# Record of Approved GMDSS Radio Installation

International Convention for the Safety of Life at Sea, 1974, as amended in 1988 and July 2002 and 2024.

This form should be kept on board and must be available for inspection by a nominated surveyor or recognised organisation at all times.

## Identification

| | |
|---|---|
| Name of ship | **EAGLE I** |
| Distinctive number or letters | **5IM 756** |
| Maritime Mobile Service Identity | **677065600** |
| Port of registry | **ZANZIBAR** |
| IMO Number | **9227869** |
| Gross tonnage | **11194** |
| Date on which keel was laid | **01 March 2001** |

Ship type: X Cargo ship --- Passenger ship

Sea areas in which the ship is certified to operate (reg IV/2)

--- A1 --- A1 +A2
X A1 + A2 + A3 --- A1 + A2 + A3 + A4
--- A1 + A2 +A4

Methods to ensure the availability of radio facilities (reg IV/15)

X Duplication of equipment --- At-sea maintenance capability
X Shore-based maintenance

Sections A, B, C, H, I, J, K and M should be completed for all ships; also **one only** from sections D, E, F or G (dependent upon radio sea area certification required), and section L, if appropriate.

Sections B.6.4, B.6.5, B.6.6 and C.7.2 should also be completed for passenger ships.

Indicate compliance with the relevant requirements by description of the equipment (manufacturer, type identification and serial number) or appropriate response to the information requested. Mark boxes "'X" to indicate satisfactory compliance.

## A Sources of Energy (reg IV/13)

A.1 **Main source of electrical power** (reg II-1/41) voltage **450 V** phase **3** frequency **60 Hz**

A.2 **Emergency source of electrical power** with capacity and connection to supply the radio installations for a period of:

18 hours (cargo ships, reg II-1/43.2.3.2) voltage **450 V** phase **3** power **72 kW**

A.3 **Reserve source of energy to supply radio installations** (reg IV/13.2)

(It is assumed that either lead-acid or nickel-alkaline secondary batteries are fitted. If a different form of power is provided, please describe it)

A.3.1 Location **BATTEERY ROOM**

A.3.2 Capacity **200** Ampere-hours

A.4 **Automatic charging arrangements for reserve source of energy** capable of recharging it within 10 hours (reg IV/13.6)

A.4.1 Manufacturer/type **FURUNO/BC-6158** Serial number **N/A**

A.4.2 Maximum charging current **20** Amperes

A.5 An additional reserve source of energy may be provided to give an electrically independent supply to the 'duplicated equipment' ; if provided:

A.5.1 Location **-**

A.5.2 Capacity **-** Ampere-hours

A.6 Automatic charging arrangements for an additional reserve source of energy, if provided:

A.6.1 Manufacturer/type **-** Serial number **-**

A.6.2 Maximum charging current **-** Amperes

## B Radio Installations (reg IV/6)

| SOLAS REG | REQUIREMENT | DESCRIPTION OF EQUIPMENT | SERIAL NUMBER |
|---|---|---|---|
| 6.2 | Confirm that all radio installations are satisfactory in respect of the following characteristics: | | |
| | Electromagnetic compatibility | X Adequate illumination of radio controls | X |
| | Environmental conditions | X Clear marking of radio identities | X |
| 6.3 | VHF radiotelephone facilities to provide navigational safety communications from the bridge | **JRC 770S** | **BJ21212** |
| For passenger ships only: | | | |
| 6.4 | Distress panel installed at the conning position to provide centralised initiation of distress alerts | - | - |
| 6.5 | Information on the ship's position continuously and automatically provided to all relevant radiocommunications equipment capable of transmitting distress alerts | - | - |
| 6.6 | Distress alarm panel at the conning position to provide aural and visual indication of the receipt of distress alerts | - | - |

