendation S.60 [1] and shall not be exceeded. The range of terminal capabilities is exchanged during session establishment, prior to document transmission. These procedures are defined in Recommendation S.62 [3] along with the default values for these capabilities if this exchange is not explicitly stated.

8.6.2.2 A particular selection from this established range of capabilities is made preceding transmission of each document. Some of these selections may be changed at page boundaries and some may also be changed within a page.

### 8.6.3 *Basic requirements*

8.6.3.1 As minimum requirement for the specification of the format used, four parameters are required. These parameters are:

- a) paper orientation;
- b) line spacing per line-feed character;
- c) left margin;
- d) character pitch.

Additional parameters may be used to identify optional capabilities used for a document.

8.6.3.2 These parameters remain effective until changed. In the absence of an explicit selection these parameters must be automatically restated in every control signal that causes feeding of the next page.

### 8.6.4 *Paper size and paper orientation*

8.6.4.1 It is a requirement that the Teletex service should accommodate both the ISO A4 (210 × 297 mm) as well as the North American (216 × 280 mm) size of paper format in both the vertical and the horizontal paper orientation.

8.6.4.2 The standard paper orientation, in the absence an appropriate control signal, is with the long dimension being vertical as viewed for reading. This orientation is hereafter called the A4 orientation.

### 8.6.5 *Line spacing per line-feed character*

8.6.5.1 This parameter may be changed at any point within a document. In the absence of an operator selection the default value shall be one line-feed (= 4.23 mm). Provision shall be made for selecting 1, 1.5 and 2 line-feeds per line-feed character.

### 8.6.6 *Left margin*

8.6.6.1 This parameter selection may be changed at any point within a document. In the absence of an operator selection the default value shall be approximately 20 mm and may be expressed as an integral number of character pitches. Printing left of the defined margin on a per line basis must be possible by means of operator commands.

### 8.6.7 Character pitch

8.6.7.1 (The basic character pitch shall be ten (= 2.54 mm character spacing).

### 8.6.8 Positioning of text

8.6.8.1 One line in the maximum printable area is reserved for the call identification line, see § 5.3 for details.

8.6.8.2 The printable areas include an allowance for printing with an offset of 2.12 mm above the first baseline and 2.12 mm below the last baseline for exponents and indices respectively. Equally, such offsets may be used within the page. Text should not be positioned by such offsets in such a way that characters overlay characters previously printed or displayed.

### 8.6.9 Use of the page format

8.6.9.1 Table 1/F.200 gives the maxima that may be used in the basic service with the basic values given above. For interworking with telex see § 6.2.4 above.

TABLE 1/F. 200

	Vertical format	Horizontal format
Maximum number of text lines	55 <sup>a)</sup>	38 <sup>a)</sup>
Maximum number of characters per line	5 + 72 <sup>b)</sup>	5 + 100 <sup>b)</sup>

<sup>a)</sup> The call identification line is not included in this figure.

<sup>b)</sup> The 5 characters can be positioned in the left margin by using appropriate control commands – see § 8.6.6.

## 9 Customer information

### 9.1 Directories

9.1.1 As far as possible a directory of Teletex subscribers shall be provided by each Administration\* that introduces a Teletex service. Initially it will also be most useful if Teletex subscribers are listed in telex and data service directories.

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

9.1.3 Directories should be A4 size (210 × 297 mm). The printed area should be compatible with the printable area in the basic Teletex service.

9.1.4 The directories sent to Administrations\* shall be set up in Roman letters. The entry for each installation should show the full terminal identification as defined in § 8.5 of this Recommendation.

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

9.1.6 Each directory shall include the following:

- how to use the directory, including lists of any symbols or abbreviations used;
- an alphabetic list of subscribers with the full terminal identification and business descriptions;
- a list of the network codes for those networks to which the subscribers have access together with the full access prefixes to those networks;

9.1.7 Each Administration\* shall supply free of charge to Administrations\* with which a Teletex service exists a sufficient number of copies of its subscriber directories for official use. The number of such copies shall be fixed in advance by mutual agreement and shall be regarded as applying until a request to change is received; such requests must be made not later than 1 February each year.

9.1.8 Each Administration\* shall supply against payment to Administrations\* with which a Teletex service exists a number of its subscriber directories to be put on sale. The number of copies intended for sale 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.

9.1.9 A subscriber wishing to obtain a copy of the directory of another Administration\* must apply to his own Administration\*. If an application for its directory is received directly by an Administration\* from a subscriber of another Administration\* the request shall be forwarded to the subscriber's own Administration\*.

