RESOLUTION MSC.499(105)
(adopted on 28 April 2022)

AMENDMENTS TO THE INTERNATIONAL CODE OF SAFETY FOR HIGH-SPEED CRAFT, 2000 (2000 HSC CODE)

THE MARITIME SAFETY COMMITTEE,

RECALLING Article 28(b) of the Convention on the International Maritime Organization concerning the functions of the Committee,

NOTING resolution MSC.97(73), by which it adopted the International Code of Safety for High-Speed Craft, 2000 ("the 2000 HSC Code"), which has become mandatory under chapter X of the International Convention for the Safety of Life at Sea, 1974 ("the Convention"),

NOTING ALSO article VIII(b) and regulation X/1.2 of the Convention concerning the procedure for amending the 2000 HSC Code,

HAVING CONSIDERED, at its 105th session, amendments to the 2000 HSC Code proposed and circulated in accordance with article VIII(b)(i) of the Convention,

1 ADOPTS, in accordance with article VIII(b)(iv) of the Convention, amendments to the 2000 HSC Code, the text of which is set out in the annex to the present resolution;

2 DETERMINES, in accordance with article VIII(b)(vi)(2)(bb) of the Convention, that the said amendments shall be deemed to have been accepted on 1 July 2023, unless, prior to that date, more than one third of the Contracting Governments to the Convention or Contracting Governments the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant fleet have notified their objections to the amendments;

3 INVITES Contracting Governments to the Convention to note that, in accordance with article VIII(b)(vii)(2) of the Convention, the amendments shall enter into force on 1 January 2024 upon their acceptance in accordance with paragraph 2 above;

4 REQUESTS the Secretary-General, for the purposes of article VIII(b)(v) of the Convention, to transmit certified copies of the present resolution and the text of the amendments contained in the annex to all Contracting Governments to the Convention;

5 ALSO REQUESTS the Secretary-General to transmit copies of this resolution and its annex to Members of the Organization which are not Contracting Governments to the Convention.

ANNEX

AMENDMENTS TO THE INTERNATIONAL CODE OF SAFETY FOR HIGH-SPEED CRAFT, 2000 (2000 HSC CODE)

CHAPTER 8
LIFE-SAVING APPLIANCES AND ARRANGEMENTS

1 Paragraphs 8.2.1, 8.2.1.1 and 8.2.1.2 are replaced by the following:

"8.2.1 [Reserved*]

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* Refer to chapter 14 for provisions related to two-way VHF radiotelephone apparatus and search and rescue locating devices. Paragraph 8.2.1 was intentionally left blank to avoid renumbering of existing paragraphs."

CHAPTER 14
RADIOCOMMUNICATIONS

2 The text of chapter 14 (Radiocommunications) is replaced by the following:

"14.1 Application

14.1.1 Unless expressly provided otherwise, this chapter applies to all craft specified in 1.3.1 and 1.3.2.

14.1.2 This chapter does not apply to craft to which this Code would otherwise apply while such craft are being navigated within the Great Lakes of North America and their connecting and tributary waters as far east as the lower exit of the St. Lambert Lock at Montreal in the Province of Quebec, Canada.[1]

[1] Such craft are subject to special requirements relative to radio for safety purposes, as contained in the relevant agreement between Canada and the United States.

14.1.3 No provision in this chapter shall prevent the use by any craft, survival craft or person in distress of any means at their disposal to attract attention, make known their position and obtain help.

14.2 Terms and definitions

14.2.1 For the purpose of this chapter, the following terms shall have the meanings defined below:

.1 *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)).

.2 *Bridge-to-bridge communications* means safety radiocommunications between craft and ships from the position from which the craft is normally navigated

.3 *Continuous radio watch* means that the radio and listening watch concerned shall not be interrupted other than for brief intervals when the craft's receiving capability is impaired or blocked by its own communications or when the facilities are under periodical maintenance or checks.

.4 *Digital selective calling (DSC)* means a technique using digital codes which enables a radio station to establish contact with, and transfer information to, another station or group of stations, and complying with the relevant recommendations of the International Telecommunication Union Radiocommunication Sector (ITU-R).

.5 *Emergency position-indicating radio beacon (EPIRB)* means a transmitter operating in the frequency band 406.0-406.1 MHz capable of transmitting a distress alert via satellite to a rescue coordination centre and transmitting signals for on-scene locating.

.6 *General radiocommunications* means communications other than distress, urgency and safety communications.

.7 *Global Maritime Distress and Safety System (GMDSS)* means a system that performs the functions set out in paragraph 14.5.

.8 *GMDSS identities* means information which may be transmitted to uniquely identify the craft or its associated rescue boats and survival craft. These identities are the craft's call sign, Maritime Mobile Service Identity (MMSI), EPIRB hexadecimal identity, recognized mobile satellite service identities and equipment serial numbers.

.9 *Locating* means the finding of ships, craft, aircraft, survival craft or persons in distress.

.10 *Maritime safety information (MSI)*[2] means navigational and meteorological warnings, meteorological forecasts and other urgent safety-related messages broadcast to ships and craft.

[2] Refer to *Joint IMO/IHO/WMO Manual on Maritime Safety Information (MSI)* (MSC.1/Circ.1310, as revised).

.11 *Radar SART* means a search and rescue transponder operating on radar frequencies in the frequency band 9.2-9.5 GHz.

