

PORT STATE CONTROL COMMITTEE INSTRUCTION 43/2010/21

GUIDELINES FOR PORT STATE CONTROL OFFICERS ON CONTROL OF GMDSS

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Guidelines on CIC on GMDSS requirements to be applied in the Paris MOU Region

SECTION 1 Introduction

- 1.1 Chapter IV of SOLAS 1974, as amended, details the requirements and provisions of the Global Maritime Distress and Safety System (GMDSS). This Chapter is applicable for all cargo ships of 300 gross tons and upwards and all passenger ships that are engaged on international voyages.

SECTION 2 Outline of the Concentrated Inspection Campaign

- 2.1 During the period of the campaign, all port State control (PSC) inspections should include an inspection of the ship's GMDSS radio-communication installation and the appropriate certification of personnel to operate the station. **The purpose of this inspection** is to ensure that the ship's radio station complies with GMDSS in the sea area where the ship holds a certificate to operate and that the ship's GMDSS operator(s) are able to demonstrate that the station is in satisfactory working condition and used for its intended purpose.
- 2.2 An inspection and CIC should be carried out in accordance with the ParisMOU requirements for PSC. The CIC is to ensure compliance with the GMDSS requirements.

SECTION 3 Relevant Regulations, Codes and Special Conditions

- 3.1 The regulations, codes or guidelines that are related to ship's GMDSS radio certification are as follows: -
- .1 SOLAS Chapter II-1 (Emergency source of power);
 - .2 SOLAS Chapter III (Radio life-saving appliances);
 - .3 SOLAS Chapter IV (Radio communications);
 - .4 SOLAS Chapter V (9 GHz Radar requirement);
 - .5 STCW Convention Regulation I/14 (Responsibilities of companies);
 - .6 STCW Convention Regulation II/1, II/3 and IV/2
(Mandatory minimum requirements for certification);
 - .7 STCW-Code Annex-1 Chapter I, Sections A-II/1 and A-II/3
(Mandatory minimum requirements for certification);
 - .8 STCW-Code Annex-1 Chapter VIII, Section A-VIII/2 Part 3-3
(Principles to be observed in keeping a radio watch);
 - .9 STCW-Code Annex-2 Chapter VIII, Section B-VIII/2 Part 3-3
(Guidance on keeping a radio watch);
 - .10 ISGOTT/ SIGITTO (Section on use of radio equipment);
 - .11 Cospas-Sarsat web site address: <http://www.cospas-sarsat.org>
 - .12 IMO GMDSS Handbook;
 - .13 MSC/Circ. 959 (Procedures for MRCCs on distress alerts);
 - .14 MSC/Circ. 1040 (Guidelines on annual testing of EPIRBs);
 - .15 Resolution A.814 (19) (Guidelines for the avoidance of false distress alerts);
 - .16 Resolution A.997(25) Survey guidelines under the harmonized system of survey and certification, 2007
 - .17 ISM Code Section 6.2 and 6.3. (Resources and personnel)

- 3.2 Port State Control Officers (PSCO's) should have good knowledge with the above regulations and codes and indeed any constraints or conditions that may be in place on board a specific type of ship and in gas, chemical or oil tanker terminals. The use of Radio and Radars may be restricted in terminals or ports where explosives are being transported or stored.
- 3.3 The PSCO should also be aware that in some large ports the presence of multiple metallic structures could provide propagation problems in particular for medium frequency. Without proper test equipment it might be difficult to determine if identities are being correctly transmitted.
- 3.4 There may be occasions when it is not possible to contact a Coast Radio Station via DSC and/or radiotelephony. The ship may be in a port area where there is poor coverage on VHF and/or MF. This may apply equally to poor NAVTEX coverage.
- 3.5 Where the PSCO has doubts as to the functionality of the GMDSS communications equipment on board a ship it may be necessary to inform the appropriate competent authority who may then provide specialist test equipment to prove that the equipment will operate, or otherwise, in an emergency situation in adverse and hostile conditions.

SECTION 4 Exemptions

- 4.1 SOLAS chapter IV regulation 3 (IV/3) makes provisions for flag States to grant partial or conditional exemptions to individual ships from complying with GMDSS requirements under very specific conditions.
- 4.2 Any exemption that has been issued but not in accordance with SOLAS IV/3 should not be accepted as valid. **Detention** action should be considered in such a case.
- 4.3 Where a ship holds a valid exemption, PSCO's should check that the ship complies with the functional requirements of SOLAS IV/4. Refer to the equipment matrix in **Appendix 1**.

