सत्यमेव जयते
भारत सरकार / GOVERNMENT OF INDIA
पोत परिवहन मंत्रालय / MINISTRY OF SHIPPING
नौवहन महानिदेशालय, मुंबई
**DIRECTORATE GENERAL OF SHIPPING, MUMBAI**

**Standard Operating Procedure (SOP)**

**File No.: 25-54011/3/2024-NT - DGS [Comp. No.: 30562]** **Date: 02.09.2024**
**Nautical Wing SOP**

Subject: **Procedure/guidelines for Approval and renewal of service stations for "Testing & servicing of EPIRB, SART and testing of AIS & other GMDSS radio communication equipment".**

The Standard Operating Procedure/guidelines on the aforesaid subject matter is attached as annex to this letter.

The SOP and check list are attached in the DGS website under head Standard Operating Procedures (SOPs), Nautical Wing in serial number [k] for the reference.

The link for the SOP is as under
https://www.dgshipping.gov.in/WriteReadData/userfiles/file/Procedure%20for%20approval%20of%20Service%20Station%20signed.pdf

02/09/2024
Balunkeshor Mohapatra
Senior Radio Surveyor-cum-ADG (Tech.)

To,
All the stake holders concerned.

**Directorate General of Shipping, Mumbai**
**Nautical Wing**

**Standard Operating Procedure**

Date: 14th June 2024

Subject: **Procedure/guidelines for Approval and renewal of service stations for "Testing & servicing of EPIRB, SART and testing of AIS & other GMDSS radio communication equipment".**

SOLAS Chapter IV Regulation 15 – Maintenance Requirements, and Rule-17, of the Merchant Shipping Distress & Safety Radio Communication Rules 1995, requires that every ship shall be maintained to provide the availability of the functional requirements specified in SOLAS Ch-IV/Regulation 4, and shall always meet the recommended performance standards of such equipment.

In this regard, for establishing of such service stations, following circulars and merchant shipping notices have been issued and are available at the DGS website.

1) NT-Radio Circular No. 10 of 2023 dated 16/03/2023.
2) MS Notice 11 of 2022 dated 07/11/2022.
3) MS Notice 13 of 2022 dated 20/12/2022.

**A)** The stepwise procedures for the approval and/or renewal of a service station for "**Testing & servicing of EPIRB, SART and testing of AIS & other GMDSS radio communication equipment"** are stated as under.

**Step-1:**

Application is to be made to DG Shipping with present status of the proposed service station with valid documents. Minimum documents required are as follows.

a) Land/ premises/building deed or agreement of the service station.
b) Experimental License issued by Ministry of Communications.
c) Dealer Possession Licence issued by Ministry of Communications.
d) ISO certificate with specific scope.
e) Authorization certificates for the service station from minimum two OEMs.
f) Duly filled check lists I, II, III & IV signed by top management of the company along with supporting documents.
g) Qualification, experience, OEM authorization and training for the service engineers as stated in (B).
h) Self-declaration from the company towards readiness for inspection by the MMD/DGS.
i) Processing fess of Rupees fifteen thousand only (Rs.15,000/-) in favour of DGS to be paid through Bharatkosh and transaction receipt to be submitted along with application.

**Step-2:** Upon scrutiny of application by DGS and confirming the readiness of the service station, DG Shipping will instruct Jurisdictional MMD to carry out the inspection. Inspection fees for MMD (Rs.8,000/-) shall be paid separately in favour of the Principal Officer or Surveyor-in-Charge. Inspection shall be completed within a maximum period of 30 days.

**Step-3:** Upon completion of inspection and receipt of recommendation from the Principal Officer of jurisdictional MMD, DG Shipping will examine, process and issue the Certificate of Approval (COA) for the service station within 15 working days.

