How to Conduct a GMDSS Inspection

The GMDSS requires ships to carry various types of communications equipment depending upon the voyages of the ship rather than the gross tonnage. (See § 80.1069.) The GMDSS also requires ships to comply with certain functional requirements. (See § 80.1081.) The GMDSS rules are found in **subpart W** of Part 80 [Code of Federal Regulations, Title 47, Part 80] and are applicable to the appropriate tonnage and operational areas of U.S. Flag Passenger and Cargo vessels. Under the Communications Act, Fishing vessels are considered to be Cargo vessels and, therefore, this Inspection form is to be used for them as well.

. Bridge-to-Bridge Act inspection requirements are also completed in this inspection.

As per 47 CFR Part 80.59 (a) (1), the following table illustrates the minimum licensing requirements for Inspectors (only one license required in case of multiples):

	General radiotelephone operator license	GMDSS radio maintainer's license	Radiotelegraph operator's license	First class radiotelegraph operator's certificate
Radiotelephone equipped vessels subject to 47 CFR part 80, subpart R or S	**X**	**X**	**X**	**X**
GMDSS equipped vessels subject to 47 CFR part 80, subpart W or subpart Q		**X**		

Definitions of Sea Areas:

Ships must comply with the requirements for all Sea Areas in which they operate.

Sea Area A1 - Basically within VHF Coast Station range[1]

Sea Area A2 - Basically within MF Coast Station range. **There is no declared Sea Area A2 in the U.S.**

Sea Area A3 - Ocean areas within approved satellite[2] coverage - below 70 degrees N Latitude and above 70 degrees S Latitude. Most ships will operate in Sea Area A3.

Sea Area A4 - Outside approved satellite coverage area -above 70 degrees N Latitude and below 70 degrees S Latitude. As of the date of this document's revision date, these ships must be equipped with a HF DSC and NBDP installation.

Exempted Vessels as per U.S. FCC Part 80 regulations

Please note that this form is also to be used (in part) for vessels in compliance with Part 80.851 (**Subpart R** – **Compulsory Radiotelephone Installations for Vessels 300 Gross Tons**) quoted here:

"The radiotelephone requirements of this subpart are applicable to all compulsory ships which are not required to comply with subpart W of this part in total or in part because they have received an exemption from all or some of the subpart W provisions." The Subpart R vessels are limited in operation to 100 miles from shore – effectively classing them as Sea Area A1 and Sea Area A3 vessels without the requirement for DSC operability and other Sea Area A3 requirements.

The applicable inspection points are noted with an '**X-R**' to indicate their exemption or non applicability

Note Subpart R vessels require an individual exemption (§80.1071(a) and(b)) which must be posted (§80.411).

Note there is no longer a general exemption for fishing vessels.

Note: Contact the FCC at 1.202.418.2711 if there is any discrepancy between the ship's exemption and its area of operation.

[1] In the US, within USCG's Rescue21 VHF channel 16 and DSC watchkeeping coverage See https://www.navcen.uscg.gov/?pageName=mtNds

[2] IMO has approved Iridium as a GMDSS provider, expected to be available on or after 1 January 2020.

Ship's Particulars (all vessels)

Vessel_____ Survey location_____

Date of survey_____ Gross Tonnage_____ GT _____ GRT

Port of registry_____ Number of passengers_____

Cargo or Passenger Vessel_____ MMSI Number _____

Call Sign_____ USCG Number_____

IMO Number_____ Satellite Number(s)_____

Telex ID Number (NBDP)_____

Additional ID numbers_____

Sea area(s) in which vessel is certified to operate: A1 ☐ A3 ☐ A4 ☐

Subpart R vessel (Y or N):_____ Specify Exemption:_____

Exemption expiration date: _____ Exemption posted (Y or N)) _____

USCG Defined Routes Permitted: ☐ Coastwise ☐ Oceans ☐ International

Surveying Test Equipment (applicable all vessels):