9.1.10 An Administration\* that has supplied directories of its subscribers, intended for sale, to another Administration\* shall indicate the equivalent in gold francs of the sale price of the directories supplied in its own country plus any postal charges.

## 9.2 *Operating instructions*

[Operating instructions (along the lines of those in Annex A to F.60) are to be developed at a later stage.]

## 10 **Tariff principles**

(This matter requires further studies in conjunction with Study Group III.)

### ANNEX A

(to Recommendation F.200)

#### **Standard format for reporting the results of service observations** (draft only – requires further study)

Administration (or RPOA) ..... Traffic from ..... to .....

Period of observation: ..... 19 .... to ..... 19 .... Period of day: .....

Route busy hour (outgoing): ..... UTC to ..... UTC

..... UTC to ..... Total calls observed: .....

Subject	Observations traffic to .....	Average of all outgoing Teletex traffic
Effective calls (% of total call attempts) .....		
Average chargeable time(s) .....		
Analysis of ineffective attempts (% stated in each case of ineffective attempts) to be: .....		
– cut-offs during call selection .....		
– cut-offs during call progress .....		
– lack of outgoing international circuits .....		
– lack of circuits in distant national network .....		
– invalid selection .....		
– wrong number obtained .....		
– distant terminal engaged .....		
– distant terminal not ready .....		
– mutilations .....		
– other (specify) .....		

**Definitions of terms used in the Teletex service****B.1 call phases***F: phases d'une communication**S: fases de la comunicación*

The five phases of a Teletex call that cover the activities between the calling terminal's call request signal and the disconnection of the terminals are:

- a) call set-up;
- b) pre-information sequence;
- c) information transmission;
- d) post-information sequence;
- e) call clearing.

**B.2 calling terminal***F: équipement terminal demandeur**S: terminal que llama*

That terminal that initiates the procedures to establish a call.

**B.3 called terminal***F: équipement terminal demandé**S: terminal llamado*

That terminal to which a call is made.

**B.4 conversational mode***F: mode conversation**S: modo conversación*

The alternate exchange of user information during a call or series of calls between calling and called terminals.

**B.5 fully automatic operation***F: fonctionnement entièrement automatique**S: explotación automática*

Operation such that Teletex terminals are able to send documents (prepared in local mode, e.g. by an operator) into receiving storage without the intervention of an operator beyond the initial command and similarly are capable of receiving messages while they are unattended. Operator selection and operator assisted printing are not excluded.

**B.6 interworking in the Teletex service between different networks***F: interfonctionnement, dans le service télétext, entre des réseaux différents**S: interfuncionamiento de redes diferentes en el servicio teletex*

The facility of making calls from a Teletex terminal served by one network to a Teletex terminal served by a different (and possibly a different type of) network.

**B.7 interworking between Teletex and other services**

*F: interfonctionnement entre le service télétext et d'autres services*

*S: interfuncionamiento del servicio teletex con otros servicios*

The facility of sending and receiving information between a Teletex terminal and a terminal of another service, e.g. telex.

**B.8 local mode**

*F: mode local*

*S: modo local*

That state of a terminal that permits operation of some of the functions of the terminal independently of any network functions.

**B.9 multi-station Teletex terminal installation**

*F: installation terminale télétext à postes multiples*

*S: instalación terminal teletex multiestación*

A Teletex installation that includes more than one work station.

**B.10 standardized option**

*F: option normalisée*

*S: opción normalizada*

A service feature, defined by CCITT as an addition to the basic requirements, that may optionally be used by subscribers in the international Teletex service.

**B.11 storage within the network**

*F: stockage dans le réseau*

*S: almacenamiento dentro de la red*

A network-provided facility that will accept and store messages and relay them to the addressee(s).

**B.12 Teletex call**

*F: communication télétext*

*S: comunicación teletex*

The temporary connection (or apparent connection as perceived by the caller) of one terminal to another for the purpose of exchanging information.

**B.13 Teletex page**

*F: page télétext*

*S: página teletex*

The basic element of office correspondence in the Teletex service. One A4 (or A4L or North American Standard) page or the information that may be presented on it.

**B.14 Teletex document**

*F: document télétext*

*S: documento teletex*

A sequence of one or more pages intended by the originator to be delivered as a single entity in the original page sequence.

**B.15 Teletex terminal**

*F: équipement terminal télétext*

*S: terminal teletex*

A device that is capable of transmitting and receiving Teletex documents in accordance with the basic requirements of Recommendation S.60 [1].



