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Service – Maritime mobile and mobile satellite services

**SELECTION PROCEDURES FOR THE
INMARSAT MOBILE-SATELLITE TELEX
SERVICE**

Reedition of CCITT Recommendation F.126 published in
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NOTES

1 CCITT Recommendation F.126 was published in Fascicle II.4 of the *Blue Book*. This file is an extract from the *Blue Book*. While the presentation and layout of the text might be slightly different from the *Blue Book* version, the contents of the file are identical to the *Blue Book* version and copyright conditions remain unchanged (see below).

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

Recommendation F.126

SELECTION PROCEDURES FOR THE INMARSAT MOBILE-SATELLITE TELEX SERVICE

1 Introduction

1.1 Purpose

The purpose of this Recommendation is to standardize:

- a) the numbering and selection procedures for subscribers in the international telex service calling a ship-earth station in the INMARSAT systems;
- b) the procedures for calling a subscriber, an operator or a special service termination in the international telex service from a ship-earth station.

This Recommendation applies to INMARSAT Standard-A, B and C systems. Selection procedures for the INMARSAT aeronautical system is for further study.

1.2 Related CCITT Recommendations

F.125	Telex numbering plan for the mobile-satellite services of INMARSAT
F.127	Operational procedures for interworking between the telex service and the service offered by INMARSAT Standard-C system
F.60	Operational provisions for the international telex service
F.68	Establishment of the automatic intercontinental telex network
F.69	Plan for telex destination codes
F.72	International telex store-and-forward – general principles and operational aspects
E.200/F.110	Operational provisions for the Maritime Mobile Service
F.122	Operational procedures for the Maritime Satellite Data Transmission Service
F.130	Maritime answer-back codes
F.131	Radiotelex service codes
E.215	Telephone/ISDN numbering plan for the mobile-satellite services of INMARSAT
U.61	Detailed requirements to be met in interfacing the international telex network with maritime satellite systems
E.216	Selection procedures for the INMARSAT mobile-satellite telephone and ISDN services

2 Numbering procedures

2.1 Maritime mobile-satellite services are international in nature and international procedures will be adopted to provide access to these services. For some purposes, a maritime mobile-satellite system can be regarded as analogous to a national network and the ship-earth stations as subscribers within that network.

For automatic shore originated calls, international selection procedures will be adopted using the three-digit telex destination code 58S and an INMARSAT mobile number where the digit S indicates the ocean region. The telex numbering plan for ship-earth stations in the INMARSAT System is given in Recommendation F.125.

2.2 For automatic ship originated calls international selection procedures will be used, including a standardized access code, i.e. all ships in all ocean areas will use the same access code to identify an automatic international call.

In addition, access codes will be adopted to identify other functions of the satellite system. Annex A lists the allocation of the access codes. Additional access codes may be required and these can be added, using the spare decimal numeric combinations.

It is desirable to have one set of access codes for all services. The access codes listed in Annex A can be used where applicable for telephone and data services and, if necessary, additional access codes for these services may be assigned by the competent Study Group. Close cooperation between the competent Study Groups will be necessary when assigning new access codes.

The use of some access codes could be barred to some customers.

2.3 The access codes will be sent over the radio path to the coast earth station but would not be used outside the satellite system. Hence, an access code sent to the coast earth station would not be used in the international network.

2.4 The service associated with each access code is defined in Annex B.

3 Procedures for shore-to-ship calls

3.1 General selection sequence

A shore based subscriber calling a ship in the INMARSAT system will select a numbering sequence as follows:

58S Telex destination code
 T X₁X₂ . . . X_n INMARSAT mobile number
 + End of selection.

3.2 Selection of S digit

The numbering sequence requires the subscriber to know the satellite coverage area in which the ship is located. The values of the S digit are given in Recommendation F.125.

3.3 INMARSAT mobile number

The INMARSAT mobile number T X₁X₂ . . . X_n takes one of the formats defined in Recommendation F.125. The various possibilities are summarized in Table 1/F.126 and are further outlined below.