SECTION 5 Inspection Procedures

STCW 78/95 Convention Regulation I/14 paragraph 1.4 requires that seafarers be familiarized with their specific duties and with the ship's arrangements, installations, equipment, procedures and characteristics that are relevant to their routine or emergency duties. The complementary aspect of the ISM Code is section 6.2 and 6.3.

- 5.1 PSCO's should follow the guidelines given in this section when performing the inspections.
 - .1 Prior to visiting the ship the PSCO should, where practicable, establish with the MRCC if there are any reports of poor communication or false distress alerts not followed up by proper cancellation procedures.
 - .2 When on board the PSCO should establish the category of the sea areas listed in **Appendix 1** that the vessel will pass through during its current and intended voyage(s). The ship should have a relevant valid Certificate, such as the Cargo Ship Safety Radio Certificate, Cargo Ship Safety Certificate, Special Purpose Ship Safety Certificate, High Speed Craft Safety Certificate or Passenger Ship Safety Certificate and where applicable it has undergone a periodical or mandatory annual survey that

has been endorsed on the relevant Certificate. There should be on board a valid Ship Station Radio Licence document issued by the administration.

.3 If an exemption has been issued to the ship, the PSCO should refer to Section 4.

.4 The PSCO should verify the qualifications of the crew to ensure that the ship has on board the correct number of qualified GMDSS operators. Abstracts from STCW 78/95 regarding personnel and radio communications are contained in **Appendix 2**.

.5 The PSCO should ask for Marine Safety Information (MSI) received by the ship to be produced for inspection. The MSI is received by either NAVTEX, INMARSAT Enhanced Group Calling (EGC) system or both. This requires the ship to produce the Paper Log (print out) from the NAVTEX. With EGC it may be stored electronically for later printing, except for vital messages that should be printed out upon receipt.

.6 The PSCO should check that the GMDSS equipment provided on board is in accordance with that shown on the Record of Equipment associated with the Cargo Ship Safety Radio Certificate, or Passenger Certificate. That the correct Call Sign, Maritime Mobile Service Identity (MMSI) and other codes are marked as applicable at or close by the respective radio transmitters including the EPIRB.

.7 An assessment is to be made of the operation of the ship's radio station. A good indication of the satisfactory operation of the equipment can be obtained by checking transmission records and details, such as records of Distress and Safety calls/messages sent and received during the previous voyage through VHF-MF-HF/DSC and Satellite Communication equipment. Also copies of MSI messages received during the previous voyage through NAVTEX, EGC and HF/MSI receivers and/or, where practicable, by using the integrated test facilities.

.8 The ship's GMDSS operator(s) should be invited to conduct one or more, as considered necessary, of the following operational tests on the ship's radio communication equipment. The PSCO should ensure that the MRCC, coast radio station or other receiving station is in a position to acknowledge the test. Some MRCC stations are programmed in such a way that a DSC acknowledgement is sent automatically. It would be useful if the MMSI number were passed to the receiving station before testing and that the ship's operator(s) should be reminded to avoid a false distress alert being inadvertently sent out. ***The PSCO should observe the operation and should not, as with general PSC procedures, become directly involved themselves in operating the ship's equipment.***

8.1 INMARSAT ship earth station

(i) The **preferred method** is to send a short test message from the INMARSAT-C terminal on board the ship through the nearest Land Earth Station to the ship itself.

(ii) There is another method and that is to run a Performance Verification Test (PVT or link test) for the INMARSAT unit. The PSCO should be able to check from the screen display the result of the test. The PSCO may ask for a printout of the result as displayed. It should be noted that the time taken for the test to complete might vary from about 10 minutes to more than an hour. Due to the heavy usage of the INMARSAT system, PVT tests can be seriously delayed.

(iii) Inmarsat B and F telephony can be checked by making a phone call to the PSCO's own mobile phone.

(iv) Inmarsat A, B or C telex can be checked by making a telex connection with a LES after which the 2-digit code "91" for automatic line test can be used.

(v) Check that the equipment is operating from the reserve source of energy.

