



Australian Government
Australian Maritime Safety Authority

AMSA MO 2023/[number]

Marine Order 27 (Safety of navigation and radio equipment) 2023

I, Michael Kinley, Chief Executive Officer of the Australian Maritime Safety Authority, make this Order under subsection 342(1) of the *Navigation Act 2012*.

Dated 2023

[DRAFT ONLY — NOT FOR SIGNATURE]
Chief Executive Officer

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Section 1

Division 1 Preliminary**1 Name of Marine Order**

This Order is *Marine Order 27 (Safety of navigation and radio equipment) 2023*.

1A Commencement

This Marine Order commences on 1 January 2024.

1B Repeal of *Marine Order 27 (Safety of navigation and radio equipment) 2016*

Marine Order 27 (Safety of navigation and radio equipment) 2016 is repealed.

2 Purpose

This Marine Order:

- (a) provides for the following:
 - (i) navigation safety measures and equipment;
 - (ii) radio equipment;
 - (iii) danger, urgency and distress signals and messages; and
- (b) gives effect to the following:
 - (i) Chapter IV of SOLAS (Radiocommunications);
 - (ii) paragraph 7 of Regulation 10 and paragraph 7 of Regulation 11 of Chapter V of SOLAS (Safety of navigation);
 - (iii) Regulations 15 to 21, 24, 27, 28 and 29, and 31 to 35 of Chapter V of SOLAS.

3 Power

- (1) The following provisions of the Navigation Act provide for this Marine Order to be made:
 - (a) subsection 187(1) which provides that the regulations may prescribe matters for reports of dangers to navigation;
 - (b) paragraph 309(2)(a) which provides that the regulations may prescribe the entries to be made in an official logbook and when they must be made;
 - (c) paragraph 339(2)(b) which provides that the regulations may provide for machinery and equipment to be carried on board vessels including for sending or receiving distress, urgency and other signals, radio installations, radio navigational aids and communication equipment, and compasses;
 - (d) paragraph 339(2)(c) which provides that the regulations may provide for the operation, maintenance, checking and testing of this machinery and equipment;
 - (e) paragraph 339(2)(g) which provides that the regulations may provide for the equipment to be carried on vessels and measures to be carried out for the saving of life at sea;
 - (f) paragraph 339(2)(l) which provides that the regulations may provide for logbooks;

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- (g) paragraph 339(2)(m) which provides that the regulations may provide for records for compliance with the Act;
 - (h) paragraph 340(1)(a) which provides that the regulations may give effect to SOLAS;
 - (i) subsection 341(1) which provides that the regulations may provide for the imposition of penalties for a contravention of a provision of the regulations.
- (2) Subsection 339(1) of the Navigation Act provides for regulations to be made prescribing matters required or permitted to be prescribed, or that are necessary or convenient to be prescribed, for carrying out or giving effect to the Act.
 - (3) Subsection 342(1) of the Navigation Act provides that AMSA may make a Marine Order about matters that can be provided for by regulation.

4 Definitions

- (1) In this Marine Order:

AIS-SART means an automatic identification system search and rescue transmitter capable of operating on frequencies dedicated for AIS (161.975 MHz (AIS1) and 162.025 MHz (AIS2)).

approved means approved by:

- (a) for a regulated Australian vessel — the issuing body; or
- (b) for a foreign vessel — the administration of the country of registry of the vessel; or
- (c) for a training course — AMSA.

coast station means a land station in the maritime mobile service.

direct-printing telegraphy means automated telegraphy techniques which comply with the relevant recommendations of the ITU–R.

DSC means digital selective calling, a technique that:

- (a) uses digital codes to enable a radio station to establish contact with, and transfer information to, another station or group of stations; and
- (b) complies with recommendations of the ITU–R.

general radio communication means communications other than distress, urgency and safety messages.

GMDSS or ***Global Maritime Distress and Safety System*** means a system that performs the functions set out in Regulation 4.1.1 of Chapter IV of SOLAS.

IAMSAR Manual means the *International Aeronautical and Maritime Search and Rescue Manual* published jointly by ICAO and the IMO, as amended from time to time.

ICAO means the International Civil Aviation Organization.

International Code of Signals means the *International Code of Signals* published by the IMO.

maritime safety information (MSI) means navigational and meteorological warnings, meteorological forecasts and other urgent safety related messages broadcast to ships.

NAVAREA X is the geographical sea area designated for Australia for broadcasting navigational warnings.

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Note The delimitation of the area for NAVAREA X is shown on the AMSA website at <https://www.amsa.gov.au>.

NAVTEX means the system for the broadcast and automatic reception of maritime safety information by means of narrow-band direct-printing telegraphy.

qualified compass adjuster means a person who:

- (a) has a statement of attainment for *Compass Adjuster Limited Skill Set* or *Compass Adjuster Unlimited Skill Set*; or
- (b) on 30 June 2016 held a compass adjuster licence issued by AMSA under *Marine Order 21 (Safety of navigation and emergency procedures) 2012*.

Note These skill sets are part of the MAR Training Package.

Radio Regulations has the same meaning as in Regulation 2.1.12 of Chapter IV of SOLAS.

Note The text of the Radio Regulations is available at the International Telecommunication Union website: <https://www.itu.int>.

recognised mobile satellite service means any service which operates through a satellite system that is for use in the global maritime distress and safety system (GMDSS) and recognised by the IMO.

sea area A1 means an area within the radiotelephone coverage of at least one VHF coast radio station providing a continuous DSC alerting service.

Note Information related to shore-based facilities for the GMDSS, including the designated areas of coverage of sea area A1, is available in the Global Integrated Shipping Information System (GISIS) if this information has been communicated by SOLAS Contracting Governments to the IMO.

sea area A2 means an area, excluding sea area A1, within the radiotelephone coverage area of at least one MF coast radio station providing a continuous DSC alerting service.