**B) <u>Procedure for approval of service engineers for the initial approval (or) addition/deletion of service engineers for the approved service station:</u>**

The service engineer shall have the basic qualification, experience, OEM authorization and training as stipulated below towards approval

1. **Basic Qualification**: The Service engineer should be in possession of;
   a) a degree or diploma engineering in the discipline of Electronics & telecommunications, or Electrical engineering.
   b) Indian GMDSS General Operators Certificate.
2. **Experience:** The Service engineer should have at least one year experience in the maritime field dealing with radio communication equipment.
3. **Authorization from OEM:** The Service engineer should have authorization from at least two OEMs for carrying out servicing and testing.
4. **Training:** The Service engineer should have been trained by;
   a) the OEM, or
   b) the OEM trained service engineers which are accepted by the manufacturers.
5. Aforementioned procedures are also applicable for subsequent addition/deletion of service engineers in the list of COA.
6. Processing fees of Rs.2500/- shall be charged towards any alteration/change in COA or any addition or deletion of Service engineers in the list of COA.
7. **Verification & Evaluation of performance by jurisdictional MMD:**
   Verification & evaluation of the service engineer to be carried out by the MMD surveyor during the inspection the service station. All the service engineers to be physically present during the inspection. The name of those service engineers which are meeting the qualifications as mentioned in above para 1 to 4, will be included in the Certificate of approval (COA).
8. A service engineer will be allowed to perform servicing on behalf of any one service station in which he/she is on full time employment. Whenever any service engineer leaves the job then his/her name shall be deleted from the Certificate of approval (COA) issued by DGS.

# Check-list for Initial / Intermediate / Renewal of Service Station for Testing & Servicing EPIRB, SART, AIS and other GMDSS Radio communication equipment.

| Sr. No. | Requirements | Extend of compliance | Remarks |
|---|---|---|---|
| 1 | The administration should ensure, that the periodic survey of GMDSS electronic communication and life-saving equipments are performed at service station, that have demonstrated competence to service and repair the concerned equipment, maintaining an adequate facility and employing only trained person. | | |
| 1.1 | Servicing of all GMDSS electronics communication/ life-saving equipments shall be carried out in fully enclosed and dust free spaces only. There shall be sufficient room for the members of GMDSS electronic communication/life-saving equipments expected to be serviced at any one time | | |
| 1.2 | The floor shall be provided with clean non-conducting surface. | | |
| 1.3 | The entire servicing space shall be well lit, avoiding as far as possible, the direct rays of sun-light, thereby ensuring ultra-violet protection is provided for sensitive components such as EPROMS | | |
| 1.4 | The ambient temperature and relative humidity in the servicing space shall be sufficiently controlled to ensure the servicing and repairs can be effectively carried out. The optimum ambient temperature shall be 27 Deg. centigrade (80 deg F) plus minus 2 Deg. C (5 deg F) and Relative humidity (RH) does not exceeds 50%(Fifty percent) | | |
| 1.5 | Work bench shall be suitably designed and adequately spaced for efficiently carry out servicing and repair of equipments | | |
| 1.6 | Separate & suitable areas/space or rooms shall be provided for: | | |
| 1.6.1 | GMDSS electronic communication/life-saving equipments awaiting for servicing, repair and delivery. | | |
| 1.6.2 | Materials or components/space parts | | |
| 1.6.3 | Storage of Primary Lithium Batteries | | |
| 1.6.4 | Quality policy and process flow should be adopted for stock management of spares parts | | |
| 1.6.5 | General administration & facilities | | |
| 1.7 | Handling of Lithium Batteries; | | |
| 1.7.1 | The batteries (management and handling) Rules, 2001 of Ministry of Environment and Forests shall be followed at all times. Also due caution shall be exercised in the handling of | | |