The following test instruments used:	YES	NO	N/A
Frequency counter	☐	☐	
Watt meter with plug in elements covering MF, HF, and VHF.	☐	☐	
Ampere/Volt/Ohm meter.	☐	☐	
Instrument for decoding the ID-signal of Satellite EPIRBs	☐	☐	
Acid tester (specific gravity).	☐	☐	
Insulation resistance tester.	☐	☐	☐
GMDSS Test Set or service monitor	☐	☐	☐
Spectrum analyzer.	☐	☐	☐
Oscilloscope.	☐	☐	☐
Deviation meter.	☐	☐	☐
DSC-equipped VHF handheld			

Ship sources of energy (applicable to all vessels)

a) Reserve power must meet either six (6) hour or one (1) hour requirement.

Six hours for ships constructed before February 1, 1995, or ships that do not meet the emergency power requirements of SOLAS, Chapter II-1, Regulation 42 or 43.

One hour for ships constructed after February 1, 1995, or older ships that voluntarily comply with SOLAS, Chapter II-1, Regulation 42 or 43. (80.1099(b)(2) **(X-R)**

b) Verify that a continuous supply of electrical power, within equipment tolerances, is provided to all GMDSS equipment that could be affected by normal variations and interruptions of ship's power. (80.1099(i).

c) When the reserve source of energy consists of batteries, equipment must be provided for automatically recharging them to minimum required capacity in not more than 10 hours. (80.1101(f)(1))

d) When the reserve source of energy consists of batteries, the battery capacity must be checked at intervals not exceeding 12 months. If not completed within past 12 months, this must be done during inspection. (80.1101(f)(2))

e) Storage batteries provided as a reserve source of energy must be installed in accordance with applicable electrical codes and good engineering practice. They must be protected from adverse weather and physical damage. They must be readily accessible for maintenance and replacement. (80.1101(g))

The following items were checked and tested as necessary and found satisfactory:		YES	NO	N/A
1.	Checked main source of energy available in accordance with requirements.	☐	☐	
2.	Emergency generator fitted and functional as per Master.	☐	☐	☐
3.	If reserve source of energy is a battery, specify make and model:_____			☐
	If reserve source is a generator, specify make and model:_____			☐
	1) Checked the integrity of the installation. Specify location:_____			
	2) Checked for defects including all cables.	☐	☐	
	3) Checked there is sufficient capacity to operate the basic and/or duplicated equipment for six (6) hours or one (1) hour **(X-R)** as appropriate. **Specify 1 (X-R) or 6 hours**:_____			
4.	Checked the reserve battery condition by specific gravity measurement or voltage measurement (for sealed batteries): Specify voltage:_____or specific gravity:_____			
5.	With battery off charge, and the maximum required radio installation load connected to the reserve source of energy, check the battery voltage after testing and the discharge current. Specify maximum discharge current:_____ voltage_____			
6.	Checked that the charger(s) are capable of recharging the reserve battery to the minimum capacity needed within 10 hours	☐	☐	
7.	Checked that battery charger is of an automatic type.	☐	☐	
8.	The capacity of battery(s) has been checked at intervals not exceeding 12 months.	☐	☐	
	Minimum capacity is calculated as: (½ transmitter currents + all receiver currents + emergency light + bridge to bridge VHF + GNSS receiver + all other devices) times the number of hours necessary to power the station (1 or 6 hours).			

Radio Installations (applicable to all vessels)

1.	Checked for FCC Certification and/or GMDSS compliance labels (80.1103).	☐	☐	
2.	Equipment installed fulfills the functional requirements for the vessel's areas of operation.	☐	☐	
3.	Permanently installed lighting sufficient to illuminate the operating controls of the radio installation and powered from a source independent of the ship's main and emergency power sources must be provided. (80.1083(b)(4))	☐	☐	
4.	Radiotelephone Station Clock is mounted near the operating position **(R vessels only)**	☐	☐	☐
5.	Spare assembled antenna for MF/HF equipment is onboard **(R vessels only)**	☐	☐	☐
6.	Radio installation is clearly marked with call sign, ship station identity, and other applicable codes (80.1083 (b)(5))	☐	☐	
7.	Must be able to initiate distress alert from position from which the vessel is normally navigated	☐	☐	
8.	Radio equipment is located at:_____			

