INTERNATIONAL MARITIME ORGANIZATION

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MARITIME SAFETY COMMITTEE
106th session
Agenda item 19

MSC 106/19/Add.1*
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# REPORT OF THE MARITIME SAFETY COMMITTEE ON ITS 106TH SESSION

Attached are the annexes to the report of the Maritime Safety Committee on its 106th session (MSC 106/19).

* Re-issued on 14 February 2023 to apply editorial corrections to footnote numbers 5 to 9 in annex 4. In addition, editorial improvements (i.e. adjustments to the text font);
.2 insertion of a new consequential amendment to the "contents" section of the 2011 ESP Code, emanating from the amendment contained on page 4, paragraph 9, as well as consequential renumbering of the subsequent paragraphs; and
.3 correction of an error in the title of "Annex B" of the 2011 ESP Code on page 6, by replacing the word "carriers" with "tankers".



NEW TECHNOLOGIES FOR GREENER SHIPPING

**LIST OF ANNEXES**

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**ANNEX 1**

**RESOLUTION MSC.519(106)**
**(adopted on 11 November 2022)**

**MEMBER STATES' OBLIGATIONS IN CONNECTION WITH SEARCH AND RESCUE SERVICES UNDER THE SOLAS AND SAR CONVENTIONS IN THE CONTEXT OF ARMED CONFLICTS**

THE MARITIME SAFETY COMMITTEE,

RECALLING article 28 of the Convention on the International Maritime Organization concerning the functions of the Committee,

RECALLING ALSO the purposes of the International Maritime Organization (IMO) as set forth in Article 1 of the Convention, and the mission in the Strategic Plan of IMO to promote safe, secure, environmentally sound, efficient and sustainable shipping through cooperation,

NOTING that the Council, at its thirty-fifth extraordinary session, relating to the conflict in Ukraine:

.1 recalled that United Nations General Assembly resolution A/RES/ES-11/1 of 2 March 2022, inter alia, condemned the declaration by the Russian Federation of a "special military operation" in Ukraine, deplored in the strongest terms the aggression by the Russian Federation against Ukraine in violation of article 2(4) of the Charter of the United Nations, and demanded that the Russian Federation immediately cease its use of force against Ukraine and refrain from any further unlawful threat or use of force against any Member State;

.2 strongly condemned the Russian Federation's violation of the territorial integrity and the sovereignty of a United Nations Member State, extending to its territorial waters, which was inconsistent with the principles of the Charter of the United Nations and the purposes of the Organization as set forth in Article 1 of the Convention and represented a grave danger to life and a serious risk to the safety of navigation and the marine environment;

.3 deplored the attacks of the Russian Federation aimed at commercial vessels, their seizures, including search and rescue vessels, threatening the safety and welfare of seafarers and the marine environment;

.4 demanded that the Russian Federation cease its unlawful activities to ensure the safety and welfare of seafarers and the security of international shipping and the marine environment in all affected areas, and respect its obligations under relevant international treaties and conventions;

.5 requested IMO committees to consider the implications of this situation for the implementation of the Organization's instruments, take appropriate action and report back to the Council,

RECALLING that resolution MSC.495(105) on *Actions to facilitate the urgent evacuation of seafarers from the war zone area in and around the Black Sea and the Sea of Azov as a result of the Russian Federation aggression against Ukraine* expressed alarm at the reports of illegal seizure and detention of search and rescue vessels, and their crews, all of which enjoy special protection under international humanitarian law,

RECOGNIZING that States are obliged to promote the operation and maintenance of an effective search and rescue service and ensure that necessary arrangements are made for distress communication, including the establishment of relevant shore-based infrastructure and operational coordination in their area of responsibility, where necessary, with those of neighbouring States to effectively support search and rescue service, as set out in article 98 of the United Nations Convention on the Law of the Sea (UNCLOS), regulations V/7 and V/33 of the International Convention for the Safety of Life at Sea, 1974 (SOLAS), paragraph 2.1.1 of the International Convention on Maritime Search and Rescue, 1979 (SAR Convention), as well as in relevant provisions of the International Aeronautical and Maritime Search and Rescue Manual,

RECALLING that chapter 3 of the SAR Convention provides for the mechanism of cooperation between States, in particular coordination with those of neighbouring States,

CONSIDERING that seafarers constitute a special category of workers who need particular protection according to the *Guidelines on fair treatment of seafarers in the event of a maritime accident*, as adopted by resolution LEG.3(91) of 27 April 2006,

1 REAFFIRMS that all States that are Parties to the SAR Convention shall ensure the provision of effective and efficient SAR services that include the coordination of SAR operations upon notification of persons in distress at sea;

2 ALSO REAFFIRMS that SAR services should be provided regardless of the nationality or status of the person or the circumstances in which that person is found;

3 URGES Member States to refrain during an armed conflict from:

.1 preventing SAR units and facilities available to render assistance to persons in distress from performing their functions and hampering the effective and efficient coordination of SAR operations by rescue coordination centres (RCC) and rescue sub-centres (RSC) within their search and rescue regions;

.2 hindering SAR services by the seizure of SAR units and facilities and their crews, RCCs and RSCs;

.3 detaining crew members of SAR units and facilities and RCC/RSC personnel;

4 CALLS on Member States to take measures to coordinate the provision of SAR services and any other assistance in situations of distress in accordance with relevant provisions of the SOLAS and SAR conventions, while evaluating the situation and risks to people and resources in providing the SAR service;

5 ALSO CALLS on Member States, should they consider that SAR services under their authority have been obstructed, to inform the Organization about the circumstances and request support to address concerns, as appropriate.

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**ANNEX 2**

**RESOLUTION MSC.520(106)**
**(adopted on 10 November 2022)**

**AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974 (CHAPTER II-2)**

THE MARITIME SAFETY COMMITTEE,

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

RECALLING ALSO article VIII(b) of the International Convention for the Safety of Life at Sea, 1974 ("the Convention"), concerning the amendment procedure applicable to the annex to the Convention, other than to the provisions of chapter I,

HAVING CONSIDERED, at its 106th session, amendments to the Convention 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 Convention 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 2025, 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 the Secretary-General of 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 2026 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 CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974**

**CHAPTER II-2**
**CONSTRUCTION – FIRE PROTECTION, FIRE DETECTION AND FIRE EXTINCTION**

**Part A**
**General**

**Regulation 1 – *Application***

1 Paragraph 2.5 is replaced by the following:

"2.5 Ships constructed before 1 July 2012 shall also comply with regulation 10.10.1.2, as adopted by resolution MSC.338(91) and regulations 4.2.1.6 to 4.2.1.8, as amended by resolution MSC.520(106)."

**Regulation 3 – *Definitions***

2 The following new paragraphs are added after existing paragraph 58, together with the associated footnotes:

"59 *Confirmed case (flashpoint)* is when a representative sample analysed in accordance with standards acceptable to the Organization* by an accredited laboratory** reports the flashpoint as measured to be below 60°C.

* ISO 2719:2016- Determination of flash point – Pensky-Martens closed cup method, Procedure A (for Distillate Fuels) or Procedure B (for Residual Fuels).

** The laboratory is to be accredited to ISO/IEC 17025:2017 or an equivalent standard for the performance of the given flash point test ISO 2719:2016.

60 *Representative sample* is a product specimen having its physical and chemical characteristics identical to the average characteristics of the total volume being sampled.

61 *Oil fuel* is defined in regulation 1 of Annex 1 of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto."

**Part B**
**Prevention of fire and explosion**

**Regulation 4 - *Probability of ignition***

3 At the end of paragraph 2.1.4, the word "and" is deleted and at the end of paragraph 2.1.5, "." is replaced by ";".

4 The following new sub-paragraphs are added after existing paragraph 2.1.5, together with the associated footnotes:

".6 ships carrying oil fuel shall prior to bunkering be provided with a declaration signed and certified by the oil fuel supplier's representative, that the oil fuel to be supplied is in conformity with paragraph 2.1 of this regulation, and the test method used for determining the flashpoint. A bunker delivery note for the oil fuel delivered to the ship shall contain either the flashpoint specified in accordance with standards acceptable to the Organization,* or a statement that the flashpoint has been measured at or above 70ºC;**

* ISO 2719:2016, Determination of flash point – Pensky-Martens closed cup method, Procedure A (for Distillate Fuels) or Procedure B (for Residual Fuels).

** This information may be included in the bunker delivery note according to MARPOL Annex VI/18.

.7 Contracting Governments undertake to ensure that appropriate authorities designated by them inform the Organization, for transmission to Contracting Governments and Member States thereof, of all confirmed cases (flashpoint) where oil fuel suppliers have failed to meet the requirements specified in paragraph 2.1 of this regulation; and

.8 Contracting Governments undertake to ensure that appropriate authorities designated by them take action, as appropriate, against oil fuel suppliers that have been found to deliver oil fuel that does not comply with paragraph 2.1 of this regulation."

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**ANNEX 3**

**RESOLUTION MSC.521(106)**
**(adopted on 10 November 2022)**

**AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974 (CHAPTER XV)**

THE MARITIME SAFETY COMMITTEE,

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

RECALLING ALSO article VIII(b) of the International Convention for the Safety of Life at Sea, 1974 ("the Convention"), concerning the amendment procedure applicable to the annex to the Convention, other than to the provisions of chapter I,

HAVING CONSIDERED, at its 106th session, amendments to the Convention 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 Convention 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 January 2024, 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 the Secretary-General of 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 July 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 CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974**

**CHAPTER XV**
**SAFETY MEASURES FOR SHIPS CARRYING INDUSTRIAL PERSONNEL**

The following new chapter XV (Safety measures for ships carrying industrial personnel) is added after existing chapter XIV (Safety measures for ships operating in polar waters):

**"CHAPTER XV**
**Safety measures for ships carrying industrial personnel**

**Regulation 1 - *Definitions***

For the purpose of this chapter:

1 *Industrial personnel (IP)* means all persons transported or accommodated on board for the purpose of offshore industrial activities performed on board other ships and/or offshore facilities.

2 *IP Code* means the International Code of Safety for Ships Carrying Industrial personnel, as adopted by the Maritime Safety Committee by resolution MSC.527(106), as may be amended, provided that such amendments are adopted, brought into force and take effect in accordance with the provisions of article VIII of the present Convention concerning the amendment procedures applicable to the annex other than chapter I.

3 *Offshore industrial activities* mean the construction, maintenance, decommissioning, operation or servicing of offshore facilities related, but not limited to, exploration and exploitation of resources by the renewable or hydrocarbon energy sectors, aquaculture, ocean mining or similar activities.

4 *HSC Code* means the International Code of Safety for High-Speed Craft, 2000, adopted by the Maritime Safety Committee by resolution MSC.97(73), as may be amended, provided that such amendments are adopted, brought into force and take effect in accordance with the provisions of article VIII of the present Convention concerning the amendment procedures applicable to the annex other than chapter I.

**Regulation 2 - *General***

1 Wherever in the IP Code a reference is made to passenger ship requirements, the corresponding cargo ship requirements are deemed to be complied with.

2 For the purpose of this chapter, industrial personnel shall not be treated or considered as passengers.

3 Wherever in this chapter, or in the IP Code, the number of industrial personnel appears as a parameter, it shall be the aggregate number of industrial personnel, special personnel[1] and passengers carried on board, where the number of passengers shall not exceed 12.

4 Notwithstanding the provisions of regulation 2.1 above, for high-speed craft to which chapter X applies and notwithstanding the provisions of chapters 2 to 12 and 18 of the HSC Code, a ship certified in accordance with the requirements of this chapter and the IP Code shall be deemed to have complied with the requirements of chapters 2 to 12 and 18 of the HSC Code.

[1] Refer to the Code of Safety for Special Purpose Ships, 2008.

**Regulation 3**
*Application*

1 Unless expressly provided otherwise, this chapter applies to cargo ships and high-speed cargo craft, of 500 gross tonnage and upwards, constructed on or after 1 July 2024 which carry more than 12 industrial personnel.

2 Cargo ships constructed before 1 July 2024, authorized by the Administration to carry more than 12 industrial personnel in accordance with the recommendations developed by the Organization, shall comply with regulations III/1, III/2 (except for paragraph 2.1.7), IV/7 and IV/8 of the IP Code by the first intermediate or renewal survey, whichever occurs first, after 1 July 2024.

3 High-speed cargo craft constructed before 1 July 2024, authorized by the Administration to carry more than 12 industrial personnel in accordance with the recommendations developed by the Organization,[2] shall comply with regulations III/1, III/2 (except for paragraph 2.1.7), V/7 and V/8 of the IP Code by the third periodical or first renewal survey, whichever occurs first, after 1 July 2024.

4 Cargo ships and high-speed cargo craft, irrespective of date of construction, which prior to the 1 July 2024 have not been authorized by the Administration to carry more than 12 industrial personnel based on the recommendations developed by the Organization,[2] shall comply and be certified in accordance with this chapter and the IP Code prior to the carriage of more than 12 industrial personnel on board.

[2] Refer to the *Interim recommendations on the safe carriage of more than 12 industrial personnel on board vessels engaged on international voyages* (resolution MSC.418(97)).

5 For the purpose of this chapter, the expression *constructed* refers to the description given in regulations:

.1 II-2/1.1.2.1, as complemented by regulation II-2/1.1.3 for cargo ships; and

.2 X/1.4, as complemented by regulation X/1.5 for high-speed cargo craft.

**Regulation 4 - *Application of other chapters***

1 The regulations for cargo ships contained in the other chapters of the present Convention apply to ships described in regulation 3.1 above, except as modified by this chapter.

2 Notwithstanding the provisions of regulation 4.1 above, for high-speed craft to which the HSC Code applies, the regulations for cargo craft in that Code apply except as modified by this chapter.

**Regulation 5 - *Requirements***

1 Ships and high-speed craft to which this chapter applies shall:

.1 be certified as a cargo ship or high-speed cargo craft in accordance with either chapter I or chapter VIII or chapter X, as applicable;

.2 meet the requirements of the IP Code; and

.3 in addition to the requirements of regulations I/8, I/9 and I/10 or of sections 1.5 to 1.9 of the HSC Code, as applicable, be surveyed and certified, as provided for in the IP Code.

2 Ships and high-speed craft to which this chapter applies, holding a certificate issued pursuant to the provisions of regulation 5.1 above, shall be subject to the control established in regulation I/19 or XI-1/4, and in 1.10 of the HSC Code, as applicable. For this purpose, such certificates shall be treated as a certificate issued under regulation I/12 or I/13."

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**ANNEX 4**

**RESOLUTION MSC.522(106)**
**(adopted on 10 November 2022)**

**AMENDMENTS TO THE PROTOCOL OF 1978 RELATING TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974**

THE MARITIME SAFETY COMMITTEE,

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

RECALLING ALSO article VIII(b) of the International Convention for the Safety of Life at Sea, 1974 ("the Convention") and article II of the Protocol of 1978 relating to the Convention ("the 1978 SOLAS Protocol") concerning the procedure for amending the 1978 SOLAS Protocol,

HAVING CONSIDERED, at its 106th session, amendments to the 1978 SOLAS Protocol proposed and circulated in accordance with article VIII(b)(i) of the Convention and article II of the 1978 SOLAS Protocol,

1 ADOPTS, in accordance with article VIII(b)(iv) of the Convention and article II of the 1978 SOLAS Protocol, amendments to the appendix to the annex to the 1978 SOLAS Protocol 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 and article II of the 1978 SOLAS Protocol, that the said amendments shall be deemed to have been accepted on 1 July 2025, unless, prior to that date, more than one third of the Parties to the 1978 SOLAS Protocol or Parties the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant fleet have notified the Secretary-General of their objections to the amendments;

3 INVITES the Parties concerned to note that, in accordance with article VIII(b)(vii)(2) of the Convention and article II of the 1978 SOLAS Protocol, the amendments shall enter into force on 1 January 2026 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 and article II of the 1978 SOLAS Protocol, to transmit certified copies of the present resolution and the text of the amendments contained in the annex to all Parties to the 1978 SOLAS Protocol;

5 ALSO REQUESTS the Secretary-General to transmit copies of this resolution and its annex to Members of the Organization which are not Parties to the 1978 SOLAS Protocol.

ANNEX

**AMENDMENTS TO THE PROTOCOL OF 1978 RELATING TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974**

ANNEX

**MODIFICATIONS AND ADDITIONS TO THE ANNEX TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974**

**APPENDIX**

The existing form of the Cargo Ship Safety Equipment Certificate is replaced by the following:

***"FORM OF SAFETY EQUIPMENT CERTIFICATE FOR CARGO SHIPS***

**CARGO SHIP SAFETY EQUIPMENT CERTIFICATE**

This Certificate shall be supplemented by a Record of Equipment for Cargo Ship Safety (Form E)

(Official seal) (State)

Issued under the provisions of the
INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE
AT SEA, 1974, as modified by the Protocol of 1978 relating thereto

under the authority of the Government of

_____
(*name of the State*)

by _____
(*person or organization authorized*)

***Particulars of ship***[1]

Name of ship .....

Distinctive number or letters .....

Port of registry .....

Gross tonnage .....

Deadweight of ship (metric tons)[2] .....

Length of ship (regulation III/3.12) .....

IMO number[3] .....

Type of ship[4]

Bulk carrier
Oil tanker
Chemical tanker
Gas carrier
Cargo ship other than any of the above

Date on which keel was laid or ship was at a similar stage of construction or,

where applicable, date on which work for a conversion or an alteration

or modification of a major character was commenced.....

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1 Alternatively, the particulars of the ship may be placed horizontally in boxes.

2 For oil tankers, chemical tankers and gas carriers only.

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

4 Delete as appropriate.

***THIS IS TO CERTIFY:***

1 That the ship has been surveyed in accordance with the requirements of regulation I/8 of the Convention, as modified by the 1978 Protocol.

2 That the survey showed that:

2.1 the ship complied with the requirements of the Convention as regards fire safety systems and appliances and fire control plans;

2.2 the life-saving appliances and the equipment of the lifeboats, liferafts and rescue boats were provided in accordance with the requirements of the Convention;

2.3 the ship was provided with a line-throwing appliance in accordance with the requirements of the Convention;

2.4 the ship complied with the requirements of the Convention as regards shipborne navigational equipment, means of embarkation for pilots and nautical publications;

2.5 the ship was provided with lights, shapes and means of making sound signals and distress signals in accordance with the requirements of the Convention and the International Regulations for Preventing Collisions at Sea in force;

2.6 in all other respects the ship complied with the relevant requirements of the Convention;

2.7 the ship was/was not[4] subjected to an alternative design and arrangements in pursuance of regulation(s) II-2/17 / III/38[4] of the Convention;

2.8 a document of approval of alternative design and arrangements for fire protection/life-saving appliances and arrangements[4] is/is not[4] appended to this Certificate.

3 That the ship operates in accordance with regulation III/26.1.1.1[5] within the limits of the trade area ……

4 That in implementing regulation I/6(b) the Government has instituted:

- mandatory annual surveys;
- unscheduled inspections.

5 That an Exemption Certificate has/has not[4] been issued.

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[4] Delete as appropriate.

[5] Refer to the 1983 amendments to SOLAS (MSC.6(48)), applicable to ships constructed on or after 1 July 1986, but before 1 July 1998 in the case of self-righting partially enclosed lifeboat(s) on board.

***This certificate is valid until*** …….

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)

**INTERMEDIATE SURVEY**

(for tankers of 10 years of age and over)

This is to certify that at an intermediate survey required by regulation I/8 of the Convention, as modified by the 1978 Protocol, this ship was found to comply with relevant provisions of the Convention.

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

Place: ……..…….

Date: ……..……..

(Seal or stamp of the authority, as appropriate)

**MANDATORY ANNUAL SURVEYS OR UNSCHEDULED INSPECTIONS**

This is to certify that the ship has been surveyed in accordance with regulation I/6(b) of the Convention, as modified by the 1978 Protocol and the relevant recommendations of the Organization.[6]

mandatory annual survey[4] [7]

unscheduled inspection[4]

Signed: ..……..……..…….

Place: ...…….……..……

Date: …….…….……..…

(Seal or stamp of the authority as appropriate)

***

Under the provisions of regulation I/14 of the Convention, as modified by the 1978 Protocol, the validity of this Certificate is extended until …….....

Signed: …….....

Place: ……..…

Date: ……..….

(Seal or stamp of the authority as appropriate)"

4 Delete as appropriate.

6 Reference is made to the *Guidelines on surveys required by the 1978 SOLAS Protocol, the International Bulk Chemical Code and the International Gas Carrier Code*, adopted by the Organization by resolution A.560(14), as amended by resolution MSC.84(70), and applicable parts of the *Survey Guidelines under the Harmonized System of Survey and Certification (HSSC), 2011*, as may be amended, adopted by the Organization by resolution A.1053(27).

7 An intermediate survey, but not an unscheduled inspection, may take the place of a mandatory annual survey.

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**ANNEX 5**

**RESOLUTION MSC.523(106)**
**(adopted on 10 November 2022)**

**AMENDMENTS TO THE INTERNATIONAL CODE FOR THE CONSTRUCTION AND EQUIPMENT OF SHIPS CARRYING LIQUEFIED GASES IN BULK (IGC 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.5(48), by which it adopted the International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk ("the IGC Code"), which has become mandatory under chapter VII of the International Convention for the Safety of Life at Sea, 1974 ("the Convention"),

NOTING ALSO article VIII(b) and regulation VII/11.1 of the Convention concerning the procedure for amending the IGC Code,

HAVING CONSIDERED, at its 106th session, amendments to the IGC 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 IGC 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 2025, 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 2026 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 FOR THE CONSTRUCTION AND EQUIPMENT OF SHIPS CARRYING LIQUEFIED GASES IN BULK (IGC CODE)**

**CHAPTER 6**
**MATERIALS OF CONSTRUCTION AND QUALITY CONTROL**

## 6.4 Requirements for metallic materials

### 6.4.1 General requirements for metallic materials

Table 6.3 is replaced in its entirety by the following:

**"Table 6.3**

| **PLATES, SECTIONS AND FORGINGS See note 1 FOR CARGO TANKS, SECONDARY BARRIERS AND PROCESS PRESSURE VESSELS FOR DESIGN TEMPERATURES BELOW -55°C AND DOWN TO -165°C See note 2 Maximum thickness 25 mm See notes 3 and 4** | | |
|---|---|---|
| Minimum design temperature (°C) | Chemical composition See note 5 and heat treatment | Impact test temperature (°C) |
| -60 | 1.5% nickel steel – normalized or normalized and tempered or quenched and tempered or TMCP See note 6 | -65 |
| -65 | 2.25% nickel steel – normalized or normalized and tempered or quenched and tempered or TMCP See notes 6 and 7 | -70 |
| -90 | 3.5% nickel steel – normalized or normalized and tempered or quenched and tempered or TMCP. See notes 6 and 7 | -95 |
| -105 | 5% nickel steel – normalized or normalized and tempered or quenched and tempered See notes 6, 7 and 8 | -110 |
| -165 | 9% nickel steel – double normalized and tempered or quenched and tempered See note 6 | -196 |
| -165 | Austenitic steels, such as types 304, 304L, 316, 316L, 321 and 347 solution treated See note 9 | -196 |
| -165 | High manganese austenitic steel – hot rolling and controlled cooling See notes 10 and 11 | -196 |
| -165 | Aluminium alloys, such as type 5083 annealed | Not required |
| -165 | Austenitic Fe-Ni alloy (36% nickel). Heat treatment as agreed | Not required |
| **TENSILE AND TOUGHNESS (IMPACT) TEST REQUIREMENTS** | | |
| **Sampling frequency** | | |
| ◆ Plates | Each "piece" to be tested | |
| ◆ Sections and forgings | Each "batch" to be tested | |
| Toughness (Charpy V-notch test) | | |
| ◆ Plates | Transverse test pieces. Minimum average energy value (KV) 27J | |
| ◆ Sections and forgings | Longitudinal test pieces. Minimum average energy (KV) 41J | |

***Notes***

1 The impact test required for forgings used in critical applications shall be subject to special consideration by the Administration.

2 The requirements for design temperatures below -165°C shall be specially agreed with the Administration.

3 For materials 1.5% Ni, 2.25% Ni, 3.5% Ni and 5% Ni, with thicknesses greater than 25 mm, the impact tests shall be conducted as follows:

| Material thickness (mm) | Test temperature (°C) |
|---|---|
| 25 < t ≤ 30 | 10°C below design temperature |
| 30 < t ≤ 35 | 15°C below design temperature |
| 35 < t ≤ 40 | 20°C below design temperature |

The energy value shall be in accordance with the table for the applicable type of test specimen. For material thickness of more than 40 mm, the Charpy V-notch values shall be specially considered.

4 For 9% Ni steels, austenitic stainless steels, high manganese austenitic steels and aluminium alloys, thickness greater than 25 mm may be used.

5 The chemical composition limits shall be in accordance with recognized standards.

6 TMCP nickel steels will be subject to acceptance by the Administration.

7 A lower minimum design temperature for quenched and tempered steels may be specially agreed with the Administration.

8 A specially heat-treated 5% nickel steel, for example triple heat-treated 5% nickel steel, may be used down to -165°C, provided that the impact tests are carried out at -196°C.

9 The impact test may be omitted, subject to agreement with the Administration.

10 The use of the material shall be subject to the required conditions specified by the Administration based on the Guidelines developed by the Organization.*

11 The impact test may not be omitted for high manganese austenitic steel."

* Refer to the *Revised guidelines on the application of high manganese austenitic steel for cryogenic service* (MSC.1/Circ.1599/Rev.2).

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**ANNEX 6**

**RESOLUTION MSC.524(106)**
**(adopted on 10 November 2022)**

**AMENDMENTS TO THE INTERNATIONAL CODE OF SAFETY FOR SHIPS USING GASES OR OTHER LOW-FLASHPOINT FUELS (IGF 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.391(95), by which it adopted the International Code of Safety for Ships using Gases or other Low-flashpoint Fuels (IGF Code), which has become mandatory under chapters II-1 and II-2 of the International Convention for the Safety of Life at Sea, 1974 ("the Convention"),

NOTING ALSO article VIII(b) and regulation II-1/2.29 of the Convention concerning the procedure for amending the IGF Code,

HAVING CONSIDERED, at its 106th session, amendments to the IGF 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 IGF 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 2025, 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 2026 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 SHIPS USING GASES OR OTHER LOW-FLASHPOINT FUELS (IGF CODE)**

**PART A-1**
**SPECIFIC REQUIREMENTS FOR SHIPS USING NATURAL GAS AS FUEL**

**7 – Material and general pipe design**

**7.4 Regulations for materials**

**7.4.1 Metallic materials**

Table 7.3 is replaced in its entirety, by the following:

**"Table 7.3**

| **PLATES, SECTIONS AND FORGINGS see note 1 FOR FUEL TANKS, SECONDARY BARRIERS AND PROCESS PRESSURE VESSELS FOR DESIGN TEMPERATURES BELOW MINUS 55°C AND DOWN TO MINUS 165°C see note 2 Maximum thickness 25 mm see notes 3 and 4** | | |
|---|---|---|
| Minimum design temp. (°C) | Chemical composition see note 5 and heat treatment | Impact test temp. (°C) |
| -60 | 1.5% nickel steel – normalized or normalized and tempered or quenched and tempered or TMCP see note 6 | -65 |
| -65 | 2.25% nickel steel – normalized or normalized and tempered or quenched and tempered or TMCP see notes 6 and 7 | -70 |
| -90 | 3.5% nickel steel – normalized or normalized and tempered or quenched and tempered or TMCP see notes 6 and 7 | -95 |
| -105 | 5% nickel steel – normalized or normalized and tempered or quenched and tempered see notes 6, 7 and 8 | -110 |
| -165 | 9% nickel steel – double normalized and tempered or quenched and tempered see note 6 | -196 |
| -165 | Austenitic steels, such as types 304, 304L, 316, 316L, 321 and 347 solution treated see note 9 | -196 |
| -165 | High manganese austenitic steel – hot rolling and controlled cooling see notes 10 and 11 | -196 |
| -165 | Aluminium alloys, such as type 5083 annealed | Not required |
| -165 | Austenitic Fe-Ni alloy (36% nickel). Heat treatment as agreed | Not required |

| TENSILE AND TOUGHNESS (IMPACT) TEST REGULATIONS | |
|---|---|
| Sampling frequency | |
| ◆ Plates | Each "piece" to be tested |
| ◆ Sections and forgings | Each "batch" to be tested |
| Toughness (Charpy V-notch test) | |
| ◆ Plates | Transverse test pieces. Minimum average energy value (KV) 27J |
| ◆ Sections and forgings | Longitudinal test pieces. Minimum average energy (KV) 41J |

***Notes***

1. The impact test required for forgings used in critical applications shall be subject to special consideration by the Administration.

2. The regulations for design temperatures below -165°C shall be specially agreed with the Administration.

3. For materials 1.5% Ni, 2.25% Ni, 3.5% Ni and 5% Ni, with thicknesses greater than 25 mm, the impact tests shall be conducted as follows:

| Material thickness (mm) | Test temperature (°C) |
|---|---|
| 25 < t ≤ 30 | 10°C below design temperature |
| 30 < t ≤ 35 | 15°C below design temperature |
| 35 < t ≤ 40 | 20°C below design temperature |

   The energy value shall be in accordance with the table for the applicable type of test specimen. For material thickness of more than 40 mm, the Charpy V-notch values shall be specially considered.

4. For 9% Ni steels, austenitic stainless steels, high manganese austenitic steels and aluminium alloys, thickness greater than 25 mm may be used.

5. The chemical composition limits shall be in accordance with recognized standards.

6. Thermo-mechanical controlled processing (TMCP) nickel steels will be subject to acceptance by the Administration.

7. A lower minimum design temperature for quenched and tempered steels may be specially agreed with the Administration.

8. A specially heat-treated 5% nickel steel, for example triple heat-treated 5% nickel steel, may be used down to -165°C, provided that the impact tests are carried out at -196°C.

9. The impact test may be omitted subject to agreement with the Administration.

10. The use of the material shall be subject to the required conditions specified by the Administration based on the Guidelines developed by the Organization.*

11. The impact test may not be omitted for high manganese austenitic steel."

* Refer to the *Revised guidelines on the application of high manganese austenitic steel for cryogenic service* (MSC.1/Circ.1599/Rev.2).

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**ANNEX 7**

**RESOLUTION MSC.525(106)**
**(adopted on 10 November 2022)**

**AMENDMENTS TO THE INTERNATIONAL CODE ON THE ENHANCED PROGRAMME OF INSPECTIONS DURING SURVEYS OF BULK CARRIERS AND OIL TANKERS, 2011 (2011 ESP 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 A.1049(27), by which the Assembly adopted the International Code on the Enhanced Programme of Inspections during Surveys of Bulk Carriers and Oil Tankers, 2011 ("the 2011 ESP Code"), which has become mandatory under chapter XI-1 of the International Convention for the Safety of Life at Sea, 1974 ("the Convention"),

NOTING ALSO article VIII(b) and regulation XI-1/2 of the Convention concerning the procedure for amending the 2011 ESP Code,

HAVING CONSIDERED, at its 106th session, amendments to the 2011 ESP 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 2011 ESP 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 January 2024, 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 July 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 ON THE ENHANCED PROGRAMME OF INSPECTIONS DURING SURVEYS OF BULK CARRIERS AND OIL TANKERS, 2011 (2011 ESP CODE)

**Contents**

1 Under "Annex A", "Part B", "3 Annual survey", a new item is added after existing paragraph 3.6, as follows:

"3.7 Examination of double-side skin void spaces for bulk carriers exceeding 20 years of age and of 150 m in length and upwards"

## ANNEX A

## CODE ON THE ENHANCED PROGRAMME OF INSPECTIONS DURING THE SURVEYS OF BULK CARRIERS

## Part A

## CODE ON THE ENHANCED PROGRAMME OF INSPECTIONS DURING SURVEYS OF BULK CARRIERS HAVING SINGLE-SIDE SKIN CONSTRUCTION

### 2 Renewal survey

### 2.3 *Space protection*

2 Paragraph 2.3.1 is replaced by the following:

"2.3.1 Where provided, the condition of the corrosion prevention system of ballast tanks shall be examined. For ballast tanks, excluding double-bottom tanks, where a hard protective coating is found to be in less than GOOD condition as defined in 1.2.11, and it is not renewed, or where a soft or semi-hard coating has been applied, or where a hard protective coating has not been applied from the time of construction, the tanks in question shall be examined at annual intervals. Thickness measurements shall be carried out as deemed necessary by the surveyor. When such breakdown of hard protective coating is found in water ballast double-bottom tanks and it is not renewed, where a soft or semi-hard coating has been applied or where a hard protective coating has not been applied from the time of construction, the tanks in question may be examined at annual intervals. When considered necessary by the surveyor, or where extensive corrosion exists, thickness measurement shall be carried out."

### 4 Intermediate survey

### 4.2 *Single-side skin bulk carriers 5 to 10 years of age*

3 Paragraphs 4.2.1.2 and 4.2.1.3 are replaced by the following:

"4.2.1.2 Where a hard coating is found to be in less than GOOD condition, corrosion or other defects are found in water ballast tanks, or where hard protective coating was not applied from the time of construction, the examination shall be extended to other ballast tanks of the same type.

4.2.1.3 In ballast tanks other than double-bottom tanks, where a hard protective coating is found to be in less than GOOD condition and it is not renewed, or where a

soft or semi-hard coating has been applied, or where a hard protective coating was not applied from the time of construction, the tanks in question shall be examined and thickness measurements carried out as considered necessary at annual intervals. When such breakdown of hard protective coating is found in ballast double-bottom tanks, where a soft or semi-hard coating has been applied, or where a hard protective coating has not been applied, the tanks in question may be examined at annual intervals. When considered necessary by the surveyor, or where extensive corrosion exists, thickness measurements shall be carried out."

ANNEX 7

**CONDITION EVALUATION REPORT (EXECUTIVE HULL SUMMARY REPORT)**

***Contents of condition evaluation report (executive hull summary report)***

4 Part 8 (Memoranda) is replaced by the following:

"Part 8 – Memoranda
- Acceptable defects
- Any points of attention for future surveys, e.g. for suspect areas
- Examination of ballast tanks at annual surveys due to coating breakdown"

***Tank/hold corrosion prevention system***

5 The existing text of the paragraph after note no. 3 is replaced by the following:

"For ballast tanks, if coating condition less than GOOD is given, tanks shall be examined at annual surveys. This shall be noted in part 8 of the Contents of condition evaluation report (executive hull summary report)."

ANNEX 9

**GUIDELINES FOR TECHNICAL ASSESSMENT IN CONJUNCTION WITH THE PLANNING OF ENHANCED SURVEYS FOR SINGLE-SIDE SKIN BULK CARRIERS – RENEWAL SURVEY HULL**

***References***

6 The existing reference no. 3 (IACS) is replaced by the following:

"3 IACS Recommendation 76, Guidelines for Surveys, Assessment and Repair of Hull Structure – Bulk Carriers, 2007".

**Part B**

**CODE ON THE ENHANCED PROGRAMME OF INSPECTIONS DURING SURVEYS OF BULK CARRIERS HAVING DOUBLE-SIDE SKIN CONSTRUCTION**

**2 Renewal survey**

**2.3 *Space protection***

7 Paragraph 2.3.1 is replaced by the following:

"2.3.1 Where provided, the condition of the corrosion prevention system of ballast tanks shall be examined. For ballast tanks, excluding double-bottom tanks, where a

hard protective coating is found to be in less than GOOD condition as defined in 1.2.11, and it is not renewed, or where a soft or semi-hard coating has been applied, or where a hard protective coating has not been applied from the time of construction, the tanks in question shall be examined at annual intervals. Thickness measurements shall be carried out as deemed necessary by the surveyor. When such breakdown of hard protective coating is found in water ballast double-bottom tanks and it is not renewed, where a soft or semi-hard coating has been applied or where a hard protective coating has not been applied from the time of construction, the tanks in question may be examined at annual intervals. When considered necessary by the surveyor, or where extensive corrosion exists, thickness measurement shall be carried out."

8 A new paragraph 2.3.4 is added after existing paragraph 2.3.3, as follows:

"2.3.4 For double-side skin void spaces bounding cargo holds for bulk carriers exceeding 20 years of age and of 150 m in length and upwards, where provided, the condition of the corrosion prevention system of void spaces shall be examined. Where a hard protective coating is found to be in POOR condition as defined in 1.2.11, and it is not renewed, or where a soft or semi-hard coating has been applied, or where a hard protective coating has not been applied from the time of construction, the void spaces in question shall be examined at annual intervals. Thickness measurements shall be carried out as deemed necessary by the surveyor."

**3 Annual survey**

9 A new paragraph 3.7 is added after existing paragraph 3.6.2, as follows:

"**3.7 *Examination of double-side skin void spaces for bulk carriers exceeding 20 years of age and of 150 m in length and upwards***

Examination of double-side skin void spaces, for bulk carriers exceeding 20 years of age and of 150 m in length and upwards, shall be carried out when required as a consequence of the results of the renewal survey and intermediate survey. When considered necessary by the Administration, or when extensive corrosion exists, thickness measurements shall be carried out. If the results of these thickness measurements indicate that substantial corrosion is found, the extent of thickness measurements shall be increased in accordance with annex 10. These extended thickness measurements shall be carried out before the survey is credited as completed. Suspect areas identified at previous surveys shall be examined. Areas of substantial corrosion identified at previous surveys shall have thickness measurements taken. For bulk carriers built under the IACS Common Structural Rules, the annual thickness gauging may be omitted where a protective coating has been applied in accordance with the coating manufacturer's requirements and is maintained in good condition."

**4 Intermediate survey**

**4.2 *Double-side skin bulk carriers 5 to 10 years of age***

4.2.1 *Ballast tanks*

10 Paragraphs 4.2.1.2 and 4.2.1.3 are replaced by the following:

"4.2.1.2 Where a hard coating is found to be in less than GOOD condition, corrosion or other defects are found in water ballast tanks or where hard protective coating was

not applied from the time of construction, the examination shall be extended to other ballast tanks of the same type.

4.2.1.3 In ballast tanks other than double-bottom tanks, where a hard protective coating is found to be in less than GOOD condition and it is not renewed, or where a soft or semi-hard coating has been applied, or where a hard protective coating was not applied from the time of construction, the tanks in question shall be examined and thickness measurements carried out as considered necessary at annual intervals. When such breakdown of hard protective coating is found in ballast double-bottom tanks, where a soft or semi-hard coating has been applied, or where a hard protective coating has not been applied, the tanks in question may be examined at annual intervals. When considered necessary by the surveyor, or where extensive corrosion exists, thickness measurements shall be carried out."

ANNEX 7

## CONDITION EVALUATION REPORT (EXECUTIVE HULL SUMMARY REPORT)

***Contents of condition evaluation report (executive hull summary report)***

11 Parts 5 (Tank/hold corrosion prevention system) and 8 (Memoranda) are replaced by the following:

| | |
|---|---|
| "Part 5 – Tank/hold/double-side skin void space corrosion prevention system | - Separate form indicating:<br>- location of coating<br>- condition of coating (if applicable) |
| Part 8 – Memoranda | - Acceptable defects<br>- Any points of attention for future surveys, e.g. for suspect areas<br>- Examination of ballast tanks and double-side skin void spaces at annual surveys due to coating breakdown" |

***Tank/hold corrosion prevention system***

12 The chapeau of "Tank/hold corrosion prevention system", including the table and the text underneath, is replaced by the following:

**"Tank/hold/double-side skin void space corrosion prevention system**

| **Tank/hold/void Nos.[1]** | **Tank/hold/void corrosion prevention system[2]** | **Coating condition[3]** | **Remarks** |
|---|---|---|---|
| | | | |

*Notes:*

1 All ballast tanks, cargo holds and double-side skin void spaces shall be listed.
2 C = Coating
NP = No protection
3 Coating condition according to the following standard:

GOOD condition with only minor spot rusting.

FAIR condition with local breakdown of coating at edges of stiffeners and weld connections and/or light rusting over 20% or more of areas under consideration, but less than as defined for POOR condition.

POOR condition with general breakdown of coating over 20% or more of areas or hard scale at 10% or more of areas under consideration.

For ballast tanks, if coating condition less than GOOD is given, tanks shall be examined at annual surveys. This shall be noted in part 8 of the Contents of condition evaluation report (executive hull summary report).

For double-side skin void spaces on bulk carriers exceeding 20 years of age and of 150 m in length and upwards, if coating condition POOR is given, those void spaces shall be examined at annual surveys. This shall be noted in part 8 of the Contents of condition evaluation report (executive hull summary report)."

ANNEX 9

**GUIDELINES FOR TECHNICAL ASSESSMENT IN CONJUNCTION WITH PLANNING FOR ENHANCED SURVEYS OF DOUBLE-SIDE SKIN BULK CARRIERS – RENEWAL SURVEY HULL**

***References***

13 The existing references are replaced by the following:

"1 IACS, Recommendation 76: Guidelines for Surveys, Assessment and Repair of Hull Structure – Bulk Carriers, 2007

2 TSCF, Guidelines for the Inspection and Maintenance of Double Hull Tanker Structures, 1995

3 TSCF, Guidelines Manual for Tanker Structures, 1997"

**ANNEX B**

**CODE ON THE ENHANCED PROGRAMME OF INSPECTIONS DURING SURVEYS OF OIL TANKERS**

**Part A**

**CODE ON THE ENHANCED PROGRAMME OF INSPECTIONS DURING SURVEYS OF DOUBLE-HULL OIL TANKERS**

**1 General**

**1.2 *Definitions***

14 Paragraph 1.2.1 is replaced by the following:

"1.2.1 *Double-hull oil tanker* is a ship which is constructed primarily for the carriage of oil in bulk, has cargo tanks forming an integral part of the ship's hull and is protected by a double-hull which extends for the entire length of the cargo area, consisting of double sides and double-bottom spaces for the carriage of water ballast or void spaces."

**2 Renewal survey**

**2.6 *Extent of tank pressure testing***

15 Paragraph 2.6.1 is replaced by the following:

"2.6.1 The minimum requirements for ballast tank pressure testing at the renewal survey are given in 2.6.3 and in annex 3.

The minimum requirements for cargo tank testing at the renewal survey are given in 2.6.4 and annex 3.

Cargo tank testing carried out by the ship's crew under the direction of the master may be accepted by the surveyor, provided the following conditions are complied with:

.1 a tank testing procedure, specifying fill heights, tanks being filled and bulkheads being tested, has been submitted by the owner and reviewed by the Administration prior to the testing being carried out;

.2 the tank testing is carried out prior to the overall survey or close-up survey;

.3 the tank testing is carried out within the special survey window and not more than three months prior to the date on which the overall or close-up survey is completed;

.4 the tank testing has been satisfactorily carried out and there is no record of leakage, distortion or substantial corrosion that would affect the structural integrity of the tank;

.5 the satisfactory results of the testing are recorded in the vessel's logbook; and

.6 the internal and external condition of the tanks and associated structure are found satisfactory by the surveyor at the time of the overall and close-up survey."

ANNEX 10

**CONDITION EVALUATION REPORT (EXECUTIVE HULL SUMMARY REPORT)**

***Contents of condition evaluation report (executive hull summary report)***

16 Part 9 (Memoranda) is replaced by the following:

"Part 9 – Memoranda
- Acceptable defects
- Any points of attention for future surveys, e.g. for suspect areas
- Examination of ballast tanks at annual surveys due to coating breakdown"

***Tank corrosion prevention system***

17 The existing text of the paragraph after note 3 is replaced by the following:

"For ballast tanks, if coating condition less than GOOD is given, tanks shall be examined at annual surveys. This shall be noted in part 9 of the Contents of condition evaluation report (executive hull summary report)."

ANNEX 12

**GUIDELINES FOR TECHNICAL ASSESSMENT IN CONJUNCTION WITH THE PLANNING OF ENHANCED SURVEYS FOR OIL TANKERS**

***References***

18 The existing references are replaced by the following:

"1 IACS, Recommendation 96: Double Hull Oil Tankers – Guidelines for Surveys, Assessment and Repair of Hull Structures, 2019.

2 TSCF, Guidelines for the Inspection and Maintenance of Double Hull Tanker Structures, 1995.

3 TSCF, Guidelines Manual for Tanker Structures, 1997."

**Part B**

**CODE ON THE ENHANCED PROGRAMME OF INSPECTIONS DURING SURVEYS OF OIL TANKERS OTHER THAN DOUBLE-HULL OIL TANKERS**

**1 General**

**1.2 *Definitions***

19 Paragraph 1.2.1 is replaced by the following:

"1.2.1 *Oil tanker* is a ship which is constructed primarily to carry oil in bulk in cargo tanks forming an integral part of the ship's hull, including ship types such as combination carriers (ore/oil ships, etc.) but excluding ships carrying oil in independent tanks which are not part of the ship's hull, such as asphalt carriers."

**2 Renewal Survey**

**2.6 *Extent of tank pressure testing***

20 Paragraph 2.6.1 is replaced by the following:

"2.6.1 The minimum requirements for ballast tank pressure testing at the renewal survey are given in 2.6.3 and in annex 3.

The minimum requirements for cargo tank testing at the renewal survey are given in 2.6.4 and annex 3.

Cargo tank testing carried out by the ship's crew under the direction of the master may be accepted by the surveyor, provided the following conditions are complied with:

.1 a tank testing procedure, specifying fill heights, tanks being filled and bulkheads being tested, has been submitted by the owner and reviewed by the Administration prior to the testing being carried out;

.2 the tank testing is carried out prior to the overall survey or close-up survey;

.3 the tank testing is carried out within the special survey window and not more than three months prior to the date on which the overall or close-up survey is completed;

.4 the tank testing has been satisfactorily carried out and there is no record of leakage, distortion or substantial corrosion that would affect the structural integrity of the tank;

.5 the satisfactory results of the testing are recorded in the vessel's logbook; and

.6 the internal and external condition of the tanks and associated structure are found satisfactory by the surveyor at the time of the overall and close-up survey."

ANNEX 9

**CONDITION EVALUATION REPORT (EXECUTIVE HULL SUYMMARY REPORT)**

***Contents of condition evaluation report (executive hull summary report)***

20 Part 9 (Memoranda) is replaced by the following:

"Part 9 – Memoranda
- Acceptable defects
- Any points of attention for future surveys, e.g. for suspect areas
- Examination of ballast tanks at annual surveys due to coating breakdown"

***Tank corrosion prevention system***

21 The existing text of the paragraph after note no. 3 is replaced by the following:

"For ballast tanks, if coating condition less than GOOD is given, tanks shall be examined at annual surveys. This shall be noted in part 9 of the Contents of condition evaluation report (executive hull summary report)."

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**ANNEX 8**

**RESOLUTION MSC.526(106)**
**(adopted on 10 November 2022)**

**AMENDMENTS TO THE INTERNATIONAL CODE FOR THE CONSTRUCTION AND EQUIPMENT OF SHIPS CARRYING DANGEROUS CHEMICALS IN BULK (IBC CODE)**

THE MARITIME SAFETY COMMITTEE,

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

RECALLING ALSO resolution MSC.4(48), by which it adopted the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk ("the IBC Code"), which has become mandatory under chapter VII of the International Convention for the Safety of Life at Sea, 1974 ("the Convention"),

RECALLING FURTHER article VIII(b) and regulation VII/8.1 of the Convention concerning the procedure for amending the IBC Code,

NOTING that the Marine Environment Protection Committee, at its seventy-eighth session, adopted amendments to the IBC Code concerning watertight doors by resolution MEPC.345(78), for concurrent adoption by the Maritime Safety Committee,

HAVING CONSIDERED, at its 106th session, amendments to the IBC 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 IBC 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 January 2024, 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 July 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 FOR THE CONSTRUCTION AND EQUIPMENT OF SHIPS CARRYING DANGEROUS CHEMICALS IN BULK (IBC CODE)**

**CHAPTER 2**
**SHIP SURVIVAL CAPABILITY AND LOCATION OF CARGO TANKS**

**2.9 Survival requirements**

Paragraph 2.9.2.1 is replaced by the following:

".1 the waterline, taking into account sinkage, heel and trim, shall be below the lower edge of any opening through which progressive flooding or downflooding may take place. Such openings shall include air pipes and openings which are closed by means of weathertight doors or hatch covers and may exclude those openings closed by means of watertight manhole covers and watertight flush scuttles, small watertight cargo tank hatch covers which maintain the high integrity of the deck, remotely operated sliding watertight doors, hinged watertight access doors with open/closed indication locally and at the navigation bridge, of the quick-acting or single-action type that are normally closed at sea, hinged watertight doors that are permanently closed at sea, and sidescuttles of the non-opening type;".

