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SECTION 8

STATISTICS AND PUBLICATIONS

ON INTERNATIONAL TELEGRAPH SERVICES

Recommendation F.91

GENERAL STATISTICS FOR THE TELEGRAPH SERVICES

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 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 | u1

2.2 Number of full-rate international telegrams originated | u1, | u2

2.3 Number of international letter-telegrams originated | u1

1 In thousands of paid telegrams.

2 Including **URGENT** telegrams.

3. Telex service

3.1 Number of subscriber lines | u3

3.2 Originated international telex traffic in thousands of chargeable minutes

4. Phototelegram service

4.1 Number of international phototelegrams originated | u4

[3] 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.

[4] 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

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, seperately, 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* , 4th edition, ITU, Geneva, 1982.

[2] *Radio Regulations* , ITU, Geneva, 1982.

[3] CCITT, *Instruction for the international telephone service , (1st October 1985)* , ITU, Geneva, 1985.

Recommendation F.93

ROUTING TABLE FOR OFFICES CONNECTED TO THE GENTEX SERVICE

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

(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*

Recommendation F.95

TABLE OF INTERNATIONAL TELEX RELATIONS AND TRAFFIC

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)

H.T. [T1.95]
MONTAGE: Reprendre originaux du Livre Rouge
Pas de nouvelle saisie = Maintenu Livre Rouge
H.T. [T1.120]

TABLE 1/F.120

Allocations of first digit (X↓1) in the ship station identity

{ First digit (*X* 1) of ship station identity }	Use
0 Group call/coast station identity }	{
1	Reserved for future expansion
2	Europe
3	North America
4	Asia (except Southeast Asia)
5	Oceania and Southeast Asia
6	Africa
7	South America
8	See § 8.2
9	See § 8.2

Table [T1.95] p. 44

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* , ITU, Geneva.

Recommendation F.96

LIST OF DESTINATION INDICATORS

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

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 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 3.5 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 notes, which are designed to trigger an automatic action at a connected telegram retransmission centre. (See Recommendation F.31, § 10.2.)

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, § 10.4.3.

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.

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 **ETATPRIORITE** or **ETAT** telegrams

to designate international organizations (see provision A218 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 9

SCHEDULED AND LEASED COMMUNICATION SERVICES

Recommendation F.100

SCHEDULED RADIOCOMMUNICATION SERVICE

The CCITT,

unanimously declares

that the following rules should 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 10

MARITIME MOBILE AND MOBILE SATELLITE SERVICES

Recommendation F.110

OPERATIONAL PROVISIONS FOR THE MARITIME MOBILE SERVICE

Introductory Notes

1 Pursuant to Resolutions Nos. Mar2 | (em | 2 and Mar2 | (em | 3 and Recommendation Mar2 | (em | 8 of the *World Administrative Maritime Radio Conference* [1], the CCITT drew up Recommendations E.200/F.110 and D.90 concerning operational and accounting provisions for the Maritime Mobile Service 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* , Article 66 entered into force on 1 January 1981, the provisions of this Recommendation were applicable from that date.

4 References commencing with the letters J, K, L and M concern provisions in Divisions J, K, L and M respectively of Recommendation D.90 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 term *Administration* means that recognized private operating agency/agencies are included. However, where this term is used 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* .

This Recommendation is also included in the Series E Recommendations under the number E.200.

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D´efinition de la cha | ne A3 avec tabulateurs

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folio à d´efinir sur cette page

Pas de tabs sp´eciaux

DIVISION A

GENERAL

1 Definitions

A1 1.1 The **controlling operator** is the first land-ba sed 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 in Recommen dation D.90.

A3 to A20 not allocated

2 Order of priority

A21 2.1 The order of priority for communicati ons , 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 ;

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**);

A29 h) Government radiotelegrams with priority (**ETATPRIORITE**) and government calls for which priority has been expressly requested;

A30 i) Ordinary private radiotelegrams and **RCT** radiotelegrams for which priority has been requested.

A30 | fIbis j) Service communications relating to the working of the telecommunication service or to communications previ- ously exchanged;

A31 k) Government communications other than those shown in A29, ordinary private communications and RCT radiotelegrams;

A32 l) Radiomaritime letters.

The term *communications* as used in A21 to A32 means radiotelegrams , radiotelephone calls and radiotelex calls

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: **OREGONB/FOZOC** (not **OREGONOZOC**);

Examples: **ROSEB/FDDOR** (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 (0001 to 2400) 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 may add to the name of the office of destination:

— the name of the territorial subdivision, and/or

— the destination or country

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 *Routine repetition*

B21A 4.1.1 Routine repetition means the repetition of isolated figures and mixed groups containing figures in the address and text parts. Any such repetition should be given after the text part and be preceded by the code **COL** .

Refer also to K17 in Recommendation D.90.

B21B 4.1.2 In view of Recommendation F.1 routine repe tition is not compulsory. It is used at the discretion of the sending station where the transmission conditions warrant it.

B21C 4.1.3 Where a mobile station gives a routine repe tition, the land station shall use the repeated groups to check the received address and text parts, but should not retransmit the routine repetition.

4.2 *Doubtful reception*

B22 4.2.1 In the mobile service, when commu nication 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 4.2.2 If this triple transmis sion is ineffective, the radiotelegram is kept on hand in case a favourable opportunity for completing its transmission occurs.

B24 4.2.3 If the transmitting sta tion considers that it will not be possible to re-establish communications with the receiving station within twenty-four hours, it proceeds as follows:

B25 4.2.4 If the transmitting station is a mob ile 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 4.2.5 If the transmitting stat ion is a land station, it applies the provisions of B43 to B54 to the radiotelegram.