.12 *Radio Regulations* mean the Radio Regulations complementing the Constitution and Convention of the International Telecommunication Union which is in force at any given time.

.13 *Recognized mobile satellite service* means any service which operates through a satellite system and is recognized by the Organization, for use in GMDSS.

.14 *Satellite service on 406 MHz* means a service operating through a satellite system having global availability designed to detect EPIRBs transmitting in the frequency band 406.0-406.1 MHz.

.15 *Sea area A1* means an area within the radiotelephone coverage of at least one very high frequency (VHF) coast station in which continuous DSC alerting is available, as may be defined by a Contracting Government to the Convention.[3]

[3] Refer to *Provision of radio services for the Global Maritime Distress and Safety System (GMDSS)* (resolution MSC.509(105)).

.16 *Sea area A2* means an area, excluding sea area A1, within the radiotelephone coverage of at least one medium frequency (MF) coast station in which continuous DSC alerting is available, as may be defined by a Contracting Government to the Convention.[3]

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

.18 *Sea area A4* means an area outside of sea areas A1, A2 and A3.

14.2.2 All other terms and abbreviations which are used in this chapter and which are defined in the Radio Regulations and in the International Convention on Maritime Search and Rescue, 1979, as it may be amended, shall have the meanings as defined in those Regulations and the SAR Convention.

14.3 Exemptions

14.3.1 It is considered highly desirable not to deviate from the requirements of this chapter; nevertheless, the Administration, in conjunction with the base port State, may grant partial or conditional exemptions to individual craft from the requirements of 14.7 to 14.11 provided:

.1 such craft comply with the functional requirements of 14.5; and

.2 the Administration has taken into account the effect such exemptions may have upon the general efficiency of the service for the safety of all ships and craft.

14.3.2 An exemption may be granted under 14.3.1 only:

.1 if the conditions affecting safety are such as to render the full application of 14.7 to 14.11 unreasonable or unnecessary; or

.2 in exceptional circumstances, for a single voyage outside the sea area or sea areas for which the craft is equipped.

14.3.3 Each Administration shall report to the Organization on all exemptions granted under 14.3.1 and 14.3.2 giving the reasons for granting such exemptions.[4]

[4]. Exemptions should be reported through the Organization's Global Integrated Shipping Information System (GISIS) with reference to *Issue of Exemption Certificates under the 1974 SOLAS Convention and Amendments thereto* (SLS.14/Circ.115, as amended).

14.4 GMDSS Identities

14.4.1 This section applies to all craft on all voyages.

14.4.2 Each Administration undertakes to ensure that suitable arrangements are made for registering GMDSS identities and for making information on these identities available to rescue coordination centres on a 24-hour basis. Where appropriate, international organizations maintaining a registry of these identities, such as the ITU Maritime Mobile Access and Retrieval System (MARS), shall be notified by the Administration of these identity assignments.

14.5 Functional requirements[5]

[5] It should be noted that ships performing GMDSS functions should use *Guidelines for the avoidance of false distress alerts* (resolution MSC.514(105)).

14.5.1 Every craft, while at sea, shall be capable of:

.1 performing the GMDSS functions, which are as follows:

.1 transmitting ship-to-shore distress alerts by at least two separate and independent means, each using a different radiocommunication service;

.2 receiving shore-to-ship distress alert relays;

.3 transmitting and receiving ship-to-ship distress alerts;

.4 transmitting and receiving search and rescue coordinating communications;

.5 transmitting and receiving on-scene communications;

.6 transmitting and receiving signals for locating;[6]

[6] Refer also to 13.5 and 13.15, as appropriate.

.7 receiving MSI;[7]

[7] It should be noted that craft may have a need for reception of certain maritime safety information while in port.

.8 transmitting and receiving urgency and safety radiocommunications; and

.9 transmitting and receiving bridge-to-bridge communications; and

.2 transmitting and receiving general radiocommunications.

14.6 Radio installations

14.6.1 Every craft shall be provided with radio installations capable of complying with the functional requirements prescribed by 14.5 throughout its intended voyage and, unless exempted under 14.3, complying with the requirements of 14.7 and, as appropriate for the sea area or areas through which it will pass during its intended voyage, the requirements of either 14.8, 14.9, 14.10 or 14.11.

14.6.2 Every radio installation shall be:

.1 located in such a way that no harmful interference of mechanical, electrical or other origin affects its proper use, and that electromagnetic compatibility is ensured and harmful interaction avoided with other equipment and systems;

.2 so located as to ensure the greatest possible degree of safety and operational availability;

.3 protected against harmful effects of water, extremes of temperature and other adverse environmental conditions;

.4 provided with reliable, permanently arranged electrical lighting, independent of the main source of electrical power, for the adequate illumination of the radio controls for operating the radio installation; and

.5 clearly marked with the GMDSS identities, as applicable, for use by the radio installation operator.

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

14.6.4 In passenger craft, a distress panel shall be installed at the conning position, which shall:

.1 contain either one single button which, when pressed, initiates a distress alert using all radio installations required on board for that purpose or one button for each individual installation;

.2 clearly and visually indicate whenever any button or buttons have been pressed; and

.3 be provided with means to prevent inadvertent activation of the button or buttons referred to in 14.6.4.1 and 14.6.4.2.

14.6.5 In passenger craft, if an EPIRB is used as the secondary means of distress alerting and is not remotely activated from the distress panel, it shall be acceptable to have an additional EPIRB installed in the wheelhouse near the conning position.