Note Information related to shore-based facilities for the GMDSS, including the designated areas of coverage of sea area A2, is available in the Global Integrated Shipping Information System (GISIS) if this information has been communicated by SOLAS Contracting Governments to the IMO.

sea area A3 means an area, excluding sea areas A1 and A2, that is: within the coverage of a recognised mobile satellite service supported by the ship earth station carried on board; and in which continuous alerting is available.

sea area A4 means an area outside sea areas A1, A2 and A3.

ship station means a radio installation on board a vessel.

urgency announcement means a digital selective call using:

- (a) an urgency call format in the bands used for terrestrial radiocommunication; or
 - (b) an urgency message format relayed through space stations.
- (2) Any other term that is used in this Marine Order and defined in the Radio Regulations, has the meaning given in those Regulations.

Note 1 Some terms used in this Marine Order are defined in *Marine Order 1 (Administration) 2013*, including:

- EPIRB
- IMO
- SOLAS

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- STCW Code.

Note 2 Other terms used in this Marine Order are defined in the Navigation Act, including:

- AMSA
- GT
- inspector
- owner
- regulated Australian vessel
- STCW Convention.

Note 3 Information on obtaining copies of any IMO Resolution, IMO document or other document that is mentioned in this Order is available from the AMSA website Marine Orders link at <https://www.amsa.gov.au>.

Note 4 For delegation of AMSA's powers under this Marine Order — see the AMSA website at <https://www.amsa.gov.au>.

5 Interpretation

A reference to the Administration in SOLAS, an IMO resolution or a document mentioned in this Marine Order is taken to mean:

- (a) for a regulated Australian vessel — AMSA; or
- (b) for a foreign vessel — the government of the country whose flag the vessel is entitled to fly.

6 Application

This Marine Order applies to:

- (a) a regulated Australian vessel; and
- (b) a foreign vessel.

7 Exemptions

- (1) The owner of a regulated Australian vessel may apply for an exemption of the vessel from a requirement of this Marine Order in accordance with the application process set out in Division 3 of *Marine Order 1 (Administration) 2013*.
- (2) AMSA may give an exemption only if satisfied that:
 - (a) compliance with the requirement would be unnecessary or unreasonable having regard to the vessel, its equipment and its intended voyage; and
 - (b) giving the exemption would not contravene SOLAS.
- (3) An exemption is subject to any conditions AMSA imposes to ensure the safety of the vessel.
- (4) The owner of the vessel must comply with any conditions mentioned in subsection (3).

Note 1 *Marine Order 1 (Administration) 2013* deals with the following matters about exemptions and equivalents:

- making an application
- seeking further information about an application
- the time allowed for consideration of an application
- imposing conditions on approval of an application
- notification of a decision on an application review of decisions.

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Note 2 For transitional arrangements for an exemption given from a provision of a previous issue of this Marine Order — see Division 6.

8 Equivalentents

- (1) A person may apply, in accordance with the application process set out in Division 3 of *Marine Order 1 (Administration) 2013*, for approval to use an equivalentent.

Note For definitions of equivalentent and use — see section 6 of *Marine Order 1 (Administration) 2013*.

- (2) AMSA may approve use of an equivalentent only if satisfied that use of the equivalentent would be at least as effective as compliance with the requirement to which the equivalentent is an alternative.

Note For transitional arrangements for an approval to use an equivalentent that was given under a previous issue of this Marine Order — see Division 6.

Division 2 Navigation safety**Subdivision 2.1 Navigation safety measures****9 Cooperation with search and rescue services**

[SOLAS V/7.3]

For a passenger vessel to which Chapter I of SOLAS applies:

- (a) the owner must ensure that there is on board the vessel a plan, developed in accordance with paragraph 3 of Regulation 7 of Chapter V of SOLAS, for cooperation with search and rescue services in an emergency; and
- (b) the master must conduct periodic exercises in accordance with the plan.

Note Paragraph 3 of Regulation 7 of Chapter V of SOLAS provides that the plan is for emergencies and specifies the parties to be involved in its development. The plan must be based on the Guidelines for preparing plans for co-operation between search and rescue services and passenger ships approved by MSC.1/Circ.1079 as revised from time to time.

10 Ship reporting systems

[SOLAS V/11.7]

- (1) The master of a vessel must comply with paragraph 7 of Regulation 11 of Chapter V of SOLAS.
Penalty: 50 penalty units.
- (2) An offence against subsection (1) is a strict liability offence.
- (3) A person is liable to a civil penalty if the person contravenes subsection (1).
Civil penalty: 50 penalty units.

Note Paragraph 7 of Regulation 11 of Chapter V of SOLAS sets out that the master is to comply with ship reporting systems adopted by the IMO and the applicable reporting requirements for each system.

11 Ships' routing

[SOLAS V/10.7]

- (1) The master of a vessel must comply with paragraph 7 of Regulation 10 of Chapter V of SOLAS.
Penalty: 50 penalty units.
- (2) An offence against subsection (1) is a strict liability offence.

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- (3) A person is liable to a civil penalty if the person contravenes subsection (1).

Civil penalty: 50 penalty units.

Note Paragraph 7 of Regulation 10 of Chapter V of SOLAS sets out the requirement to comply with any mandatory ships' routing system adopted by the IMO.

12 Use of heading or track control systems

[SOLAS V/24]

- (1) The master of a vessel must ensure that manual control of the vessel's steering can be established immediately when heading or track control systems are in use on the vessel.
- (2) The master of a vessel must ensure that a person who has an approved steering certificate is available to immediately take manual control of the vessel's steering if the vessel is operating in hazardous navigational circumstance including:
- an area of high traffic density; or
 - condition of restricted visibility; or
 - other situation where navigation requires caution.

Penalty: 50 penalty units.