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| | lithium batteries and meticulously follow the instructions laid down by the manufacturers. | | |
| 1.7.2 | Spare primary lithium batteries shall be stored in a separate, safe and dry place, well away from the servicing and / or repair space/s: | | |
| 1.7.3 | Primary Lithium batteries may be replaced at the due service intervals, as stipulated by the manufactures of the concerned equipments. After replacing the batteries, service station shall mark the outside of the concerned equipments date and new expiration date. Equipments that awaits for servicing and do not require battery replacement, should still be subjected to a thorough evaluation in order to establish the residual battery life, where such residual battery life is less than three months, then the concerned battery shall be replaced. | | |
| 1.7.4 | It is responsibility of the service station to fully discharge and dispose all batteries removed from serviced unit entirely in accordance with the written procedure stipulated by the manufacture. | | |
| 1.7.5 | Quality policy and flow process should be adopted for handling of lithium batteries. | | |
| 1.8 | Following minimum types of test/measuring equipments shall be available for the servicing of electronics/ life-saving equipments; | | |
| 1.8.1 | Microwave Oscilloscope with up to 150 MHz Capacity & storage facility | | |
| 1.8.2 | Radio communication test SWET for different equipments | | |
| 1.8.3 | Frequency counter with tolerance less than 1 PPM | | |
| 1.8.4 | RF Power meter | | |
| 1.8.5 | Powers supply unit of regulated variable type | | |
| 1.8.6 | Digital Multi meter | | |
| 1.8.7 | Soldering station/s of suitable type with de-soldering capabilities | | |
| 1.8.8 | Calibrated EPIRB Tester / s of a dedicated nature and preferable portable with service receive which can measurer frequency and other statutory permanent as required by COSPASS/ SARSAT. The tested should be capable of being taken alongside/ onboard vessel in the special case so as to provide immediate testing facility where essential | | |
| 1.8.9 | Calibrated SART Tester/s of a dedicated nature. The tester should be capable of being taken on board vessel in special cases so as to provide immediate testing facility where essential | | |
| 1.8.10 | Calibrated AIS Tester of suitable type | | |
| 1.8.11 | Microwave test bench of suitable type | | |
| 1.8.12 | Additional equipment as recommended by manufactures of the equipment that the concerned service station is | | |

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| | authorized to handle or as deemed necessary by competent authorities | | |
| 1.8.13 | Valid Calibration certificates for all test equipments shall be available (OEM calibration certificate or NABL accredited calibration certificate) | | |
| 1.9 | Adequate spares as recommended by the manufacturer/s of the equipments that the concerned service station is authorized to handle or as deemed necessary by competent authorities | | |
| 1.9.1 | For EPIRBs, SARTs and two Way Radios, an adequate number of spare primary / secondary batteries as required to be used in the equipments, shall be readily available | | |
| 1.9.2 | EPROMS as required for programming/ reprogramming of the required brands of EPIRBs that are being handled, shall be readily available | | |
| 1.10 | The service station should be competent and authorized by the manufactures (OEM) of the concerned equipments to carry out service and the necessary repairs to the equipments in question | | |
| 1.10.1 | Service and the repair work shall be carried out by adequately trained electronic engineers in accordance with the procedure approved by the concerned manufacture's. Record of such servicing process shall be meticulously maintained in the approved format and be available for inspection for a period of three years thereafter | | |
| 1.10.2 | Equipments to be serviced by the OEM trained service engineers or duly trained by the manufacturer's trained service engineers which accepted by the manufacturer only. | | |
| 1.10.3 | The service engineer/Radio Inspector shall be in possession of valid Indian GMDSS (GOC) operators certificate. | | |
| 1.10.4 | Manufactures serving/repair manuals for the concerned equipments shall be duly updated & available in the service station. | | |
| 1.10.5 | Reasonable means shall be provided & precautionary measures shall be adopted for prevention of inadvertent transmission of signals from any of the equipments awaiting and/or undergoing servicing / repairs which should lead to false alerts / alarms. | | |
| 1.11 | Smoking shall not be allowed in the servicing / repairing areas where hazardous component like lithium batteries are stored and /or used. | | |
| 1.12 | Quality policy and flow process should be adopted for servicing of equipments. | | |
| 1.13 | Quality policy and flow process should be adopted to mitigate/cancel false distress alerts activated from EPIRBs & DSC equipments. | | |