## References

- [1] CCITT Recommendation *Terminal equipment for use in the telex service*, Vol. VII, Fascicle VII.2, Rec. S.60.
- [2] CCITT Recommendation *Character repertoire and coded character sets for the international telex service*, Vol. VII, Fascicle VII.2, Rec. S.61.
- [3] CCITT Recommendation *Control procedures for the teletex service*, Vol. VII, Fascicle VII.2, Rec. S.62.
- [4] CCITT Recommendation *Network-independent basic transport service for teletex*, Vol. VII, Fascicle VII.2, Rec. S.70.
- [5] *International Telecommunication Convention*, Malaga-Torremolinos, ITU, Geneva, 1973.
- [6] CCITT Recommendation *Arrangement of figures, letters and symbols on rotary dials and pushbutton telephone sets*, Vol. II, Fascicle II.2, Rec. E.161.
- [7] CCITT Recommendation *International numbering plan for public data networks*, Vol. VIII, Fascicle VIII.3, Rec. X.121.

## SECTION 12

### VIDEOTEX SERVICE

#### Recommendation F.300

### VIDEOTEX SERVICE

*(Geneva, 1980)*

#### 1 General

##### 1.1 Scope

1.1.1 This Recommendation describes standard parameters for a Videotex service based on public Videotex services that are in operation or are currently under consideration. It is expected that further enhancements will be developed, and this Recommendation is not intended to inhibit their implementation, but, in the interests of compatibility and interconnection on an international basis, national systems shall be compatible with the service described in this Recommendation and with the technical characteristics described in Recommendation S.100 [1].

1.1.2 While many national Videotex services will be operated by Administrations\*, the services include certain facilities that do not necessarily fall within their exclusive telecommunications privilege. Moreover, national circumstances will dictate a variety of approaches to both the administrative and technical aspects of the provision of a Videotex service. However, it is the responsibility of Administrations\*:

- a) to recommend standards and operating and service arrangements that will allow customers of one Videotex service to obtain access to Videotex services in other countries;
- b) to ensure that telecommunications facilities are provided to allow customers in one country (and/or geographical area) to access directly or indirectly Videotex services in another country subject to bilateral agreement and/or current regulations of both countries.

1.1.3 As Administrations\* gain further experience in the operation of Videotex services, it will be possible to determine whether it is necessary to develop a dedicated international Videotex network on which a specified service can be offered or whether other existing international networks (e.g. data networks) will provide an adequate transmission infrastructure requiring only appropriate interface standards and suitable operating, administrative and tariff arrangements.

1.1.4 The basic facility provided by the Videotex service is the retrieval of information by a dialogue with a data base. The service is intended to provide this facility for the general public as well as specialist users and should therefore represent a balance between service quality, simplicity of operation and economic implementation.

1.1.5 This Videotex service is based on public networks and uses standard television receivers suitably modified or supplemented as the terminal equipment, although the use of other equipment is not excluded. The Videotex service would normally also provide facilities for the creation and maintenance of the data bases. (These facilities may be described in separate Recommendations.)

1.1.6 The Videotex service may also provide the following facilities (which may be described in separate Recommendations):

- a) input of information (e.g. response to a questionnaire);
- b) terminal-to-terminal communication and/or store-and-forward message service between users (further study required);
- c) transactional services (e.g. electronic funds transfer, booking systems and calculation facilities, reservation systems);
- d) data processing services (e.g. calculation facilities);
- e) loading of software from a data base to a terminal;
- f) interconnection with other public switched services;
- g) the management of closed user groups.

(This list is not intended to be exhaustive.)

## 1.2 *Explanation of terms*

1.2.1 *Terminal* — the equipment by means of which the user interacts with the Videotex service.

1.2.1.1 It is reasonable to expect, based upon existing and currently planned services, that a typical Videotex terminal will include the following:

- a) a numeric pad and/or an alphanumeric keyboard and/or other graphical input devices;
- b) a visual display unit;
- c) intermediate storage for receiving and holding information and, where appropriate, for editing messages before transmission;
- d) an encoder/decoder to convert information between the form required for transmission and the forms entered from the input device or displayed on the visual display unit;
- e) a controller to coordinate the operation of the various functional elements of the terminal;
- f) terminal identification capability, either automatic or manual;
- g) an electronic device to permit an interface between the controller and the transmission facility (this may be built into the terminal or external, subject to national considerations).