		YES	NO	N/A
9.	Remote control from conning position provided (as applicable)	☐	☐	☐
10.	Was a visual inspection made of all MF/HF, VHF, satellite, GPS antennas and coaxial feeders for satisfactory placement (including consideration of any possible interference)?	☐	☐	
11.	Checked that the MF/HF transmitting antennas are protected against being touched accidentally (mark N/A only for Sea Area A1 vessels).	☐	☐	☐

Ship radio equipment and requirements for ALL GMDSS ships (§ 80.1085)
(Exceptions to be noted)

1. VHF installation. (§ 80.1085(a)(1)&(2))

a) Required to have DSC channel 70 and must be able to initiate transmission of distress alerts from the position from which the ship is navigated. **(X-R vessels)**

b) Required to have channels for radiotelephony (transmit and receive): 01A (1001), 5A (1005), 6, 11, 12, 13, 14, 16, 22A (1022), 65A (1065) 67, 73, 74

c) Must have a separate, dedicated, non-scanning receiver capable of monitoring DSC on VHF channel 70 (will accept either a separate radio installation or a separate receiver combined with the VHF radio. In either event, the ship must have continuous monitoring capability for DSC on channel 70.) **(X-R vessels)**

d) The transmitter power output must be between 6 and 25 watts. (§ 80.1101(c)(2)).

e) The transmitter power must be reduceable to 1w or less on channels 13 and 67 (§80.215(g)(2))

f) The equipment must have a frequency tolerance of 10 Hz per MHz (§ 80.209(a)(5)(ii)).

g) FCC Certified for GMDSS (must have a label so stating). (§ 80.1103(e)) **(X-R vessels)**

SART--Search And Rescue Transponder/Transmitter (radar or AIS). (§ 80.1085(a)(3)) (all vessels)

a) One (1) required for ships of between 300 and 500 gross tons
Two (2) required for ships 500 gross tons or greater. (§ 80.1101)

b) FCC Certified for GMDSS (must have a label so stating). (§ 80.1103(e))

c) Self test capability required

SART Checklist

	Make / Model	Frequency band
1		
2		

	YES	NO	N/A
1. Checked for satisfactory functional test using a test set, or on board 9 GHz radar or AIS as appropriate.	☐	☐	☐
2. Checked for satisfactory stowage	☐	☐	
3. Checked for operating instructions	☐	☐	
4. Checked correct manufacturer's battery is installed.	☐	☐	

	YES	NO	N/A
5. Checked for clear markings with ship's call sign.	☐	☐	

6. Battery expiration date:
   #1 Expiration Date (mo/yr):_____

   #2 Expiration Date (mo/yr):_____

GMDSS VHF-FM Handheld Radios (§ 80.1095(a)(c)) (all vessels)

a) Two (2) required for ships of between 300 and 500 gross tons
   Three (3) required for ships 500 gross tons or greater. (§ 80.1101)

b) FCC Certified for GMDSS (must have a label so stating). (§ 80.1103(e))

c) Battery expiration date to be marked on equipment

d) Must have Channel 16 plus one other (at minimum)

e) Must be an additional battery for testing purposes (**cannot be one of the compulsory batteries**).

VHF Handheld Checklist

	Make / Model	Channels
1		
2		
3		

	YES	NO	N/A
1. Checked for satisfactory functional test	☐	☐	
2. Checked for satisfactory stowage/availability	☐	☐	
3. Checked for operating instructions	☐	☐	
4. Checked that the primary battery seals have not been broken	☐	☐	
5. Checked for clear markings with ship's call sign.	☐	☐	