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| 2. | Responsibility of administration: A competent and authorized representative of the administration should be present during the mandatory annual servicing of GMDSS electronic communication and life-saving equipment such as EPIRBs, SARTs & Two way radios, which would be required to be witness and certify the required function of the above equipments | | |
| 3. | Responsibility of manufactures & ship owners: in order to ensure that the servicing of electronic life-saving equipments is effectively conducted to provide reliable equipment in an emergency, approved manufactures & ship-owners shall have parallel and overlapping responsibilities. These include but are not limited to following; | | |
| 3.1 | Manufactures shall be responsible for: | | |
| 3.1.1 | Ensuring that there electronic life-saving equipments can be adequately serviced in accordance with these requirements or with any additional equipments necessary for particular product and design and /or intended application | | |
| 3.1.2 | Ensuring that each servicing station accredited by them for servicing and repair of their electronics life- saving equipments had qualified persons adequately trained to perform such work and who are kept aware of any charges or new techniques | | |
| 3.1.3 | Keeping the administration fully informed as to the list of servicing stations accredited by them & any changes there to | | |
| 3.1.4 | Making available to service stations, Changes to the service manuals, servicing bulletins and instructions proper materials and replacement components/parts and updated bulletins and instructions | | |
| 3.1.5 | Keeping the administration fully informed of any shipping causalities known to them and involving their GMDSS electronic communication and life-saving equipments Other than failure during inspection which are known to them, and | | |
| 3.1.6 | Informing ship-owners whenever possible of any deficiency or danger known to them and related to the use of their GNDSS electronic communication and life saving equipments and taking whatever remedial measures they deemed necessary . | | |
| 3.2 | Ship-owners shall be responsible for ensuring as minimum requirements that all GMDSS electronic communication and life saving equipments are approved and are serviced at the appropriate intervals in an approved servicing station. Whenever practicable the representative of Ship-owner may monitor servicing | | |
| 4 | The service station shall be in; | | |
| 4.1 | Possession of valid ISO certificate fulfilling the complete scope of survey, test service and supply. | | |

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| 4.2 | Possession of valid Experimental license with scope of experimentation (testing & servicing) of equipments on the operating frequencies | | |
| 4.3 | Possession of valid dealer possession license for supply and service of equipments from different OEMs. | | |
| 4.4 | Possession of latest documents, circulars, guidelines issued by IMO, DGS and other statutory bodies. | | |

Name of PIC of Service station:

Signature :

Date :

Name of MMD/DGS Surveyor:

Signature :

Date :

**Check List for Initial/Renewal Inspection of Shore-Based Maintenance provider**
**(As per MSC.1/1039/Rev.1)**

| Contents | | Extent of compliance | Remarks |
|---|---|---|---|
| **1.** | **Introduction** | | |
| 1.1 | The purpose of these Guidelines is to establish standardized procedures and minimum levels of service for the testing and maintenance of emergency position-indicating radio beacons (EPIRBs) to ensure maximum reliability while minimizing the risk of false distress alerting. | | |
| 1.2 | The Guidelines are applicable to EPIRBs approved to comply with the requirements of SOLAS regulation IV/7.1. These EPIRBs include 121.5 MHz transmitters, Global Navigation Satellite System (GNSS) receivers, and automatic identification system (AIS) locating signals. | | |
| 1.3 | The guidelines also apply to service exchange EPIRBs which should be properly encoded to match the appropriate registration database. | | |
| **2.** | **Shore-based maintenance (SBM) provider** | | |
| 2.1 | The SBM provider should have a quality control system audited by a competent authority in respect of its servicing operation. | | |
| 2.2 | The SBM provider should have access to adequate calibrated test equipment and facilities to carry out the SBM in accordance with these guidelines. | | |
| 2.3 | The SBM provider should have access to batteries and other spare parts to the original equipment specification. | | |
| 2.4 | The SBM provider should have access to up-to-date technical manuals, service bulletins and the latest software versions as provided by the original equipment manufacturer. | | |
| 2.5 | The SBM provider should keep records of maintenance, available for inspection by the Administration as may be required. | | |
| 2.6 | The SBM provider should ensure that all personnel responsible for supervising and for carrying out the maintenance procedures are adequately trained by the manufacturer or its authorized agent, and fully competent to perform their duties: and | | |
| 2.7 | The SBM provider should issue a shore-based maintenance report with a list of the test results and maintenance performed. | | |