TABLE 1/F.126

Formats of INMARSAT mobile numbers

Format	Application
1 X ₁ X ₂ X ₃ X ₄ X ₅ X ₆	Ordinary call to INMARSAT Standard-A ship-earth station
3 M ₁ I ₂ D ₃ X ₄ X ₅ X ₆ X ₇ X ₈	Ordinary call to INMARSAT Standard-B ship-earth station
4 M ₁ I ₂ D ₃ X ₄ X ₅ X ₆ X ₇ X ₈	Ordinary call to INMARSAT Standard-C ship-earth station
5 X ₁ X ₂ X ₃ X ₄ X ₅ X ₆ X ₇ X ₈	Call to INMARSAT aeronautical aircraft earth station

3.3.1 INMARSAT Standard-A system

For an ordinary call to an INMARSAT Standard-A ship earth station, the format of the INMARSAT mobile number is:

1 X₁X₂X₃X₄X₅X₆

where the digits X₁X₂X₃X₄X₅X₆ identify a specific ship earth station. If there are more than one ship earth station at the ship, each will have its own unique INMARSAT mobile number.

3.3.2 INMARSAT Standard-B system

The INMARSAT mobile number takes the following format for ship earth stations in INMARSAT Standard B system:

3 M₁I₂D₃X₄X₅X₆X₇X₈

3.3.3 *INMARSAT Standard-C system*

The INMARSAT mobile number takes the following format:

$$4 M_1 I_2 D_3 X_4 X_5 X_6 X_7 X_8$$

3.3.4 *INMARSAT Aeronautical system*

The format of the INMARSAT mobile number, $5 X_1 X_2 X_3 X_4 X_5 X_6 X_7 X_8$ is still to be determined.

4 **Procedures for ship-to-shore calls**

4.1 *General*

It should be possible to provide all information required for establishing a call from user terminals connected to the ship-earth station. Such information may include:

- a) called party address including any access code;
- b) desired coast-earth station;
- c) supplementary service requests.

The information in a) is required for all calls. The information in b) and c) may be required on some calls, e.g. if the user requests a specific routing of the call or if specific service characteristics are to be applied.

These ship-to-shore procedures are not applicable to Standard C and reference should be made to Recommendation F.127 for further details.

4.2 *Calling a terrestrial subscriber*

4.2.1 A shipboard user will select the access code 00 followed by the full international telex number required, whether or not the coast-earth station is located in the country of the called subscriber. Hence the numbering sequence selected by a ship board subscriber will be of the form:

00	Access code for automatic call
$I_1 I_2 I_3$	2 or 3 digit telex destination code
$N_1 - N_n$	National number of the subscriber.
+	End of selection.

4.2.2 It is also possible to select specific services associated with the call by use of access codes other than 00, e.g. 21 (store and forward international), 22 (store and forward national), 23 (short code selection) and 24 (telex letter services).

$A_1 A_2$	Access code
$I_1 I_2 I_3$	2 or 3 digit telex destination code
$N_1 - N_n$	National number of the subscriber
+	End of selection.

4.2.3 The ship earth station will permit the choice of coast earth station identity through which the call is to be routed. Convenient land-line routings (e.g. use of the coast earth station nearest the destination country) could be encouraged by tariff considerations.

4.2.4 In INMARSAT Standard-B systems the user may choose among several service options. If some service characteristics are user selectable, it should be possible to make the selection from the user terminal.

4.3 *Calling an operator*

4.3.1 A shipboard user will select the access code followed by a second digit to identify the type of operator required.

4.3.2 Table 2/F.126 illustrates the principle involved for two types of operator.

Some Administrations may wish to operate a system whereby shipboard users insert after the operator access code a telex destination code ($I_1 I_2 I_3$). The insertion of the telex destination code will allow the call to be routed to a

relevant operator. If an Administration operating such a system receives an operator access code without the optional digits, then the call must still be connected to an appropriate operator. Similarly, if an Administration not operating such a system receives an operator access code followed by optional digits, then the optional digits should be ignored and the call connected to the operator denoted by the access code alone.

TABLE 2/F.126

Access code		Optional digits	End of selection	Type of operator
Digit 1	Digit 2			
1	1	I ₁ I ₂ I ₃	+	International operator
1	2	I ₁ I ₂ I ₃	+	International enquiries

4.3.3 Each Administration may decide which operators to provide, where they are to be located and how the call would be routed. If a request is received from a ship for a type of operator that the Administration does not provide, then the call will be routed to an operator convenient for that Administration.

4.4 Other access codes in Annex A

Each Administration may decide which services to provide and how the call will be routed. If a request is received from a ship for a service that the Administration does not provide, then the call will be routed to a location convenient for that Administration.

The general selection sequence could be as shown in Table 3/F.126.

The actual sequence may be decided by the Administration or INMARSAT.