- (3) The master of a vessel must ensure that a change from automatic to manual control and from manual to automatic control of a vessel's steering is made:
- by the officer of the watch; or
 - under the supervision of the officer of the watch.

Penalty: 50 penalty units.

- (4) If there has been prolonged use of the heading or track control systems, the master of the vessel must ensure that the manual steering of a vessel is tested before entering an area where navigation requires caution including circumstances where the vessel is operating in:
- an area of high traffic density, or
 - conditions of restricted visibility.

Penalty: 50 penalty units.

- (5) An offence against subsection (2), (3) or (4) is a strict liability offence.
- (6) A person is liable to a civil penalty if the person contravenes subsections (2), (3) or (4).

Civil penalty: 50 penalty units.

13 Records of navigational activities and daily reporting

[SOLAS V/28]

- (1) The master of a vessel must ensure that:
- the navigational activities and incidents of importance to safety of navigation of the vessel are recorded in the vessel's logbook or other format approved by the Administration; and
 - the records:
 - contain sufficient detail to enable the restoration of a complete record of the voyage; and

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- (ii) are available for inspection on the vessel at all times.
- (2) The master of the vessel, to which paragraph 2 of Regulation 28 of Chapter V of SOLAS applies, must ensure that:
- (a) a daily report is provided to the vessel's owner including the following:
 - (i) vessel position;
 - (ii) vessel's course and speed;
 - (ii) details of any external or internal conditions affecting the vessel's voyage or the normal safe operation of the vessel;
 - (b) the daily report is provided as soon as practicable after the vessel position is determined; and
 - (c) the daily report is recorded; and
 - (d) if an automated reporting system is used — measures are implemented to monitor and verify the accuracy of vessel position mentioned in the daily report.

Note Paragraph 2 of Regulation 28 of Chapter V of SOLAS applies to a vessel >500 GT engaged on international voyages exceeding 48 hours.

14 Safe navigation and avoidance of dangerous situations**[SOLAS V/34]**

The master of a vessel must ensure that voyage planning has been carried out in accordance with Regulation 34 of Chapter V of SOLAS.

Note Regulation 34 of Chapter V of SOLAS provides that the voyage planning must be undertaken prior to a vessel proceeding to sea and identify a route. The regulation sets out what must be used for planning including nautical charts and publications and any ships' routing systems.

15 Persons not to interfere with master's decisions**[SOLAS V/34-1]**

- (1) A person must not prevent or restrict the master of a vessel from taking or executing any decision that the master says is necessary for safe navigation or protection of the marine environment.

Penalty: 50 penalty units.

- (2) An offence against subsection (1) is a strict liability offence.
- (3) A person is liable to a civil penalty if the person contravenes subsection (1).

Civil penalty: 50 penalty units.

Subdivision 2.2 Navigational safety equipment etc**16 Bridge design, bridge procedures, design and arrangement of navigational systems and equipment****[SOLAS V/15]**

The owner of a vessel must make decisions about bridge design, bridge procedures and the design and arrangements of navigational systems and equipment in accordance with Regulation 15 of Chapter V of SOLAS.

Note Regulation 15 of Chapter V of SOLAS sets out a number of principles for the purpose of applying the requirements of Regulations 19, 22, 24, 25, 27, and 28 of Chapter V of SOLAS.

17 Maintenance of navigational equipment

[SOLAS V/16]

- (1) The master of a vessel must take all reasonable steps to ensure:
 - (a) the performance of navigational equipment is maintained; and
 - (b) the equipment is maintained in efficient working order.Penalty: 50 penalty units.
- (2) If vessel is at a place where repair facilities are not available and a defect in navigational equipment is discovered on the vessel, the master of the vessel may, if agreed by AMSA, proceed to a port where repairs can take place.
Penalty: 50 penalty units.
- (3) For subsection (2), the master of the vessel must ensure that the inoperative equipment or the unavailability of information is taken into account when planning and making the voyage to the port.
- (4) A person is liable to a civil penalty if the person contravenes subsection (1) or (2).
Civil penalty: 50 penalty units.

18 Electromagnetic compatibility

[SOLAS V/17]

- (1) The owner of a vessel must ensure that the electrical and electronic equipment on or near the bridge of a vessel constructed after 30 June 2002 is tested for electromagnetic compatibility in accordance with paragraph 1 of Regulation 17 of Chapter V of SOLAS.
Note Paragraph 1 of Regulation 17 of Chapter V of SOLAS provides that the recommendations of the IMO must be taken into account when testing. See the AMSA website for details of the latest IMO resolution in relation to testing for electromagnetic compatibility.
- (2) The owner of a vessel must ensure that electrical and electronic equipment does not affect navigational systems and equipment on the vessel.
Penalty: 50 penalty units.
- (3) A person must not operate portable electrical or electronic equipment on a vessel if it may affect navigational systems and equipment on the vessel.
Penalty: 50 penalty units.
- (4) An offence against subsection (2) or (3) is a strict liability offence.
- (5) A person is liable to a civil penalty if the person contravenes subsection (2) or (3).
Civil penalty: 50 penalty units.

19 Navigational systems and equipment — performance standards

[SOLAS V/18]

- (1) The owner of a vessel must ensure that a navigational system or equipment mentioned in Regulations 19 and 20 of Chapter V of SOLAS that is used on the vessel is type approved and meets performance standards in accordance with Regulation 18 of Chapter V of SOLAS.
Note Regulation 18 of Chapter V of SOLAS provides that type approval must be given by the Administration. Type approval applies to navigational systems and equipment; and back-up arrangements, replacements and the additions to systems and equipment.