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| **3.** | **Prevention of false distress alerts** | | |
| 3.1 | Throughout the testing and maintenance process, great care must be taken to avoid the transmission of false distress alerts. The transmissions may be detected by aircraft and other vessels as well as satellites. | | |
| 3.2 | A radio-frequency-screened room or enclosure should be used for all maintenance procedures involving, or likely to involve, any transmission from an EPIRB. | | |
| 3.3 | Provision of a 121.5 MHz monitor receiver and AIS receiver is required; this will allow for the receipt of the homing and/or AIS transmitter signal and give a warning if the EPIRB is accidentally activated outside the screened enclosure. | | |
| 3.4 | If a distress signal is transmitted accidentally, the transmission should immediately be stopped, and the local Rescue Coordination Centre (RCC) should be contacted immediately and informed. The nearest Copsas-Sarsat Mission Control Centre (MCC) should also be informed. (see also Guidelines for the avoidance of false distress alerts (resolution A.814(19), as may be updated); | | |
| **4.** | **Maintenance service interval** | | |
| 4.1 | EPIRBs should be inspected and tested in accordance with MSC/Circ.1040/Rev 2. | | |
| 4.2 | Shore-based maintenance of all EPIRBs, as defined in paragraph 1.2, should be carried out in accordance with these Guidelines at intervals specified by the flag State Administration and not exceeding five years. It is recommended that the battery be replaced at the time when the maintenance is performed. If the battery is being replaced, or other servicing performed, the recommended shore-based maintenance should be performed concurrently. | | |
| **5.** | **Self-Test** | | |
| 5.1 | Prior to carrying out any maintenance and, upon completion, a self-test should be performed, following the instructions on the equipment, and the results noted. If the beacon is fitted with GNSS self-test capability, then a GNSS self-test should be performed. | | |
| 5.2 | Attention is drawn to section 3 on the prevention of false distress alerts. Avoidance of live transmissions is required to prevent unnecessary loading of the satellite channels and the relay of false distress alerts to local RCCs. | | |
| 5.3 | It should be verified that the self-test mode operates properly. This check could be performed by holding the switch in self-test mode position for at least one minute | | |

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| | and then releasing it. The number of self-test bursts should be verified to be no more than one. | | |
| **6.** | **Battery change** | | |
| 6.1 | The main battery should be changed in accordance with the manufacturer's recommendations, including the replacement of any other routine service parts (e.g. seals, memory battery, desiccant) | | |
| 6.2 | The removed batteries should be disposed of in accordance with the manufacturer's and/or national/local recommendations. | | |
| 6.3 | After having changed the battery, the new battery expiry date label, as supplied by the beacon manufacturer with the replacement battery, should be fixed on the exterior surface of the EPIRB. | | |
| **7.** | **Satellite distress transmission** | | |
| 7.1 | The EPIRB should be activated in its normal transmitting mode (i.e. not just self-test). Attention is drawn to section 3 on the prevention of false distress alerts. Where seawater contacts are fitted, these should be connected together, as indicated in the manufacturer maintenance instructions or servicing guidelines, to test activation of the EPIRB. | | |
| 7.2 | The transmitted signal should be checked with a suitable test receiver to verify the signal integrity and coding. | | |
| 7.3 | The frequency of the transmitted signal should be recorded and verified to be within the limits required by the specification to which it is approved. | | |
| 7.4 | The output power of the transmitter should be checked in the self-test mode. A simple method of the emission verification, such as a low sensitivity receiver placed at an unobstructed distance of at least 3 m from the EPIRB antenna, may be used for this check. The original equipment manufacturer may suggest an appropriate method to verify the output power. | | |
| **8.** | **121.5 MHz homing transmission** | | |
| 8.1 | The EPIRB should be activated in its normal transmitting mode (i.e. not just self-test). Attention is drawn to section 3 on the prevention of false distress alerts. Where seawater contacts are fitted, these should be connected together, as indicated in the manufacturer maintenance instructions or servicing guidelines, to test activation of the EPIRB | | |
| 8.2 | The transmitted signal should be checked with a suitable test receiver for the characteristic swept tone modulation. | | |