.8.2 MF/HF radio installation

(i) Make an External Test transmission using the MF DSC radio installation to the nearest coast station on 2187.5 kHz the DSC Distress and Safety Channel, and make a radiotelephone test call to the nearest coast station on the Distress Frequency 2,182 kHz with the equipment operating from the reserve source of energy resource.

(ii) Make a similar External Test transmission using the HF DSC system to the appropriate area HF DSC station

.8.3 VHF radio installation

(i) Make a Routine DSC Call to the nearest radio station using the VHF-DSC device and make a test call using the VHF radio radiotelephone installation to a nearby radio station on one of the radiotelephony channels - by preference channel 6, 13 or 16.

(ii) Check correct operation of DSC watch keeping receiver by inspection of recent records of Distress, Urgency or Safety messages received during the previous voyage.

(iii) Check that the equipment is operating from the reserve source of energy.

5.2 The PSCO should check that appropriate numbers of radar transponders are on board, that they are properly positioned and mounted and that the batteries still have valid expiry dates. The PSCO should check the proper operation of the SART by means of the appropriate radar.

5.3 The PSCO should visually inspect the general condition of antenna, such as breaks in antenna wires, coaxial cables and insulators as well as the reserve source of energy.

5.4 The PSCO need only require a test or inspect sufficient items to enable an assessment to be made of the ship's compliance with GMDSS and the competence of the crew in its operation. Where doubt exists it may be necessary to check all items. These tests should be confined to operational tests.

5.5 During the course of this CIC one concentrated inspection is required for each ship being inspected in accordance with the criteria of ParisMOU. Should there be a requirement for another inspection within the CIC period to a particular ship(s) the PSCO will apply appropriate judgement as to the detail required when carrying out another concentrated inspection. The PSCO will take into account any changes since the previous inspection such as change of radio personnel, flag or GMDSS equipment.

5.6 Where it is a requirement the PSCO should consider the effectiveness of the shipboard maintenance agreement

5.7 Where a NBDP (Narrow-Band Direct-Printing) [radio telex/telex over radio] is fitted the relevant personnel should demonstrate that they could operate the system.

SECTION 6 Guidance on ship detention

The following is an indication of deficiencies in a radio installation and can be used as guidance on determining whether the deficiency or deficiencies noted are of such a nature that a detention is warranted and the equipment form an integral part of the ship's certificated equipment.

The radio installation should be connected to the main/reserve source of energy and it should be possible to switch over to the reserve source of energy.

Sea Area A1

- EPIRB seriously defective
- All radar transponders seriously defective.
- All VHF and/or DSC seriously defective

Sea Area A2

- EPIRB seriously defective
- All radar transponders seriously defective
- All VHF and/or DSC seriously defective
- All MF and/or DSC seriously defective

Sea Area A3

- EPIRB seriously defective
- All radar transponders seriously defective
- All VHF and/or DSC seriously defective
- All MF and/or DSC seriously defective
- All HF and/or DSC seriously defective
- All Inmarsat ship earth stations seriously defective

Sea Area A4

- EPIRB seriously defective
- All radar transponders seriously defective
- All VHF and/or DSC seriously defective
- All MF/HF and/or DSC seriously defective

General

- Invalid safety radio certification
- Antenna systems seriously defective
- Reserve source of energy supply to radio station seriously defective
- NAVTEX receiver seriously defective (for ships operating in areas where an international NAVTEX service is provided.)
- Inmarsat EGC seriously defective (for ships operating in Inmarsat coverage area but without NAVTEX service)

- 6.1 Insufficient number of qualified GMDSS operators and/or the inability of ship's appropriately qualified radio personnel to use ship's radio equipment are also considered to be of such a nature that detention is warranted.
- 6.2 Where it becomes necessary to consider detaining the ship for GMDSS related deficiency the PSCO should refer also to Appendix 3.
- 6.3 **Note: The term “seriously defective” may be interpreted as follows:**
- EPIRB: EPIRB incorrectly mounted; Battery out of date; Hydrostatic Release out of date; Test Sequence incorrect, i.e. indicator lamps not functioning in accordance with the Test Procedure listed on the equipment, or in the EPIRB Operator's Manual. No evidence of an annual EPRIB test ;
 - SART: Test Pattern incorrectly displayed on the Radar Display; Battery out of date;
 - RADAR: Defective 9GHz radar;
 - VHF: Failure* to establish a radiotelephone test call to a coast station; Failure* to establish a DSC routine call to a coast station
 - MF: Failure* to establish a radiotelephone test call to a coast station; Failure* to establish a DSC External Test Call to a coast station;
 - HF: Failure* to establish a DSC External Test Call to the appropriate HF area coast station;
 - INMARSAT: Failure* to establish communications with a Land Earth Station or a ship;
 - Ship's own radio operator(s) unable to operate the GMDSS radio equipment;
 - EGC: Ship not receiving EGC information;
 - NAVTEX: Ship* not receiving NAVTEX Transmissions
 - Antenna systems: Obvious-to-the-eye breaks in antenna wires coaxial cables and insulators
 - Reserve source of energy supply: Not capable of providing a source of energy for the radio equipment; Obvious-to-the-eye problems with the radio battery(s), e.g. corroded terminals; cracks in batteries.