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- (2) The owner of a vessel must ensure that:
- (a) any voyage data recorder system used on the vessel, including all sensors, is tested annually by an approved testing or servicing facility in accordance with paragraph 8 of Regulation 18 of Chapter V of SOLAS; and
 - (b) a certificate of compliance is carried on board for the voyage data recorder system demonstrating compliance and the performance standards for the system that apply; and
 - (c) any automatic identification system used on the vessel is tested annually by the issuing body or an approved testing or servicing facility in accordance with paragraph 9 of Regulation 18 of Chapter V of SOLAS; and
 - (d) a copy of a test report for the automatic identification system is carried on board.

Note for paragraph (a) and (c) Paragraphs 8 and 9 of Regulation 18 of Chapter V of SOLAS provide that testing must be undertaken to determine the specified performance standards, functionality or serviceability for the systems.

Note AMSA has an agreement with each of the recognised organisations mentioned in Schedule 1 of *Marine Order 1 (Administration) 2013* for the provision of survey and certification services for vessels registered in Australia. These bodies are authorised to undertake type approval of equipment on behalf of AMSA in accordance with that agreement.

20 Navigational systems and equipment — installation and use requirements etc

[SOLAS V/19]

- (1) The owner of a vessel must ensure that navigational systems or equipment:
- (a) are fitted and used in accordance with Regulation 19 of Chapter V of SOLAS; and
 - (b) meet the functional requirements mentioned in that regulation; and
 - (c) are installed, tested and maintained to minimise malfunction.

Note Regulation 19 of Chapter V of SOLAS provides for the carriage of specified navigational systems and equipment for certain kinds of vessels. It also includes functionality and use requirements.

- (2) For a vessel carrying an electronic chart display and information system (**ECDIS**) — the master of the vessel and all deck watchkeeping officers must have completed an approved training course in its use in accordance with Part A of Chapter II of the STCW Code.
- (3) The master of a vessel must ensure that:
- (a) any automatic identification system installed on a vessel is used; and
 - (b) the use of that system is in accordance with the *Revised Guidelines for the onboard operational use of shipborne Automatic Identification Systems (AIS)*, adopted by IMO Resolution A.1106(29), as amended from time to time; and
 - (c) if the system is turned off — AMSA is advised.
- (4) The owner of a vessel must not direct, or request, any person to turn off the automatic identification system installed on the vessel.
- Penalty: 50 penalty units.
- (5) An offence against subsection (4) is a strict liability offence.

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- (6) A person is liable to a civil penalty if the person contravenes subsection (4).
Civil penalty: 50 penalty units.

21 Long-range identification and tracking of vessels

[SOLAS V/19-1]

- (1) This section applies to a vessel to which Regulation 19-1 of Chapter V of SOLAS applies.
- (2) The owner of a vessel must ensure that:
- (a) the following information is transmitted automatically in accordance with Regulation 19-1 of Chapter V of SOLAS:
 - (i) the identity of the vessel;
 - (ii) the position (latitude and longitude) of the vessel;
 - (iii) the date and time the position information is provided; and
 - (b) the vessel is fitted with the systems and equipment that meet the performance standards and functional requirements of Regulation 19-1 of Chapter V of SOLAS.
Penalty: 50 penalty units.
- (3) The master of a vessel must not switch off any system or equipment mentioned in Regulation 19-1 of Chapter V of SOLAS.
Penalty: 50 penalty units.
- (4) However, the master may switch off the system or equipment if:
- (a) the operation will not compromise the safety or security of the vessel; and
 - (b) the Administration has been informed; and
 - (c) a record is made describing the reason for, and duration of, the switch off.
- (5) An offence against subsection (2) of (3) is a strict liability offence.
- (6) A person is liable to a civil penalty if the person contravenes subsection (2) or (3).
Civil penalty: 50 penalty units.

22 Voyage data recorders

[SOLAS V/20]

The owner of a vessel must ensure that the vessel is fitted with a voyage data recorder or simplified voyage data recorder in accordance with Regulation 20 of Chapter V of SOLAS.

Note Regulation 20 of Chapter V of SOLAS provides for the carriage of voyage data recorders on certain kinds of vessels in the circumstances specified.

23 International Code of Signals and IAMSAR Manual

[SOLAS V/21]

The owner of a vessel must ensure that the following documents are kept on the vessel and are available for inspection:

- (a) a copy of the latest edition of the International Code of Signals;
- (b) a copy of Volume III (Mobile facilities) of the IAMSAR Manual.

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24 Nautical charts and nautical publications**[SOLAS V/27]**

- (1) The owner of a vessel embarking on a voyage must ensure:
 - (a) nautical charts and nautical publications on board for the intended voyage are adequate and up to date; and
 - (b) any electronic version of a nautical chart or nautical publication is a version officially issued by an Administration, authorised hydrographic office or other approved organisation; and
 - (c) the information mentioned in paragraphs (a) and (b) is on board before embarking on the voyage.
- (2) For an electronic nautical chart, the owner of the vessel must ensure that:
 - (a) the chart is displayed on an ECDIS that complies with Regulation 19 of Chapter V of SOLAS; and
 - (b) a back up version is available:
 - (i) on a second ECDIS that complies with Regulation 19 of Chapter V of SOLAS; or
 - (ii) as a folio of adequate and up to date paper charts relevant to the voyage.
- (3) For an electronic nautical publication, the owner of a vessel must ensure that a back up version is available:
 - (a) as an up to date printout; or
 - (b) on at least 1 other computer or in digital format that can be made available to the officer of the watch within 5 minutes.
- (4) For an official version of an electronic nautical publication, the owner of a vessel must ensure that all software and hardware used for accessing it complies with the recommendations of *IMO Circular MSC/Circ.891 Guidelines for the onboard use and application of computers*.