## C Radio Equipment – General (reg IV/7)

| SOLAS REG | REQUIREMENT | DESCRIPTION OF EQUIPMENT | SERIAL NUMBER |
|---|---|---|---|
| 7.1.1 | VHF radio installation capable of transmitting and receiving: | | |
| 7.1.1.1 | Radiotelephony on channels 6+13+16 | **JRC 770S** | **BJ21212** |
| 7.1.1.2 | DSC on channel 70 | **JRC 770S** | **BJ21212** |
| 7.1.1.3 | Means of initiating the transmission of distress alerts from the position from which the ship is normally navigated | | X |
| 7.1.2 | DSC watch receiver on channel 70 | **JRC 770S** | **BJ21212** |
| 7.1.3 | Search and rescue locating device (AIS/SART or radar SART) | **TAIYO MUSSEN** | **3645776,3445777** |
| | (The ship's search and rescue locating device may be one of the devices required by reg IV/7.2 or 7.3 (see section J) provided it is stowed in a position convenient to the navigating bridge) | | |
| 7.1.4 | Receiver or receivers capable of receiving MSI and search and rescue related information | **NSR NVX 3000**<br>**FURUNO FELCOM 18** | **45075008** |
| | (Capable of receiving such information throughout the entire voyage in which the ship is engaged – see also MSC.1/Circ.1645) | | |
| 7.1.5 | EPIRB (float-free) | **KANNAD-SAFE AUTO** | **704-00128** |
| | Location | **NAVIGATION BRIDGE, STBD** | |
| | Identity (MMSI, etc) | | |
| 7.1.6 | VHF general radiocommunications using radiotelephony (see reg. IV/7.1.1) | **JRC 770S** | **BJ21212F** |
| 7.2 | Two-way on-scene radiocommunications for search and rescue using the aeronautical frequencies 121.5 and 123.1 MHz from the position from which the ship is normally navigated | **N/A** | **N/A** |

Every ship must also comply with the requirements for each sea area in which voyages will be undertaken; please complete **one only** of the following sections D, E, F or G.

## D Radio Equipment for Sea Area A1 only (reg IV/8)

| SOLAS REG | REQUIREMENT | DESCRIPTION OF EQUIPMENT | SERIAL NUMBER |
|---|---|---|---|
| 8.1 | Means of initiating the transmission of ship-to-shore distress alerts from the position from which the ship is normally navigated by: | | |
| 8.1.1 **or** | MF DSC (if service provided) | | |
| 8.1.2 **or** | 406 MHz satellite EPIRB | | |
| 8.1.3 **or** | HF DSC | | |
| 8.1.4 | Recognized mobile satellite service ship earth station | | |

## E Radio Equipment for Sea Areas A1 and A2 only (reg IV/9)

| SOLAS REG | REQUIREMENT | DESCRIPTION OF EQUIPMENT | SERIAL NUMBER |
|---|---|---|---|
| 9.1.1 | **MF radio installation** capable of transmitting and receiving, for distress and safety purposes, on the frequencies: | | |
| 9.1.1.2 | 2182kHz using radiotelephony | | |
| 9.1.1.1 | 2187.5kHz using DSC | | |
| 9.2 | Means of initiating the transmission of distress alerts from the position from which the ship is normally navigated | | --- |
| 9.1.2 | **Equipment capable of maintaining a continuous DSC watch on 2187.5kHz:** | | |
| | Receiver | | |
| | DSC unit | | |
| 9.1.3 | Means of initiating the transmission of ship-to-shore distress alerts by a radio service other than MF from the position from which the ship is normally navigated | | |
| 9.1.3.1 **or** | 406MHz satellite EPIRB | | |
| 9.1.3.2 **or** | HF DSC | | |
| 9.1.3.3 **or** | Recognized mobile satellite service ship earth station | | |
| 9.3 | Transmission and reception of general radiocommunications using radiotelephony by: | | |
| 9.3.1 **or** | Radio installation operating on working frequencies in the bands between 1605kHz and 4000kHz or between 4000kHz and 27500kHz | | |
| 9.3.2 | Recognized mobile satellite service ship earth station | | |