TABLE 3/F.126

Access code		Optional digits	End of selection	Type of service
Digit 1	Digit 2			
2	3	X ₁ X ₂	+	Short code selection
3	2	I ₁ I ₂ I ₃	+	Medical advice
3	8	—	+	Medical assistance

5 Procedures for ship-to-ship calls

5.1 Selection procedures for ship-to-ship calls will be similar to those for ship-to-shore calls, using the maritime telex destination code 58S. The numbering sequence selected by the shipboard user will be of the form:

00	Access code for automatic call
58S	Telex destination code
T X ₁ X ₂ . . . X _n	INMARSAT mobile number

This format will be used whether or not the ships are in the same ocean area.

5.2 Each Administration operating a coast earth station may decide whether to switch ship-to-ship traffic within an ocean area at the coast earth station or at an international telex switching centre.

6 Instructions for telex subscribers

The general principles laid down in Recommendation F.60 apply also to the Maritime Mobile-Satellite Service. The instructions should contain the full procedures.

7 Instructions for users at ship earth stations

It would be beneficial if coast earth station operators and/or INMARSAT provided user manuals defining the system capabilities and services offered. The manuals should contain information such as:

- general instructions for use of the INMARSAT services,
- location of coast earth stations;
- facilities provided and services supported by each coast earth station;
- selection procedures for setting up automatic calls;
- selection procedures for operator assisted calls for each coast earth station;
- selection procedures for setting up calls to the services listed in Annex A for each coast earth station;
- other instructions which INMARSAT may feel useful or important to users.

ANNEX A

(to Recommendation F.126)

Allocation of telephone prefixes, telex access codes and data transmission prefixes

A.1 Administrations should make application for the allocation of new prefixes and access codes to the CCITT Secretariat. The application should contain a definition for the service, termination or facility to be accessed.

The CCITT Secretariat would be responsible for coordinating the allocation of new prefixes and access codes with the competent Study Groups. The allocation of new prefixes and access codes should be done in such a way as to ensure that equivalent services carried by means of telephone, telex or data circuits are given the same prefix.

The prefixes and access codes to be used for automatic calling should be as follows:

Telephone – For international calls the prefix should be 00 followed by the international telephone number of the called subscriber. As an option, for national calls, the prefix 0 followed by the national (significant) number of the called subscriber could be used.

Note – In the Maritime Satellite Service only, the international format is preferred.

Telex – For international calls the access code should be 00 followed by the international telex number of the called subscriber. As an option for national calls the access code should be 0 followed by the national telex number of the called subscriber could be used.

Note – In the Maritime Satellite Service only the international format is recommended.

Data transmission – For data calls through a public data network the format should always consist of the prefix 0 followed by the international data number of the called subscriber (see Recommendation X.350, § 5.2.1).

A.2 Table A-1/F.126 contains a list of prefixes and access codes allocated up to the present time for access to special destinations, services or facilities.

A.3 The facilities are defined in Annex B.

TABLE A-1/F.126 (Note 1)

Allocation of telephone prefixes, telex access codes and data transmission prefixes

Category	Prefix or access code		Applications (Notes 2 and 3)	Telephone	Telex	Data
	Digit 1	Digit 2				
Operator	1	0	Spare	–	–	–
	1	1	International outgoing operator	A	A	NA
	1	2	International information service	A	A	FS
	1	3	National operator	A	A	NA
	1	4	National information service	A	A	FS
	1	5	Radiotelegram service	FS	A	NA
	1	6	Spare	–	–	–
	1	7	Booking of telephone calls (Note 4)	A	A	NA
	1	8	Spare	–	–	–
	1	9	Spare	–	–	–
Automatic facilities	2	0	Access to maritime PAD (Note 5)	A	NA	NA
	2	1	Store-and-forward (international)	NA	A	NA
	2	2	Store-and-forward (national)	NA	A	NA
	2	3	Abbreviated dialling (short code selection)	A	A	NA
	2	4	Telex letter service	NA	A	NA
	2	5	Access to PSPDN	(Note 8)	NA	(Note 8)
	2	6	} Spare	–	–	–
	2	7		–	–	–
	2	8		–	–	–
	2	9		–	–	–
Specialized assistance (Note 6)	3	0	Spare	–	–	–
	3	1	Maritime enquiries	A	A	A
	3	2	Medical advice	A	A	A
	3	3	Technical assistance	A	A	A
	3	4	Person-to-person call	A	NA	NA
	3	5	Collect calls	A	NA	NA
	3	6	Credit card calls	A	A	NA
	3	7	Time and charges requested at end of call	A	A	NA
	3	8	Medical assistance	A	A	A
	3	9	Maritime assistance	A	A	A
Ship reporting	4	0	Spare	–	–	–
	4	1	Meteorological reports	A	A	A
	4	2	Navigational hazards and warnings	A	A	A
	4	3	Ship position reports	A	A	A
	4	4	} Spare	–	–	–
	4	5		–	–	–
	4	6		–	–	–
	4	7		–	–	–
	4	8		–	–	–
	4	9		–	–	–

TABLE A-1/F.126 (cont.)