1.2.1.2 The terminal may also include other components, such as a hard copy output unit, and a tape or cassette recorder-reader, and may in itself comprise "intelligent" devices.

1.2.2 *Data base* — a set of information that can be accessed by, or forwarded to, users of the Videotex service.

1.2.2.1 *Host computer* (data bank) is the computer on which one or more data bases are stored. It is useful to distinguish two categories of host computer:

- a) An *internal host computer* is a host computer operated by the provider of the Videotex service. The corresponding data bases are *internal data bases*.
- b) An *external host computer* is a host computer not operated by the provider of the Videotex service, but which may be accessed by means of the Videotex service. The corresponding data bases are *external data bases*.

## 1.2.3 *Items of information*

1.2.3.1 For the purpose of storage and retrieval from the data base, the information is divided into items and structured.

### 1.2.3.2 Items

*Note* — The term *screen* refers to the physical device on which the information is displayed.

*Frame* — the smallest unit of retrievable information. The user may or may not have direct access to every frame.

*Page* — a set of one or more frames.

### 1.2.3.3 Structure

1.2.3.3.1 The retrieval of information requires a structure, which may be arranged in different ways.

1.2.3.3.2 These structures may be the responsibility of the Administrations and/or other entities depending on the regulation in the various countries.

1.2.3.3.3 The tree structure is an important concept in the Videotex service, but other structures and retrieval techniques — such as “keyword searches” — can also be used.

### 1.2.4 Displayed information

1.2.4.1 The displayed information is composed by the terminal from graphic elements whose presentation is modified by display attributes.

#### 1.2.4.2 Graphic elements

1.2.4.2.1 Graphic elements are used to display text, symbols, or pictures. They may belong to one of the following categories:

- a) *Alphanumeric* — used to display text. Alphanumeric graphic elements include, letters with or without diacritical signs, special letters, figures, punctuation marks and special symbols.
- b) *Mosaic* — used to construct drawings with blocks; each element defines the pattern of blocks to occupy one character location. Two mosaic fonts are defined as follows:
  - separated: each block of the mosaic is surrounded by a border of the background colour
  - contiguous: the blocks adjoin one another.
- c) *Dynamically Redefinable Character Sets (DRCS)* — specific elements defined through the service and down-loaded into the terminal, which can then use them as supplementary graphic elements.
- d) *Geometric* — used to construct drawings of various types by a succession of elements such as points, lines and surfaces.
- e) *Photographic* — used to render an image by the direct transmission and display of individual picture elements. [This category may include both continuous-tone images (such as pictures of faces, etc.) as well as pattern-oriented techniques for the display of pictures, including graphics, Latin and non-Latin characters for text.]

#### 1.2.4.3 Display attributes

1.2.4.3.1 Display attributes are used to modify the presentation of graphic elements in order to improve their legibility and to enhance the quality of the service.

1.2.4.3.2 In Videotex systems, the *foreground* is a graphic element and the *background* is the remaining area of the display against which the foreground is displayed in a different colour.

*Note* — The background may be specified in various ways, depending on the implementation. For instance, in systems with character-oriented display memory in the terminal, the *background* is typically specified as a single solid colour at each character location on the display. In systems with picture element addressable display memory in the terminal the background is typically the cumulative result of all picture elements displayed prior to the foreground, which subsequently amends some of the background by overwriting. Either of the two techniques may be used to obtain the equivalent result, regardless of the mode of operation (alphanumeric, mosaic, geometric, photographic, DRCS) of the terminal.

1.2.4.3.3 The following possible attributes have been envisaged:

- a) choice of colour for the graphic element (foreground);
- b) choice of colour for the background;
- c) choice of the subset of available colours to be used in a frame;
- d) change of height or width of an element;
- e) flashing/steady — in flashing mode the element is displayed alternatively in different colours;
- f) conceal — a portion of the displayed information is not visible until the user chooses to reveal it;
- g) underline (for alphanumeric characters).

In this context grey tones and black and white are considered to be colours

1.2.4.3.4 The following attributes have also been envisaged for geometric-based systems:

- a) choice of character orientation;
- b) choice of line texture;
- c) display of surfaces:
  - outlined;
  - filled (with various fill patterns).

1.2.4.3.5 Other possible functions are:

- a) *Cursor* — the display may identify the location of the current writing position on the screen;
- b) *Motion* is the ability to update the display, or a portion of the display, quickly enough to give the appearance of movement;
- c) *Scroll up and down* is the ability to incrementally raise or lower the display on the screen;
- d) *Audio capability*

## 1.2.5 Types of user

1.2.5.1 *Information provider* — a user responsible for entering and maintaining information in a data base. He may or may not operate the host computer on which the data base is stored. He may use facilities provided by the Videotex service, or other facilities, or both, for entering data into, maintaining and managing the data base.