B30 4.2.6 When a mobile station subsequ ently 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 4.2.7 However, if the radiote legram 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 4.2.8 The other land station, wh ich 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 4.2.9 When the land station designa ted 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 4.2.10 A station of the mobile ser vice 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 4.2.11 When the acknowledgement of rec eipt 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.

4.3 *Long distance radiocommunications*

B36 4.3.1 Administrations reserve the ri ght 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 4.3.2 Each Administration designates the la nd station or stations participating in the long-distance radio service. An indication to this effect shall appear in the *List of Coast Stations* [6].

B38 4.3.3 When there is doubt ab out 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.

4.4 *Routine retransmission by mobile stations*

B39 4.4.1 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 4.4.2 The same provision is also applicable to traffic from mobile stations to land stations, when necessary.

B41 4.4.3 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 4.4.4 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.

4.5 *Period of retention of radiotelegrams at land stations*

B43 4.5.1 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 4.5.2 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 4.5.3 (Spare).

B46 4.5.4 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 4.5.5 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 4.5.6 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 4.5.7 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 4.5.8 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 4.5.9 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 4.5.10 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 4.5.11 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 4.5.12 (Spare).

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* [6] 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, A2 66 to A274 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 Servi ce the transmission of radiotelegrams should normally be permitted by radiotelex only.

B74 8.2 The radiotelegram service in B73 sho uld 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 s et 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 dire ction 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 dire ction 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 sta tion:

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 sta tion:

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 D.90);

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 wi ll 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 hand ling 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 ser vice, 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 opportunity to have the call cancelled if required. In any event, the caller should be informed no later than in the morning of the second day following the day on which the call request was made.

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. The period of validity for store and forward calls in the automatic service shall be as in Recommendation F.72.

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 *Automatic service*

C13 2.1.1 Whenever possible, automatic procedures should be used; i.e. the calling subscriber should contact the called subscriber directly without the aid of an operator.

C14 2.1.2 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.

2.2 *Single-operator service*

C15 2.2.1 The land station operator selects the called subscriber directly via the automatic telex network if automatic procedures (C13) are not possible.

2.3 *Semiautomatic service*

C16 2.3.1 The telex operator of the international exchange of the land station country selects the called subscriber directly if automatic procedures (C13) or single-operator procedures (C15) cannot be applied.

2.4 *Manual service*

C17 2.4.1 The land station operator applies manual procedures if automatic (C13), single-operator (C15) or semiautomatic (C16) procedures are not possible.

2.5 *Store-and-forward service*

C17A 2.5.1 The mobile station transmits the message to the land station using automatic procedures, and the land station retransmits the message over the designated land network.

C17B 2.5.2 The manual semi-automatic and automatic procedures for store and forward in the terrestrial telex network, as laid down in Recommendations F.72, U.80 and U.81, should be taken into account.

2.6 *Procedures*

C18 2.6.1 The manual, semiautomatic and auto matic procedures for the terrestrial telex network , as laid down in Recommendations F.60 and F.61, should be taken into account.

3 Traffic to mobile stations

3.1 *Automatic procedure (direct access by the calling subscriber to the called subscriber)*

C19 3.1.1 Whenever possible automatic proce dures should be used; i.e. the calling subscriber should contact the called subscriber directly without the aid of an operator.

C20 3.1.2 The subscriber of an Admini stration'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.

C21 3.1.3 If the subscriber, for some tech nical reason, cannot establish contact with the mobile station directly, semiautomatic (C35) or single-operator (C24) procedures should be used.

C22 3.1.4 On international telex lin ks a destination code will be used in accordance with Recommendation F.69, unless otherwise agreed bilaterally.

C23 3.1.5 Once a call has been estab lished (indicated by an exchange of answer-backs), the subscriber should start a new line before sending his message (Recommendation F.60, § A.2.2 refers).

3.2 *Single-operator procedure (direct access by the calling subscriber to a foreign land station)*

3.2.1 *Booking*

C24 3.2.1.1 If automatic working (C19) is not possi ble the subscriber selects the foreign land station in question using automatic direct selection and submits the call details to the land station operator.

C25 3.2.1.2 Where an Administration per mits 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.

C26 3.2.1.3 In addition to the informa tion in C4, the calling subscriber must designate his national telex network.

C27 3.2.1.4 As an alternative to C25 and C26, la nd 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.

C28 3.2.1.5 The procedures described in C25 a nd C27 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.

C29 3.2.1.6 In C24 and C27 above, the ca ll 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*

C30 3.2.2.1 When demand operation can not 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.

C31 3.2.2.2 In case C30, the land station incl udes in the bill:

a) the landline charge ;

b) the land station charge

C32 3.2.2.3 When demand operation has been u sed, the bill made out by the land station operator includes only:

— the land station charge.

C33 3.2.2.4 All information regarding collec tion of charges for single-operator calls (see C15) should be submitted by the land station Administration on a regular basis to be determined by the Administrations involved.

C34 3.2.2.5 The methods to be used in colle cting the charges are described in Recommendation D.90.

3.3 *Semiautomatic procedure (access by the calling subscriber to his international exchange for the establishment of a direct connection)*

C35 3.3.1 If automatic (C19) or single-opera tor (C24) procedures are 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 *Manual procedure*

3.4.1 *Booking*

C36 3.4.1.1 If automatic (C19), single-oper ator (C24) or semiautomatic (C35) procedures are not possible, the subscriber should make his booking at the international telex centre of the outgoing country or network.

C37 3.4.1.2 If conditions permit, the intern ational 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.

3.4.2 *Setting-up*

C38 3.4.2.1 The land station operator obta ins 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.