25 Magnetic compass

- (1) The master of a vessel must ensure that:
 - (a) for a vessel >100 GT:
 - (i) a compass deviation book is kept on the vessel; and
 - (ii) the information mentioned in Schedule 1 is recorded in the compass deviation book; and
 - (b) if the observations for a magnetic compass on the vessel show a deviation of the compass on any heading of more than 5°— they either adjust the compass to correct the deviation or arrange for the compass to be adjusted by a qualified compass adjuster; and
 - (c) for each magnetic compass fitted on the vessel — the tables or curve of residual deviations from the last adjustment, and details of subsequent changes in deviations, are available for use at all times; and
 - (d) the size and position of magnets and soft iron correctors in a compass fitted on the vessel and the date and nature of any changes made to them or to their position are recorded by the person making the adjustment.

Penalty: 50 penalty units.

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Note for paragraph (b) For other circumstances in which it is recommended that a compass be adjusted, see Annex G of ISO 25862:2009 *Ships and marine technology – Marine magnetic compasses, binnacles and azimuth reading devices*.

- (2) An offence against subsection (1) is a strict liability offence.
- (3) A person is liable to a civil penalty if the person contravenes subsection (1).
Civil penalty: 50 penalty units.
- (4) If a compass is adjusted, details of the deviations in the approved form must be:
 - (a) if the compass is adjusted by a qualified compass adjuster — given to the master by the qualified compass adjuster; or
 - (b) if the compass is adjusted by the master — prepared by the master.
- (5) An inspector may direct the master of a vessel to have a compass of the vessel adjusted if the inspector considers that:
 - (a) paragraph (1)(c) or (d) has not been complied with; and
 - (b) the compass is, or may be, unreliable.
- (6) The master of a vessel must comply with the direction as soon as practicable.

26 Other equipment

- (1) The owner of a vessel must ensure that the vessel has on board equipment in good working condition that will, if an electronic system fails, enable:
 - (a) an adequate lookout to be maintained; and
 - (b) safe navigation of the vessel.
- (2) For a vessel < 500 GT, the master must ensure that the vessel has on board flags N and C of the International Code of Signals.
- (3) For a vessel ≥ 500 GT, the master must ensure that the vessel has on board a complete set of flags of the International Code of Signals.
- (4) Except in an emergency, the master of a vessel must not use, or permit to be used, any equipment mentioned in subsection (1) that is not in good working condition or that is improperly rigged.
Penalty: 50 penalty units.
- (5) An offence against subsection (4) is a strict liability offence.
- (6) A person is liable to a civil penalty if the person contravenes subsection (4).
Civil penalty: 50 penalty units.

Division 3 Radio installations and radio equipment

27 Radio installations and carriage requirements for radio equipment etc

[SOLAS IV/6-11]

- (1) The owner of a vessel to which Chapter IV of SOLAS applies must ensure that:
 - (a) a radio installation is fitted and radio equipment is carried on board in accordance with Regulations 6 to 11 of Chapter IV of SOLAS; and
 - (b) for a regulated Australian vessel — the radio installation complies with the *ARPANSA Standard for Limiting Exposure to Radiofrequency Fields – 100 kHz to 300 GHz* (Rev. 1) (2021), as amended from time to time.

Note for paragraph (b) This standard is available from the ARPANSA website at <https://www.arpansa.gov.au>.

- (2) The owner of a regulated Australian vessel to which Chapter IV of SOLAS does not apply must ensure that the vessel has fitted adequate radio installations and carries on board adequate radio equipment to meet the functional requirements mentioned in section 28(2).

28 Functional requirements

[SOLAS IV/4]

- (1) For a vessel to which Chapter IV of SOLAS applies — the radio installations fitted and radio equipment carried on board must meet the functional requirements that are set out in Regulation 4 of Chapter IV of SOLAS.
- (2) For an Australian regulated vessel to which Chapter IV of SOLAS does not apply — the radio installations fitted and radio equipment carried on board must meet the following functional requirements:
 - (a) perform ship-to-shore distress alerting by two separate and independent means, each using a different radio communication service;
 - (b) receive shore-to-ship distress alert relays;
 - (c) transmit and receive ship-to-ship distress alerting;
 - (d) transmit and receive on-scene communications, including appropriate SAR co-ordinating communications;
 - (e) transmit and receive locating signals;
 - (f) receive MSI;
 - (g) transmit and receive urgency and safety communications;
 - (h) transmit and receive bridge to bridge communications.

Note for paragraph (f) See MSC.Circ.1645 *Guidance for the Reception of Maritime Safety Information and Search and Rescue Related Information as Required in the Global Maritime Distress and Safety System (GMDSS)*, as amended from time to time.

- (3) However, if a regulated Australian vessel to which Chapter IV of SOLAS does not apply, complies with an arrangement set out in Schedule 2, the vessel is taken to have met the functional requirements mentioned in subsection (2).

29 Other requirements

[SOLAS IV/12-18]

- (1) For a vessel to which Chapter IV of SOLAS applies — the owner must ensure:
 - (a) that radio equipment is type approved in accordance with Regulation 14 of Chapter IV of SOLAS; and
 - (b) the radio equipment is maintained in accordance with Regulation 15 of Chapter IV of SOLAS; and
 - (c) sources of energy for radio installations, maintenance, watchkeeping arrangements, personnel, record-keeping arrangements and position updating must comply with:
 - (i) Regulations 12 to 18 of Chapter IV of SOLAS; and
 - (ii) the Radio Regulations; and
 - (iii) the STCW Convention; and
 - (iv) the STCW Code.

Note for paragraph (a) Regulation 14 of Chapter V of SOLAS provides that radio equipment is to be type approved by the Administration.

Note for paragraph (b) Regulation 15 of Chapter V of SOLAS provides that radio equipment is to be maintained to ensure compliance with functional requirements.