* Refer above to the relevant constraints or conditions contained in Section 3.

Note: *With regard to Antenna systems it is not advisable to carry out a technical assessment of these items without specialist testing equipment.*

SECTION 7 Rectification of detainable deficiencies

- 7.1 Each PSC Authority is required to secure the rectification of all detainable deficiencies identified before the ship is released from detention.

SECTION 8 Reports

- 8.1 The PSCO should complete the CIC report questionnaire in addition to the report of inspection forms A and B. Information recorded in the questionnaire is to be entered and validated in the Information system by the inspecting administration as soon as reasonably practicable following the inspection.

Appendix 1 GMDSS, Geographical Limits, Equipment and Sea Areas.

The basic concept of the GMDSS is:

- a. Transmitting ship-to-shore distress alerts by at least two separate and independent means, each using a different radio communication service;
- b. receiving shore-to-ship distress alerts;
- c. transmitting and receiving ship-to-ship distress alerts;
- d. transmitting and receiving search and rescue co-ordinating communications;
- e. transmitting and receiving on-scene communications;
- f. transmitting and receiving signals for locating;
- g. transmitting and receiving maritime safety information;
- h. transmitting and receiving general radio communications from shore-based radio systems or networks;
- i. transmitting and receiving bridge-to-bridge communications;

Limitations and geographical coverage.

There is different radio sub-systems incorporated into the GMDSS system that have individual limitations with respect to geographical coverage and services provided. The equipment required to be carried is determined in principle by the ship's area of operation, which is designated, with the following Sea Areas: -

- A1:** Within the radiotelephone coverage of at least one VHF coast station in which continuous DSC alerting is available.
- A2:** An area, excluding sea area A1, within the radiotelephone coverage of at least one MF coast station in which continuous DSC alerting is available.
- A3:** An area, excluding sea areas A1 & A2, within the coverage of an INMARSAT geostationary satellite in which continuous alerting is available (70° N & 70° S).
- A4:** Area outside sea areas A1, A2 & A3.

Functional GMDSS requirements.

SOLAS Chapter IV prescribes that any exemption is conditional upon the ship meeting the functional GMDSS requirements as defined in IV/4. To assist in determining compliance with the functional requirements, the provisions of IV/4 is given below to meet that requirement when the ship is operating in a particular sea area.

Equipment requirements for all convention ships: -

- A1 area- VHF and, either satellite EPIRB or VHF EPIRB;
- A2 area- VHF and MF and satellite EPIRB;
- A3 area- VHF and MF and, either HF or Inmarsat A/ B/ C/ F satellite communications, and satellite EPIRB;
- A4 area- VHF, MF, HF and satellite EPIRB
- All ships will carry equipment for receiving MSI broadcasts.

Equipment requirements for SOLAS ships

GMDSS equipment requirements in force for all passenger ships in international trade as well as cargo ships of 300 gt. and upwards in international trade:

Equipment_	A1	A2	A3 Inmarsat solution	A3 HF Solution	A4
VHF with DSC	X	X	X	X	X
DSC watch receiver channel 70	X	X	X	X	X
MF telephony with MF DSC		X	X		
DSC MF 2187,5 kHz watch receiver		X	X		
MF/HF telephony with DSC and telex				X	X
DSC scanning MF/HF watch receiver				X	X
GMDSS Inmarsat SES			X		
Duplicated VHF with DSC			X	X	X
Shore Based Maintenance			X	X	X
Duplicated VHF with DSC or Shore Based Maintenance	X	X			
Duplicated GMDSS Inmarsat SES or Duplicated MF/HF telephony with DSC and telex			X	X	
Duplicated MF/HF telephony with DSC and telex					X
NAVTEX receiver 518 kHz	X	X	X	X	X
EGC receiver (may be part of Inmarsat-C SES)	X ¹	X ¹	X	X	X
Float-free satellite EPIRB	X	X	X	X	X ⁴
Radar transponder (SART)	X ²	X ²	X ²	X ²	X ²
Hand held GMDSS VHF TRANCEIVERS	X ³	X ³	X ³	X ³	X ³
Automatic updating of position to all relevant radio communication equipment .	X	X	X	X	X
Initiate distress alerts from the position from which the ship is normally navigated.	X	X	X	X	X
For passenger ships the following applies					
Two-way-on-scene radio communication on 121,5 or 123, 1 MHz from the navigating bridge. (SOLAS chapter IV/7.2)	X	X	X	X	X

¹⁾ If an international NAVTEX service is not provided.

²⁾ Cargo ships between 300 and 500 gt → 1 set.
Cargo ships of 500 gt and upwards and passenger ships → 2 sets.

³⁾ Cargo ships between 300 and 500 gt → 2 sets.
Cargo ships of 500 gt and upwards and passenger ships → 3 sets.

⁴⁾ Inmarsat E-EPIRB cannot be utilized in sea areas A4.

Note: The possibility "At-sea maintenance capability" is not included in the diagram

Appendix 2 **Operator Requirement and Certificates**

STCW Convention Regulation IV/2 states *"every person in charge of or performing radio duties on a ship required to participate in the GMDSS shall hold an appropriate certificate related to the GMDSS"*.

For ship's trading outside the A1 area the person designated to have primary responsibility for distress and safety radio communications purposes must carry a GOC certificate. On passenger ships at least one seafarer qualified in accordance with the regulations shall be assigned specifically to perform **only** radio communication duties during distress incidents. This means that the master of a passenger ship should not be the appointed radio operator during an emergency.

All other officers in charge of a navigational watch shall at least hold an ROC.

Abstracts from STCW 78/95 regarding personnel and radio communications

Convention Regulation II/1 Mandatory minimum requirements for certification of officers in charge of a navigational watch on ships of 500 gross tonnage or more

1 Every officer in charge of a navigational watch serving on a seagoing ship of 500 gross tonnage or more shall hold an appropriate certificate.

2. Every candidate for certification shall:

.4 meet the applicable requirements of the regulations in chapter IV, as appropriate, for performing designated radio duties in accordance with the regulations and

.5 have completed approved education and training and meet the standard of competence specified in section A-II/1 of the STCW Code

Convention Regulation II/3 Mandatory minimum requirements for certification of officers in charge of a navigational watch and of masters on ships of less than 500 gross tonnage

Ships not engaged on near-coastal voyages

1 Every officer in charge of a navigational watch serving on a seagoing ship of less than 500 gross tonnage not engaged on near-coastal voyages shall hold an appropriate certificate of ships of 500 gross tonnage or more

2. Every master serving on a seagoing ship of less than 500 gross tonnage not engaged on near-coastal voyages shall hold an appropriate certificate for service as master on ships of between 500 and 3000 gross tonnage or more

Ships engaged on near-coastal voyages

3 Every officer in charge of a navigational watch serving on a seagoing ship of less than 500 gross tonnage engaged on near-coastal voyages shall hold an appropriate certificate.

4 Every candidate for certification as officer in charge of a navigational watch on a seagoing ship of less than 500 gross tonnage engaged on near-coastal voyages shall:

.3 meet the applicable requirements of the regulations in chapter IV, as appropriate, for performing designated radio duties in accordance with the regulations and

.4 have completed approved education and training and meet the standard of competence specified in section A-II/1 of the STCW Code

Convention Regulation IV/2 Mandatory minimum requirements for certification of GMDSS radio personnel

1. Every person in charge of performing radio duties on a ship required to participate in the GMDSS shall hold an appropriate certificate related to the GMDSS issued or recognized by the Administration under the provision of the Radio Regulations.

2. In addition, every candidate for certification under this regulation for service on a ship is required by SOLAS to have a radio installation shall:

.2 have completed approved education and training and meet the standards of competence specified in section A-IV/2 of the STCW Code.