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**ANNEX 9**

**RESOLUTION MSC.527(106)**
**(adopted on 10 November 2022)**

**INTERNATIONAL CODE OF SAFETY FOR SHIPS CARRYING INDUSTRIAL PERSONNEL (IP CODE)**

THE MARITIME SAFETY COMMITTEE,

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

RECOGNIZING the need for a mandatory code for the safe carriage of industrial personnel on ships and for ensuring their safety during personnel transfer operations to and from other ships and/or offshore facilities,

NOTING resolution MSC.521(106), by which it adopted chapter XV of the International Convention for the Safety of Life at Sea, 1974 ("the Convention") to make the provisions of the International Code of Safety for Ships Carrying Industrial Personnel (IP Code) mandatory under the Convention,

HAVING CONSIDERED, at its 106th session, the IP Code,

1 ADOPTS the IP Code, the text of which is set out in the annex to the present resolution;

2 INVITES Contracting Governments to the Convention to note that the IP Code will take effect on 1 July 2024 upon entry into force of chapter XV of the Convention;

3 ALSO INVITES Contracting Governments to consider the voluntary application of the IP Code, as far as practicable, to ships of less than 500 gross tonnage and to ships not operating on international voyages;

4 REQUESTS the Secretary-General of the Organization to transmit certified copies of the present resolution and the text of the IP Code, contained in the annex, to all Contracting Governments to the Convention;

5 ALSO REQUESTS the Secretary-General of the Organization to transmit copies of the present resolution and the text of the IP Code contained in the annex to all Members of the Organization which are not Contracting Governments to the Convention.

ANNEX

# INTERNATIONAL CODE OF SAFETY FOR SHIPS CARRYING INDUSTRIAL PERSONNEL (IP CODE)

**Contents**

**Preamble**

1 As the maritime offshore and energy sectors are expanding, new offshore industrial activities have emerged. This in turn has created a growing demand to provide for the safe carriage of industrial personnel to and from other ships and/or offshore facilities.

2 It is recognized that the safety standards in the existing IMO instruments do not fully cover specific risks of maritime operations within the offshore sectors, such as personnel transfer operations.

3 Furthermore, it is recognized that, at the time of developing this Code, industrial personnel are a special category of persons yet to be defined in regulation I/2 of the International Convention for the Safety of Life at Sea (SOLAS), 1974.

4 However, the difficulties caused by the lack of a clear definition for industrial personnel and the lack of an international safety standard for the carriage of industrial personnel on board in the existing IMO instruments are also recognized.

5 The International Code of Safety for Ships Carrying Industrial Personnel (IP Code) has been developed to supplement existing IMO instruments in order to meet the demand from the offshore and energy sectors and overcome these difficulties. The Code, in addition to the cargo ship requirements in SOLAS regulations, provides an international standard of safety for ships carrying industrial personnel which will facilitate safe carriage and safe personnel transfer by addressing additional risks connected to such operations.

6 The Code has been developed for ships operating on international voyages as defined in SOLAS regulation I/2(d). However, it is recognized that the transport of a large number of industrial personnel will take place either within the confines of a particular coastal State or between a base port and an offshore installation outside territorial waters. To facilitate international movement and safe operations of ships carrying industrial personnel, Administrations are encouraged to apply this Code also to ships operating only on such voyages.

7 The Code applies to ships of 500 gross tonnage and upwards. However, it is recognized that ships below 500 gross tonnage may also carry an aggregated number of passengers, special personnel and industrial personnel in excess of 12. In such cases the Administration may apply the goals and functional requirements of the Code as far as practicable. If such ships are in compliance with the IP Code, Administrations may consider issuing an Industrial Personnel Safety Certificate for a ship carrying more than 12 industrial personnel, as long as all relaxations are indicated in this certificate.

# PART I
# GENERAL

## 1 Goal

The goal of this Code is to provide for the safe carriage of industrial personnel on ships and their safety during personnel transfer operations by addressing any risks present not adequately mitigated by the applicable safety standards in the International Convention for the Safety of Life at Sea (SOLAS), 1974.

## 2 Definitions

2.1 *Carriage* means transportation, accommodation or both.

2.2 *Essential systems* mean systems referred to in SOLAS regulation II-2/21.4.

2.3 *HSC Code* means the International Code of Safety for High-Speed Craft, 2000, as adopted by the Maritime Safety Committee of the Organization by resolution MSC.97(73), as amended.

2.4 *Industrial personnel (IP)* means all persons transported or accommodated on board for the purpose of offshore industrial activities performed on board other ships and/or offshore facilities.

2.5 *IP area* is every area or space where IP are normally intended to stay during voyage or are allowed to access.

2.6 *Offshore industrial activities* mean the construction, maintenance, decommissioning, operation or servicing of offshore facilities related, but not limited, to exploration and exploitation of resources by the renewable or hydrocarbon energy sectors, aquaculture, ocean mining or similar activities.

2.7 *Personnel transfer* means the full sequence of the operation of transferring personnel and their equipment at sea to or from a ship to which this Code applies and from or to another ship or an offshore facility.

2.8 *SOLAS* means the International Convention for the Safety of Life at Sea, 1974, as amended.

## 3 Certificate and survey

3.1 Every ship to which this Code applies shall have on board a valid Industrial Personnel Safety Certificate.

3.2 The Industrial Personnel Safety Certificate shall be issued after an initial or renewal survey to a ship which complies with the requirements of this Code.

3.3 The certificate referred to in this regulation shall be issued either by the Administration or by an organization recognized by it in accordance with SOLAS regulation XI-1/1. In any case, the Administration assumes full responsibility for the certificate.

3.4 The Industrial Personnel Safety Certificate shall be drawn up in a form corresponding to the model given in the appendix to this Code. If the language is not English, French or Spanish, the text shall include translation into one of these languages.

3.5 The Industrial Personnel Safety Certificate validity, survey dates and endorsements shall be harmonized with the relevant SOLAS certificates in accordance with the provisions of SOLAS regulation I/14 or X/3.2, as appropriate. The certificate shall include a supplement recording equipment required by the present Code.

3.6 The Industrial Personnel Safety Certificate and the Record of Equipment shall be issued in addition to the relevant certificates required in SOLAS regulation XV/5.1.1.

## PART II
## GOALS AND FUNCTIONAL REQUIREMENTS

### 1 Industrial personnel

#### *1.1 Goal*

The goal of this chapter is to provide:

.1 for safe operations during the carriage of industrial personnel; and

.2 that industrial personnel are medically fit and familiar with the hazards associated with the operational environment including the risks associated with personnel transfer operations.

#### *1.2 Functional requirements*

In order to achieve the goal set out in paragraph 1.1 above, the following functional requirements are embodied in the regulations in part III:

Means shall be provided to ensure that industrial personnel:

.1 are medically fit;

.2 are able to communicate with the ship's crew;

.3 have received appropriate safety training;

.4 have received onboard ship-specific safety familiarization; and

.5 have received onboard familiarization with the ship's transfer arrangements and equipment.

### 2 Safe transfer of personnel

#### *2.1 Goal*

The goal of this chapter is to provide for the safety of all persons involved in personnel transfer, including safe and suitable means of transfer and the capability of safely carrying out the operations connected to personnel transfer.

#### *2.2 Functional requirements*

In order to achieve the goal set out in paragraph 2.1 above, the following functional requirements are embodied in the regulations in part III:

2.2.1 Means shall be provided to avoid injuries during personnel transfer.

2.2.2 Arrangements for personnel transfer shall be:

.1 designed, constructed and maintained to withstand the loads they are subjected to;

.2 designed and engineered to fail to a safe condition in the event of a loss or reduction in their associated functionality; and

.3 capable of safely returning persons in transfer to a safe location after loss of power.

2.2.3 Means for position keeping shall be provided and arranged in a manner that prevents accidents during transfer of personnel and is suitable for the mode of operation and interactions with other ships or offshore facilities.

2.2.4 Means shall be provided to ensure that the information on the number of industrial personnel on board and their identity is kept updated to assist in ensuring that the actual number of persons on board is known at all times.

## 3 Subdivision and stability

### *3.1 Goal*

The goal of this chapter is to provide for adequate stability of the ship, in both the intact and damaged conditions, taking into consideration the total number of persons on board.

### *3.2 Functional requirement*

In order to achieve the goal set out in paragraph 3.1 above, the ship shall be designed with weathertight and watertight boundaries providing for an adequate stability standard, in both the intact and damaged conditions, taking into account the total number of persons on board. This functional requirement is embodied in the regulations in parts IV and V.

## 4 Machinery installations

### *4.1 Goal*

The goal of this chapter is to provide for machinery installations capable of delivering the required functionality to ensure safe navigation and safe carriage of persons on board both during normal operation and in any emergency situation, taking into account the total number of persons on board.

### *4.2 Functional requirements*

In order to achieve the goal set out in paragraph 4.1 above, the following functional requirements are embodied in the regulations in parts IV and V:

.1 where the capacity needed to ensure the required functionality of any machinery system is dependent on the number of persons on board (e.g. bilge pumping systems), necessary additional capacity shall be provided;

.2 steering gear systems shall be capable of maintaining steerage after any incident affecting machinery installations; and

.3 essential systems shall have the necessary redundancy or isolation, or a combination thereof, in order to ensure the capability of safely accommodating persons on board after any incident affecting machinery installations, taking into account the number of persons on board.

## 5 Electrical installations

### *5.1 Goal*

The goal of this chapter is to provide for:

.1 emergency sources of power capable of delivering the required functionality of essential systems in emergency situations, taking into account the total number of persons on board; and

.2 protection of all persons on board from electrical hazards.

### *5.2 Functional requirements*

In order to achieve the goal set out in paragraph 5.1 above, the following functional requirements are embodied in the regulations in parts IV and V:

.1 emergency power supply to essential systems shall have the necessary redundancy or isolation, or a combination thereof, to ensure the capability of safely accommodating persons on board after damage, taking into account the number of persons on board and the time for orderly evacuation; and

.2 precautions against shock, fire and other hazards of electrical origin shall be provided.

## 6 Periodically unattended machinery spaces

### *6.1 Goal*

The goal of this chapter is to ensure that, if and when a machinery space is periodically unattended, this does not impair the safety of the ship or the persons on board.

### *6.2 Functional requirements*

In order to achieve the goal set out in paragraph 6.1 above, the following functional requirements are embodied in the regulations in parts IV and V:

.1 periodically unattended machinery spaces shall provide safe operations, taking into account the number of persons on board; and

.2 a periodically unattended machinery space shall be equipped with additional controls, monitoring and alarm systems to provide safe operation, taking into account the number of persons on board, in order to achieve a safety equivalent to that of a normally attended machinery space.

## 7 Fire safety

### *7.1 Goal*

The goal of this chapter is to fulfil the fire safety objectives of SOLAS or the basic fire safety principles of the HSC Code, taking into account the number of persons on board.

### *7.2 Functional requirement*

In order to achieve the goal set out in paragraph 7.1 above, the means to fulfil the fire safety functional requirements of SOLAS or the basic fire safety principles of the HSC Code, taking into account the number of persons on board, are embodied in the regulations in parts IV and V.

## 8 Life-saving appliances and arrangements

### *8.1 Goal*

The goal of this chapter is to provide for appropriate and sufficient means to ensure safe abandonment of the ship and recovery of persons.

### *8.2 Functional requirements*

In order to achieve the goal set out in paragraph 8.1 above, the following functional requirements are embodied in the regulations in parts IV and V:

.1 the capacity of the survival craft shall be sufficient to accommodate all persons on board;

.2 appropriate and sufficient personal life-saving appliances shall be available for all persons on board;

.3 sufficient space for assembling and mustering must be ensured;

.4 onboard communication and alarm systems shall be provided to ensure emergency communication to all persons on board; and

.5 means shall be provided to ensure the safe recovery of persons.

## 9 Dangerous goods

### *9.1 Goal*

The goal of this chapter is to provide for the safe carriage of industrial personnel while transporting and handling dangerous goods on ships certified in accordance with this Code, taking into consideration the total number of persons on board.

### *9.2 Functional requirement*

In order to achieve the goal set out in paragraph 9.1 above, any hazard caused by the transportation and handling of dangerous goods shall be taken into account and the risk to all persons on board shall be minimized, having regard to the nature of the dangerous goods. This functional requirement is embodied in the regulations in parts IV and V.

## PART III
## REGULATIONS

### Regulation 1 - *Industrial personnel*

1.1 In order to meet the functional requirements set out in paragraph II/1.2.1, all industrial personnel shall be at least 16 years of age and documentary evidence shall be made available to the master that they are physically and medically fit to fulfil all the requirements in this regulation, based on a standard acceptable to the Administration.

1.2 In order to meet the functional requirements set out in paragraph II/1.2.2, all industrial personnel shall demonstrate adequate knowledge of the working language on board in order to be able to communicate effectively and understand any instructions given by the ship's crew.

1.3 In order to meet the functional requirements set out in paragraph II/1.2.3, all industrial personnel shall, prior to boarding the ship, receive training or instruction with respect to:[1]

.1 personal survival that includes:

.1 knowledge of emergency situations that may occur on board a ship;

.2 the use of personal life-saving equipment;

.3 safely entering the water from a height, and survival in the water; and

.4 boarding a survival craft from the ship and water while wearing a lifejacket;

.2 fire safety that includes knowledge of the types of fire hazards on board ships and precautionary measures to be taken to prevent a fire; and

.3 personal safety and social responsibilities that include:

.1 understanding the authority of the master or their representative on board;

.2 complying with instructions provided by the shipboard personnel; and

.3 understanding safety information symbols, signs and alarm signals found on board ships.

1.4 No industrial personnel shall be carried on board the ship unless the master has been provided with documentation confirming that such personnel have received the training or instructions required by this regulation.

1.5 In order to meet the functional requirement set out in paragraph II/1.2.4, all industrial personnel shall, prior to leaving port or immediately after boarding, receive onboard ship-specific safety familiarization that includes:

.1 the layout of the ship;

.2 the location of personal life-saving appliances, muster and embarkation stations, emergency escape routes and first aid stations;

.3 the safety information, symbols, signs and alarms on board; and

.4 action to be taken in the event of an alarm sounding or the declaration of an emergency.

1.6 In order to meet the functional requirement set out in paragraph II/1.2.5, all industrial personnel shall, prior to being transferred, receive familiarization in the ship's procedures, arrangements and any additional safety measures or equipment for the transfer of personnel to other ships and/or offshore facilities.

[1] Personnel meeting the training requirements in paragraph 5.5 of the *Recommendations for the training and certification of personnel on mobile offshore units* (resolution A.1079(28)) or industrial training standards, such as those of the Global Wind Organization (GWO), Offshore Petroleum Industry Training Organization (OPITO) or Basic Offshore Safety Induction and Emergency Training (OPITO-accredited), may be considered as meeting the requirements of this section.

**Regulation 2 - *Safe transfer***

2.1 In order to meet the functional requirement in paragraph II/2.2.1, the following applies:

.1 Personnel transfer appliances and arrangements shall be kept clean, properly maintained and regularly inspected to ensure that they are safe to use.

.2 The rigging and use of the personnel transfer arrangements shall be supervised by a responsible officer and operated by properly trained personnel. Safety procedures shall be established and followed by personnel engaged in rigging and operating any mechanical equipment.

.3 Means of communication shall be provided between the supervising responsible officer and the navigation bridge.

.4 All personnel transfer arrangements shall be permanently marked to enable identification of each appliance for the purposes of survey, inspection and record-keeping. A record of use and maintenance shall be kept on board the ship.

.5 Prior to commencing personnel transfer operations, the personnel transfer arrangements shall be checked to ensure they are functioning properly.

.6 Means shall be provided to ensure safe and unobstructed passage for industrial personnel between the personnel transfer arrangements and where they are being transported or accommodated on board.

.7 Lighting capable of being supplied by the emergency source of power shall be provided to illuminate the personnel transfer arrangements, the water below the transfer arrangements and the passage specified in sub-paragraph .6 above.

.8 The deck area for personnel transfer shall be designated and free from obstructions.

.9 A job safety analysis shall be carried out when planning, and before executing, personnel transfer at sea. The analysis shall take into account environmental conditions, as well as operational and equipment limitations.

.10 When planning personnel transfer, the guidance developed by the Organization[2] or other relevant guidance[3] acceptable to the Administration should be taken into account.

2.2 In order to meet the functional requirement in paragraph II/2.2.2, personnel transfer arrangements shall be designed, constructed, tested and installed in accordance with standards[4] acceptable to the Administration or requirements of a classification society which is recognized by the Administration in accordance with the provisions of SOLAS regulation XI-1/1.

2.3 In addition, the following applies:

.1 The design of the personnel transfer arrangements shall be suitable for the arrangement on the ship.

.2 An analysis shall be performed in order to evaluate failures in IP transfer arrangements and all its associated systems which might impair the availability of the transfer arrangements and/or endanger the safety of the persons involved.

The analysis[5] shall:

.1 consider the effects of failure in all the equipment and systems due to single failure, fire in any space or flooding of any watertight compartment that could affect the availability of the transfer arrangements; and

.2 provide solutions to ensure the availability of the IP transfer arrangements and the safety of all persons involved upon such failures identified in .1.

.3 Where a single failure results in failure of more than one component in a system (common cause failure), all the resulting failures shall be considered together. Where the occurrence of a failure leads directly to further failures, all those failures shall be considered together.

2.4 In order to meet the functional requirement in paragraph II/2.2.3, the manoeuvrability of the ship together with the expected need for the ship to keep position over time shall be evaluated, to ensure the correct use of position-keeping equipment.

2.5 In order to meet the functional requirement in paragraph II/2.2.4, procedures shall be in place to ensure correct information on the number and identity of personnel on board at all times.

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[2] Refer to the *Guidance on safety when transferring persons at sea* (MSC-MEPC.7/Circ.10).

[3] Such as the latest revision of IMCA M202 Guidance on the transfer of personnel to/from offshore vessels and structures.

[4] Refer to relevant sections of EN 13852-1:2013.

[5] Appropriate analysis may be QFA or FMEA and their associated reports.

## PART IV
## ADDITIONAL REGULATIONS FOR SHIPS CERTIFIED IN ACCORDANCE WITH SOLAS CHAPTER I

### Regulation 1 - *General*

1.1 Unless expressly provided otherwise in this part, ships carrying industrial personnel shall meet the SOLAS requirements for cargo ships and the applicable regulations in this part.

1.2 Ships complying with paragraph 1.1 in addition to the applicable regulations in this part are considered to meet the goals and functional requirements in paragraphs II/3 to II/9.

### Regulation 2 - *Subdivision and stability*

2.1 In order to meet the functional requirement set out in paragraph II/3.2.1, the following applies:

.1 Where the ship is certified to carry more than 240 persons on board, it shall meet the requirements of SOLAS regulation II-1/5 as though the ship is a passenger ship and the industrial personnel are counted as passengers. However, SOLAS regulation II-1/5.5 is not applicable.

.2 Subdivision and damage stability shall be in accordance with SOLAS chapter II-1, where the ship is considered a passenger ship and industrial personnel are counted as passengers, with the value *R* as follows:

.1 where the ship is certified to carry more than 240 persons, the value *R* is assigned as *R*;

.2 where the ship is certified to carry not more than 60 persons, the value *R* is assigned as 0.8*R; or*

.3 for more than 60 persons, but not more than 240 persons, the value *R* shall be determined by linear interpolation between the values given in sub-paragraphs .1 and .2 above.

$$R = 1 - \frac{5{,}000}{L_s + 2.5N + 15{,}225}$$

Where:

$N = N_1 + 2N_2$

$N_1$ = number of persons for whom lifeboats are provided

$N_2$ = number of persons (including officers and crew) the ship is permitted to carry in excess of $N_1$

.3 Where the conditions of service are such that compliance with paragraph 2.1.2 above on the basis of $N=N_1+2N_2$ is impracticable and where the Administration considers that a suitably reduced degree of hazard exists, a lesser value of *N* may be taken but in no case less than $N=N_1+N_2$.

.4 For ships to which paragraph 2.1.2.1 above applies, the requirements of SOLAS regulations II-1/8 and II-1/8-1 and of SOLAS chapter II-1 parts B-2, B-3 and B-4 shall be applied as though the ship is a passenger ship and the industrial personnel are passengers. However, SOLAS regulations II-1/14 and II-1/18 are not applicable.

.5 For ships to which paragraphs 2.1.2.2 and 2.1.2.3 above apply, except as provided in paragraph 2.1.6 below, the provisions of SOLAS chapter II-1, parts B-2, B-3 and B-4 shall apply as though the ship is a cargo ship and the industrial personnel are crew. However, the requirements of SOLAS regulations II-1/8 and II-1/8-1 need not be applied and SOLAS regulations II-1/14 and II-1/18 are not applicable.

.6 All ships certified in accordance with this Code shall comply with SOLAS regulations II-1/9, II-1/13, II-1/19, II-1/20 and II-1/21 as though the ship is a passenger ship.

**Regulation 3 - *Machinery installations***

3.1 In order to meet the functional requirement set out in paragraph II/4.2.1, the ship shall comply with SOLAS regulation II-1/35-1 as though the ship is a passenger ship.

3.2 In order to meet the functional requirement set out in paragraph II/4.2.2, where the ship is certified to carry more than 240 persons on board, it shall comply with the requirements of SOLAS regulation II-1/29 as though the ship is a passenger ship.

**Regulation 4 - *Electrical installations***

4.1 In order to meet the functional requirement set out in paragraph II/5.2.1, the following applies:

.1 for installations in ships of more than 50 m in length carrying not more than 60 persons on board, the requirements in SOLAS regulation II-1/42.2.6.1 shall apply in addition to the requirements in SOLAS regulation II-1/43; and

.2 for installations in ships carrying more than 60 persons on board, SOLAS regulation II-1/42 shall apply.

4.2 In order to meet the functional requirement set out in paragraph II/5.2.2 for installations on ships carrying more than 60 persons on board, SOLAS regulation II-1/45.12 shall apply.

**Regulation 5 - *Periodically unattended machinery spaces***

In order to meet the functional requirements set out in paragraph II/6.2, ships carrying more than 240 persons on board shall be considered as passenger ships in relation to SOLAS chapter II-1, part E.

**Regulation 6 - *Fire safety***

In order to meet the functional requirements set out in paragraphs II/7.2 and 4.2.3, the following applies:

.1 where the ship is certified to carry more than 240 persons on board, the requirements of SOLAS chapter II-2 for passenger ships carrying more than 36 passengers shall apply; and

.2 where the ship is certified to carry more than 60, but not more than 240 persons on board, the requirements of SOLAS chapter II-2 for passenger ships carrying not more than 36 passengers apply, except that SOLAS regulations II-2/21 and 22 need not apply.

**Regulation 7 - *Life-saving appliances and arrangements***

In order to meet the functional requirements set out in paragraph II/8.2:

.1 for ships carrying more than 60 persons on board, the requirements of SOLAS chapter III for passenger ships engaged on international voyages, which are not short international voyages, shall apply;

.2 regardless of the number of the persons on board, SOLAS regulations III/2 and III/19.2.3 are not applicable;

.3 where the term "passenger" is used in SOLAS chapter III, it shall be read to mean industrial personnel as prescribed in SOLAS regulation XV/2.3; and

.4 notwithstanding sub-paragraph .3 above, the required number of infant or child lifejackets shall be calculated solely based on the number of passengers on board.

**Regulation 8 - *Dangerous goods***

**8.1 General**

Industrial personnel may only bring dangerous goods on board for the purpose of their role off the ship and with the prior consent of the master of the ship. These dangerous goods shall be considered as cargo and shall be transported in accordance with part A of SOLAS chapter VII.

**8.2 Carriage of dangerous goods in packaged form**

In order to meet the functional requirements in paragraph II/9.2:

.1 for ships certified to carry more than 240 persons on board, SOLAS regulation II-2/19.3.6.2 for passenger ships carrying more than 36 passengers shall apply; and

.2 for the purpose of the requirements of the IMDG Code, ships certified to carry more than 240 persons on board shall be considered as passenger ships and those certified to carry 240 or fewer persons on board shall be considered as cargo ships.

### 8.3 Carriage of dangerous goods in solid form in bulk

In order to meet the functional requirements in paragraph II/9.2:

.1 for ships certified to carry more than 240 persons on board, SOLAS regulation II-2/19.3.6.2 for passenger ships carrying more than 36 passengers shall apply; and

.2 for the purpose of the requirements of the IMSBC Code, industrial personnel shall be considered as personnel in the context of personnel protection.

### 8.4 Carriage of dangerous liquid chemicals, liquefied gases and oil

8.4.1 In order to meet the functional requirements in paragraph II/9.2, when simultaneously carrying dangerous liquid chemicals and/or liquefied gases as cargo in bulk and industrial personnel, the ship shall either be certified in accordance with the requirements of parts B or C of SOLAS chapter VII or meet and be certified in accordance with a standard not inferior to that developed by the Organization.[6] In addition:

.1 carriage of toxic products, low-flashpoint products or acids shall not be allowed when the total number of persons on board exceeds 60;

.2 for the purpose of carrying industrial personnel, the areas and spaces on ships where industrial personnel are not permitted to enter shall be clearly marked;

.3 the arrangements for personnel transfer shall be located outside the cargo area;

.4 the access to the arrangements for personnel transfer shall, as far as practicable, be located outside the cargo area; and

.5 embarkation or personnel transfer and loading or unloading of cargo shall not take place simultaneously.

8.4.2 In order to meet the functional requirements in paragraph II/9.2, when simultaneously carrying oil as cargo, as defined in Annex I of MARPOL, and industrial personnel, the additional requirements in paragraph 8.4.1 above shall apply.

8.4.3 For the purpose of this requirement:

.1 "low-flashpoint products" mean:

.1 noxious liquid substances with a flashpoint not exceeding 60°C;

.2 oil with a flashpoint not exceeding 60°C; and

.3 liquefied gases which require flammable vapour detection in accordance with chapter 19 of the IGC Code;

.2 "toxic products" mean:

.1 dangerous chemicals to which special requirement 15.12 of the IBC Code applies; and

.2 liquefied gases which require toxic vapour detection in accordance with chapter 19 of the IGC Code; and

.3 "acids" mean dangerous chemicals to which special requirement 15.11 of the IBC Code applies.

8.4.4 In order to meet the functional requirements in paragraph II/9.2 when carrying liquefied gases in bulk, for the purpose of the requirements of the IGC Code, industrial personnel shall be considered as personnel in the context of training and personnel protection.

[6] Refer to the *Code for the Transport and Handling of Hazardous and Noxious Liquid Substances in Bulk on Offshore Support Vessels (OSV Chemical Code*) (resolution A.1122(30)).

## PART V
## ADDITIONAL REGULATIONS FOR CRAFT CERTIFIED IN ACCORDANCE WITH SOLAS CHAPTER X

### Regulation 1 - *General*

1.1 High-speed cargo craft certified in accordance with SOLAS chapter X shall not carry more than 60 persons on board.

1.2 Unless expressly provided otherwise in this part, high-speed craft carrying not more than 60 persons on board shall meet the requirements for cargo craft in the HSC Code and the applicable regulations in this part.

1.3 Craft complying with paragraph 1.2 above in addition to the applicable regulations in this part are considered to meet the goals and functional requirements in paragraphs II/3 to II/9.

1.4 The carriage of IP on high-speed craft is not considered as transit voyage, as specified in 1.9.1.1 of the HSC Code, and a permit to operate is required.

1.5 Where the term "passenger" is used in applicable requirements in the HSC Code, it shall be read to mean "persons on board other than crew".

### Regulation 2 - *Subdivision and stability*

In order to meet the functional requirements set out in paragraph II/3.2, the following applies:

.1 Chapter 2, part B, except 2.13.2 and 2.14, of the HSC Code shall apply in lieu of chapter 2, part C of the HSC Code.

.2 When applying the provisions of chapter 2 of the HSC Code, the expression "passenger" shall be read as "persons on board other than crew". In addition, the mass of each such person shall be assumed to be 90 kg instead of 75 kg.

### Regulation 3 - *Machinery installations*

In order to meet the functional requirements set out in paragraph II/4.2, provisions in chapter 10, part B of the HSC Code shall apply as applicable to category A passenger craft in lieu of chapter 10, part C of the HSC Code.

**Regulation 4 - *Electrical installations***

In order to meet the functional requirements set out in paragraph II/5.2, 12.7.10 of the HSC Code shall apply.

**Regulation 5 - *Periodically unattended machinery spaces***

*[no provisions]*

**Regulation 6 - *Fire safety***

*[no provisions]*

**Regulation 7 - *Life-saving appliances and arrangements***

In order to meet the functional requirements set out in paragraph II/8.2:

.1 4.2.3 of the HSC Code shall apply;

.2 8.4.3 of the HSC Code shall apply – the expression "passenger spaces" shall be read as "IP area"; and

.3 the required number of infant or child lifejackets shall be calculated solely based on the number of passengers on board.

**Regulation 8 - *Dangerous goods***

8.1 Industrial personnel may only bring dangerous goods on board for the purpose of their role off the craft and with the prior consent of the master of the craft. These dangerous goods shall be considered as cargo and shall be transported in accordance with chapter 7, part D of the HSC Code.

8.2 In order to meet the functional requirements set out in paragraph II/9.2:

.1 for the purpose of carrying IP, the areas and spaces on craft where IP are not permitted to enter shall be clearly marked;

.2 the arrangement for personnel transfer shall be located outside the cargo area;

.3 the access to the arrangements for personnel transfer shall, as far as practicable, be located outside the cargo area; and

.4 embarkation or personnel transfer and loading or unloading of cargo shall not take place simultaneously.

**APPENDIX**

**FORM OF SAFETY CERTIFICATE FOR SHIPS CARRYING INDUSTRIAL PERSONNEL**

**INDUSTRIAL PERSONNEL SAFETY CERTIFICATE**

This Certificate shall be supplemented by a Record of Equipment for the Industrial Personnel Safety Certificate (Form IP)

(Official seal) (State)

Issued under the provisions of the

International Convention for the Safety of Life at Sea, 1974, as amended

under the authority of the Government of

*(name of the State)*

by _____
*(person or organization authorized)*

Particulars of ship[7]

Name of ship .....

Distinctive number or letters .....

Port of registry .....

Gross tonnage .....

IMO number[8] .....

Date [dd/mm/yyyy] on which keel was laid or ship was at a similar stage of construction or, where applicable, date on which work for a conversion or an alteration or modification of a major character was commenced .....

[7] Alternatively, the particulars of the ship may be placed horizontally in boxes.

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

THIS IS TO CERTIFY:

1 ☐ *check box, if applicable*
That the ship has been surveyed in accordance with the provisions of section I/3 of the International Code of Safety for Ships Carrying Industrial Personnel as a ship to which regulations XV/3.1 or 3.4 of the Convention apply.

.1 That the survey showed that:

.1 the structure, equipment, fittings and materials of the ship and the condition thereof are in all respects satisfactory and that the ship complies with the relevant provisions of the Code; and

.2 if fitted, the personnel transfer appliances and arrangement and the condition thereof are in all respects satisfactory and comply with the provisions of regulation III/2 of the Code.

2 ☐ *check box, if applicable*
That the ship has been surveyed in accordance with the provisions of section I/3 of the International Code of Safety for Ships Carrying Industrial Personnel as a ship to which regulations XV/3.2 or XV/3.3 of the Convention apply.

.1 That the survey showed that:

.1 the life-saving appliances and the equipment of the lifeboats, liferafts and rescue boats were provided in accordance with regulation IV/7 or V/7 of the Code, as applicable;

.2 the ship, if permitted to carry dangerous goods, complies with the relevant provisions of regulation IV/8 or V/8 of the Code, as applicable; and

.3 if fitted, the personnel transfer appliances and arrangement and the condition thereof are in all respects satisfactory and comply with the provisions of regulation III/2 (except for paragraph 2.1.7) of the Code.

3 This certificate is not valid for the carriage of toxic products, low-flashpoint products or acids when the total number of persons on board exceeds 60.

This certificate is valid until ..... ……

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 ANNUAL, PERIODICAL AND INTERMEDIATE SURVEYS**

THIS IS TO CERTIFY that, at a survey required by section I/3 of the Code, the ship was found to comply with the relevant provisions of the Code:

Annual/Periodical* survey:

Signed:
……
*(Signature of authorized official)*

Place: ……

Date: ……

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

Annual/Periodical/Intermediate* survey:

Signed:
……
*(Signature of authorized official)*

Place: ……

Date: ……

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

Annual/Periodical/Intermediate* survey:

Signed:
……
*(Signature of authorized official)*

Place: ……

Date: ……

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

Annual/Periodical* survey:

Signed:
……
*(Signature of authorized official)*

Place: ……

Date: ……

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

**Delete as appropriate.*

**ENDORSEMENT TO EXTEND THE CERTIFICATE IF VALID FOR LESS THAN FIVE YEARS WHERE REGULATION I/14(C) OF THE CONVENTION OR 1.8.8 OF THE 2000 HSC CODE APPLIES**

The ship complies with the relevant requirements of the Convention, and this certificate shall, in accordance with regulation I/14(c) of the Convention* or 1.8.8 of the 2000 HSC 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 REGULATION I/14(D) OF THE CONVENTION OR 1.8.9 OF THE 2000 HSC CODE APPLIES**

The ship complies with the relevant requirements of the Convention, and this certificate shall, in accordance with regulation I/14(d) of the Convention* or 1.8.9 of the 2000 HSC 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 OR FOR A PERIOD OF GRACE WHERE REGULATION I/14(E) OR I/14(F) OF THE CONVENTION OR 1.8.10 OF THE 2000 HSC CODE APPLIES**

This certificate shall, in accordance with regulation I/14(e)/I/14(f)* of the Convention or 1.8.10 of the 2000 HSC Code,* be accepted as valid until.....

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

Place: .....

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

** Delete as appropriate.*

**ENDORSEMENT FOR ADVANCEMENT OF ANNIVERSARY DATE WHERE REGULATION I/14(H) OF THE CONVENTION OR 1.8.12 OF THE 2000 HSC CODE APPLIES**

In accordance with regulation I/14(h) of the Convention* or 1.8.12 of the 2000 HSC Code,* the new anniversary date is .....

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

Place: .....

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

In accordance with regulation I/14(h) of the Convention* or 1.8.12 of the 2000 HSC Code,* the new anniversary date is .....

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

Place: .....

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

* *Delete as appropriate.*

**Record of Equipment for the Industrial Personnel Safety Certificate (Form IP)**

This Record should be permanently attached to the Industrial Personnel Safety Certificate

**RECORD OF EQUIPMENT FOR COMPLIANCE WITH THE INTERNATIONAL CODE OF SAFETY FOR SHIPS CARRYING INDUSTRIAL PERSONNEL**

## 1 Particulars of ship

Name of ship .....

Distinctive number or letters .....

Total number of persons on board for which certified .....

## 2 Details of life-saving appliances

| | | | |
|---|---|---|---|
| 1 | Total number of persons for which life-saving appliances are provided | . . . . . | |
| | | Port side | Starboard side |
| 2 | Total number of lifeboats | . . . . . | . . . . . |
| 2.1 | Total number of persons accommodated by them | . . . . . | . . . . . |
| 2.2 | Number of partially enclosed lifeboats (SOLAS regulation III/21 or III/31, or 8.10 of the HSC Code, as applicable, and LSA Code, section 4.5) | . . . . . | . . . . . |
| 2.3 | Number of self-righting partially enclosed lifeboats (SOLAS regulation III/21 or III/31, or 8.10 of the HSC Code, as applicable, and LSA Code, section 4.5) | . . . . . | . . . . . |
| 2.4 | Number of totally enclosed lifeboats (SOLAS regulation III/21 or III/31, or 8.10 of the HSC Code, as applicable, and LSA Code, sections 4.6) | . . . . . | . . . . . |
| 2.5 | Other lifeboats | . . . . . | . . . . . |
| 2.5.1 | Number | . . . . . | . . . . . |
| 2.5.2 | Type | . . . . . | . . . . . |

| | | |
|---|---|---|
| 3 | Number of motor lifeboats (included in the total lifeboats shown above) | . . . . . |
| 3.1 | Number of lifeboats fitted with searchlights | . . . . . |
| 4 | Number of rescue boats | . . . . . |
| 4.1 | Number of boats which are included in the total lifeboats shown above | . . . . . |
| 5 | Liferafts | . . . . . |
| 5.1 | Those for which approved launching appliances are required | . . . . . |
| 5.1.1 | Number of liferafts | . . . . . |
| 5.1.2 | Number of persons accommodated by them | . . . . . |
| 5.2 | Those for which approved launching appliances are not required | |
| 5.2.1 | Number of liferafts | . . . . . |
| 5.2.2 | Number of persons accommodated by them | . . . . . |
| 6 | Number of marine evacuation systems (MES) | . . . . . |
| 6.1 | Persons accommodated by them | . . . . . |
| 7 | Buoyant apparatus | . . . . . |
| 7.1 | Number of apparatuses | . . . . . |
| 7.2 | Number of persons capable of being supported | . . . . . |
| 8 | Number of lifebuoys | . . . . . |
| 9 | Number of lifejackets (total) | . . . . . |
| 9.1 | Number of adult lifejackets | . . . . . |
| 9.2 | Number of child lifejackets | . . . . . |
| 9.3 | Number of infant lifejackets | . . . . . |
| 10 | Immersion suits | . . . . . |
| 10.1 | Total number | . . . . . |
| 11 | Number of thermal protective aids[9] | . . . . . |

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)

---

[9] Excluding those required by the LSA Code, paragraphs 4.1.5.1.24, 4.4.8.31 and 5.1.2.2.13.

***

**ANNEX 10**

**REVISED ROAD MAP FOR DEVELOPING A GOAL-BASED CODE FOR MARITIME AUTONOMOUS SURFACE SHIPS (MASS)**

| Sessions of MSC | Workplan |
|---|---|
| MSC 107<br>(June 2023) | Consideration of key principles and common understanding of the purpose and objectives for the new instrument.<br><br>If necessary, continue:<br>o consideration of common potential gaps and/or themes identified during the Regulatory Scoping Exercise (RSE) (MSC.1/Circ.1638, section 5)<br>o consideration of glossary/terminology<br>o identifying issues for possible consideration by a Joint MSC/LEG/FAL Working Group (MASS JWG)<br><br>Continue the development of the non-mandatory MASS Code, including high-priority items (MSC.1/Circ.1638, paragraphs 6.11.1 to 6.11.3), including but not limited to:<br>o consideration, together with relevant documents, whether to amend the definition for MASS and degrees of autonomy (including the respective definition)<br>o meaning of the terms master, crew or responsible person<br>o remote control station/centre<br>o determination of the remote operator as a seafarer; as well as to:<br>o continue to review the scope and framework<br><br>Develop provisions for a goal-based instrument, taking into account the input from sub-committees, as appropriate.<br><br>Commence development of glossary/terminology, taking into account any input from MASS-JWG 2, to be further developed throughout the process of drafting. Development should take into account previous submissions made to the Committee.<br><br>Continue consideration of the scope and framework of the mandatory and/or non-mandatory instrument to be developed (including structure of instrument, areas it should encompass, parts/chapters) for a goal-based instrument (MASS Code) and other associated non-mandatory instruments.<br><br>In the process of developing provisions, consider the impact and identify changes to existing IMO instruments and make recommendation on how to address the changes to those instruments, as appropriate, also taking into account any recommendations from the MASS JWG. In doing so, the necessary amendments should focus on those classified as "High-priority"[1] during the RSE: |

[1] Medium- and low-priority instruments in accordance with the outcome of the RSE will be dealt with at a later date (MSC.1/Circ.1638, paragraphs 6.8.1 to 6.9.3).

| | |
|---|---|
| | SOLAS chapters II-1, II-2, III, IV, V, VI, VII, IX, XI-1 and XI-2;<br>COLREG;<br>STCW Convention and Code;<br>STCW-F Convention;<br>1966 LL Convention and 1988 Protocol thereto;<br>1979 SAR Convention;<br>FSS Code;<br>IMSBC Code;<br>IMDG Code;<br>TONNAGE 1969;<br>IBC Code; and<br>IGC Code<br><br>Consider the involvement of Sub-Committees[2] and initiate overall coordination with other committees liaise with other international organizations such as ILO, ISO, IHO, IALA and IMSO.<br><br>Update this road map. |
| MSC 108<br>(1st half 2024) | If necessary, continue:<br>- consideration of common potential gaps and/or themes<br>- consideration of glossary/terminology<br>- identifying issues for possible consideration by the MASS JWG<br><br>Continue the development of the non-mandatory MASS Code.<br><br>Continue to review the scope and framework.<br><br>Develop provisions for a goal-based instrument, taking into account the input from sub-committees, as appropriate.<br><br>Decision on the means to adopt the mandatory instrument (Code): implementation through one Convention or through several conventions.<br><br>If needed, develop amendments to existing instruments necessary for the entry into force of the new instrument and need to be approved and/or adopted at the same time as the new Code.<br><br>Continue consideration of any subsequent amendments to other existing IMO instruments impacted by the entry into force of the new Code, including the *Interim guidelines on MASS trials* (MSC.1/Circ.1604).<br><br>Finalize the non-mandatory MASS Code as annex to a draft MSC resolution. |

[2] Tasks for the sub-committees will be included in this road map when agreed by the Committee.

| | |
|---|---|
| | Consider the procedures for amending existing IMO instruments.<br><br>Consider whether amendments to those instruments could be done under the existing output, or whether there is a need for the MASS Working Group to develop new outputs for this work.<br><br>Update this road map. |
| MSC 109<br>(2nd half 2024) | Finalization and adoption of the new non-mandatory MASS Code.<br><br>Finalization of the draft mandatory MASS Code, based on the approved non-mandatory MASS Code.<br><br>Finalization and approval of amendments to existing instruments necessary for the entry into force of the new instrument.<br><br>Continue the review of existing IMO instruments, under the purview of MSC, with a focus on those classified as "high-priority" during the RSE.<br><br>Identification of future work.<br><br>Consider whether a new output would be needed, or the existing output should be amended.<br><br>Update this road map. |
| MSC 110<br>(1st half 2025) | Adoption of a mandatory MASS Code[3,4] and associated Convention(s) giving effect to the new MASS Code.<br><br>Adoption and/or final approval of amendments to existing instruments necessary for the entry into force of the new instrument.<br><br>Finalize the review of existing IMO instruments with a focus on those classified as "high-priority" during the RSE; and agree on remaining future work and the way forward. |

***

[3] Adoption should take into account the progress made by other Committees and the JWG, if established.

[4] Entry into force date of 1 January 2028 means adoption on 1 July 2026 at the latest (first half of 2026).

**ANNEX 11**

**RESOLUTION MSC.528(106)**
**(adopted on 11 November 2022)**

**RECOMMENDED COOPERATION TO ENSURE THE SAFETY OF LIFE AT SEA, THE RESCUE OF PERSONS IN DISTRESS AT SEA AND THE SAFE DISEMBARKATION OF SURVIVORS**

THE MARITIME SAFETY COMMITTEE,

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

UNDERLINING the importance of international trade by ships ensuring the free movement of goods keeping global supply chains intact,

RECALLING the duty for everybody to assist persons in distress at sea,

NOTING that UNCLOS, the SOLAS Convention, chapter V and the SAR Convention set the framework for assistance to persons in distress at sea,

AGREEING ON the necessity of ensuring free and unhindered navigation,

BEARING IN MIND the necessity of ensuring safe working conditions for all seafarers,

BEARING ALSO IN MIND that persons in distress at sea are under considerable risk and stress,

BEARING FURTHER IN MIND that having on board survivors might inadvertently pose significant risks to the safety of ships rendering assistance, their crews, passengers and themselves,

RECOGNIZING ALSO the possible impact on seafarers' physical and mental well-being,

RECOGNIZING ALSO the need for ships to be enabled to safely disembark survivors as soon as possible,

STRESSING that a rescue operation is not completed until the survivors are disembarked in a place of safety,

RECOGNIZING that the scope of this resolution is limited to promoting the safety of life at sea,

STRESSING that this resolution is without prejudice to other obligations of States, including under human rights law and refugee law,

BEING DEEPLY CONCERNED by incidents where ships were not given access to disembark survivors taken on board in a distress situation as soon as reasonably practicable and with minimum further deviation from the ships' intended voyage,

RECOGNIZING the necessity to strengthen the cooperation between Member States according to the SAR Convention,

REITERATING the Organization's determination to enhance safety of life at sea,

CALLS ON Member States, acting in their respective capacities as flag States, coastal States and port States, as well as shipowners, masters of ships, seafarers and other relevant organizations and stakeholders, to ensure safety of life at sea by:

.1 taking duly into account the need for quick and effective cooperation in all phases of a search and rescue operation,

.2 minimizing the time survivors remain aboard the ship rendering assistance,

.3 also taking duly into account that according to international law, a search and rescue operation is not concluded until the survivors have been disembarked and delivered to a place of safety,

.4 promoting the cooperation between coastal States and flag States of ships involved in SAR operations in accordance with the obligations of the SOLAS and SAR Conventions.

***

# ANNEX 12

## DRAFT AMENDMENTS TO STCW REGULATIONS I/1 AND I/2

## DRAFT MSC RESOLUTION ON AMENDMENTS TO THE INTERNATIONAL CONVENTION ON STANDARDS OF TRAINING, CERTIFICATION AND WATCHKEEPING FOR SEAFARERS (STCW), 1978

THE MARITIME SAFETY COMMITTEE,

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

RECALLING ALSO article XII of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 ("1978 STCW Convention"), concerning the procedures for amending the 1978 STCW Convention,

RECOGNIZING the need for providing a timely response to the global digitalization trend, as well as a solution for the management and control of seafarers' certificates issued pursuant to the 1978 STCW Convention,

HAVING CONSIDERED, at its [107th] session, amendments to the 1978 STCW Convention proposed and circulated in accordance with article XII(1)(a)(i) thereof,

1 ADOPTS, in accordance with article XII(1)(a)(iv) of the 1978 STCW Convention, amendments to the said Convention the text of which is set out in the annex to the present resolution;

2 DETERMINES, in accordance with article XII(1)(a)(vii)(2) of the 1978 STCW 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 Parties or Parties the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant shipping of ships of 100 gross register tons or more have notified to the Secretary-General of the Organization that they object to the amendments;

3 INVITES Parties to note that, in accordance with article XII(1)(a)(ix) of the 1978 STCW Convention, the amendments annexed hereto shall enter into force on [1 January 2024] upon their acceptance, in accordance with paragraph 2 above;

4 URGES Parties to implement the amendments to regulations I/1 and I/2 at an early stage;

5 REQUESTS the Secretary-General, for the purposes of article XII(1)(a)(v) of the 1978 STCW Convention, to transmit certified copies of the present resolution and the text of the amendments contained in the annex to all Parties to the 1978 STCW Convention;

6 REQUESTS ALSO the Secretary-General to transmit copies of this resolution and its annex to Members of the Organization which are not Parties to the 1978 STCW Convention.

ANNEX*

# DRAFT AMENDMENTS TO THE INTERNATIONAL CONVENTION ON STANDARDS OF TRAINING, CERTIFICATION AND WATCHKEEPING FOR SEAFARERS (STCW), 1978

## CHAPTER I
## General provisions

**Regulation I/1**
*Definitions and clarifications*

1 In regulation I/1, the following definition is included:

".45 *Original form* means a paper or an electronic form of any certificate required by the Convention, issued in the format approved by the Administration, provided that the minimum information, as required in paragraph 4 of section A-I/2 of the STCW Code, is readily available."

**Regulation I/2**
*Certificates and endorsements*

2 Regulation I/2, paragraph 11, is amended as follows:

"11 Subject to the provisions of regulation I/10, paragraph 5, any certificate required by the Convention must be kept available in its original form on board the ship on which the holder is serving. If an electronic form* is used, the minimum required data must be accessible as defined by the Administration in accordance with the STCW Code, which is necessary to initiate a verification procedure.

* Refer to the *Guidelines on the use of electronic certificates of seafarers* (MSC.1/Circ.[…])."

***

* Tracked changes are created using "strikethrough" for deleted text and "grey shading" to highlight all modifications and new insertions, including deleted text.

# ANNEX 13

## DRAFT AMENDMENTS TO SECTION A-I/2 OF THE STCW CODE

THE MARITIME SAFETY COMMITTEE,

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

RECALLING ALSO article XII and regulation I/1.2.3 of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978 ("1978 STCW Convention"), concerning the procedures for amending part A of the Seafarers' Training, Certification and Watchkeeping Code ("STCW Code"),

RECOGNIZING the need for providing a timely response to the global digitalization trend, as well as a solution for the management and control of seafarers' certificates issued pursuant to the 1978 STCW Convention,

HAVING CONSIDERED, at its [107th] session, amendments to part A of the STCW Code, proposed and circulated in accordance with article XII(1)(a)(i) of the 1978 STCW Convention,

1 ADOPTS, in accordance with article XII(1)(a)(iv) of the 1978 STCW Convention, amendments to the STCW Code the text of which is set out in the annex to the present resolution;

2 DETERMINES, in accordance with article XII(1)(a)(vii)(2) of the 1978 STCW Convention, that the said amendments to the STCW Code shall be deemed to have been accepted on [1 July 2023], unless, prior to that date, more than one third of Parties or Parties the combined merchant fleets of which constitute not less than 50% of the gross tonnage of the world's merchant shipping of ships of 100 gross register tons or more have notified to the Secretary-General of the Organization that they object to the amendments;

3 INVITES Parties to note that, in accordance with article XII(1)(a)(ix) of the 1978 STCW Convention, the amendments to the STCW Code annexed hereto shall enter into force on [1 January 2024] upon their acceptance, in accordance with paragraph 2 above;

4 URGES Parties to implement the amendments to section A-I/2 of the STCW Code at an early stage;

5 REQUESTS the Secretary-General, for the purposes of article XII(1)(a)(v) of the 1978 STCW Convention, to transmit certified copies of the present resolution and the text of the amendments contained in the annex to all Parties to the 1978 STCW Convention;

6 REQUESTS ALSO the Secretary-General to transmit copies of this resolution and its annex to Members of the Organization which are not Parties to the 1978 STCW Convention.