Category	Prefix or access code		Applications (Notes 2 and 3)	Telephone	Telex	Data
	Digit 1	Digit 2				
Information retrieval	5	0	Spare	–	–	–
	5	1	Meteorological forecasts	FS	FS	FS
	5	2	Navigational warnings	FS	FS	FS
	5	3	Videotex (international)	FS	NA	FS
	5	4	Videotex (national)	FS	NA	FS
	5	5	News (international)	FS	FS	FS
	5	6	News (national)	FS	FS	FS
	5	7	} Spare	–	–	–
	5	8		–	–	–
	5	79		–	–	–
Specialized use (Note 7)	6		Administration specialized use, e.g. leased lines	A	A	FS
	7		Spare	–	–	–
	8		Spare	–	–	–
Test	9	0	Spare	–	–	–
	9	1	Automatic test line	A	A	FS
	9	2	Commissioning tests	A	A	A
	9	3	Spare	–	–	–
	9	4	Spare	–	–	–
	9	5	Operational coordination	A	A	A
	9	6	} Spare	–	–	–
	9	7		–	–	–
	9	8		–	–	–
	9	9		–	–	–

Note 1 – The same table is contained in Recommendations E.216 and X.350.

Note 2 – The entries in the columns under Telephone, Telex and Data have the following meanings:

A: Applicable for access by this service
 NA: Not applicable for access by this service
 FS: For further study.

Note 3 – The prefix or access code may be followed by an optional telephone country code, data country code (or data network identification code) or telex destination code, or other optional digits.

Note 4 – Via some coast earth stations, it would be possible to book telephone calls using the telex service.

Note 5 – PAD: Packet Assembly/Disassembly facility. The prefix 20 should be followed by two digits indicating the required data rate (see Recommendation X.351).

Note 6 – The prefixes 34, 35, 36 and 37 may be followed by the international number of the called subscriber.

Note 7 – Digits following digit 6 will be allocated on a national basis.

Note 8 – The prefix is used for access to maritime-satellite data switching exchanges (MSDSEs) (see Recommendation X.350) for virtual call data services (Recommendation X.25) by means of telephone circuits in the INMARSAT system.

ANNEX B

(to Recommendation F.126)

Application of telephone prefixes, data transmission prefixes and telex access codes – Definitions and descriptions

Services and facilities normally provided by the telephone data or telex networks are otherwise defined in CCITT Recommendations and do not require any further definitions. This annex provides definitions and descriptions of some of the special facilities of Annex A.

Note 1 – The same annex is contained in Recommendation E.216.

Note 2 – In this annex the term prefix is used to designate telephone prefix, telex access code and data transmission prefix.

B.1 *Operator*

B.1.1 **international outgoing operator (prefix 11)**

Prefix 11 will connect the caller to an international operator position. The prefix may be followed by a country code. If so, the procedure for servicing the call is described in § 4.3.

B.1.2 **international information service (prefix 12)**

Prefix 12 will connect the caller to the international information service. The prefix may be followed by a country code. If so, the procedure for servicing the call is described in § 4.3.

B.1.3 **national operator (prefix 13)**

Prefix 13 will connect the caller to a national or international operator position in the country where the coast earth station is located. The type of operator to be used is decided by the Administration.

Note – Prefix 13 may not be offered on all coast earth stations.

B.1.4 **national information service (prefix 14)**

Prefix 14 will connect the caller to a national or international operator position. The type of information service to be used is decided by the Administration.

Note – Prefix 14 may not be offered on all coast earth stations.

B.1.5 **radiotelegram service (prefix 15)**

Prefix 15 will connect the caller to the radio telegram service position. The transmission of radio telegram should normally be made by radio telex only. The radio telegram service in this case should be arranged in such a way that automatic retransmission is possible.

B.1.6 **booking of telephone calls (prefix 17)**

Prefix 17 will allow the caller to book a telephone call via the telex service.

This telex message will be routed to the relevant international (or national) telephone operator.

B.2 *Automatic facilities*

B.2.1 **access to maritime PAD (prefix 20)**

Prefix 20 is used for gaining access to a packet assembly/disassembly (PAD) facility in a packet switched public data network. The PAD is accessed via telephone circuits in the INMARSAT system. The prefix is followed by two additional digits indicating the required data rate (see Recommendation X.351).