## F Radio Equipment for Sea Areas A1, A2 and A3 (reg IV/8, 9 and 10)

| SOLAS REG | REQUIREMENT | DESCRIPTION OF EQUIPMENT | SERIAL No |
|---|---|---|---|
| 10.1.1 | Recognized mobile satellite service ship earth station: | **FURUNO FELCOM 18** | **45080914** |
| 10.1.1.1 | Transmitting and receiving distress and safety communications | | X |
| 10.1.1.2 | Initiating and receiving distress priority calls | | X |
| 10.1.1.3 | Maintaining watch for shore-to-ship distress alerts | | X |
| 10.2 | Means of initiating the transmission of distress alerts from the position from which the ship is normally navigated | | X |
| 10.1.2 | MF radio installation capable of transmitting and receiving, for distress and safety purposes, on the frequencies: | | |
| 10.1.2.2 | 2182kHz using radiotelephony | **JRC JSS - 2150** | **51681** |
| 10.1.2.1 | 2187.5kHz using DSC | **JRC JSS - 2150** | **51681** |
| 10.3 | Means of initiating the transmission of distress alerts from the position from which the ship is normally navigated | | X |
| 10.1.3 | Equipment capable of maintaining a continuous DSC watch on 2187.5kHz: | | |
| | Receiver | **JRC JSS - 2150** | **51681** |
| | DSC unit | **JRC JSS - 2150** | **51681** |
| 10.1.4 | Means of initiating the transmission of ship-to-shore distress alerts from the position from which the ship is normally navigated | | |
| 10.1.4.1 or | 406MHz satellite EPIRB | **KANNAD-SAFE AUTO** | **704-00128** |
| 10.1.4.2 or | HF DSC | **JRC JSS - 2150** | **51681** |
| 10.1.4.3 | An additional Recognized mobile satellite service ship earth station | **-**<br>**N/A** | **-**<br>**N/A** |
| 10.4.1 | Means of transmitting and receiving general radiocommunications by either: | | |
| 10.4.1.1or | A recognized mobile satellite service ship earth station | | X |
| 10.4.1.2 | radio installation operating on working frequencies in the bands between 1605 kHz and 4000 kHz or between 4000 kHz and 27500 kHz. | | X |

## G Requirements for Sea Areas A4 (reg IV/11)

| SOLAS REG | REQUIREMENT | DESCRIPTION OF EQUIPMENT | SERIAL No |
|---|---|---|---|
| 11.1.4 | MF/HF radio installation capable of transmitting and receiving, for distress and safety purposes, on all distress and safety frequencies in the bands between 1605kHz and 4000kHz and between 4000kHz and 27500kHz: | | |
| 11.1.1.2 | Using radiotelephony | | |
| 11.1.1.1 | Using DSC | | |
| 11.1.2 | Equipment capable of maintaining a continuous DSC watch on 2187.5kHz, 8414.5kHz and at least one other of all the HF DSC distress and safety frequencies: | | |
| | Receiver | | |
| | DSC unit | | |
| 11.3 | Means of initiating the transmission of ship-to-shore distress alerts by a 406MHz satellite EPIRB from the position is normally navigated: | | |
| 11.2 | Transmission and reception of general radiocommunications using radiotelephony by an MF/HF radio installation operating on working frequencies in the bands between 1605kHz and 4000kHz and between 4000kHz and 275000kHz: | | |
| | Transmitter/receiver | | |

## H Maintenance (reg IV/15)

For ships sailing in sea areas A3 and/or A4 a minimum of two methods of maintenance is required (reg IV/15.7); for sea areas A1 and/or A2, one method is sufficient (reg IV/15.6).
Guidance and detailed recommendations on the three methods of maintaining the availability of the functional requirements of reg IV/4 is given in the annex to IMO circular COMSAR.1/Circ.32/Rev.2.
Radio installations provided to satisfy the primary regulations of chapter IV are described as "basic equipment"; those provided to satisfy duplication of equipment, if used as a method of maintenance, are described as "duplicated equipment".
Irrespective of the methods used for maintenance each piece of equipment required and installed should have the manufacturer's instruction books and maintenance manuals available on board.

## H.1 Duplication of Equipment (Sea Areas A3 and/or A4)

Another VHF DSC radio installation and either an Recognized mobile satellite service ship earth station (for sea area A3) or an MF/HF radio installation (for sea areas A3 and/or A4) additional to the "basic equipment" must be provided.