14.6.6 In passenger craft, a distress alert panel shall be installed at the conning position, which:

.1 shall provide visual and aural indication of any distress alert or alerts received on board;

.2 shall indicate through which radiocommunication service the distress alerts have been received; and

.3 may be combined with the distress panel referred to in 14.6.4.

14.7 Radio equipment: General

14.7.1 Every craft shall be provided with:

.1 a VHF radio installation capable of transmitting and receiving, for distress, urgency and safety communications purposes:

.1 DSC on the frequency 156.525 MHz (channel 70). It shall be possible to initiate the transmission of distress alerts on channel 70 from the position from which the craft is normally navigated; and

.2 radiotelephony on the frequencies 156.300 MHz (channel 6), 156.650 MHz (channel 13) and 156.800 MHz (channel 16);

.2 a radio installation capable of maintaining a continuous DSC watch on VHF channel 70 which may be separate from, or combined with, that required by 14.7.1.1.1;

.3 a radar SART or an AIS-SART, which:

.1 shall be so stowed that it can be easily utilized; and

.2 may be one of those required by 14.7.2.1 for a survival craft;

.4 a receiver or receivers capable of receiving MSI and search and rescue related information throughout the entire voyage in which the craft is engaged;[8]

[8] Refer to *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)* (MSC.1/Circ.1645).

.5 an EPIRB[9] which shall be:

[9] Refer to *Search and rescue homing capability* (resolution A.616(15))

.1 installed in an easily accessible position;

.2 ready to be manually released and capable of being carried by one person into a survival craft;

.3 capable of floating free if the craft sinks and of being automatically activated when afloat; and

.4 capable of being activated manually; and

.6 a radio installation capable of transmitting and receiving general radiocommunications operating on working frequencies in the band between 156 MHz and 174 MHz. This requirement may be fulfilled by the addition of this capability in the equipment required by 14.7.1.1.

14.7.2 Every passenger high-speed craft and every cargo high-speed craft of 500 gross tonnage and upwards shall be provided with at least:

.1 one radar SART or AIS-SART on each side of the craft; and

.2 three two-way VHF radiotelephone apparatuses.

14.7.3 The radar SARTs or AIS-SARTs required by 14.7.2.1 shall be stowed in such locations that they can be rapidly placed in any one of the liferafts. Alternatively, one radar SART or AIS-SART shall be stowed in each survival craft.

14.7.4 Every passenger craft shall be provided with means for two-way on-scene radiocommunications for search and rescue purposes using the aeronautical frequencies 121.5 MHz and 123.1 MHz from the position from which the craft is normally navigated. These means may be portable.

14.8 Radio equipment: sea area A1

14.8.1 In addition to meeting the requirements of 14.7, every craft engaged on voyages in sea area A1 shall be provided with a radio installation capable of initiating the transmission of ship-to-shore distress alerts from the position from which the craft is normally navigated, operating either:

1 through the satellite service on 406 MHz; or

2 if the craft is on voyages within coverage of MF coast stations equipped with DSC, on MF using DSC; or

3 on high frequency (HF) using DSC; or

4 through a recognized mobile satellite service ship earth station.

14.8.2 The requirement in 14.8.1.1 may be fulfilled by installing:

.1 the EPIRB required by 14.7.1.5 close to the position from which the craft is normally navigated, but in a location whereby it can still float free of the craft in an emergency; or

.2 the EPIRB required by 14.7.1.5 elsewhere on the craft, provided that this EPIRB has a means of remote activation which is installed near the position from which the craft is normally navigated; or

.3 a second EPIRB near the position from which the craft is normally navigated.

14.9 Radio equipment: sea area A2

14.9.1 In addition to meeting the requirements of 14.7, every craft engaged on voyages within sea area A2 shall be provided with:

.1 an MF radio installation capable of transmitting and receiving, for distress, urgency and safety communications purposes, on the frequencies:

.1 2 187.5 kHz using DSC; and

.2 2 182 kHz using radiotelephony;

.2 a radio installation capable of maintaining a continuous DSC watch on the frequency 2 187.5 kHz which may be separate from, or combined with, that required by 14.9.1.1; and

.3 a secondary means of initiating the transmission of ship-to-shore distress alerts by a radio service other than MF, operating either:

.1 through the satellite service on 406 MHz; or

.2 on HF using DSC; or

.3 through recognized mobile satellite service ship earth station.

14.9.2 It shall be possible to initiate transmission of distress alerts by the radio installations specified in 14.9.1.1 and 14.9.1.3 from the position from which the craft is normally navigated.

14.9.3 The requirement in 14.9.1.3.1 may be fulfilled by installing:

.1 the EPIRB required by 14.7.1.5 close to the position from which the craft is normally navigated, but in a location whereby it can still float free of the craft in an emergency; or

.2 the EPIRB required by 14.7.1.5 elsewhere on the craft, provided that this EPIRB has a means of remote activation which is installed near the position from which the craft is normally navigated; or

.3 a second EPIRB near the position from which the craft is normally navigated.

14.9.4 The craft shall, in addition, be capable of transmitting and receiving general radiocommunications by either:

.1 a radio installation operating on working frequencies in the bands between 1 605 kHz and 4 000 kHz or between 4 000 kHz and 27 500 kHz. This requirement may be fulfilled by the addition of this capability in the equipment required by 14.9.1.1; or

.2 a recognized mobile satellite service ship earth station.