- (2) For a regulated Australian vessel to which Chapter IV of SOLAS does not apply — it must have:
 - (a) MF/HF radiotelephone equipment, VHF equipment and satellite communications equipment that meets the performance standards mentioned in Regulation 14 of Chapter IV of SOLAS that apply to the equipment; and
 - (b) sources of energy for radio installations and maintenance, watchkeeping, personnel, record-keeping and position updating arrangements that meet the requirements mentioned subsection (1) as if the vessel were a vessel to which Chapter IV of SOLAS applies; and
 - (c) VHF equipment with available priority of use and control of the channels required for navigational safety purposes immediately available at the place where the vessel is normally navigated; and
 - (d) battery installations that provide emergency power supply to radio equipment must be tested monthly.
- (3) A vessel that is normally engaged in harbour duties must:
 - (a) be fitted with a VHF radio installation with DSC capability; and
 - (b) be provided with an approved 406 MHz satellite EPIRB.
- (4) Radio equipment must be tested:
 - (a) at intervals specified by the manufacturer; and
 - (b) in accordance with the manufacturer's instructions.

30 EPIRBs

- (1) An owner of a regulated Australian vessel must ensure that any EPIRB fitted or carried on the vessel is registered with AMSA.

Note Registration is to be updated when an EPIRB changes ownership — with both the old owner and the new owner needing to update their details held by AMSA. Details should also be updated when the EPIRB is disposed of.

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Division 4 **Danger, urgency and distress messages**

Subdivision 4.1 Safety signals and danger messages

Section 31

- (2) An owner of a regulated Australian vessel must ensure that manufacturer's instructions are followed for any EPIRB that is disposed of.
Penalty 50 penalty units
- (3) An offence against subsection (1) is a strict liability offence.
- (4) A person is liable to a civil penalty if the person contravenes subsection (1).
Civil penalty: 50 penalty units.

Division 4 **Danger, urgency and distress messages**

Subdivision 4.1 **Safety signals and danger messages**

[SOLAS V/31 & V/32]

31 **Safety signals and danger messages**

- (1) For subparagraph 187(1)(b)(i) of the Navigation Act:
- (a) the safety signal is the word 'securite' (pronounced 'say-cure-e-tay') spoken 3 times; and
- (b) the danger message must include the information mentioned in Regulations 31 and 32 of Chapter V of SOLAS.
- Note* Regulations 31 and 32 of Chapter V of SOLAS provide that certain information related to the following dangers must be communicated:
- dangerous ice
 - a dangerous derelict or any other direct danger to navigation
 - a tropical storm
 - encounters with sub-freezing air temperatures associated with gale force winds causing severe ice accretion on superstructures
 - winds of force 10 or above on the Beaufort scale for which no storm warning has been received.
- (2) The safety signal and danger message must be sent out in accordance with paragraph 4 of Regulation 31 of Chapter V of SOLAS.
- Note* Paragraph 4 of Regulation 31 of Chapter V of SOLAS provides that the procedure mentioned in the Radio Regulations must be used to send out radio messages.
- (3) For subparagraph 187(1)(b)(ii) of the Navigation Act, the report to shore must be made to:
- (a) for a vessel in NAVAREA X — the Joint Rescue Coordination Centre Australia; or
- (b) for a vessel outside NAVAREA X — the Coordinator for the NAVAREA the vessel is in.

Note The telephone number of the Joint Rescue Coordination Centre Australia is +61 2 6230 6811 or 1800 641 792; the fax number is +61 2 6230 6868 or 1800 622 153; the email is rccaus@amsa.gov.au.

32 **Transmission of safety signals and danger messages**

- (1) A person may transmit the safety signal only to give notice that the calling radio station has a danger message to transmit about an important navigational or meteorological warning.
Penalty: 50 penalty units.
- (2) An offence against subsection (1) is a strict liability offence.

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- (3) A person is liable to a civil penalty if the person contravenes subsection (1).
Civil penalty: 50 penalty units.
- (4) The master of a vessel must ensure that the safety signal is sent in accordance with Article 33 of the Radio Regulations.
- (5) The master must:
 - (a) send the danger message as soon as he or she has the information mentioned in subsection (1); and
 - (b) end the danger message with the name of the vessel and the call sign of the ship station.

33 Duties of person receiving a safety signal

- (1) A person who operates a radio station on a vessel and hears the safety signal must listen on the radio frequency used for the transmission of the danger message until he or she is satisfied that the message is of no concern to the vessel.
Penalty: 50 penalty units.
- (2) A person must not interfere with the transmission of a danger message that follows the transmission of the safety signal.
Penalty: 50 penalty units.
- (3) An offence against subsection (1) or (2) is a strict liability offence.
- (4) A person is liable to a civil penalty if the person contravenes subsection (1) or (2).
Civil penalty: 50 penalty units.

34 Priority of safety traffic

A danger message preceded by the safety signal has priority over all communications other than distress and urgency communications.

35 Records of dangers and danger messages

The master of a regulated Australian vessel must ensure that a record is kept of the following:

- (a) any danger to navigation observed; and
- (b) any danger message received for a danger to the navigation of the vessel; and
- (c) information received on a danger to the navigation of the vessel; and
- (d) any danger message and information sent or transmitted about a danger to navigation and the exact time and position of the vessel when the transmission is made.

Subdivision 4.2 Urgency signals, urgency messages and signals of distress

36 Urgency signals

- (1) The urgency signal is the words 'pan pan' (pronounced 'panne panne') spoken 3 times.
- (2) A person may transmit the urgency signal and a following message only:

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- (a) when giving notice that the calling radio station has an urgent message to transmit about the safety of a vessel, an aircraft, a vehicle or a person; and
 - (b) unless subsection 37(1) applies — on the distress frequency.
Penalty: 50 penalty units.
- (3) An offence against subsection (2) is a strict liability offence.
 - (4) A person is liable to a civil penalty if the person contravenes subsection (2).
Civil penalty: 50 penalty units.
 - (5) An urgency signal or urgency traffic has priority over all other radio communication except distress traffic.