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| **9.** | **AIS locating signal transmission** | | |
| 9.1 | The EPIRB should be activated in its normal transmitting mode (i.e. not just self-test). Attention is drawn to section 3 on the prevention of false distress alerts. Where seawater contacts are fitted, these should be connected together, as indicated in the manufacturer maintenance instructions or servicing guidelines, to test activation of the EPIRB. | | |
| 9.2 | With the GNSS signal applied as described below, the transmitted signal should be checked with a suitable AIS receiver or test receiver for the proper AIS message transmission and to verify that the AIS message content is valid (contains the correct AIS identity (User ID), the correct position and the correct EPIRB 15 Hex ID). Note that for second- generation EPIRBs, the 15 Hex ID is formed by truncating the 23 Hex ID, as indicated in the manufacturer's maintenance instructions or servicing guidelines. | | |
| **10.** | **Global Navigation Satellite System (GNSS)** | | |
| 10.1 | EPIRBs are designed to transmit a position derived from a GNSS receiver. | | |
| 10.2 | The original EPIRB equipment manufacturer should be consulted for a method of testing the correct operation of this function, e.g. by using a GNSS repeater/simulator or external input. This test may involve a live transmission from the EPIRB and should be performed in a screened room or enclosure in accordance with paragraph 3.2. Attention is drawn to section 3 on the prevention of false distress alerts. | | |
| 10.3 | A test receiver should be used to verify that the satellite signal transmitted by the EPIRB contains the correctly encoded position data derived from the GNSS receiver. | | |
| 10.4 | If the EPIRB is a Return Link Service (RLS) capable beacon and is programmed with the RLS message protocol, testing to ensure proper operation should be done as indicated in the manufacturer's maintenance instructions or servicing guidelines (and, if applicable, the RLS service provider's guidelines). | | |
| **11.** | **Waterproof integrity** | | |
| 11.1 | The EPIRB should be inspected for any signs of damage or cracks to the casing, or of water ingress. Any damaged item should be replaced, as indicated in the manufacturer's maintenance instructions or servicing guidelines. | | |
| 11.2 | The EPIRB should be tested for waterproof integrity at the end of the SBM and prior to a final self-test to verify proper operation, as indicated in the manufacturer's maintenance instructions or servicing guidelines. The equipment manufacturer may suggest | | |

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| | an appropriate method to test the integrity of the EPIRB. | | |
| 11.3 | One method involves immersing the equipment in hot water (20-30$^0$ C above ambient) for a period of at least one minute. It can be readily seen if there are any problems with the seals, as the air inside the beacon expands and escapes as a stream of bubbles. This test should not be carried out with cool water, as the water may be drawn into the equipment without showing significant release of air bubbles. | | |
| 11.4 | EPIRBs equipped with seawater switches should have this function disabled during the immersion test to prevent activation, unless the complete test is performed inside a screened room. This disabling may be achieved by immersing the EPIRB complete with a mounting bracket if the bracket includes an interlock to prevent activation before release. The manufacturer should be consulted for specific guidance. | | |
| **12.** | **Labelling** | | |
| 12.1 | As a minimum, the equipment external labelling should be checked for the following details | | |
| 12.1.1 | Manufacturer's serial number; this identifies the equipment, even if the programmed data (e.g. MMSI or Call sign) is later changed. | | |
| 12.1.2<br><br>12.1.2.1 | The transmitted identification code:<br><br>for first-generation EPIRBs compliant with document C/S T.001, this will be the beacon 15 Hexadecimal Identification (15 Hex ID) and other encoded identification information (MMSI/call sign) as required by the Administration. It should be verified that the label matches the information decoded from the self-test mode transmission using the test receiver. For the Cospas-Sarsat location protocol beacons, the 15 Hex ID should correspond to position data set to default values; | | |
| 12.1.2.2 | for second-generation EPIRBs compliant with document C/S T.018, this will be the beacon 23 Hexadecimal Identification (23 Hex ID) and other encoded identification information (MMSI/call sign) as required by the Administration. It should be verified that the label matches the information decoded from the self-test mode transmission using the test receiver. For the Cospas-Sarsat location protocol beacons, the 23 Hex ID should correspond to position data set to default values; and | | |
| 12.1.2.3 | The EPIRB AIS identity (User ID), which will be in the format 974XXYYYY. It should be verified that the label matches the information decoded from the AIS | | |