ANNEX*

**DRAFT AMENDMENTS TO PART A OF THE SEAFARERS' TRAINING, CERTIFICATION AND WATCHKEEPING (STCW) CODE**

**CHAPTER I**

**Standards regarding general provisions**

**Section A-I/2**
*Certificates and endorsements*

1 Section A-I/2, paragraph 4, is amended as follows:

"4 In using formats which may be different from those set forth in this section, pursuant to regulation I/2, paragraph 10, Parties shall ensure that in all cases:

.1 all information relating to the identity and personal description of the holder, including name, date of birth, photograph and signature, along with the date on which the document was issued, shall be displayed on the same side of the documents; ~~and~~

.2 all information relating to the capacity or capacities in which the holder is entitled to serve, in accordance with the applicable safe manning requirements of the Administration, as well as any limitations, shall be prominently displayed and easily identified;

.3 the terms "front", "back" and "overleaf", as referred to in these provisions, are not applicable for certificates and endorsements in electronic form; and

.4 an official seal, photograph and signature of seafarer are not necessary for certificates and endorsements in electronic form."

***

* Tracked changes are created using "strikethrough" for deleted text and "grey shading" to highlight all modifications and new insertions, including deleted text.

# ANNEX 14

# DRAFT AMENDMENTS TO THE LSA CODE

## CHAPTER IV
## Survival craft

### 4.6 Totally enclosed lifeboats

1 The following new paragraphs 4.6.6 and 4.6.7 are inserted after existing paragraph 4.6.5:

"**4.6.6 Ventilation means**

4.6.6.1 A totally enclosed lifeboat shall be provided with means to achieve a ventilation rate of at least 5 $m^3$/h per person for the number of persons which the lifeboat is permitted to accommodate and for a period of not less than 24 hours. The ventilation means shall be operable from inside the lifeboat and shall be arranged to ensure that the lifeboat is ventilated without stratification or formation of unventilated pockets.

4.6.6.2 Where the means of ventilation is powered, the source shall not be the radio batteries referred to by paragraph 4.4.6.11; and where dependent on the lifeboat engine, sufficient fuel shall be provided to comply with paragraph 4.4.6.8.

**4.6.7 Openings of the ventilation system and their means of closing**

4.6.7.1 Each opening of the ventilation means required in paragraph 4.6.6 shall be provided with means of closing. The means of closing shall be operable by a person from inside the lifeboat. Means shall be provided to ensure that the openings can be kept closed before, i.e. while in the stowed position, and during the launching of the lifeboat.

4.6.7.2 Inlet and outlet openings of the ventilation means and their external fittings shall be located and designed in order to minimize the ingress of water through the openings, without using the means of closing required in paragraph 4.6.7.1 and taking into consideration the requirements provided in paragraph 4.6.3.2.

4.6.7.3 For a free-fall lifeboat complying with the requirements of section 4.7, the openings and their means of closing shall be designed to withstand the loads and to prevent ingress of water under the anticipated submerged condition of the lifeboat at the time of free-fall launching.

4.6.7.4 For a lifeboat with a self-contained air support system complying with the requirements of section 4.8, the openings and their means of closing shall be designed to maintain the pressure required by section 4.8.

4.6.7.5 For a fire-protected lifeboat complying with the requirements of section 4.9, the openings and their means of closing shall be designed to ensure that the capability of protecting persons in the lifeboat is not impaired, under the conditions specified in paragraph 4.9.1."

***

# ANNEX 15*

## DRAFT AMENDMENTS TO SOLAS CHAPTERS II-1, II-2, V AND XIV AND THE APPENDIX (CERTIFICATES)

## CHAPTER II-1
## Construction – Structure, subdivision and stability, machinery and electrical installations

### Part A
### General

**Regulation 2**
*Definitions*

1 The following new paragraphs are added after existing paragraph 29:

"30 *Lifting appliance* means any load-handling ship's equipment:

.1 used for cargo loading, transfer, or discharge;

.2 used for raising and lowering hold hatch covers or moveable bulkheads;

.3 used as engine-room cranes;

.4 used as stores cranes;

.5 used as hose handling cranes;

.6 used for launch and recovery of tender boats and similar applications; and

.7 used as personnel handling cranes.

31 *Anchor handling winch* means any winch for the purpose of deploying, recovering and repositioning anchors and mooring lines in subsea operations.

32 *Loose gear* means an article of ship's equipment by means of which a load can be attached to a lifting appliance or an anchor handling winch but which does not form an integral part of the appliance or load.

33 The expression *appliances installed on or after [date]*, as provided in regulation 3-13 means:

.1 for ships the keel of which is laid or which is at a similar stage of construction on or after [*date*], appliances on board those ships; or

.2 for ships other than those specified in .1, including those constructed before 1 January 2009, appliances, having a contractual delivery date to the ship on or after [*date*] or, in the

* Modifications to existing text are shown in grey shading.

absence of a contractual delivery date to the ship, actually delivered to the ship on or after [*date*]."

**Part A-1**
**Structure of ships**

2 The following new regulation is added after existing regulation II-1/3-12:

"**Regulation 3-13**
*Lifting appliances and anchor handling winches*

**1 Application**

1.1 Unless expressly provided otherwise, this regulation shall apply to lifting appliances and anchor handling winches, and loose gear utilized with the lifting appliances and the anchor handling winches.

1.2 Notwithstanding the above, this regulation does not apply to:

.1 lifting appliances on ships certified as MODUs;[1]

.2 lifting appliances used on offshore construction ships, such as pipe/cable laying/repair or offshore installation vessels, including ships for decommissioning work, which comply with standards acceptable to the Administration;

.3 integrated mechanical equipment for opening and closing hold hatch covers; and

.4 life-saving launching appliances complying with the LSA Code.

1.3 The Administration shall determine to what extent the provisions of regulations 3-13.2.1 and 3-13.2.4 do not apply to lifting appliances which have a safe working load below 1,000 kg.

**2 Design, construction and installation**

2.1 Lifting appliances installed on or after [*date*] shall be:

.1 designed, constructed and installed in accordance with the requirements of a classification society which is recognized by the Administration in accordance with the provisions of regulation XI-1/1 or standards acceptable to the Administration which provide an equivalent level of safety; and

.2 load tested and thoroughly examined after installation and before being taken into use for the first time and after repairs, modifications or alterations of major character.

2.2 Anchor handling winches installed on or after [*date*] shall be designed, constructed, installed and tested to the satisfaction of the Administration, based on the Guidelines developed by the Organization.[2]

2.3 Lifting appliances installed on or after [*date*] shall be permanently marked and provided with documentary evidence for the safe working load (SWL).

2.4 Lifting appliances installed before [*date*] shall be tested and thoroughly examined, based on the Guidelines developed by the Organization[3] and comply with regulation 3-13.2.3 no later than the date of the first renewal survey on or after [*date*].

2.5 Anchor handling winches installed before [*date*] shall be tested and thoroughly examined, based on the Guidelines developed by the Organization[2] no later than the date of the first renewal survey on or after [*date*].

**3 Maintenance, operation, inspection and testing**

All lifting appliances and anchor handling winches, regardless of installation date, and all loose gear utilized with any lifting appliances and anchor handling winches, shall be operationally tested, thoroughly examined, inspected, operated and maintained, based on the Guidelines developed by the Organization.[2 3]

**4 Inoperative lifting appliances and anchor handling winches**

Except as provided in regulations I/11(c), while all reasonable steps shall be taken to maintain lifting appliances, anchor handling winches and loose gear to which this regulation applies in working order, malfunctions of that equipment shall not be assumed as making the ship unseaworthy or as a reason for delaying the ship in ports, provided that action has been taken by the master to take the inoperative lifting appliance or anchor handling winch into account in planning and executing a safe voyage. [2 3]

---

1 Ships certified as MODUs are those subject to the MODU Code and which carry a MODU Code Certificate on board issued by the Administration or a recognized organization. The carriage of this certificate includes authorized electronic versions available on board.

2 Refer to the *Guidelines for anchor handling winches* (MSC.1/Circ.[…]).

3 Refer to the *Guidelines for lifting appliances* (MSC.1/Circ.[…])."

## CHAPTER II-2
## Construction – Fire protection, fire detection and fire extinction

### Part A
### General

**Regulation 1**
*Application*

**2 Applicable requirements to existing ships**

3 The following new paragraph 2.10 is added after existing paragraph 2.9, with the associated footnote:

"2.10 Ships constructed before [1 January 2026] shall comply with regulation II- 2/10.11.2[, as adopted by resolution MSC...(…),] not later than the date of the first survey* after 1 January 2026.

---

* Refer to the *Unified interpretation of the term "first survey" referred to in SOLAS regulations* (MSC.1/Circ.1290)."

**Part C**
**Suppression of fire**

**Regulation 10**
*Fire fighting*

4 The following new section 11 is added after existing section 10:

**"11 Fire-extinguishing media restrictions**

The purpose of this regulation is to protect persons on board against exposure to dangerous substances used in firefighting, as well as to minimize the impact of fire-extinguishing media that are deemed detrimental to the environment.

**11.1 Application**

This regulation applies to ships constructed on or after [1 January 2026].

**11.2 General**

11.2.1 The prohibited substances in this regulation shall be delivered to appropriate shore-based reception facilities when removed from the ship.

11.2.2 Use or storage of extinguishing media containing perfluorooctane sulfonic acid (PFOS) shall be prohibited."

**CHAPTER V**
**Safety of navigation**

**Regulation 2**
*Definitions*

5 The following new paragraphs are added after the existing paragraph 7:

"8 *Bulk carrier* means a bulk carrier as defined in regulation XII/1.1.[1]

9 *Container ship* means a ship which is intended primarily to carry containers.[2]

[1] Refer to *Clarification of the term "bulk carrier" and guidance for application of regulations in SOLAS to ships which occasionally carry dry cargoes in bulk and are not determined as bulk carriers in accordance with regulation XII/1.1 and chapter II-1* (resolution MSC.277(85)).

[2] The term "container" should be considered as having the same meaning as defined and applied in the International Convention for Safe Containers (CSC), 1972, as amended."

**Regulation 18**
*Approval, surveys and performance standards of navigational systems and equipment and voyage data recorder*

6 The following reference is added to the footnote corresponding to paragraph 2:

"*Performance standards for electronic inclinometers* (resolution MSC.363(92))"

**Regulation 19**
*Carriage requirements for shipborne navigational systems and equipment*

7 The following new paragraph 2.12 is added after existing paragraph 2.11:

"2.12 Container ships and bulk carriers of 3,000 gross tonnage and upwards constructed on or after 1 January 2026 shall be fitted with an electronic inclinometer, or other means, to determine, display and record the ship's roll motion."

## CHAPTER XIV
## Safety measures for ships operating in polar waters

**Regulation 2**
*Application*

8 Regulation 2 is amended as follows:

**"Regulation 2**
*Application*

1 Unless expressly provided otherwise, this chapter applies to the following ships operating in polar waters:

.1 ships certified in accordance with chapter I;[1]

.2 fishing vessels of 24 metres in length overall and above;

.3 pleasure yachts of 300 gross tonnage and upwards not engaged in trade; and

.4 cargo ships of 300 gross tonnage and upwards but below 500 gross tonnage.

2 Ships subject to regulation 2.1.1 constructed before 1 January 2017 shall meet the relevant requirements of the Polar Code by the first intermediate or renewal survey, whichever occurs first, after 1 January 2018.

3 Ships subject to regulations 2.1.2, 2.1.3 or 2.1.4 constructed before [date of entry into force] shall meet the relevant requirements of chapters 9-1 and 11-1 of the Polar Code by the [date of entry into force + one year].

~~3~~4 In applying part I-A of the Polar Code, consideration should be given to the additional guidance in part I-B of the Polar Code.

5 This chapter shall not apply to ships owned or operated by a Contracting Government and used, for the time being, only in government non-commercial service. However, ships owned or operated by a Contracting Government and used, for the time being, only in government non-commercial service are encouraged to act in a manner consistent, so far as reasonable and practicable, with this chapter.

~~5~~ 6 Nothing in this chapter shall prejudice the rights or obligations of States under international law.

---

[1] Refer to the *Interim safety measures for ships not certified under the SOLAS Convention operating in polar waters* (resolution A.1137(31))."

**Regulation 3**
*Requirements for ships to which this chapter applies*

9 Regulation 3 is amended as follows:

"**Regulation 3**
*Requirements for ships ~~to which this chapter applies~~ certified in accordance with chapter I*

1 Ships ~~to which this chapter applies~~ subject to regulation 2.1.1 above shall comply with the requirements of the safety-related provision of the introduction and with part I-A of the Polar Code and shall, in addition to the requirements of regulations I/7, I/8, I/9, and I/10, as applicable, be surveyed and certified, as provided for in that Code.

2 Ships ~~to which this chapter applies~~ subject to regulation 2.1.1 above holding a certificate issued pursuant to the provisions of paragraph 1 shall be subject to the control established in regulations I/19 and XI-1/4. For this purpose, such certificates shall be treated as a certificate issued under regulation I/12 or I/13."

10 A new regulation 3-1 is inserted as follows:

"**Regulation 3-1**
*Requirements for fishing vessels of 24 metres in length overall and above, pleasure yachts of 300 gross tonnage and upwards not engaged in trade and cargo ships of 300 gross tonnage and upwards but below 500 gross tonnage*

1 Ships subject to regulations 2.1.2, 2.1.3 or 2.1.4 on all voyages in the Antarctic area and voyages in Arctic waters beyond the outer limit of the territorial sea of the Contracting Government whose flag the ship is entitled to fly shall comply with the provisions of chapters 9-1 and 11-1 of part I-A of the Polar Code, taking into account the introduction and the safety-related provisions of paragraphs 1.2, 1.4 and 1.5 of chapter 1 of part I-A of the Polar Code.

2 Notwithstanding paragraph 1 above, the Administration shall determine to what extent the provisions of regulations 9-1.3.1 and 9-1.3.2 of chapter 9-1 of part I-A of the Polar Code do not apply to:

.1 fishing vessels of 24 metres of length overall and above; and

.2 ships of 300 gross tonnage and upwards but below 500 gross tonnage not engaged in international voyages."

## APPENDIX

## CERTIFICATES

### Record of equipment for passenger ship safety (Form P)

**2 Details of life-saving appliances**

11 In the table for "Details of life-saving appliances", entries 10 to 10.2 are replaced by the following:

| | |
|---|---|
| 10 | Number of i~~l~~mmersion suits |
| ~~10.1~~ | ~~Total number~~ |
| ~~10.2~~ | ~~Number of suits complying with the requirements for lifejackets~~ |

### Form of Safety Equipment Certificate for Cargo Ships

***Cargo Ship Safety Equipment Certificate***

**Particulars of ship**

12 The following new entry is added after "Gas carrier":

"Container ship"

***Record of Equipment for Cargo Ship Safety (Form E)***

**2 Details of life-saving appliances**

13 In the table for "Details of life-saving appliances", entries 9 to 9.2 are replaced by the following:

| | |
|---|---|
| 9 | Number of i~~l~~mmersion suits |
| ~~9.1~~ | ~~Total number~~ |
| ~~9.2~~ | ~~Number of suits complying with the requirements for lifejackets~~ |

**3 *Details of navigational systems and equipment***

14 The following new entry is added after existing entry 15 (Bridge navigational watch alarm system (BNWAS)):

"16 Electronic inclinometer"

***Record of Equipment for Cargo Ship Safety (Form C)***

**2 Details of life-saving appliances**

15 In the table for "Details of life-saving appliances", entries 9 to 9.2 are replaced by the following:

| | |
|---|---|
| 9 | Number of i~~i~~mmersion suits |
| ~~9.1~~ | ~~Total number~~ |
| ~~9.2~~ | ~~Number of suits complying with the requirements for lifejackets~~ |

**5 *Details of navigational systems and equipment***

16 The following new entry is added after existing entry 15 (Bridge navigational watch alarm system (BNWAS)):

"16 Electronic inclinometer"

***

# ANNEX 16*

# DRAFT AMENDMENTS TO THE 1994 HSC CODE

## CHAPTER 7
## Fire safety

## Part A
## General

### 7.9 Miscellaneous

1 The following new paragraph 7.9.4 is added after existing paragraph 7.9.3.4, with the associated footnote:

**"7.9.4** ***Fire-extinguishing media restrictions***

7.9.4.1 The following restrictions should apply for the use, storage or disposal of perfluorooctane sulfonic acid (PFOS):

.1 on all craft, use or storage of extinguishing media containing perfluorooctane sulfonic acid (PFOS) should be prohibited no later than the date of the first survey* after [1 January 2026]; and

.2 the prohibited substances in this regulation should be delivered to appropriate shore-based reception facilities when removed from the craft.

* Refer to the *Unified interpretation of the term "first survey" referred to in SOLAS regulations* (MSC.1/Circ.1290)."

* Modifications to existing text are shown in grey shading.

ANNEX 1

**FORM OF SAFETY CERTIFICATE FOR HIGH-SPEED CRAFT**

**Record of Equipment for High-Speed Craft Safety Certificate**

2 In the table for "Details of life-saving appliances", entries 9 to 10.2 are replaced by the following:

| | | |
|---|---|---|
| 9 | Number of ~~i~~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~~ | ~~……..~~ |

***

# ANNEX 17*

# DRAFT AMENDMENTS TO THE 2000 HSC CODE

## CHAPTER 7
## Fire safety

## Part A
## General

### 7.9 Miscellaneous

1 The following new paragraph 7.9.4 is added after existing paragraph 7.9.3.5 with the associated footnote:

**"7.9.4** ***Fire-extinguishing media restrictions***

7.9.4.1 The following restrictions shall apply for the use, storage or disposal of perfluorooctane sulfonic acid (PFOS):

.1 on craft constructed on or after [1 January 2026], use or storage of extinguishing media containing perfluorooctane sulfonic acid (PFOS) shall be prohibited;

.2 craft constructed before [1 January 2026] shall comply with .1 above no later than the date of the first survey* after [1 January 2026]; and

.3 the prohibited substances in this regulation shall be delivered to appropriate shore-based reception facilities when removed from the craft.

* Refer to the *Unified interpretation of the term "first survey" referred to in SOLAS regulations* (MSC.1/Circ.1290)."

* Modifications to existing text are shown in grey shading.

ANNEX 1

**FORM OF HIGH-SPEED CRAFT AND RECORD OF EQUIPMENT**

**Record of Equipment for the High-Speed Craft Safety Certificate**

2 In the table for "Details of life-saving appliances", entries 9 to 10.2 are replaced by the following:

| | | |
|---|---|---|
| 9 | Number of ~~i~~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~~ | ~~……..~~ |

***

**ANNEX 18**

**RESOLUTION MSC.263(84)/REV.1**
**(adopted on 7 November 2022)**

**PERFORMANCE STANDARDS AND FUNCTIONAL REQUIREMENTS FOR THE LONG-RANGE IDENTIFICATION AND TRACKING OF SHIPS**

THE MARITIME SAFETY COMMITTEE,

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

RECALLING ALSO resolution A.886(21) on *Procedure for the adoption of, and amendments to, performance standards and technical specifications*, by which the Assembly resolved that the function of adopting performance standards and technical specifications, as well as amendments thereto, shall be performed by the Maritime Safety Committee,

BEARING IN MIND the provisions of regulation V/19-1 of the International Convention for the Safety of Life at Sea, 1974 (the Convention), relating to the long-range identification and tracking of ships, and the *Revised performance standards and functional requirements for the long-range identification and tracking of ships* (Revised Performance Standards), adopted by resolution MSC.263(84), as amended by resolutions MSC.330(90) and MSC.400(95),

HAVING CONSIDERED, at its 106th session, the recommendation made by the Sub-Committee on Navigation, Communications and Search and Rescue at its ninth session,

1 ADOPTS the revised *Performance standards and functional requirements for the long-range identification and tracking of ships*, set out in the annex to the present resolution;

2 REVOKES resolutions MSC.263(84), MSC.330(90) and MSC.400(95);

3 AGREES that any reference to resolution MSC.263(84), as amended, should be read as reference to the present resolution;

4 INVITES Contracting Governments to the Convention to bring the enclosed revised performance standards to the attention of all parties concerned.

ANNEX

# PERFORMANCE STANDARDS AND FUNCTIONAL REQUIREMENTS FOR THE LONG-RANGE IDENTIFICATION AND TRACKING OF SHIPS

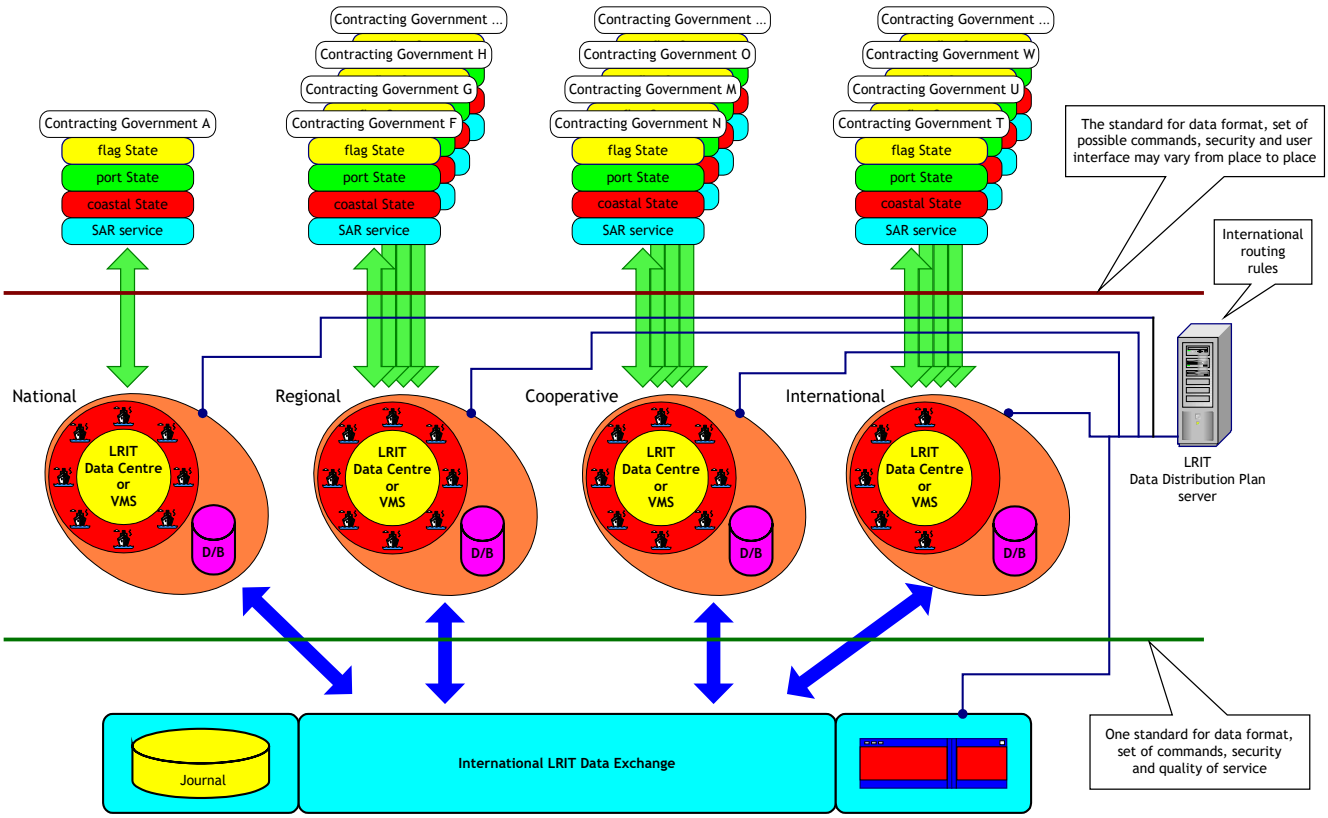
## 1 Overview

1.1 The Long-range Identification and Tracking (LRIT) system provides for the global identification and tracking of ships.

1.2 The LRIT system consists of the shipborne LRIT information transmitting equipment, the Communication Service Provider(s), the Application Service Provider(s), the LRIT Data Centre(s), including any related vessel monitoring system(s), the LRIT Data Distribution Plan and the International LRIT Data Exchange. Certain aspects of the performance of the LRIT system are reviewed or audited by an LRIT Coordinator acting on behalf of all Contracting Governments. Figure 1 provides an illustration of the LRIT system architecture.

**Figure 1**

**LRIT system architecture**




1.3 LRIT information is provided to Contracting Governments and search and rescue services[1] entitled to receive the information, upon request, through a system of National, Regional, Cooperative and International LRIT Data Centres, using where necessary, the International LRIT Data Exchange.

[1] The term "search and rescue service" is defined in regulation V/2.5.

1.4 Each Administration should provide to the LRIT Data Centre it has selected a list of the ships entitled to fly its flag which are required to transmit LRIT information, together with other salient details and should update, without undue delay, such lists as and when changes occur. Ships should only transmit the LRIT information to the LRIT Data Centre selected by their Administration.

1.5 The obligations of ships to transmit LRIT information and the rights and obligations of Contracting Governments and of search and rescue services to receive LRIT information are established in regulation V/19-1 of the 1974 SOLAS Convention.

## 2 Definitions

2.1 Unless expressly provided otherwise:

.1 *Convention* means the International Convention for the Safety of Life at Sea, 1974, as amended.

.2 *Regulation* means a regulation of the Convention.

.3 *Chapter* means a chapter of the Convention.

.4 *LRIT Data User* means a Contracting Government or a search and rescue (SAR) service which opts to receive the LRIT information it is entitled to.

.5 *Committee* means the Maritime Safety Committee.

.6 *High-speed craft* means a craft as defined in regulation X/1.3.

.7 *Mobile offshore drilling unit* means a mobile offshore drilling unit as defined in regulation XI-2/1.1.5.

.8 *Organization* means the International Maritime Organization.

.9 *Vessel monitoring system* means a system established by a Contracting Government or a group of Contracting Governments to monitor the movements of the ships entitled to fly its or their flag. A vessel monitoring system may also collect from the ships information specified by the Contracting Government(s) which has established it.

.10 *LRIT information* means the information specified in regulation V/19-1.5.

2.2 The term "ship", when used in the present performance standards, includes mobile offshore drilling units and high-speed craft as specified in regulation V/19-1.4.1 and means a ship which is required to transmit LRIT information.

2.3 Terms not otherwise defined should have the same meaning as the meaning attributed to them in the Convention.

## 3 General provisions

3.1 It should be noted that regulation V/19-1.1 provides that:

*Nothing in this regulation or the provisions performance standards and functional requirements adopted by the Organization in relation to the long-range identification and tracking of ships shall prejudice the rights, jurisdiction or obligations of States*

*under international law, in particular, the legal regimes of the high seas, the exclusive economic zone, the contiguous zone, the territorial seas or the straits used for international navigation and archipelagic sea lanes.*

3.2 In operating the LRIT system, recognition should be given to international conventions, agreements, rules or standards that provide for the protection of navigational information.

3.3 The present performance standards should always be read together with regulation V/19-1 and the technical specifications for the LRIT system.[2]

**4 Shipborne equipment**

4.1 In addition to the general requirements contained in resolution A.694(17) on *Recommendations on general requirements for shipborne radio equipment forming part of the Global Maritime Distress and Safety System (GMDSS) and for electronic navigational aids*, the shipborne equipment should comply with the following minimum requirements:

.1 be capable of automatically and without human intervention on board the ship transmitting the ship's LRIT information at 6-hour intervals to an LRIT Data Centre;

.2 be capable of being configured remotely to transmit LRIT information at variable intervals;

.3 be capable of transmitting LRIT information following receipt of polling commands;

.4 interface directly to the shipborne global navigation satellite system equipment, or have internal positioning capability;

.5 be supplied with energy from the main and emergency source of electrical power;[3] and

.6 be tested for electromagnetic compatibility taking into account the recommendations[4] developed by the Organization.

4.2 In addition to the provisions specified in paragraph 4.1 above, the shipborne equipment should provide the functionality specified in table 1.

---

2 Refer to the *Long-range identification and tracking system - Technical documentation (Part I)* (MSC.1/Circ.1259, as revised).

3 This provision should not apply to ships using for the transmission of LRIT information any of the radio communication equipment provided for compliance with the provisions of chapter IV. In such cases, the shipborne equipment should be provided with sources of energy as specified in regulation IV/13.

4 Refer to resolution A.813(19) on *General requirements for electromagnetic compatibility of all electrical and electronic ship's equipment*.

**Table 1**

**Data to be transmitted from the shipborne equipment**

| Parameter | Comments |
|---|---|
| Shipborne equipment identifier | The identifier used by the shipborne equipment. |
| Positional data | The Global Navigation Satellite System (GNSS) position (latitude and longitude) of the ship (based on the WGS 84 datum).<br><br>*Position*: The equipment should be capable of transmitting the GNSS position (latitude and longitude) of the ship (based on WGS 84 datum) as prescribed by regulation V/19-1, without human interaction on board the ship.<br><br>*On-demand*(1) *position reports*: The equipment should be capable of responding to a request to transmit LRIT information on demand without human interaction on board the ship, irrespective of where the ship is located.<br><br>*Pre-scheduled*(2) *position reports*: The equipment should be capable of being remotely configured to transmit LRIT information at intervals ranging from a minimum of 15 min to periods of 6 hours to the LRIT Data Centre, irrespective of where the ship is located and without human interaction on board the ship. |
| Time Stamp 1 | The date and time(3) associated with the GNSS position.<br>The equipment should be capable of transmitting the time(3) associated with the GNSS position with each transmission of LRIT information. |

Notes: (1) *On-demand position reports* means transmission of LRIT information as a result of either receipt of polling command or of remote configuration of the equipment so as to transmit at intervals other than the preset ones.

(2) *Pre-scheduled position reports* means transmission of LRIT information at the preset transmit intervals.

(3) All times should be indicated as Universal Coordinated Time (UTC).

4.3 The shipborne equipment should transmit the LRIT information using a communication system which provides coverage in all areas where the ship operates.

4.4 The shipborne equipment should be set to automatically transmit the ship's LRIT information at 6-hour intervals to the LRIT Data Centre identified by the Administration, unless the LRIT Data User requesting the provision of LRIT information specifies a more frequent transmission interval.

4.4.1 When a ship is undergoing repairs, modifications or conversions in dry dock or in-port or is laid up for a long period, the master or the Administration may reduce the frequency of the transmission LRIT information to one transmission every 24-hour period, or may temporarily stop the transmission of such information.

## 5 Application Service Providers

5.1 Application Service Providers (ASPs) providing services to:

.1 a National LRIT Data Centre, should be recognized by the Contracting Government establishing the centre;

.2 a Regional or a Cooperative LRIT Data Centre, should be recognized by the Contracting Governments establishing the centre. In such a case, the arrangements for recognizing the ASPs should be agreed amongst the Contracting Governments establishing the centre; and

.3 an International LRIT Data Centre, should be recognized by the Committee.

5.2 Contracting Governments should provide to the Organization a list with the names and contact details of the ASPs they recognize together with any associated conditions of recognition and thereafter should, without undue delay, update the Organization as changes occur.

5.2.1 The Organization should communicate information it receives pursuant to the provisions of paragraph 5.2 and information in relation to the ASP(s) recognized by the Committee for providing services to the International LRIT Data Centre and any changes thereto to all Contracting Governments, all LRIT Data Centres, the International LRIT Data Exchange and the LRIT Coordinator.

5.3 An ASP function should:

.1 provide a communication protocol interface between the Communication Service Providers and the LRIT Data Centre to enable the following minimum functionality:

.1 remote integration of the shipborne equipment into an LRIT Data Centre;

.2 automatic configuration of transmission of LRIT information;

.3 automatic modification of the interval of transmission of LRIT information;

.4 automatic suspension of transmission of LRIT information;

.5 on-demand transmission of LRIT information; and

.6 automatic recovery and management of transmission of LRIT information;

.2 provide an integrated transaction management system for the monitoring of LRIT information throughput and routeing; and

.3 ensure that LRIT information is collected, stored and routed in a reliable and secure manner.

5.4 The ASP where used should add the data identified in table 2 to each transmission of LRIT information:

**Table 2**

**Data to be added by an Application Service Provider and at the LRIT Data Centre**

| Parameters | Comments |
|---|---|
| Ship Identity(1) | The IMO ship identification number(1) and MMSI for the ship. |
| Name of ship | Name of the ship which has transmitted the LRIT information in the English language using Latin-1 alphabet and UTF-8 encoding. |
| Type of ship(2) | Type of the ship which has transmitted the LRIT information using a predefined code. |
| Time Stamp 2 | The date and time(3) the transmission of LRIT information is received by the ASP (if used). |
| Time Stamp 3 | The date and time(3) the received LRIT information is forwarded from the ASP (if used) to the appropriate LRIT Data Centre. |
| LRIT Data Centre Identifier | The identity of the LRIT Data Centre to be clearly indicated by a Unique Identifier. |
| Time Stamp 4 | The date and time(3) the LRIT information is received by the LRIT Data Centre. |
| Time Stamp 5 | The date and time(3) the transmission of LRIT information is forwarded from the LRIT Data Centre to an LRIT Data User. |

Notes: (1) See regulation XI-1/3 and resolution A.1078(28) on *IMO Ship Identification Number Scheme*.

(2) Types of ships to be used in LRIT messages are outlined in *LRIT Technical documentation, part I* (MSC.1/Circ.1259, as revised).

(3) All times should be indicated as Universal Coordinated Time (UTC).

5.5 In addition to the provisions of paragraph 5.3, Administrations, Contracting Governments and the Committee may establish, in relation to the ASPs seeking their recognition, specific requirements as a condition of recognizing a particular ASP.

## 6 Communication Service Providers

6.1 Communication Service Providers (CSPs) provide services which link the various parts of the LRIT system using communications protocols in order to ensure the end-to-end secure transfer of the LRIT information. This requirement precludes the use of non-secure broadcast systems.

6.2 A CSP may also provide services as an ASP.

## 7 LRIT Data Centre

7.1 All LRIT Data Centres should:

.1 establish and continuously maintain systems which ensure, at all times, that LRIT Data Users are only provided with the LRIT information they are entitled to receive as specified in regulation V/19-1;

.2 collect LRIT information from ships instructed by their Administrations to transmit the LRIT information to the centre;

.3 obtain, when requested to provide LRIT information transmitted by ships other than those which transmit the information to the centre, LRIT information from other LRIT Data Centres through the International LRIT Data Exchange;

.4 make available, when requested to provide LRIT information transmitted by ships which transmit the information to the centre, LRIT information transmitted to the centre to other LRIT Data Centres through the International LRIT Data Exchange;

.5 execute requests received from LRIT Data Users for polling of LRIT information or for change(s) in the interval(s) of transmission of LRIT information by a ship or a group of ships transmitting the information to the centre;

.6 relay, when required, requests received from LRIT Data Users through the International LRIT Data Exchange to the other LRIT Data Centres for polling of LRIT information or for change(s) in the interval(s) of transmission of LRIT information by a ship or a group of ships not transmitting the information to the centre;

.7 execute requests received through the International LRIT Data Exchange from other LRIT Data Centres for polling of LRIT information or for change(s) in the interval(s) of transmission of LRIT information by a ship or a group of ships transmitting the information to the centre;

.8 upon request disseminate to LRIT Data Users the LRIT information they are entitled to receive in accordance with the agreed arrangements and notify the LRIT Data User and the Administration when a particular ship stops transmitting LRIT information;

.9 archive LRIT information from ships which transmit the information to the centre, for at least one year and until such time as the Committee reviews and accepts the annual report of the audit of its performance by the LRIT Coordinator. However, the archived LRIT information should provide a complete record of the activities of the centre between two consecutive annual audits of its performance;

.10 for LRIT information archived within the last four days, send the LRIT information within 30 min of receiving a request;

.11 for LRIT information archived between four and 30 days previously, send the LRIT information within one hour of receiving a request;

.12 for LRIT information archived more than 30 days previously, send the LRIT information within five days of receiving a request;

.13 ensure, using appropriate hardware and software, that LRIT information is backed-up at regular intervals, stored at suitable off-site location(s) and available as soon as possible in the event of disruption to ensure continuity of service;

.14 maintain a record of the ships which transmit LRIT information to the centre including name of ship, IMO ship identification number, call sign, maritime mobile service identity (MMSI) and type of ship;

.15 use a standard protocol for communications and agreed protocols to connect with the International LRIT Data Exchange and the LRIT Data Distribution Plan server;

.16 use a standard secure transmission method with the International LRIT Data Exchange and the LRIT Data Distribution Plan server;

.17 use a secure authentication method with LRIT Data Users;

.18 use a standard and expandable message format for communicating with the International LRIT Data Exchange and the LRIT Data Distribution Plan server;

.19 use reliable connections (e.g. TCP) to ensure that the LRIT information is successfully received by the LRIT Data Centres;

.20 add the appropriate data identified in table 2 to each transmission of LRIT information collect by the centre; and

.21 have access to the current LRIT Data Distribution Plan and to earlier versions of the plan.

7.2 All LRIT Data Centres should comply with the relevant provisions of the Technical specifications for communications within the LRIT system[5] and of the Technical specifications for the LRIT Data Distribution Plan and should take into account the relevant provisions of the technical specifications for the International LRIT Data Exchange.

7.3 All Regional or Cooperative LRIT Data Centres and the International LRIT Data Centre should only internally route LRIT information transmitted by ships entitled to fly the flag of the Contracting Governments establishing or participating in such centres and should automatically maintain journal(s) for all of the internally routed LRIT information. The journal(s) should only contain message header information which should be used for audit and invoicing purposes. The journal(s) should be transmitted to the International LRIT Data Exchange at regular intervals in order to be combined with the journal(s) maintained by the International LRIT Data Exchange.

7.4 Each LRIT Data Centre should settle its financial obligations vis-à-vis the LRIT Data Centres which provide to it LRIT information and the International LRIT Data Exchange in a timely manner in accordance with the arrangements they have agreed.

[5] Refer to the *Long-range identification and tracking system - Technical documentation (Part I)* (MSC.1/Circ.1259, as revised).

7.5 The performance of all LRIT Data Centres should be audited by the LRIT Coordinator.

7.5.1 All LRIT Data Centres should cooperate and make available to the LRIT Coordinator the information required to enable the satisfactory completion of an audit of their performance.

7.5.2 All LRIT Data Centres should settle their financial obligations vis-à-vis the LRIT Coordinator in a timely manner in accordance with the arrangements they have agreed.

7.6 When providing LRIT information to LRIT Data Users, other than to a SAR service, LRIT Data Centres should:

.1 in case such information are not archived, utilize the current version of the LRIT Data Distribution Plan;

.2 in case such information is archived, utilize the version(s) of the LRIT Data Distribution Plan which were applicable at the time the archived LRIT information requested was originally received; and

.3 apply the geographical areas specified by the Contracting Governments concerned in the LRIT Data Distribution Plan and should not endeavour to resolve any issues which may arise when such areas are either not specified or overlap geographical areas specified by other Contracting Governments.

7.7 Notwithstanding the provisions of paragraph 7.1 and subject to the provisions of paragraph 17.2, all LRIT Data Centres should provide to SAR services LRIT information transmitted by all ships located within the geographical area specified by the SAR service requesting the information so as to permit the rapid identification of ships which may be called upon to provide assistance in relation to the search and rescue of persons in distress at sea. The LRIT information should be provided irrespective of the location of the geographical area and should be provided even if the geographical area is outside the search and rescue region associated with the SAR service requesting the information (regulation V/19-1.12 refers).

## 8 National, Regional and Cooperative LRIT Data Centres

8.1 A Contracting Government may establish a National LRIT Data Centre. A Contracting Government establishing such a centre should provide relevant details to the Organization and thereafter should, without undue delay, update the information provided as and when changes occur.

8.2 A group of Contracting Governments may establish either a Regional or a Cooperative LRIT Data Centre. The arrangements for establishing such a centre should be agreed amongst the Contracting Governments concerned. One of the Contracting Governments establishing such a centre should provide relevant details to the Organization and thereafter should, without undue delay, update the information provided as and when changes occur.

8.3 Upon request, National, Regional and Cooperative LRIT Data Centres may provide services to Contracting Governments other than those establishing the centre.

8.3.1 The arrangements for providing services should be agreed between the LRIT Data Centre and the Contracting Government requesting the provision of the services.

8.3.2 The Contracting Government establishing the National LRIT Data Centre or one of the Contracting Governments establishing the Regional or Cooperative LRIT Data Centre should, if the centre provides services to Contracting Governments other than those which established the centre, provide relevant details to the Organization and thereafter should, without undue delay, update the information provided as and when changes occur.

8.4 National, Regional and Cooperative LRIT Data Centres may also serve as a national, regional or cooperative vessel monitoring system (VMS) and may require, as VMS, the transmission from ships of additional information, or of information at different intervals, or of information from ships which are not required to transmit LRIT information. VMSs may also perform other functions.

8.4.1 If a National, Regional or Cooperative LRIT Data Centre collects additional information from ships, it should transmit only the required LRIT information to the other LRIT Data Centres through the International LRIT Data Exchange.

## 9 International LRIT Data Centre

9.1 An International LRIT Data Centre recognized by the Committee should be established.

9.2 Contracting Governments not participating in a National, Regional or Cooperative LRIT Data Centre, or Contracting Governments having an interest in the establishment of an International LRIT Data Centre should cooperate, under the coordination of the Committee, with a view to ensuring its establishment.

9.3 Ships, other than those which are required to transmit LRIT information to either a National, Regional or Cooperative LRIT Data Centre, should transmit the required LRIT information to the International LRIT Data Centre.

9.4 An International LRIT Data Centre may, upon request, collect additional information from ships entitled to fly the flag of an Administration on the basis of specific arrangements concluded with the Administration concerned.

9.5 In addition to the provisions of section 7, the International LRIT Data Centre should comply with the provisions of the technical specifications for the International LRIT Data Centre.[6]

## 10 International LRIT Data Exchange

10.1 An International LRIT Data Exchange recognized by the Committee should be established.

10.2 Contracting Governments should cooperate, under the coordination of the Committee, with a view to ensuring the establishment of the International LRIT Data Exchange.

10.3 The International LRIT Data Exchange should:

.1 route LRIT information between LRIT Data Centres using the information provided in the LRIT Data Distribution Plan;

[6] Refer to the *Long-range identification and tracking system - Technical documentation (Part I)* (MSC.1/Circ.1259, as revised).

.2 be connected to all LRIT Data Centres and the LRIT Data Distribution Plan server;

.3 use a store and forward-buffer to ensure LRIT information is received;

.4 automatically maintain journal(s) containing message header information only which may be used for:

.1 invoicing functions and settlement of invoicing disputes; and

.2 audit purposes;

.5 archive journal(s), for at least one year and until such time as the Committee reviews and accepts the LRIT Coordinator's annual report of the audit of its performance. However, the archived journal(s) should provide a complete record of the activities of the exchange between two consecutive annual audits of its performance;

.6 receive journal(s) from Regional, Cooperative and the International LRIT Data Centre and combine these journal(s) with its own journal(s);

.7 prepare, as necessary, performance-related statistical information based on the information contained in the journal(s);

.8 use a standard protocol for communications agreed protocols to connect with LRIT Data Centres and the LRIT Data Distribution Plan server;

.9 use a standard secure access method with the LRIT Data Centres and the LRIT Data Distribution Plan server;

.10 use a standard and expandable message format for communicating with the LRIT Data Centres and the LRIT Data Distribution Plan server;

.11 use reliable connections (e.g. TCP) to ensure that the LRIT information is successfully received by the LRIT Data Centres;

.12 not have the capability to archive LRIT information;

.13 not have the capability to view or access the LRIT information;

.14 have access to the current LRIT Data Distribution Plan and to earlier versions of the plan; and

.15 receive pricing information from LRIT Data Centres.

10.4 The International LRIT Data Exchange should comply with the provisions of the technical specifications for the International LRIT Data Exchange[7] and with the relevant provisions of the technical specifications for communications within the LRIT system and of the technical specifications for the LRIT Data Distribution Plan.

[7] Refer to the *Long-range identification and tracking system - Technical documentation (Part I)* (MSC.1/Circ.1259, as revised).

10.5 The International LRIT Data Exchange should provide to:

.1 the LRIT Coordinator offline access to all journals; and

.2 Contracting Governments and LRIT Data Centres offline access only to their share of the journals which relates to the LRIT information they have requested and were provided with.

10.6 The performance of the International LRIT Data Exchange should be audited by the LRIT Coordinator.

10.6.1 The International LRIT Data Exchange should cooperate and make available to the LRIT Coordinator the information required to enable the satisfactory completion of an audit of its performance.

10.6.2 The International LRIT Data Exchange should settle its financial obligations vis-à-vis the LRIT Coordinator in a timely manner in accordance with the arrangements they have agreed.

## 11 LRIT Data Distribution Plan

11.1 The Organization should establish and maintain the LRIT Data Distribution Plan. The Organization should also host, build, operate and maintain the LRIT Data Distribution Plan server.

11.2 The LRIT Data Distribution Plan should include:

.1 a list indicating the unique LRIT identities of Contracting Governments, search and rescue services entitled to receive LRIT information, LRIT Data Centres, the International LRIT Data Exchange, ASPs, the LRIT Data Distribution Plan server and the LRIT Coordinator;

.2 for the purpose of the implementation of the provisions of regulation V/19-1.8.1, for each Contracting Government a list of geographical coordinates of points, taking into account the related provisions of the technical specifications for the LRIT Data Distribution Plan,[8] based on the WGS 84 datum defining the geographical area:

.1 of the waters[9] landward of the baselines for measuring the breadth of the territorial sea of the Contracting Government concerned in accordance with international law;

[8] Refer to the *Long-range identification and tracking system - Technical documentation (Part I)* (MSC.1/Circ.1259, as revised).

[9] The baselines for measuring the breadth of the territorial sea of the Contracting Government concerned in accordance with international law, the lines of delimitation between the Contracting Governments concerned and States with adjacent coasts and the coast of the Contracting Government concerned including any landward waters within which any ship which is required to comply with the provisions of regulation V/19-1 is able to navigate.

.2 of the territorial sea[10] of the Contracting Government concerned in accordance with international law;

.3 between the coast of the Contracting Government concerned and a distance of 1,000 nautical miles from its coast. The Contracting Government concerned may, in lieu of defining the aforesaid area with reference to the geographical coordinate points defining its coast, define the area with reference to the geographical coordinate points of the baselines for measuring the breadth of the territorial sea of the Contracting Government concerned in accordance with international law; and

.4 within which the Contracting Government concerned is seeking the provision of LRIT information pursuant to the provisions of regulation V/19-1.8.1.3, if other than that defined under sub-paragraph .3 above;

.3 for the purpose of the implementation of the provisions of regulation V/19-1.9.1 the following information:

.1 the name of the Administration (together with its associated unique LRIT identity) which opts to exercise its right under the provisions of regulation V/19-1.9.1;

.2 the name(s) of the Contracting Government(s) (together with their associated unique LRIT identities) to which LRIT information about ships entitled to fly the flag of the aforesaid Administration shall not be provided pursuant to the provisions of paragraph V/19-1.8.1.3 together with the date and time as from which the decision of the Administration applies and any particulars thereof stated in the related communication to the Organization;

.3 in case of amendment, suspension or annulment of such decisions by the aforesaid Administration, the salient details; and

.4 the date and time the Organization has received the related communication, including related amendment, suspension or annulment and the date and time the Organization has informed all Contracting Governments pursuant to the provisions of regulation V/19-1.9.2;

.4 a list of ports and port facilities located within the territory and a list of places under jurisdiction of each Contracting Government together with the associated geographical coordinates of points (based on WGS 84 datum) in which ships that are required to comply with the provisions of regulation V/19-1 may enter or proceed to;

.5 a list indicating which LRIT Data Centre is collecting and archiving LRIT information for each of the Contracting Governments together with the related LRIT identities;

[10] The baselines for measuring the breadth of the territorial sea and the outer limit of the territorial sea of the Contracting Government concerned in accordance with international law and the lines of delimitation of the territorial sea between the Contracting Governments concerned and States with opposite or adjacent coasts in accordance with international law.

