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Radiocommunication Sector of ITU

Recommendation ITU-R M.585-5

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Assignment and use of maritime mobile service identities

M Series

Mobile, radiodetermination, amateur and related satellite services

International Telecommunication Union

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Note: *This ITU-R Recommendation was approved in English under the procedure detailed in Resolution ITU-R 1.*

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RECOMMENDATION ITU-R M.585-5*

Assignment and use of maritime mobile service identities

(1982-1986-1990-2003-2007-2009)

Scope

This Recommendation provides guidance to administrations for the assignment and conservation of maritime mobile service identities (MMSI). Formats for ship stations, coast stations, aircraft participating in search and rescue operations, aids to navigation, and craft associated with a parent ship are described as well as some limitations which constrain assignments for ships which utilize the satellite services of the global maritime distress and safety system (GMDSS). Guidance is provided for future mobile satellite systems and the reuse of decommissioned numbers.

The ITU Radiocommunication Assembly,

considering

a) the need for a unique ship identity for safety and telecommunication purposes;

b) that the unique number should be the maritime mobile service identity (MMSI);

c) the need for this identity to be usable with automated radiocommunication systems;

d) that the identities assigned to ship stations, coast stations, aircraft participating in search and rescue operations, aids to navigation, craft associated with a parent ship, and used for establishing group calls should be of a similar nature;

e) that it is possible to use the MMSI to establish a telephone call to a ship after routing through the public switched networks to an appropriate coast station;

f) that the public switched networks in many countries have restrictions on the maximum number of digits that may be dialled or keyed to identify the called ship station and the routing coast station, which would prevent the translation of the complete MMSI directly into a diallable number for the ship that is compliant with ITU-T Recommendation E.164;

g) that whatever restrictions may be required should, in the interests of the development of automatic shore-to-ship operations, be as few as possible;

h) that mobile-satellite systems enable the maritime community to participate in or interwork with international public correspondence telecommunication systems on a fully automatic basis, utilizing the numbering, naming and addressing scheme pertaining to the service being used;

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* This Recommendation should be brought to the attention of International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA), International Civil Aviation Organization (ICAO), International Hydrographic Organization (IHO) and International Maritime Organization (IMO).

j) that the current generation of mobile-satellite systems participating in the global maritime distress and safety system (GMDSS) have signalling and routing characteristics requiring ships using these networks to have an MMSI ending with three zeroes;

k) that the numbering scheme specified for future generations of mobile-satellite systems participating in the GMDSS will be designed to meet the needs of the international public correspondence service and is unlikely to offer the facility to incorporate any part of the MMSI in a diallable number for a ship,

recommends

1 that ships complying with the International Convention for the Safety of Life at Sea, 1974, as amended, and other ships equipped with automated radiocommunication systems, including Automatic Identification Systems (AIS), Digital Selective Calling (DSC), and/or carrying alerting devices of the GMDSS should be assigned maritime mobile service identities in accordance with Annexes 1, 2, 3, 4 or 5 to this Recommendation, as appropriate;

2 that ship, coast stations, and aircraft participating in search and rescue operations using digital selective calling equipment in accordance with Recommendation ITU-R M.493 should use their 9-digit numerical identities transmitted as a 10-digit address/self-identity, normally with a digit 0 added at the end of the identity (see also Recommendation ITU-R M.1080);

3 that ship, coast stations, and non-shipborne stations using AIS equipment in accordance with Recommendation ITU-R M.1371 should use their 9-digit numerical identities;

4 for the purpose of ensuring compatibility with the GMDSS, the numbers, names and addresses of ship earth stations participating in international telecommunication services should be made readily available to all authorized entities by the telecommunication service providers concerned;

5 that the guidance given in Annex 6 to this Recommendation should be employed regarding the reuse of MMSI, particularly those with three trailing zeroes.

Annex 1

Assignment of identification to ship station

1 Ships participating in the maritime radio services mentioned in *recommends* 1 should be assigned a nine digit unique ship station identity in the format $M_1I_2D_3X_4X_5X_6X_7X_8X_9$ where in the first three digits represent the Maritime Identification Digits (MID) and X is any figure from 0 to 9. The MID denotes the geographical area of the administration responsible for the ship station so identified.

2 Restrictions may apply with respect to the maximum number of digits, which can be transmitted on some national telex and/or telephone networks for the purpose of ship station identification.

3 The maximum number of digits that could be transmitted over the national networks of many countries for the purpose of determining ship station identity was six. The digits carried on the network to represent the ship station identity are referred to as the "ship station number" in this text and in the relevant ITU-R Recommendations. The use of the techniques described below should have made it possible for the coast stations of such countries to engage in the automatic connection of calls to ship stations.

To obtain the required nine digit ship station identity a series of trailing zeros would have to be added automatically to the ship station number by the coast station in order to complete a shore-originated telephone call, for example, carried over the public switched telephone network:

Ship station number	*Ship station identity*
$M_1I_2D_3X_4X_5X_6$	$M_1I_2D_3X_4X_5X_60_70_80_9$

4 In accordance with the above, and the relevant ITU-T Recommendations, a numbering plan was instituted for Inmarsat Standard B, C and M systems, which also requires that MMSI with three trailing zeroes be assigned to ships fitting standard B, C and M ship earth stations.