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| | self-test mode transmission using a suitable AIS receiver or test receiver. | | |
| 12.1.3 | the expiry date of the battery; and | | |
| 12.1.4 | the date when the next shore-based maintenance is due (see paragraph 13.1). | | |
| 12.2 | The above checks also apply if a replacement EPIRB is provided by the SBM provider. | | |
| **13.** | **Shore-based maintenance report and other documentation** | | |
| 13.1 | The results of shore-based maintenance should be provided in the form of a shore-based maintenance report, a copy of which is to be kept on board, and a label affixed to the exterior of the beacon detailing the name of the SBM provider and the date when the next shore-based maintenance is due. | | |
| 13.2 | The SBM provider may affix a tamper-proof seal or similar device on completion of the SBM. | | |
| 13.3 | Before returning the beacon to the owner, or when providing a replacement beacon, the SBM provider should check the registration details with the beacon registry, where practicable. | | |

Name of PIC of Service station: Name of MMD/DGS Surveyor:

Signature : Signature :

Date : Date :

**Check List for annual testing of EPIRBs by Shore-Based Maintenance provider**
**(As per MSC.1/1040/Rev.2)**

| Clause | Conditions | Extent of Compliance | Remarks |
|---|---|---|---|
| 1 | Guidelines are applicable to the annual testing of emergency position-indicating radio beacons (EPIRBs) that are approved to comply with the provisions of SOLAS regulation IV/15.9. | | |
| 2 | The testing should be carried out by appropriately trained and approved personnel using suitable test equipment capable of performing all the relevant measurements required in these Guidelines (this testing normally will be done by a radio surveyor as part of the annual radio survey). All tests of electrical parameters should be performed in the self-test mode, if possible. | | |
| 3 | If a distress signal is transmitted accidentally, the transmission should immediately be stopped, and the local Rescue Coordination Centre (RCC) should be contacted immediately and informed. The nearest Cospas-Sarsat Mission Control Centre (MCC) should also be informed (see also Guidelines for the avoidance of false distress alerts (resolution A.814(19), as may be updated); | | |
| 4 | The examination of the installed EPIRB should include: | | |
| 4.1 | checking position and mounting of the bracket to ensure unimpeded float-free operation; | | |
| 4.2 | carrying out visual inspection of the EPIRB and the bracket for defects, any signs of damage, degradation or cracks to the casing or of water ingress; | | |
| 4.3 | carrying out the beacon self-test routine, including the GNSS self-test, if applicable; | | |
| 4.4 | checking that the EPIRB identification (15 Hex ID for first-generation beacons and 23 Hex ID for second-generation beacons and other required information, including, if applicable, the AIS identity (User ID)) is clearly marked on the outside of the equipment; | | |
| 4.5 | decoding the EPIRB hexadecimal identification digits (15 Hex ID for first-generation beacons and 23 Hex ID for second-generation beacons) and other information from the transmitted signal, including, if applicable, the AIS identity (User ID), checking that the decoded information (Hex ID or MMSI/call sign data, as required by the Administration) is identical to the identification marked on the beacon; | | |