6. Battery expiration dates:
   #1 Expiration Date (mo/yr):_____

   #2 Expiration Date (mo/yr):_____

   #3 Expiration Date (mo/yr):_____

Maritime Safety Information receiver(s) (§ 80.1085(a)(5) (all vessels)

a) For Navtex, it must be a dedicated receiver

b) FCC Certified for GMDSS (must have a label so stating). (§ 80.1103(e))

c) Vessel must be capable of receiving MSI information in all areas in which the ship operates

Navtex Checklist

Make and Model:_____

	YES	NO	N/A
1. Checked for correct operation by monitoring incoming messages or inspecting recent hard copy.	☐	☐	
2. Performed test run of the self-test program, if provided.	☐		☐

Satellite EGC Receiver Checklist (X-R)

Note: This requirement applies to ships operated in areas where NAVTEX service is not available (typically A3 and A4 Sea Areas (80.1087(a)(5)

Make and Model:_____

1. Checked for correct operation by monitoring incoming messages or inspecting recent hard copy.	☐	☐	
2. Performed test run of the self-test program, if provided.	☐		☐

HF MSI Receiver Checklist (if applicable) (X-R)

Make and Model:_____

1. Checked for correct operation by monitoring incoming messages or inspecting recent hard copy.	☐	☐	☐
2. Performed test run of the self-test program, if provided.	☐		☐

Category 1, 406 MHz EPIRB. (§ 80.1085(a)(6)) (all vessels)

a) The installation must be such that the EPIRB will not be caught up in any rigging or structure if the ship should capsize. The unit must be capable of automatic release when submerged and automatic activation when placed in water. Additionally, the unit must also be capable of manual release and manual activation.

b) The battery date must not be expired.

c) The EPIRB(s) must be registered with NOAA and updated as per NOAA guidelines

d) FCC certified for GMDSS (must have a label so stating). (§ 80.1103(e))

e) Must have a self-test capability.

	YES	NO	N/A

406 MHZ EPIRB Checklist

#1 EPIRB Make and Model:_____
#2 EPIRB (if fitted) Make and Model:_____

1. Checked position and mounting for float free operation. Verified that EPIRB is installed in an easily accessible position and is ready to be manually released and capable of being carried by one person into a survival craft.	☐	☐

	YES	NO	N/A
EPIRB Location(s):_____			
2. Verified that the lanyard is firmly attached, in good condition, neatly stowed, and not tied to the vessel or the mounting bracket.	☐	☐	
3. Carried out visual inspection for defects.	☐	☐	
4. Carried out the self-test routine.	☐	☐	
5. Checked that the EPIRB ID and other information (include call sign and MMSI of the ship) is clearly marked on the outside of the equipment.	☐	☐	
6. Decoded the EPIRB identity number and other information confirming it is correct and the same as that marked on the EPIRB.	☐	☐	
15 Digit Hexadecimal Number:_____			
7. Checked for valid NOAA registration sticker on EPIRB	☐	☐	
8. Checked battery expiry date(s): _____			
9. Checked hydrostatic release(s) expiration dates(s): _____			
10. Checked the emission in the 406 MHz band using the self-test mode or an appropriate device to avoid transmission of a distress call to satellites.	☐	☐	
11. If possible, checked emission on the 121.5 MHz frequency using the self-test mode or an appropriate device to avoid activating the satellite system.	☐	☐	☐
12. Checked that no transmission has been started after the test and remounting of the EPIRB in its bracket.	☐	☐	
13. Checked for the presence of beacon operating instructions.	☐	☐	
Spare Parts (all vessels)			
a) Tools, spares, and test equipment as deemed necessary.	☐		
b) Instruction and maintenance manuals, recommended spare parts, tools; and test equipment for all required equipment should be provided. (§80.1105(f))	☐	☐	
1. Checked test equipment, manuals and spares carried is adequate in accordance with the sea areas in which the ship trades and the declared options for maintaining availability of the functional requirements.	☐	☐	
Publications and documents (all vessels)			
a) Valid station license and posted (80.405)	☐	☐	
b) Operator license(s) (80.407(b) **(X-R vessels)**	☐	☐	
(1) Two (2) operators (GMDSS Radio Operator (13.2)) are required, one must be designated as the primary operator in times of distress. (§80.1073(a)) (2) One (1) member of crew with GMDSS Radio Maintainer License if on-board maintenance option is elected. (§80.1074)			