5 The above restrictions do not necessarily apply to Inmarsat Standard C systems, as they are not diallable terminals from the public switched telephone network but are only data terminals.

6 With respect to Inmarsat Standard B and M systems and as long as the above restrictions apply, ships reasonably expected to be affected by the above limitations should only be assigned ship station identities with $X_7X_8X_9 = 000$.

7 Group ship station call identities for calling simultaneously more than one ship are formed as follows:

$$0_1M_2I_3D_4X_5X_6X_7X_8X_9$$

where the first figure is zero and X is any figure from 0 to 9. The MID represents only the territory or geographical area of the administration assigning the group ship station call identity and does not therefore prevent group calls to fleets containing more than one ship nationality.

8 With the evolution of global mobile-satellite systems, ships earth stations are able to participate in international public correspondence telecommunication services. Ship earth stations having this functionality may be assigned international telecommunication numbers that have no direct correspondence with the ship station MMSI. Those authorized to assign the numbers, names and addresses associated with such ship earth stations should maintain a record of the cross reference relationships with the MMSI, for example in an appropriate database. For the purposes of GMDSS the details of these relationships should be made available to authorized entities such as but not limited to the Rescue Coordination Centres (RCC)[1]. Such availability should be on an automatic basis, 24 hours per day 365 days per year.

[1] IMO Resolution A.1001(25) requires that distress priority communications in these systems should, as far as possible, be routed automatically to an RCC.

Annex 2

Assignment of identification to coast station

1 Coast stations and other stations on land participating in the maritime radio services mentioned in *recommends* 2 should be assigned a nine-digit unique coast station identity in the format $0_1 0_2 M_3 I_4 D_5 X_6 X_7 X_8 X_9$ where the digits 3, 4 and 5 represent the MID and X is any figure from 0 to 9. The MID reflects the territory or geographical area in which the coast station or coast earth station is located.

2 As the number of coast stations decreases in many countries, an administration may wish to assign MMSI of the format above to harbour radio stations, pilot stations, system identities and other stations participating in the maritime radio services. The stations concerned should be located on land or on an island in order to use the 00MIDXXXX format.

3 The administration may use the sixth digit to further differentiate between certain specific uses of this class of MMSI, as shown in the example applications below:

a) 00MID1XXX Coast radio stations

b) 00MID2XXX Harbour radio stations

c) 00MID3XXX Pilot stations, etc.

4 This format scheme creates blocks of 999 numbers for each category of station, however the method is optional and should be used only as a guidance. Many other possibilities exist if the administration concerned wishes to augment the scheme.

5 Group coast station call identities for calling simultaneously more than one coast station are formed as a subset of coast station identities, as follows:

$$0_1 0_2 M_3 I_4 D_5 X_6 X_7 X_8 X_9$$

where the first two figures are zeros and X is any figure from 0 to 9. The MID represents only the territory or geographical area of the administration assigning the group coast station call identity. The identity may be assigned to stations of one administration which are located in only one geographical region as indicated in the relevant ITU-T Recommendations.

6 The combination $0_1 0_2 M_3 I_4 D_5 0_6 0_7 0_8 0_9$ should be reserved for a Group Coast Station Identity and should address all 00MIDXXXX stations within the administration. The administration may further augment this use with additional Group Call identities, i.e. 00MID1111, etc.

7 For the purpose of the GMDSS the details of these MMSI assignments should be made available to authorized entities such as, but not limited to, RCC. Such availability should be on an automatic basis, 24 hours per day 365 days per year.

8 The combination $0_1 0_2 9_3 9_4 9_5 0_6 0_7 0_8 0_9$ is reserved for the All Coast Stations Identity and should address all VHF 00XXXXXXX stations. It is not applicable to MF or HF coast stations.

Annex 3

Assignment of identification to aircraft

1 When an aircraft is required to use maritime mobile service identities for the purposes of conducting search and rescue communications with stations in the maritime mobile service, the responsible administration should assign a nine-digit unique aircraft identity, in the format $1_1 1_2 1_3 M_4 I_5 D_6 X_7 X_8 X_9$ where the digits 4, 5 and 6 represent the MID and X is any figure from 0 to 9. The MID represents only the territory or geographical area of the administration assigning the aircraft call identity.

2 The format shown above will accommodate 999 aircraft per MID. If the administration concerned has more Search and Rescue (SAR) aircraft than 999 they may use an additional country code (MID) if it is already assigned by the ITU.

3 The administration may use the seventh digit to differentiate between certain specific uses of this class of MMSI, as shown in the example applications below:

a) 111MID1XX Fixed-wing aircraft

b) 111MID5XX Helicopters

4 This format scheme creates blocks of 99 numbers for each of the category of stations, however, the method shown here is optional.