Please complete sections H.1.1, either H.1.2 or H.1.3, and H.1.4.

| | SOLAS REG | REQUIREMENT | DESCRIPTION OF EQUIPMENT | SERIAL No |
|---|---|---|---|---|
| H1.1 | | VHF radio installation complying with reg IV/7.1.1 capable of transmitting and receiving: | | |
| | 7.1.1.2 | Radiotelephony on channels 6+13+16 | **FURUNO FM-8800** | **3579-1888** |
| | 7.1.1.1 | DSC on channel 70 | **FURUNO FM-8800** | **3579-1888** |
| | 7.1.1.1 | Means of initiating the transmission of distress alerts from the position from which the ship is normally navigated | | X |
| H.1.2 | | MF/HF radio installation complying with reg IV/10.2.1 capable of transmitting and receiving, for distress and safety purposes, on all distress and safety frequencies in the bands between 1605kHz and 4000kHz and between 4000kHz and 27500kHz: | | |
| | 11.1.1.2 | Using radiotelephony | **FURUNO FM-8800** | **3579-1888** |
| | 11.1.1.1 | Using DSC | **FURUNO FM-8800** | **3579-1888** |
| | 10.2 | Means of initiating the transmission of distress alerts from the position from which the ship is normally navigated | | X |
| | 12.1.3 | Equipment complying with reg IV/10.2.2 capable of maintaining a continuous DSC watch on 2187.5kHz, 8414.5kHz and at least one other of all the HF DSC distress and safety frequencies: | | |
| | | Receiver | **JRC JSS - 2150** | **51681** |
| | | DSC unit | **JRC JSS - 2150** | **51681** |
| H.1.3 | | Recognized mobile satellite service ship earth station complying with reg IV/10.1.1 capable of: | **-** | **-** |
| | 10.1.1.1 | Transmitting and receiving distress and safety communications | | X |
| | 10.1.1.2 | Initiating and receiving distress priority calls | | X |
| | 10.1.1.3 | Maintaining watch for shore-to-ship distress alerts | | X |
| | 10.2 | Means of initiating the transmission of distress alerts from the position from which the ship is normally navigated | | X |
| H.1.4 | | Confirm that each radio installation fitted as a 'duplicated equipment' is connected to a separate antenna and is installed and ready for immediate operation from power supplies including the reserve source of energy | | X |

| **H.2** | **Shore-Based Maintenance** | | |
|---|---|---|---|
| | Arrangements | **SEMBA Ltd** | X |

| **H.3** | **At-Sea Maintenance Capability** | | |
|---|---|---|---|
| H.3.1 | Technical documentation | | **---** |
| H.3.2 | Test equipment | | **---** |
| H.3.3 | Spare parts | | **---** |
| H.3.4 | Radio maintainer | | **---** |

## I Capacity of Reserve Source of Energy for Radio Installations (reg IV/13.2)

The capacity of the battery must by sufficient to operate the radio installations described in reg IV/13.2 – " the basic equipment" - and/or the radio installations provided for "duplication of equipment" (if appropriate) for a minimum period of 1 hour if the emergency source of electrical power is available, and for a minimum period of 6 hours if it is not available.

For calculation of the required battery endurance the IMO recommended formula = one half of the current consumption necessary for transmission + the current consumption necessary for reception + the current consumption of any additional loads (for each radio installation). The additional loads include, as appropriate, DSC encoders/decoders, direct-printing telegraphy apparatus, and, for recognized mobile satellite service, all mandatory peripherals.

### I.1 "Basic Equipment"

| | EQUIPMENT | CURRENT CONSUMPTION OF RESERVE SOURCE OF ENERGY (See A.3) | CURRENT CONSUMPTION OF ADDITIONAL RESERVE SOURCE OF ENERGY (if provided; see A.5) |
|---|---|---|---|
| I.1.1 | VHF/DSC radio installation | **5** | |
| I.1.2 | MF radio installation | | |
| I.1.3 | MF/HF radio installation | **12** | |
| I.1.4 | Recognized mobile satellite service ship earth station | **5** | |
| I.1.5 | Gyro compass (if continuous heading information to the INMARSAT ship earth station is required (reg IV/13.8) | | |
| I.1.6 | Electrical lighting for illumination of radio controls | **1** | |