C39 3.4.2.2 Within 24 hours of the call's termi nation, 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.

3.5 *Store-and-forward*

C39A 3.5.1 The subscriber uses two stage select ion, calling the land station desired and storing the message for retransmission to the mobile station.

4 Radiomaritime telex letter

4.1 *Definition*

C40 4.1.1 **radiomaritime telex letter** : A mess age sent by telex direct from a mobile station to a selected land station or to a selected public telegraph office for delivery by mail or any other appropriate means.

4.2 *Operational procedures*

C41 4.2.1 A ship subscriber will select the acc ess code allocated for the radiomaritime telex letter service, or the access code allocated for the fully automatic telex service (see Recommendation F.126) followed, if appropriate, by the telex number of the telegraph office.

C42 4.2.2 The ship operator shall sup ply the following information:

a) telex number of the mobile station (as provided in Recommendation F.125),

b) AAIC,

c) addressee's name and address,

d) words ''RADIOMARITIME TELEX LETTER''.

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DIVISION D

RADIOTELEPHONE

1 General

1.1 *Language to be used*

D1 1.1.1 Where applicable and where langua ge 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 prior ity 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 sho uld 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 dire ction 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 dire ction 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 stat ion:

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 sta tion:

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 D.90);

c) the information specified in Article 60 of the *Instructions for the International Telephone Service* [7].

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 *Automatic service*

D15 2.1.1 Whenever possible, automatic proced ures should be used; i.e. the calling subscriber should contact the called subscriber directly without the aid of an operator.

D16 2.1.2 After connection with the des ired land station is established, the mobile station should select directly the appropriate telephone country code (Recommendation E.163) and the number of the subscriber of an Administration's telephone network.

2.2 *Single-operator service*

D17 2.2.1 The land station operator sel ects the called subscriber directly via the automatic telephone networks if automatic working (D15) is not possible.

2.3 *Semiautomatic service*

D18 2.3.1 The telephone operator of the international exchange of the land station country selects the called subscriber directly if automatic (D15) or single-operator (D17) procedures cannot be applied.

2.4 *Manual service*

D19 2.4.1 The land station operator applies manual procedures if automatic (D15), single-operator (D17) or semiautomatic (D18) working is not possible.

2.5 *Store-and-forward service*

D19A 2.5.1 The mobile station transmits the message to the land station using automatic procedures, and the land station retransmits the message over the designated land network.

D19B 2.5.2 The manual semi-automatic and automatic procedures for store and forward in the terrestrial telex network, as laid down in Recommendations F.72, U.80 and U.81, should be taken into account.

2.6 *Procedures*

D20 2.6.1 The automatic, semiautomatic and manual procedures for the terrestrial telephone network, as laid down in Recommendation E.141 and the *Instructions for the International Telephone Service* [7] should be taken into account.

3 Traffic to mobile stations

3.1. *Automatic procedure (direct access by the calling subscriber to the called subscriber)*

D21 3.1.1 Whenever possible, automatic procedures should be used; i.e. the calling subscriber should contact the called subscriber directly without the aid of an operator.

D22 3.1.2 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.

D23 3.1.3 If the subscriber, for some technical reason, cannot establish contact with the mobile station directly, single-operator (D24) procedures should be used.

3.2 *Single-operator procedure (direct access by the calling subscriber to a foreign land station)*

3.2.1 *Booking*

D24 3.2.1.1 If automatic procedures cannot be app lied, the subscriber selects the foreign land station in question using automatic direct selection. The land station operator records the call details.

D25 3.2.1.2 Where an Administration per mits 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.

D26 3.2.1.3 In addition to the informa tion in D6, the calling subscriber must designate his country and national telephone number.

D27 3.2.1.4 As an alternative to D24 and D25, l and 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.

D28 3.2.1.5 The procedures described in D25 and D27 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.

D29 3.2.1.6 In D24 and D27 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*

D30 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.

D31 3.2.2.2 In case D30, the land station includes in the bill:

a) the landline charge;

b) the land station charge.

D32 3.2.2.3 When demand operation has been used, the bill made out by the land station operator includes only:

— the land station charge.

D33 3.2.2.4 All information regarding collection of charges for single-operator calls (see D17) should be submitted by the land station Administration on a regular basis to be determined by the Administrations involved.

D34 3.2.2.5 The methods to be used in collecting the charges are described in Recommendation D.90.

3.3 *Semiautomatic procedure (access by the calling subscriber to his international exchange for the establishment of a direct connection)*

D35 3.3.1 If automatic (D21) or single-operator (D24) procedures are 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 *Manual procedure*

3.4.1 *Booking*

D36 3.4.1.1 If automatic (D21), single-operator (D24) or semiautomatic (D35) procedures cannot be applied, the subscriber should make his booking at the international centre of the outgoing country.

D37 3.4.1.2 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.

3.4.2 *Setting-up*

D38 3.4.2.1 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.

D39 3.4.2.2 After the call's termin ation, 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;

D40 3.4.2.3 Otherwise all information rega rding collection of charges should be submitted to the caller's Administration on a regular basis to be determined by the Administrations involved.

3.5 *Store-and-forward procedures*

D40A 3.5.1 The subscriber uses two stage selec tion, calling the land station desired and storing the message for retransmission to the mobile station.

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DIVISION E

RADIOTELEXOGRAM

1 General

1.1 *Definition*

E1 1.1.1 A radiotelexogram is a message sent by telex direct from a subscriber to a foreign land station for transmission to a mobile station or a message sent from a mobile station to a land station for transmission by telex direct to a foreign subscriber (see Note in E.5).

