



**CHECKLIST FOR SAFETY RADIO EQUIPMENT (GMDSS) SURVEY
(FOR RADIO TECHNICIAN¹⁾)**

Particulars of ship

Ships Name: _____ Class No.: _____

Report No.: _____ Survey Date: _____

Registered Tonnage: _____ Date Keel Laid: _____

Port of Registry and Flag State _____

Call Sign.: _____ Official No.: _____

MMSI Number: _____

Sea Area in which vessel is certified to trade(If applicable, multiple sea areas should be selected.):

- A1 A2 A3 A4

Kind of Survey (Type of ship : Cargo Ship Passenger Ship Other: _____)

- Initial Survey Periodical Survey Renewal Survey
 Flag change Transfer of Class(TOC)

General

- | | YES | NO | N/A |
|--|--------------------------|--------------------------|--------------------------|
| A. Has KR been contacted before conducting the radio survey?
- If no, the survey result may be rejected by KR | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| B. Has KR Surveyor attended and verified the technician?
- If No, the reason to be written : | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| C. Radio Technician has been approved by KR?
- If No, the reason to be written : | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| D. Are there any deficiencies? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

E. Replacements or Additions of Safety Radio Equipment as follow ;
 In accordance with SOLAS IV/Reg.14, the equipment newly replaced or added to on ships shall be of a type approved and conform to appropriate performance standards.
 Please, fill in the blank below, if applicable.

Old Equipment	New Equipment
-	-
-	-
-	-

¹⁾ The survey of following part should always be performed by a fully qualified radio technician who has adequate knowledge of radio regulations, the SOLAS Convention, and IMO Performance Standard, thus duly approved by the Society or other IACS Members

1. Checked that the following documents/publications are available on board;

- | | |
|--|--|
| | YES NO N/A |
| a. Valid Radio License..... | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| - Radio license No. (Radio Regulation Art.18): | |
| - Place and date of issue: | |
| - Expiry date: | |
| b. Radio Operators' Certificates..... | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |

Name of Operator	Class	Number	Validity Duration	Issued by

- | | |
|---|--|
| c. Radio log..... | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| d. Manual for Use by the Maritime Mobile and Maritime Mobile-Satellite Services..... | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| e. List IV – List of Coast Stations and Special Service Stations..... | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| f. List V – List of Ship Stations and Maritime Mobile Service Identity Assignments..... | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| g. International code of signals..... | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| h. Operating manuals and other instructions..... | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |

2. The following test instruments are used;

- | | |
|---|--|
| a. Frequency counter..... | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| b. Watt meter with plug in elements covering MF, HF, and VHF..... | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| c. Ampere/Volt/Ohm meter..... | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| d. Insulation tester..... | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| e. Acid tester (specific gravity) | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| f. Instrument for decoding the ID-signal of satellite EPIRBs..... | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| g. Oscilloscope..... | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |

The following items were checked and tested as necessary and found satisfactory.

3. Radio installations

- a.The radio controls for operating the radio installation are adequately illuminated.....
- b.The capacity of battery(s) has been checked at intervals not exceeding 12 months.....
- c.Electrical lighting is permanently arranged and connected to a source of power independent of the main/emergency source of power.....
- d.Radio installation clearly marked with call sign, ship station identify, and other applicable codes.....
- e.Radio equipment is located at : _____
- f.Remote control from conning position provided.....
- g. Aeronautical 121.5MHz/123.1MHz two-way radio communication.....
(Passenger ship only)

- 4. Equipment installed fulfills the functional requirements for the vessel's sea areas of operation.....

5. Methods used to ensure availability of radio facilities²⁾

- a.Duplication of equipment.....
- b.Shore-based maintenance (copy of contract verified on board)
- c.At-sea maintenance capability.....

²⁾ Ships engaged on voyage in sea area A3 and A4 must use a combination of two methods.

6. Source of energy

a. Main source of energy available in accordance with requirements.....

b. Emergency source of energy(specify below);

Emergency Battery Emergency generator Others:
Capacity: _____
Location: _____

c. Reserve source of energy(specify below);

UPS Accumulators Sealed Accumulators Others:
Capacity: _____
Location: _____

7. Reserve source of energy

a. Checking there is sufficient capacity to operate the basic or duplicated equipment for 1 hour or 6 hours as appropriate (Regulation IV/13)
Specify 1 or 6 hour: _____

b. Checked its siting and installation

c. Checked for defects, including all cables.....

d. Checked its condition by specific gravity measurement or voltage measurement.....
Specify voltage/specific gravity: _____

e. With battery off charge, and the maximum required radio installation load connected to the reserve source of energy, checked the battery voltage and discharge current.....
Specify maximum discharge current: _____

f. Checked that the charger(s) are capable of recharging the reserve battery within 10 hours.....

g. Checked that battery charger is of an automatic type.....