### I.2 "Duplicated Equipment"

| | EQUIPMENT | CURRENT CONSUMPTION OF RESERVE SOURCE OF ENERGY (See A.3) | CURRENT CONSUMPTION OF ADDITIONAL RESERVE SOURCE OF ENERGY (if provided; see A.5) |
|---|---|---|---|
| I.2.1 | VHF/DSC radio installation | **5** | |
| I.2.2 | MF/HF radio installation | | |
| I.2.3 | Recognized mobile satellite service ship earth station | | |
| I.2.4 | Gyro compass (if continuous heading information to the Recognized mobile satellite service ship earth station is required (reg IV/13.8) | | |

### I.3 Other Equipment Permanently Connected

| | EQUIPMENT | CURRENT CONSUMPTION OF RESERVE SOURCE OF ENERGY (See A.3) | CURRENT CONSUMPTION OF ADDITIONAL RESERVE SOURCE OF ENERGY (if provided; see A.5) |
|---|---|---|---|
| I.3.1 | Navigation Receiver (e.g. GPS) (SOLAS IV 13 Refers) | **1** | |
| I.3.2 | | | |
| | Total current | **28** Amperes | Amperes |

### I.4 Endurance of Reserve Source of Energy

To allow for the reduced capacity of a battery when discharged over a shorter period than its rated specification (usually 10 or 20 hours) a de-rating factor of 0.5 for a 1 hour discharge and 0.85 for a 6 hour discharge should be applied. The result, in hours, should exceed the IMO minimum requirement.

I.4.1 Reserve source of energy (Section A.3)

$$\frac{\text{AH capacity of battery} \times \text{de-rating}}{\text{total current}} = \frac{\mathbf{200} \times \mathbf{0.85}}{\mathbf{28}} = \mathbf{6.0} \text{ hours}$$

I.4.2 Additional reserve source of energy (if provided; Section A.5)

$$\frac{\text{AH capacity of battery} \times \text{de-rating}}{\text{total current}} = \quad \text{hours}$$

## J Radio Life-Saving Appliances (reg III/6.2)

| SOLAS REG | REQUIREMENT | DESCRIPTION OF EQUIPMENT | SERIAL NUMBER |
|---|---|---|---|
| 6.2.1 | Two-way VHF radiotelephone apparatus | **FURUNO FM-8** | **2555-1639** |
| | | **FURUNO FM-8** | **2555-1640** |
| | | **FURUNO FM-8** | **2555-1684** |
| | Location | **NAVIGATION BRIDGE** | |
| 6.2.2 | Ship's search and rescue locating device (AIS/SART or SART) | **TAIYO MUSSEN** | **3645776** |
| | | **TAIYO MUSSEN** | **3445777** |
| | Location | **NAVIGATION BRIDGE** | |

## K Performance Standards (reg IV/14)

| | | |
|---|---|---|
| K.1 | Any recognized mobile satellite service ship earth station provided to satisfy reg IV/10.1.1 for 'basic equipment' or 'duplicated equipment' is installed fully in compliance with the relevant IMO performance standard and associated recognized mobile satellite service design and installation guidelines | X |
| K.2. | All equipment fitted conforms to performance standards adopted by IMO and with type approval specifications accepted by the flag state | X |

## L Additional Radio Communications Equipment

(additional to, and not considered for, SOLAS requirements)

| | |
|---|---|
| L.1 | **GPS** |
| L.2 | **AIS** |
| L.3 | **LRIT - FURUNO FELCOM 18** |
| L.4 | **SSAS - FURUNO FELCOM 18** |
| L.5 | |
| L.6 | |

## M Position Updating Requirements (Reg IV/18) and (Reg IV/13)

| | | |
|---|---|---|
| M.1 | All two way communication equipment capable of automatically including the ships position in the distress alert is automatically provided with the information from an internal or external navigation receiver (e.g. GPS) | X |
| M.2 | The navigation receiver above is connected to the reserve source of energy (see section 1.3) | X |

## Surveyed by

Specialist Surveyor

Port **Port of Spain** Signature

Date **10 January 2025**

## Accepted by

Surveyor to M.S.R.

Port **Port of Spain** Signature

Date **10 January 2025**

MSR S.Y.R. SURVEYOR ODESSA OFFICE MEDITERRANEAN SHIPPING REGISTER