1.2.5.2 *General user* — a user who can retrieve information and use other facilities provided by the Videotex service for the general public. This category includes residential and business users and users of public access (for example, coin-operated) terminals.

1.2.5.3 *Closed user group* — a group of users that is permitted access to items of information not available to other users.

## 1.2.6 Videotex access

1.2.6.1 Videotex terminals will be connected to the appropriate Videotex service by the public switched telephone network (PSTN) or/and public switched data network (PSDN) or by a leased circuit connection.

## 1.2.7 Types of connection

1.2.7.1 The following types of connection may be provided by a Videotex service.

1.2.7.2 Terminal to Videotex service — this type of connection may be used:

- a) to retrieve information from host computers;
- b) to retrieve billing and other management information from the Videotex service;

- c) so that a terminal (which might be preprogrammed) can call a host computer to retrieve information and to store it in the terminal's memory for retrieval at a later time;
- d) to input a message to the service or to a host computer for later retrieval by a user or users;
- e) to exchange visual information with other terminals also connected to the Videotex service;
- f) by an information provider to enter, to modify or to cancel information stored in a data base and to perform other data base management functions;
- g) for such other facilities as may be provided.

1.2.7.3 Videotex service to terminal — the service may initiate a call to a suitably equipped terminal.

1.2.7.4 Host computer to or from Videotex service — this connection is required:

- a) to transmit users' requests to the host computer;
- b) to transmit information from the host computer for onward transmission to users.

It may also be used:

- c) to transfer billing and other management information between the service and the host computer;
- d) to enable communications between host computers in order that one may retrieve, enter, modify or cancel information stored in the other computer, or that they may exchange billing and other information pertaining to the Videotex service.

## 2 Service characteristics

### 2.1 General

2.1.1 § 2 describes the various facilities which may be used to convey information by the Videotex service. These facilities may be common to all modes, specific to one (or more) mode(s) or considered as enhancements.

2.1.2 In order to ensure non-obsolescence of the data bases, and to permit international exchange of data, it is required that the information be technically prepared so as to be processed by any terminal and/or service, and acted upon within the limits (as specified in this Recommendation or in Recommendation S.100 [1]) of the capabilities provided in the terminal.

2.1.3 Data bases may require knowledge of terminal capabilities and/or limitations in order to exercise discretion in limiting access to data when displayed information may not convey the complete meaning (as interpreted by the data base) of any single frame, due to the absence of one or more presentation functions of the terminal.

2.1.4 Users may need to have knowledge of (conversely, data bases may need to indicate) which, if any, frame(s) will be restricted or limited by the data base and/or information provider, from the terminal endeavouring to access the frame(s), prior to the incurring of charges that could be otherwise avoided.

### 2.2 Videotex service models

2.2.1 A Videotex service within any country (or geographical area) will make use of text and pictorial modes defined below.

2.2.2 This gives rise to various models of Videotex service undergoing field trials or in commercial operation in various countries. The models identified to date include:

- a) Alpha-mosaic (alphanumeric + mosaic);
- b) Alpha-geometric (alphanumeric + geometric);

c) Alpha-photographic (alphanumeric + photographic);

d) Alpha-DRCS (alphanumeric + DRCS).

Combinations of the preceding models are also under consideration.

## 2.3 *Videotex service modes*

2.3.1 The modes of the international Videotex service provide for the representation of text and pictures, as well as the control of layout functions and display attributes.

### 2.3.2 *Text modes*

2.3.2.1 A text is composed by using either the appropriate character repertoire or the pictorial capabilities of § 2.3.3.

2.3.2.2 Latin based alphanumeric text – the character repertoire for Latin based alphabets is as described in Recommendation S.100 [1].

2.3.2.3 Non-Latin based text – for non-Latin based alphabets it is intended to provide means similar to those used for the Latin based alphabets. Non-alphabetic writing may require the capabilities of pictorial modes.

### 2.3.3 *Pictorial modes*

2.3.3.1 Mosaic – if only one font is to be used the contiguous is the preferred one.

2.3.3.2 Geometric.

2.3.3.3 Photographic.

2.3.3.4 DRCS.

## 2.4 *Presentation functions*

### 2.4.1 *Layout functions*

2.4.1.1 The layout functions allow the writing position (cursor) to be defined, to be moved in any direction, and to be displayed or not displayed, and allow the display to be erased.