B.2.2 **store-and-forward (international) (prefix 21)**

Prefix 21 is used for gaining access to a store-and-forward unit (SFU) for international calls.

B.2.3 store-and-forward (national) (prefix 22)

Prefix 22 is used for gaining access to a store-and-forward unit (SFU) for national calls.

B.2.4 abbreviated dialling (short-code selection) (prefix 23)

Abbreviated dialling (short-code selection) will allow the caller to make a connection by selecting a short special number (e.g. 2 or 3 digits) instead of a full international (or national) number.

B.2.5 telex letter service (prefix 24)

Prefix 24 is used for directly transmitting a message originated from a ship earth station (SES) to a selected telegraph office for delivery by mail or any appropriate means.

B.2.6 access to PSPDN (prefix 25)

Prefix 25 is used for obtaining access via INMARSAT telephone circuits to a maritime satellite data switching exchange (MSDSE) (see Recommendation X.350) for virtual call data services (Recommendation X.25). The prefix is followed by additional digits indicating data rate or other parameters associated with the call.

B.3 Specialized assistance

B.3.1 maritime enquiries (prefix 31)

Prefix 31 may be used for special enquiries such as ship location, authorization, all telegrams, etc.

B.3.2 medical advice (prefix 32)

Prefix 32 provides connection to national medical facilities (hospital, etc.) for obtaining medical advice or consultation. The prefix may be followed by a country code.

B.3.3 technical assistance (prefix 33)

For the Maritime Satellite Service, prefix 33 provides connection to the technical personnel of the coast earth station in case difficulties are experienced in establishing communication.

For other maritime systems, further study is required.

B.3.4 person-to-person call (prefix 34)

Prefix 34 should be used when the call is for a specific person at the called number. An operator will intervene in the call, and should be provided with the details of the person to be called. The prefix may be followed by the number of the called party.

B.3.5 collect calls (prefix 35)

Prefix 35 should be used for calls, charges for which will be billed to the called party. The telephone operator will intervene in the call and should be provided with the information pertinent to the call. The prefix may be followed by the number of the called party.

B.3.6 credit card calls (prefix 36)

Arrangements can be made with the Administration of certain coast stations or coast earth stations for payments for communication services to be made by a credit card. The arrangement is valid only for the services of the station with which it is made.

An operator will intervene in the call and should be provided with details of the credit card. The prefix may be followed by the number of the called party.

B.3.7 time and charges requested at end of call (prefix 37)

Prefix 37 provides, upon completion of the call, either automatic printout of charging information, or connection to an operator who will supply charging information on the call. The prefix is followed by the number of the called party.

B.3.8 medical assistance (prefix 38)

If the condition of an ill or injured person aboard ship requires his urgent delivery ashore or the delivery of a doctor aboard ship, prefix 38 provides connection to the appropriate national authority responsible for this kind of activity.

B.3.9 maritime assistance (prefix 39)

Prefix 39 provides connection to the appropriate national authority in case maritime assistance is required (e.g. tow, oil pollution).

B.4 Ship reporting

B.4.1 meteorological reports (prefix 41)

Prefix 41 provides connection to the meteorological office for transmission of ship weather reports.

B.4.2 navigational reports from ships (prefix 42)

Prefix 42 provides connection to a navigational office for transmission of information from ships on any hazards which could endanger safety of navigation (e.g. wrecks, derelicts, floating obstructions, defective radiobeacons or light vessels, icebergs, floating mines, etc.).

B.4.3 ship position reports (prefix 43)

Prefix 43 provides connection to an appropriate national or international centre collecting ship movement information for search and rescue (or other) purposes.

B.5 Information retrieval services (prefixes 5x)

Further study is required.

B.6 Specialized use (prefixes 6x)

Further study is required.

B.7 (Prefixes 7x are reserved for future use.)

B.8 (Prefixes 8x are reserved for future use.)

B.9 Test

B.9.1 automatic test line (prefix 91)

Prefix 91 provides an automatic test of the ship earth station in telex and telephony mode. In the Maritime-Satellite Service the coast earth station will automatically transmit a "QUICK BROWN FOX" test message for telex and provide a loop-around test line connection in accordance with Recommendation Q.11 for telephony. Test lines for data transmission are for further study.

B.9.2 commissioning tests (prefix 92)

Prefix 92 is used in the Maritime-Satellite Service for conducting commissioning tests of ship earth stations.

B.9.3 operational coordination (prefix 95)

Prefix 95 is used in the Maritime-Satellite Service for operational communications between management and maintenance elements of the system.

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