.6 a list indicating the *Uniform Resource Locator/Uniform Resource Identifier* (URL/URI) (Web Service Endpoint) of each LRIT Data Centre, the International LRIT Data Exchange and the LRIT Data Distribution Plan server;

.7 a list indicating the ASPs providing services to each LRIT Data Centre together with the related LRIT identities;

.8 the contact details of Contracting Governments for LRIT-related matters;

.9 the contact details of search and rescue services entitled to receive LRIT information for LRIT-related matters;

.10 information in relation to the ASPs recognized by each Contracting Government together with any conditions attached to such recognitions, and their points of contact;

.11 information in relation to each National, Regional and Cooperative LRIT Data Centre, the International LRIT Data Centre and the International LRIT Data Exchange, and their points of contact;

.12 information in relation to the LRIT Coordinator, and its contact details;

.13 information in relation to the LRIT Data Distribution Plan and its server and contact details of official(s) of the Organization who may be contacted for matters relating to the operation or maintenance of the plan or its server or for seeking help in relation to issues relating to or arising from the operation of the plan or its server; and

.14 a record of all previous versions of the plan together with the dates and times between which each version was in effect.

11.3 The LRIT Data Distribution Plan server should:

.1 allow the International LRIT Data Exchange, the LRIT Data Centres and the LRIT Coordinator to have access to the current version of the plan;

.2 provide earlier versions of the LRIT Data Distribution Plan to the International LRIT Data Exchange, the LRIT Data Centres and the LRIT Coordinator upon request;

.3 use a standard protocol for communications and agreed protocols to connect with the International LRIT Data Exchange and the LRIT Data Centres;

.4 use a standard secure transmission method with the International LRIT Data Exchange and the LRIT Data Centres;

.5 use a standard and expandable message format for communicating with the International LRIT Data Exchange and the LRIT Data Centres;

.6 use reliable connections (e.g. TCP) to ensure that the information in the plan is successfully received by the International LRIT Data Exchange and the LRIT Data Centres;

.7 use industry standard file compression technology to reduce the size of the plan and its incremental updates when these are downloaded by the International LRIT Data Exchange and the LRIT Data Centres;

.8 provide for the submission of the geographical areas in a standard industry format and use a consistent naming convention for the elements;

.9 provide for uploading of the geographical areas in batch files in Geography Markup Language (GML) format;

.10 maintain a unique number for each published version of the plan, incrementing each time a new version of the plan is published;

.11 provide for the downloading of the plan and its incremental updates by the LRIT Data Centres and the International LRIT Data Exchange on the publishing of a new version of the plan;

.12 archive all published versions of the plan and its incremental updates;

.13 use a standard secure access methods with the Contracting Governments and the LRIT Coordinator; and

.14 provide a web interface for the entry and amendment of information in the plan.

11.4 The LRIT Data Distribution Plan server should comply with the technical specifications for the LRIT Data Distribution Plan[11] and with the relevant provisions of the technical specifications for communications within the LRIT system.

## 12 LRIT system security

12.1 LRIT communications using landline links should provide for data security using methods such as:

.1 authorization: Access should only be granted to those who are authorized to see the specific LRIT information;

.2 authentication: Any party exchanging information within the LRIT system should require authentication before exchanging information;

.3 confidentiality: Parties running an application server should protect the confidentiality of the LRIT information to ensure that it is not disclosed to unauthorized recipients when it travels across the LRIT system; and

.4 integrity: Parties exchanging LRIT information should ensure that the integrity of the LRIT information is guaranteed and that no data has been altered.

[11] Refer to the *Long-range identification and tracking system - Technical documentation (Part I)* (MSC.1/Circ.1259, as revised).

## 13 LRIT system performance

13.1 LRIT information should be available to an LRIT Data User within 15 min of the time it is transmitted by the ship.

13.2 On-demand LRIT information should be provided to an LRIT Data User within 30 min of the time the LRIT Data User requested the information.

13.3 The quality of service:

$$\frac{\text{Number of delivered LRIT information meeting latency requirements}}{\text{Total number of LRIT information requests}} \times 100\%$$

should be:

.1 95% of the time over any 24-hour period; and

.2 99% over any one month.

## 14 LRIT Coordinator

14.1 The LRIT Coordinator should be appointed by the Committee.

14.2 The LRIT Coordinator should assist in the establishment of the International LRIT Data Centre and/or International LRIT Data Exchange by:

.1 participating in the development of any new technical specifications for the LRIT system or of any amendments to existing ones taking into account the provisions of regulation V/19-1, the present performance standards, the existing technical specifications and any related decisions of the Committee;

.2 issuing, when requested by the Committee, requests for the submission of proposals for the establishment and operation of the International LRIT Data Centre and/or the International LRIT Data Exchange;

.3 evaluating the management, operational, technical and financial aspects of the proposals received taking into account the provisions of regulation V/19- 1, the present performance standards, the technical specifications for the LRIT system and any other related decisions of the Committee and submitting its recommendations in this respect for consideration by the Committee; and

.4 participating, as and when requested by the Committee, in their testing and integration into the LRIT system and reporting its findings in this respect for consideration by the Committee.

14.3 The LRIT Coordinator should, taking into account the provisions of regulation V/19- 1, the present performance standards, the technical specification for the LRIT system and any related decisions of the Committee:

.1 upon request, by any party concerned or the Committee, undertake the investigation of operational or technical disputes or invoicing difficulties and make recommendations for their settlement to the parties concerned and the Committee, as appropriate;

.2 participate, as and when requested by the Committee, in the testing and integration of LRIT Data Centre(s) into the LRIT system and report its finding in this respect for consideration by the Committee; and

.3 participate, as and when requested by the Committee, in the testing of new or modified procedures or arrangements for communications between the International LRIT Data Exchange, the LRIT Data Centres and the LRIT Data Distribution Plan server and report its finding in this respect for consideration by the Committee.

14.4 The LRIT Coordinator should undertake a review of the performance of the LRIT system taking into account the provisions of regulation V/19-1, the present performance standards, the technical specification for the LRIT system and any related decisions of the Committee and should report its findings to the Committee at least annually. In this respect, the LRIT Coordinator should on an annual basis:

.1 review the performance of ASPs (or CSPs when they act as ASPs) providing services to the International LRIT Data Centre;

.2 audit the performance of all LRIT Data Centres based on archived information and their fee structures;

.3 audit the performance of the International LRIT Data Exchange and its fee structure, if any; and

.4 verify that Contracting Governments and search and rescue services receive only the LRIT information they have requested and are entitled to receive.

14.5 In addition to reporting to the Committee on the performance of the LRIT system including any identified non-conformities, the LRIT Coordinator may make recommendations to the Committee, based on an analysis of its findings, with a view to improving the efficiency, effectiveness and security of the LRIT system.

14.6 The LRIT Coordinator should, for the purpose of performing the functions specified in paragraphs 14.2.4 and 14.3 to 14.5:

.1 be given the required level of access, by the LRIT Data Centres and the International LRIT Data Exchange, to management, and to charging, technical and operational data;

.2 collect and analyse samples of LRIT information provided to LRIT Data Users;

.3 collect and analyse statistics compiled by LRIT Data Centres and the International LRIT Data Exchange; and

.4 be given access to the current LRIT Data Distribution Plan and to earlier versions of the plan.

14.7 The LRIT Coordinator should establish and communicate to the Committee the charges it would be levying in order to recover the expenditure it incurs for providing the services specified in paragraphs 14.2 to 14.5.

14.7.1 The related charges should be paid to the LRIT Coordinator in accordance with agreed arrangements – taking into account the laws of the Contracting Government(s) concerned – as follows:

.1 in relation to the evaluation of proposals for the establishment of the International LRIT Data Centre and/or the International LRIT Data Exchange (paragraph 14.2.3), by those submitting the related proposals;

.2 when participating in the testing and integration of the International LRIT Data Centre and/or the International LRIT Data Exchange into the LRIT system (paragraph 14.2.4), by the International LRIT Data Centre and/or the International LRIT Data Exchange as the case may be;

.3 when undertaking the investigation of operational or technical disputes or invoicing difficulties (paragraph 14.3.1), by the party requesting the service;

.4 when participating in the testing and integration of LRIT Data Centre(s) into the LRIT system (paragraph 14.3.2), by the LRIT Data Centre(s) being tested or integrated;

.5 when participating in the testing of new or modified procedures or arrangements for communications between the International LRIT Data Exchange, the LRIT Data Centres and the LRIT Data Distribution Plan server (paragraph 14.3.3), by the International LRIT Data Exchange and/or the LRIT Data Centre(s);

.6 when reviewing the performance of ASPs (or CSPs when they act as ASPs) providing services to the International LRIT Data Centre (paragraph 14.4.1), by the ASPs concerned;

.7 when auditing the performance and fee structures of LRIT Data Centres (paragraph 14.4.2), by the LRIT Data Centre concerned; and

.8 when auditing the performance and fee structure of the International LRIT Data Exchange (paragraph 14.4.3), by the International LRIT Data Exchange.

14.7.2 The Organization should not be required to make any payments to the LRIT Coordinator for any work the LRIT Coordinator may be required to carry out pursuant to any of the provisions of paragraphs 14.2 to 14.5; or for reporting or making recommendations to the Committee pursuant to any of the provisions of paragraphs 14.2 to 14.5.

14.7.3 Contracting Governments should not be responsible for making any direct payments to the LRIT Coordinator for the services it may be required to provide pursuant to any of the provisions of paragraphs 14.2 to 14.5. However, without prejudice as to the relations between Contracting Governments and the LRIT Data Centres the services of which may use, Contracting Governments may be required by LRIT Data Centres to pay fees for the LRIT information they request and receive which may contain elements to offset the charges paid by LRIT Data Centres to the LRIT Coordinator for the functions it performs. Notwithstanding the aforesaid, the Contracting Government which requests directly from the LRIT Coordinator the provision of a specific service should pay the LRIT Coordinator the relevant charges for the service it has requested.

## 15 Administrations

15.1 Each Administration should decide to which LRIT Data Centre ships entitled to fly its flag are required to transmit LRIT information.

15.2 Each Administration should provide to the selected LRIT Data Centre the following information for each of the ships entitled to fly its flag which is required to transmit LRIT information:

.1 name of ship;

.2 IMO ship identification number;

.3 call sign;

.4 maritime mobile service identity; and

.5 type of ship.

15.3 Upon the transfer of the flag of a ship which is required to transmit LRIT information from another State, the Administration whose flag the ship is now entitled to fly should provide, without undue delay, to the selected LRIT Data Centre in addition to the information specified in paragraph 15.2 the following information:

.1 the effective date and time (UTC) of transfer; and

.2 the State whose flag the ship was formally entitled to fly, if known.

15.4 Administrations should, without undue delay, update the LRIT Data Centre as and when changes to the information they have provided under paragraphs 15.2 and 15.3 occur.

15.5 Upon the transfer of the flag of a ship which is required to transmit LRIT information to another State or when the ship is to be taken permanently out of service, the Contracting Government of the State whose flag the ship was entitled to fly hitherto should provide, without undue delay, to the LRIT Data Centre the following information:

.1 name of ship;

.2 IMO ship identification number;

.3 the effective date and time (UTC) of the transfer, or when the ship was, or will be, taken permanently out of service; and

.4 the State to which the flag of the ship has been transferred, if known.

15.6 Administrations should either provide the ASP(s) they recognize with relevant information taking into account the provisions of 15.2 to 15.5 or should make the necessary arrangements for the aforesaid information to be provided to the ASP(s) concerned by the selected LRIT Data Centre.

## 16 Contracting Governments

16.1 Each Contracting Government should:

.1 obtain the LRIT information to which it is entitled under the provisions of regulation V/19-1, and has requested, from the LRIT Data Centre designated under paragraph 15.1. Contracting Governments which have no ships entitled to fly their flag may receive the LRIT information they are entitled to under the provisions of regulation V/19-1 from any one of the LRIT Data Centres but should select one LRIT Data Centre from which they wish to receive the information. In such cases, the Contracting Government concerned should, after reaching an agreement with the LRIT Data Centre the services of which it would be using, inform accordingly the Organization and, without undue delay, update the information they have provided as and when it changes;

.2 if it wishes to receive LRIT information pursuant to the provisions of regulation V/19-1.8.1.1, indicate to the LRIT Data Centre the criteria for receiving such information. If so decided the Contracting Government may give the LRIT Data Centre a standing order regarding the criteria for receiving LRIT information;

.3 if it wishes to receive LRIT information pursuant to the provisions of regulation V/19-1.8.1.2, indicate to the LRIT Data Centre the name and the IMO ship identification number of the particular ship and either:

.1 the distance from a port; or

.2 a point in time,

from when it requires the provision of LRIT information transmitted by the ship. If so decided the Contracting Government may give the LRIT Data Centre a standing order regarding the criteria for receiving LRIT information. If the standing order is a distance from a port, the Contracting Government also has to inform the centre of the name of the port each ship is proceeding to;

.4 if it wishes to receive LRIT information pursuant to the provisions of regulation V/19-1.8.1.3, indicate the distance from its coast within which it requires the provision of LRIT information transmitted by ships. If so decided, the Contracting Government may give the LRIT Data Centre a standing order regarding the criteria for receiving LRIT information;

.5 cooperate with a view to resolving any issues in connection with which flag a particular ship is entitled to fly; and

.6 ensure either the destruction of all received LRIT information which is no longer in use or its archiving in a secure and protected manner.

16.2 In accordance with regulation V/19-1.8.2, Contracting Governments are obliged to communicate to the Organization and enter into the LRIT Data Distribution Plan the information specified in paragraph 11.2 and thereafter update such information as and when changes occur before requesting the provision of LRIT information pursuant to the provisions of regulation V/19-1.8.1.

16.3 Contracting Governments are advised that the LRIT system would not apply any restrictions pursuant to the provisions of either regulations V/19-1.8.2 and V/19-8.1.3 in relation to ships located within the waters landward of baselines or regulation V/19-18.1.4 in relation to ships located within territorial seas until such time that they have communicated to the Organization and provided in the LRIT Data Distribution Plan the required information.

## 17 Search and rescue services

17.1 Subject to the provisions of paragraph 7.7, a search and rescue service when it wishes to receive LRIT information pursuant to the provisions of regulation V/19-1.12 should indicate to the LRIT Data Centre the criteria for receiving such information.

17.2 A search and rescue service should request the provision of LRIT information only via the LRIT Data Centre serving the Contracting Government in whose territory the service is located.

17.3 Subject to the provisions of the national legislation of the Contracting Government concerned, search and rescue services should provide information when requested by the LRIT Coordinator to enable the holistic review of the performance of the LRIT system and for the investigation of any disputes.

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**ANNEX 19**

**DRAFT AMENDMENTS TO THE POLAR CODE**

**PART I-A**

1 The heading of chapter 9 is amended as follows:

"**CHAPTER 9 – SAFETY OF NAVIGATION FOR SHIPS CERTIFIED IN ACCORDANCE WITH SOLAS CHAPTER I**"

2 The following text is inserted after the heading of chapter 9:

"This chapter applies to ships certified in accordance with SOLAS chapter I."

3 A new chapter 9-1 is inserted as follows:

"**CHAPTER 9-1 – SAFETY OF NAVIGATION FOR FISHING VESSELS OF 24 METRES OF LENGTH OVERALL AND ABOVE, PLEASURE YACHTS OF 300 GROSS TONNAGE AND UPWARDS NOT ENGAGED IN TRADE AND CARGO SHIPS OF 300 GROSS TONNAGE AND UPWARDS BUT BELOW 500 GROSS TONNAGE**

This chapter applies to:

.1 fishing vessels of 24 metres of length overall and above;

.2 pleasure yachts of 300 gross tonnage and upwards not engaged in trade; and

.3 cargo ships of 300 gross tonnage and upwards but below 500 gross tonnage.

**9-1.1 Goal**

The goal of this chapter is to provide for safe navigation.

**9-1.2 Functional requirements**

In order to achieve the goal set out in paragraph 9-1.1 above, the following functional requirements are embodied in the regulations of this chapter.

**9-1.2.1 Nautical information**

Ships shall have the ability to receive up-to-date information including ice information for safe navigation.

**9-1.2.2 Navigational equipment functionality**

.1 The navigational equipment and systems shall be designed, constructed and installed to retain their functionality under the expected environmental conditions in the area of operation.

.2 Systems for providing reference headings and position fixing shall be suitable for the intended areas.

### 9-1.2.3 Additional navigational equipment

Ships shall have the ability to visually detect ice when operating in darkness.

## 9-1.3 Regulations

### 9-1.3.1 Nautical information

In order to comply with the functional requirement of paragraph 9-1.2.1 above, ships shall have means of receiving and displaying current information on ice conditions in the area of operation.

### 9-1.3.2 Navigational equipment functionality

9-1.3.2.1 In order to comply with the functional requirement of paragraph 9-1.2.2.1 above, the following applies:

.1 ice-strengthened ships constructed on or after [date of entry into force], shall have either two independent echo-sounding devices or one echo-sounding device with two separate independent transducers. Other devices capable of depth sounding, such as fish finders, acceptable to the Administration, may be used as equivalent means of meeting this requirement;

.2 ships shall comply with SOLAS regulation V/22.1.9.4, irrespective of the date of construction and the size, and have a clear view astern. On ships which cannot comply with this regulation, arrangements acceptable to the Administration shall be provided to achieve a level of visibility that is equivalent to this regulation;

.3 for ships operating in areas, and during periods, where ice accretion is likely to occur, means to prevent the accumulation of ice on antennas required for navigation and communication shall be provided; and

.4 in addition, for ice-strengthened ships the following applies:

.1 where equipment required by SOLAS chapter V or this chapter have sensors that project below the hull, such sensors shall be protected against ice; and

.2 in category A and B ships constructed on or after [date of entry into force], the bridge wings shall be enclosed or designed to protect navigational equipment and operating personnel. On ships which cannot comply with this regulation, arrangements acceptable to the Administration shall be provided to achieve a level of protection that is equivalent to this regulation.

9-1.3.2.2 In order to comply with the functional requirement of paragraph 9-1.2.2.2 above, the following applies:

.1 ships of 500 gross tonnage and upwards shall have two non-magnetic means to determine and display their heading. Both means shall be independent and shall be connected to the ship's main and emergency source of power; and

.2 ships proceeding to latitudes over 80 degrees shall be fitted with at least one GNSS compass or equivalent, which shall be connected to the ship's main and emergency source of power.

**9-1.3.3 Additional navigational equipment**

In order to comply with the functional requirement of paragraph 9-1.2.3, ships, with the exception of those solely operating in areas with 24 hours daylight, shall be equipped with two means of illumination to aid visual detection of ice."

4 The heading of chapter 11 is amended as follows:

"**CHAPTER 11 – VOYAGE PLANNING FOR SHIPS CERTIFIED IN ACCORDANCE WITH CHAPTER I**"

5 The following text is inserted after the heading of chapter 11:

"This chapter applies to ships certified in accordance with SOLAS chapter I."

6 A new chapter 11-1 is inserted as follows:

"**CHAPTER 11-1 – VOYAGE PLANNING FOR FISHING VESSELS OF 24 METRES OF LENGTH OVERALL AND ABOVE, PLEASURE YACHTS OF 300 GROSS TONNAGE AND UPWARDS NOT ENGAGED IN TRADE AND CARGO SHIPS OF 300 GROSS TONNAGE AND UPWARDS BUT BELOW 500 GROSS TONNAGE**

This chapter applies to the following ships operating in polar waters:

.1 fishing vessels of 24 metres of length overall and above;

.2 pleasure yachts of 300 gross tonnage and upwards not engaged in trade; and

.3 cargo ships of 300 gross tonnage and upwards but below 500 gross tonnage.

**11-1.1 Goal**

The goal of this chapter is to ensure that the company, master and crew are provided with sufficient information to enable operations to be conducted with due consideration to safety of ship and persons on board and, as appropriate, environmental protection.

**11-1.2 Functional requirement**

In order to achieve the goal set out in paragraph 11-1.1 above, the voyage plan shall take into account the potential hazards of the intended voyage.

**11-1.3 Requirements**

In order to comply with the functional requirement of paragraph 11-1.2 above, the master shall consider a route through polar waters, taking into account the following:

.1 the procedures required by the safety management system on board; if no safety management system is implemented there shall be a documented procedure for operation in polar waters;

.2 any limitations of the hydrographic information and aids to navigation available;

.3 current information on the extent and type of ice and icebergs in the vicinity of the intended route;

.4 statistical information on ice and temperatures from former years;

.5 places of refuge;

.6 current information and measures to be taken when marine mammals are encountered relating to known areas with densities of marine mammals, including seasonal migration areas;[1]

.7 current information on relevant ships' routeing systems, speed recommendations and vessel traffic services relating to known areas with densities of marine mammals, including seasonal migration areas;[1]

.8 national and international designated protected areas along the route; and

.9 operation in areas remote from search and rescue (SAR) capabilities.[2]

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[1] Refer to MEPC.1/Circ.674 on *Guidance document for minimizing the risk of ship strikes with cetaceans.*

[2] Refer to MSC.1/Circ.1184 on *Enhanced contingency planning guidance for passenger ships operating in areas remote from SAR facilities* and resolution A.999(25) on *Guidelines on voyage planning for passenger ships operating in remote areas*."

**PART I-B**

7 The heading of section 10 is amended as follows:

"10 Additional guidance to chapters 9 and 9-1"

8 The heading of section 12 is amended as follows:

"12 Additional guidance to chapters 11 and 11-1"

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**ANNEX 20**

**DRAFT ASSEMBLY RESOLUTION ON GUIDELINES ON PLACES OF REFUGE FOR SHIPS IN NEED OF ASSISTANCE**

THE ASSEMBLY,

RECALLING Article 15(j) of the Convention on the International Maritime Organization concerning the functions of the Assembly in relation to regulations and guidelines concerning maritime safety and the prevention and control of marine pollution from ships,

CONSCIOUS OF THE POSSIBILITY that ships at sea may find themselves in need of assistance relating to the safety of life and the protection and preservation of the marine environment, and that an incident involving a ship in need of assistance seeking a place of refuge can happen anywhere at sea,

RECOGNIZING the need to balance both the prerogative of a ship in need of assistance to seek a place of refuge and the prerogative of a coastal State to protect its coastline,

RECALLING that coastal States are not, under international law, under any obligation to grant places of refuge, and that the provision of a common framework to assist coastal States to determine places of refuge for ships in need of assistance and assess and respond effectively to requests for such places of refuge is undertaken in a spirit of cooperation and coordination among relevant parties involved, aiming to enhance maritime safety and the protection of the marine environment,

RECALLING ALSO that the Assembly, at its twenty-third session in 2003, adopted *Guidelines on places of refuge for ships in need of assistance* by resolution A.949(23),

RECALLING FURTHER that resolution A.949(23) requested the Maritime Safety Committee, the Marine Environment Protection Committee and the Legal Committee to keep the Guidelines under review and amend them, as appropriate,

RECOGNIZING that various organizational, operational and technological developments have taken place in a rapidly changing global maritime domain,

RECOGNIZING ALSO that experiences in handling situations of ships in need of assistance have increased around the world and that the experience gained and the resulting operational practice serve to identify improvements and practices,

RECOGNIZING FURTHER the importance of and need for providing guidance for coastal States, the masters and/or salvors as well as others involved with handling ships in need of assistance seeking a place of refuge,

RECOGNIZING THEREFORE that the Guidelines require revision to ensure they continue to serve as an effective instrument, providing a clear framework to deal with ships in need of assistance seeking a place of refuge in a consistent and harmonized manner,

HAVING CONSIDERED the recommendations made by the Maritime Safety Committee at its 106th session, by the Marine Environment Protection Committee at its […] session, and by the Legal Committee at its […] session, as developed by the Sub-Committee on Navigation, Communications and Search and Rescue at its ninth session,

1 ADOPTS the revised *Guidelines on places of refuge for ships in need of assistance*, the text of which is set out in the annex to the present resolution;

2 INVITES Governments to take the revised Guidelines into account, as a matter of priority, when determining and responding to requests for places of refuge from ships in need of assistance;

3 REQUESTS the Maritime Safety Committee, the Marine Environment Protection Committee and the Legal Committee to keep the annexed Guidelines under review and amend them, as appropriate;

4 REVOKES resolution A.949(23).

ANNEX

# GUIDELINES ON PLACES OF REFUGE FOR SHIPS IN NEED OF ASSISTANCE

(Note: The structure of the Guidelines is such that each "party" involved has its own section. Hyperlinks are included for quick reference and to make the Guidelines more operational. It is therefore recommended to keep the Guidelines in an electronic format.)

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## SECTION 1 – GENERAL

### 1.1 Introduction

1.1.1 The issue of places of refuge cannot be subject to a purely theoretical or doctrinal debate. On the contrary, it should be addressed as a practical problem which requires operational decisions involving both relevant authorities and the industry. When a ship finds itself in serious difficulty or in need of assistance without presenting a risk to the safety of life of persons involved, there are two key questions: Should the ship be brought into shelter near the coast or into a port or should it be taken out to sea?

1.1.2 It would be highly desirable if, taking the *Guidelines on places of refuge for ships in need of assistance* (hereafter referred as the Guidelines) into account, coastal States provided places of refuge for use when confronted with situations involving ships in need of assistance off their coasts and, accordingly, drew up relevant emergency plans, instead of being unprepared to face such situations and, because of that, risking the wrong decision being made by improvising or, in the heat of the moment, acting under pressure from groups representing various interests. The Guidelines seek to address and provide guidance on how to deal with a ship in need of assistance seeking a place of refuge.

### 1.2 Background

1.2.1 Situations leading to a request for a place of refuge often involve only one State and will be managed by that State, under the rules applicable in its jurisdiction. There may be cases where a situation may develop to involve neighbouring States or States in the vicinity of the incident, or a flag State. Therefore, the Guidelines may also apply, subject to relevant circumstances, to situations where it is possible that more than one State may be involved.

1.2.2 When a ship has suffered an incident, the best way of preventing the risk of further damage or pollution from its progressive deterioration would be to stabilize the situation, allowing for preventive actions such as lightening its cargo and bunkers, and to repair damage. Such operations are best carried out in a place of refuge due to the added protections this offers and the availability of resources. There are circumstances under which it may be desirable to carry out a cargo transfer operation or other operations to prevent or minimize damage or pollution.

1.2.3 In some circumstances, the longer a damaged ship is forced to remain at the mercy of the elements in the open sea, the greater the risk of the ship's condition deteriorating or the sea, weather or environmental situation changing and thereby becoming a greater potential hazard.

1.2.4 While coastal States may be reluctant to accept damaged or disabled ships into their area of responsibility due primarily to the potential for environmental damage, in fact it is rarely possible to deal effectively with a marine casualty in open sea conditions.

1.2.5 Taking a ship in need of assistance to a place of refuge has the advantage of limiting the extent of coastline at risk, but conversely the coastline at the place of refuge may be at greater risk. Consideration should also be given to the possibility of taking the affected ship to a port or terminal where the transfer of cargo or repair work could be done relatively easily. For this reason, the decision on the choice and use of a place of refuge will have to be carefully considered case by case and based on risk assessment.

1.2.6 The use of places of refuge may encounter local opposition and involve difficult decisions. The coastal States should recognize that an evidenced-based comprehensive risk assessment is indispensable for safe and efficient handling and decision-making. Regional cooperation agreements could, depending on circumstances, support the accommodation of a ship in need of assistance seeking a place of refuge.

1.2.7 Coastal States and ports that accommodate a ship that has been granted a place of refuge should receive prompt compensation in respect of liabilities that arise from the accommodation of a damaged ship, as appropriate. To that end, it is important that the relevant international conventions, and, if available, risk-sharing mechanisms, be applied.

1.2.8 At the international level, the conventions listed in the appendix to section 1, as may be updated, constitute, inter alia, the legal context within which coastal States (as well as flag and port States) and ships act in the envisaged circumstances.

1.2.9 Against this background, it is necessary to lay down provisions for accommodating ships in need of assistance and seeking a place of refuge in order to ensure a harmonized and effective implementation of this measure and to make them more operational in supporting States, ships' masters and other parties involved in meeting the objectives.

### 1.3 Objective

1.3.1 The objective is to provide a uniform, transparent process leading to well-informed, quicker decision-making. This will benefit States, ships' masters, operators and/or salvors or other parties where a ship in need of assistance requests a place of refuge in the interest of the protection of human life, maritime safety, security and the environment.

1.3.2 The process should promote cooperation and constructive engagement within and between State governing bodies, authorities and industry.

1.3.3 Based upon the services required by the master or any other person in charge of the ship (e.g. salvors), a State which may be asked to provide assistance should consider designating a place of refuge. This is particularly important if there is a risk that a ship will sink or ground resulting in environmental damage or a navigational hazard.

1.3.4 The objective is also that national plans for the accommodation of ships in need of assistance and seeking a place of refuge include procedures for international coordination and decision-making and, where possible or appropriate, cooperation in drawing up concerted plans to accommodate such. This may be desirable, or become necessary, for regional areas or sea basins shared with several littoral States.

1.3.5 Granting access to a place of refuge involves a decision which can only be taken on a case-by-case basis with due consideration given to the balance between the advantage for the affected ship, its crew and the environment resulting from bringing the ship into a place of refuge and the risk to the environment resulting from that ship, if it is not granted a place of refuge, being near the coast or if it is taken or ordered away from the coast.

### 1.4 Purpose of the Guidelines

1.4.1 The purpose of the Guidelines is to provide the basis of an operational framework for coastal States, ships' masters, operators and/or salvors as well as other involved parties to handle and take a decision when a ship is in need of assistance and seeks a place of refuge.

1.4.2 Such a framework could involve establishing an authority in a State, depending on the internal structure of that State, which has relevant expertise and the necessary powers to take independent decisions as regards the accommodation of a ship in a place of refuge – hereinafter referred to as a competent authority (CA).

1.4.3 This also includes guidance for such a CA on how and what should be done to efficiently deal with a ship in need of assistance requesting a place of refuge. Guidance should also be provided for the masters to assist them in clearly identifying any services or facilities they require in a place of refuge situation. Therefore, the Guidelines should also include guidance for masters on what is expected of them, including suggested procedures and information flows to be used.

1.4.4 However, cases of a ship in need of assistance seeking a place of refuge also routinely involve other parties such as the flag State,[1] the salvor, the classification society and the insurer. The Guidelines also include guidance for such parties.

1.4.5 The Guidelines address situations where only one CA is involved, as well as when more than one jurisdiction is or may become involved. Hence, it is recommended throughout the Guidelines that coastal States, subject to relevant circumstances, consider establishing regional cooperation and coordination in order to develop common frameworks for assessing ships that need assistance and are seeking a place of refuge, including, where appropriate, putting concerted actions and plans into practice.

1.4.6 In any given situation, the efforts of the Member Governments, shipmasters, companies,[2] salvors and any other parties involved, should respond effectively and in such a way that efforts are complementary, and in ensuring that if one CA is not in a position to manage the situation or grant a request for a place of refuge another CA should be informed and prepared to take over the decision-making for that request.

1.4.7 Where a ship is in need of assistance and is requesting a place of refuge, but safety of life is not involved, the Guidelines should be followed. The Guidelines do not address the issue of operations for the rescue of persons at sea.

1.4.8 If, however, in an evolving situation, the persons on board find themselves in distress, the rules applicable to rescue operations under the International Convention on Maritime Search and Rescue, 1979 (SAR Convention), the International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual and documents arising therefrom have priority over the Guidelines (and procedures arising therefrom).

1.4.9 Even though a rescue operation, as defined in the SAR Convention, is not the case, the safety of persons has to be constantly borne in mind in the application of the Guidelines.

1.4.10 In any case, the competent maritime assistance service (MAS)/maritime rescue coordination centre (MRCC) should be informed about any situation which may develop into an SAR incident. Resolution A.950(23) recommends that coastal States establish a MAS. This service could "be discharged by an existing organization, preferably an MRCC", but resolution A.950(23) also recognizes that "the establishment of a MAS should not necessarily entail the setting up of a new organization", thereby giving consideration to coastal States' internal arrangements.

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1 Flag State duties are detailed in article 94 of UNCLOS.

2 As defined in the ISM Code, part A, paragraph 1.1.2.

1.4.11 The Guidelines do not address the issue of liability and compensation for damage resulting from a decision to grant or deny a ship a place of refuge.

## 1.5 Definitions

1.5.1 *Ship in need of assistance* means a ship in a situation, apart from one requiring rescue of persons on board, that could give rise to loss of the ship or to an environmental or navigational hazard.

1.5.2 *Parties involved* means, for the purposes of the Guidelines, those mentioned in section 2, paragraphs 1 (master), 2 (salvor) and 5 (other – flag State, classification society, insurers, port, harbours and terminals, company/operator) and section 3 (coastal States) involved in resolving a situation when a ship in need of assistance seeks a place of refuge.

1.5.3 *Place of refuge* means a place where a ship in need of assistance can take action to enable it to stabilize its condition and reduce the risks to navigation, and to protect human life and the environment.

1.5.4 *MAS* means a maritime assistance service, as described in resolution A.950(23), responsible for receiving reports in the event of incidents and serving as the point of contact between the shipmaster and the authorities of the coastal State in the event of an incident.

1.5.5 *MRCC* means a maritime rescue coordination centre as described in the SAR Convention.[3]

1.5.6 *Competent authority* (CA) means an authority in a State, depending on the internal structure of that State, having the required expertise and the power to take independent decisions as regards the accommodation of a ship in a place of refuge.

1.5.7 *Emergency response service* (ERS) means the service provided by an entity, including many classification societies, able to perform technical assessments on damage stability and residual strength, etc. and provide the results of their assessment to the ship's crew, salvors or the CA.

## Appendix to section 1

## APPLICABLE INTERNATIONAL CONVENTIONS

At the international level, the following conventions and protocols are in force and constitute, inter alia, the legal context within which coastal States, flag States and ships act in the envisaged circumstances:[4]

- United Nations Convention on the Law of the Sea (UNCLOS), in particular part V, and article 221[5] thereof

[3] The SAR Convention uses the term "rescue coordination centre" (RCC). Not all States may have established a maritime rescue coordination centre (MRCC) or a maritime assistance service (MAS), and it is important that the master address either depending on the internal arrangements in the coastal State in question. They may therefore be used interchangeably throughout this document.

[4] It is noted that there is at present no international requirement for a State to provide a place of refuge for ships in need of assistance.

[5] "1. Nothing in this Part shall prejudice the right of States, pursuant to international law, both customary and conventional, to take and enforce measures beyond the territorial sea proportionate to the actual or threatened damage to protect their coastline or related interests, including fishing, from pollution or threat of pollution following upon a maritime casualty or acts relating to such a casualty, which may reasonably be expected to result in major harmful consequences. 2. For the purposes of this article, "maritime casualty"

- International Convention Relating to Intervention on the High Seas in Cases of Oil Pollution Casualties, 1969 (Intervention Convention 1969)

- Protocol Relating to Intervention on the High Seas in Cases of Pollution by Substances Other than Oil, 1973

- International Convention for the Safety of Life at Sea, 1974 (SOLAS Convention) in particular chapter V thereof

- International Convention on Salvage, 1989 (Salvage Convention)[6]
- International Convention on Oil Pollution Preparedness, Response and Cooperation, 1990 (OPRC Convention)

- International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 (MARPOL 73/78)

- International Convention on Maritime Search and Rescue, 1979 (SAR Convention)

- Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, 1972

- Convention Relating to Civil Liability in the Field of Maritime Carriage of Nuclear Material, 1971

- Convention on Limitation of Liability for Maritime Claims, 1976 ((1976 LLMC Convention)

- International Convention on Civil Liability for Oil Pollution Damage, 1969 (1969 Civil Liability Convention)

- International Convention on Civil Liability for Oil Pollution Damage, 1992 (1992 Civil Liability Convention)

- International Convention on the Establishment of an International Fund for Compensation for Oil Pollution Damage, 1992 (1992 Fund Convention)

- International Convention on Civil Liability for Bunker Oil Pollution Damage, 2001

- Nairobi International Convention on the Removal of Wrecks, 2007.

means a collision of vessels, stranding or other incident of navigation, or other occurrence on board a vessel or external to it resulting in material damage or imminent threat of material damage to a vessel or cargo".

6 Parties to the International Convention on Salvage, 1989 (Salvage 1989) are obliged under article 11 of the Convention when considering a request for a place of refuge to take into account the need for cooperation between salvors, other interested parties and public authorities to ensure the efficient and successful performance of salvage operations. Article 11 of the Salvage Convention states, "A State Party shall, whenever regulating or deciding upon matters relating to salvage operations such as admittance to ports of vessels in distress or the provision of facilities to salvors, take into account the need for co-operation between salvors, other interested parties and public authorities in order to ensure the efficient and successful performance of salvage operations for the purpose of saving life or property in danger as well as preventing damage to the environment in general".

## SECTION 2 – ACTION REQUIRED OF MASTERS AND/OR SALVORS AND OTHERS INVOLVED WITH SHIPS IN NEED OF ASSISTANCE SEEKING A PLACE OF REFUGE

### 2.1 The master

2.1.1 In the event of any maritime incident, the ship's master and/or the salvor are responsible for contacting the appropriate MAS, as designated in each State, to report the incident and initiate the necessary follow-up actions. Lists of MAS and MRCCs can be found in the Global Integrated Shipping Information System (GISIS), under the MAS section of the Contact Points module and the RCC section of the Global SAR Plan module, respectively.

2.1.2 The master of a ship to which the provisions of the International Safety Management (ISM) Code are applicable should, in accordance with that Code, inform the company of any incident or accident which occurs at sea. As soon as it has been informed of such a situation, the company should contact the competent coastal station and place itself at its disposal as necessary.

2.1.3 The master has the command of the ship and remains in command of the ship even when a salvage operation is under way. The master may decide to relinquish command, after which command is assumed by the salvor.

2.1.4 The master is responsible for:

.1 informing the CAs (of the nearest coastal State(s)) as well as the flag State,[7] as soon as possible, issuing an incident report with at least the following details:

.1 ship's identity;

.2 ship's position;

.3 port of departure;

.4 port of destination;

.5 information about the onboard cargo;

.6 address from which additional information may be obtained on any oil (fuel, cargo or otherwise) and dangerous cargo on board (i.e. copy of cargo manifest) to the extent known;

.7 quantity, location and type of bunkers on board;

.8 number of persons on board; and

.9 details of the incident;

.2 cooperating fully with the CAs; and

.3 communicating all requested or pertinent information to CAs.

[7] UNCLOS articles 94, 194 and 198 prompt notification procedures to the flag State. UNCLOS articles 92 and 94 further detail that the master is acting on behalf of the flag State to which the ship is registered.

2.1.5 The master is further responsible for (with the assistance of the company and/or the salvor where necessary):

.1 assessing the situation and identifying the reasons why the ship needs assistance;

.2 carrying out an analysis of the risks, threats, and hazards identified (to the best of the master's ability or knowledge at the time of the situation) considering, inter alia, the following:

.1 fire;

.2 explosion;

.3 damage to the ship, including mechanical and/or structural failure;

.4 collision;

.5 pollution;

.6 impaired ship stability; and
.7 grounding;

The risk analysis factors as presented in appendix 2 to section 3, where applicable, are to be considered during this process;

.3 estimating the consequences of the incident, if the ship were to:

.1 remain in the same position;

.2 continue on its voyage;

.3 reach a place of refuge; or

.4 be taken out to sea;

.4 identifying the assistance required from the coastal State in order to overcome the inherent danger of the situation (refer to appendix to section 2, part 3 and appendix 2 to section 3, paragraph 3);

.5 informing the CA if the ship has access to ERS and make relevant contact details, activation status and details of the contracting party available to the CA; and

.6 undertaking any relevant response actions to minimize the consequences of the casualty.

## 2.2 The salvor[8]

2.2.1 In a situation where the master has relinquished command, the salvor, in addition to those in paragraph 2.1, is responsible for:

.1 keeping the CA fully informed about the condition of the ship and the progress of the salvage operation;

.2 cooperating fully with the CA in ensuring the safety of the ship, of persons, and the protection of the marine environment, by taking all appropriate measures;

.3 submitting an outline salvage plan showing immediate intentions, and following up with a detailed plan at the appropriate juncture, to the CA for approval before operations commence; and

.4 initiating direct contact with the ERS (if there is an ERS in place and active for the incident) to provide them with updates on the condition of the ship.

## 2.3 Requesting a place of refuge – process

2.3.1 When a decision has been taken by the party in charge of the ship to make a formal place of refuge request, without prejudice to the CA's right to take the decision, the following process should be followed.

2.3.2 The formal request should be made in writing via electronic transmission and should include Form A (appendix to section 2). Any other information that the CA might require, for example to ensure compliance with local legislation, such as cargo manifests, stowage plans and the salvor's outline salvage plan, should also be forwarded with Form A.

2.3.3 The formal request for a place of refuge should be transmitted by the master, using the fastest means available, to the CA or to MAS, as applicable (see paragraph 2.1.1).

2.3.4 A formal request for a place of refuge may also be made by:

.1 a ship operator/company designated person ashore/contracted salvor; and

.2 any other person who is in charge of the ship at the time and is recognized by national law.

2.3.5 Unless in extremis, formal requests should be made to one CA only, through the national point of contact (MAS), and should not be forwarded directly to ports or harbours, unless agreed with the MAS and CA. The CA should always be informed if a third party was involved.

2.3.6 Simultaneous requests to other CAs or MAS should be avoided.

[8] The duties of the salvor are set out in article 8 of the International Convention on Salvage, 1989, which is incorporated into Lloyd's Open Form, and will apply when no contract is in place. If a contract other than Lloyd's Open Form is in place, responsibilities will be different and will be specific to each casualty.

## 2.4 Response actions

2.4.1 Subject, where necessary, to the coastal State's prior consent, the ship's master and the shipping company concerned should take any necessary response actions, such as signing a salvage or towage agreement or the provision of any other service for the purpose of dealing with the ship's situation. When granting access, the coastal State may establish additional or different measures to be complied with by the master and/or salvor.

2.4.2 The master, the company and, where applicable, the salvor of the ship should comply with the practical requirements resulting from the coastal State's decision-making process referred to in paragraph 3.5.

## 2.5 Other parties involved

### 2.5.1 *Flag State*

The flag State, apart from complying with its obligation under international law, should be asked to cooperate with the CA if there is a need for specific information on the ship's certificates and any other relevant documentation (i.e. safety and pollution prevention). The flag State itself or, if requested, the recognized organization or organizations that issue the ship's certificates on its behalf, should provide all relevant information, certification and documentation regarding the ship to the CA. The flag State should also facilitate for any ERS information to be made available. The CA should keep the flag State aware of developments.

### 2.5.2 *Classification society*

When a ship is in need of assistance and seeking a place of refuge, the ship's classification society can contribute to a safe course of action to protect the ship, crew, cargo and the marine environment. A ship's crew and management need rapid precise technical information on the behaviour of the ship after the incident as well as information on the consequences of any proposed remedial actions.

It is strongly recommended that the classification society be involved in the information gathering and risk assessment with respect to preserving the hull strength and stability of the ship and mitigating environmental pollution, in particular when a formal request for a place of refuge has been made, and to provide any relevant information.

### 2.5.3 *Emergency response service*

.1 Many shipowners and/or classification societies have set up ERSs. The aim of an ERS is to provide rapid technical assistance[9] to masters/the contracting party and their representatives or other authorities in a casualty situation by, for example, assessing the damage stability and residual longitudinal strength of the ship.

.2 Where the ship has been enrolled in a shore-based ERS service, the service should be activated as soon as possible to assess the vessel damage condition. The availability of ERS as a resource should be communicated without delay to the CA by the master or operator.

[9] The International Association of Classification Societies (IACS) recommends that ERSs provide rapid technical assistance to the master and to other authorities. IACS Recommendation N.145 (May 2016): https://www.iacs.org.uk/Publications/recommendations/141-160

.3 The CA should have access to all information that it deems necessary, i.e. ERS reports and/or support information, where provided, cargo manifests, etc. Such information should be made available to the CA by the shipowner, the contracting party or, where authorized by it, the ERS without delay.

2.5.4 ***Insurers***

.1 Protection and Indemnity ("P & I") Insurance covers a wide range of liabilities including personal injury to crew, passengers and others on board, cargo loss and damage, oil pollution, wreck removal and dock damage. Generally, P & I Clubs also provide a wide range of services to their members on claims, legal issues and loss prevention, and often play a leading role in the management of casualties. Hence, establishing communication with the P & I Club as early as possible during an incident is important as they can be instrumental in obtaining relevant information from the ship operator.

.2 In an incident, they may be asked to provide financial guarantees which may include guarantees for damages or losses to ports during the accommodation of a ship in need of assistance seeking a place of refuge.

.3 Hull and machinery ("H & M") insurance covers damage to the ship's hull, machinery and equipment. This is often covered by two or more underwriters and it is sufficient to obtain the contact details of the lead hull insurer, who is authorized to act on behalf of all followers and often plays a leading role during a salvage situation.

.4 Cargo insurance covers damages to the cargo on board the ship, including cargo contributions to the general average.

2.5.5 ***Ports, harbours and terminals***

.1 Depending on circumstances and following the risk assessment, a port or harbour or a specific terminal may be identified as a potential place of refuge.

.2 If a port or harbour is identified as a potential place of refuge for a ship in need of assistance, the following issues, inter alia, will need to be considered:

.1 the availability of a suitable berth, designated emergency reception berth, or otherwise, to accommodate the ship;

.2 the risk to safety and/or human health, particularly if the port or harbour is in close proximity to populated areas; and

.3 technical considerations of the port's operations (e.g. assessment of the potential risk of lengthy disruption, the ship blocking or restricting access through navigation channels, damage to infrastructure).

2.5.6 ***The company/operator***

The company/operator should:

.1 provide a point of contact for any information required by the CA/MAS if the master is unable to do so (for whatever reason) or to reduce the requests for information to the master, allowing the master to manage the situation on board;

.2 support the CA/MAS if requested during and post the situation; and

.3 coordinate the provision of ERS information between the CA and the ERS provider.

**Appendix to section 2**

**FORM A – FORMAL PLACE OF REFUGE REQUEST FORM**

**Note:** For Places of Refuge requests following SAR action, it is likely that much of the ship/cargo/bunker information will already be held by the MRCC or MAS.

| | **Request for Place of Refuge** |
|---|---|
| Date: | …… |
| | |
| From | Master: MV/ ……<br>……. Salvage PLC |
| To | Competent authority (or via MAS/MRCC) …….. |
| | For the attention of: Competent authority |
| Part 1 | **Appraisal of the situation (refer to paragraph 2.1.5.1)**<br>The master should, where necessary with the assistance of the company and/or the salvor, identify the reasons for their ship's need of assistance. |
| Part 2 | **Identification of hazards and assessment of associated risks (refer to paragraphs 2.1.5.2 and 2.1.5.3)**<br>Having made the appraisal above the master, where necessary with the assistance of the company and/or the salvor, should estimate the consequences of the potential casualty, in the following hypothetical situations, taking into account both the casualty assessment factors in their possession and also the cargo and bunkers on board:<br>- if the ship remains in the same position;<br>- if the ship continues on its voyage;<br>- if the ship reaches a place of refuge; or<br>- if the ship is taken out to sea. |
| Part 3 | **Identification of the required actions (refer to paragraph 2.1.5.4)**<br>The master and/or the salvor should identify the assistance they require from the coastal State in order to overcome the inherent danger of the situation.<br>(appendix 2 to section 3, paragraph 3 refers). |
| Part 4 | **Supporting documentation** |
| Part 5 | **Any other coastal States/ports contacted to date** |
| Part 6 | **Information from the MAS/port contacted** (At the end of its assessment process)<br>The recipient CA should inform the requestor of its action. |

## SECTION 3 – ACTIONS EXPECTED OF COASTAL STATES

When a ship is in need of assistance seeking a place of refuge, a decision has to be taken as regards the accommodation of that ship in a place of refuge. Each coastal State should therefore examine its ability to provide a place of refuge.
This is particularly important in the event of an incident that could give rise to an environmental or navigational hazard or the loss of a ship.

### 3.1 Competent authority

3.1.1 When a ship is in need of assistance and seeking a place of refuge, it is necessary to be able to call on an authority in that coastal State, depending on the internal structure of that State, with the required expertise and the power to take independent decisions as regards the accommodation of a ship in a place of refuge.

3.1.2 Therefore, coastal States should designate a CA. The CA should have the required expertise and the authority to take independent decisions on their own initiative concerning the accommodation of ships in need of assistance seeking a place of refuge. It is desirable that the CA be permanent in nature.

3.1.3 Coastal States are advised to establish and maintain a MAS and/or, as appropriate, make the necessary arrangements for a joint service with neighbouring States.

3.1.4 Coastal States should make the name and contact details of the competent authorities and MAS and MRCC available to the public in the Contact Points module and the Global SAR Plan module of GISIS.

### 3.2 Plans for accommodating ship(s) in need of assistance seeking a place of refuge

3.2.1 Under international law, a coastal State has the right to require the ship's master or company to take appropriate action within a prescribed time limit with a view to mitigating a risk or danger. In cases of failure or urgency, the coastal State can exercise its authority in taking responsive action appropriate to the threat.

3.2.2 It is therefore important that coastal States establish plans with clear procedures to address these issues, even if no established damage and/or pollution has occurred.