### 2.4.2 *Display attributes*

2.4.2.1 Videotex systems are capable of supporting a range of terminals with different attribute capability levels, ranging from sophisticated terminals with the ability to process and display a large repertoire of display attributes, to very simple terminals with a limited repertoire of display attributes.

2.4.2.2 Tables 1/F.300 to 3/F.300 show, for each attribute, varying degrees of implementation. These lists are based on existing systems and do not preclude the addition of further attributes or implementations. The lists may also be used to determine possible default implementations.

2.4.2.3 It is intended that in the future a limited number of options can be defined by making appropriate choices from these tables.

2.4.2.4 Display attributes for the alphanumeric mode are listed in Table 1/F.300.

Each of the display attributes may be implemented in such a way that:

- it may be changed at each character location (character definition)
- a displayed character location is required to implement the change (string definition).

TABLE 1/F. 300

## Display attributes for the alphanumeric mode

Attribute	Degree of implementation: decreasing capability to the right							
Colour of foreground	> 8 colours: no conditions	> 6 colours plus black and white	6 colours plus black and white	6 colours plus white	6 grey shades plus black and white	6 grey shades plus white	White only	
Colour of background	> 8 colours: no conditions	> 6 colours plus black and white	6 colours plus black and white		6 grey shades plus black and white		Black only	
Treatment of background colour	Complex pattern of colours in background within each character location		Simple background with single colour within each character location			Black background		
Character sizes	More choices of size	16 sizes: 8 geometrically similar sizes each with 2 heights		4 sizes: 2 heights and 2 widths		2 sizes: 2 heights with fixed width		One size
Flashing	More complex implementations	Alternate between foreground and background colours		Alternate between foreground and back- ground shades of grey		Alternate between white and black		Steady
Conceal	More complex implementations	Single or multiple reveal of successive texts in each of one or more areas on the screen			Reveal all con- cealed text on one user command			Text not concealed
Underline <sup>a)</sup>	Underline				No underline			
Character orientation	More choices of orientation			Text rotated through 0°, 90°, 180° or 270°				No rotation

<sup>a)</sup> As a modifier of alphanumeric character.



TABLE 2/F. 300  
Display attributes for the mosaic mode

Attribute	Degree of implementation: decreasing capability to the right						
Colour of foreground	> 8 colours: no conditions	> 6 colours plus black and white	6 colours plus black and white	6 colours plus white	6 grey shades plus black and white	6 grey shades plus white	White only
Colour of background	> 8 colours: no conditions	> 6 colours plus black and white	6 colours plus black and white	6 grey shades plus black and white		Black only	
Treatment of background colour	Complex pattern of colours in background within each character location			Simple background with single colour within each character location		Black background	
Mosaic character size	More choices of size			2 sizes: 2 heights with fixed width		One size	
Flashing	More complex implementation	Alternate between foreground and background colours		Alternate between foreground and background shades of grey		Alternate between white and black	Steady
Conceal	More complex implementations	Single or multiple reveal of successive texts in each of one or more areas on the screen			Reveal all concealed text on one user command		Text not concealed

TABLE 3/F. 300

## Display attributes for the geometric mode

Attribute	Degree of implementation: decreasing capability to the right				
Colour of geometric element <sup>a)</sup>	> 8 colours: no conditions	> 6 colours plus black and white	6 colours plus black and white	6 grey shades plus black and white	Black and white
Flashing	More complex implementations	Alternate between foreground colour and black	Alternate between foreground grey shade and black	Alternate between white and black	Steady
Line texture	More choices of texture	Dashed, dotted, dashed-dotted or solid		Solid	
Outlining of surfaces	More choices of outline	Outlined in black or same colour <sup>a)</sup> as surface fill, or not outlined	Outlined in black or same grey shade as surface fill, or not outlined	Not outlined (filled only)	
Surface filling	More choices of filling	Filled with solid colour <sup>a)</sup> or variable-spaced cross-hatched lines	Filled with solid colour <sup>a)</sup> or fixed-spaced cross-hatched lines	Filled with solid grey-tone or fixed-spaced cross-hatched lines	Not filled (outlined only)

<sup>a)</sup>In this context the term "colour" includes grey shades (see § 1.2.4.3.3).

2.4.2.5 Display attributes for the mosaic mode are listed in Table 2/F.300.

Each of the display attributes may be implemented in such a way that:

- it may be changed at each character location (character definition);
- a displayed character location is required to implement the change (string definition).