14.10 Radio equipment: sea area A3

14.10.1 In addition to meeting the requirements of 14.7, every craft engaged on voyages within sea area A3 shall be provided with:

.1 a recognized mobile satellite service ship earth station capable of:

.1 transmitting and receiving distress, urgency and safety communications;

.2 initiating and receiving distress priority calls; and

.3 maintaining watch for shore-to-ship distress alert relays, including those directed to specifically defined geographical areas;

.2 an MF radio installation capable of transmitting and receiving, for distress, urgency and safety communications purposes, on the frequencies:

.1 2 187.5 kHz using DSC; and

.2 2 182 kHz using radiotelephony;

.3 a radio installation capable of maintaining a continuous DSC watch on the frequency 2 187.5 kHz which may be separate from, or combined with, that required by 14.10.1.2; and

.4 a secondary means of initiating the transmission of ship-to-shore distress alerts by a radio service operating either:

.1 through the satellite service on 406 MHz; or

.2 on HF using DSC; or

.3 through any recognized mobile satellite service on an additional ship earth station.

14.10.2 It shall be possible to initiate transmission of distress alerts by the radio installations specified in 14.10.1.1, 14.10.1.2 and 14.10.1.4 from the position from which the craft is normally navigated.

14.10.3 The requirement in 14.10.1.4.1 may be fulfilled by installing:

.1 the EPIRB required by 14.7.1.5 close to the position from which the craft is normally navigated, but in a location whereby it can still float free of the craft in an emergency; or

.2 the EPIRB required by 14.7.1.5 elsewhere on the craft, provided that this EPIRB has a means of remote activation which is installed near the position from which the craft is normally navigated; or

.3 a second EPIRB near the position from which the craft is normally navigated.

14.10.4 The craft shall, in addition, be capable of transmitting and receiving general radiocommunications by either:

.1 a recognized mobile satellite service ship earth station; or

.2 a radio installation operating on working frequencies in the bands between 1 605 kHz and 4 000 kHz or between 4 000 kHz and 27 500 kHz.

14.10.5 The requirements in 14.10.4.1 and 14.10.4.2 may be fulfilled by the addition of this capability in the equipment required by 14.10.1.1 or 14.10.1.2, respectively.

14.11 Radio equipment: sea area A4

14.11.1 In addition to meeting the requirements of 14.7, every craft engaged on voyages within sea area A4 shall be provided with:

.1 an MF/HF radio installation capable of transmitting and receiving, for distress, urgency and safety communications purposes, on all distress, urgency and safety frequencies in the bands between 1 605 kHz and 4 000 kHz and between 4 000 kHz and 27 500 kHz:

.1 using DSC; and

.2 using radiotelephony;

.2 equipment capable of maintaining DSC watch on 2 187.5 kHz, 8 414.5 kHz and on at least one of the DSC frequencies 4 207.5 KHz, 6 312 kHz, 12 577 kHz or 16 804.5 kHz; it shall be possible at any time to select any of these DSC frequencies for distress, urgency and safety communications purposes. This equipment may be separate from, or combined with, the equipment required by 14.1.1; and

.3 a secondary means of initiating the transmission of ship-to-shore distress alerts through the satellite service on 406 MHz.

14.11.2 The craft shall, in addition, be capable of transmitting and receiving general radiocommunications by a radio installation operating on working frequencies in the bands between 1 605 kHz and 4 000 kHz and between 4 000 kHz and 27 500 kHz. This requirement may be fulfilled by the addition of this capability in the equipment required by 14.11.1.1.

14.11.3 It shall be possible to initiate transmission of distress alerts by the radio installations specified in 14.11.1.1 and 14.11.1.3 from the position from which the craft is normally navigated.

14.11.4 The requirement in 14.11.1.1.3 may be fulfilled by installing:

.1 the EPIRB required by 14.7.1.5 close to the position from which the craft is normally navigated, but in a location whereby it can still float free of the craft in an emergency; or

.2 the EPIRB required by 14.7.1.5 elsewhere on the craft, provided that this EPIRB has a means of remote activation which is installed near the position from which the craft is normally navigated; or

.3 a second EPIRB near the position from which the craft is normally navigated.

14.12 Watches

14.12.1 Every craft, while at sea, shall maintain a continuous radio watch for distress, urgency and safety communications purposes:

.1 on VHF DSC channel 70;

.2 on DSC frequency 2 187.5 kHz, if the craft, in accordance with the requirements of 14.9.1.2 or 14.10.1.3, is fitted with an MF radio installation;

.3 on DSC frequencies 2 187.5 kHz and 8 414.5 kHz and also on at least one of the DSC frequencies 4 207.5 kHz, 6 312 kHz, 12 577 kHz or 16 804.5 kHz, appropriate to the time of day and the geographical position of the craft, if the craft, in accordance with the requirement of 14.11.1.2, is fitted with an MF/HF radio installation. This watch may be kept by means of a scanning receiver; and

.4 for satellite shore-to-ship distress alert relays, if the craft, in accordance with the requirements of 14.10.1.1, is fitted with a recognized mobile satellite service ship earth station.

14.12.2 Every craft, while at sea, shall maintain a radio watch for broadcasts of MSI and search and rescue related information on the appropriate frequency or frequencies on which such information is broadcast for the area in which the craft is navigating.