3.2.3 It is recommended that coastal States establish plans and procedures consistent with the Guidelines for the accommodation of ship(s) in order to respond to risks presented by ships in need of assistance seeking a place of refuge in the waters under their jurisdiction. The CA should participate in drawing up and carrying out those plans.

3.2.4 The plans should describe precisely the decision-making chain with regard to alerting and dealing with the situation in question. The authorities concerned and their specific role/competence should be clearly described, as should the means of communication between the parties involved. The applicable procedures should ensure that an appropriate decision can be taken quickly on the basis of specific maritime expertise and best possible information available to the CA.

3.2.5 When drawing up the plans, coastal States should gather the information on potential places of refuge to allow the CA to identify clearly and quickly the most suitable place for accommodating a ship in need of assistance seeking a place of refuge. It can be a sheltered area, a port or any other suitable place; it may be any appropriate place, depending on the situation, along the entire coast of a State.

3.2.6 Information about potential places should include a description of certain characteristics of the sites as well as any equipment and installations available to accommodate a ship in need of assistance.

3.2.7 The coastal State should also include procedures or agreements for international/regional coordination and decision-making, in line with the Guidelines for the handling of requests for assistance and authorizing, where appropriate, the use of a suitable place of refuge. They may therefore include availability of information on plans for other neighbouring States and all parties involved in a response operation.

3.2.8 Appendix 1 to section 3 contains a non-exclusive list of what such plans may include.

### 3.3 Assessment of places of refuge

The CA, and where necessary, in consultation with the port authorities and, as appropriate, terminal operators, should, for each place of refuge request, make an objective analysis of the advantages and disadvantages of allowing a ship in need of assistance to proceed to a place of refuge under their jurisdiction or via the waters for which they are responsible, taking into consideration the risk analysis factors listed in appendix 2 to section 3.

### 3.4 Event-specific assessment

***Expert analysis/inspection***

3.4.1 The analysis or inspection should include a comparison between the risks involved if the ship remains at sea and the risks that it would pose to the place of refuge and its environment. Such comparison should cover each of the following points:

.1 safeguarding of human life at sea;

.2 safety of persons at the place of refuge and its industrial and urban environment (risk of fire or explosion, toxic risk, etc.);

.3 risk of pollution (particularly in designated areas of environmental sensitivity);

.4 if the place of refuge is a port, risk of disruption to the port's operation (channels, docks, equipment, terminals, other installations);

.5 if the place of refuge is an anchorage, accessibility for lightering operation should be considered and the tidal situation must be monitored at all times;

.6 evaluation of the consequences if a request for place of refuge is refused, including the possible effect on neighbouring States; and

.7 due regard should be given, when drawing the analysis, to the preservation of the hull, machinery and cargo of the ship in need of assistance, as well as possible risks to navigation.

***Analysis factors***

3.4.2 The event-specific analysis should include the following analysis factors:

.1 seaworthiness of the ship concerned, in particular buoyancy, stability, availability of means of propulsion and power generation, and docking ability;

.2 nature and condition of cargo, stores, bunkers, in particular hazardous goods;

.3 distance and estimated transit time to a place of refuge;

.4 whether the master (or representative of the master, e.g. chief mate) is still on board;

.5 the number of other crew and/or salvors and other persons on board and an assessment of human factors, including fatigue;

.6 the legal authority of the country concerned to require action of the ship in need of assistance;

.7 agreement by the master and company of the ship to the proposals of the coastal State/salvor to proceed or be brought to a place of refuge;

.8 provision on the financial security, if required;

.9 commercial salvage contracts already concluded by the master or company of the ship;

.10 information on the intention of the master and/or salvor;

.11 designation of a representative of the company at the coastal State concerned;

.12 risk analysis factors identified in the formal place of refuge request form (appendix to section 2); and

.13 any measures already taken.

***Expert inspection***

3.4.3 Where it is deemed safe to do so and where time permits, an assessment team designated by the CA should board the ship requesting a place of refuge, for the purpose of gathering evaluation data to support the decision-making process (cf. risk analysis factors).

3.4.4 A team composed of persons with expertise appropriate to the situation should be established. Where one or more coastal States may be involved with the incident, and where other parties may be potentially involved, then the formation of a multinational or "regional" inspection team should be considered. The coastal State CA receiving the request for a place of refuge will retain responsibility for selecting the appropriate team members and inviting participation from other States/competent authorities. Due care should be exercised to ensure that the formation of a multinational/regional team does not delay the deployment of the inspection team.

**3.5 Decision-making process for granting a place of refuge**

3.5.1 The CA should decide on the acceptance of a ship in a place of refuge following a prior assessment of the situation carried out on the basis of the plans referred to in 3.2 and any expert assessment as per paragraphs 3.3 and 3.4. The CA should grant a place of refuge to a ship if they consider such an accommodation the best course of action for the purpose of the protection of human life, the environment or the ship or its cargo. When permission to

access a place of refuge is requested, there is no obligation for the CA to grant it, but before taking any decision, the necessary risk assessments and/or expert onboard assessments should always be completed, unless deemed unsafe. The CA should weigh all the factors and risks in a balanced manner and give shelter whenever reasonably possible.

3.5.2 The CA may verify whether the ship is covered by insurance or some other effective form of financial security permitting appropriate compensation for costs and damages associated with its accommodation in a place of refuge. Operational response to the incident should not be delayed while verification of insurance cover takes place. The absence of insurance or financial security should not in itself be a reason to refuse to assess the request for a place of refuge as there might be a risk to the marine environment and to decide on the acceptance of the ship in a place of refuge.

3.5.3 The decision by the CA as a representative of a State to grant a place of refuge on their territory should be immediately communicated to all parties involved and should include any practical requirements set as a condition of entry.

3.5.4 While each State should remain independent in making their decision, if a CA is unable to accept a request for place of refuge, it should immediately communicate to the shipowner/operator the information on the basis of which its decision has been made and including any assessment relating to:

.1 safety persons on board and risks to public safety on shore;

.2 environmental sensitivities;

.3 lack of availability of suitable resources at desired place of refuge and concern over structural stability and ability for ship to make successful safe transit to same;

.4 prevailing and forecast weather conditions, i.e. lack of sheltered area for proposed works;

.5 physical limitations and constraints including bathymetry, navigational characteristics;

.6 foreseeable consequences escalation, i.e. pollution, fire, toxic and explosion risk; and

.7 any other applicable reason.

3.5.5 In situations where regional agreements are in place, the same information should be communicated to the other parties involved. Copies of the risk assessment and/or inspection report(s) should also be made available, as appropriate, through such regional agreements.

3.5.6 The action of the coastal State, via its CA, does not prevent the company or its representative from being called upon to take steps, within the framework of international law, that are necessary to avert, lessen or remove a serious and imminent risk to its coastline or related interests, the safety of other ships and their crews and passengers or of persons on shore or to protect the marine environment. That CA may, inter alia:

.1 restrict the movement of the ship or direct it to follow a specific course. This requirement does not affect the master's responsibility for the safe handling of his ship;

.2 give official notice to the master of the ship to put an end to the threat to the environment or maritime safety; and

.3 instruct the master to put in at a place of refuge in the event of imminent peril or cause the ship to be piloted or towed.

In the case of a ship that is towed under a towage or salvage agreement, the measures taken by the CA of a State under paragraphs 3.5.6.1 and 3.5.6.3 may also be addressed to the assistance, salvage and towage companies involved.

## Appendix 1 to section 3

## PLACES OF REFUGE PLANS

The plans referred to in paragraph 3.2 should be prepared after consultation of the parties concerned, where necessary, and contain at least the following items.

1 The identity of the authority or authorities responsible for receiving and handling alerts.

2 The identity of the CA for assessing the situation and taking a decision on acceptance or refusal of a ship in need of assistance seeking a place of refuge.

3 Information on the coastline of the State and all elements facilitating a prior assessment and rapid decision regarding the place of refuge for a ship, including a description of environmental, economic and social factors and natural conditions.

4 The assessment procedures for acceptance or refusal of a ship in need of assistance in a place of refuge.

5 The resources and installations suitable for assistance, rescue and combating pollution.

6 Procedures for international coordination and decision-making, taking into account characteristic regional features (see section 4).

7 The financial guarantee and liability procedures in place for ships accommodated in a place of refuge.

## Appendix 2 to section 3

## RISK ANALYSIS FACTORS

When conducting the risk analysis as described in paragraphs 2.1.5 and 3.3, the following should be considered:

1 Environmental and social factors, such as:

- Safety of those on board
- Risk to public safety

What is the nearest distance to populated areas?

- Pollution caused by the ship

- Designated environmental areas

  Are the place of refuge and its approaches located in sensitive areas such as areas of high ecological value which might be affected by possible pollution?
  Is there, on environmental grounds, a better choice of place of refuge close by?

- Sensitive habitats and species
- Fisheries

  Are there any offshore and fishing or shellfishing activities in the transit area or in the approaches to the place of refuge or vicinity which can be endangered by the incoming ship in need of assistance?

- Economic/industrial facilities

  What is the distance to the nearest industrial areas?

- Amenity resources and tourism areas

- Facilities available

  Are there any specialist ships and aircraft and other necessary means for carrying out the required operations or for providing necessary assistance?

  Are there transfer facilities, such as pumps, hoses, barges, pontoons?

  Are there reception facilities for harmful and dangerous cargoes?

  Are there repair facilities, such as dockyards, workshops, cranes?

2 Natural conditions, such as:

- Prevailing winds in the area

  Is the place of refuge safely guarded against heavy winds and rough seas?

- Tides and tidal currents

- Weather and sea conditions

  Local meteorological statistics and number of days of inoperability or inaccessibility of the place of refuge?

- Bathymetry
  Minimum and maximum water depths in the place of refuge and its approaches?

  The maximum draught of the ship to be admitted?

  Information on the condition of the bottom, i.e. hard, soft, sandy, regarding the possibility to ground a problem ship in the haven or its approaches?

- Seasonal effects including ice

- Navigational characteristics

In the case of a non-sheltered place of refuge, can salvage and lightering operations be safely conducted?

Is there sufficient space to manoeuvre the ship, even without propulsion?

What are the dimensional restrictions of the ship, such as length, width and draught?

Risk of stranding the ship, which may obstruct channels, approaches or ship navigation?

Description of anchorage and mooring facilities, in the place of refuge?

- Operational conditions, particularly in the case of a port

  Is pilotage compulsory and are pilots available?

  Are tugs available? State their number and bollard pull.

  Are there any restrictions? If so, whether the ship will be allowed in the place of refuge, e.g. escape of poisonous gases, danger of explosion.

  Is a bank guarantee or other financial security needed and if so, acceptable to the coastal State before admission is granted into the place of refuge?

3 Contingency planning, such as:

- Competent MAS
- Roles and responsibilities of authorities and responders

  Fire-fighting capability
- Response equipment needs and availability
- Response techniques

  Is there a possibility of containing any pollution within a compact area?
- International/regional cooperation and coordination (reference to section 4)
- Evacuation facilities

4 Foreseeable consequences of the different scenarios envisaged with regard to safety of persons and pollution, fire, toxic and explosion risks.

## SECTION 4 – INTERNATIONAL/REGIONAL COOPERATION AND COORDINATION FOR PLACES OF REFUGE

4.1 Many times, situations leading to a request for a place of refuge involve only one State and will be handled by the same State, under its jurisdiction. There may however be cases where a purely national situation may turn into a situation involving neighbouring Member States or Member States in the vicinity of the incident. As a complement in national place of refuge plans (see section 3.2.7 and appendix 1 to section 3, point 6), procedures for international/regional coordination and decision-making should be included and apply to situations where it is likely that more than one State may become involved.

4.2 The right of a coastal State to take action to protect its coastline from marine pollution is well established in international law.[10] UNCLOS establishes obligations[11] on coastal States to prevent, reduce and control pollution of the marine environment caused by – among other factors – shipping, as well as not to transfer environmental hazards on to other sea areas. In addition, there are provisions[12] for coordination rules for neighbouring States dealing with pollution incidents, including a duty to notify each other and to draw up joint contingency plans for responding to threats or pollution incidents to the marine environment. A ship in need of assistance seeking a place of refuge may well constitute such a threat leading to or causing pollution.

4.3 The right of a foreign ship to enter a port or internal waters of another State in situations of force majeure or distress is not provided for in UNCLOS, although this constitutes an internationally accepted practice, at least in order to preserve human life or for the protection of the environment. This, however, does not preclude the adoption of rules or guidelines complementing the provisions of UNCLOS.

4.4 Therefore, where appropriate, States sharing an area or sea/neighbouring States should cooperate with a view to consulting each other regarding necessary action to be taken and pooling their capacities for joint action. Establishing regional cooperation arrangements to this end may lead to quicker response.

4.5 The appendix to section 4 provides an outline for what such international/regional cooperation and coordination may include.

4.6 In any case, any State where the CA of which has been informed, pursuant to the Guidelines or in any other way, of facts which involve or increase the risk to human life or to marine pollution in another State's shipping areas or coastal zones, should take appropriate measures to inform, as soon as possible, such States thereof, before they turn into a place of refuge situation.

## Appendix to section 4

## INTERNATIONAL/REGIONAL COOPERATION AND COORDINATION FOR PLACES OF REFUGE

For use under circumstances where there are coastal States sharing a common area or sea who want to jointly address situations of places of refuge. The guidance below is given for consideration by coastal States which may jointly deal with a request for a place of refuge.

When there is a regional arrangement in place, the principle is that each State involved starts to examine their ability to provide a place of refuge and that, in the interest of resolving the situation, there is direct contact between those CAs involved to decide who is best placed to take the coordinating role. Regional arrangements may cover additional specifics related to granting a place of refuge, such as:

[10] Relevant provisions include: UNCLOS, articles 194, 195, 198, 199, 211, 221, 225; Salvage Convention, article 9; and Facilitation Convention, article V(2).

[11] Articles 194 and 195 of UNCLOS part XII establish obligations of coastal States to prevent, reduce and control pollution of the marine environment caused by – among other factors – shipping, as well as not to transfer environmental hazards on to other sea areas.

[12] Articles 198 and 199 of UNCLOS part XII, section 2 – Global and Regional Cooperation lay down coordination rules for neighbouring States dealing with pollution incidents, including a duty to notify each other and to draw up joint contingency plans.

## 1 Deciding which coastal State's competent authority to be in the lead

If a place of refuge is requested when no SAR operation has taken place, the deciding factor should be the maritime assistance service (MAS) declared by the State in whose area of jurisdiction the ship is located. If there is no MAS declared, in the first instance the State with jurisdiction over the waters in which the ship is located (e.g. through a declared EEZ) should coordinate the place of refuge request unless and until an agreement has been reached to transfer coordination to another coastal State.

For place of refuge requests arising from an incident commencing outside the jurisdiction of any one coastal State, the search and rescue region (SRR) can be the deciding criterion for determining who should take on the coordination role in the first instance. The State in whose SRR the ship is located will be deemed in charge of the coordination of the event in the first instance,[13] even though there may not be a SAR component to the operation.

The coastal State in whose SRR the vessel is located at the time of the place of refuge request should retain the coordination of the response to that request unless and until an agreement has been reached to transfer coordination to another coastal State in the region which might grant a place of refuge.

Coastal States who are involved by virtue of geography, or because they are home to some of the ship's interests, support the action by cooperating with the coordinating State to gather information; share expertise; provide logistical assets; participate in the risk assessment; and search for potential places of refuge in their territory.

## 2 Coordinating authority and neighbouring coastal States

When it has been decided that taking the ship to a place of refuge is the most appropriate course of action, the coordinating coastal State should work with neighbouring States to identify the nearest, most appropriate place of refuge, which may be in another State.

At all times, the principal focus should remain the protection of human life, the environment, the ship and cargo and the reduction of the risk to navigation.

## 3 Coordinating and supporting coastal States

The authority (or authorities) referred to in point 2 above which has assumed coordination will be known as the coordinating coastal State (CCS). Other States supporting the CCS will be known, for the purpose of the Guidelines, as supporting coastal States (SCS).

The CCS will be responsible for:

.1 ensuring that the CA is in charge of overall coordination of the incident;

.2 initiating their national place of refuge procedure, in order to identify a potential site on their territory;

.3 being the main point of contact for liaison with representatives of the parties involved, including the flag State, the shipowner and/or operator, the master, the P & I club, salvors, the classification society and if necessary, the operator of a port of refuge and, where applicable, the terminal operator;

[13] An SAR coordination and the need to consider granting refuge might coexist, but the two institutions are not to be confused.

.4 where necessary, coordinating the response to the place of refuge request with potential SCS, in order to gain their assistance;

.5 issuing SITREPs and alerting SCS on actions taken to date and proposed plans;

.6 determining whether a coastal State cooperation group and a secretariat should be set up for the incident;

.7 organizing evaluation teams: arrange for transportation, constitution of teams, in collaboration with the other States involved;

.8 undertaking a thorough analysis of the factors listed in the Guidelines in order to decide whether to allow a ship in need of assistance to proceed to a place of refuge within their jurisdiction (see point above);

.9 communicating the results of that analysis, once complete, to the other authorities concerned and to the master/salvor and company; and

.10 ensuring that those authorities who may become responsible for the ship once in a place of refuge are:

.1 informed as early as possible of that possibility; and

.2 involved in the risk assessment process and are given all relevant information.

Following an assessment of all the factors (as in section 3, paragraphs 3.3 to 3.5), ensure that ships are admitted to a place of refuge if they consider such an accommodation the best course of action for the purpose of the protection of human life, the environment or the ship or its cargo; or where appropriate, initiating a dialogue to formalize the transfer of coordination to another State.

The CCS considering a formal place of refuge request should not enter into direct contact with different port authorities or shore-based authorities in another State. Although the Guidelines do not have mandatory status, the reporting requirements should be similar to those in SOLAS and MARPOL and it is important that all information exchanges go through the competent maritime authorities in the State concerned. This approach is supported by the recommendations made under paragraph 1(d) of resolution A.950(23).

## 4 Responsibilities of the supporting coastal States

The States supporting the CCS in handling the place of refuge request procedures include:

.1 those nearest in the vicinity of the ship in need of assistance; and

.2 the flag State.

Each SCS should:

.1 ensure that any relevant incident-related information is passed to the CCS without delay;

.2 be prepared to examine any requests from the CCS for assistance (logistical, expertise or evaluation);

.3 be prepared to examine a request for a place of refuge within their jurisdiction by the CCS; and

.4 be prepared to plan in parallel and proactively assess any possible alternative options should the CCS be unable to grant a place of refuge.

In particular, neighbouring States, including the port of initial destination of the ship, should examine the possibility of granting a place of refuge in their territory – even though the incident, at the time, is taking place outside their area of jurisdiction.

## 5 Transfer of coordination

Responsibility for coordinating the incident may be transferred, depending on the evolution of the situation aboard the ship, or depending on agreements reached between the States involved, i.e. the State able to offer a place of refuge. However, for reasons of operational continuity, it may be appropriate for the initial CCS to assume coordination throughout the entire process, with the agreement of the other coastal State(s) concerned.

The transfer of coordination to another coastal State is accomplished with a formal notification, preferably in an electronic format, from the State taking over coordination to the State initially in charge of the event.

Such a formal notification should include, as appropriate, details on:

- identity of the casualty ship
- reason for refuge
- coastal State transferring coordination
- coastal State accepting coordination
- dates and times
- position of coordination transfer
- place of refuge (if known)
- other coastal State(s)
- transfer completion – coastal State accepting coordination
- reason for not granting a place of refuge

## 6 Decision-making and outcomes

Decision-making and outcomes should be undertaken and communicated as described in section 3, paragraph 3.5.

## 7 Subsequent request to another CS to grant a place of refuge

When the risk assessment carried out following an incident concludes that a place of refuge on another State's territory is the only solution in order to preserve the safety of the ship involved, the safety of navigation and to protect or mitigate the risks to the environment, the CCS unable to accept the request for a place of refuge for objective reasons should forward all information relevant to the circumstances on which their decision is based to the State or States to whom the subsequent request is made. That coastal State then becomes the CCS (and the previous CCS becomes the SCS). Forwarding all relevant information should greatly facilitate the risk assessment and decision-making on the subsequent request if a handover has not been already agreed and a passage plan arranged between the CCS and the SCS.

## 8 Passage plan and monitoring

When a suitable place of refuge has been determined and agreed, the CCS will assume responsibility for agreeing a passage plan with the requesting party and will engage with the SCSs as necessary, but in particular where the casualty may have to pass through or transit in close proximity to another coastal State's jurisdiction.

In order to be prepared to face potential difficulties during the transit to the designated place of refuge, coastal States should consider one or more backup places of refuge en route.

## SECTION 5 – MEDIA AND INFORMATION MANAGEMENT

In today's situation regarding the use of social media for spreading information, it is recommended that States include in their organization capacities (including training) for managing media and requests for information in connection to managing a ship in need of assistance seeking a place of refuge. The following are some key guidance points (non-exhaustive):

### 5.1 Media and information management

The delivery of accurate, clear, timely and up-to-date information and advice to the public and other key stakeholders is an important aspect of the successful management of any shipping incident. It is recommended that media management be incorporated into national contingency planning and a media management procedure be developed.

### 5.2 Key principles

.1 Media activities should not interfere with the management of the incident in any way; in particular, it should not impede the operational activities of the emergency services. Media speculation should not be considered when making the decision to grant a place of refuge.

.2 All steps should be taken to protect victims from press intrusion.

.3 Only factual information should be provided. There should be no speculation about causes, future developments or actions.

.4 Information and advice should not be released by one organization if it covers the area of responsibility of another, unless the information (and its release) has been agreed by the responsible organization.

### 5.3 Key interest groups

.1 Press and media.

.2 General public, including NGOs and civil society.

.3 Ministers, national and local authorities, international organizations.

.4 Shipping and insurance industries, ports, harbours, terminal operators.

### 5.4 Key actions for persons managing the incident

.1 KNOW who is responsible for activating the media management process/establishment of the media team for the incident (on the understanding that the media team may be required for a longer duration);

.2 ARRANGE regular briefings between different response cells (e.g. Salvage Control, MRCC, onshore clean-up team);

.3 IDENTIFY the designated responsible person(s), who will:

.1 liaise between CA and press;

.2 take the lead in providing strategic SITREPS; and

.3 communicate with key interest group contacts when there are significant developments to report; and

.4 FOLLOW key principles at all times.

## SECTION 6 – LESSONS LEARNED

### 6.1 National and regional debriefs

States may consider holding debrief session after each significant incident:

.1 Debriefs could consider the incident background, response factors, e.g. coordination, communications, risk assessment, decision-making and any other aspects considered relevant. Depending on the nature of the incident, the debrief could either be for all the authorities and stakeholders involved, or smaller sub-groups could be convened to focus on particular aspects of the incident.

.2 Where appropriate, neighbouring or other regional coastal States should be invited to participate. If the debrief identifies issues that might be of wider interest, the outcomes from the debrief process could be shared with the organization for information.

.3 If it is thought appropriate, lessons learned from an incident could be the subject of a regional or national exercise, or a smaller exercise at a more local level.

.4 For regional cooperation in relation to section 4, exercises to test national and regional arrangements, either as "live" or as tabletop exercises, should be considered and planned at regular intervals, as appropriate.

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**ANNEX 21**

**RESOLUTION MSC.529(106)**
**(adopted on 7 November 2022)**

**STATEMENT OF RECOGNITION OF MARITIME MOBILE SATELLITE SERVICES PROVIDED BY CTTIC THROUGH BDMSS**

THE MARITIME SAFETY COMMITTEE,

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

RECALLING ALSO regulation IV/4-1 of the International Convention for the Safety of Life at Sea (SOLAS), 1974, concerning the Global Maritime Distress and Safety System (GMDSS) satellite providers, which requires that the Committee shall determine the criteria, procedures and arrangements for the evaluation, recognition, review and oversight of the provision of mobile satellite communication services in the GMDSS pursuant to the provisions of SOLAS chapter IV,

RECALLING IN PARTICULAR the *Criteria for the provision of mobile satellite communication systems in the Global Maritime Distress and Safety System (GMDSS)* (resolution A.1001(25)), by which the Assembly adopted the criteria and requirements for mobile satellite communication services being designed for use in the GMDSS,

RECALLING FURTHER the *Guidance to prospective GMDSS satellite service providers* (MSC.1/Circ.1414) with respect to the provisions of resolution A.1001(25),

NOTING that:

(a) the BeiDou Message Service System (BDMSS) conforms with all the criteria specified in the annex to resolution A.1001(25),

(b) the charging policies and provisions of the *Charges for distress, urgency and safety messages through the Inmarsat system* (resolution A.707(17)), as amended, are complied with,

(c) there is a well-founded confidence that China Transport Telecommunication Information Group Co. Ltd. (CTTIC) will remain viable for the foreseeable future and will remain in a position to deliver the required services over an extended period, in keeping with the expectations of the Organization and the maritime industry as to the continuity, durability and reliability of the service,

NOTING ALSO:

(a) its decision, at the eighty-second session, that the oversight of future satellite service providers in the GMDSS should be undertaken by the International Mobile Satellite Organization (IMSO),

(b) that CTTIC is ready to submit BDMSS data communication service and BDMSS enhanced group call service to oversight by IMSO and sign the required Public Services Agreement (PSA) with that organization,

RECOGNIZING that the requested recognition is currently limited to the coverage area within 75°E to 135°E longitude and 10°N to 55°N latitude,

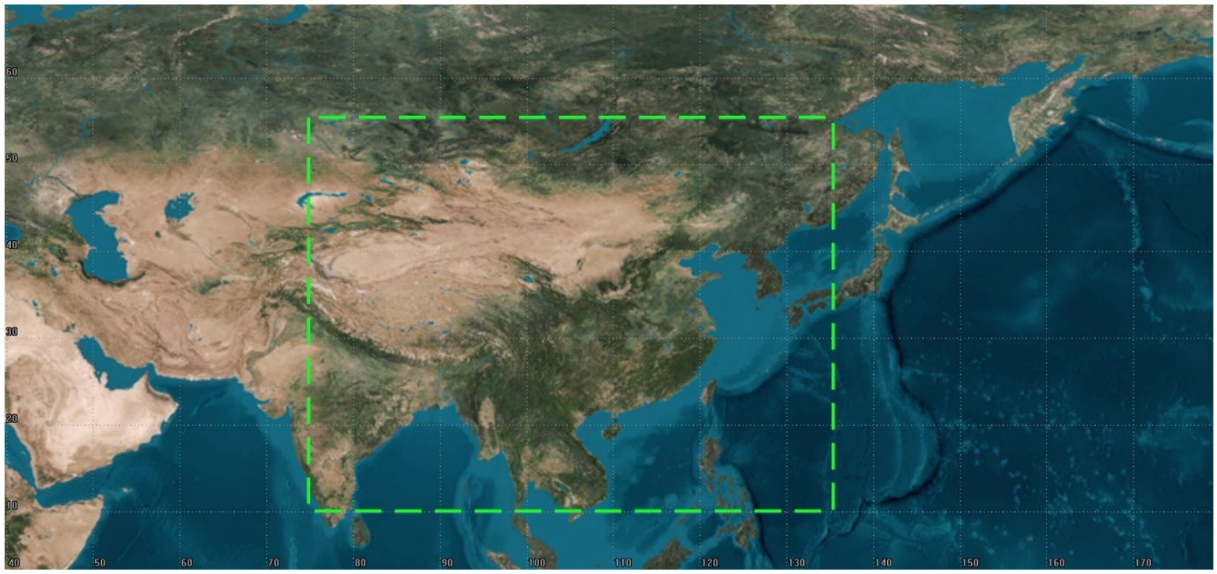
HAVING CONSIDERED, at its 106th session, the recommendation of the Sub-Committee on Navigation, Communications and Search and Rescue, at its ninth session,

1 RECOGNIZES the maritime mobile satellite services provided by CTTIC through BDMSS, in the coverage area set out in the annex, for use in the GMDSS;

2 REQUESTS the Secretary-General to provide a copy of this resolution to IMSO.

ANNEX

**COVERAGE AREA UNDER BDMSS**




The coverage area of the maritime mobile satellite services provided by CTTIC through BDMSS for use in the GMDSS

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**ANNEX 22**

**RESOLUTION MSC.530(106)**
**(adopted on 7 November 2022)**

**PERFORMANCE STANDARDS FOR ELECTRONIC CHART DISPLAY AND INFORMATION SYSTEMS (ECDIS)**

THE MARITIME SAFETY COMMITTEE,

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

RECALLING ALSO resolution A.886(21), by which the Assembly resolved that the function of adopting performance standards and technical specifications, as well as amendments thereto, shall be performed by the Maritime Safety Committee and/or the Marine Environment Protection Committee, as appropriate, on behalf of the Organization,

RECALLING FURTHER regulations V/19 and V/27 of the International Convention for the Safety of Life at Sea (SOLAS), 1974, which requires all ships to carry adequate and up-to-date charts, sailing directions, lists of lights, notices to mariners, tide tables and all other nautical publications necessary for the intended voyage,

RECALLING resolutions A.817(19), as amended, and MSC.232(82), which have provided performance standards for electronic chart display and information systems (ECDIS),

NOTING that the up-to-date charts required by SOLAS regulations V/19 and V/27 can be provided and displayed electronically on board ships by ECDIS, and that the other nautical publications required by regulation V/27 may also be so provided and displayed,

NOTING ALSO the recent developments and enhancement of ECDIS, including new electronic navigational chart transfer functionality in the performance standards, is the necessary step towards the implementation of the e-navigation concept of harmonized maritime services,

RECOGNIZING the need to improve the revised performance standards, previously adopted by resolution MSC.232(82), for ECDIS in order to ensure the operational reliability of such equipment and taking into account the technological progress and experience gained,

HAVING CONSIDERED the recommendation made by the Sub-Committee on Navigation, Communications and Search and Rescue, at its ninth session,

1 ADOPTS the revised Performance standards for electronic chart display and information systems (ECDIS), set out in the annex to the present resolution;

2 RECOMMENDS Governments to ensure that ECDIS equipment:

(a) if installed on or after 1 January 2029, conforms to performance standards not inferior to those specified in the annex to the present resolution;

(b) if installed on or after 1 January 2026 but before 1 January 2029, conforms either to performance standards not inferior to those specified in the annex to the present resolution or to performance standards not inferior to those specified in the annex to resolution MSC.232(82);

(c) if installed on or after 1 January 2009 but before 1 January 2026, conforms to performance standards not inferior to those specified in the annex to resolution MSC.232(82); and

(d) if installed on or after 1 January 1996 but before 1 January 2009, conforms to performance standards not inferior to those specified in the annex to resolution A.817(19), as amended by resolutions MSC.64(67) and MSC.86(70);

3 AGREES that, for the purpose of this resolution, the expression *installed on or after 1 January 2029* means:

(a) for ships for which the building contract is placed on or after 1 January 2029, or in the absence of the contract, constructed on or after 1 January 2029, any installation date on the ship; or

(b) for ships other than those prescribed in (a) above, a contractual delivery date for the equipment or, in the absence of a contractual delivery date, the actual delivery date of the equipment to the ship on or after 1 January 2029.

ANNEX

# PERFORMANCE STANDARDS FOR ELECTRONIC CHART DISPLAY AND INFORMATION SYSTEMS (ECDIS)

## 1 SCOPE OF ECDIS

**1.1** The primary function of ECDIS is to contribute to safe navigation.

**1.2** ECDIS with adequate backup arrangements may be accepted as complying with the up-to-date charts and nautical publications required by regulations V/19 and V/27 of the 1974 SOLAS Convention. For the purpose of this document, the definition of electronic navigational data service (ENDS) encompasses the nautical charts and nautical publications as defined in SOLAS chapter V and IHO standards in force.

**1.3** ECDIS should be capable of displaying all nautical information necessary for safe and efficient navigation, originated and distributed by or on the authority of a government, authorized hydrographic office or other relevant government institution, as required by SOLAS regulations V/19 and V/27.

**1.4** ECDIS should facilitate simple and reliable updating of the ENDS.

**1.5** ECDIS should reduce the navigational workload compared to using the paper chart and paper nautical publications. It should enable the mariner to execute in a convenient and timely manner all route planning, route monitoring and positioning. It should be capable of continuously indicating, monitoring and recording the ship's position.

**1.6** The ECDIS display may also be used for the display of radar, radar tracked target information, AIS and other appropriate data layers to assist in route monitoring.

**1.7** ECDIS should provide appropriate alerts or indications with respect to the information displayed or malfunction of the equipment (see appendix 5). ECDIS should meet the requirements of the *Performance standards for bridge alert management* (resolution MSC.302(87)).

**1.8** When the relevant chart information is not available in the appropriate form (see section 4), some ECDIS equipment may operate in the raster chart display system (RCDS) mode as defined in appendix 7. RCDS mode of operation should conform to performance standards not inferior to those set out in appendix 7.

## 2 APPLICATION OF THESE STANDARDS

**2.1** These performance standards should apply to all ECDIS equipment carried on all ships, as follows:

.1 dedicated stand-alone workstation; and

,2 a multifunction workstation as part of an INS.

**2.2** These performance standards apply to ECDIS mode of operation, ECDIS in RCDS mode of operation as specified in appendix 7 and ECDIS backup arrangements as specified in appendix 6.

**2.3** Requirements for structure, format, encryption presentation of the ENDS are within the scope of relevant IHO standards, including those listed in appendix 1.

**2.4** In addition to the general requirements set out in resolution A.694(17)[1] and the presentation requirements set out in resolution MSC.191(79), as amended, ECDIS equipment should meet the requirements of these standards and follow the relevant guidelines on ergonomic principles adopted by the Organization.[2]

## 3 DEFINITIONS

For the purpose of these performance standards:

**3.1** *Electronic chart display and information system (ECDIS)* means a navigation information system which with adequate backup arrangements can be accepted as complying with the up-to-date nautical chart and nautical publications required by SOLAS regulations V/19 and V/27, by displaying selected information from a system database with positional information from navigation sensors to assist the mariner in route planning and route monitoring and, if required, display additional navigation-related information.

**3.2** *Electronic navigational chart (ENC)* means the database, standardized as to content, structure and format, issued for use with ECDIS by or on the authority of a government, authorized hydrographic office or other relevant government institution, and conforming to IHO standards. The ENC contains all the nautical chart information necessary for safe navigation.

**3.3** *Electronic navigational data service (ENDS)* means a special-purpose database compiled from nautical chart and nautical publication data, standardized as to content, structure and format, issued for use with ECDIS by or on the authority of a government, authorized hydrographic office or other relevant government institution, and conforming to IHO standards; and, which is designed to meet the requirement of marine navigation and the nautical charts and nautical publications carriage requirements in SOLAS regulations V/19 and V/27. The navigational base layer of ENDS is the electronic navigational chart (ENC).

**3.4** *System database* means a database, in the manufacturer's internal ECDIS format, resulting from the lossless transformation of the ENDS contents and its updates. It is this database that is accessed by ECDIS for the display generation and other navigational functions, and is equivalent to up-to-date ENDS.

**3.5** *Standard display* is the display mode intended to be used as a minimum during route planning and route monitoring. The chart content is listed in appendix 2.

**3.6** *Display base* means the chart content as listed in appendix 2 and which cannot be removed from the display. It is not intended to be sufficient for safe navigation.

**3.7** Further information on ECDIS definitions may be found in IHO Hydrographic Dictionary Publication S-32 (see appendix 1).

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1 MSC/Circ.982.

2 Refer to Publication IEC 60945.

## MODULE A – DATABASE

## 4 PROVISION AND UPDATING

**4.1** The ENDS information to be used in ECDIS should be issued by or on the authority of a government, government-authorized hydrographic office or other relevant government institution, and conform to IHO standards as listed in appendix 1.

**4.2** The contents of the system database should be adequate and up to date for the intended voyage to comply with SOLAS regulations V/19 and V/27.

**4.3** It should not be possible to alter the contents of the ENDS or system database information transformed from the ENDS. The display of the content of ENDS should be compliant with IHO standards including rules set for interoperability.

**4.4** ECDIS should be capable of accepting official updates to the ENDS provided in conformity with IHO standards. These updates should be automatically applied to the system database. By whatever means updates are received, the implementation procedure should not interfere with the display in use.

**4.5** ECDIS should also be capable of accepting updates to the ENDS data entered manually with simple means for verification prior to the final acceptance of the data. They should be distinguishable on the display from ENDS information and its official updates and not affect display legibility.

**4.6** ECDIS should keep and display on demand a record of updates including time of application to the system database. This record should include updates for each ENDS until it is superseded by a new edition.

**4.7** ECDIS should allow the mariner to display updates in order to review their contents and to ascertain that they have been included in the system database.

**4.8** ECDIS should be capable of accepting ENDS in accordance with the IHO Data Protection Scheme.[3]

## MODULE B – OPERATIONAL AND FUNCTIONAL REQUIREMENTS

## 5 DISPLAY OF SYSTEM DATABASE INFORMATION

**5.1** An ECDIS should be capable of accepting and converting an ENDS and their updates into a system database. ECDIS should be capable of displaying and processing all system database information as specified by IHO. The ECDIS may also be capable of accepting a system database resulting from conversion ashore, in accordance with IHO resolutions.[4]

**5.2** System database information available for display during route planning and route monitoring should be subdivided into the following three categories: display base, standard display and all other information (see appendix 2).

**5.3** ECDIS should present the standard display at any time by a single operator action.

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[3] IHO Publication S-63 – Data Protection Scheme (for S-57 ENCs) and S-100, Part 15 – Data Protection Scheme (for S-100 products) (see appendix 1).

[4] IHO Publication M-3 – Resolutions of the IHO.

**5.4** When an ECDIS is switched on following a switch off or power failure, it should return to the most recent manually selected settings for display.

**5.5** It should be easy to add or remove information from the ECDIS display. It should not be possible to remove information contained in the display base.

**5.6** For any operator-identified geographical position (e.g. by cursor picking), ECDIS should display on demand the information about the chart objects associated with such a position.

**5.7** It should be possible to change the display scale by appropriate steps, e.g. by means of either chart scale values or ranges in nautical miles.

**5.8** It should be possible for the mariner to select a safety contour from the information provided by the system database. ECDIS should emphasize the safety contour over other contours on the display. However:

.1 if the mariner does not specify a safety contour, this should default to 30 m. If the safety contour specified by the mariner or the default 30 m contour is not in the displayed system database, the safety contour shown should default to the next deeper contour;

.2 if the safety contour in use becomes unavailable due to a change in source data, the safety contour should default to the next deeper contour;

.3 in each of the above cases, an indication should be provided; and

.4 the mariner should be able to select a permanent display of safety contour and safety depth settings.

**5.9** It should be possible for the mariner to select a safety depth. ECDIS should emphasize soundings equal to or less than the safety depth whenever spot soundings are selected for display.

**5.10** It should be possible to use dynamic water level adjustment and an indication should be provided.

**5.11** The ENDS and all updates to it should be displayed without any degradation of their information content.

**5.12** ECDIS should provide a means to ensure that the ENDS and all updates to it have been correctly loaded into the system database.

**5.13** The ENDS data and updates to it should be clearly distinguishable from other displayed information, including those listed in appendix 3.

## 6 SCALE

**6.1** ECDIS should provide an indication if:

.1 the information is displayed at a larger scale than that contained in the ENC;

.2 own ship's position is covered by an ENC at a larger scale than that provided by the display; or

.3 information at own ship's position is not displayed because of applying scale minimum for display.

## 7 DISPLAY OF OTHER NAVIGATIONAL INFORMATION

**7.1** Radar information and/or AIS information may be transferred from systems compliant with the relevant standards of the Organization. Other navigational information may be added to the ECDIS display. However, it should not degrade the displayed system database information and it should be clearly distinguishable from the system database information.

**7.2** It should be possible to remove the radar information, AIS information and other navigational information by single operator action.

**7.3** ECDIS and added navigational information should use a common reference system. If this is not the case, an indication should be provided.

### 7.4 Radar

**7.4.1** Transferred radar information may contain a radar image and/or tracked target information.

**7.4.2** If the radar image is added to the ECDIS display, the chart and the radar image should match in scale, projection and orientation.

**7.4.3** The radar image and the position from the position sensor should both be adjusted automatically for antenna offset from the conning position.

## 8 DISPLAY MODE AND GENERATION OF THE NEIGHBOURING AREA

**8.1** It should always be possible to display the system database information in a "north-up" orientation. Other orientations are permitted. When such orientations are displayed, the orientation should be altered in steps large enough to avoid unstable display of the chart information.

**8.2** ECDIS should provide for true motion mode. Other modes are permitted.

**8.3** When true motion mode is in use, reset and generation of the chart display of the neighbouring area should take place automatically at own ship's distance from the edge of the display as determined by the mariner.

**8.4** It should be possible to manually change the displayed chart area and the position of own ship relative to the edge of the display.

**8.5** If the area covered by the ECDIS display includes waters for which no ENC at a scale appropriate for navigation is available, the areas representing those waters should carry an indication (see appendix 5) to the mariner to refer to the paper chart or to the RCDS mode of operation (see appendix 7).

## 9 COLOURS AND SYMBOLS

**9.1** IHO-recommended colours and symbols should be used to represent system database information.[5]

[5] IHO Publication S-52 - Specifications for Chart Content and Display Aspects of ECDIS and S-101 – Portrayal Catalogue (see appendix 1) and S-98.

**9.2** The colours and symbols other than those mentioned in 9.1 should comply with the applicable requirements contained in the IMO standards for navigational symbols.[6]

**9.3** ECDIS should allow the mariner to select whether own ship is displayed in true scale or as a symbol.

## 10 DISPLAY REQUIREMENTS

**10.1** ECDIS should be capable of displaying information for:

.1 route planning and supplementary navigation tasks; and

.2 route monitoring.

**10.2** The effective size of the chart presentation for route monitoring should be at least 270 mm x 270 mm.

**10.3** The display should be capable of meeting the colour and resolution recommendations of IHO.[5]

**10.4** The method of presentation should ensure that the displayed information is clearly visible to more than one observer in the conditions of light normally experienced on the bridge of the ship by day and by night.

**10.5** If information categories included in the standard display (see appendix 2) are removed to customize the display, this should be permanently indicated. Identification of categories which are removed from the standard display should be shown on demand.

## 11 ROUTE PLANNING, MONITORING AND VOYAGE RECORDING

**11.1** It should be possible to carry out route planning, route monitoring in a simple and reliable manner.

**11.2** The largest scale data available in the system database for the area given should always be used by the ECDIS for all alerts or indications of crossing the ship's safety contour and of entering a prohibited area, and for alerts and indications according to appendix 5.

### 11.3 Route planning

**11.3.1** It should be possible to carry out route planning including both straight and curved segments.

**11.3.2** It should be possible to adjust a planned route alphanumerically and graphically including:

.1 adding waypoints to a route;

.2 deleting waypoints from a route; and

.3 changing the position of a waypoint.

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6 SN.1/Circ.243/Rev.2.

5 IHO Publication S-52 - Specifications for Chart Content and Display Aspects of ECDIS and S-101 – Portrayal Catalogue (see appendix 1) and S-98.

**11.3.3** It should be possible to plan one or more alternative routes in addition to the selected route. The selected route should be clearly distinguishable from the other routes.

**11.3.4** A graphical indication is required if the mariner plans a route closer than a user-specified distance from own ship's safety contour.

**11.3.5** A graphical indication should be given if the mariner plans a route closer than a user-specified distance from the boundary of a user-selectable category of prohibited area or geographic area for which special conditions exist (see appendix 4). A graphical indication should also be given if the mariner plans a route closer than a user-specified distance from a user-selectable category of point objects, such as a fixed or floating aid to navigation or isolated danger. The user-selectable categories should be the same as the user selections for the display of objects and be based on IHO standards. There should be a permanent indication when any user-selectable categories are deselected. Details of the deselection should be available on demand.

**11.3.6** It should be possible for the mariner to select that the indications of 11.3.4 and 11.3.5 take into account accuracy information of relevant hydrographic information, as defined by IHO standards.

**11.3.7** It should also be possible to perform a complete route check to support the appraisal and planning process according to the applicable parts of resolution A.893(21). Detected objects should be available for review in graphical form and, on demand, in textual form.

**11.3.8** It should be possible for the mariner to specify a cross track limit of deviation from the planned route at which an automatic off-track alarm should be activated.

### 11.4 Route monitoring

**11.4.1** For route monitoring the selected route and own ship's position should appear whenever the display covers that area.

**11.4.2** It should be possible to display a sea area that does not have the ship on the display (e.g. for look ahead, route planning), while route monitoring. If this is done on the display used for route monitoring, the automatic route monitoring functions (e.g. updating ship's position, and providing alerts and indications) should be continuous. It should be possible to return to the route monitoring display covering own ship's position immediately by single operator action.

**11.4.3** It should be possible to select that ECDIS gives an alarm and related graphical indication if, within a specified time or distance set by the mariner, own ship will pass closer than a user-selected distance from the safety contour. There should be a permanent indication when the safety contour alarm is deselected.

**11.4.4** ECDIS should give a warning or caution, or indication, as selected by the mariner, and related graphical indication if, within a specified time or distance set by the mariner, own ship will pass closer than a user-selected distance from the boundary of a user-selectable category of prohibited area or of a geographical area for which special conditions exist (see appendix 4). The user-selectable categories should be the same as user selections for the display of objects and be based on IHO standards. There should be a permanent indication when any user-selectable categories are deselected. Details of the deselection should be available on demand.

**11.4.5** An alarm should be given when the specified cross track limit for deviation from the selected route, if defined by the mariner when route planning, is exceeded.

**11.4.6** ECDIS should give a warning or caution or indication as selected by the mariner and related graphical indication if, continuing on its present course and speed, over a specified time or distance set by the mariner, own ship will pass closer than a user-specified distance from a user-selectable category of danger (e.g. obstruction, wreck, rock) that is shallower than the mariner's safety contour or a user-selectable category of aid to navigation. The user-selectable categories should be the same as user selections for the display of objects and be based on IHO standards. There should be a permanent indication when any of the user-selectable categories are deselected. Details of the deselection should be available on demand.

**11.4.7** A graphical indication should be given if the current or the next leg of the selected route passes closer than a user-specified distance from the safety contour.

**11.4.8** A graphical indication should be given if the current or the next leg of the selected route goes closer than a user-specified distance from the boundary of a user-selectable category of prohibited area or a geographic area for which special conditions exist (see appendix 4). A graphical indication should also be given if the selected route goes closer than a user-specified distance from a user-selectable category of point objects, such as a fixed or floating aid to navigation or isolated danger. The user-selectable categories should be the same as user selections for the display of objects and be based on IHO standards.

**11.4.9** It should be possible for the mariner to select that the indications of 11.4.3, 11.4.4, 11.4.6, 11.4.7 and 11.4.8 take into account accuracy information of relevant hydrographic information, as defined by IHO standards.

**11.4.10** The ship's position should be derived from a continuous positioning system of an accuracy consistent with the requirements of safe navigation. Whenever possible, a second independent positioning source, preferably of a different type, should be provided. In such cases, ECDIS should be capable of identifying discrepancies between the two sources.

**11.4.11** ECDIS should provide a warning when the input from position, heading or speed sources is lost. ECDIS should also repeat, but only as an indication, any alerts or indication passed to it from position, heading or speed sources.

**11.4.12** A warning should be given by ECDIS when the ship reaches a specified time or distance, set by the mariner, in advance of a critical point on the planned route.

**11.4.13** The positioning system and the system database should be on the same geodetic datum. ECDIS should give a warning if this is not the case.

**11.4.14** It should be possible to display alternative routes in addition to the selected route. The selected route should be clearly distinguishable from the other routes. During the voyage, it should be possible for the mariner to modify the selected route or change to an alternative route.

**11.4.15** It should be possible to display:

.1 time labels along a ship's track manually on demand and automatically at intervals selected between 1 and 120 minutes; and

.2 an adequate number of points, free movable electronic bearing lines, variable and fixed range markers and other symbols required for navigation purposes and specified in appendix 3.

**11.4.16** It should be possible to enter the geographical coordinates of any position and then display that position on demand. Also, it should be possible to select any point (features, symbol or position) on the display and read its geographical coordinates on demand.

**11.4.17** It should be possible to adjust the displayed geographic position of the ship manually. This manual adjustment should be indicated alphanumerically on the screen, maintained until altered by the mariner and automatically recorded.

**11.4.18** ECDIS should provide the capability to enter and plot manually obtained bearing and distance lines of position (LOP), and calculate the resulting position of own ship. It should be possible to use the resulting position as an origin for dead reckoning.

**11.4.19** ECDIS should indicate discrepancies between the positions obtained by continuous positioning systems and positions obtained by manual observations.

### 11.5 Voyage recording

**11.5.1** ECDIS should store and be able to reproduce certain minimum elements required to reconstruct the navigation and verify the official database used during the previous 12 hours. The following data should be recorded at one minute intervals:

.1 to ensure a record of own ship's past track: time, position, heading, and speed;

.2 to ensure a record of official data used: ENC source, edition, date, cell and update history~~.~~; and

.3 any changes in safety contour, look ahead and route monitoring alert settings.