1.2 *Provision of service*

E2 1.2.1 Operating, charging and accounting procedures should be subject to bilateral agreement between the Administrations concerned. If such an agreement does not exist, the land station should refuse such radiotelexograms in the shore-to-ship direction.

E3 1.2.2 Alternatively, land stations may accept radiotelexograms from foreign subscribers provided that the calling subscriber supplies the name and address of a party in the land station country that will take responsibility for the payment of charges.

1.3 *Validity of requests*

E4 1.3.1 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 radiotelexogram cancelled.

2 Operational procedures

E5 2.1 The transmission of radiotelexograms should be in accordance with Divisions B and C as appropriate except as specified below or where varied through bilateral agreement.

Note — A radiotelexogram is different from a radio telex call. In particular, a radiotelexogram is normally transmitted between the mobile station and the land station as a radiotelegram by Morse telegraphy or by radiotelephony

E6 2.2 *Information to be supplied to the land station, as necessary, by the calling party*

E7 2.2.1 *Radiotelexogram to a mobile station*

a) telex number and/or answerback code of the calling subscriber;

b) the national telex network to which the subscriber belongs;

c) the date and time of origin;

d) the word RADIOTELEXOGRAM;

e) name or designation of the addressee with supplementary particulars if necessary;

f) the name of the mobile station followed, when necessary, by its call sign or where this is not known, the particulars of the passage made by the mobile station;

g) any specific delivery instructions.

E8 2.2.2 *Radiotelexogram from a mobile station*

a) name and/or call sign of the mobile station;

b) identification of the accounting authority;

c) the date and time of origin;

d) the word RADIOTELEXOGRAM;

e) destination country and/or network;

f) called subscriber’s telex number and answerback code.

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, 1982.

[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, 1987.

[6] *List of coast stations* , ITU, Geneva, 1986.

[7] *Instructions for the international telephone service , (1st October 1985)* , ITU, Geneva, 1985.

MONTAGE: REC. F.112 et F.120 SUR LE RESTE DE CETTE PAGE

Disk. 539 NF02/015 OPM: 09

E.200/F.110 NF03/003 OPM: 10

X_1 X_2 NF03/014 OPM: 10

MEP **[PA1]** : OK= [1]

MONTAGE : FIN REC. F.110 EN-T | TE DE CETTE PAGE

QUALITY OBJECTIVES FOR 50-BAUD START-STOP
| fBTELEGRAPH TRANSMISSION

IN THE MARITIME MOBILE-SATELLITE SERVICE

The CCITT,

considering

(a) that proper interworking of this telegraph transmission with the international telegraph services must be ensured;

Recommendation F.112

(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 **|** 00 characters with a 99% confidence level for mobile terminals at the edge of the service area.

Note — This Recommendation corresponds to CCIR Recommendation 552.

Recommendation F.120

SHIP STATION IDENTIFICATION FOR VHF/UHF AND

MARITIME MOBILE-SATELLITE SERVICES

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.

This Recommendation is also included in the E and Q Series as Recommendations E.210 and Q.11 *ter* .

1.2 *Terminology*

The following terms are used in this Recommendation:

1.2.1 **Maritime Mobile (Terrestrial) Service**

F: service mobile maritime (de Terre)

S: servicio m´ovil mar´itimo (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 m´ovil mar´itimo por sat´elite

As defined in the *Radio Regulations* [1].

1.2.2 **coast station**

F: station c | ti`ere

S: estaci´on costera

A land station in the Maritime Mobile Service.

coast earth station

F: station terrienne c | ti`ere

S: estaci´on terrena costera

An earth station in the Fixed-Satellite Service or, in some cases, in the Maritime Mobile-Satellite Service, located at a specified fixed point on land to provide a feeder link for the Maritime Mobile-Satellite Service.

Note — In this Recommendation the term coast station is also intended to include, for simplicity, coast earth station.

1.2.3 **ship station identity**

F: identit´e de la station de navire

S: identidad de estaci´on de barco

The ship's identification X_1, X_2. | | X_k identifying the ship uniquely. The ship station identity may be transmitted on the radio path.

ship station number

F: num´ero de station de navire

S: n´umero de estaci´on 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.

Note 1 — The formats of the ship station number are defined in other E and F Series Recommendations:

— Recommendation E.215 for telephone and ISDN numbering in the Maritime Mobile-Satellite Service;

— Recommendation F.125 for telex numbering in the Maritime Mobile-Satellite Service;

— numbering plans for maritime mobile (terrestrial) systems are for further study.

Note 2 — In this Recommendation the term ship station is intended to also include, for simplicity, ship earth station.

1.2.4 **coast station identity**

F: identit´e de la station c | ti`ere

S: identidad de estaci´on costera

The coast station identification X_1, X_2. | | X_k transmitted on the radio path.

Note — In this Recommendation the term coast station identity is intended to also include, for simplicity, coast earth station identity.

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;

d) that it is desirable that the ship station number and the ship station identity are related in a simple and unambiguous manner;

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 the ship identity system shall be a numerical system, and should use the full range of decimal digits;

g) that two or three of the digits, $X_1X_2X_3$, of the ship station identity shall indicate the ship's nationality.

2 Ship station identification

Ship station identity is established as nine digits.

$$X_1X_2X_3X_4X_5X_6X_7X_8X_9$$

The initial three digits define the nationality of the ship as indicated in the following sections.

Since the whole or a part of the ship station identity is used in the ship station number, certain restrictions may be imposed on the allocation of ship station identities for the Maritime Mobile-Satellite Service. Such restrictions are identified in Recommendations E.215 and F.125. The use of the ship station identity in maritime mobile (terrestrial) systems is for further study.