Operator license(s) (80.159 (c)) (MP or General License) **(Subpart R Vessels only)**

Number of radio operators ____
Operators name_____ License number _____
Operators name_____ License number _____
Operators name_____ License number _____

	YES	NO	N/A
c) Station log (80.409 (a), (b) (e) and (f)) with correct entries	☐	☐	
d) Publications **(X-R vessels**) in either printed or electronic format;			
FCC Rules & Regulations Part 80 (§ 80.401).	☐	☐	☐
IMO publication: Master Plan of Shore Based Facilities[3] (§80.1085(d))	☐	☐	☐
List of Ship Stations and Maritime Mobile Service Identity Assignments (§ 80.401)	☐	☐	☐
Manual for Use by Maritime Mobile Service and Satellite Service (§ 80.401)	☐	☐	☐
List of Coast Stations and Special Services Stations (§ 80.401)	☐	☐	☐

Maintenance (X-R vessels)

a) Ships must select a method of maintenance that depends on the area of operation. (§ 80.1105) Ships operated in Sea Area A1 must select at least **one** of the methods of maintenance. Ships operated in Sea Areas A3 and A4 must select at least **two** of the methods of maintenance.
b) Methods
At-sea maintenance -- requires at least one member of the crew holding a GMDSS Maintainer License and all necessary spares parts, technical manuals, and test equipment be aboard.

Shore based maintenance -- requires ship to have proof of shore based maintenance availability

Duplication of equipment -- means that the following equipment, in addition to all other basic requirements, must be carried:
Sea Area A1 - a complete VHF DSC installation (including antenna).
Sea Area A3 - a complete VHF DSC installation and either a complete MF/HF DSC/NBDP installation (including antenna) or a complete satellite ship earth station, but not a separate power source.
Sea Area A4 -- a complete VHF DSC installation and a complete MF/HF DSC/NBDP installation (including separate antenna but not a separate power source).

NOTE: The duplicated equipment must be immediately available for use - this means that while the equipment does not have to be in standby it must be installed and ready to be operated without any assembly.

	YES	NO	N/A
1. Method of availability of functional requirements.			
Duplication of equipment	☐	☐	☐
Shore-based maintenance (copy of contract verified on board)	☐	☐	☐
At-sea maintenance	☐	☐	☐

[3] Current IMO GMDSS GISIS download, NGA Publication 117 or Admiralty List of Radio Signals Vol.5 satisfies this requirement.

Requirements for Vessels operating in Sea Area A1 (§ 80.1087)

Ships that operate only in Sea Area A1 must meet the above requirements for all ships **and** the following:

a) Be capable of secondarily transmitting a distress message by using either: (§ 80.1087(a)):
A VHF installation or,
A MF installation or,
A HF installation or,
A satellite installation or,
By using the Category I, 406 MHz EPIRB (this requirement may be met by either mounting the EPIRB required for all ships near the conning position or by having remote activation capability).

b) The VHF installation required for all ships must be capable of operating on all marine VHF channels. (§ 80.1087(b))

Requirements for Vessels operating in Sea Areas A1 and A3 (§ 80.1091)

Ships that operate in Sea Areas A1 and A3 must meet the requirements for all ships, Sea Area A1 ships **and either** paragraph a) **or** b):

a) Satellite:
A satellite ship earth station capable of
Transmitting and receiving distress and safety communications by means of direct printing telegraphy,
Transmitting and receiving distress priority calls,
Maintaining watches for shore-to-ship distress alerts including those directed to specifically defined geographical areas,
Transmitting and receiving general radio communications using either radiotelephony or direct-printing telegraphy.