**11.5.2** ECDIS should output the information listed in 11.5.1.2 and 11.5.1.3 to a voyage data recorder

**11.5.3** In addition, ECDIS should record the complete track for the entire voyage, with time marks at intervals not exceeding 4 hours.

**11.5.4** It should not be possible to manipulate or change the recorded information.

**11.5.5** ECDIS should have a capability to preserve the record of the previous 12 hours and the voyage track.

## 12 CALCULATIONS AND ACCURACY

**12.1** The accuracy of all calculations performed by ECDIS should be independent of the characteristics of the output device and should be consistent with the system database accuracy.

**12.2** Bearings and distances drawn on the display or those measured between features already drawn on the display should have accuracy no less than that afforded by the resolution of the display.

**12.3** The system should be capable of performing and presenting the results of at least the following calculations:

.1 true distance and azimuth between two geographical positions;

.2 geographic position from known position and distance/azimuth; and

.3 geodetic calculations such as spheroidal distance, rhumb line and great circle.

## 13 PERFORMANCE TESTS, MALFUNCTIONS ALERTS AND INDICATIONS

**13.1** ECDIS should be provided with means for either automatically or manually carrying out onboard tests of major functions. In case of a failure, the test should display information to indicate which module is at fault.

**13.2** ECDIS should provide a suitable warning or indication of system malfunction.

## 14 BACKUP ARRANGEMENTS

Adequate backup arrangements should be provided to ensure safe navigation in case of an ECDIS failure; see appendix 6.

.1 Facilities enabling a safe takeover of the ECDIS functions should be provided in order to ensure that an ECDIS failure does not develop into a critical situation.

.2 A backup arrangement should provide means of safe navigation for the remaining part of a voyage in the case of an ECDIS failure.

## MODULE C – INTERFACING AND INTEGRATION

## 15 CONNECTIONS WITH OTHER EQUIPMENT[7]

**15.1** ECDIS should not degrade the performance of any equipment providing sensor inputs. Nor should the connection of optional equipment degrade the performance of ECDIS below this standard.

**15.2** ECDIS should be connected to the ship's position fixing system, to the gyro compass and the speed and distance measuring device. For ships not fitted with a gyro compass, ECDIS should be connected to a marine transmitting heading device.

**15.3** ECDIS may provide a means to supply system database information to external equipment.

## 16 POWER SUPPLY

**16.1** It should be possible to operate ECDIS and all equipment necessary for its normal functioning when supplied by an emergency source of electrical power in accordance with the appropriate requirements of SOLAS chapter II-1.

**16.2** Changing from one source of power supply to another or any interruption of the supply for a period of up to 45 seconds should not require the equipment to be manually re-initialized.

[7] Publication IEC 61162.

## APPENDIX 1

## REFERENCE DOCUMENTS

The following international organizations have developed technical standards and specifications, as listed below, for use in conjunction with this standard. The latest edition of these documents should be obtained from the organization concerned:

### INTERNATIONAL MARITIME ORGANIZATION (IMO)

Address: International Maritime Organization
4 Albert Embankment
London SE1 7SR
United Kingdom

Phone: +44 207 735 76 11
Fax: +44 207 587 32 10
Email: info@imo.org
Web: http://www.imo.org

**Publications**

Resolution MSC.191(79), as amended by resolution MSC.466(101), on *Performance standards for the presentation of navigation-related information on shipborne navigational displays*

Resolution A.694(17) on *Recommendations on general requirements for shipborne radio equipment forming part of the Global Maritime Distress and Safety System (GMDSS) and for electronic navigational aids*

Resolution MSC.302(87) on *Performance standards for bridge alert management*

SN.1/Circ.207 on *Differences between RCDS and ECDIS*

SN.1/Circ.243/Rev.2 on *Guidelines for the presentation of navigation-related symbols, terms and abbreviations*

MSC/Circ.982 on *Guidelines on ergonomic criteria for bridge equipment and layout*

### INTERNATIONAL HYDROGRAPHIC ORGANIZATION (IHO)

Address: Directing Committee
International Hydrographic Organization
BP 445
MC 98011 Monaco Cedex
Principality of Monaco

Phone: +377 93 10 81 00
Fax: +377 93 10 81 40
Email: info@iho.int
Web: http://www.iho.int

**Publications**

IHO Publication S-52, Specifications for Chart Content and Display Aspects of ECDIS

IHO Publication S-52 appendix 1, Guidance on Updating the Electronic Navigational Chart

IHO Publication S-52 appendix 2, Colour and Symbol Specifications for ECDIS

IHO Publication S-32, Hydrographic Dictionary

IHO Publication S-57, IHO Transfer Standard for Digital Hydrographic Data

IHO Publication S-100, IHO Universal Hydrographic Data Model

IHO Publication S-101 – ENC Product Specification

IHO Publication S-98 – Data Product Interoperability in S-100 Navigation Systems

IHO Publication S-61, IHO Product specification for Raster Navigational Charts (RNC)

IHO Publication S-63, IHO Data Protection Scheme

IHO Publication M-3, Resolutions of the IHO

https://iho.int/en/standards-in-force

**INTERNATIONAL ELECTROTECHNICAL COMMISSION (IEC)**

Address: IEC Central Office
3 rue de Varembe
PO Box 131
CH-1211 Geneva 20
Switzerland

Phone: +41 22 734 01 /50
Fax: +41 22 733 38 43

**Publications**

IEC Publication 61174, Electronic Chart Display and Information Systems (ECDIS) - Operational and Performance Requirements, Method of Testing and Required Test Results.

IEC Publication 60945, General Requirements for Shipborne Radio Equipment Forming Part of the Global Maritime Distress and Safety System and Marine Navigational Equipment.

IEC Publication 61162, *Digital Interfaces – Navigation and Radiocommunication Equipment On board Ship*.

IEC Publication 62288, Maritime Navigation and Radiocommunication Equipment and Systems – Presentation of navigation-related information – General requirements, methods of test and required test results.

## APPENDIX 2

## SYSTEM DATABASE INFORMATION AVAILABLE FOR DISPLAY DURING ROUTE PLANNING AND ROUTE MONITORING

**1** Display base to be permanently shown on the ECDIS display, consisting of:

.1 coastline (high water);

.2 own ship's safety contour;

.3 isolated underwater dangers of depths less than the safety contour which lie within the safe waters defined by the safety contour;

.4 isolated dangers which lie within the safe water defined by the safety contour, such as fixed structures, overhead wires, etc.;

.5 scale, range and north arrow;

.6 units of depth and height; and

.7 display mode.

**2** Standard display consisting of:

.1 display base;

.2 drying line;

.3 buoys, beacons, other aids to navigation and fixed structures;

.4 boundaries of fairways, channels, etc.;

.5 visual and radar conspicuous features;

.6 prohibited and restricted areas;

.7 chart scale boundaries;

.8 indication of cautionary notes;

.9 ships' routeing systems and ferry routes; and

.10 archipelagic sea lanes.

**3** All other information, to be displayed individually on demand, for example:

.1 spot soundings;

.2 submarine cables and pipelines;

.3 details of all isolated dangers;

.4 details of aids to navigation;

.5 contents of cautionary notes;

.6 ENC edition date;

.7 most recent chart update number;

.8 magnetic variation;

.9 graticule; and

.10 place names.

## APPENDIX 3

## NAVIGATIONAL ELEMENTS AND PARAMETERS

**1** Own ship.

.1 Past track with time marks for primary track.

.2 Past track with time marks for secondary track.

**2** Vector for course and speed made good.

**3** Variable range marker and/or electronic bearing line.

**4** Cursor.

**5** Event.

.1 Dead reckoning position and time (DR).

.2 Estimated position and time (EP).

**6** Fix and time.

**7** Position line and time.

**8** Transferred position line and time.

**9** Tidal data

.1 Predicted tidal stream or current vector with effective time and strength.

.2 Calculated tidal stream or current vector with effective time and strength.

**10** Danger highlight.

**11** Clearing line.

**12** Planned course and speed to make good.

**13** Waypoint.

**14** Distance to run.

**15** Planned position with date and time.

**16** Position and time of "wheel over".

## APPENDIX 4

## AREAS FOR WHICH SPECIAL CONDITIONS EXIST

The following are the areas which ECDIS should detect and provide an alert or indication under sections 11.3.7 and 11.4.4:

Traffic separation zone

Inshore traffic zone

Restricted area

Caution area

Offshore production area

Areas to be avoided

User defined areas to be avoided

Military practice area

Seaplane landing area

Submarine transit lane

Anchorage area

Marine farm/aquaculture

Particularly sensitive sea area (PSSA)

## APPENDIX 5

## ALERTS AND INDICATORS

| Section | Requirements | Information |
|---|---|---|
| 11.4.3 | Alarm | Pass closer than set distance from the safety contour |
| 11.4.4 | Warning or Caution, or Indication | Pass closer than set distance from an area with special conditions |
| 11.4.5 | Alarm | Deviation from route |
| 11.4.6 | Warning or Caution, or Indication | Pass closer than set distance from a danger in route monitoring mode |
| 11.4.11 | Warning | Positioning system failure |
| 11.4.12 | Warning | Approach to critical point |
| 11.4.13 | Warning | Different geodetic datum |
| 13.2 | Warning or Indication | Malfunction of ECDIS |
| 5.8.3 | Indication | Default safety contour |
| 6.1.1 | Indication | Information overscale |
| 6.1.2 | Indication | Larger scale ENC available |
| 6.1.3 | Indication | Information not displayed due to scale minimum |
| 7.3 | Indication | Different reference system |
| 8.5 | Indication | No ENC available |
| 10.5 | Indication | Customized display |
| 11.3 6 | Indication | Route planning closer than set distance from the safety contour |
| 11.3.7 | Indication | Route planning closer than set distance specified area |
| 11.4.7 | Indication | Monitored route pass closer than set distance from the safety contour |
| 11.4.8 | Indication | Monitored route pass closer than set distance from a specified area or danger |
| 13.1 | Indication | System test failure |

In this Performance Standard the definitions of Indicators and Alerts provided in resolution A.1021(26) *Code on Alerts and Indicators, 2009* and resolution MSC.302(87) *Performance standards for bridge alert management* apply.

**Alert:** Audible and/or visual announcement of a condition requiring attention. Priorities of alert are alarm, warning and caution.

**Indication:** Visual indication giving information about the condition of a system or equipment.

## APPENDIX 6

## BACKUP REQUIREMENTS

### 1 INTRODUCTION

As prescribed in section 14 of this performance standard, adequate independent backup arrangements should be provided to ensure safe navigation in case of ECDIS failure. Such arrangements include:

.1 facilities enabling a safe takeover of the ECDIS functions in order to ensure that an ECDIS failure does not result in a critical situation; and

.2 a means to provide for safe navigation for the remaining part of the voyage in case of ECDIS failure.

### 2 PURPOSE

The purpose of an ECDIS backup system is to ensure that safe navigation is not compromised in the event of ECDIS failure. This should include a timely transfer to the backup system during critical navigation situations. The backup system should allow ships to be navigated safely until the termination of the voyage.

### 3 FUNCTIONAL REQUIREMENTS

#### 3.1 Required functions and their availability

##### 3.1.1 Presentation of chart information

The backup system should display in graphical (chart) form the relevant information of the hydrographic and geographic environment which are necessary for safe navigation.

##### 3.1.2 Route planning

The backup system should be capable of performing the route planning functions, including:

.1 taking over of the route plan originally performed on the ECDIS; and

.2 adjusting a planned route manually or by transfer from a route planning device.

##### 3.1.3 Route monitoring

The backup system should enable a takeover of the route monitoring originally performed by the ECDIS, and provide at least the following functions:

.1 plotting own ship's position automatically, or manually on a chart;

.2 taking courses, distances and bearings from the chart;

.3 displaying the planned route;

.4 displaying time labels along ship's track; and

.5 plotting an adequate number of points, bearing lines, range markers, etc. on the chart.

### 3.1.4 Display information

If the backup is an electronic device, it should be capable of displaying at least the information equivalent to the standard display as defined in this performance standard.

### 3.1.5 Provision of chart information

.1 The chart information to be used in the backup arrangement should be the latest edition, as corrected by official updates, of that issued by or on the authority of a government, authorized hydrographic office or other relevant government institution, and conform to IHO standards.

.2 It should not be possible to alter the contents of the electronic chart information.

.3 The chart or chart data edition and issuing date should be indicated.

### 3.1.6 Updating

The information displayed by the ECDIS backup arrangements should be up to date for the entire voyage.

### 3.1.7 Scale

If an electronic device is used, it should provide an indication:

.1 if the information is displayed at a larger scale than that contained in the database; and

.2 if own ship's position is covered by a chart at a larger scale than that provided by the system.

**3.1.8** If radar and other navigational information are added to an electronic backup display, all the corresponding requirements for radar information and other navigation information of this performance standard should be met.

**3.1.9** If an electronic device is used, the display mode and generation of the neighbouring area should be in accordance with section 8 of this performance standard.

### 3.1.10 Voyage recording

The backup arrangements should be able to keep a record of the ship's actual track, including positions and corresponding times.

## 3.2 Reliability and accuracy

### 3.2.1 Reliability

The backup arrangements should provide reliable operation under prevailing environmental and normal operating conditions.

### 3.2.2 Accuracy

Accuracy should be in accordance with section 12 of this performance standard.

### 3.3 Malfunctions, alerts and indications

If an electronic device is used, it should provide a suitable warning or indication of system malfunction.

## 4 OPERATIONAL REQUIREMENTS

### 4.1 Ergonomics

If an electronic device is used, it should be designed in accordance with the ergonomic principles of ECDIS.

### 4.2 Presentation of information

If an electronic device is used:

.1 colours and symbols should be in accordance with the colours and symbols requirements of ECDIS; and

.2 the effective size of the chart presentation should be not less than 270 mm x 270 mm or 270 mm diameter.

## 5 POWER SUPPLY

If an electronic device is used:

.1 the backup power supply should be separate from the ECDIS; and

.2 it should conform to the requirements in this ECDIS performance standard.

## 6 CONNECTIONS WITH OTHER EQUIPMENT

**6.1** If an electronic device is used, it should:

.1 be connected to the ship's position fixing system, to the gyro compass and to the speed and distance measuring device. For ships not fitted with a gyro compass, ECDIS should be connected to a marine transmitting heading device; and

.2 not degrade the performance of any equipment providing sensor input.

**6.2** If radar with selected parts of the ENC chart information overlay is used as an element of the backup, the radar should comply with resolution MSC.192(79).

## APPENDIX 7

## RCDS MODE OF OPERATION

Whenever in this appendix reference is made to any provisions of the annex related to ECDIS, the term ECDIS should be substituted by the term RCDS, system database by SRNC and ENC by RNC, as appropriate.

This appendix refers to each paragraph of the performance standards for ECDIS (i.e. the annex to which this part is appendix 7) and specifies which paragraphs of the annex either:

.1 apply to RCDS; or

.2 do not apply to RCDS; or

.3 are modified or replaced as shown in order to apply to RCDS.

Any additional requirements applicable to RCDS are also described.

### 1 SCOPE

**1.1** Paragraph applies to RCDS.

**1.2** When operating in RCDS mode, an appropriate portfolio of up-to-date paper charts (APC) should be carried on board and be readily available to the mariner.

**1.3 - 1.6** Paragraphs apply to RCDS.

**1.7** RCDS should provide appropriate alerts or indications with respect to the information displayed or malfunction of the equipment (see table 1 of this appendix).

**1.8** Refers to appendix 7 and applies to RCDS.

### 2 APPLICATION OF THESE STANDARDS

**2.1 - 2.4** Paragraphs apply to RCDS.

### 3 DEFINITIONS

**3.1** *Raster chart display system* (RCDS) means a navigation information system displaying RNCs with positional information from navigation sensors to assist the mariner in route planning and route monitoring, and if required, display additional navigation-related information.

**3.2** *Raster navigational chart* (RNC) means a facsimile of a paper chart originated by, or distributed on the authority of, a government-authorized hydrographic office. RNC is used in these standards to mean either a single chart or a collection of charts.

**3.3** Paragraph does not apply to RCDS.

**3.4** *System raster navigational chart database* (SRNC) means a database resulting from the transformation of the RNC by the RCDS to include updates to the RNC by appropriate means.

**3.5 - 3.6** Paragraphs do not apply to RCDS.

**3.7** Paragraph applies to RCDS.

**3.8** Appropriate portfolio of up-to-date paper charts (APC) means a suite of paper charts of a scale to show sufficient detail of topography, depths, navigational hazards, aids to navigation, charted routes and routeing measures to provide the mariner with information on the overall navigational environment. The APC should provide adequate look ahead capability. Coastal States will provide details of the charts which meet the requirement of this portfolio, and these details are included in a worldwide database maintained by the IHO. Consideration should be given to the details contained in this database when determining the content of the APC.

**MODULE A – DATABASE**

**4 PROVISION AND UPDATING OF CHART INFORMATION**

**4.1** The RNC used in RCDS should be the latest edition of that originated by, or distributed on the authority of, a government-authorized hydrographic office and conform to IHO standards. RNCs not on WGS 84 or PE-90 should carry metadata (i.e. additional data) to allow geo-referenced positional data to be displayed in the correct relationship to SRNC data.

**4.2** The contents of the SRNC should be adequate and up to date for that part of the intended voyage not covered by ENC.

**4.3** It should not be possible to alter the contents of the RNC.

**4.4 - 4.7** All paragraphs apply to RCDS.

**4.8** Paragraph does not apply to RCDS.

**MODULE B – OPERATIONAL AND FUNCTIONAL REQUIREMENTS**

**5 DISPLAY OF SRNC INFORMATION**

**5.1** RCDS should be capable of displaying all SRNC information.

**5.2** SRNC information available for display during route planning and route monitoring should be subdivided into two categories:

.1 the RCDS standard display consisting of RNC and its updates, including its scale, the scale at which it is displayed, its horizontal datum, and its units of depths and heights; and

.2 any other information such as mariner's notes.

**5.3 - 5.4** Paragraphs apply to RCDS.

**5.5** It should be easy to add to, or remove from, the RCDS display any information additional to the RNC data, such as mariner's notes. It should not be possible to remove any information from the RNC.

**5.6 - 5.10** Paragraphs do not apply to RCDS.

**5.11** Paragraph applies to RCDS.

**5.12** RCDS should provide a means to ensure that the RNC and all updates to it have been correctly loaded into the system RNC.

**5.13** The RNC and all updates to it should be clearly distinguishable from other displayed information, including those listed in appendix 3.

**5.14** There should always be an indication if the ECDIS equipment is operating in RCDS mode.

## 6 SCALE

This section applies to RCDS.

## 7 DISPLAY OF OTHER NAVIGATIONAL INFORMATION

**7.1- 7.4** All paragraphs apply to RCDS.

## 8 DISPLAY MODE AND GENERATION OF THE NEIGHBOURING AREA

**8.1** It should always be possible to display the SRNC in "chart-up" orientation. Other orientations are permitted.

**8.2 - 8.4** All paragraphs apply to RCDS.

**8.5** Paragraph refers to RCDS mode of operation.

## 9 COLOURS AND SYMBOLS

**9.1** IHO recommended colours and symbols should be used to represent SRNC information.

**9.2** Paragraph applies to RCDS.

**9.3** Paragraph applies to RCDS.

## 10 DISPLAY REQUIREMENTS

**10.1 - 10.2** Paragraphs apply to RCDS.

**10.3** Paragraph does not apply to RCDS.

**10.4** Paragraph applies to RCDS.

**10.5** Paragraph does not apply to RCDS.

**10.6** RCDS should be capable of displaying, simply and quickly, chart notes which are not located on the portion of the chart currently being displayed.

## 11 ROUTE PLANNING, MONITORING AND VOYAGE RECORDING

**11.1** Paragraphs apply to RCDS.

**11.2** Paragraph does not apply to RCDS.

### 11.3 Route planning

**11.3.1-11.3.3** Paragraphs apply to RCDS.

**11.3.4-11.3.7** Paragraphs do not apply to RCDS.

**11.3.8** Paragraph applies to RCDS.

### 11.4 Route monitoring

**11.4.1** Paragraph applies to RCDS.

**11.4.2** It should be possible to display a sea area that does not have the ship on the display (e.g. for look ahead, route planning), while route monitoring. If this is done on the display used for route monitoring, the automatic route monitoring functions in 11.4.11 and 11.4.12 should be continuous. It should be possible to return to the route monitoring display covering own ship's position immediately by single operator action.

**11.4.3-11.4.4** Paragraphs do not apply to RCDS.

**11.4.5** Paragraph applies to RCDS.

**11.4.6-11.4.9** Paragraphs do not apply to RCDS.

**11.4.10-11.4.12** Paragraphs apply to RCDS.

**11.4.13** The RCDS should only accept positional data referenced to the WGS 84 or PE-90 geodetic datum. RCDS should give a warning if the positional data is not referenced to one of these datum. If the displayed RNC cannot be referenced to the WGS 84 or PE-90 datum then a continuous indication should be provided.

**11.4.14-11.4.18** Paragraphs apply to RCDS.

**11.4.20** RCDS should allow the user to manually align the SRNC with positional data. This can be necessary, for example, to compensate for local charting errors.

**11.4.21** It should be possible to activate an automatic warning when the ship crosses a point or line, or is within the boundary of a mariner entered feature within a specified time or distance.

### 11.5 Voyage recording

**11.5.1-11.5.4** All paragraphs apply to RCDS.

## 12 CALCULATIONS AND ACCURACY

**12.1-12.3** All paragraphs apply to RCDS.

**12.4** RCDS should be capable of performing transformations between a local datum and WGS 84 datum.

## 13 PERFORMANCE TESTS, MALFUNCTION ALARMS AND INDICATIONS

**13.1-13.2** All paragraphs apply to RCDS.

## 14 BACKUP ARRANGEMENTS

All paragraphs apply to RCDS.

## MODULE C – INTERFACING AND INTEGRATION

## 15 CONNECTIONS WITH OTHER EQUIPMENT

**15.1-15.3** All paragraphs apply to RCDS.

## 16 POWER SUPPLY

**16.1-16.2** All paragraphs apply to RCDS

**Table 1**

**ALERTS AND INDICATORS IN THE RCDS MODE OF OPERATION**

| Paragraph | Requirement | Information |
|---|---|---|
| 11.4.5 | Alarm | Deviation from route |
| 11.4.21 | Warning | Approach to mariner entered feature, e.g. area, line |
| 11.4.11 | Warning | Position system failure |
| 11.4.12 | Warning | Approach to critical point |
| 11.4.13 | Warning or indication | Different geodetic datum |
| 13.2 | Warning or indication | Malfunction of RCDS mode |
| 5.13 | Indication | ECDIS operating in the raster mode |
| 6.1 | Indication | Larger scale information available, or overscale |
| 6.1.2 | Indication | Larger scale RNC available for the area of the ship |

**Note**: The definitions of alerts and indicators are given in appendix 5.

***

**ANNEX 23**

**DRAFT AMENDMENTS TO THE 1978 SOLAS PROTOCOL**

**ANNEX**

**MODIFICATIONS AND ADDITIONS TO THE ANNEX TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974**

**APPENDIX**

***FORM OF SAFETY EQUIPMENT CERTIFICATE FOR CARGO SHIPS***

**Particulars of ship**

The following new entry is added after "Gas carrier": "Container ship"

***

# ANNEX 24

## DRAFT AMENDMENTS TO THE 1988 SOLAS PROTOCOL

## ANNEX

## MODIFICATIONS AND ADDITIONS TO THE ANNEX TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974

## APPENDIX

## FORM OF SAFETY EQUIPMENT CERTIFICATE FOR CARGO SHIPS

**Particulars of ship**

1 The following new type of ship is added after "Gas carrier":

"Container ship"

## FORM OF SAFETY CERTIFICATE FOR CARGO SHIPS

**Particulars of ship**

2 The following new type of ship is added after "Gas carrier":

"Container ship"

***

# ANNEX 25

# PROCEDURE FOR IDENTIFYING AND FORWARDING SAFETY ISSUES

## OBJECTIVE

1 The primary objective of this procedure is to provide guidance to the analyst on identifying safety issues in Marine Safety Investigations Reports and on how to enable the III Sub-Committee to bring them forward within the Organization in the most convenient way to improve maritime safety and protection of the marine environment.

## DEFINITIONS

2 For the purpose of this document, the following definitions apply:

.1 "safety issue" is defined as an issue that encompasses one or more contributing factor(s) and/or other unsafe condition(s);

.2 "severe consequence" is defined as a single fatality or multiple serious injuries, severe material damage or severe damage to the environment; and

.3 "catastrophic consequence" is defined as multiple fatalities, total loss or catastrophic damage to environment.

3 For terms not defined in this document, see chapter 2 of the Code of the International Standards and Recommended Practices for a Safety Investigation into a Marine Casualty or Marine Incident (Casualty Investigation Code) (resolution MSC.255(84)), as amended, and *Guidelines to assist investigators in the implementation of the Casualty Investigation Code* (resolution A.1075(28)), as may be amended.

## PROCEDURE FOR IDENTIFYING SAFETY ISSUES

4 The *Guidelines to assist investigators in the implementation of the Casualty Investigation Code* (resolution MSC.255(84)), as adopted by resolution A.1075(28), advise that an analysis of a marine casualty or marine incident should support:

.1 reconstruction of the marine casualty or marine incident as a sequence of events;

.2 identification of linked accident events and contributing factors at all appropriate levels; and

.3 safety analysis and development of recommendations.

5 The identified accident events and contributing factors underpinning a marine casualty or marine incident are hazards.

6 An analyst should identify those hazards that present a safety issue that had or will have either severe or catastrophic consequences, is likely to happen again if not addressed, and where the concern is not recognized in the existing provision. While doing so, the analyst can consider (but not be limited to) the following list of significant factors and take guidance from appendix 4 of *Revised guidelines for Formal Safety Assessment (FSA) for use in the IMO rule-making process* (MSC-MEPC.2/Circ.12/Rev.2), which provides an example of one way of defining frequency and consequence categories, as well as possible ways of establishing risk levels for ranking purposes.

**Persons**

.1 How many persons could be affected by the hazard?

.2 How many operating or maintenance personnel are following or are subject to the practices or procedures in question?

**Property**

.3 What could the extent of damage be to the vessel, equipment or property?

.4 How many pieces of equipment are there that might have similar defects?

**Environment**

.5 What could be the environmental impact?

7 The analyst will have ready access to all marine safety investigation reports submitted to the Organization and to all data submitted to the GISIS Marine Casualties and Incidents (MCI) modules.

8 Recognizing that not all marine safety investigation reports will be submitted to the GISIS MCI modules, the use of other reliable resources to help evaluate any potential safety deficiencies is encouraged.

9 The appointed analyst will bring the identified safety issue(s) to the attention of the Correspondence Group. Depending on the extent of the identified safety issue, the Correspondence Group Coordinator may appoint an analyst to assist with the coordination of the identified safety issue.

10 The Correspondence Group, under the coordination of the Correspondence Group Coordinator, will make a proposal on whether and how to forward the safety issue within the Organization in the most appropriate way. While doing so, the Correspondence Group Coordinator can consider (but not be limited to) the following list of organizational factors:

.1 Is the subject addressed by the proposal considered to be within the scope of the mission of IMO?

.2 Has the safety issue previously been identified but not forwarded or addressed?

.3 Are the benefits (e.g. enhanced maritime safety, protection of the marine environment, or facilitation of maritime traffic) that are expected to be derived from the inclusion of the proposed output clearly stated?

.4 Do adequate industry standards exist or are they being developed?

.5 Would a decision to reject or postpone the commencement of the work in relation to the proposal pose an unreasonable risk to the Organization's overall mission?

**PROCEDURE FOR FORWARDING SAFETY ISSUES**

11 The Correspondence Group Coordinator will ask the Secretariat to determine if there is a related existing output and if the identified safety issue is included in the scope of that output.

12 If there is an existing output and the safety issue is within its scope, the III Sub-Committee should be invited to consider forwarding the safety issue to the relevant Sub-Committee for their consideration.

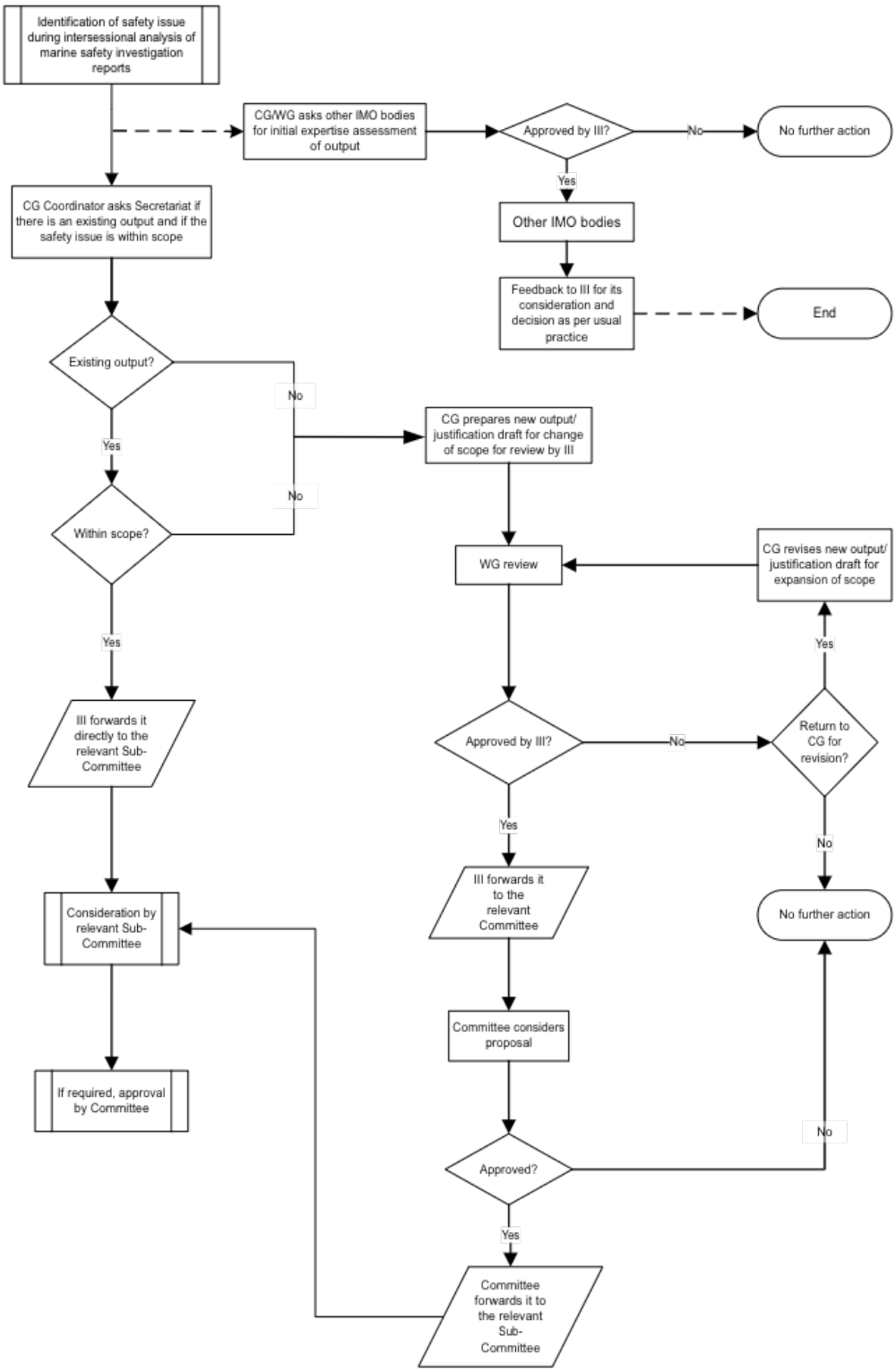
13 If there is no existing output, or the identified safety issue is not included in the scope of that output, the III Sub-Committee should be invited to consider drafting a proposed new output or justification for a change of scope for forwarding to the relevant Committee in accordance with the provisions of *Organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (MSC-MEPC.1/Circ.5/Rev.3). The Correspondence Group should prepare any other information (e.g. casualty reports containing the safety issue, and relevant information) to support the proposed new output or justification for the change of scope and provide this to the III Sub-Committee.

14 If the Correspondence Group or the Working Group, if established, for any reason cannot decide whether the safety issue is relevant for an output or not (e.g. by not having the technical expertise in the matter concerned), the safety issue could be escalated to the attention of other IMO bodies for their initial expertise assessment. If so, the wording of what is expected from the other bodies should be carefully considered so as not to allow any misunderstanding.

15 The flow chart set out in the appendix, based on MSC-MEPC.1/Circ.5/Rev.3, should be used as guidance in the consideration of forwarding safety issues.

## APPENDIX

## FLOW CHART IN THE CONSIDERATION OF FORWARDING SAFETY ISSUES

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**ANNEX 26**

**AMENDMENTS* TO THE ORGANIZATION AND METHOD OF WORK OF THE MARITIME SAFETY COMMITTEE AND THE MARINE ENVIRONMENT PROTECTION COMMITTEE AND THEIR SUBSIDIARY BODIES (MSC-MEPC.1/CIRC.5/REV.3)**

## 4 WORK PLANNING AND DELIVERY PROCESS

…

**Preparation of the Committee or subsidiary body's report**

4.37 After consideration of the draft report of the committee or subsidiary body, the Secretariat should prepare the final draft report for publication on IMODOCS. Delegations will have five working days from publication of the final draft report to comment by correspondence. Comments should only address editorial corrections and improvements, including finalizing individual statements, and should not reopen discussion on decisions taken during the session.

4.38 The Chair, supported by the Secretariat, will facilitate resolution of any comments received, as necessary. After the conclusion of the five-day correspondence period, the Secretariat, in consultation with the Chair, will publish a document on IMODOCS containing the comments received, together with an explanation of how they have been addressed. After the above document has been published, the final report will be prepared in due course for publication on IMODOCS.

…

The following paragraphs to be renumbered.

## 6 PROCEDURES FOR PREPARATION AND SUBMISSION OF DOCUMENTS

…

6.3 A ~~D~~documents ~~made available at IMO 13 weeks or more before a session~~ should not be introduced in the plenary unless the Chair decides that this is essential for the proper consideration of the matter concerned. ~~Information documents and documents requiring no action by the Committees or their subsidiary bodies other than for their contents to be noted should not be introduced in the plenary.~~ The submitter(s) of a document may indicate before or at the time the document is considered if they have additional information or context required for the discussions, in order for the Chair to prioritize interventions.

…

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* Track changes were created using "strikeout" for deleted text and "grey shading" to highlight all modifications and new insertions, including deleted text.

**ANNEX 27**

**BIENNIAL STATUS REPORTS* OF THE SUB-COMMITTEES**

**2022-2023 BIENNIUM**

| Sub-Committee on Carriage of Cargoes and Containers (CCC) | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Year 2 | References |
| 1. Improve implementation | 1.17 (New) | Review of IGC Code | 2023 | MSC | CCC | | In progress | | MSC 103/21, para.18.2; MSC 104/18, para.15.16, MSC 105/20, para. 18.50 |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.3 | Amendments to the IGF Code and development of guidelines for alternative fuels and related technologies | Continuous | MSC | HTW / PPR / SDC / SSE | CCC | Ongoing | | MSC 94/21, paras. 18.5 and 18.6; MSC 96/25, paras. 10.1 to 10.3; MSC 97/22, para. 19.2; PPR 6/20, para. 3.39; MSC 102/24, para. 21.4; MSC 106/19, para. 16.42. MSC 106/16/5 |
| Notes: | MSC 106 changed description in order to accommodate the consideration of alternative fuels not having a low flashpoint. This resulted in the deletion of output 2.24 on "Development of guidelines for the safety of ships using ammonia as fuel" to avoid duplication. | | | | | | | | |

* For details, refer to the Organizational Planning module of GISIS.

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 2. Integrate new and advancing technologies in the regulatory framework | 2.22 | Amendments to the IGC and IGF Codes to include high manganese austenitic steel and related guidance for approving alternative metallic material for cryogenic service | 2023 | MSC | CCC | | Completed | | MSC 96/25 para. 23.4; MSC 98/23, annex 38; MSC 100/20 para. 17.21; MSC 102/24, para. 21.6; MSC 104/18, para. 15.16; MSC 105/20, para. 14.3; MSC 106/19, para. 3.46; resolutions MSC.523(106) and MSC.524(106) CCC 8/18, section 4 |
| ~~2. Integrate new and advancing technologies in the regulatory framework~~ | ~~2.24 (New)~~ | ~~Development of guidelines for the safety of ships using ammonia as fuel~~ | ~~2023~~ | ~~MSC~~ | ~~CCC~~ | | ~~Completed~~ | | ~~MSC 105/20, para 18.26; CCC 8/18, para 15.4 and annex 11, MSC 106/19, para.16.42~~ |
| Notes: | MSC 106 decided that this output addressing specifically ammonia fuels is now covered by the revised output 2.3, thus deleted to avoid duplication. | | | | | | | | |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.25 (New) | Revision of the Interim recommendations for carriage of liquefied hydrogen in bulk | 2024 | MSC | CCC | | In progress | | MSC 105/20, para. 18.28 CCC 8/18, section 14 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 4. Engage in ocean governance | 4.4 (New) | Development of measures regarding the detection and mandatory reporting of containers lost at sea that may enhance the positioning, tracking and recovery of such containers | 2023 | MSC | NCSR | CCC | Completed | | MSC 103/21, para. 18.34; CCC 8/18, section 11 |
| 6. Address the human element | 6.1 | Role of the human element | Continuous | MSC / MEPC | III / PPR / CCC / SDC / SSE / NCSR | HTW | Ongoing | | MSC 89/25, paras. 10.10, 10.16 and 22.39 and annex 21; CCC 8/18, para. 17.1 |
| 6. Address the human element | 6.2 | Validated model training courses | Continuous | MSC / MEPC | III / PPR / CCC / SDC / SSE / NCSR | HTW | No work requested | | MSC 100/20, paras. 10.3 to 10.6 and 17.28; MSC 105/20, section 16 MSC 100/20, paras. 10.3 to 10.6 and 17.28; CCC 6/14, sections 2 and 13 |
| 6. Address the human element | 6.15 | Revision of resolution A.1050(27) to ensure the safety of personnel entering enclosed spaces on board ships | 2024 | MSC | III / HTW / PPR / SDC | CCC | In progress | | MSC 101/24, para. 21.48; MSC 104/18, para. 15.16; MSC 106/19, para. 16.31. |
| Notes: | MSC 106 expanded the scope of "Revision of the Revised recommendations for entering enclosed spaces aboard ships (resolution A.1050(27))" and modified the description accordingly, with a target completion year of 2024, assigning the CCC Sub-Committee as the coordinating organ, in association with the III, HTW, PPR, SDC and SSE Sub-Committees. | | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 7. Ensure regulatory effectiveness | 7.1 | Unified interpretation of provisions of IMO safety, security, environment, facilitation, liability and compensation-related conventions | Continuous | MSC / MEPC / FAL / LEG | III / PPR / CCC / SDC / SSE / NCSR | | Ongoing | | MSC 76/23, para. 20.3; MSC 78/26, para. 22.12; CCC 7/15, section 11; MSC 105/20, para. 15.7; CCC 8/18, para. 12.11 |
| 7. Ensure regulatory effectiveness | 7.10 | Amendments to the IMDG Code and supplements | Continuous | MSC | CCC | | Ongoing | | MSC 105/20, para. 3.59 and 14.4; CCC 8/18, section 6 |
| 7. Ensure regulatory effectiveness | 7.13 | Amendments to the IMSBC Code and supplements | Continuous | MSC | CCC | | Ongoing | | MSC 105/20, para. 14.4 and para. 3.57; CCC 8/18, section 5 |
| 7. Ensure regulatory effectiveness | 7.15 (New) | Development of amendments to SOLAS chapter II-2 and the FSS Code concerning detection and control of fires in cargo holds and on the cargo deck of container ships | 2025 | MSC | CCC | SSE | No work requested | | MSC 103/21, para. 18.8; SSE 8/20, section 10 |
| 7. Ensure regulatory effectiveness | 7.25 | Amendments to the International Code for the Safe Carriage of Grain in Bulk (resolution MSC.23(59)) to introduce a new class of loading conditions for special compartments | 2023 | MSC | CCC | | Completed | | MSC 104/18, para. 15.16 MSC 104/18, para. 15.16; CCC 8/18, para. 7.6 and annex 5 |

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| 7. Ensure regulatory effectiveness | 7.28 | Consideration of reports of incidents involving dangerous goods or marine pollutants in packaged form on board ships or in port areas | Annual | MSC / MEPC | III | CCC | Completed | | CCC 7/15, section 9<br>CCC 8/18, section 9 |

| **Sub-Committee on Human Element, Training and Watchkeeping (HTW)** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for year 1 | Year 2 | References |
| 1. Improve implementation | 1.11 | Measures to harmonize port State control (PSC) activities and procedures worldwide | Continuous | MSC / MEPC | HTW / PPR / NCSR | III | No work requested | | MSC 101/24, para. 21.48; MEPC 75/18, paras. 11.10 and 11.11; MSC 104/18, para. 13.7.1 |
| 1. Improve implementation | 1.26 | Revision of MARPOL Annex IV and associated guidelines | 2023 | MEPC | III / HTW | PPR | No work requested | | MEPC 71/17, paras. 14.8 and 14.9; MEPC 72/17, para. 15.10; MEPC 73/19, para. 15.19; PPR 6/20, section 14; MEPC 74/18, para. 14.5; and MEPC 78/17, para. 14.11 |
| 1. Improve implementation | 1.32 | Implementation of the STCW Convention | Continuous | MSC | HTW | | Ongoing | | MSC 101/24, para. 15.7; MSC 102/24, para. 13.14; HTW 8/16, section 6 |

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| 2. Integrate new and advancing technologies in the regulatory framework | 2.3 | Amendments to the IGF Code and development of guidelines for alternative fuels and related technologies | Continuous | MSC | HTW / PPR / SDC / SSE | CCC | No work requested | | MSC 94/21, paras. 18.5 and 18.6; MSC 96/25, paras. 10.1 to 10.3; MSC 97/22, para. 19.2; PPR 6/20, para. 3.39; MSC 102/24, para. 21.4; MSC 106/19, para. 16.42. |
| Notes: | MSC 106 changed description in order to accommodate the consideration of alternative fuels not having a low flashpoint. This resulted in the deletion of output 2.24 on "Development of guidelines for the safety of ships using ammonia as fuel" to avoid duplication. | | | | | | | | |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.8 | Development of guidelines for cold ironing of ships and consideration of amendments to SOLAS chapters II-1 and II-2 | 2023 | MSC | III / HTW / SDC | SSE | Complete d | | MSC 98/23, para. 20.36; SSE 7/21, section 11; HTW 8/16, section 15; SSE 8/20, section 18 ; HTW 8/16, section 15 |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.10 | Development of revisions and amendments to existing instruments relating to the amendments to the 1974 SOLAS Convention for modernization of the GMDSS | 2022 | MSC | HTW / SSE | NCSR | No work requested | | MSC 105/20, paras. 3.42, 3.52 to 3.55, 3.60 to 3.62, 3.63.1 and 3.63.2; resolutions MSC.496(105), MSC.498(105) et al. |

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| 4. Engage in ocean governance | 4.3 | Follow-up work emanating from the Action Plan to Address Marine Plastic Litter from Ships | 2023 | MEPC | III / HTW / PPR | | Completed | | HTW 8/16, section 8 |
| 6. Address the human element | 6.1 | Role of the human element | Continuous | MSC / MEPC | III / PPR / CCC / SDC / SSE / NCSR | HTW | Ongoing | | MSC 89/25, paras. 10.10, 10.16 and 22.39 and annex 21; HTW 8/16, section 4 |
| 6. Address the human element | 6.2 | Validated model training courses | Continuous | MSC / MEPC | III / PPR / CCC / SDC / SSE / NCSR | HTW | Ongoing | | MSC 100/20, paras.10.3 to 10.6 and 17.28; MSC 105/20, section 16; HTW 8/16, paras. 3.3, 3.4 and 13.4 |
| Notes: | Virtual meetings of three drafting groups are taking place during 2022, to consider draft model courses for validation at HTW 9. | | | | | | | | |
| 6. Address the human element | 6.3 | Reports on unlawful practices associated with certificates of competency | Annual | MSC | HTW | | Completed | | MSC 83/28, para. 12.2; HTW 8/16, section 5 |
| 6. Address the human element | 6.5 | Development of measures to facilitate mandatory seagoing service required under the STCW Convention | 2023 | MSC | III | HTW | In progress | | MSC 101/24, paras. 21.29 and 21.30; HTW 8/16, section 11 |

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| 6. Address the human element | 6.6 | Development of measures to ensure quality of onboard training as part of the mandatory seagoing service required by the STCW Convention | 2023 | MSC | HTW | | In progress | | MSC 101/24, para. 21.1; HTW 8/16, section 10 |
| 6. Address the human element | 6.11 | Development of training provisions for seafarers related to the BWM Convention | 2023 | MEPC | HTW | | Extended | | HTW 8/16, section 12 |
| Notes: | Target completion year extended to 2023 | | | | | | | | |
| 6. Address the human element | 6.12 | Comprehensive review of the 1995 STCW-F Convention | 2023 | MSC | HTW | | Extended | | MSC 95/22, para. 19.3 and 19.4; MSC 96/25, para. 12.3; HTW 8/16, section 8 |
| 6. Address the human element | 6.13 | Development of amendments to the Revised guidelines for the development, review and validation of model courses (MSC-MEPC.2/Circ.15/Rev.1) | 2022 | MSC | HTW | | Completed | | MSC 100/20, paras. 17.7 and 17.8; MSC 106/19, para.10.2; MSC-MEPC.2/Circ.15/Rev.2; HTW 8/16, para. 7.6 |
| 6. Address the human element | 6.14 | Development of amendments to the STCW Convention and Code for the use of electronic certificates and documents of seafarers | 2022 | MSC | III | HTW | Completed | | MSC 100/20, para. 17.12; MSC 106/19, paras. 10.3 to 10.9; HTW 8/16, paras. 9.7 to 9.10 |
| Notes: | MSC 106 approved draft amendments to STCW regulations I/1 and I/2, as well as section A-I/2 of the STCW Code with a view to adoption by MSC 107; MSC 107 to consider the draft guidelines on the use of electronic certificates of seafarers, prepared by the Sub-Committee. | | | | | | | | |

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| 6. Address the human element | 6.15 | Revision of resolution A.1050(27) to ensure the safety of personnel entering enclosed spaces on board ships | 2024 | MSC | III / HTW / PPR / SDC | CCC | No work requested | | MSC 101/24, para. 21.48; MSC 104/18, para. 15.16; MSC 106/19, para. 16.31. |
| Notes: | MSC 106 expanded the scope of "Revision of the Revised recommendations for entering enclosed spaces aboard ships (resolution A.1050(27))" and modified the description accordingly, with a target completion year of 2024, assigning the CCC Sub-Committee as the coordinating organ, in association with the III, HTW, PPR, SDC and SSE Sub-Committees. | | | | | | | | |
| 6. Address the human element | 6.17 (New) | Comprehensive review and revision of the 1978 STCW Convention and Code | 2026 | MSC | HTW | | | | MSC 105/20, para. 18.13 |
| Notes: | MSC 105 instructed the HTW Sub-Committee to develop and finalize, as a matter of priority, STCW training provisions addressing bullying and harassment in the maritime sector, including sexual assault and sexual harassment, as part of this output. | | | | | | | | |
| 7. Ensure regulatory effectiveness | 7.32 | Requirements for onboard lifting appliances and anchor handling winches | 2022 | MSC | HTW | SSE | No work requested | | MSC 89/25, para. 22.26; MSC 98/23, annex 38; SSE 8/20, section 9; MSC 106/19, section 11 |
| Notes: | MSC 106 finalized the work, approved the draft guidelines in principle. MSC 107 is expected to adopt/approve the whole set. | | | | | | | | |

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| 7. Ensure regulatory effectiveness | 7.33 | Review of SOLAS chapter II-2 and associated codes to minimize the incidence and consequences of fires on ro-ro spaces and special category spaces of new and existing ro-ro passenger ships | 2023 | MSC | HTW / SDC | SSE | No work requested | | MSC 97/22, para. 19.19; MSC 98/23, para.12.42; MSC 106/19, para. 16.54 |
| Notes: | MSC 106 extended TCY to 2023 | | | | | | | | |
| 7. Ensure regulatory effectiveness | 7.42 (New) | Revision of the Interim explanatory notes for the assessment of passenger ship systems' capabilities after a fire or flooding casualty (MSC.1/Circ.1369) and related circulars | 2024 | MSC | HTW / SSE | SDC | No work requested | | MSC 103/21, para.18.31; MSC 105/20, paras. 15.24.2 and 18.54 |

| **Sub-Committee on Implementation of IMO Instruments (III)** | | | | | | | | | |
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| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | for Year 2 | References |
| 1. Improve implementation | 1.4 | Analysis of consolidated audit summary reports | Annual | Assembly | MSC / MEPC / LEG / TCC / III | Council | Ongoing | | MEPC 61/24, para. 11.14.1; MSC 88/26, para. 10.8; C 120/D, paras. 7.1 and 7.2; MSC 105, para. 13.10; MSC 106, paras. 14.11 and 16.37; III 8/19, section 8 |