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.

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.

The digits eight (8) and nine (9) are not used for identification of geographical regions. However, for maritime VHF/UHF systems, the digits 8 and 9 may be used to expand network access as shown in § 8.2. The allocation of the first digit of the ship station identity is summarized in Table 1/F.120.

H.T. [T1.120]

TABLE 1/F.120

Allocations of first digit (X↓1) in the ship station identity

{ First digit (*X* 1) of ship station identity }	Use
0 Group call/coast station identity }	{
1	Reserved for future expansion
2	Europe
3	North America
4	Asia (except Southeast Asia)
5	Oceania and Southeast Asia
6	Africa
7	South America
8	See § 8.2
9	See § 8.2

Table 1/F.120 [T1.120], p.

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 analysing the first three digits of its ship station identity.

The digits to be analysed are called Maritime Identification Digits (MID). Examples of the maritime identification digits for ships are given in Table 2/F.120.

H.T. [T2.120]

TABLE 2/F.120

Country Maritime identifications digits (MID) }	{ Ship station identity	
P from 231 000 000 to 231 999 999 }	231	{
Q from 233 000 000 to 234 999 999 }	233, 234	{
R from 236 000 000 to 238 999 999 }	236, 237, 238	{
S from 240 000 000 to 249 999 999 }	240 to 249	{

Table 2/F.120 [T2.120], p.

4 Assignment of maritime identification digits

Each MID represents a discrete capacity assigned according to a plan that relates assigned capacity to ship population. A plan has been developed by the World Administrative Radio Conference for the Mobile Services (MOB-83) [2] and is contained in Appendix 43 to the *Radio Regulations* [1]. The Radio Regulations make provision for the allocation of additional MIDs for a specific country when necessary.

5 Group calls

$X_1 = 0$, $X_2 = 1$ to 9 and $X_1 = 0$, $X_2 = 0$, $X_3 = 0$, $X_4 = 0$ 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 stations. Control of group calls may also be achieved by the use of special group service access to the coast stations. The group call numbering scheme used in the INMARSAT system is given in Annex B to Recommendation E.215 and in Annex B to Recommendation F.125.

6 Coast station identity

$X_1 = 0$, $X_2 = 0$, $X_3 = 1$ to 9 are assigned to indicate coast station identities in maritime mobile (terrestrial) systems.

7 Future expansion of the ship station identification system

$X_1 = 1$ as in the format 1 XXXXXXXX has been reserved for future expansion.

Note — $X_1 = 1$ is used in the INMARSAT standard A system for identification of ship earth stations (see Recommendations F.125 and E.215).

8 Considerations related to ship station identity assignment

8.1 The ship station identity, or part of it, will be included in the INMARSAT mobile number. The way in which this is done for INMARSAT mobile numbers is described in Recommendations E.215 and F.125.

The relationship between the nine-digit ship station identity and the part of it which is used in the ship station number is illustrated in Table 3/F.120. If the part of the identity used in the number is shorter than nine digits, then the corresponding identity is obtained by adding trailing zeros to form nine-digit ship station identities. This principle must be observed when allocating ship station identities for ships in the Maritime Mobile-Satellite Service (see Recommendations E.215 and F.125).

H.T. [T3.120]

TABLE 3/F.120

{ Part of ship station identity used in ship station number } Digits on the automatic network } Digits in the ship station identity }	{ Ship stations identity	{	
MID X 4X 5X 6	6	MID X 4X 5X 6 000	9
MID X 4X 5X 6X 7	7	MID X 4X 5X 6X 7 00	9
MID X 4X 5X 6X 7X 8	8	MID X 4X 5X 6X 7X 8 0	9
MID X 4X 5X 6X 7X 8X 9	9	MID X 4X 5X 6X 7X 8X 9	9

Table 3/F.120 [T3.120], p.

8.2 Numbering plans for the maritime mobile (terrestrial) services are for further study. The principle of § 8.1 is likely to apply for these services also.

For maritime mobile (terrestrial) services, additional ship station numbering techniques may be used to expand network access to more ship stations on a regional and national basis as follows:

Ship station number | fIShip station identity

(or part thereof)

| Y $X_4X_5X_6X_7$ $M_yI_yD_y$ $X_4X_5X_6X_7$ 00

| | $_4X_5X_6X_7X_8$ $M_nI_nD_n$ $X_4X_5X_6X_7X_8$ 0

In this arrangement, the digits 8Y may be 80 to 89 to define as many as ten foreign MIDs (shown as $M_yI_yD_y$) to permit automatic calling of ships of particular nationalities. The coast station would be required to translate a given 8Y to a particular foreign MID. The digit 9 may be used to indicate the maritime 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 MID (shown as $M_nI_nD_n$).

References

[1] *Radio Regulations* , ITU, Geneva, 1982, revised in 1985, 1986 and 1988.

[2] *Final Acts of the World Administrative Radio Conference for the Mobile Services* | (MOB-83), ITU, Geneva, 1983.

Recommendation F.122

OPERATIONAL PROCEDURES FOR THE MARITIME SATELLITE DATA TRANSMISSION SERVICE

1 Introduction

1.1 The purpose of this Recommendation is:

a) to standardize the procedures for subscribers of a public data network (PDN) calling ship earth stations in the Maritime Satellite Data Transmission Service;

b) to standardize the procedures for calling subscribers of a PDN from ship earth stations using the packet switched data transmission service defined in Recommendations X.25 and X.352;

c) to standardize the procedures for calling subscribers of a PDN from ship earth stations by accessing packet assembly/disassembly facilities (PAD) as defined in Recommendation X.351.