Code Annex-1 Section A-II/1, Mandatory minimum requirements for certification of officers in charge of a navigational watch on ships of 500 gross tonnage or more

Standard of competence

1 Every candidate for certification shall:

.2 at least hold an appropriate certificate for performing VHF radio communications in accordance with the requirements of the Radio Regulations; and

.3 if designated to have primary responsibility for radio communications during distress incidents, hold an appropriate certificate issued or recognized under the provisions of the Radio Regulations.

Code Annex-1 Section A-II/3, Mandatory minimum requirements for certification of officers in charge of a navigational watch and of masters on ships of less than 500 gross tonnage, engaged on near-coastal voyages

Officer in charge of a navigational watch

Standard of competence

1 Every candidate for certification shall:

.2 at least hold an appropriate certificate for performing VHF radio communications in accordance with the requirements of the Radio Regulations; and

.3 if designated to have primary responsibility for radio communications during distress incidents, hold an appropriate certificate issued or recognized under the provisions of the Radio Regulations.

Master

7 Every candidate for certification as master on ships of less than 500 gross tonnage, engaged on near coastal voyages, shall meet the requirements for an officer in charge of a navigational watch set out below and, in addition, shall be required to provide evidence of knowledge and ability to carry out all the duties of such a master.

Appendix 3 **PSCO considering detention.**

SOLAS IV/15.8 states ***“While all reasonable steps shall be taken to maintain the equipment in efficient working order to ensure compliance with the functional requirements specified in regulation 4, malfunction of the equipment for providing the general radio communications required by regulation 4.8 shall not be considered as making a ship unseaworthy or as a reason for delaying the ship in ports where repair facilities are not readily available, provided the ship is capable of performing all distress and safety functions.”*** The PSCO should apply judgment as to whether all reasonable steps had been taken before the inspection to rectify any serious radio related deficiency or other radio deficiencies.

Appendix 4 **EPIRBs and alarms.**

- Each administration may have a different approach as to which body is alerted when a spurious or false alarm has been received. The PSCO should consult with the relevant competent authority
- Ship’s staff may be oblivious to the fact that the EPIRB has been activated until they are contacted by the MRCC. There also may be false distress alerts on other equipment such as satellite communication system, VHF-DSC, MF/HF-DSC as well as the EPIRB. Most of the false alarms are the result of poor handling or misuse when working in the vicinity of GMDSS equipment. There are precautions that may be taken to avoid accidental activations: - i) to be cautious when working around a EPIRB; ii) Never remove an EPIRB from its mounting without first reading the manufacturers’ instructions; iii) in adverse weather conditions at sea the harsh environment may cause accidental activation when the device is jolted or knocked loose; iv) anytime the EPIRB is removed from the ship it should be transported in accordance with the manufacturers’ instructions.
- When reporting and cancelling a spurious or false DSC distress transmission it should be prefixed by “All stations” (3x). Notify the appropriate RCC to cancel an Inmarsat distress alert by sending a distress priority message via the same LES through which the false distress alert was sent. If an EPIRB is activated accidentally, contact the nearest Coast Station or RCC to cancel the distress alert.

Refer to IMO Resolution A.814 (19) “Guidelines for the avoidance of false distress alerts”.

- Where there has been a spurious or false distress signal emitted and it becomes difficult to de-activate the EPIRB for any reason then refer to the manufacturers instructions. It will indicate how the battery should be replaced. Being aware of the instructions the ship’s personnel will then be in a position to disconnect the connecting wires to the battery and thereby de-activating the EPIRB. Rectify before departure.
- The PSCO should check that the VHF EPIRB or satellite EPIRB is suitably secured and correctly positioned and mounted for float-free operation. The operation switch of the EPIRB should be set to the "ARMED" or equivalent

position as per the manufacturers' instructions. The PSCO should also check the expiry date of the batteries and hydrostatic release mechanism, the proper function of the indicator lamp. The PSCO should verify if the EPIRB has been tested annually in accordance with SOLAS IV/15.9. and that an approved shore-based maintenance provider has maintained the EPIRB at intervals required by the Administrations not exceeding 5 years. (It is recommended that the maintenance be performed at the time when the battery is to be changed)

- MSC/Circ. 1040 contains the Guidelines on Annual Testing of the EPIRB. The annual test is normally carried out by a technical surveyor appointed by the administration. While there is no requirement for a specific certificate to be issued to a ship confirming the annual testing the ship should provide evidence of such testing to a PSCO. A change of flag since the last annual testing may require a more searching inspection by the PSCO.

