and Safety System related to Sea Areas A3 and A4.


§ 80.1075 Radio records.  
A record must be kept, as required by the Radio Regulations and §80.409 (a), (b) and (e), of all incidents connected with the radiocommunication service which appear to be of importance to safety of life at sea.

§ 80.1077 Frequencies.  
The following table describes the frequencies used in the Global Maritime Distress and Safety System:

Alerting:

- **406.0-406.1 EPIRBs**: 406.0-406.1 MHz (Earth-to-space).
- **1544-1545 MHz**: space-to-Earth.
- **INMARSAT-E EPIRBs**: 1626.5-1645.5 MHz (Earth-to-space).
- **INMARSAT Ship Earth Stations capable of voice and/or direct printing**: 1626.5-1645.5 MHz (Earth-to-space).
- **VHF DSC Ch. 70**: 156.525 MHz.
- **MF/HF DSC**: 2187.5 kHz, 4207.5 kHz, 6312 kHz, 8414.5 kHz, 12577 kHz, and 16804.5 kHz.

On-scene communications:

- **VHF Ch.16**: 156.8 MHz.
- **MF Radiotelephony**: 2182 kHz.
- **NBDP**: 2174.5 kHz.

Communications involving aircraft:

- **On-scene, including search and rescue**: 156.8 MHz, 121.5 MHz, 123.1 MHz, 156.3 MHz, 2182 kHz, 3023 kHz, 4125 kHz, 6215 kHz, 8291 kHz, 12290 kHz, 16420 kHz, and 156.525 MHz.

Locating signals:

- **406-406.1 EPIRB Beacons**: 121.5 MHz.
- **9 GHz radar transponders**: 9200-9500 MHz.

Maritime safety information (MSI):

- **International NAVTEX**: 518 kHz.
- **Warnings**: 4210 kHz, 6314 kHz, 8416.5 kHz, 12579 kHz, 16804.5 kHz, 22376 kHz, 26100.5 kHz.
- **Satellite**: 1530-1545 MHz.

General distress and safety communications and calling:

- **Satellite**: 1530-1544 MHz (space-to-Earth) and 1626.5-1645.5 MHz (Earth-to-space).
- **Radiotelephony**: 2182 kHz, 4125 kHz, 6215 kHz, 8291 kHz, 12290 kHz, 16420 kHz, and 156.8 MHz.
- **NBDP**: 2174.5 kHz, 4177.5 kHz, 6312 kHz, 8376.5 kHz, 12520 kHz, and 16695 kHz.
- **DSC**: 2187.5 kHz, 4207.5 kHz, 6312 kHz, 8414.5 kHz, 12577 kHz, 16804.5 kHz, and 156.525 MHz.

Survival craft:

- **VHF radiotelephony**: 156.8 MHz and one other 156-174 MHz frequency.
- **9 GHz radar transponders**: 9200-9500 MHz.

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1 Frequency 156.525 MHz can be used for ship-to-ship alerting and, if within sea area A1, for ship-to-shore alerting.
2 For ships equipped with MF/MF equipment, there is a watch requirement on 2187.5 kHz, 8414.5 kHz, and one other frequency.
§ 80.1081 Functional requirements.

Ships, while at sea, must be capable:
(a) Except as provided in §§ 80.1087(a)(1) and 80.1091(a)(4)(iii), of transmitting ship-to-shore distress alerts by at least two separate and independent means, each using a different radiocommunication service;
(b) Of receiving shore-to-ship distress alerts;
(c) Of transmitting and receiving ship-to-ship distress alerts;
(d) Of transmitting and receiving search and rescue coordinating communications;
(e) Of transmitting and receiving on-scene communications;
(f) Of transmitting and receiving signals for locating;
(g) Of transmitting and receiving maritime safety information;
(h) Of transmitting and receiving general radiocommunications to and from shore-based radio systems or networks; and
(i) Of transmitting and receiving bridge-to-bridge communications.

§ 80.1083 Ship radio installations.

(a) Ships must be provided with radio installations capable of complying with the functional requirements prescribed by §80.1081 throughout its intended voyage and, unless exempted under §80.1071, complying with the requirements of §80.1085 and, as appropriate for the sea area of areas through which it will pass during its intended voyage, the requirements of either §80.1067, §80.1089, §80.1091, or §80.1093.

(b) The radio installation must:
(1) Be so located that no harmful interference of mechanical, electrical or other origin affects its proper use, and so as to ensure electromagnetic compatibility and avoidance of harmful interaction with other equipment and systems;
(2) Be so located as to ensure the greatest possible degree of safety and operational availability;
(3) Be protected against harmful effects of water, extremes of temperature and other adverse environmental conditions;
(4) Be provided with reliable, permanently arranged electrical lighting, independent of the main and emergency sources of electrical power, for the adequate illumination of the radio controls for operating the radio installation; and
(5) Be clearly marked with the call sign, the ship station identity and other codes as applicable for the use of the radio installation.

(c) Control of the VHF radiotelephone channels required for navigational safety must be immediately available on the navigating bridge convenient to the conning position and, where necessary, facilities should be available to permit radiocommunications from the wings of the navigating bridge. Portable VHF equipment may be used to meet the latter provision.

(d) Shipborne Integrated Radiocommunication System (IRCS) may be utilized to integrate all GMDSS equipment into a standard operator's console. Such installation must be certified in accordance with