Note 1 — This Recommendation does not cover data calls passed through the international public switched telephone network other than those which are accessed through PADs designed in accordance with Recommendation X.351.

Note 2 — Procedures for subscribers of a PDN calling a ship earth station by accessing a PAD are for further study.

1.2 Related CCITT Recommendations are:

E.200/F.110 Operational provisions for the maritime mobile service.

E.210/F.120 Ship station identification for VHF/UHF and Maritime Mobile-Satellite Services.

E.215 Telephone/ISDN numbering plan for the Mobile-Satellite Service of INMARSAT.

E.216 Selection procedure for the INMARSAT mobile-satellite telephone and ISDN services.

F.125 Telex numbering plan for the Mobile-Satellite Service of INMARSAT.

F.126 Selection procedures for the INMARSAT Mobile-Satellite Telex Service.

X.1 International user classes of service in public data networks and ISDNs.

X.2 International data transmission services and optional user facilities in public data networks.

X.96 Call progress signals in public data networks.

X.121 International numbering plan for public data networks.

X.180 Administrative arrangements for international closed user groups (CUGs).

X.300 General principles and arrangements for interworking between public data networks, and between public data networks and other public networks.

X.350 General interworking requirements to be met for data transmission in the international public mobile satellite systems.

X.351 Special requirements to be met for packet assembly/disassembly facilities (PADs) located at or in association with coast earth stations in the Maritime Satellite Service.

X.352 Interworking between packet switched public data networks and the public maritime mobile satellite data transmission system.

X.353 Routing principles for interworking public maritime mobile satellite data transmission systems in the public data network.

1.3 The following basic considerations were taken into account when formulating this Recommendation:

a) Each ship is allocated a unique 9-digit INMARSAT mobile number.

Note — The *first generation* maritime mobile satellite (INMARSAT) system also caters for a 7-digit INMARSAT mobile number beginning with digit 1.

b) The routing principles to be used for data transmission to and from ships are as defined in Recommendation X.353.

c) The procedures to be used on board ships when accessing a subscriber of a PDN should be as similar as possible to the procedures used on PDNs.

d) The Maritime Satellite Service is international in nature and international procedures will be adopted to provide access to this service. For some purposes, a maritime satellite data transmission system can be regarded as analogous to a national network and the ship earth stations as subscribers within that network.

e) The procedures used on board the ship when accessing a subscriber of a PDN should be the same in all coast earth stations.

1.4 The following basic access methods are defined for the Maritime Satellite Data Transmission Service:

a) access using the packet mode in accordance with draft Recommendation X.352;

b) access using packet assembly/disassembly facilities (PADs) in accordance with Recommendation X.351.

1.5 Ships may form part of a closed user group (CUG) in accordance with Recommendation X.180. It should be noted that a ship being part of a CUG should be known as such in all coast earth stations.

The International Maritime Satellite Organization (INMARSAT) should be charged with the responsibility of acting as the coordinating Administration (see Recommendation X.180) for ship earth stations wanting to form CUGs. The application from ships to join or cease membership of a CUG

should be forwarded through INMARSAT who should then inform the coordinating Administration of the CUG in accordance with Recommendation X.180.

For each CUG the same index identifying the CUG by a calling ship earth station (see Recommendation X.300) should be used in all coast earth stations in order to simplify the calling procedures. The index should be coordinated through INMARSAT.

1.6 Permanent virtual circuits (PVC) would require a permanent circuit between a ship earth station and the coast earth station. The PVC service should not normally be offered to ship earth stations (see also Recommendations X.2 and X.350).

2 Procedures for ship originated calls

2.1 *Access to packet switched PDNs*

2.1.1 *Calling a subscriber of a PDN*

2.1.1.1 The coast earth station through which the call is to be set up is selected by procedures defined within the INMARSAT system.

2.1.1.2 The ship board subscriber should select a prefix followed by the full international number of the called DTE. Hence, the numbering sequence selected by a ship board subscriber will be as shown in Table 1/F.122 or, where an integrated numbering system exists within a country, as shown in Table 2/F.122.

H.T. [T1.122]

TABLE 1/F.122

lw(42p) | lw(36p) | lw(102p) . lw(42p) | lw(36p) | lw(102p) .

{ N 1 . | | N n Network terminal number

}

Table 1/F.122 [T1.122], p.

H.T. [T2.122]

TABLE 2/F.122

Prefix
Data country code
{
N
1 . | | N
n
National data number
}		

Table 2/F.122 [T2.122], p.

See also Recommendations X.121 and X.350.

2.1.1.3 The calling DTE address of the ship board DTE should always be inserted and have the following format:

$$TX_1\ X_2\ .\ |\ |\ X_8\ Y$$

where $TX_1\ X_2\ .\ |\ |\ X_8$ is the INMARSAT mobile number as defined in Recommendation F.125 and Y is an optional digit identifying a specific DTE on board the ship. If the ship is equipped with only one DTE, the digit Y should be omitted. The calling DTE address should not include the prefix and the DNIC allocated to the ocean area in which the ship earth station is located at the time of the call.

2.1.1.4 Selection of facilities on a call-by-call basis should be in accordance with Recommendations X.25 and X.300. The facilities that may be offered on a call-by-call basis are given in Recommendation X.2. A given facility may not be offered in all coast earth stations.

User facilities that have to be agreed for a contractual period are also listed in Recommendation X.2. The application for a given facility should be made with the Administrations operating coast earth stations providing access to public packet switched data networks. The availability of user facilities on the various coast earth stations should be coordinated and be disseminated to ships by INMARSAT; however, the decision to implement a given user facility should be made by each coast earth station owner.