14.12.3 Every craft, while at sea, shall maintain, when practicable, a continuous listening watch, which shall be kept at the position from which the craft is normally navigated, on:

.1 VHF channel 16; and

.2 other appropriate frequencies for urgency and safety radiocommunications for the area in which the craft is navigating.

14.13 Sources of energy

14.13.1 While the craft is at sea, a supply of electrical energy shall be available at all times sufficient to operate the radio installations and to charge any batteries used as part of a reserve source or sources of energy for the radio installations.

14.13.2 A reserve source or sources of energy shall be provided on every craft to supply radio installations, for the purpose of conducting distress, urgency and safety communications, in the event of failure of the craft's main and emergency sources of electrical power. The reserve source or sources of energy shall be capable of simultaneously operating the VHF radio installation required by 14.7.1.1 and, as appropriate for the sea area or sea areas for which the craft is equipped, either the MF radio installation required by 14.9.1.1 or 14.10.1.2, the MF/HF radio installation required by 14.11.1.1 or the ship earth station required by 14.10.1.1 and any of the additional loads mentioned in 14.13.5 and 14.13.8 for a period of at least:

.1 one hour on craft provided with an emergency source of electrical power, if such source of power complies fully with all relevant provisions of 12.3 and 12.7 or 12.8, including the supply of such power to the radio installations; and

.2 six hours on craft not provided with an emergency source of electrical power complying fully with all relevant provisions of 12.3 and 12.7 or 12.8, including the supply of such power to the radio installations.

The reserve source or sources of energy need not supply independent HF and MF radio installations at the same time.

14.13.3 The reserve source or sources of energy shall be independent of the propelling power of the craft and the craft's electrical system.

14.13.4 Where, in addition to the VHF radio installation, two or more of the other radio installations referred to in 14.13.2 can be connected to the reserve source or sources of energy, they shall be capable of simultaneously supplying, for the period specified, as appropriate, in 14.13.2.1 or 14.13.2.2, the VHF radio installation and:

.1 all other radio installations which can be connected to the reserve source or sources of energy at the same time; or

.2 whichever of the other radio installations will consume the most power, if only one of the other radio installations can be connected to the reserve source or sources of energy at the same time as the VHF radio installation.

14.13.5 The reserve source or sources of energy may be used to supply the electrical lighting required by 14.6.2.4.

14.13.6 Where a reserve source of energy consists of a rechargeable accumulator battery or batteries:

.1 a means of automatically charging such batteries shall be provided which shall be capable of recharging them to minimum capacity requirements within 10 hours; and

.2 the capacity of the battery or batteries shall be checked, using an appropriate method,[10] at intervals not exceeding 12 months, when the craft is not at sea.

[10] One method of checking the capacity of an accumulator battery is to fully discharge and recharge the battery, using normal operating current and period. Assessment of the charge condition can be made at any time, but it should be done without significant discharge of the battery when the ship is at sea.

14.13.7 The siting and installation of accumulator batteries which provide a reserve source of energy shall be such as to ensure:

.1 the highest degree of service;

.2 a reasonable lifetime;

.3 reasonable safety;

.4 that the battery temperatures remain within the manufacturer's specifications whether under charge or idle; and

.5 that when fully charged, the batteries will provide at least the minimum required hours of operation under all weather conditions.

14.13.8 If an uninterrupted input of information from the craft's navigational or other equipment to a radio installation required by this chapter is needed to ensure its proper performance, including the navigation receiver referred to in 14.18, means shall be provided to ensure the continuous supply of such information in the event of failure of the craft's main or emergency source of electrical power.

14.14 Performance standards

14.14.1 All equipment to which this chapter applies shall be of a type approved by the Administration. Such equipment shall conform to appropriate performance standards not inferior to those adopted by the Organization.11

11 Refer to the following performance standards adopted by the Organization:

General requirements
.1 *General requirements for shipborne radio equipment forming part of the Global Maritime Distress and Safety System (GMDSS) and for electronic navigational aids* (resolution A.694(17));
.2 *Performance standards for the presentation of navigation-related information on shipborne navigational displays* (resolution MSC.191(79), as amended);
.3 *Performance standards for bridge alert management* (resolution MSC.302(87));

VHF equipment
.4 *Performance standards for shipborne VHF radio installations capable of voice communication and digital selective calling* (resolution MSC.511(105));
.5 *Performance standards for survival craft portable two-way VHF radiotelephone apparatus* (resolution MSC.515(105));
.6 *Recommendation on Performance standards for on-scene (aeronautical) portable two-way VHF radiotelephone apparatus* (annex 1 to resolution MSC.80(70), as amended);

MF and HF equipment
.7 *System performance standard for the promulgation and coordination of maritime safety information using high-frequency narrow-band direct-printing* (resolution MSC.507(105));
.8 *Performance standards for shipborne MF and MF/HF radio installations capable of voice communication, digital selective calling and reception of maritime safety information and search and rescue related information* (resolution MSC.512(105));
.9 *Performance standards for the reception of maritime safety information and search and rescue related information by MF (NAVTEX) and HF* (resolution MSC.508(105));

Ship earth stations and enhanced group call (EGC) equipment
.10 *Performance standards for Inmarsat-C ship earth stations capable of transmitting and receiving direct-printing communications* (resolution MSC.513(105));
.11 *Revised performance standards for enhanced group call (EGC) equipment* (resolution MSC.306(87), as amended);
.12 *Performance standards for a ship earth station for use in the GMDSS* (resolution MSC.434(98));