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| 1. Improve implementation | 1.5 | Non-exhaustive list of obligations under instruments relevant to the IMO Instruments Implementation Code (III Code) | Annual | MSC / MEPC | III | | Ongoing | | MEPC 64/23, para. 11.49; MSC 91/22, para. 10.30; MEPC 52/24, para. 10.15. MEPC 72/17, para. 2.7.5; MEPC 74/18, para. 11.3; MSC 104/18, para. 13.7.3, MSC 106/19 para. 14.18 III 8/19, section 11 |
| 1. Improve implementation | 1.11 | Measures to harmonize port State control (PSC) activities and procedures worldwide | Continuous | MSC / MEPC | HTW / PPR / NCSR | III | Ongoing | | MSC 101/24, para.21.48; MEPC 75/18, paras.11.10 and 11.11; MSC 104, para.13.7.1 III 8/19, section 5 |
| 1. Improve implementation | 1.14 (New) | Development of guidance in relation to Mandatory IMO Member State Audit Scheme (IMSAS) to assist in the implementation of the III Code by Member States | 2023 | MSC / MEPC | III | | In progress | | MSC 103/21, para. 18.38; MSC 106/19, paras. 14.23 and 14.24; III 9/19, section 9 |
| 1. Improve implementation | 1.18 (New) | Development of guidance on assessment and applications of remote surveys, ISM Code audits and ISPS Code verifications | 2024 | MSC / MEPC | III | | In progress | | MSC 104/18, para. 15.5; MSC 106/19, para. 14.16; III 8/19, section 12 |
| 1. Improve implementation | 1.26 | Revision of MARPOL Annex IV and associated guidelines | 2023 | MEPC | III / HTW | PPR | No work requested | | MEPC 71/17, paras. 14.8 and 14.9; MEPC 72/17, para. 15.10; MEPC 73/19, para. 15.19; PPR 6/20, section 14; MEPC 74/18, para. 14.5; and MEPC 78/17, para. 14.11 |

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| 2. Integrate new and advancing technologies in the regulatory framework | 2.8 | Development of guidelines for cold ironing of ships and consideration of amendments to SOLAS chapters II-1 and II-2 | 2023 | MSC | III / HTW / SDC | SSE | No work requested | | MSC 98/23, para. 20.36; SSE 7/21, section 11; HTW 8/16, section 15; SSE 8/20, section 18 |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.9 (New) | Development of amendments to VDR performance standards and carriage requirements | 2023 | MSC | III | NCSR | No work requested | | MSC 101/24, paras. 21.39 to 21.44 |
| 4. Engage in ocean governance | 4.3 | Follow-up work emanating from the Action Plan to address marine plastic litter from ships | 2023 | MEPC | III / HTW / PPR | | In progress | | III 8/19, section 14 |
| 6. Address the human element | 6.1 | Role of the human element | Continuous | MSC / MEPC | III / PPR / CCC / SDC / SSE / NCSR | HTW | No work requested | | MSC 89/25, paras. 10.10, 10.16 and 22.39 and annex 21 |
| 6. Address the human element | 6.2 | Validated model training courses | Continuous | MSC / MEPC | III / PPR / CCC / SDC / SSE / NCSR | HTW | Ongoing | | MSC 100/20, paras. 10.3 to 10.6 and 17.28; MSC 105/20, section 16; III 6/15, section 4; III 8/19, paras. 5.20 to 5.29 |
| 6. Address the human element | 6.5 | Development of measures to facilitate mandatory seagoing service required under the STCW Convention | 2023 | MSC | III | HTW | No work requested | | MSC 101/24, paras. 21.29 and 21.30 |

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| 6. Address the human element | 6.10 | Development of an entrant training manual for PSC personnel | 2023 | MSC / MEPC | III | | Postponed | | MSC 103/21, para. 18.36; MSC 106, para. 16.46 III 8/19, section 6 |
| Notes: | III 8 agreed that the output on development of an entrant training manual for PSC personnel should be developed after the finalization of IMO Model Course 3.09 on Port State Control | | | | | | | | |
| 6. Address the human element | 6.14 | Development of amendments to the STCW Convention and Code for the use of electronic certificates and documents of seafarers | 2022 | MSC | III | HTW | No work requested | | MSC 100/20, para. 17.12; MSC 106/19, paras. 10.3 to 10.9 |
| Notes: | MSC 106 approved draft amendments to STCW regulations I/1 and I/2, as well as section A-I/2 of the STCW Code with a view to adoption by MSC 107; MSC 107 to consider the draft amendments to the guidelines. | | | | | | | | |
| 6. Address the human element | 6.15 | Revision of resolution A.1050(27) to ensure the safety of personnel entering enclosed spaces on board ships | 2024 | MSC | III / HTW / PPR / SDC | CCC | No work requested | | MSC 101/24, para. 21.48; MSC 104/18, para. 15.16; MSC 106/19, para. 16.31. |
| Notes: | MSC 106 expanded the scope of "Revision of the Revised recommendations for entering enclosed spaces aboard ships (resolution A.1050(27))" and modified the description accordingly, with a target completion year of 2024, assigning the CCC Sub-Committee as the coordinating organ, in association with the III, HTW, PPR, SDC and SSE Sub-Committees. | | | | | | | | |
| 7. Ensure regulatory effectiveness | 7.1 | Unified interpretation of provisions of IMO safety, security, environment, facilitation, liability and compensation-related conventions | Continuous | MSC / MEPC / FAL / LEG | III / PPR / CCC / SDC / SSE / NCSR | | Ongoing | | MSC 76/23, para. 20.3; MSC 78/26, para. 22.12; III 8/19, section 13 |
| 7. Ensure regulatory effectiveness | 7.4 | Lessons learned and safety issues identified from the analysis of marine safety investigation reports | Annual | MSC / MEPC | III | | Ongoing | | MSC 92/26, para. 22.29; MSC 106/19, paras. 14.2 to 14.6; III 8/19, section 4 |

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| 7. Ensure regulatory effectiveness | 7.5 | Identified issues relating to the implementation of IMO instruments from the analysis of data | Annual | MSC / MEPC | III | | Ongoing | | MSC 96/25, para. 23.13; MEPC 69/21, para. 19.11; MSC 106/19, paras. 14.12 and 16.46. III 8/19, section 7 |
| Notes: | MSC 106 renamed output 7.5, subject to MEPC 79 concurrent approval, from "Identified issues relating to the implementation of IMO instruments from the analysis of PSC data", thereby extending its scope. | | | | | | | | |
| 7. Ensure regulatory effectiveness | 7.7 | Consideration and analysis of reports on alleged inadequacy of port reception facilities | Annual | MEPC | III | | Ongoing | | MEPC 69/21, para. 19.11; MEPC 73/19, paras. 8.3 and 8.11; MEPC 74/18, paras. 4.33, 4.34 and 8.22; III 8/19, section 3 |
| 7. Ensure regulatory effectiveness | 7.14 (New) | Revision of ECDIS Guidance for good practice (MSC.1/Circ.1503/Rev.1) and amendments to ECDIS performance standards (resolution MSC.232(82)) | 2023 | MSC | III | NCSR | No work requested | | MSC 100/20, para. 17.9; MSC 102/24, para. 21.14; MSC 104/18, para. 15.19; MSC 106/19, paras. 13.36 and 13.43; MSC.1/Circ.1503/Rev.2 and resolution MSC.530(106) |
| 7. Ensure regulatory effectiveness | 7.27 | Updated Survey Guidelines under the Harmonized System of Survey and Certification (HSSC) | Annual | MSC / MEPC | III | | Ongoing | | MEPC 68/21, paras. 14.5 and 14.6; MSC 79/23, paras. 9.19 and 9.20; MEPC 72/17, paras. 7.4 and 4.24 to 4.33; MSC 104, para. 13.7.2; MSC 106/19, paras. 14.13 to 14.18; III 8/19, section 10 |
| 7. Ensure regulatory effectiveness | 7.28 | Consideration of reports of incidents involving dangerous goods or marine pollutants in packaged form on board ships or in port areas | Annual | MSC / MEPC | III | CCC | No work requested | | CCC 7/15, section 9 |

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| 7. Ensure regulatory effectiveness | 7.31 | Finalization of a non-mandatory instrument on regulations for non-convention ships | 2022 | MSC | III | | Postponed | | MSC 96/25, para. 9.4; MSC 101/24, para. 21.38; MSC 104, section 5; MSC 105, section 4 |
| Notes: | MSC 102, having considered that MSC 101 had included an item on "measures to improve domestic ferry safety", agreed that the III Sub-Committee should not proceed with the development of a model course (as instructed by MSC 96), pending further instructions from the MSC taking into account the outcome of the work on measures to improve domestic ferry safety (MSC 102/24, para.14.10) | | | | | | | | |
| 7. Ensure regulatory effectiveness | 7.45 (New) | Development of guidance to assist competent authorities in the implementation of the Cape Town Agreement of 2012 | 2024 | MSC | III | | No work requested | | MSC 106/19, paras. 16.17 and 16.46 |

| **Sub-Committee on Navigation, Communications and Search and Rescue (NCSR)** | | | | | | | | | |
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| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Year 2 | References |
| 1. Improve implementation | 1.3 (New) | Revision of the criteria for the provision of mobile satellite communication services in the Global Maritime Distress and Safety System (GMDSS) (resolution A.1001(25)) | 2023 | MSC | NCSR | | In progress | | MSC 101/24, para. 21.33; NCSR 9/24, section 11 |
| 1. Improve implementation | 1.11 | Measures to harmonize port State control (PSC) activities and procedures worldwide | Continuous | MSC / MEPC | HTW / PPR / NCSR | III | No work requested | | MSC 101/24, para. 21.48; MEPC 75/18, paras. 11.10 and 11.11; MSC 104, para. 13.7.1 |

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| 1. Improve implementation | 1.20 | Revision of the Guidelines on places of refuge for ships in need of assistance (resolution A.949(23)) | 2022 | MSC | NCSR | | Completed | | MSC 100/20, para. 17.1; MSC 104/18, para. 15.19; MSC 106/19, para. 13.12 |
| Notes: | MSC 106 approved the draft Assembly resolution with a view to concurrent approval by LEG and MEPC, and adoption by A 33. | | | | | | | | |
| 1. Improve implementation | 1.34 | Development of global maritime SAR services, including harmonization of maritime and aeronautical procedures | Continuous | MSC | NCSR | | Ongoing | | NCSR 9/24, section 13; SAR.7/Circ.15 and COMSAR/Circ.60. |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.1 | Response to matters related to the ITU-R Study Groups and ITU World Radiocommunication Conference | Continuous | MSC | NCSR | | Ongoing | | MSC 106/19, paras. 13.28 to 13.33; NCSR 9/24, section 12 and annexes 18 to 20 |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.9 (New) | Development of amendments to VDR performance standards and carriage requirements | 2023 | MSC | III | NCSR | In progress | | MSC 101/24, paras. 21.39 to 21.44; NCSR 9/24, section 17 |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.10 | Development of revisions and amendments to existing instruments relating to the amendments to the 1974 SOLAS Convention for modernization of the GMDSS | 2022 | MSC | HTW / SSE | NCSR | Completed | | MSC 105/20, paras. 3.42, 3.52 to 3.55, 3.60 to 3.62, 3.63.1 and 3.63.2; resolutions MSC.496(105) through MSC.499(105), MSC.502(105) through MSC.517(105); MSC.1/Circ.803/Rev.1 and MSC.1/Circ.1645; MSC 106/19, para. 13.17, MSC.1/Circ.1656, MSC.1/Circ.1657, MSC.1/Circ.1658 and MSC.1/Circ.892/Rev.1 |

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| 2. Integrate new and advancing technologies in the regulatory framework | 2.11 | Consideration of descriptions of Maritime Services in the context of e-navigation | 2023 | MSC | FAL / NCSR | | In progress | | FAL 43/20, para. 7.21; MSC 101/24, paras. 11.10 and 11.11; resolution MSC.467(101); MSC.1/Circ.1610; MSC 104/18, para. 15.19; FAL 46/23, section 8; MSC 106/19, para. 16.47.2.1 NCSR 9/24, section 7 |
| Notes: | MSC 106 extended TCY to 2023 | | | | | | | | |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.12 | Development of generic performance standards for shipborne satellite navigation system receiver equipment | 2023 | MSC | NCSR | | In progress | | MSC 104/18, para. 15.19; MSC 106/19, para. 16.47.2.2 NCSR 9/24, section 5 |
| Notes: | MSC 106 extended TCY to 2023 | | | | | | | | |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.14 (New) | Development of SOLAS amendments for mandatory carriage of electronic inclinometers on container ships and bulk carriers | 2022 | MSC | NCSR | | Completed | | MSC 101/24, paras. 21.20 and 21.21; MSC 104/18, para. 15.19; MSC 105/20, paras. 1 3.7 and 13.8; MSC 106/19, para. 13.46 |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.27 (New) | Development of performance standards for a digital navigational data system (NAVDAT) | 2024 | MSC | NCSR | | | | MSC 103/21, para. 18.18; MSC 106/19, para. 16.47.1.2 |

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| 2. Integrate new and advancing technologies in the regulatory framework | 2.28 (New) | Development of amendments to SOLAS chapters IV and V and performance standards and guidelines to introduce VHF Data Exchange System (VDES) | 2024 | MSC | NCSR | | | | MSC 103/21, para. 18.12; MSC 106/19, para. 16.47.1.1 |
| 4. Engage in ocean governance | 4.1 | Identification and protection of Special Areas, Emission Control Areas and PSSAs and associated protective measures | Continuous | MEPC | NCSR | | No work requested | | |
| 4. Engage in ocean governance | 4.4 (New) | Development of measures regarding the detection and mandatory reporting of containers lost at sea that may enhance the positioning, tracking and recovery of such containers | 2023 | MSC | NCSR | CCC | No work requested | | MSC 103/21, para. 18.34 |
| 6. Address the human element | 6.1 | Role of the human element | Continuous | MSC / MEPC | III / PPR / CCC / SDC / SSE / NCSR | HTW | Ongoing | | MSC 89/25, paras. 10.10, 10.16 and 22.39 and annex 21; NCSR 9/24, paras. 23.6 and 23.7 |
| 6. Address the human element | 6.2 | Validated model training courses | Continuous | MSC / MEPC | III / PPR / CCC / SDC / SSE / NCSR | HTW | Ongoing | | MSC 100/20, paras. 10.3 to 10.6 and 17.28; MSC 105/20, section 16 NCSR 7/23, section 19; NCSR 9/24, section 20 |

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| 7. Ensure regulatory effectiveness | 7.1 | Unified interpretation of provisions of IMO safety, security, environment, facilitation, liability and compensation-related conventions | Continuous | MSC / MEPC / FAL / LEG | III / PPR / CCC / SDC / SSE / NCSR | | Ongoing | | MSC 76/23, para. 20.3; MSC 78/26, para. 22.12; NCSR 7/23, section 18; NCSR 9/24, section 19 |
| 7. Ensure regulatory effectiveness | 7.2 | Developments in GMDSS services, including guidelines on maritime safety information (MSI) | Continuous | MSC | NCSR | | Ongoing | | MSC 104/18, para. 15.19; MSC 106/19, paras. 13.24.3, 13.25 and 13.27; resolution MSC.529(106), MSC.1/Circ.1659 and MSC.1/Circ.1403/Rev.2; NCSR 9/24, section 10 and annexes 15 to 17 |
| 7. Ensure regulatory effectiveness | 7.14 (New) | Revision of ECDIS Guidance for good practice (MSC.1/Circ.1503/Rev.1) and amendments to ECDIS performance standards (resolution MSC.232(82)) | 2023 | MSC | III | NCSR | Completed | | MSC 100/20, para. 17.9; MSC 102/24, para. 21.14; MSC 104/18, para. 15.19; MSC 106/19, paras. 13.36 and 13.43; MSC.1/Circ.1503/Rev.2 resolution MSC.530(106) |
| 7. Ensure regulatory effectiveness | 7.20 | Amendments to the IAMSAR Manual | Continuous | MSC | NCSR | | Ongoing | | NCSR 9/24, section 14 |
| 7. Ensure regulatory effectiveness | 7.22 | Routeing measures and mandatory ship reporting systems | Continuous | MSC | NCSR | | Ongoing | | MSC 106/19, paras. 13.3 and 13.4; COLREG.2/Circ.78 and SN.1/Circ.342; NCSR 9/24, section 3 and annexes 1 and 2 |

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| 7. Ensure regulatory effectiveness | 7.23 | Updates to the LRIT system | Continuous | MSC | NCSR | | Ongoing | | MSC 106/19, paras. 13.5 and 13.6; resolution MSC.263(84)/Rev.1, MSC.1/Circ.1259/Rev.9, MSC.1/Circ.1307/Rev.1, MSC.1/Circ.1376/Rev.5; NCSR 9/24, section 4 and annexes 3 to 6 |
| 7. Ensure regulatory effectiveness | 7.35 | Safety measures for non-SOLAS ships operating in polar waters | 2023 | MSC | NCSR | SDC | Completed | | MSC 98/23, paras. 10.29, 20.31.1 and 20.31.2, and annex 38; MSC 99/22, paras.7.16 and 20.13.1; MSC 101/24, paras. 7.6 and 7.9; MSC 102/24, paras. 17.5 to 17.8; MSC 103/21, paras. 15.1 to 15.4; MSC 105/20, para. 18.54; MSC 106/19, para. 13.9 |
| 7. Ensure regulatory effectiveness | 7.37 | Consequential work related to the new International Code for Ships Operating in Polar Waters | 2022 | MSC | SSE / NCSR | SDC | No work requested | | MSC 93/22, paras. 10.44, 10.50 and 20.12; MSC 96/25, para. 3.77; MSC 97/22, paras. 8.32 and 19.25; MSC 101/24, paras. 7.9 and 11.18, and annex 31; MSC.1/Circ.1612; MSC 102/24, para. 19.3; SSE 8/20, section 4; MSC 106/19, section 11; MSC.1/Circ.1614/Rev.1 |

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| 7. Ensure regulatory effectiveness | 7.44 (New) | Revision of SOLAS regulation V/23 and associated instruments to improve the safety of pilot transfer arrangements | 2024 | MSC | NCSR | | | | MSC 106/19, paras. 16.12 to .14 |
| 7. Ensure regulatory effectiveness | 7.46 (New) | Amendments to ECDIS performance standards (resolution MSC.530(106)) to facilitate a standardized digital exchange of ships' route plans | 2024 | MSC | NCSR | | | | MSC 105/20, paras. 18.20 and 18.21, MSC 106/19, para. 16.49 |
| Notes: | MSC 106 agreed that the scope of this output should be limited to amendments necessary to facilitate a standardized digital exchange of ships' route plans and that the work should be based on the ECDIS performance standards adopted by resolution MSC.530(106). | | | | | | | | |
| OW. Other work | OW 12 (New) | Guidance on the training on and operation of Emergency Personal Radio Devices in multiple casualty situations | 2022 | MSC | NCSR | | Completed | | MSC 100/20, para. 17.5; MSC 106/19, para. 13.35; MSC.1/Circ.1660 |

| **Sub-Committee on Ship Design and Construction (SDC)** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Year 2 | References |
| 1. Improve implementation | 1.12 (New) | Revision of the 1979, 1989 and 2009 MODU Codes and associated MSC circulars to prohibit the use of materials containing asbestos, including control of storage of such materials on board | 2023 | MSC | SDC | | In progress | | MSC 105/20, para. 18.54 |

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|---|---|---|---|---|---|---|---|---|---|
| 1. Improve implementation | 1.16 (New) | Review of the 2014 Guidelines for the reduction of underwater noise from commercial shipping to address adverse impacts on marine life (MEPC.1/Circ.833) (2014 Guidelines) and identification of next steps | 2023 | MEPC | SDC | | In progress | | MSC 105/20, para. 15.23; SDC 8/18, section 14 and annex 11 |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.3 | Amendments to the IGF Code and development of guidelines for alternative fuels and related technologies | Continuous | MSC | HTW / PPR / SDC / SSE | CCC | No work requested | | MSC 94/21, paras.18.5 and 18.6; MSC 96/25, paras.10.1 to 10.3; MSC 97/22, para. 19.2; PPR 6/20, para. 3.39; MSC 102/24, para. 21.4; MSC 106/19, para. 16.42. |
| Notes: | MSC 106 changed description in order to accommodate the consideration of alternative fuels not having a low flashpoint. This resulted in the deletion of output 2.24 on "Development of guidelines for the safety of ships using ammonia as fuel" to avoid duplication. | | | | | | | | |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.4 | Further development of the IP Code and associated guidance | 2023 | MSC | SDC | | Extended | | MSC 104/18, par. 11.5; MSC 105/20, section 15, MSC 106/19, section 3; new chapter XV of SOLAS 1974 adopted by resolution MSC.521(106) and IP Code by MSC.527(106); SDC 5/15, section 7; SDC 6/13, section 6; SDC 7/16, section 6, SDC 8/18, section 4 and annexes 1 and 2 |

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| 2. Integrate new and advancing technologies in the regulatory framework | 2.5 | Safety objectives and functional requirements of the Guidelines on alternative design and arrangements for SOLAS chapter II-1 | 2024 | MSC | SSE | SDC | Extended | | MSC 82/24, para.3.92; MSC 98/23, annex 38; MSC 102/24, para.19.16. MSC 105/20, para. 15.13 and 18.54; SDC 8/18, section 9 |
| Notes: | MSC 105 retitled the output to: "Safety objectives and functional requirements of the Guidelines on alternative design and arrangements for SOLAS chapter II-1" and extended the TCY to 2024. | | | | | | | | |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.6 | Development of Explanatory Notes to the Interim guidelines on second generation intact stability criteria | 2022 | MSC | SDC | | Completed | | MSC 85/26, paras. 12.7 and 23.42; MSC 102/24, para. 21.20 and annex 26), MSC 105/20, section 15, MSC.1/Circ.1652; SDC 5/15, section 6; SDC 6/13, section 5; SDC 7/16, section 5, SDC 8/18, par. 5.16 and annex 4 |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.8 | Development of guidelines for cold ironing of ships and consideration of amendments to SOLAS chapters II-1 and II-2 | 2023 | MSC | III / HTW / SDC | SSE | No work requested | | MSC 98/23, para. 20.36; SSE 7/21, section 11; HTW 8/16, section 15; SSE 8/20, section 18 |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.20 (New) | Development of amendments to SOLAS regulation II-1/3-4 to apply requirements for emergency towing equipment for tankers to other types of ships | 2023 | MSC | SDC | | In progress | | SDC 8/18, section 12 |

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| 6. Address the human element | 6.1 | Role of the human element | Continuous | MSC / MEPC | III / PPR / CCC / SDC / SSE / NCSR | HTW | No work requested | | MSC 89/25, paras. 10.10, 10.16 and 22.39 and annex 21; |
| 6. Address the human element | 6.2 | Validated model training courses | Continuous | MSC / MEPC | III / PPR / CCC / SDC / SSE / NCSR | HTW | No work requested | | MSC 100/20, paras. 10.3 to 10.6 and 17.28; MSC 105/20, section 16 |
| 6. Address the human element | 6.15 | Revision of resolution A.1050(27) to ensure the safety of personnel entering enclosed spaces on board ships | 2024 | MSC | III / HTW / PPR / SDC | CCC | No work requested | | MSC 101/24, para. 21.48; MSC 104/18, para. 15.16; MSC 106/19, para. 16.31. |
| Notes: | MSC 106 expanded the scope of "Revision of the Revised recommendations for entering enclosed spaces aboard ships (resolution A.1050(27))" and modified the description accordingly, with a target completion year of 2024, assigning the CCC Sub-Committee as the coordinating organ, in association with the III, HTW, PPR, SDC and SSE Sub-Committees. | | | | | | | | |
| 7. Ensure regulatory effectiveness | 7.1 | Unified interpretation of provisions of IMO safety, security, environment, facilitation, liability and compensation-related conventions | Continuous | MSC / MEPC / FAL / LEG | III / PPR / CCC / SDC / SSE / NCSR | | Ongoing | | MSC 76/23, para. 20.3; MSC 78/26, para. 22.12; SDC 8/18, section 10 |
| 7. Ensure regulatory effectiveness | 7.21 | Amendments to the 2011 ESP Code | Continuous | MSC | SDC | | Ongoing | | MSC 92/26, para. 13.31; SDC 8/18, section 6 and annex 5 |

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| 7. Ensure regulatory effectiveness | 7.33 | Review of SOLAS chapter II-2 and associated codes to minimize the incidence and consequences of fires on ro-ro spaces and special category spaces of new and existing ro-ro passenger ships | 2023 | MSC | HTW / SDC | SSE | No work requested | | MSC 97/22, para. 19.19; MSC 98/23, para. 12.42; MSC 106/19, para. 16.54 |
| Notes: | MSC 106 extended TCY to 2023 | | | | | | | | |
| 7. Ensure regulatory effectiveness | 7.35 | Safety measures for non-SOLAS ships operating in polar waters | 2023 | MSC | NCSR | SDC | In progress | | MSC 98/23, paras. 10.29, 20.31.1 and 20.31.2, and annex 38; MSC 99/22, paras. 7.16 and 20.13.1; MSC 101/24, paras. 7.6 and 7.9; MSC 102/24, paras. 17.5 to 17.8; MSC 103/21, paras. 15.1 to 15.4; MSC 105/20, para. 18.54; MSC 106/19, para. 13.9; SDC 6/13, section 8; SDC 7/16, section 4; SDC 8/18, section 3 |
| 7. Ensure regulatory effectiveness | 7.37 | Consequential work related to the new International Code for Ships Operating in Polar Waters | 2022 | MSC | SSE / NCSR | SDC | No work requested | | MSC 93/22, paras. 10.44, 10.50 and 20.12; MSC 96/25, para. 3.77; MSC 97/22, paras. 8.32 and 19.25; MSC 101/24, paras. 7.9 and 11.18, and annex 31; MSC.1/Circ.1612; MSC 102/24, para. 19.3; SSE 8/20, section 4; MSC 106/19, section 11; MSC.1/Circ.1614/Rev.1 |

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| 7. Ensure regulatory effectiveness | 7.38 | Revision of the Performance standards for water level detectors on bulk carriers and single hold cargo ships other than bulk carriers (resolution MSC.188(79)) | 2023 | MSC | SSE | SDC | Completed | | MSC 102/24, para. 17.23; resolution MSC.188(79)/Rev.1 SDC 7/16, para. 7.10; SDC 8/18, section 13 and annex 10 |
| 7. Ensure regulatory effectiveness | 7.42 (New) | Revision of the Interim explanatory notes for the assessment of passenger ship systems' capabilities after a fire or flooding casualty (MSC.1/Circ.1369) and related circulars | 2024 | MSC | HTW / SSE | SDC | | | MSC 103/21, para. 18.31; MSC 105/20, paras. 15.24.2 and 18.54 SDC 8/18, para. 15.6 |

| **Sub-Committee on Ship Systems and Equipment (SSE)** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Year 2 | References |
| 1. Improve implementation | 1.30 | Review of the 2014 Standard specification for shipboard incinerators (resolution MEPC.244(66)) regarding fire protection requirements for incinerators and waste stowage spaces | 2022 | MEPC | SSE | | Completed | | SSE 8/20, para. 19.7 |
| Notes: | MEPC 77/16/Add.1; SSE 8 completed and MSC 106 noted the completion. | | | | | | | | |

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| 2. Integrate new and advancing technologies in the regulatory framework | 2.3 | Amendments to the IGF Code and development of guidelines for alternative fuels and related technologies | Continuous | MSC | HTW / PPR / SDC / SSE | CCC | No work requested | | MSC 94/21, paras. 18.5 and 18.6; MSC 96/25, paras. 10.1 to 10.3; MSC 97/22, para. 19.2; PPR 6/20, para. 3.39; MSC 102/24, para. 21.4; MSC 106/19, para. 16.42. |
| Notes: | MSC 106 changed description in order to accommodate the consideration of alternative fuels not having a low flashpoint. This resulted in the deletion of output 2.24 on "Development of guidelines for the safety of ships using ammonia as fuel" to avoid duplication. | | | | | | | | |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.5 | Safety objectives and functional requirements of the Guidelines on alternative design and arrangements for SOLAS chapter II-1 | 2024 | MSC | SSE | SDC | No work requested | | MSC 82/24, para. 3.92; MSC 98/23, annex 38; MSC 102/24, para. 19.16. MSC 105/20, para. 15.13 and 18.54 SSE 6/18, section 3; SSE 7, section 10 |
| Notes: | MSC 105 retitled the output to: "Safety objectives and functional requirements of the Guidelines on alternative design and arrangements for SOLAS chapter II-1" and extended the TCY to 2024. | | | | | | | | |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.8 | Development of guidelines for cold ironing of ships and consideration of amendments to SOLAS chapters II-1 and II-2 | 2023 | MSC | III / HTW / SDC | SSE | Extended | | MSC 98/23, para.20.36; SSE 7/21, section 11; HTW 8/16, section 15; SSE 8/20, section 18 |
| Notes: | SSE 9 is expected to finalize. | | | | | | | | |

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| 2. Integrate new and advancing technologies in the regulatory framework | 2.10 | Development of revisions and amendments to existing instruments relating to the amendments to the 1974 SOLAS Convention for modernization of the GMDSS | 2022 | MSC | HTW / SSE | NCSR | No work requested | | MSC 105/20, paras. 3.42, 3.52 to 3.55, 3.60 to 3.62, 3.63.1 and 3.63.2; resolutions MSC.496(105), et al.; SSE 6/18, para. 17.8 |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.16 | Revision of SOLAS chapter III and the International Life-Saving Appliance (LSA) Code | 2024 | MSC | SSE | | Ongoing | | SSE 7/21, section 5; SSE 8/20, section 5 |
| Notes: | To remove gaps, inconsistencies and ambiguities based on the safety objectives, functional requirements and expected performance for SOLAS chapter III | | | | | | | | |
| 6. Address the human element | 6.1 | Role of the human element | Continuous | MSC / MEPC | III / PPR / CCC / SDC / SSE / NCSR | HTW | No work requested | | MSC 89/25, paras. 10.10, 10.16 and 22.39 and annex 21; MSC 100/20, para. 17.28 |
| 6. Address the human element | 6.2 | Validated model training courses | Continuous | MSC / MEPC | III / PPR / CCC / SDC / SSE / NCSR | HTW | Ongoing | | MSC 100/20, paras. 10.3 to 10.6 and 17.28; MSC 105/20, section 16 |
| 6. Address the human element | 6.15 | Revision of resolution A.1050(27) to ensure the safety of personnel entering enclosed spaces on board ships | 2024 | MSC | III / HTW / PPR / SDC | CCC | | | MSC 101/24, para. 21.48; MSC 104/18, para. 15.16; MSC 106/19, para. 16.31. |
| Notes: | MSC 106 expanded the scope of "Revision of the Revised recommendations for entering enclosed spaces aboard ships (resolution A.1050(27))" and modified the description accordingly, with a target completion year of 2024, assigning the CCC Sub-Committee as the coordinating organ, in association with the III, HTW, PPR, SDC and SSE Sub-Committees. | | | | | | | | |

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| 7. Ensure regulatory effectiveness | 7.1 | Unified interpretation of provisions of IMO safety, security, environment, facilitation, liability and compensation-related conventions | Continuous | MSC / MEPC / FAL / LEG | III / PPR / CCC / SDC / SSE / NCSR | | Ongoing | | MSC 76/23, para. 20.3; MSC 78/26, para. 22.12; SSE 7/21, section 16 |
| 7. Ensure regulatory effectiveness | 7.15 (New) | Development of amendments to SOLAS chapter II-2 and the FSS Code concerning detection and control of fires in cargo holds and on the cargo deck of container ships | 2025 | MSC | CCC | SSE | Ongoing | | MSC 103/21, para. 18.8; SSE 8/20, section 10; MSC 106/19, section 9 |
| 7. Ensure regulatory effectiveness | 7.19 | Revision of the Code of safety for diving systems (resolution A.831(19)) and the Guidelines and specifications for hyperbaric evacuation systems (resolution A.692(17)) | 2024 | MSC | SSE | | Extended | | MSC 99/22, para. 20.26; SSE 8/20, section 14; MSC 106/19, paras. 11.31 and .32 |
| 7. Ensure regulatory effectiveness | 7.32 | Requirements for onboard lifting appliances and anchor handling winches | 2022 | MSC | HTW | SSE | Completed | | MSC 89/25, para .22.26; MSC 98/23, annex 38; SSE 8/20, section 9; MSC 106/19, section 11 |
| Notes: | MSC 106 finalized the work, approved the draft guidelines in principle. MSC 107 is expected to adopt/approve the whole set. | | | | | | | | |

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| 7. Ensure regulatory effectiveness | 7.33 | Review of SOLAS chapter II-2 and associated codes to minimize the incidence and consequences of fires on ro-ro spaces and special category spaces of new and existing ro-ro passenger ships | 2023 | MSC | HTW / SDC | SSE | Extended | | MSC 97/22, para. 19.19; MSC 98/23, para. 12.42; MSC 106/19, para. 16.55 |
| Notes: | MSC 106 extended TCY to 2023 | | | | | | | | |
| 7. Ensure regulatory effectiveness | 7.34 | Amendments to Guidelines for the approval of fixed dry chemical powder fire-extinguishing systems for the protection of ship carrying liquefied gases in bulk (MSC.1/Circ.1315) | 2022 | MSC | SSE | | Completed | | MSC 98/23, para. 20.37; SSE 7/21, section 7; SSE 8/20, section 7 ; MSC 106/19, section 11 ; MSC.1/Circ.1315/Rev.1 |
| 7. Ensure regulatory effectiveness | 7.36 | New requirements for ventilation of survival craft | 2023 | MSC | SSE | | Extended | | MSC 97/22, para. 19.22; SSE 8/20, section 3; MSC 106/19, section 11 |
| Notes: | MSC 106 extended TCY to 2023. MSC 106 approved the draft amendments to the LSA Code for totally enclosed lifeboats as a matter of priority; and agreed to keep the agenda item on the agenda for SSE 9 for consideration of any compelling need for ventilation requirements for partially enclosed lifeboats and liferafts, for inclusion in both the LSA Code and resolution MSC.81(70). | | | | | | | | |
| 7. Ensure regulatory effectiveness | 7.37 | Consequential work related to the new International Code for Ships Operating in Polar Waters | 2022 | MSC | SSE / NCSR | SDC | Completed | | MSC 93/22, paras. 10.44, 10.50 and 20.12; MSC 96/25, para. 3.77; MSC 97/22, paras. 8.32 and 19.25; MSC 101/24, paras. 7.9 and 11.18, and annex 31; MSC.1/Circ.1612; MSC 102/24, para. 19.3; SSE 8/20, section 4; MSC 106/19, section 11; MSC.1/Circ.1614/Rev.1; SSE 7/21, section 4; SSE 8/20, section 4 |

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|---|---|---|---|---|---|---|---|---|---|
| 7. Ensure regulatory effectiveness | 7.38 | Revision of the Performance standards for water level detectors on bulk carriers and single hold cargo ships other than bulk carriers (resolution MSC.188(79)) | 2023 | MSC | SSE | SDC | No work requested | | MSC 102/24, para. 17.23; resolution MSC.188(79)/Rev.1 |
| 7. Ensure regulatory effectiveness | 7.39 | Development of amendments to the LSA Code and resolution MSC.81(70) to address the in-water performance of SOLAS lifejackets | 2023 | MSC | SSE | | In progress | | MSC 101/24, para. 21.6; MSC 102/24, para. 21.19; SSE 7/21, para. 20.20; SSE 8/20, section 8 |
| 7. Ensure regulatory effectiveness | 7.40 | Development of amendments to SOLAS chapter II-2 and MSC.1/Circ.1456 addressing fire protection of control stations on cargo ships | 2023 | MSC | SSE | | In progress | | MSC 101/24, para. 21.3; MSC 102/24, para. 21.19; SSE 8/20, section 11 |
| 7. Ensure regulatory effectiveness | 7.41 | Development of provisions to prohibit the use of fire-fighting foams containing perfluorooctane sulfonic acid (PFOS) for fire fighting on board ships | 2023 | MSC | SSE | | Extended | | MSC 101/24, para. 21.27; MSC 102/24, paras. 19.31 and 21.19; SSE 8/20, section 12; MSC 106/19, section 11 |
| Notes: | MSC 106 extended TCY to 2023; approved draft amendments to SOLAS, the 1994 and 2000 HSC Codes; and instructed SSE 9 to consider the prohibition of other fire-fighting foam types in addition to PFOS, such as PFOA, and whether the existing output should be expanded in that regard; and the potential need to revise the Revised Guidelines (MSC.1/Circ.1312). | | | | | | | | |

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| 7. Ensure regulatory effectiveness | 7.42 (New) | Revision of the Interim explanatory notes for the assessment of passenger ship systems' capabilities after a fire or flooding casualty (MSC.1/Circ.1369) and related circulars | 2024 | MSC | HTW / SSE | SDC | | | MSC 103/21, para. 18.31; MSC 105/20, paras. 15.24.2 and 18.54 |
| 7. Ensure regulatory effectiveness | 7.47 (New) | Amendments to the LSA Code concerning single fall and hook systems with on-load release capability | 2023 | MSC | SSE | | No work requested | | MSC 106/19, section 11 |
| Notes: | MSC 106 reinstated and renamed this output in the provisional agenda of SSE 9, redefining the scope of the output to include other sub-paragraphs of paragraph 4.4.7.6 of the LSA Code to provide the necessary clarity for consistent application of the requirements. | | | | | | | | |
| 7. Ensure regulatory effectiveness | 7.[…] (New) | Development of amendments to the LSA Code to revise the lowering speed of survival craft and rescue boats for cargo ships | 2024 | MSC | SSE | | In progress | | MSC 99/22, para. 20.14 to 20.18; SSE 8/20, para. 16.9 |
| 7. Ensure regulatory effectiveness | 7.[…] (New) | Development of amendments to the LSA Code for thermal performance of immersion suits | 2024 | MSC | SSE | | In progress | | MSC 84/24, para. 22.48; DE 57/25, para. 9; SSE 8/20, paras. 16.8 and 16.9 |
| 7. Ensure regulatory effectiveness | 7.[…] (New) | Revision of the provisions for helicopter facilities in SOLAS and the MODU Code | 2024 | MSC | SSE | | In progress | | MSC 86/26, paragraph 23.39 |

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# ANNEX 28

## PROVISIONAL AGENDAS FOR THE FORTHCOMING SESSIONS OF THE SUB-COMMITTEES

## PROVISIONAL AGENDA FOR CCC 9

1 Adoption of the agenda

2 Decisions of other IMO bodies

3 Amendments to the IGF Code and development of guidelines for alternative fuels and related technologies (2.3)

4 Review of the IGC Code (1.17)

5 Amendments to the IMSBC Code and supplements (7.13)

6 Amendments to the IMDG Code and supplements (7.10)

7 Revision of the Interim recommendations for carriage of liquefied hydrogen in bulk (2.25)

8 Revision of resolution A.1050 (27) to ensure the safety of personnel entering enclosed spaces on board ships (6.23)

9 Consideration of reports of incidents involving dangerous goods or marine pollutants in packaged form on board ships or in port areas (7.28)

10 Unified interpretation of provisions of IMO safety, security, and environment-related conventions (7.1)

11 Biennial status report and provisional agenda for CCC 10

12 Election of Chair and Vice-Chair for 2024

13 Any other business

14 Report to the Committees

## PROVISIONAL AGENDA FOR HTW 9

1 Adoption of the agenda

2 Decisions of other IMO bodies

3 Validated model training courses (6.2)

4 Role of the human element (6.1)

5 Reports on unlawful practices associated with certificates of competency (6.3)

6 Implementation of the STCW Convention (1.32)

7 Comprehensive review of the 1978 STCW Convention and Code (6.17)

8 Comprehensive review of the 1995 STCW-F Convention (6.12)

9 Development of measures to ensure quality of onboard training as part of the mandatory seagoing service required by the STCW Convention (6.6)

10 Development of measures to facilitate mandatory seagoing service required under the STCW Convention (6.5)

11 Development of training provisions for seafarers related to the BWM Convention (6.11)

12 Biennial status report and provisional agenda for HTW 10

13 Election of Chair and Vice-Chair for 2024

14 Any other business

15 Report to the Maritime Safety Committee

**PROVISIONAL AGENDA FOR III 9**

1 Adoption of the agenda

2 Decisions of other IMO bodies

3 Consideration and analysis of reports on alleged inadequacy of port reception facilities (7.7)

4 Lessons learned and safety issues identified from the analysis of marine safety investigation reports (7.4)

5 Measures to harmonize port State control (PSC) activities and procedures worldwide (1.11)

6 Validated model training courses (6.2)

7 Identified issues relating to the implementation of IMO instruments from the analysis of ~~PSC~~[1] data (7.5)

8 Analysis of consolidated audit summary reports (1.4)

9 Development of guidance in relation to IMSAS to assist in the implementation of the III Code by Member States (1.14)

10 Updated Survey Guidelines under the Harmonized System of Survey and Certification (HSSC) (7.27)

11 Non-exhaustive list of obligations under instruments relevant to the IMO Instruments Implementation Code (III Code) (1.5)

12 Development of guidance on assessments and applications of remote surveys, ISM Code audits and ISPS Code verifications (1.18)

13 Unified interpretation of provisions of IMO safety, security and environment-related conventions (7.1)

14 Follow-up work emanating from the Action Plan to Address Marine Plastic Litter from Ships (4.3)

15 Development of guidance to assist competent authorities in the implementation of the Cape Town Agreement of 2012 (7.45)

16 Biennial agenda and provisional agenda for III 10

17 Election of Chair and Vice-Chair for 2024

18 Any other business

19 Report to the Committees

[1] Subject to concurrent approval by MEPC 79.

**PROVISIONAL AGENDA FOR NCSR 10**

1 Adoption of the agenda

2 Decisions of other IMO bodies

3 Routeing measures and mandatory ship reporting systems (7.22)

4 Updates to the LRIT system (7.23)

5 Development of generic performance standards for shipborne satellite navigation system receiver equipment (2.12)

6 Development of amendments to SOLAS chapters IV and V and performance standards and guidelines to introduce VHF data exchange system (VDES) (2.28)

7 Consideration of descriptions of Maritime Services in the context of e-navigation (2.11)

8 Development of performance standards for a digital navigational data system (NAVDAT) (2.27)

9 Amendments to ECDIS Performance Standards (resolution MSC.530(106)) to facilitate a standardized digital exchange of ships' route plans (7.46)

10 Developments in GMDSS services, including guidelines on maritime safety information (MSI) (7.2)

11 Revision of the *Criteria for the provision of mobile satellite communication services in the Global Maritime Distress and Safety System (GMDSS)* (resolution A.1001(25)) (1.3)

12 Response to matters related to the ITU-R Study Groups and ITU World Radiocommunication Conference (2.1)

13 Development of global maritime SAR services, including harmonization of maritime and aeronautical procedures (1.34)

14 Amendments to the IAMSAR Manual (7.20)

15 Development of amendments to VDR performance standards and carriage requirements (2.9)

16 Revision of SOLAS regulation V/23 and associated instruments to improve the safety of pilot transfer arrangements (7.44)

17 Unified interpretation of provisions of IMO safety, security, environment, facilitation, liability and compensation-related conventions (7.1)

18 Validated model training courses (6.2)

19 Biennial status report and provisional agenda for NCSR 11

20 Election of Chair and Vice-Chair for 2024

21 Any other business

22 Report to the Maritime Safety Committee

## PROVISIONAL AGENDA FOR SDC 9

1 Adoption of the agenda

2 Decisions of other IMO bodies

3 Safety measures for non-SOLAS ships operating in polar waters (6.38)

4 Further development of the IP Code and associated guidance (2.4)

5 Review of the Guidelines for the reduction of underwater noise (MEPC.1/Circ.833) and identification of next steps (1.16)

6 Amendments to the 2011 ESP Code (6.22)

7 Safety objectives and functional requirements of the Guidelines on alternative design and arrangements for SOLAS chapter II-1 (2.5)

8 Revision of the 1979, 1989 and 2009 MODU Codes and associated MSC circulars to prohibit the use of materials containing asbestos, including control of storage of such materials on board (1.12)

9 Development of amendments to SOLAS regulation II-1/3-4 to apply requirements for emergency towing equipment for tankers to other types of ships (2.20)

10 Unified interpretation of provisions of IMO safety, security, and environment-related conventions (6.1)

11 Revision of the Interim explanatory notes for the assessment of passenger ship systems' capabilities after a fire or flooding casualty (MSC.1/Circ.1369) and related circulars (7.42)

12 Revision of the Performance standards for water level detectors on bulk carriers and single hold cargo ships other than bulk carriers (resolution MSC.188(79)) (7.38)

13 Biennial status report and provisional agenda for SDC 10

14 Election of Chair and Vice-Chair for 2024

15 Any other business

16 Report to the Maritime Safety Committee

**PROVISIONAL AGENDA FOR SSE 9**

1 Adoption of the agenda

2 Decisions of other IMO bodies

3 New requirements for ventilation of survival craft (7.36)

4 Development of amendments to the LSA Code to revise the lowering speed of survival craft and rescue boats for cargo ships*1

5 Revision of SOLAS chapter III and the LSA Code (2.16)

6 Review of SOLAS chapter II-2 and associated codes to minimize the incidence and consequences of fires on ro-ro spaces and special category spaces of new and existing ro-ro passenger ships (7.33)

7 Development of amendments to the LSA Code for thermal performance of immersion suits*

8 Development of amendments to the LSA Code and resolution MSC.81(70) to address the in-water performance of SOLAS lifejackets (7.39)

9 Revision of the provisions for helicopter facilities in SOLAS and the MODU Code*

10 Development of amendments to SOLAS chapter II-2 and the FSS Code concerning detection and control of fires in cargo holds and on the cargo deck of containerships (7.15)

11 Development of amendments to SOLAS chapter II-2 and MSC.1/Circ.1456 addressing fire protection of control stations on cargo ships (7.40)

12 Revision of the Code of Safety for Diving Systems (resolution A.831(19)) and the Guidelines and specifications for hyperbaric evacuation systems (resolution A.692(17)) (7.19)

13 Validated model training courses (6.2)

14 Unified interpretation of provisions of IMO safety, security and environment-related conventions (7.1)

15 Development of provisions to prohibit the use of fire-fighting foams containing perfluorooctane sulfonic acid (PFOS) for fire fighting on board ships (7.41)

16 Amendments to the LSA Code concerning single fall and hook systems with on-load release capability (7.47)

17 Biennial status report and provisional agenda for SSE 10

18 Election of Chair and Vice-Chair for 2024

19 Any other business

20 Report to the Maritime Safety Committee

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* Output number to be confirmed in due course.