Further study is required to determine which user facilities and/or other user parameters should be offered on all coast earth stations.

Note — Separate provisions apply to closed user groups as described in § 1.5 above.

2.1.2 *Use of data transmission prefixes*

2.1.2.1 Annex A to Recommendation F.126 defines data transmission prefixes for accessing special terminations. The general called DTE address format when accessing such a termination will be as shown in Table 3/F.122.

H.T. [T3.122]
TABLE 3/F.122

{
Two-digit prefix defined in Annex A to Recommendation F.126
}
{
A
1 . | | A
k
Optional digits
}		

Table 3/F.122 [T3.122], p.

Optional digits may be a data country code (DCC), a data network identification code (DNIC) or other additional digits.

2.1.2.2 The calling DTE address should have the format defined in § 2.1.1.3 above.

2.1.2.3 Selection of facilities, if required, should be as defined in § 2.1.1.4 above.

2.1.2.4 The use of some prefixes could be barred to some customers.

2.1.2.5 The prefix will be sent on the radio path to the coast earth station but would not be used outside the satellite system. The prefix will be converted at the coast earth station, if required, to the data number associated with the appropriate destination.

2.1.3 *Ship-to-ship calls*

For ship-to-ship calls the called DTE address should have the composition shown in Table 4/F.122.

H.T. [T4.122]
TABLE 4/F.122

lw(72p) | lw(12p) | lw(96p) . lw(72p) | lw(12p) | lw(96p) .
{ Y Optional digit to designate a particular DTE
}

Table 4/F.122 [T4.122], p.

The digit S determines the ocean area in which the called ship is located. The values for the digit S are given in Recommendation X.121. The digit Y identifies a specific DTE on board the ship.

2.1.4 *Call progress signals and diagnostic codes*

Call progress signals and diagnostic codes may be received in accordance with § 8.2 of Recommendation X.350.

2.1.5 *CCITT standardized services*

Ships should have full access to CCITT standardized services offered on public data networks such as Teletex, Videotex, and facsimile in accordance with relevant F and S Series Recommendations.

2.2 *Access to PADs*

2.2.1 Ships with start-stop mode DTEs may be offered access to packet switched public data networks through PADs.

PADs associated with coast earth stations are defined in Recommendation X.351. These PADs are defined in such a way that identical procedures may be used when working towards PADs located at different coast earth stations.

Note — Ships may also access a national PAD in a country, but in such cases special procedures only applicable for that PAD would be required. Only PADs designed in accordance with Recommendation X.351 are considered in this Recommendation.

2.2.2 *Telephone access procedure*

The coast earth station at which the PAD is located is selected in accordance with INMARSAT procedures for telephone calls. The start-stop mode DTE on board the ship would use telephone procedures in order to access a PAD. When the telephone circuit has been established, i.e. when the dial tone is heard, the following digits have to be dialled:

20 Prefix

X_1 X_2 Digits indicating required data rate

Recommendation X.351 specifies that the following data rates and types of modem for full duplex operation will be supported by the PAD:

— Recommendation V.21, 300 bit/s;

— Recommendation V.22, 1200 bit/s;

— Recommendation V.23, 75/1200 bit/s.

The specific modes of operation of the modems are given in Recommendation X.351, § 1.1.

The number to be dialled for each of these data rates is given in Table 5/F.122.

H.T. [T5.122]

TABLE 5/F.122

lw(66p) | lw(66p) .

Table 5/F.122 [T5.122], p.

The PAD may support other data rates on an optional basis. For such data rates the dialling information will be as given in Table 2/X.351.

The dialling sequences 2050 through 2099 are reserved for national use and may be used for access to for example Videotex data bases via the PAD.

2.2.3 *Data access procedures*

The call control procedures to be used during set-up and clearing of the data connection and the data transfer protocol are given in Recommendation X.351.

The basic elements of the procedure are:

First the DTE accesses the PAD by sending a service request signal consisting of the characters ‘‘.’’ (full stop) and ‘‘CR’’ (carriage return) corresponding to the characters 2/14 0/13 of International Alphabet No. 5 (see Recommendation T.50 for a description of International Alphabet No. 5.

The PAD will respond by returning a PAD identification signal, the composition of which is left to the Administration operating the PAD.

The DTE shall then send, as soon as possible, a signal, i.e. a string of characters, called the selection PAD command signal. This signal is composed as shown in Annex A. The purpose of this signal is:

— to provide the PAD with the address of the called DTE; and

— to provide the PAD with the identity of the calling DTE.

When the call has been extended to the called DTE, the character string COM will be received from the PAD.

At this stage the system enters into the data transfer phase.

The call set-up procedure outlined above may be operated manually or be programmed into the DTE.

During call set-up and during the data transfer phase, the DTE may receive PAD service signals as defined in Recommendation X.28. These signals may indicate various call failures.

Recommendation X.351 also allows other procedures to be used during call set-up. See that Recommendation for further details.

2.2.4 *Standard profile and profile selection*

In order to operate a PAD, a number of PAD parameters must be specified. A general list of PAD parameters is contained in Recommendation X.3.

The PAD defined in Recommendation X.351 offers an initial standard profile with PAD parameter values as given in Table 3/X.351. This standard profile permits a data transfer protocol based on International Alphabet No. 5.

The characters 1/0 (DLE), 1/1 (DC1) and 1/3 (DC3) are used for control purposes and can therefore not be passed transparently through the PAD. The character 1/0 (DLE) is interpreted by the PAD as an escape from the data transfer phase. Therefore, this character is used in order to enable commands to be sent to the PAD. For the various commands that can be used during the data transfer phase, see Recommendation X.28.