8. Antennas

- a. Visual inspection of all antennas, including Recognized Mobile Satellite Service antennas, and feeders for satisfactory siting and defects
- b. Checked that arrangements are provided enabling MF/HF transmitting antennas to be grounded.....
- c. Checked that the MF/HF transmitting antennas are protected against being touched accidentally.....

9. VHF transceivers

	BASIC	DUPLICATION
Maker / Model		

- a. Checked for operation on channels 6, 13, and 16.....
- b. Checked that equipment is within frequency tolerance
- c. Checked RF power output and VSWR on channels 6, 13, and 16.....
- d. Checked correct operation of all controls including priority of control units.....
- e. Checked that the equipment operates from the main, emergency (if provided) and reserve sources of energy.....
- f. Checked for correct operation by on-air contact with a coast station or other ship.....
- g. Checked that correct DSC number is programmed into the unit.....
- h. Checked that DSC distress procedure and DSC number are clearly displayed near the unit.....
- i. Checked compliance with IMO performance standards

10. VHF DSC controller and Channel 70 DSC watch receiver

Maker/model : _____

- a. Performed an off-air check confirming the correct Maritime Mobile Service Identity(MMSI) is programmed in the equipment.....
- b. Checked for correct transmission by means of a routine or test call to a coast station, other ship, on board duplicate equipment or special test equipment.....

- c. Checked for correct reception by means of a routine or test call from a coast station, other ship, on board duplicate equipment, or special test equipment.....
- d. Checked the audibility of the VHF/DSC alarm.....
- e. Checked that the equipment operates from the main, emergency (if provided) and reserve sources of energy.....
- f. Checked for compliance with IMO performance standards.....
- g. Checked DSC alerting available from conning position (in case of passenger ship).

11. MF radiotelephone equipment

Maker/model : _____

- a. Checked that the equipment operates from the main, emergency (if provided), and reserve sources of energy.....
- b. Checked antenna tuning in all appropriate bands.....
- c. Checked that equipment is within frequency tolerance on all appropriate bands (10 Hz)
- d. Checked for correct operation by contact with a coast station and/or measure RF power output and VSWR.....
- e. Checked receiver performance by monitoring known stations on all appropriate bands
- f. Checked that the control unit on the bridge has first priority for the purpose of initiating distress alerts, if control units are provided outside the navigational bridge.....
- g. Checked for compliance with IMO performance standards.....

12. MF DSC controller(s)

Maker/model : _____

- a. Checked that equipment operates from the main, emergency (if provided), and reserve sources of energy.....
- b. Confirmed that the correct MMSI is programmed in the equipment.....
- c. Checked the off-air self test program.....

- d. Checked operation by means of a test call on MF to a coast radio station if the rules of the berth permit the use of MF transmissions.....
- e. Checked the audibility of the MF/HF DSC alarm.....
- f. Checked for compliance with IMO performance standards.....
- g. Checked DSC alerting from conning position available (in case of passenger ship).....

13. MF DSC watch receiver(s)

Maker/model : _____

- a. Confirmed that only DSC channels indicated in Regulations IV/9 and 12 are being monitored
- b. Checked that a continuous watch is being maintained while keying MF radio transmitter.....
- c. Checked for correct operation by means of a test call from a coast station or other ship.....

14. MF/HF radiotelephone equipment

Maker/model : _____

- a. Checked that the equipment operates from the main, emergency (if provided), and reserve sources of energy.....
- b. Checked antenna tuning in all appropriate bands.....
- c. Checked that equipment is within frequency tolerance on all appropriate bands (10 Hz)
- d. Checked for correct operation by contact with a coast station and/or measure RF power output and VSWR.....
- e. Checked receiver performance by monitoring known stations on all appropriate bands
- f. Checked that the control unit on the bridge has first priority for the purpose of initiating distress alerts, if control units are provided outside the navigational bridge.....
- g. Checked for compliance with IMO performance standards.....

15. MF/HF DSC controller(s)

Maker/model : _____

- a. Checked that equipment operates from the main, emergency (if provided), and reserve sources of energy.....
- b. Confirmed that the correct MMSI is programmed in the equipment.....
- c. Checked the off-air self test program.....
- d. Checked operation by means of a test call on MF and/or HF to a coast radio station if the rules of the berth permit the use of MF/HF transmissions.....
- e. Checked the audibility of the MF/HF DSC alarm.....
- f. Checked for compliance with IMO performance standards.....
- g. Checked DSC alerting from conning position available (in case of passenger ship).....

16. MF/HF DSC watch receiver(s)

Maker/model : _____

- a. Confirmed that only DSC channels indicated in Regulations IV/11 and 12 are being monitored
- b. Checked that a continuous watch is being maintained while keying MF/HF radio transmitter.....
- c. Checked for correct operation by means of a test call from a coast station or other ship.....

17. Recognized Mobile Satellite Service Ship Earth Station(s)

	No. 1	No. 2	No. 3
Maker / Model			

- a. Checked that the equipment operates from the main, emergency (if provided), and reserve sources of energy, and that where an uninterrupted supply of information from the ship's navigational or other equipment is required ensuring such information remains available in the event of failure of the ship's main or emergency source of electrical power.....
- b. Checked the distress function by means of an approved test procedure, where possible.....