a1) A MF radio installation including:
2187.5 kHz transmit and receive using DSC[4]
2182 kHz using radiotelephony[4,5] and
Continuous monitoring capability of 2187.5 kHz DSC[4] (may be combined with MF installation, but must have continuous receiving capability

a2) Means to secondarily initiate a distress alert by either:
A category I, 406 MHz EPIRB (This requirement may be met by installing the 406 MHz EPIRB close to the conning position or by having remote activation capability); or,
A separate HF installation with DSC capability; or,
A separate satellite installation

b) MF/HF RT-DSC-NBDP:
A MF/HF radio installation capable of:
Transmitting and receiving on all distress frequencies in the band 1605-27500 kHz using DSC, radiotelephony, and narrow-band direct printing telegraphy.
Selecting any of the DSC distress and safety frequencies at any time,
Maintaining a DSC watch on 2187.5 kHz[6], 8414.5 kHz and on at least one of the DSC frequencies 4207.5 kHz, 6312 kHz, 12577 kHz, or 16804.5 Hz. (The watch-maintaining receiver may be separate from or combined with the MF/HF installation.)

b1) Means to secondarily initiate a distress alert by either:
The category I, 406 MHz EPIRB required for all ships. (This requirement may be met by installing the 406 MHz EPIRB close to the conning position or by having remote activation capability); **or**,
A separate satellite installation.
Capability to transmit and receive general radio communications using radiotelephony and direct printing telegraphy in the bands 1605-4000 kHz and 4000-27500 kHz. (This requirement may be fulfilled by adding this capability to the MF/HF installation).

[4] USCG does not keep watch on this frequency
[5] or 4125 kHz
[6] USCG does not keep watch on 2187.5 kHz. It does keep watch on the other HF DSC distress and safety frequencies

Requirements for Vessels operating in Sea Areas A1, A3 and A4 (§ 80.1093)

Ships that operate in Sea Areas A1, A3 and A4 must meet the requirements for all ships and those for Sea Areas A1 and A3 listed above except that the satellite option available in the A3 area is not available in the A4 area and the automated terrestrial option listed above (para. b) for the A3 area which is repeated here becomes mandatory:

a) An MF/HF radio installation capable of:

Transmitting and receiving on all distress frequencies in the band 1605-27500 kHz using DSC, radiotelephony, and narrow-band direct printing telegraphy,
Selecting any of the DSC distress and safety frequencies at any time,
Maintaining a DSC watch on 2187.5 kHz[7], 8414.5 kHz and on at least one of the DSC frequencies 4207.5 kHz, 6312 kHz, 12577 kHz, or 16804.5 Hz. (The watch-maintaining receiver may be separate from or combined with the MF/HF installation.)

A means for secondarily initiating a distress alert by both:

The category I, 406 MHz EPIRB required for all ships. (This requirement may be met by installing the 406 MHz EPIRB close to the conning position or by having remote activation capability.)

and

The MF/HF installation using DSC on any of the above DSC distress alerting frequencies. It must be possible to initiate the distress alert by this means from the position from which the ship is normally navigated.

Capability for transmitting and receiving general radio communications using radiotelephony and direct printing telegraphy in the bands 1605-4000 kHz and 4000-27500 kHz. This requirement may be fulfilled by adding this capability to the MF/HF installation.

VHF interference from LED lighting

The U.S. Coast Guard released Marine Safety Alert 13-18 describing the potential for radio frequency interference from LED navigation and other above deck lighting to VHF marine radios and AIS[8]. FCC regulation 47 CFR Part 15.103 states that "The operator of the exempted device (i.e. LED) shall be required to stop operating the device upon a finding by the Commission or its representative that the device is causing harmful interference. Operation shall not resume until the condition causing the harmful interference has been corrected." An RFI test has therefore been included.