5 The combination $1_1 1_2 1_3 M_4 I_5 D_6 0_7 0_8 0_9$ should be reserved for a Group Aircraft Identity and should address all 111MIDXXX stations within the administration. The administration may further augment this with additional Group Call identities, i.e. 111MID111, etc.

6 For the purpose of search and rescue the details of these MMSI assignments should be made available to authorized entities such as, but not limited to, RCC. Such availability should be on an automatic basis, 24 hours per day 365 days per year.

7 The MMSI assigned to SAR aircraft should also be available from the ITU MARS database (see Radio Regulations (RR) No. 20.16).

Annex 4

Assignment of identification to AIS Aids to Navigation (AtoN)

1 When a means of automatic identification is required for a station aiding navigation at sea, the responsible administration should assign a nine-digit unique number in the format $9_1 9_2 M_3 I_4 D_5 X_6 X_7 X_8 X_9$ where the digits 3, 4 and 5 represent the MID and X is any figure from 0 to 9. The MID represents only the territory or geographical area of the administration assigning the call identity for the navigational aid.

2 The format shown above applies to all types of AtoN as listed in the most recent version of Recommendation ITU-R M.1371, see AIS Message 21 parameter “Type of aids to navigation” and the associated table for this parameter. This format is used for all AIS stations for the transmission of messages that relate to AtoN. In the case where an AIS base station is collocated with an AIS AtoN station the messages related to the base station operation should be assigned an identification number in the format given in Annex 2.

3 The format scheme shown above will accommodate 10 000 AtoN per MID. If the administration concerned has more than 10 000 they may use an additional country code (MID) if it is already assigned by the ITU giving a further 10 000 identities.

4 The administration may use the sixth digit to differentiate between certain specific uses of the MMSI, as shown in the example applications below:

a) 99MID1XXX Physical AIS AtoN

b) 99MID6XXX Virtual AIS AtoN

5 This format scheme creates blocks of 999 numbers for each category of station, however the method shown here is optional and should be used only as a guidance.

6 In addition to the use of the sixth digit to differentiate between specific navigational aids as explained above, the seventh digit may be used for national purposes, to define areas where the AIS AtoN are located or types of AIS AtoN to the discretion of the administration concerned.

7 The details of these MMSI assignments should be made available but not limited to the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) and appropriate national authorities.

8 The assigned MMSI to aids of navigation should also be available from the ITU MARS database (see RR No. 20.16).

Annex 5

Assignment of identification to craft associated with a parent ship

1 Craft associated with a parent ship, need unique identification. These crafts which participate in the maritime mobile service should be assigned a nine-digit unique number in the format $9_1 8_2 M_3 I_4 D_5 X_6 X_7 X_8 X_9$ where the digits 3, 4 and 5 represent the MID and X is any figure from 0 to 9. The MID represents only the territory or geographical area of the administration assigning the call identity for the craft associated with a parent ship.

2 This numbering format is only valid for devices on board craft associated with a parent ship. A craft may carry multiple devices which would be identified by the MMSI assigned to the craft. These devices may be located in lifeboats, life-rafts, MOB-boats or other craft belonging to a parent ship.

3 A unique MMSI should be assigned for each craft associated with a parent ship and will have to be separately registered and linked to the MMSI of the parent ship.

4 The format scheme shown above will accommodate 10 000 crafts associated with parent ships per MID. If the administration concerned has more than 10 000 they may use an additional country code (MID) if it is already assigned by the ITU giving a further 10 000 identities.

5 The assigned MMSI to these craft associated with a parent ship should also be available from the ITU MARS database (see RR No. 20.16).

Annex 6

Guidance on the conservation and management of MMSI

1 Administrations should employ the following measures to manage the limited MMSI numbering resource, particularly for the reuse of MMSI with three trailing zeroes, in order to avoid depletion of MID and the corresponding MMSI series:

a) implement effective national procedures for MMSI assignment and registration;

b) provide the Bureau with regular updates of assigned numbers in conformity with RR No. 20.16;

c) ensure that the period from the expiration of the ship station licence associated with the number assignment until the date of reassignment of that number is sufficient for the changes to be incorporated in the relevant ITU service publications, taking into account the standard intervals between successive published editions;

d) ensure that when ships move from the flag of registration of one administration to that of another administration, all of the assigned means of ship station identification, including the MMSI, are reassigned as appropriate and that the changes are notified to the Bureau as soon as possible (see RR No. 20.16).

2 It is essential for a lapsed number assignment to remain dormant before taking it back into use again, in order to avoid confusion over the origin of distress communications or over the responsible parties for billing and reconciling accounts for maritime radiocommunications.

3 The objective is to ensure that a period of five years should pass before a lapsed MMSI is reused and entered into national and international databases pursuant to RR No. 20.16.

4 Administrations could also apply the above procedures to MMSI assigned with 2, 1 or no trailing zeroes in the interests of the long term conservation of MMSI and MID resources. However these number formats are normally not critical to the assignment of an additional MID to an administration (see Section VI of RR Article 19).