Integrated radiocommunication systems
.13 *Performance standards for a shipborne integrated communication system (ICS) when used in the Global Maritime Distress and Safety System (GMDSS)* (resolution MSC.517(105));

Emergency position-indicating radio beacons
.14 *Performance standards for float-free release and activation arrangements for emergency radio equipment* (resolution A.662(16));
.15 *Performance standards for float-free emergency position-indicating radio beacons (EPIRBs) operating on 406 MHz* (resolution MSC.471(101));

Search and rescue transmitters and transponders

.16 *Performance standards for search and rescue radar transponders* (resolution MSC.510(105)); and

.17 *Performance standards for survival craft AIS search and rescue transmitters (AIS-SART) for use in search and rescue operations* (resolution MSC.246(83)).

14.15 Maintenance requirements

14.15.1 Equipment shall be so designed that the main units can be replaced readily without elaborate recalibration or readjustment.

14.15.2 Where applicable, equipment shall be so constructed and installed that it is readily accessible for inspection and onboard maintenance purposes.

14.15.3 Adequate information shall be provided to enable the equipment to be properly operated and maintained, taking into account the recommendations of the Organization.[12]

[12] Refer to *General requirements for shipborne radio equipment forming part of the lobal Maritime Distress and Safety System (GMDSS) and for electronic navigational aids* (resolution A.694(17)), *General requirements for electromagnetic compatibility (EMC) for all electrical and electronic ship's equipmen*t (resolution A.813(19)), and *Clarifications of certain requirements in IMO performance standards for GMDSS equipment* (MSC/Circ.862).

14.15.4 Adequate tools and spares shall be provided to enable equipment to be maintained.

14.15.5 The Administration shall ensure that radio equipment required by this chapter is maintained to provide the availability of the functional requirements specified in 14.5 and to meet the recommended performance standards of such equipment.

14.15.6 On craft engaged on voyages in sea areas A1 or A2, the availability shall be ensured by using such methods as duplication of equipment, shore-based maintenance or at-sea electronic maintenance capability, or a combination of these, as may be approved by the Administration.

14.15.7 On craft engaged on voyages in sea areas A3 or A4, the availability shall be ensured by using a combination of at least two methods, such as duplication of equipment, shore-based maintenance or at-sea electronic maintenance capability, as may be approved by the Administration.

14.15.8 However, for craft operating solely between ports where adequate facilities for shore-based maintenance of the radio installations are available, and provided that no journey between two such ports exceeds six hours, then the Administration may exempt such craft from the requirement to use at least two maintenance methods. For such craft, at least one maintenance method shall be used.

14.15.9 While all reasonable steps shall be taken to maintain the equipment in efficient working order to ensure compliance with all the functional requirements specified in 14.5, malfunction of the equipment for providing the general radiocommunications, required by 14.5.1.2, shall not be considered as making a craft unseaworthy or as a reason for delaying the craft in ports where repair facilities are not readily available, provided the craft is capable of performing all distress, urgency and safety functions.

14.15.10 EPIRBs shall be:

.1 annually tested, either on board the craft[13] or at an approved testing station, for all aspects of operational efficiency, with special emphasis on checking the emission on operational frequencies, coding and registration, at intervals specified below:\

[13] Refer to *Guidelines on annual testing of emergency position-indicating radio beacons (EPIRBs)* (MSC.1/Circ.1040/Rev.2) and *Guidelines for the avoidance of false distress alerts* (resolution MSC.514(105)).

.1 on passenger craft, within three months before the expiry date of the High-Speed Craft Safety Certificate; and

.2 on cargo craft, within three months before the expiry date, or within three months before or after the anniversary date, of the High-Speed Craft Safety Certificate; and

.2 subject to maintenance at intervals not exceeding five years, to be performed at an approved shore-based maintenance facility.[14]

[14] Refer to *Guidelines for shore-based maintenance of emergency position-indicating radio beacons (EPIRBs)* (MSC.1/Circ.1039/Rev.1).

14.16 Radio personnel

14.16.1 Every craft shall carry personnel qualified for distress, urgency and safety communications purposes to the satisfaction of the Administration.[15] The personnel shall be holders of the appropriate certificates specified in the Radio Regulations; one of the personnel shall be designated as having primary responsibility for communications during distress incidents.

[15] Refer to the STCW Code, chapter IV, section B-IV/2.

14.16.2 In passenger craft, at least one person qualified in accordance with 14.16.1 shall be assigned to perform only communications duties during distress incidents.

14.17 Radio records

A record shall be kept on board, to the satisfaction of the Administration and as required by the Radio Regulations, of all incidents connected with the radiocommunication service which appear to be of importance to safety of life at sea.

14.18 Position-updating

14.18.1 All two-way communication equipment carried on board craft to which this chapter applies which is capable of automatically including the craft's position in the distress alert shall be automatically provided with this information from an internal or external navigation receiver.[16]

[16] Requirements for automatic update of the craft's position are given in resolutions MSC.511(105), MSC.512(105) and MSC.513(105).

14.18.2 In case of malfunction of the internal or external navigation receiver the craft's position and the time at which the position was determined shall be manually updated at intervals not exceeding four hours, while the craft is under way, so that it is always ready for transmission by the equipment."

