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**OPERATIONS AND QUALITY OF SERVICE
MOBILE SERVICE**

**SHIP STATION IDENTIFICATION
FOR VHF/UHF AND MARITIME
MOBILE - SATELLITE SERVICES**

ITU-T Recommendation F.120

(Extract from the *Blue Book*)

NOTES

1 ITU-T Recommendation F.120 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.

**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.

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 móvil marítimo (terrenal)

Conventional Maritime Mobile Services such as the HF Maritime Service, the MF Maritime Service and the VHF Maritime Service (as defined in the *Radio Regulations* [1]).

Maritime Mobile-Satellite Service

F: service mobile maritime par satellite

S: servicio móvil marítimo por satélite

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

1.2.2 **coast station**

F: station côtière

S: estación costera

A land station in the Maritime Mobile Service.

coast earth station

F: station terrienne côtière

S: estación 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⁾ This Recommendation is also included in the E Series as Recommendation E.210.

1.2.3 ship station identity

F: identité de la station de navire

S: identidad de estación de barco

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

ship station number

F: numéro de station de navire

S: número de estación de barco

The number that identifies a ship for access from a public network and forms part of the international number to be dialled or keyed by a public network subscriber.

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: identité de la station côtière

S: identidad de estación costera

The coast station identification $X_1, X_2 \dots X_k$ 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.

TABLE 1/F.120

Allocations of first digit (X₁) 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

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.

TABLE 2/F.120

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

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 XXXXXXXXX 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).

TABLE 3/F.120

Part of ship station identity used in ship station number	Digits on the automatic network	Ship stations identity	Digits in the ship station identity
MID $X_4X_5X_6$	6	MID $X_4X_5X_6 000$	9
MID $X_4X_5X_6X_7$	7	MID $X_4 X_5X_6X_7 00$	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

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
(or part thereof)

8Y X₄X₅X₆X₇

9 X₄X₅X₆X₇X₈

Ship station identity

M_yI_yD_y X₄X₅X₆X₇ 00

M_nI_nD_n X₄X₅X₆X₇X₈ 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.