The initial standard profile offers the following capabilities:

— by using the character 1/0 (DLE) commands can be sent to the PAD;

— the PAD can at any time send service signals to the DTE;

— the DTE can use characters in order to indicate when a data packet shall be sent from the PAD into the data network;

— the DTE may use the characters 1/1 (DC1) and 1/3 (DC3) for flow control.

The profile does not permit the PAD to provide for any editing functions. Characters which are entered into the PAD are not echoed to the DTE. This has been done because the echoed character will be delayed by approximately 0.6 seconds, thus reducing the character rate to less than two characters per second. The echo mode should therefore not be used. If echo is required, it should be generated locally in the DTE.

A transparent profile or any other profile standardized in Recommendation X.28 may be selected as soon as the data transfer phase is entered by procedures defined in Recommendations X.28 and X.351. The transparent profile will allow octets of data to be passed transparently between the two DTEs. When operating in this mode, the on-board DTE cannot recall the PAD, nor can the PAD send any service signals to the on-board DTE. Therefore, a data transfer protocol must exist between the two DTEs for proper call control.

The various PAD parameters which can be selected by the DTE are given in Recommendation X.3. It should be noted that some of these parameters may not be implemented on all PADs.

Since DTEs may treat the parity bit included in the data octets differently when International Alphabet No. 5 is used, Recommendation X.351 specifies the means by which this problem can be resolved.

2.2.5 *Clearing of calls*

At the end of the call the user at the on-board DTE should make sure that the satellite telephone circuit is properly cleared. The PAD may include provisions for clearing the circuit but this may delay the clearing for several minutes. During this time, the user on-board is still being charged for the use of a maritime satellite telephone circuit

3 Procedures for shore-to-ship calls

3.1 *Calls to ships with DTEs operating in the packet mode*

3.1.1 A subscriber of a PDN calling a ship equipped with DTEs operating in the packet mode will select a numbering sequence as shown in Table 6/F.122.

3.1.2 The numbering sequence requires the subscriber to know the satellite coverage area in which the ship is located in order to select the S digit. The values for the digits are given in Recommendation X.121.

H.T. [T6.122]
TABLE 6/F.122

Tableau 6/F.122 [T6.122], p.10

3.1.3 Facility selection will follow the normal procedures used in the PDN of origin.

3.1.4 The calling subscriber should be aware of the long two-way transmission delay (approximately 0.6 seconds) on the maritime satellite circuit. This implies that acknowledgement signals may be delayed more than for terrestrial connections.

3.1.5 Call progress signals and diagnostic codes may be received in accordance with Recommendation X.350, § 8.1.

3.1.6 When accessing a ship for CCITT standardized services such as Teletex, Videotex and facsimile, the calling subscriber should make sure before initiating the call that the called ship is equipped with the appropriate termination.

3.2 *Calls to ships with DTEs operating in the start-stop mode*

For further study.

4 Group calls

Group calls to ship earth stations are calls comprising a message sent simultaneously to all ships within a predetermined group. The group numbering scheme is given in Annex B of Recommendation F.125.

Group calls using direct access through a PDN will not be permitted.

Other means for setting up group calls through public data networks, e.g. by using a message handling system (MHS), are for further study.

ANNEX A
(to Recommendation F.122)

Format of selection PAD command signal

for maritime satellite applications

A.1 General format

The general format of the selection PAD command signal is given in Recommendation X.28 and is composed as shown in Figure A-1/F.122.

Figure A-1/F.122 [T7.122] (a traiter comme tableau), p.

The character 2/12 (,) is used as a separator between facility request signals and the character 2/13 (—) is used as a separator between the facility request block and the called DTE address signal 0/13 (CR) or 2/11 (+).

The facility request block must contain the network user identification (NUI) facility request signal. Other facility request signals are optional.

If the PAD receives a selection PAD command signal with a separator character 2/12 (,) followed by an empty facility request field, the signal will be accepted provided that the other fields of the signal are accepted.

The inclusion of user data in the selection PAD command signals is for further study.

A.2 *Network user identification (NUI) facility request signal*

A.2.1 *Format of the NUI facility request signal*

The NUI facility request signal shall have the format of Figure A-2/F.122 and be sent in the order shown.

Figure A-2/F.122 [T8.122] (a traiter comme tableau), p.

N is the character 4/14 (N) of International Alphabet No. 5. The mnemonic code of the NUI facility request signal may consist of 1 to 4 characters in columns 2 to 7 of International Alphabet No. 5, except 2/0 (SP), 7/15 (DEL), 2/13 (—), 2/12 (,) and 2/11 (+).

A.2.2 *Validation of the NUI facility request signal*

The coast earth station will check the general authorization of the calling ship for access to the INMARSAT system. Therefore, validation of the NUI facility request signal may be limited to the mnemonic code. However, the possibility of fraudulent calling would be reduced if the ship station identity is also included in the validation.

The ship station identity may also be used for identifying the calling ship for charging purposes, and for insertion of the calling DTE in the call request packet.

A.3 *Composition of the called DTE address signal*

A.3.1 *Calls to a DTE of a PDN*

The called DTE address signal shall consist of the prefix 0 followed by the full international number of the called DTE. This applies also when the called DTE is located in the same country as the maritime PAD.

A.3.2 *Calls to special destinations*

Annex A of Recommendation X.350 defines two-digit prefixes for access to special destinations. For calls to such destinations the called DTE address shall consist of the two-digit prefix, optionally followed by additional digits.

A.4 *Optional facilities*

Facilities to be offered in a maritime PAD is to be determined by the Administration concerned.

The shipboard DTE may request available facilities in accordance with the procedures given in Recommendation X.28.