ANNEX

FORM OF HIGH-SPEED CRAFT SAFETY CERTIFICATE AND RECORD OF EQUIPMENT

High-Speed Craft Safety Certificate

3 The existing form of High-Speed Craft Safety Certificate and Record of Equipment, contained in annex 1 is replaced by the following:

"FORM OF HIGH-SPEED CRAFT SAFETY CERTIFICATE AND RECORD OF EQUIPMENT

HIGH-SPEED CRAFT SAFETY CERTIFICATE

This Certificate shall be supplemented by a Record of Equipment

(Official seal) *(State)*

Issued under the provisions of the

INTERNATIONAL CODE OF SAFETY FOR HIGH-SPEED CRAFT, 2000
(Resolution MSC.97(73))

under the authority of the Government of

_____

(full designation of the State)

by _____

(full official designation of the competent person or organization authorized by the Administration)

Particulars of craft[1]

[1] Alternatively, the particulars of the craft may be placed horizontally in boxes.

Name of craft .....

Manufacturer's model and hull number.....

Distinctive number or letters .....

IMO number[2] .....

[2] In accordance with the I*MO Ship Identification Number Scheme*, adopted by the Organization by resolution A.1117(30).

Port of registry .....

Gross tonnage .....

Sea areas in which the craft is certified to operate (paragraph 14.2.1)[3] .....

[3] For a craft certified to operate in sea area A3, indicate the recognized mobile satellite service in brackets.

Design waterline corresponding to a height of ..... below the reference line at the longitudinal centre of flotation, and draughts at the draught marks of ..... forward and ..... aft.
The upper edge of the reference line is..... at (..... mm below uppermost deck at side)[4]
(..... mm above the underside of keel)4 at longitudinal centre of flotation.

[4] Delete as appropriate.

Category category A passenger craft/category B passenger craft/cargo craft[4]

Craft type air-cushion vehicle/surface-effect ship/hydrofoil/monohull/multihull/
other (give details .....)[4]

Date on which keel was laid or craft was at
a similar stage of construction or on which
a major conversion was commenced .....

THIS IS TO CERTIFY:

1 That the above-mentioned craft has been duly surveyed in accordance with the applicable provisions of the International Code of Safety for High-Speed Craft, 2000.

2 That the survey showed that the structure, equipment, fittings, radio station arrangements and materials of the craft and the condition thereof are in all respects satisfactory and that the craft complies with the relevant provisions of the Code.

3 That the life-saving appliances are provided for a total number of ..... persons and no more as follows:
.....
.....

4 That, in accordance with 1.11 of the Code, the following equivalents have been granted in respect of the craft:

paragraph ..... equivalent arrangement .....
....

This certificate is valid until[5] .....

[5] Insert the date of expiry as specified by the Administration in accordance with 1.8.4 of the Code. The day and the month of this date correspond to the anniversary date as defined in 1.4.3 of the Code, unless amended in accordance with 1.8.12.1 of the Code.

Completion date of the survey on which this certificate is based:.....*(dd/mm/yyyy)*

Issued at .....
(Place of issue of certificate)

....
(Date of issue) *(Signature of authorized official issuing the certificate)*

(Seal or stamp of the issuing authority, as appropriate)

Endorsement for periodical surveys

THIS IS TO CERTIFY that, at a survey required by 1.5 of the Code, this craft was found to comply with the relevant provisions of the Code.

Periodical survey: Signed: .....
(Signature of authorized official)

Place:.....

Date.....
(Seal or stamp of the authority, as appropriate)

Periodical survey: Signed: .....
(Signature of authorized official)

Place:.....

Date.....
(Seal or stamp of the authority, as appropriate)

Periodical survey: Signed: .....
(Signature of authorized official)

Place:.....

Date.....
(Seal or stamp of the authority, as appropriate)

Periodical survey: Signed: .....
(Signature of authorized official)

Place:.....

Date.....
(Seal or stamp of the authority, as appropriate)

Endorsement to extend the Certificate if valid for less than 5 years where 1.8.8 of the Code applies

This craft complies with the relevant requirements of the Code, and this Certificate shall, in accordance with 1.8.8 of the Code, be accepted as valid until .....

Signed: .....
(Signature of authorized official)

Place:.....

Date.....
(Seal or stamp of the authority, as appropriate)

Endorsement where the renewal survey has been completed and 1.8.9 of the Code applies

This craft complies with the relevant requirements of the Code, and this Certificate shall, in accordance with 1.8.9 of the Code, be accepted as valid until.....

Signed: .....
(Signature of authorized official)

Place:.....

Date.....
(Seal or stamp of the authority, as appropriate)

Endorsement to extend the validity of the Certificate until reaching the port of survey where 1.8.10 of the Code applies

This Certificate shall, in accordance with 1.8.10 of the Code, be accepted as valid until.....

Signed: .....
(Signature of authorized official)

Place:.....

Date.....
(Seal or stamp of the authority, as appropriate)

Endorsement for the advancement of the anniversary date where 1.8.12 of the Code applies

In accordance with 1.8.12 of the Code, the new anniversary date is.....

Signed: .....
(Signature of authorized official)

Place:.....

Date.....
(Seal or stamp of the authority, as appropriate)

In accordance with 1.8.12 of the Code, the new anniversary date is.....

Signed: .....
(Signature of authorized official)

Place:.....