Note: The MMSI No. is usually a nine-digit number with the first three digits being the country's maritime radio identification number (MID no.) The number encoded to the EPIRB may be the MMSI No. or a MID + Call sign or an Electronic Serial No.

Appendix 5

Digital Selective Calling System

1. The digital selective calling system (DSC) is an integral part of the GMDSS system and is used for transmitting distress alerts from ships and for transmitting the associated acknowledgements from coastal stations. A dedicated DSC-watch receiver is required to keep continuous watch on the distress frequency.
2. DSC is a calling system with each call containing a packet of digitised information in one of four priorities: Distress; Urgency; Safety or Routine. Messages can be routed to “All Stations”, to an individual station or to a group of stations, using their Maritime Mobile Service Identity (MMSI). Distress messages are automatically broadcast to “All Stations”.
3. In addition to the MMSI of source and destination stations, information can be conveyed in the DSC message. For example, to aid the Rescue Services, the DSC Distress alert message is configured to contain the following:
 - a. Ship’s identity (the nine digit MMSI)
 - b. Nature of distress (in the form of a standard code)
 - c. Ship’s position
 - d. Time
4. The designated radio operator and ship’s officers with the appropriate GMDSS qualification should be fully conversant with the procedure for entering the necessary information into the DSC equipment. At sea the radio equipment capable of automatically including the ship’s position in the distress alerts shall be automatically provided with this information. If the equipment is not capable of automatically updating, the ship’s position should be manually updated at intervals not exceeding four hours, while the ship is underway.
5. Various types of calls are available, being broadly either distress and safety related calls or “commercial” calls. In the case of VHF, automatic connection to the public network can also be established through suitably equipped stations.
6. The receipt of a DSC call by a receiving station is accompanied by a suitable display or printout of the address, the self-identification of the transmitting station and the content of the DSC message, together with an audible or visual alarm or both for certain categories of calls (eg. for distress, urgency and safety related calls).
7. Information on communications in GMDSS and testing DSC equipment is contained in the Admiralty List of Radio Signals Volume 5, Volume 1 and relevant ITU Volumes.

REPORT OF CIC ON GMDSS COMPLIANCE

MMSI No.
Ship's Name/IMO No.

No.	Item	A	B	N/A
1	The ship's Safety Radio Certificate is valid.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Fitted equipment complies with the Record of Equipment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*3	Verify the MMSI and other radio/EPIRB codes are programmed and conform to the ship's documents, and are marked at or close by the respective radio transmitters.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	For ships trading outside the A1 area the person designated to have primary responsibility for distress and safety radio communications has a GOC. (refer to Appendix 2 of Guidelines)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Ability of ship's operator to use the GMDSS equipment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*6	The required GMDSS VHF/DSC installation(s) is (are) capable of transmitting and receiving distress and safety alerts and distress and safety traffic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*7	The required GMDSS MF/DSC installation is capable of transmitting and receiving distress alerts and distress traffic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*8	The required GMDSS INMARSAT installation(s) is (are) capable of transmitting and receiving distress and safety alerts and distress and safety traffic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
*9	The required GMDSS HF/DSC (radiotelephony) installation is capable of transmitting and receiving distress alerts and distress traffic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	The SART(s) is (are) capable of transmitting signals.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	The 9 GHz radar is capable of receiving signals from SART.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	Receiving and printing Maritime Safety Information by means of NAVTEX, and where required by means of EGC facilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	The GMDSS PORTABLE VHF sets are capable of transmitting and receiving distress traffic.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	The EPIRB is capable of float free operation, transmitting distress alerts.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	The condition of the radio reserve source of energy, including charger unit.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

A = Satisfactory; B = Unsatisfactory; N/A = Not Applicable

Notes:

¹ If "B" is ticked off and in conjunction with reference to Section 6 of the attached guidelines the PSCO should use judgement regarding the seriousness of the deficiency as to whether the ship should be considered for detention. The detail of any detention should be appropriately entered on the PSC Report Forms.

* The PSCO should verify, including verification of printed records of receipt of satisfactory transmission tests, so far as is reasonably practicable, taking into account the constraints or special conditions referred to in relevant part of Section 3.