37 Urgency messages

- (1) If an urgency message that follows the urgency signal is a long message, a medical call or, in an area of heavy radio traffic, a repeated message, the radio frequency used for the message must:
 - (a) not be the distress frequency; and
 - (b) be stated in the urgency announcement or urgency message.
- (2) A person must not interfere with the transmission of the urgency message that follows the transmission of the urgency announcement or urgency signal.
Penalty: 50 penalty units.
- (3) When the master of a vessel who sent the urgency message is satisfied that action called for by the urgency message is no longer necessary, the master must ensure that a further message is transmitted cancelling the urgency message.
Penalty: 50 penalty units.
- (4) An offence against subsection (2) or (3) is a strict liability offence.
- (5) A person is liable to a civil penalty if the person contravenes subsection (2) or (3).
Civil penalty: 50 penalty units.

38 Distress signals

The signal of distress is the spoken word ‘mayday’.

39 Use of distress signals for distress purposes only

- (1) A person may transmit a signal of distress only if it relates to the transmission of:
 - (a) a distress call and a distress message; or
 - (b) the acknowledgment of a distress message; or
 - (c) other distress traffic mentioned in this Marine Order.
Penalty: 50 penalty units.
- (2) An offence against subsection (1) is a strict liability offence.
- (3) A person is liable to a civil penalty if the person contravenes subsection (1).
Civil penalty: 50 penalty units.

40 Duties on activation of a distress watch receiver

- (1) When the distress frequency watch receiver or EGC receiver distress alarm on a vessel is activated, the person in charge of the vessel radio station must:

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- (a) commence watch on the distress frequency or other frequency specified by the urgency or distress message; and
 - (b) keep watch until:
 - (i) the urgency message or distress signal is received; or
 - (ii) an urgency or distress message would have been received if one had been transmitted and the vessel had been within range of the transmitting station; or
 - (iii) the person is satisfied that the activation was due to a fault in the radio installation or an electrical storm.
- Penalty: 50 penalty units.
- (2) A person who receives an urgency or distress message, must immediately give the master details of the message if it is safe to do so.
Penalty: 50 penalty units.
 - (3) An offence against subsection (1) or (2) is a strict liability offence.
 - (4) A person is liable to a civil penalty if the person contravenes subsection (1) or (2).
Civil penalty: 50 penalty units.

41 Duties of a person hearing an urgency or distress signal

- (1) A person who hears an urgency or distress signal must continue to listen on the radio frequency on which it was received and must not resume normal radio service until:
 - (a) if no message follows the signal — the end of at least 5 minutes; or
 - (b) if a message follows the signal — the person has told the master of the vessel details of the message and the master has permitted resumption of normal radio service.
- Penalty: 50 penalty units.
- (2) However, the person in charge of the vessel radio station may resume normal communication on frequencies other than that used for the urgency or distress communication if a message that follows the activation of a DSC or EGC distress alert:
 - (a) is not addressed to all radio stations; or
 - (b) is addressed to all vessels in a geographical area that does not include the current position of the vessel.
 - (3) An offence against subsection (1) is a strict liability offence.
 - (4) A person is liable to a civil penalty if the person contravenes subsection (1).
Civil penalty: 50 penalty units.

42 Misuse of flares etc

- (1) A person must not use a flare, rocket or shell, if it could be mistaken for a signal of distress coming from a vessel.
- (2) It is a defence if:
 - (a) the person or another person is in distress; or
 - (b) both:

- (i) the person has notified the JRCC using the approved form, and at least 24 hours before the proposed time of use of the flare, rocket or shell, of:
 - (A) the intended use of the flare, rocket or shell; and
 - (B) the proposed time for the intended use; and
- (ii) the person has not received any objection from the JRCC to the intended use.

Penalty: 50 penalty units.

Note 1 The approved form is available from the AMSA website at <http://www.amsa.gov.au>. Notification to the JRCC may be by email: rccaus@amsa.gov.au or fax: 1800 622 153.

Note 2 The person may also need to comply with State or Territory requirements for the use of flares.

- (3) If a distress signal is accidentally transmitted or displayed from a vessel when there is no danger to the vessel, the master of the vessel must immediately tell the marine rescue coordination centre for the search and rescue area:
 - (a) about the accidental transmission; and
 - (b) that there is no danger to the vessel.

Penalty: 50 penalty units.

Note Cancellation of a distress alert sent accidentally must be in accordance with Article 32 of the International Telecommunication Convention Radio Regulations annexed to the most recent International Telecommunication Convention in force.

- (4) An offence against subsection (1) or (3) is a strict liability offence.
- (5) A person is liable to a civil penalty if the person contravenes subsection (1) or (3).

Civil penalty: 50 penalty units.

Division 5 Other matters

43 Obligations and procedures in relation to persons in distress at sea [SOLAS V/33]

- (1) The master of a vessel must meet the obligations and follow the procedures mentioned in Regulation 33 of Chapter V of SOLAS in relation to persons in distress at sea.

Penalty: 50 penalty units.

- (2) An offence against subsection (1) is a strict liability offence.
- (3) A person is liable to a civil penalty if the person contravenes subsection (1).

Civil penalty: 50 penalty units.

Note Regulation 33 of Chapter V of SOLAS sets out procedures related to the obligation to provide assistance to, and treatment of, persons in distress.

44 Life-saving signals to be used by ships, aircraft or persons in distress

[SOLAS V/29]

- (1) The owner of a vessel must ensure that an illustrated table describing the life-saving signals to be used when communicating with life-saving stations, maritime rescue units and aircraft engaged in search and rescue operations is available to the officer of the watch at all times.

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- (2) The life-saving signals must be used when persons on the vessel are communicating with life-saving stations, marine rescue units and aircraft engaged in search and rescue operations.