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| 4.6 | verifying that the MMSI number or radio call sign, if encoded in the beacon, corresponds with that assigned to the ship; | | |
| 4.7 | verifying registration in an appropriate beacon registration database through documentation or through the point of contact associated with that country code; | | |
| 4.8 | checking the battery expiry date; | | |
| 4.9 | checking the hydrostatic release and its expiry date, as appropriate; | | |
| 4.10 | verifying the emission in the 406 MHz band using the self-test mode or an appropriate device to avoid transmission of a distress call to the satellites; | | |
| 4.11 | if possible, verifying emission on the 121.5 MHz frequency using the self-test mode or an appropriate device to avoid activating the SAR system; | | |
| 4.12 | verifying emission on the appropriate AIS frequencies, if applicable, using the self- test mode or an appropriate device to avoid creating false alerts; | | |
| 4.13 | verifying that the EPIRB has been maintained by an approved shore-based maintenance provider at intervals required by the Administration, in accordance with the most recent revision of MSC/Circ.1039; | | |
| 4.14 | after the test, remounting the EPIRB in its bracket, checking that no transmission has been started; | | |
| 4.15 | verifying the presence of a firmly attached lanyard in good condition; the lanyard should be neatly stowed, and should not be tied to the vessel or the mounting bracket; | | |
| 4.16 | checking the presence of beacon operating instructions manual; and | | |
| 4.17 | checking the presence of pictorial instructions for manual operation visible at the location of the beacon. | | |

Name of PIC of approved Service station: Name of MMD/DGS Surveyor:

Signature : Signature :

Date : Date :

# MMD Recommendation Check-list for Initial / Intermediate / Renewal of Service Station for Servicing EPIRB, SART, AIS and other GMDSS Radio communication equipment.

| S.No. | Requirements | Extent of Compliance |
|---|---|---|
| 1 | Name of the Service Station: | |
| 2 | Address: | |
| 3 | Contract Numbers & email address**:** | |
| 4 | Name of the maker of EPIRB & SART to be serviced (to be supported by the latest certificate authorizing the service station for carrying out servicing of their product) | |
| 5 | Premises of Service Station (Leased/owned)(Proof to be provided): | |
| 6 | Service station shall have following :<br>a) Plan/Lay out of service station.<br>b) Servicing shall be carried out in full enclosed & dust free space having sufficient room for testing/servicing by the engineers and simultaneously witnessing by surveyor.<br>c) Floor shall be non-conducting, well lit, temperature controlled and avoiding direct rays of sunlight for providing protection to ultra violet ray.<br>d) Work bench of suitably designed for efficiently carrying out servicing/repair and sufficient space for storing and placing the measuring instruments.<br>e) Separate or Suitable space for storing the equipments waiting servicing and similarly for equipments awaiting delivery.<br>f) Standard procedure to be prepared and followed by the service station for handling/ replacement of Lithium battery and disposal of used and expired batteries which conforms the requirements of Pollution Control Board and the Manufacturer of the equipment.<br>g) Service Station to have tools/measuring Instruments as recommended by the Manufacturers of the particular EPIRB/SART.<br>h) Equipments to be serviced by the Manufacturers trained service engineers or duly trained by the manufacturer's trained service engineers but accepted by the manufacturer only<br>i) Service station to have documented procedure for servicing/testing of EPIRB & SART in line with manufacturers guidelines / DGS MSN 11 of 2022 dated 07/11/2022. | |

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|---|---|---|
| | j) Test results for EPIRB to be recorded and maintained in the given format of above stated DGS Circular.<br><br>k) Service station shall have shall be duly updated Service manuals for all authorized EPIRB/ SART equipments.<br><br>l) Experimental Licence & Dealers Possession Licence from Ministry of Communications**.**<br><br>m) Quality System.ISO 9001:2015:<br><br>n) Format of certificates to be filled up during the inspection of service station for EPIRB & SART. | |

Certified that the service station has been inspected by the undersigned on ----------for granting approval for servicing of EPIRB & SART as per the M.S. Distress and Safety communication rules 1995/2013. It is recommended that the necessary approval valid for five years with annual endorsements may be granted.

Signature of surveyor(s)

Recommended /Non-Recommended.

PRINCIPAL OFFICER

(Note: Only the inspection checklist with recommendation from the Principal Officer may be sent to the Directorate for necessary approval. Required enclosures/documents may be kept with MMD)