[7] USCG does not keep watch on 2187.5 kHz

[8] See https://www.dco.uscg.mil/Portals/9/DCO%20Documents/5p/CG-5PC/INV/Alerts/1318.pdf?ver=2018-08-16-091109-630

Sea Area Equipment Checklists

YES NO N/A

VHF transceivers (all vessels)

	BASIC	DUPLICATED **(X-R)**
Make / Model		

1. Checked for operation on all marine channels[9]. ☐ ☐
2. Checked that equipment is within frequency tolerance. ☐ ☐
3. Checked RF power output and VSWR on channels 6, 13, and 16. ☐ ☐
4. Checked correct operation of all controls including priority of control units (if provided). ☐ ☐
5. Checked that the equipment operates from the main, emergency (if provided) and reserve sources of energy. ☐ ☐
6. Checked operation of the VHF control unit(s) or portable VHF equipment provided for navigational safety from bridge wings. ☐ ☐
7. Checked for correct operation by on-air contact with a coast station or other ship. ☐ ☐
8. Checked for absence of VHF interference with LED navigation and other above decks lighting activated. ☐ ☐

NOTE: Use of a VHF handheld near AIS VHF antenna is suggested. Turn off LED light(s). Tune the radio to a weak NOAA weather radio station. Turn on the LED light(s) one at a time, and then all on. If the NOAA channel vanishes after a lamp is energized, it's generating RF interference.

As an alternative to tuning to a weak NOAA weather channel, tune the VHF radio to some quiet channel. Adjust the VHF radio's squelch control until the radio outputs audio noise. Re-adjust the squelch until the audio noise is quiet, only slightly above the noise threshold. If the radio does now output audio noise, then the LED light(s) have raised the noise floor.

[9] As a minimum check channels 1A (1001), 5A (1005), 6, 11, 12, 13, 14,16, 22A (1022), 67, 73, 74

YES NO N/A

VHF DSC controller and Channel 70 DSC watch receiver (X-R vessels)

	BASIC	DUPLICATED
Make / Model		

1. Performed an off-air check confirming the correct Maritime Mobile Service Identity is programmed in the equipment. ☐ ☐

2. 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. ☐ ☐

3. 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. ☐ ☐

4. Checked the audibility of the VHF/DSC alarm. ☐ ☐

5. Checked that the equipment operates from the main, emergency (if provided) and reserve sources of energy. ☐ ☐

6. Checked that the ship's position in the distress alert is automatically provided with this information from an internal or external navigation receiver (e.g. GPS) ☐ ☐

7. Checked DSC alerting available from conning position ☐ ☐

8. Checked that DSC distress procedure and the MMSI number are clearly displayed near the unit. ☐ ☐

MF or MF/HF radiotelephone equipment

(Subpart W vessels as applicable and R vessels beyond 20 miles as an alternative to satellite)

	BASIC	DUPLICATED
Make / Model		

1. Checked that the equipment operates from the main, emergency (if provided), and reserve sources of energy. ☐ ☐

2. Checked antenna tuning in all appropriate bands. ☐ ☐

3. Checked that equipment is within frequency tolerance on all appropriate bands (10 Hz). ☐ ☐

4. Checked for correct operation by measuring RF power output and VSWR and/or by contact with a coast station. [***MF >60 watts or MF/HF > 120 watts***] ☐ ☐

5. Checked receiver performance by monitoring known stations on all appropriate bands. ☐ ☐

6. 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. ☐ ☐ ☐

YES NO N/A

MF/HF radio telex equipment (if fitted)

	BASIC	DUPLICATED
Make / Model		

1. Checked that the equipment operates from the main, emergency (if provided), and reserve sources of energy. ☐ ☐

2. Confirmed that the correct selective calling number is programmed in the equipment. ☐ ☐

3. Checked correct operation by inspection of recent hard copy or by a test with a coast radio station. A receive-only test is acceptable. ☐ ☐

MF/HF DSC controller(s)

	BASIC	DUPLICATED
Make / Model		

1. Checked that equipment operates from the main, emergency (if provided), and reserve sources of energy. ☐ ☐

2. Confirmed that the correct Maritime Mobile Service Identity is programmed in the equipment. ☐ ☐

3. Checked the off air self test program (if provided) ☐ ☐ ☐

4. 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. ☐ ☐

5. Checked the audibility of the MF/HF DSC alarm. ☐ ☐

6. Checked that the ship's position in the distress alert is automatically provided with this information from an internal or external navigation receiver (e.g. GPS) ☐ ☐