2.4.2.6 Display attributes for the geometric mode are listed in Table 3/F.300.

A terminal which is processing colour attributes but which is using a monochrome display will normally default from the coloured representation to an appropriate grey tone.

2.4.2.7 Display attributes for the photographic mode are for further study.

2.4.2.8 Display attributes for the DRCS mode are subject to further study. Attributes similar to those of the alphanumeric mode may be used as a starting point.

## 2.5 *Repertoire of characters transmitted by the terminal*

2.5.1 The terminal must be able to send at least the characters needed to retrieve information and to generate simple numerical input, i.e. 0–9 and two symbols are required.

2.5.2 For some applications it will be necessary for the terminal to send other characters in addition to those mentioned in § 2.5.1, e.g. alphanumeric characters and/or pictorial and attribute information.

2.5.3 The definition of these repertoires is left for further study.

## 2.6 *Display format*

2.6.1 In the alphanumeric and mosaic modes each graphic element is displayed in one or more character locations on the screen. The character locations are contiguous and each character location is the area needed for the display of one character in normal size including any space required to separate alphanumeric characters.

2.6.2 It seems desirable to define either a unique display format or means of displaying correctly the same information in all national Videotex services. Nevertheless the display format is the result of a compromise between the resolution capabilities of standard TV receivers and the need of information providers for achieving the maximum information density on the screen.

2.6.3 Display format associated with 625 line standards – frames (or leaves) of at least 24 rows of character locations should be displayed correctly. Rows of at least 40 character locations should be displayed correctly.

2.6.4 Display format associated with 525 line standards – many studies are being undertaken on the display capabilities of TV receivers manufactured for 525 line standards. The compromise mentioned in § 2.6.2 needs further study for this TV standard.

## 2.7 *International interworking between Videotex services*

2.7.1 International interworking in the text mode shall be based on the Latin based character repertoire in Recommendation S.100 [1]. Interworking between two countries both having the same non-Latin based alphabet should be possible but needs further studies.

2.7.2 Between Videotex services that have at least one common pictorial mode (e.g. mosaic/mosaic, geometric/geometric, etc.), international interworking should be at both the text mode as defined in § 2.7.1 and the common pictorial mode.

2.7.3 Between Videotex systems that have either different pictorial modes (e.g. mosaic/geometric, etc.) and/or different display capability international interworking is for further study.

### 3 Operation of the Videotex service

#### 3.1 General

3.1.1 § 3 describes the method of operation of the service by a user who wishes to access the applications provided by the Videotex service.

3.1.2 *Levels* — it is useful to regard the service as requiring user control at three levels:

*Note* — The terms “level”, “transport”, etc. as used in this Recommendation do not transfer to the “open system architecture” model. Alignment with the terminology used in that model (now under study in the CCITT) may be needed after further study.

- a) The *transport level* provides the connection that links the terminal to the Videotex service.
- b) The *service level* is the first level above the transport level, in which the user interacts with the Videotex service; this level may provide housekeeping facilities such as terminal identification, billing information and selection of applications.
- c) The *application level* is a higher level in which the user interacts with other applications provided by the Videotex service.
- d) The *basic information retrieval* facility may be provided either in the service or the application level, or both, according to the particular implementation.

#### 3.2 Method of operation

3.2.1 The service is operated in the following phases.

3.2.2 *Access* — a telephone or data connection is made to the appropriate Videotex service. This first step is covered by existing Recommendations.

3.2.3 *Connection* — the user establishes the connection to the Videotex service using the procedures of the service level which may include log-in, terminal identification, terminal capability checking and choice of application.

3.2.4 *Application* — the user has one or more sessions with one or more applications or with the housekeeping functions of the service level. An application session is initiated either from the service level or from another application. A session may include further identification if required by the application and is terminated when the user leaves the application.

3.2.5 *Disconnection* — this phase may be divided into two parts:

- a) leaving the service;
- b) clearing the telephone or data connection.

#### 3.3 User procedures

3.3.1 § 3.3 describes the functions of the Videotex service that enable users to access and use the different applications. While it is desirable that all Videotex services employ the same keying sequences and visual identifiers for these functions, further studies are required. Some of these functions may be implicit in other functions and some functions may not be implemented or appropriate in some Videotex services. Additional functions may be required subject to further study.