- c. Checked for correct operation by inspection of recent hard copy of test call by telex or telephone
- d. Checked distress function only if permitted to carry out test by the coast earth station.....
- e. Checked for compliance with IMO performance standards.....

18. Receiver(s) capable of receiving MSI and search and rescue related information (Refer to MSC.1/Circ.1645)

- 1) Type of equipment/ Maker / Model: _____
- a. Checked for correct operation by monitoring incoming messages or inspecting recent hard copy.....
 - b. Performed test run of the self-test program, if provided.....
 - c. Checked for compliance with IMO performance standards.....

- 2) (if applicable) Type of equipment/ Maker / Model: _____
- a. Checked for correct operation by monitoring incoming messages or inspecting recent hard copy.....
 - b. Performed test run of the self-test program, if provided.....
 - c. Checked for compliance with IMO performance standards.....

- 3) (if applicable) Type of equipment/ Maker / Model: _____
- a. Checked for correct operation by monitoring incoming messages or inspecting recent hard copy.....
 - b. Performed test run of the self-test program, if provided.....
 - c. Checked for compliance with IMO performance standards.....

19. Float free satellite EPIRB

- Maker/model: _____
- a. Checked position and mounting for float free operation.....
Location: _____
 - b. Carried out visual inspection for defects.....
 - c. Carried out the self-test routine.....
 - d. Checked that the EPIRB ID is clearly marked on the outside of the equipment, decoding the EPIRB identity number confirming it is correct.....

Identity number: _____

e. Battery expire date: / / (DD /MM /YY)

f. Checked hydrostatic release and its expire date..... / / (DD /MM /YY)
Maker/model : _____

g. Checked call sign of ship is marked clearly on the EPIRB.....

h. Checked EPIRB is tested annually in accordance with MSC/Circ.1040/Rev.2..

i. Maintenance at intervals not exceeding five(5) years, to be performed at an approved shore-based maintenance facility / / (DD /MM /YY)

j. Frequencies:

(Some administrations require satellite EPIRBs to also operate on 121.5/243 MHz in addition to 406 MHz) See IMO performance resolution.....

k. The date system last replaced or overhauled: / / (DD /MM /YY)

l. Checked for compliance with IMO standards.....

20. Type of secondary means of alerting: _____

21. Two-way VHF radiotelephone apparatus for survival craft

	Maker / Model	Primary Battery	Rechargeable Battery
1		<input type="checkbox"/> Fitted <input type="checkbox"/> Not Fitted	<input type="checkbox"/> Fitted <input type="checkbox"/> Not Fitted
2		<input type="checkbox"/> Fitted <input type="checkbox"/> Not Fitted	<input type="checkbox"/> Fitted <input type="checkbox"/> Not Fitted
3		<input type="checkbox"/> Fitted <input type="checkbox"/> Not Fitted	<input type="checkbox"/> Fitted <input type="checkbox"/> Not Fitted

a. Checked for correct operation on Channel 16 and other by testing with another fixed or portable VHF installation.....

b. Checked the battery charging arrangements where rechargeable batteries are used.....

c. Checked that available channels are in compliance with requirements of flag administration.....

d. Checked the battery expire dates if primary cells are used.....

1) / / (DD/MM/YY)
2) / / (DD/MM/YY)
3) / / (DD/MM/YY)

e. Checked any fixed installation provided in a survival craft, where appropriate.....

- f. Checked they are clearly marked with ship's call sign. (fixed)
- g. Checked for compliance with IMO performance standards.....
- h. In case of the equipment installed/replaced on or after 1.1.2024, it should be confirmed whether the followings labelled or marked on equipment properly.
- 1) Brief operating instruction
 - 2) In case of primary battery, manufacture and expiry date*
* Refer to Res.MSC.515(105) for the detail
 - 3) Original equipment manufacturer
 - 4) A warning notice that a broken non-replaceable seal will cause the indicated expiry date to be void.

22. Radar SART or AIS-SART

Cargo ship 300 ~ 500 GT: 1 set, Cargo ship 500 GT ~ and Passenger ship: 2 sets

Set No.	Radar SART or AIS-SART	Maker & Type	Serial No.	Battery expiration date

- a. Checked for satisfactory capability of operating either in the 9 GHz band or on frequencies dedicated for AIS, if possible
- b. Checked for satisfactory stowage
- c. Checked for operating instructions.....
- d. Checked for sufficient battery capacity for stand-by condition and to provide transmissions.....
- e. Checked for clear markings with ship's call sign.....
- f. Operating frequencies: _____
- g. Checked for compliance with IMO performance standards.....

- 23. Checked test equipment and spares carried to ensure carriage is adequate in accordance with the sea areas in which the ship trades and the declared options for Maintaining availability of the functional requirements.....**