Note Life-saving signals are described in the International Aeronautical and Maritime Search and Rescue Manual (IAMSAR) Manual Vol. III, Mobile Facilities and illustrated in the International Code of Signals, as amended from time to time.

45 Documentation requirements — general

The owner of a vessel must ensure the following is available for inspection on the vessel:

- (a) for a foreign vessel — documentation issued by the Administration for the vessel for any exemption for safety radio equipment;
- (b) for a regulated Australian vessel — documentation for any exemption:
 - (i) given by AMSA under section 7; or
 - (ii) continued in operation by section 46;
- (c) for a regulated Australian vessel — a copy of the latest edition of the *Australian Global Maritime Distress and Safety System (GMDSS) Handbook*, published by AMSA in electronic or printed form;
- (d) for a regulated Australian vessel — the vessel's radio logbook;
- (e) for a vessel on an international voyage — a copy of the latest edition of the *Manual for use by the Maritime Mobile and Maritime Mobile-Satellite Services*, published by the International Telecommunication Union, in electronic or printed form;
- (f) for a vessel on an international voyage — a copy of the latest edition of the *Admiralty List of Radio Signals*, published by the Hydrographer of the Navy (UK), in electronic or printed form;
- (g) for a vessel on an international voyage — a copy of the latest edition of the *List of Ship Stations and Maritime Mobile Service Identity Assignments*, published by the International Telecommunication Union, in electronic or printed form.

Note for paragraph (c) The GMDSS Handbook is available from the AMSA website at <https://www.amsa.gov.au>.

Note for paragraph (d) An approved form is available from the AMSA website at <https://www.amsa.gov.au>.

Division 6 Transitional arrangements

46 Continuation of exemptions

An exemption is taken to be in force and granted under this Marine Order if:

- (a) it was in force on 30 December 2023; and
- (b) the requirement to which it applies is a requirement under this Marine Order.

47 Approvals

An approval for use of an equivalent is taken to be approved under this Marine Order if:

- (a) it was for an equivalent that was in use on a vessel on 30 December 2023; and

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- (b) the requirement to which it applies is a requirement under this Marine Order.

Schedule 1 Compass deviation book information

(subparagraph 25(1)(a)(ii))

Item	Information
1	Date
2	vessel's position: (a) latitude; and (b) longitude
3	time of observation
4	body observed or method of obtaining true bearing or heading
5	direction of the vessel's head by: (a) standard compass; and (b) steering compass
6	direction of the vessel's head by gyro compass
7	direction of the vessel's true head
8	azimuth or bearing or heading by magnetic compass
9	azimuth/bearing or heading by gyro compass
10	true azimuth or bearing or heading
11	magnetic compass error
12	gyro compass error
13	corrected variation
14	magnetic compass deviation

Schedule 2 Radio installations and equipment — regulated Australian vessels to which Chapter IV of SOLAS does not apply

(subsection 28(3))

Note This Schedule sets out alternative arrangements for radio installations and equipment for a regulated Australian vessel to which Chapter IV of SOLAS does not apply that is taken to meet the functional requirements mentioned in subsection 28(2).

1 Australian coastal voyages (sea area A3)

Arrangement A

- (a) A VHF radio installation with DSC capability; and
- (b) A DSC watchkeeping receiver for VHF channel 70 which may be separate or combined with the VHF radio installation mentioned in paragraph (a); and
- (c) A MF radio installation with DSC capability; and
- (d) A MF DSC watchkeeping receiver capable of maintaining a continuous DSC watch on 2187.5 kHz which may be separate or combined with the MF radio installation above; and
- (e) Ship earth station for a recognised mobile satellite service capable of:
 - (i) transmitting and receiving distress and safety communications using data-communications;
 - (ii) initiating and receiving distress priority calls;
 - (iii) transmitting and receiving general radio communications, using either radiotelephony or data communication;
 - (iv) receiving Maritime Safety Information (MSI) using enhanced group calling; and
- (f) A 406 MHz EPIRB; and
- (g) Hand held VHF radiotelephone apparatus fitted with VHF channels 6, 13, 16 and 67; and
- (h) 9 GHz radar transponder(s) or an AIS-SART.

Note Specifications and performance standards of radio and communication equipment must be in accordance with Chapter IV of SOLAS.

Note for paragraph (e) Data communication includes direct-printing telegraphy.

Arrangement B

- (a) A VHF radio installation with DSC capability; and
- (b) A DSC watchkeeping receiver for VHF channel 70 which may be separate or combined with the VHF radio installation mentioned in paragraph (a); and
- (c) A MF/HF radio installation with DSC capability; and

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- (d) A MF/HF DSC watchkeeping receiver capable of maintaining a continuous DSC watch on 2187.5 kHz, 8414.5 and at least one of the distress and safety frequencies 4207.5, 6312, 12577 or 16804.5 kHz, and allowing, at any time, the selection of any of any of these distress and safety frequencies — this equipment may be combined with or separate from the MF/HF radio installation mentioned in paragraph (c); and
 - (e) Ship earth station for a recognised mobile satellite service capable of receiving Maritime Safety Information (MSI) using enhanced group calling; and
 - (f) A 406 MHz EPIRB; and
 - (g) Hand held VHF radiotelephone apparatus fitted with VHF channels 6, 13, 16 and 67; and
 - (h) 9 GHz radar transponder(s) or an AIS-SART.

2 International voyages

- (a) Items listed in Arrangement 1A or 1B; and
- (b) a NAVTEX receiver when operating in a NAVTEX area.

3 Voyages in sea area A4

Items listed in Arrangement 1B.

Note

1. All legislative instruments and compilations of legislative instruments are registered on the Federal Register of Legislation under the *Legislation Act 2003*. See <https://www.legislation.gov.au>.