Date.....
(Seal or stamp of the authority, as appropriate)

Record of Equipment for High-Speed Craft Safety Certificate

This Record shall be permanently attached to the High-Speed Craft Safety Certificate.

RECORD OF EQUIPMENT FOR COMPLIANCE WITH THE INTERNATIONAL CODE OF SAFETY FOR HIGH-SPEED CRAFT, 2000

1 ***Particulars of craft***

Name of craft .....

Manufacturer's model and hull number .....

Distinctive number or letters .....

IMO number[2].....

[2] In accordance with the *IMO Ship Identification Number Scheme*, adopted by the Organization by resolution A.1117(30).

Category: Category A passenger craft/category B passenger craft/ cargo craft[4]

[4] Delete as appropriate.

Craft type: air-cushion, surface-effect ship, hydrofoil, monohull, multihull, other
(give details .....)[4]

Number of passengers for which certified .....

Minimum number of persons with required qualifications to operate
the radio installations .....

2 *Details of life-saving appliances*

1 Total number of persons for which life-saving appliances are provided	. . . . .
2 Total number of lifeboats	. . . . .
2.1 Total number of persons accommodated by them	. . . . .
2.2 Number of partially enclosed lifeboats complying with section 4.5 of the LSA Code	. . . . .
2.3 Number of totally enclosed lifeboats complying with sections 4.6 and 4.7 of the LSA Code	. . . . .
2.4 Other lifeboats	. . . .
2.4.1 Number	. . . .
2.4.2 Type	. . . .
3 Number of rescue boats	. . . . .
3.1 Number of boats which are included in the total lifeboats shown above	. . . . .
4 Liferafts complying with sections 4.1 to 4.3 of the LSA Code for which suitable means of launching are provided	. . . .
4.1 Number of liferafts	. . . . .
4.2 Number of persons accommodated by them	. . . . .
5 Open reversible liferafts (annex 11 of the Code)	. . . .
5.1 Number of liferafts	. . . .
5.2 Number of persons accommodated by them	. . . .
6 Number of marine evacuation system (MES)	. . . .
6.1 Number of persons served by them	

7 Number of lifebuoys	. . . . .
	. . . . .
8 Number of lifejackets	
8.1 Number suitable for adults	. . . . .
8.2 Number suitable for children	. . . . .
9 Immersion suits	. . . . .
9.1 Total number	. . . . .
9.2 Number of suits complying with the requirements for lifejackets	. . . . .
10 Number of anti-exposure suits	. . . .
10.1 Total number	. . . .
10.2 Number of suits complying with the requirements for lifejackets	. . . .

3 Details of navigational systems and equipment

1.1 Magnetic compass	.....
1.2 Transmitting heading device (THD)	.....
1.3 Gyro-compass	.....
2 Speed and distance measuring device	.....
3 Echo-sounding device	.....
4.1 9 GHz radar	.....
4.2 Second radar (3 GHz/9 GHz[4])	.....
4.3 Automatic radar plotting aid (ARPA)/Automatic tracking aid (ATA)[4]	.....
5 Receiver for a global navigation satellite system/ Terrestrial navigation system/Other means of position fixing[4 6]	.....
6.1 Rate-of-turn indicator	.....
6.2 Rudder angle indicator/Direction of steering thrust indicator[4]	.....
7.1 Nautical charts/Electronic chart display and information system (ECDIS)[4]	.....
7.2 Backup arrangements for ECDIS	.....
7.3 Nautical publications	.....
7.4 Backup arrangements for nautical publications	.....
8 Search light	.....
9 Daylight signalling lamp	.....
10 Night vision equipment	.....
11 Means to show the mode of the propulsion systems	.....

12 Automatic steering aid (Automatic pilot)	.....
13 Radar reflector/ Other means[4] [6]	.....
14 Sound reception system	.....
15 Automatic identification system (AIS)	.....
16 Long-range identification and tracking system	.....
17 Voyage data recorder (VDR)	.....
	.....

[4] Delete as appropriate.

[6] In case of "other means", they should be specified.

4 Details of radio facilities

1 Primary systems	.....
1.1 VHF radio installation	.....
1.1.1 DSC encoder	.....
1.1.2 DSC watch receiver	.....
1.1.3 Radiotelephony	.....
1.2 MF radio installation	.....
1.2.1 DSC encoder	.....
1.2.2 DSC watch receiver	.....
1.2.3 Radiotelephony	.....
1.3 MF/HF radio installation	
1.3.1 DSC encoder	
1.3.2 DSC watch receiver	.....
1.3.3 Radiotelephony	
1.4 Recognized mobile satellite service ship earth station	.....
2 Secondary means of initiating the transmission of ship-to-shore distress alerts	.....
3 Facilities for reception of MSI and search and rescue related information	.....
4 EPIRB	
5 Two-way VHF radiotelephone apparatus	.....
	.....

6 Radar SART or AIS-SART 7 Two-way on-scene radiocommunications 121.5 MHz & 123.1 MHz	.....

5 Methods used to ensure availability of radio facilities (paragraphs 14.15.6, 14.15.7 and 14.15.8 of the Code)

5.1 Duplication of equipment .....

5.2 Shore-based maintenance .....

5.3 At-sea maintenance capability .....

THIS IS TO CERTIFY that this Record is correct in all respects.

Issued at

.....

(Place of issue of the Record)

....

(Date of issue) (Signature of duly authorized official issuing the Record)

(Seal or stamp of the issuing authority, as appropriate)"

***