3.3.2 *Control functions* — the following control functions are proposed for use within both the service and application levels:

- a) Function C1: clear an unwanted entry.
- b) Function C2: interrupt the action in progress (e.g. transmission of information, computation).
- c) Function C3: terminate and declare valid an input from the terminal.

3.3.3 *Service functions* — these functions may be used within the service or higher level, according to the service implementation. From the user point of view they are selected by routing to or selecting an appropriate point in the Videotex service:

- a) Function S1: select an application provided by the Videotex service.
- b) Function S2: return to the point where the first effective choice in the Videotex service is offered.
- c) Function S3: leave the Videotex service.
- d) Function S4: leave the Videotex service with billing information.
- e) Function S5: provide billing information without leaving the service.

3.3.4 *Retrieval functions* — the following functions may be used to retrieve items of information within the service or higher levels:

- a) Function R1: gives direct access to a page, or to a frame if it is directly accessible.
- b) Function R2: progress through a choice from one frame to another page or, if it is directly addressable, to another frame. The destination page or frame for each possible choice is determined by the information provider when the reference frame is input to the host computer.
- c) Function R3: progress from one frame to the next frame in the same page. On the last frame of a page, function R3 may have no effect on the display except possibly to generate an appropriate service message, or it may give access to any page or directly accessible frame in the data base.
- d) Function R4: return from one frame to the previous frame in the same page. On the first frame of a page function R4 may have no effect on the display except possibly to generate an appropriate service message.
- e) Function R5: repeats the same frame with the information unchanged (for example, where a transmission error is suspected).
- f) Function R6: repeats the same frame with any changes that may have been made since the last access.
- g) Function R7: retraces the previous progression of the user's action. The number of possible steps in this retrace may need to be limited and certain steps may be excluded from the retrace.

In addition, in the case of a tree structure the following function could be used.

- h) Function R8: gives access to the immediately adjacent page in a tree structure in the direction towards the starting point of the structure.

3.3.5 *Functions common to all applications* — the following functions must be recognized by any application provided by the Videotex service, in addition to the control functions specified in § 3.3.2 above:

- a) Function F1: return to service level.
- b) Function F2: "service assistance"— gives information about the service without disturbing the status of the session.
- c) Function F3: "application assistance"— gives appropriate assistance within the application.

## 4 User terminal characteristics

4.1 § 4 identifies the characteristics required of Videotex terminals. Each terminal must conform to the service characteristics in § 2 above, or a suitable subset.

4.2 A data base must be able to determine, directly or indirectly, the capabilities and/or limitations of a terminal that accesses that data base. These capabilities may include the items listed in §§ 4.3 and 4.4 below.

### 4.3 *Receiving capability*

- a) text mode(s);
- b) pictorial mode(s);
- c) degree of implementation of attributes and character repertoire;
- d) unattended operation;
- e) other facilities.

#### 4.4 *Transmitting capability*

- a) keypad (at least 12 keys) or alphanumeric keyboard;
- b) text mode(s);
- c) pictorial mode(s);
- d) whether echo required from service;
- e) character or block mode of transmission.

4.5 Characters keyed by the user will in some implementations be echoed back to the display. This function may need to be under service control, particularly in order to suppress the display of security identifications.

4.6 The terminal must be equipped with at least the memory capacity required to replenish the screen. It is desirable that this memory should not be erased either by the disconnection of the Videotex call or, unless the user so requires, during the use of the terminal for other purposes.

### 5 **Service quality**

The items listed in §§ 5.1 to 5.6 are for further study.

- 5.1 Transport network
- 5.2 Access, grade of service
- 5.3 Error rate and error protection
- 5.4 Terminals, visual quality of characters
- 5.5 Videotex service response time
- 5.6 Service observation

### 6 **Network aspects**

(For further study.)

### 7 **Additional facilities**

(Further study required.)

### 8 **Interworking and compatibility with other services**

(Further study required — see Question 9/I [2].)

### 9 **Tariff principles**

(To be studied in conjunction with Study Group III.)

#### 9.1 Allowance must be made for the international implications of the following parameters:

- the network (volume of information, distance, time);
- value of access service offered;
- information value;
- billing procedures.

### 10 **User information**

10.1 Further study is needed on the publication and circulation of Videotex directories or other reference and instructional material. Such publication might in part be within national Videotex services.

#### **References**

- [1] CCITT Recommendation *International information exchange for interactive Videotex*, Vol. VII, Fascicle VII.2, Rec. S.100.
- [2] CCITT Question 9/I, Contribution COM I-No. 1, Study Period 1981-1984, Geneva, 1981.