7. Checked DSC alerting is available from the conning position. ☐ ☐

MF/HF DSC watch receiver

Make / Model	

1. Confirmed that only DSC channels indicated in SOLAS Regulations IV/9, 10, 11, and 12 are being monitored. ☐ ☐

2. Checked that a continuous watch is being maintained while keying MF/HF radio transmitters. ☐ ☐

3. Checked for correct operation by means of a test call from a coast station or other ship. ☐ ☐

YES NO N/A

Satellite Ship Earth Station(s)

(Subpart W vessels as applicable and R vessels beyond 20 miles as an alternative to HF)

	(NR 1)	C	F77	(NR 2)	C	F77
	☐	☐	☐	☐	☐	☐

1. Checked that each equipment operates from the main, emergency (if provided), and reserve sources of energy ☐ ☐

2. Where an uninterrupted supply of information from the ship's navigational or other equipment is required, ensure that such information remains available at each terminal in the event of failure of the ship's main or emergency source of electrical power. ☐ ☐ ☐

3. Checked the distress function on each terminal by means of the approved performance verification test procedure with a land earth station. ☐ ☐

4. Checked each Inmarsat-C terminal is operable by sending an email from the terminal and confirming reception. ☐ ☐

5. Checked F-77 terminal is operable by making a telephone call to or from the terminal. ☐ ☐ ☐

Secondary Distress Alerting

1. Identify the method of secondary means of alerting: _____

Global Navigation Satellite System Receiver (80.1083 (f) and 80.1085 (c))

Make / Model	

1. Information on the ship's position is continuously and automatically provided to all relevant GMDSS equipment. ☐ ☐

2. The navigation receiver is supplied from a source of energy ensuring continuous supply of the ship's position information in the event of failure of the ship's main or emergency source of energy. ☐ ☐

	YES	NO	N/A

Passenger Ship Requirements (Additional as per 80.1083 (e) (g))

1. The reception notification of distress alerts by which means and the transmission of distress alerts by the required means are part of a control panel located at the conning position of the vessel. ☐ ☐

Make / Model	

Passenger Ship Requirements (Additional as per 80.1085 (d))

1. The vessel has the proper radio equipment to communicate with aircraft on the frequencies 121.5 and 123.1 MHz ☐ ☐

Make / Model	

U.S. Coast Guard Advisement of Passenger Vessel Radio Inspection (As per 80.59 (a) (3)

1. FCC Form 806 completed and submitted to the USCG ☐ ☐

Bridge to Bridge Requirements (As per 80.1001) (all vessels)

1. The installation is functional and capable of operating on Channel 16, Channel 13, Channel 67, and Channel 22A (1022) at minimum. ☐ ☐

Make / Model	

TEMPORARY EXTENSION

In the event of deficiencies that do not prevent basic compliance with the nine GMDSS functional requirements listed in §80.1081 and that cannot be rectified before the ship is scheduled to sail from the port where the Radio Inspection is being conducted, the Vessel Owner or its authorized representative shall contact the FCC [Marine Office] to request an extension of the current certificate for a period not to exceed three (3) months in order to allow the necessary corrections to be made to the GMDSS radio installation. Accordingly, the FCC Radio Inspector shall issue a Safety Radio Certificate for the period that is granted by the FCC.

Upon correction of the outstanding deficiencies, the Vessel Owner will arrange for another inspection to confirm the full operation of the Radio Station and for the issuance of a full term Safety Radio Certificate from that date.

Radio Surveyor's Remarks and Equipment Deficiencies:

It is suggested that one copy of this report be left onboard and one copy to be kept with the Surveyor

Master's Signature and Ship's Stamp

Radio Surveyor's Signature

Radio Surveyor's Printed Name and License Number

Surveyor's Company, City, State

Date

NOTE: Logbook Entry to be made by Surveyor along with Master's comments (§ 80.59 (2))