**ANNEX 29**

**BIENNIAL STATUS REPORT* OF THE MARITIME SAFETY COMMITTEE**

| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|---|---|---|---|---|---|---|---|---|---|
| 1. Improve implementation | 1.2 | Input on identifying emerging needs of developing countries, in particular SIDS and LDCs to be included in the ITCP | Continuous | TCC | MSC / MEPC / FAL / LEG | | No work requested | | |
| 1. Improve implementation | 1.3 (New) | Revision of the criteria for the provision of mobile satellite communication services in the Global Maritime Distress and Safety System (GMDSS) (resolution A.1001(25)) | 2023 | MSC | NCSR | | In progress | | MSC 101/24, para.21.33 |
| 1. Improve implementation | 1.4 | Analysis of consolidated audit summary reports | Annual | Ass. | MSC / MEPC / LEG / TCC / III | Council | Ongoing | | MEPC 61/24, para.11.14.1; MSC 88/26, para.10.8; C 120/D, paras. 7.1 and 7.2; MSC 105, para. 13.10; MSC 106, paras. 14.11 and 16.37 |

* For details, refer to the Organizational Planning module of GISIS.

| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|---|---|---|---|---|---|---|---|---|---|
| 1. Improve implementation | 1.5 | Non-exhaustive list of obligations under instruments relevant to the IMO Instruments Implementation Code (III Code) | Annual | MSC / MEPC | III | | Ongoing | | MEPC 64/23, para. 11.49; MSC 91/22, para. 10.30; MEPC 52/24, para.10.15. MEPC 72/17, para. 2.7.5; and MEPC 74/18, para.11.3; MSC 104/18, para.13.7.3, MSC 106/19, para. 14.18 |
| 1. Improve implementation | 1.7 | Identify thematic priorities within the area of maritime safety and security, marine environmental protection, facilitation of maritime traffic and maritime legislation | Annual | TCC | MSC / MEPC / FAL / LEG | | No work requested | | |
| 1. Improve implementation | 1.11 | Measures to harmonize port State control (PSC) activities and procedures worldwide | Continuous | MSC / MEPC | HTW / PPR / NCSR | III | Ongoing | | MSC 101/24, para. 21.48; MEPC 75/18, paras. 11.10 and 11.11; MSC 104, para. 13.7.1 |
| 1. Improve implementation | 1.12 (New) | Revision of the 1979, 1989 and 2009 MODU Codes and associated MSC circulars to prohibit the use of materials containing asbestos, including control of storage of such materials on board | 2023 | MSC | SDC | | In progress | | MSC 105/20, para. 18.54 |

| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|---|---|---|---|---|---|---|---|---|---|
| 1. Improve implementation | 1.13 | Review of mandatory requirements in the SOLAS, MARPOL and Load Line Conventions and the IBC and IGC Codes regarding watertight doors on cargo ships | 2022 | MSC / MEPC | | | Completed | | MSC work is completed at MSC 104, with the adoption of amendments to the 1988 Load Line Protocol and the IGC Code |
| 1. Improve implementation | 1.14 (New) | Development of guidance in relation to Mandatory IMO Member State Audit Scheme (IMSAS) to assist in the implementation of the III Code by Member States | 2023 | MSC / MEPC | III | | In progress | | MSC 103/21, para. 18.38; MSC 106/19, paras. 14.23 and 14.24 |
| 1. Improve implementation | 1.17 (New) | Review of IGC Code | 2023 | MSC | CCC | | In progress | | MSC 103/21, para. 18.2; MSC 104/18, para. 15.16, MSC 105/20, para. 18.50 |
| 1. Improve implementation | 1.18 (New) | Development of guidance on assessment and applications of remote surveys, ISM Code audits and ISPS Code verifications | 2024 | MSC / MEPC | III | | Ongoing | | MSC 104/18, para. 15.5; MSC 106/19, para. 14.16 |

| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|---|---|---|---|---|---|---|---|---|---|
| 1. Improve implementation | 1.20 | Revision of the Guidelines on places of refuge for ships in need of assistance (resolution A.949(23)) | 2022 | MSC | NCSR | | Completed | | MSC 100/20, para. 17.1; MSC 104/18, para. 15.19 MSC 106/19, para. 13.12 |
| Notes: | MSC 106 approved the draft Assembly resolution with a view to concurrent approval by LEG and MEPC, and adoption by A 33. | | | | | | | | |
| 1. Improve implementation | 1.29 | Development of further measures to enhance the safety of ships relating to the use of fuel oil | 2023 | MSC | | | In progress | | MSC 100/20, paras. 8.13 and 8.14; MSC 103/21, para.6.26; MSC 105/20, section 5. |
| 1. Improve implementation | 1.32 | Implementation of the STCW Convention | Continuous | MSC | HTW | | Ongoing | | MSC 101/24, para. 15.7; MSC 102/24, para. 13.14; |
| 1. Improve implementation | 1.34 | Development of global maritime SAR services, including harmonization of maritime and aeronautical procedures | Continuous | MSC | NCSR | | Ongoing | | |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.1 | Response to matters related to the ITU-R Study Groups and ITU World Radiocommunication Conference | Continuous | MSC | NCSR | | Ongoing | | MSC 106/19, paras. 13.28 to 13.33 |

| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|---|---|---|---|---|---|---|---|---|---|
| 2. Integrate new and advancing technologies in the regulatory framework | 2.3 | Amendments to the IGF Code and development of guidelines for alternative fuels and related technologies | Continuous | MSC | HTW / PPR / SDC / SSE | CCC | Ongoing | | MSC 94/21, paras. 18.5 and 18.6; MSC 96/25, paras.10.1 to 10.3; MSC 97/22, para. 19.2; PPR 6/20, para. 3.39; MSC 102/24, para. 21.4; MSC 106/19, para. 16.42. |
| Notes: | MSC 106 changed description in order to accommodate the consideration of alternative fuels that do not have low flashpoint. This resulted in the deletion of output 2.24 on "Development of guidelines for the safety of ships using ammonia as fuel" to avoid duplication. | | | | | | | | |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.4 | Further development of the IP Code and associated guidance | 2023 | MSC | SDC | | Extended | | MSC 104/18, para. 11.5; MSC 105/20, section 15; MSC 106/19, section 3; new SOLAS chapter XV adopted by resolution MSC.521(106) and IP Code by resolution MSC.527(106) |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.5 | Safety objectives and functional requirements of the Guidelines on alternative design and arrangements for SOLAS chapter II-1 | 2024 | MSC | SSE | SDC | Extended | | MSC 82/24, para. 3.92; MSC 98/23, annex 38; MSC 102/24, para. 19.16. MSC 105/20, para. 18.54 |
| Notes: | MSC 105 agreed with the recommendation of SDC 8 to rename this output to: "Safety objectives and functional requirements of the Guidelines on alternative design and arrangements for SOLAS chapter II-1" and the extension of the target completion year to 2024. | | | | | | | | |

| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|---|---|---|---|---|---|---|---|---|---|
| 2. Integrate new and advancing technologies in the regulatory framework | 2.6 | Development of Explanatory Notes to the Interim guidelines on second generation intact stability criteria | 2022 | MSC | SDC | | Completed | | MSC 85/26, paras. 12.7 and 23.42; MSC 102/24, para. 21.20 and annex 26), MSC 105/20, section 15, MSC.1/Circ.1652 |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.8 | Development of guidelines for cold ironing of ships and consideration of amendments to SOLAS chapters II-1 and II-2 | 2023 | MSC | III / HTW / SDC | SSE | In progress | | MSC 98/23, para. 20.36; SSE 7/21, section 11; HTW 8/16, section 15; SSE 8/20, section 18 |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.9 (New) | Development of amendments to VDR performance standards and carriage requirements | 2023 | MSC | III | NCSR | In progress | | MSC 101/24, paras. 21.39 to 21.44 |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.10 | Development of revisions and amendments to existing instruments relating to the amendments to the 1974 SOLAS Convention for modernization of the GMDSS | 2022 | MSC | HTW / SSE | NCSR | Completed | | MSC 105/20, paras. 3.42, 3.52 to 3.55, 3.60 to 3.62, 3.63.1 and 3.63.2; resolutions MSC.496(105) through MSC.499(105), MSC.502(105) through MSC.517(105); MSC.1/Circ.803/Rev.1; MSC.1/Circ.1645; MSC 106/19, para. 13.17, MSC.1/Circ.1656, MSC.1/Circ.1657, MSC.1/Circ.1658 MSC.1/Circ.892/Rev.1 |

| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|---|---|---|---|---|---|---|---|---|---|
| 2. Integrate new and advancing technologies in the regulatory framework | 2.11 | Consideration of descriptions of Maritime Services in the context of e-navigation | 2023 | MSC | FAL / NCSR | | In progress | | FAL 43/20, para. 7.21; MSC 101/24, paras. 11.10 and 11.11; resolution MSC.467(101); MSC.1/Circ.1610; MSC 104/18, para. 15.19; FAL 46/23, section 8; MSC 106/19, para. 16.47.2.1 |
| Notes: | MSC 106 extended the target completion year to 2023 | | | | | | | | |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.12 | Development of generic performance standards for shipborne satellite navigation system receiver equipment | 2023 | MSC | NCSR | | In progress | | MSC 104/18, para.15.19; MSC 106/19, para. 16.47.2.2 |
| Notes: | MSC 106 extended the target completion year to 2023 | | | | | | | | |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.14 (New) | Development of SOLAS amendments for mandatory carriage of electronic inclinometers on container ships and bulk carriers | 2022 | MSC | NCSR | | Completed | | MSC 101/24, paras. 21.20 and 21.21; MSC 104/18, para. 15.19; MSC 105/20, paras. 13.7 and 13.8; MSC 106/19, para.13.46 |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.16 | Revision of SOLAS chapter III and the International Life-Saving Appliance (LSA) Code | 2024 | MSC | SSE | | In progress | | |
| Notes: | To remove gaps, inconsistencies and ambiguities based on the safety objectives, functional requirements and expected performance for SOLAS chapter III | | | | | | | | |

| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|---|---|---|---|---|---|---|---|---|---|
| 2. Integrate new and advancing technologies in the regulatory framework | 2.17 | Consideration of development of goal-based ship construction standards for all ship types | 2023 | MSC / MEPC | | | In progress | | |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.20 (New) | Development of amendments to SOLAS regulation II-1/3-4 to apply requirements for emergency towing equipment for tankers to other types of ships | 2023 | MSC | SDC | | In progress | | |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.21 | Review of Formal Safety Assessment (FSA) studies by the FSA Experts' Group | Continuous | MSC | | | Ongoing | | MSC 105/20, section 11; MSC 106/19, section 9 |
| Notes: | MSC 106 agreed on the ToRs for the FSA Experts Group to address containership fires, to be convened in 2023 and report directly to the SSE Sub-Committee. | | | | | | | | |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.22 | Amendments to the IGC and IGF Codes to include high manganese austenitic steel and related guidance for approving alternative metallic material for cryogenic service | 2023 | MSC | CCC | | Completed | | MSC 96/25 para. 23.4; MSC 98/23, annex 38; MSC 100/20 para. 17.21; MSC 102/24, para. 21.6; MSC 104/18, para. 15.16; MSC 105/20, para. 14.3; MSC 106/19, para. 3.46; resolutions MSC.523(106) and MSC.524(106) |

| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|---|---|---|---|---|---|---|---|---|---|
| 2. Integrate new and advancing technologies in the regulatory framework | 2.23 (New) | Development of a goal-based instrument for maritime autonomous surface ships (MASS) | 2025 | MSC | | | In progress | | MSC 104/18, para. 15.9.2; MSC 105/20, section 7; MSC 106/19, section 5 |
| ~~2. Integrate new and advancing technologies in the regulatory framework~~ | ~~2.24 (New)~~ | ~~Development of guidelines for the safety of ships using ammonia as fuel~~ | ~~2023~~ | ~~MSC~~ | ~~CCC~~ | | ~~Deleted~~ | | ~~MSC 105/20, para 18.26; CCC 8/18, para 15.4 and annex 11; MSC 106/19, para.16.42~~ |
| Notes: | MSC 106 decided that this output addressing specifically ammonia fuels was covered by revised output 2.3, thus deleted it to avoid duplication. | | | | | | | | |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.25 (New) | Revision of the Interim recommendations for carriage of liquefied hydrogen in bulk | 2024 | MSC | CCC | | In progress | | MSC 105/20, para. 18.28 |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.27 (New) | Development of performance standards for a digital navigational data system (NAVDAT) | 2024 | MSC | NCSR | | Not applicable | | MSC 106/19, para. 16.47.1.2 |
| 2. Integrate new and advancing technologies in the regulatory framework | 2.28 (New) | Development of amendments to SOLAS chapters IV and V and performance standards and guidelines to introduce VHF Data Exchange System (VDES) | 2024 | MSC | NCSR | | Not applicable | | MSC 106/19, para. 16.47.1.1 |

| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|---|---|---|---|---|---|---|---|---|---|
| 4. Engage in ocean governance | 4.2 | Input to the ITCP on emerging issues relating to sustainable development and achievement of the SDGs | Continuous | TCC | MSC / MEPC / FAL / LEG | | No work requested | | MEPC 72/17, section 12; MEPC 73/19, section 13; MEPC 74/18, section 12 |
| 4. Engage in ocean governance | 4.4 (New) | Development of measures regarding the detection and mandatory reporting of containers lost at sea that may enhance the positioning, tracking and recovery of such containers | 2023 | MSC | NCSR | CCC | In progress | | MSC 103/21, para. 18.34 |
| 5. Enhance global facilitation and security of international trade | 5.2 | Guidelines and guidance on the implementation and interpretation of SOLAS chapter XI-2 and the ISPS Code | Annual | MSC | | | | | |
| 5. Enhance global facilitation and security of international trade | 5.3 | Consideration and analysis of reports on piracy and armed robbery against ships | Annual | MSC | | | Completed | | MSC 105/20, para. 9.1; MSC 106/19, section 7 |

| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|---|---|---|---|---|---|---|---|---|---|
| 5. Enhance global facilitation and security of international trade | 5.4 | Revised guidance relating to the prevention of piracy and armed robbery to reflect emerging trends and behaviour patterns | Annual | MSC | LEG | | Completed | | MSC 105/20, para. 9.1; MSC 106/19. para. 7.7 |
| 5. Enhance global facilitation and security of international trade | 5.13 | IMO's contribution to addressing unsafe mixed migration by sea | 2023 | FAL / LEG / MSC | | | In progress | | FAL 41/17, para. 7.15; MSC 98/23, para. 16.14; FAL 43, para.10.7; MSC 101/24, para. 19.8; MSC 104/18, para9.5; MSC 105/20, section 10; FAL 46/24, para. 11.4, MSC106/19, section 8; resolution MSC.528(106) |
| Notes: | MSC 106 extended the target completion year to 2023, with the aim of keeping the Committee informed of developments. | | | | | | | | |
| 6. Address the human element | 6.1 | Role of the human element | Continuous | MSC / MEPC | III / PPR / CCC / SDC / SSE / NCSR | HTW | Ongoing | | MSC 89/25, paras. 10.10, 10.16 and 22.39 and annex 21; |
| 6. Address the human element | 6.2 | Validated model training courses | Continuous | MSC / MEPC | III / PPR / CCC / SDC / SSE / NCSR | HTW | Ongoing | | MSC 100/20, paras. 10.3 to 10.6 and 17.28; MSC 105/20, section 16 |
| 6. Address the human element | 6.3 | Reports on unlawful practices associated with certificates of competency | Annual | MSC | HTW | | Completed | | MSC 83/28, para. 12.2; |

| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|---|---|---|---|---|---|---|---|---|---|
| 6. Address the human element | 6.5 | Development of measures to facilitate mandatory seagoing service required under the STCW Convention | 2023 | MSC | III | HTW | In progress | | MSC 101/24, paras. 21.29 and 21.30 |
| 6. Address the human element | 6.6 | Development of measures to ensure quality of onboard training as part of the mandatory seagoing service required by the STCW Convention | 2023 | MSC | HTW | | In progress | | MSC 101/24, para. 21.1; |
| 6. Address the human element | 6.10 | Development of an entrant training manual for PSC personnel | 2023 | MSC / MEPC | III | | In progress | | MSC 103/21, para.18.36; MSC 106, para.16.46 |
| Notes: | III 8 agreed that the output on development of an entrant training manual for PSC personnel should be developed after the finalization of IMO Model Course 3.09 on port State control. | | | | | | | | |
| 6. Address the human element | 6.12 | Comprehensive review of the 1995 STCW-F Convention | 2023 | MSC | HTW | | In progress | | MSC 95/22, para. 19.3 and 19.4; MSC 96/25, para. 12.3; |
| 6. Address the human element | 6.13 | Development of amendments to the Revised guidelines for the development, review and validation of model courses (MSC-MEPC.2/Circ.15/Rev.1) | 2022 | MSC | HTW | | Completed | | MSC 100/20, paras. 17.7 and 17.8; MSC-MEPC.2/Circ.15/Rev.2 |

| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|---|---|---|---|---|---|---|---|---|---|
| 6. Address the human element | 6.14 | Development of amendments to the STCW Convention and Code for the use of electronic certificates and documents of seafarers | 2022 | MSC | III | HTW | In progress | | MSC 100/20, para. 17.12; MSC 106/19, paras. 10.3 to 10.9 |
| Notes: | MSC 106 approved draft amendments to STCW regulations I/1 and I/2, as well as section A-I/2 of the STCW Code with a view to adoption by MSC 107; MSC 107 to consider the draft guidelines on the use of electronic certificates of seafarers. | | | | | | | | |
| 6. Address the human element | 6.15 | Revision of resolution A.1050(27) to ensure the safety of personnel entering enclosed spaces on board ships | 2024 | MSC | III / HTW / PPR / SDC | CCC | In progress | | MSC 101/24, para. 21.48; MSC 104/18, para. 15.16; MSC 106/19, para. 16.31. |
| Notes: | MSC 106 expanded the scope of the output on "Revision of the Revised recommendations for entering enclosed spaces aboard ships (resolution A.1050(27))" and modified the description, with a target completion year of 2024, assigning the CCC Sub-Committee as the coordinating organ, in association with the III, HTW, PPR, SDC and SSE Sub-Committees. | | | | | | | | |
| 6. Address the human element | 6.17 (New) | Comprehensive review and revision of the 1978 STCW Convention and Code | 2026 | MSC | HTW | | | | MSC 105/20, para. 18.13 |
| Notes: | MSC 105 instructed the HTW Sub-Committee to develop and finalize, as a matter of priority, STCW training provisions addressing bullying and harassment in the maritime sector, including sexual assault and sexual harassment, as part of this output. | | | | | | | | |
| 7. Ensure regulatory effectiveness | 7.1 | Unified interpretation of provisions of IMO safety, security, environment, facilitation, liability and compensation-related conventions | Continuous | MSC / MEPC / FAL / LEG | III / PPR / CCC / SDC / SSE / NCSR | | Ongoing | | MSC 76/23, para. 20.3; MSC 78/26, para. 22.12; |

| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|---|---|---|---|---|---|---|---|---|---|
| 7. Ensure regulatory effectiveness | 7.2 | Developments in GMDSS services, including guidelines on maritime safety information (MSI) | Continuous | MSC | NCSR | | Ongoing | | MSC 104/18, para. 15.19; MSC 106/19, paras. 13.24.3, 13.25 and 13.27; resolution MSC.529(106), MSC.1/Circ.1659 and MSC.1/Circ.1403/Rev.2 |
| 7. Ensure regulatory effectiveness | 7.4 | Lessons learned and safety issues identified from the analysis of marine safety investigation reports | Annual | MSC / MEPC | III | | Ongoing | | MSC 92/26, para. 22.29; MSC 106/19, paras. 14.2 to 14.6 |
| 7. Ensure regulatory effectiveness | 7.5 | Identified issues relating to the implementation of IMO instruments from the analysis of data | Annual | MSC / MEPC | III | | Ongoing | | MSC 96/25, para. 23.13; MEPC 69/21, para. 19.11; MSC 106/19, paras. 14.12 and 16.46. |
| Notes: | MSC 106 renamed output 7.5, subject to MEPC 79's concurrent approval, from "Identified issues relating to the implementation of IMO instruments from the analysis of PSC data" to its current description, thereby extending its scope. | | | | | | | | |
| 7. Ensure regulatory effectiveness | 7.6 | Consideration and analysis of reports and information on persons rescued at sea and stowaways | Annual | MSC / FAL | | | Postponed | | |
| 7. Ensure regulatory effectiveness | 7.10 | Amendments to the IMDG Code and supplements | Continuous | MSC | CCC | | Ongoing | | MSC 105/20, para.3.59 and 14.4 |

| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|---|---|---|---|---|---|---|---|---|---|
| 7. Ensure regulatory effectiveness | 7.13 | Amendments to the IMSBC Code and supplements | Continuous | MSC | CCC | | Ongoing | | MSC 105/20, para.14.4 and para.3.57 |
| 7. Ensure regulatory effectiveness | 7.14 (New) | Revision of ECDIS Guidance for good practice (MSC.1/Circ.1503/Rev. 1) and amendments to ECDIS performance standards (resolution MSC.232(82)) | 2023 | MSC | III | NCSR | Completed | | MSC 100/20, para.17.9; MSC 102/24, para.21.14; MSC 104/18, para.15.19; MSC 106/19, paras.13.36 and 13.43; MSC.1/Circ.1503/Rev.2 and resolution MSC.530(106) |
| 7. Ensure regulatory effectiveness | 7.15 (New) | Development of amendments to SOLAS chapter II-2 and the FSS Code concerning detection and control of fires in cargo holds and on the cargo deck of container ships | 2025 | MSC | CCC | SSE | In progress | | MSC 103/21, para.18.8; SSE 8/20, section 10 |
| 7. Ensure regulatory effectiveness | 7.19 | Revision of the Code of safety for diving systems (resolution A.831(19)) and the Guidelines and specifications for hyperbaric evacuation systems (resolution A.692(17)) | 2024 | MSC | SSE | | In progress | | MSC 99/22, para.20.26; SSE 8/20, section 14; MSC 106/19, paras.11.31 and .32 |

| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|---|---|---|---|---|---|---|---|---|---|
| 7. Ensure regulatory effectiveness | 7.20 | Amendments to the IAMSAR Manual | Continuous | MSC | NCSR | | Ongoing | | |
| 7. Ensure regulatory effectiveness | 7.21 | Amendments to the 2011 ESP Code | Continuous | MSC | SDC | | Ongoing | | MSC 92/26, para.13.31; |
| Notes: | Regular amendments to the 2011 ESP Code agreed by MSC 92 (MSC 92/26, para.13.31) | | | | | | | | |
| 7. Ensure regulatory effectiveness | 7.22 | Routeing measures and mandatory ship reporting systems | Continuous | MSC | NCSR | | Ongoing | | MSC 106/19, paras.13.3 and 13.4; COLREG.2/Circ.78 and SN.1/Circ.342 |
| 7. Ensure regulatory effectiveness | 7.23 | Updates to the LRIT system | Continuous | MSC | NCSR | | Ongoing | | MSC 106/19, paras.13.5 and 13.6; res.MSC.263(84)/Rev.1, MSC.1/Circ.1259/Rev.9, MSC.1/Circ.1307/Rev.1 and MSC.1/Circ.1376/Rev.5 |
| 7. Ensure regulatory effectiveness | 7.24 | Verified goal-based new ship construction standards for tankers and bulk carriers | Continuous | MSC | | | Ongoing | | MSC 106/19, section 4 |
| 7. Ensure regulatory effectiveness | 7.25 | Amendments to the International Code for the Safe Carriage of Grain in Bulk (resolution MSC.23(59)) to introduce a new class of loading conditions for special compartments | 2023 | MSC | CCC | | Extended | | MSC 104/18, para.15.16 |

| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|---|---|---|---|---|---|---|---|---|---|
| 7. Ensure regulatory effectiveness | 7.26 | Reports to the MSC on information communicated by STCW Parties | Annual | MSC | | | Completed | | MSC.1/Circ.1164/Rev.26 |
| 7. Ensure regulatory effectiveness | 7.27 | Updated Survey Guidelines under the Harmonized System of Survey and Certification (HSSC) | Annual | MSC / MEPC | III | | Ongoing | | MEPC 68/21, paras.14.5 and 14.6; MSC 79/23, paras.9.19 and 9.20; MEPC 72/17, paras. 7.4 and 4.24 to 4.33; MSC 104, para.13.7.2; MSC 106/19, paras.14.13 to 14.18 |
| 7. Ensure regulatory effectiveness | 7.28 | Consideration of reports of incidents involving dangerous goods or marine pollutants in packaged form on board ships or in port areas | Annual | MSC / MEPC | III | CCC | Completed | | CCC 7/15, section 9 |
| 7. Ensure regulatory effectiveness | 7.31 | Finalization of a non-mandatory instrument on regulations for non-convention ships | 2022 | MSC | III | | Postponed | | MSC 96/25, para.9.4; MSC 101/24, para.21.38; MSC 104, section 5; MSC 105, section 4 |
| Notes: | MSC 102, having considered that MSC 101 had included an item on "measures to improve domestic ferry safety", agreed that the III Sub-Committee should not proceed with the development of a model course (as instructed by MSC 96), pending further instructions from the Committee taking into account the outcome of the work on measures to improve domestic ferry safety (MSC 102/24, para.14.10) | | | | | | | | |

| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|---|---|---|---|---|---|---|---|---|---|
| 7. Ensure regulatory effectiveness | 7.32 | Requirements for onboard lifting appliances and anchor handling winches | 2022 | MSC | HTW | SSE | Completed | | MSC 89/25, para.22.26; MSC 98/23, annex 38; SSE 8/20, section 9; MSC 106/19, section 11 |
| Notes: | MSC 106 finalized the work, approved the draft guidelines in principle. MSC 107 is expected to adopt/approve the whole set. | | | | | | | | |
| 7. Ensure regulatory effectiveness | 7.33 | Review of SOLAS chapter II-2 and associated codes to minimize the incidence and consequences of fires on ro-ro spaces and special category spaces of new and existing ro-ro passenger ships | 2023 | MSC | HTW / SDC | SSE | In progress | | MSC 97/22, para.19.19; MSC 98/23, para.12.42; SSE 8/20, section 6 |
| Notes: | MSC 106 extended the target completion year to 2023 | | | | | | | | |
| 7. Ensure regulatory effectiveness | 7.34 | Amendments to Guidelines for the approval of fixed dry chemical powder fire-extinguishing systems for the protection of ship carrying liquefied gases in bulk (MSC.1/Circ.1315) | 2022 | MSC | SSE | | Completed | | MSC 98/23, para.20.37; SSE 7/21, section 7; SSE 8/20, section 7; MSC 106/19, section 11; MSC.1/Circ.1315/Rev.1 |
| 7. Ensure regulatory effectiveness | 7.35 | Safety measures for non-SOLAS ships operating in polar waters | 2023 | MSC | NCSR | SDC | In progress | | MSC 98/23, paras.10.29, 20.31.1 and 20.31.2, and annex 38; MSC 99/22, paras.7.16 and 20.13.1; |

| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | MSC 101/24, paras.7.6 and 7.9; MSC 102/24, paras.17.5 to 17.8; MSC 103/21, paras.15.1-15.4; MSC 105/20, para.18.54; MSC 106/19, para.13.9 |
| 7. Ensure regulatory effectiveness | 7.36 | New requirements for ventilation of survival craft | 2023 | MSC | SSE | | In progress | | MSC 97/22, para.19.22; SSE 8/20, section 3; MSC 106/19, section 11 |
| Notes: | MSC 106 extended the target completion year to 2023. MSC 106 approved the draft amendments to the LSA Code for totally enclosed lifeboats as a matter of priority; and agreed to keep the agenda item on the agenda for SSE 9 for consideration of any compelling need for ventilation requirements for partially enclosed lifeboats and liferafts, for inclusion in both the LSA Code and resolution MSC.81(70). | | | | | | | | |
| 7. Ensure regulatory effectiveness | 7.37 | Consequential work related to the new International Code for Ships Operating in Polar Waters | 2022 | MSC | SSE / NCSR | SDC | Completed | | MSC 93/22, paras.10.44, 10.50 and 20.12; MSC 96/25, para.3.77; MSC 97/22, paras. 8.32 and 19.25; MSC 101/24, paras. 7.9 and 11.18, annex 31; MSC.1/Circ.1612; MSC 102/24, para. 19.3; SSE 8/20, section 4; MSC 106/19, section 11; MSC.1/Circ.1614/Rev.1 |
| 7. Ensure regulatory effectiveness | 7.38 | Revision of the Performance standards for water level detectors on bulk | 2023 | MSC | SSE | SDC | Extended | | MSC 102/24, para. 17.23; resolution MSC.188(79)/Rev.1 |

| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|---|---|---|---|---|---|---|---|---|---|
| | | carriers and single hold cargo ships other than bulk carriers (resolution MSC.188(79)) | | | | | | | |
| 7. Ensure regulatory effectiveness | 7.39 | Development of amendments to the LSA Code and resolution MSC.81(70) to address the in-water performance of SOLAS lifejackets | 2023 | MSC | SSE | | In progress | | MSC 101/24, para. 21.6; MSC 102/24, para. 21.19 |
| 7. Ensure regulatory effectiveness | 7.40 | Development of amendments to SOLAS chapter II-2 and MSC.1/Circ.1456 addressing fire protection of control stations on cargo ships | 2023 | MSC | SSE | | In progress | | MSC 101/24, para. 21.3; MSC 102/24, para. 21.19; SSE 8/20, section 11 |
| 7. Ensure regulatory effectiveness | 7.41 | Development of provisions to prohibit the use of fire-fighting foams containing perfluorooctane sulfonic acid (PFOS) for fire fighting on board ships | 2023 | MSC | SSE | | Extended | | MSC 101/24, para. 21.27; MSC 102/24, paras. 19.31 and 21.19; SSE 8/20, section 12; MSC 106/19, section 11 |
| Notes: | MSC 106 extended the target completion year to 2023; approved draft amendments to SOLAS, the 1994 and 2000 HSC Codes; and instructed SSE 9 to consider the prohibition of other fire-fighting foam types in addition to PFOS, such as PFOA, and whether the existing output should be expanded in that regard; and the potential need to revise the Revised Guidelines (MSC.1/Circ.1312). | | | | | | | | |

| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|---|---|---|---|---|---|---|---|---|---|
| 7. Ensure regulatory effectiveness | 7.42 (New) | Revision of the Interim explanatory notes for the assessment of passenger ship systems' capabilities after a fire or flooding casualty (MSC.1/Circ.1369) and related circulars | 2024 | MSC | HTW / SSE | SDC | In progress | | MSC 103/21, para. 18.31; MSC 105/20, paras. 15.24.2 and 18.54 |
| Notes: | MSC 105 agreed with SDC 8's recommendation for this output to be transferred to the current 2022-2023 agenda of the SDC Sub-Committee. | | | | | | | | |
| 7. Ensure regulatory effectiveness | 7.44 (New) | Revision of SOLAS regulation V/23 and associated instruments to improve the safety of pilot transfer arrangements | 2024 | MSC | NCSR | | Not applicable | | MSC 106/19, paras. 16.12 to .14 |
| 7. Ensure regulatory effectiveness | 7.45 (New) | Development of guidance to assist competent authorities in the implementation of the Cape Town Agreement of 2012 | 2024 | MSC | III | | Not applicable | | MSC 106/19, para. 16.17 |
| 7. Ensure regulatory effectiveness | 7.46 (New) | Amendments to ECDIS performance standards (resolution MSC.530(106)) to facilitate a standardized digital exchange of ships' route plans | 2024 | MSC | NCSR | | Not applicable | | MSC 106/19, para. 16.49 |
| Notes: | MSC 106 agreed that the scope of this output should be limited to amendments necessary to facilitate a standardized digital exchange of ships' route plans and that this work should be based on the ECDIS performance standards adopted by resolution MSC.530(106). | | | | | | | | |

| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|---|---|---|---|---|---|---|---|---|---|
| 7. Ensure regulatory effectiveness | 7.47 (New) | Amendments to the LSA Code concerning single fall and hook systems with on-load release capability | 2023 | MSC | SSE | | | | MSC 106/19, section 11 |
| Notes: | MSC 106 reinstated and renamed this output in the provisional agenda for SSE 9, redefining the scope of this output to include other sub-paragraphs of paragraph 4.4.7.6 of the LSA Code to provide the necessary clarity for the consistent application of the requirements. | | | | | | | | |
| 7. Ensure regulatory effectiveness | 7.[…] (New) | Development of amendments to the LSA Code to revise the lowering speed of survival craft and rescue boats for cargo ships | 2024 | MSC | SSE | | In progress | | MSC 99/22, para. 20.14 to 20.18; SSE 8/20, para. 16.9 |
| 7. Ensure regulatory effectiveness | 7.[…] (New) | Development of amendments to the LSA Code for thermal performance of immersion suits | 2024 | MSC | SSE | | In progress | | MSC 84/24, para. 22.48; DE 57/25, para. 9; SSE 8/20, paras. 16.8 and 16.9 |
| 7. Ensure regulatory effectiveness | 7.[…] (New) | Revision of the provisions for helicopter facilities in SOLAS and the MODU Code | 2024 | MSC | SSE | | In progress | | MSC 86/26, para. 23.39 |
| 8. Ensure organizational effectiveness | 8.1 | Endorsed proposals for the development, maintenance and enhancement of information systems and related guidance (GISIS, websites, etc.) | Continuous | Council | MSC / MEPC / FAL / LEG / TCC | | Ongoing | | |

| Reference to SD, if applicable | Output number | Description | Target completion year | Parent organ(s) | Associated organ(s) | Coordinating organ | Status of output for Year 1 | Status of output for Year 2 | References |
|---|---|---|---|---|---|---|---|---|---|
| 8. Ensure organizational effectiveness | 8.9 | Revised documents on organization and method of work, as appropriate | 2023 | Council | MSC / MEPC / FAL / LEG / TCC | | In progress | | MSC-MEPC.1/Circ.5/Rev.3, subject to MEPC's concurrent approval |
| OW. Other work | OW 3 | Endorsed proposals for new outputs for the 2022-2023 biennium as accepted by the Committees | Annual | Council | MSC / MEPC / FAL / LEG / TCC | | | | |
| OW. Other work | OW 8 | Cooperate with the United Nations on matters of mutual interest, as well as provide relevant input/guidance | 2023 | Assembly | MSC / MEPC / FAL / LEG / TCC | Council | In progress | | C 120/D, paras. 17(a).1 to 17(a).5 |
| OW. Other work | OW 9 | Cooperate with other international bodies on matters of mutual interest, as well as provide relevant input/guidance | 2023 | Assembly | MSC / MEPC / FAL / LEG / TCC | Council | In progress | | C 120/D, paras. 17(a).1 to 17(a).5 |
| OW. Other work | OW 12 (New) | Guidance on the training on and operation of Emergency Personal Radio Devices in multiple casualty situations | 2022 | MSC | NCSR | | Completed | | MSC 100/20, para. 17.5; MSC.1/Circ.1660 |

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# ANNEX 30

## POST-BIENNIAL AGENDA* OF THE MARITIME SAFETY COMMITTEE

| Maritime Safety Committee (MSC) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Number | Biennium (when the output was placed on the post-biennial agenda) | Reference to Strategic Direction, if applicable | Description | Parent organ(s) | Associated organs(s) | Coordinating organ(s) | Timescale (sessions) | References |
| 185 | 2022-2023 | 1 | Development of amendments to chapter 6 of the 2009 MODU Code regarding electrical equipment capable of operation after shutdown | MSC | SSE | | 1 | MSC 105/20, para. 18.3 |
| 194 | 2022-2023 | 1 | Development of measures to ensure the safe operation of elevators on board ships | MSC | SSE | | 4 | MSC 106/19, paras. 16.25 and .26 |
| 196 | 2022-2023 | 1 | Review of the appropriateness and effectiveness of SOLAS regulation IV/5 (Provision of radiocommunication services) | MSC | NCSR | | 2 | MSC 106/19, para. 16.37 |

* For details, refer to the Organizational Planning module of GISIS.

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| 145 | 2016-2017 | 2 | Amendments to the IMDG Code related to portable tanks with shells made of Fibre Reinforced Plastics (FRP) for multimodal transportation of dangerous goods | MSC | CCC | | 2 | MSC 98/23, para. 20.11 |
| 152 | 2016-2017 | 2 | Guidelines for use of Fibre Reinforced Plastics (FRP) within ship structures | MSC | SDC | | 2 | MSC 98/23, para. 10.22 |
| 190 | 2022-2023 | 2 | Revision of SOLAS chapters II-1 (part C) and V, and related instruments regarding steering and propulsion requirements, to address both traditional and non-traditional propulsion and steering systems | MSC | SDC / NCSR | SSE | 2 | MSC 105/20, para. 18.23 and 18.24;<br>MSC instructed SSE to clarify scope of new output, in particular whether propellers of traditional propulsion systems were included, and advise accordingly. |
| 158 | 2018-2019 | 6 | Amendments to SOLAS chapter III and chapter IV of the LSA Code to require the carriage of self-righting or canopied reversible liferafts for new ships | MSC | SSE | | 2 | MSC 99/22, para. 20.22 and 20.23 |
| 169 | 2018-2019 | 6 | Development of design and prototype test requirements for the arrangements used in the operational testing of free fall lifeboat release systems without launching the lifeboat | MSC | | SSE | 2 | MSC 101/24, para. 21.15 |

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|---|---|---|---|---|---|---|---|---|
| 183 | 2020-2021 | 6 | Revision of the 2010 FTP Code to allow for new fire protection systems and materials | MSC | SSE | | 3 | MSC 103/21, para. 18.28 |
| 191 | 2022-2023 | 6 | Scoping exercise and enhancement of the effectiveness of provisions on fatigue and seafarers' hours of work and rest | MSC | III | HTW | 2 | MSC 105/20, para. 18.31 |
| 186 | 2022-2023 | 7 | Development of amendments to chapter 15 of the FSS Code on enclosed spaces containing a nitrogen receiver or a buffer tank of nitrogen generator systems | MSC | SSE | | 2 | MSC 105/20, paras. 18.5 and 18.6 |
| 187 | 2022-2023 | 7 | Review and update SOLAS regulation II-2/9 on containment of fire to incorporate existing guidance and clarify requirements | MSC | SSE | | 2 | MSC 105/20, paras. 18.8 and 18.9 |
| 188 | 2022-2023 | 7 | Development of guidelines for the use of electronic nautical publications (ENP) | MSC | NCSR | | 2 | MSC 105/20, para. 18.11 |
| 192 | 2022-2023 | 7 | Revision of the Guidelines for the application of plastic pipes on ships (resolution A.753(18)) | MSC | SSE | | 1 | MSC 105/20, para. 18.40 |

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| 193 | 2022-2023 | 7 | Evaluation of adequacy of fire protection, detection and extinction arrangements in vehicle, special category and ro-ro spaces in order to reduce the fire risk of ships carrying new energy vehicles | MSC | SSE | | 4 | MSC 105/20, para. 18.43 and 18.44 |
| 195 | 2022-2023 | 7 | Amendments to the Guidelines for construction, installation, maintenance and inspection/survey of means of embarkation and disembarkation (MSC.1/Circ.1331) concerning the rigging of safety netting on accommodation ladders and gangways | MSC | SSE | SDC | 1 | MSC 106/19, para. 16.28 |
| 168 | 2018-2019 | OW | Development of amendments to paragraph 8.3.5 and annex 1 of the 1994 and 2000 HSC Codes | MSC | | SSE | 1 | MSC 101/24, para. 21.9 |
| 42 | 2012-2013 | OW | Review of the 2009 Code on Alerts and Indicators | MSC | NCSR | SSE | 2 | MSC 89/25, para. 22.25 |
| ~~65~~ | ~~2012-2013~~ | ~~OW~~ | ~~Application of amendments to SOLAS and related codes and guidelines~~ | ~~MSC~~ | | | ~~2~~ | ~~MSC 91/22, paragraphs 3.16 to 3.35~~ |
| Notes: | MSC 106 deleted this output having considered that it was no longer needed following approval of MSC.1/Circ.1500 on *Guidance on drafting of amendments to the 1974 SOLAS Convention and related mandatory instruments* at MSC 94 (MSC 106/19, para 11.34). | | | | | | | |

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# ANNEX 31

## SUBSTANTIVE ITEMS FOR INCLUSION IN THE AGENDAS FOR MSC 107 AND MSC 108

**107th session of the Committee (31 May to 9 June 2023)**

Decisions of other IMO bodies

Amendments to mandatory instruments

Goal-based new ship construction standards

Development of a goal-based instrument for maritime autonomous surface ships (MASS)

Development of further measures to enhance the safety of ships relating to the use of fuel oil

Measures to enhance maritime security

Piracy and armed robbery against ships

Unsafe mixed migration by sea

Formal safety assessment

Carriage of cargoes and containers (Report of the eighth session of the Sub-Committee)

Ship design and construction (Report of the ninth session of the Sub-Committee)

Human element, training and watchkeeping (Report of the ninth session of the Sub-Committee)

Ship systems and equipment (Report of the ninth session of the Sub-Committee)

Navigation, communications and search and rescue (Urgent matters emanating from the tenth session of the Sub-Committee)

Application of the Committee's method of work

Work programme

Election of Chair and Vice-Chair for 2024

Any other business

**108th session of the Committee (May/June 2024)**[1]

Decisions of other IMO bodies

Amendments to mandatory instruments

Goal-based new ship construction standards

Development of a goal-based instrument for maritime autonomous surface ships (MASS)

Development of further measures to enhance the safety of ships relating to the use of fuel oil

Measures to enhance maritime security

Piracy and armed robbery against ships

[Unsafe mixed migration by sea]

Formal safety assessment

Navigation, communications and search and rescue (Report of the tenth [and eleventh] session of the Sub-Committee)[2]

Implementation of IMO instruments (Report of the ninth session of the Sub-Committee)

Carriage of cargoes and containers (Report of the ninth session of the Sub-Committee)

Ship design and construction (Report of the tenth session of the Sub-Committee)

Human element, training and watchkeeping (Report of the tenth session of the Sub-Committee)[2]

Ship systems and equipment (Report of the tenth session of the Sub-Committee)[2]

Application of the Committee's method of work

Work programme

Any other business

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[1] The list of items for inclusion in the agenda of MSC 108 is indicative only and depends on the outcome of MSC 107.

[2] Depending on the scheduling of Sub-Committee meetings in 2024.

# ANNEX 32

## STATEMENTS BY DELEGATIONS AND OBSERVERS[1]

## AGENDA ITEM 2

### Statement of the Democratic People's Republic of Korea

"First of all, our missile launches have been conducted, based on scientific calculation, so that there was no slight adverse impact on safety of ships and neighbouring countries.
This delegation would like to highlight that the greatest and real threats to the safety and security in Korean peninsula waters, are from the United States.
For about 70 years, since the ceasefire of Korean War in 1953, the United States has conducted various kinds of aggressive joint military drills against the DPR Korea over 100 times, with south Korea and Japan, deploying its huge military and nuclear forces including warships in and around the Korean peninsula every year.
Even in September of this year, the U.S. brought the nuclear-powered aircraft carrier "Ronald Reagan" task force into the waters off the Korean Peninsula to stage the aggressive joint naval drills together with Japan and south Korea.
And, the U.S. and south Korea conducted the "Hoguk defence drills" in October as well, and even at this time, they are carrying out the joint air drill "Vigilant Storm" involving over 240 aircrafts.
We would like to ask the previously intervened delegations how their countries will respond if the other hostile states' naval forces including nuclear carrier and nuclear-powered submarine conduct the large scale military exercises in waters around their countries.
The DPR Korea's missile launches are the justified exercises of the right to self-defense in order to defend the destiny of the country and the life of our people and modernize its national defence capability.
Furthermore, it was well known that on 9 May 2017, a fishing vessel of south Korea was collided by a Navy warship of United States which was conducting military operations in waters of the Korean Peninsula.
Even in 2017 alone, there were four collision accidents between the US warships and peaceful commercial ships during their conducting military operations in Asia area, which had resulted in deaths of 17 sailors and injuries of 5 sailors including the significant hull damages of collided ships.
In this meaning, the DPR Korea can conclude that the joint naval military drills by the United States have been offering impediments to the vessel traffic, and the United States is the main originator of posing the serious danger to the safety of shipping in the Korean Peninsula waters, including to the safety and security of the DPR Korea.
Secondly, to say the implementation of the UN Security Council Resolution against the DPR Korea, we have never recognized the partial and illegal "resolution", which seriously infringes upon the right to existence and development of sovereign state.
In fact, the anti-DPR Korea "sanctions resolutions", cooked up by the U.S. are barriers to the implementation of the IMO instruments and ensuring the safety of ships and seafarers.
For example, since November 2017, Kemilinks Communication Company in Singapore has suspended its LRIT communication service to the DPR Korea flagged vessels.
And also, last November, Inmarsat, which was acquired by the Viasat communication company of the United States, suspended its general communication service to the ships of some countries including the DPR Korea.

[1] Statements have been included in this annex in the order in which they are listed in the report, sorted by agenda items and in the language of submission (including translation into any other language if such translation was provided).

As a result, the DPR Korea has become unable to implement LRIT any longer, and currently failed to ensure safety, security and search and rescue of the DPR Korea flagged vessels as well as marine environmental protection.
From the aforementioned reasons, the DPR Korea totally rejects the previous interventions.
In addition, this delegation reiterates that this forum is not appropriate for discussing the political issues, like implementation of the UN Security Council Resolution, because it is beyond the mandate of the IMO.
Instead, the DPR Korea would like to take this opportunity to request all the distinguished delegates to draw your attention to the compelling needs to restrain the large scale and frequent naval military drills against other member state, in order to secure the navigational safety and efficient international shipping."

**Statement by the delegation of France**

"La France souhaite rappeler que la Corée du Nord continue de faire peser une menace nucléaire et balistique significative pour la paix et la sécurité régionales et internationales. Nous sommes très préoccupés par l'escalade en cours.
Nous souhaitons saluer les travaux du groupe d'experts, dont les publications constituent des contributions précieuses à l'analyse de la mise en œuvre des sanctions et à documenter les activités illicites de la Corée du Nord. Ses rapports constituent des appuis essentiels aux démarches conduites au niveau européen auprès de pays tiers sur la mise en œuvre des sanctions.
Nous souhaiterions donc que le NCSR puisse être saisi par ce comité de la question relative aux AIS.
Sur la question relative à la fiche synoptique continue nous souhaitons que notre comité rappelle à l'ensemble des Etats parties leurs obligations déclaratives. Nous souhaiterions également que le Secrétariat puisse se rapprocher des Etats membres qui ne remplissent pas cette obligation.

This delegation thanks the Secretariat for the presentation of this document.
France wishes to recall that North Korea continues to pose a significant nuclear and ballistic threat to regional and international peace and security. We are very concerned by the escalation underway.
We would like to commend the work of the Panel of Experts, whose publications are valuable contributions to the analysis of sanctions implementation and to documenting North Korea's illicit activities. Its reports provide essential support for the demarches carried out at European level with third countries on the implementation of sanctions.
We would therefore like the NCSR to be able to refer the question of AIS to this committee.
On the issue of the continuous synopsis record, we would like our committee to remind all Member States of their reporting obligations. We would also like the Secretariat to approach those Member States that do not fulfill this obligation."

**Statement by the delegation of Japan**

"On document MSC 106/2/1/Rev.1, this delegation would like to fully align with what has been expressed by the distinguished delegates of France, Germany and the Republic of Korea.
In this context, Japan strongly condemns repeated launches of ballistic missiles by North Korea. These missile launches are in violation of the UN Security Council Resolutions and constitute a threat to the peace and security of Japan, the region and the international community, and they also pose a serious threat to the safety of international shipping.
North Korea has been launching ballistic missiles with extremely high frequency since the end of September without any prior notification, including a ballistic missile which flew over Japan on October 4th. Such a reckless act is totally unacceptable.

In order to ensure the safety of international shipping, Japan continues to work closely with the IMO and relevant countries to require North Korea to fully implement the relevant UN Security Council Resolutions and comply with relevant regulation of SOLAS Convention and IMO Assembly Resolution.
In this regard, as highlighted by the Republic of Korea, this delegation would also like to draw your attention on the joint letter by Japan, the Republic of Korea and the United States of America, expressing our serious concern on such launches of ballistic missiles by North Korea, which has been circulated to the member states.
Finally, this delegation strongly object to a view that this issue should not be discussed here. This issue is absolutely on the safety of international shipping, and relevant to what this organization did discuss and agreed, including the aforementioned Assembly Resolution and the MSC circular."

**Statement by the delegation of Poland**

"Regarding document MSC 106/2/1/Rev.1, Poland would like to thank the Secretariat for providing the update on the final report of the UN Panel of Experts regarding the Democratic People's Republic of Korea (DPRK).
We share the concerns expressed in the statement presented by the distinguished delegation of France, the Republic of Korea and other previous speakers in the context of threats to international peace and security.
We express our appreciation for the work of the Panel of experts and for monitoring the nuclear programme of the Democratic People's Republic of Korea. We greatly welcome a valuable final report with findings and recommendations which constitute essential support for further actions on the implementation of sanctions."

**Statement by the delegation of Republic of Korea**

"First of all, the Republic of Korea would like to ask all IMO member countries' special attention to the Circular Letter No. 4649 uploaded to the IMO web document page yesterday.
Also we emphasize the fact that DPRK has again launched more than 10 missiles to the ocean for the last two days.
The Republic of Korea believes that the UN Security Council Resolutions have to be faithfully implemented, so we condemn the missile launches by the Democratic People's Republic of Korea.
The Democratic People's Republic of Korea repeatedly launches missiles to the ocean without any notification in advance. These provocations of the DPRK have continued even after the 29th Extraordinary sessions of the Council, the 30th session of the Assembly and the 109th session of the Legal Committee condemned their repeated missile launches without prior notification.
The unlawful missile launches by the DPRK are grave threats not only to peace and security on the Korean peninsula and beyond but also to the safety of international navigation.
Therefore, as the safety of life and ships at sea is the top priority of IMO, the Republic of Korea would like to re-emphasize the Council's condemnation of missile launches by the DPRK, and once again we urge the DPRK to comply with MSC.1/Circ.1551 as well as other international instruments, including IMO instruments and UN resolutions.
Last but not least, we would like to reiterate that the obligations in pursuit of the IMO instruments should be fully implemented to secure maritime and navigational safety of ships."

**Statement by the delegation of the United States**

"The United States thanks the Secretariat for this paper and for highlighting the items of interest for this Committee from the Panel of Experts report. We support the statements by the Republic of Korea, France, Germany and agree with Japan that this is an issue of safety for international shipping. The Committee has a key role in implementing the UN's regime for

protecting the law-abiding world from the DPRK's persistent disregard of international law. Those items highlighted by the Secretariat relate to the manipulation of AIS and the disregard of the requirements for the Continuous Synopsis Record. Regrettably, these items reflect the DPRK's continuing disregard of the will of the international community, its reckless evasion of UN sanctions, and its disregard for the safety of seafarers.
Despite the Organization's repeated calls from the Council, this Committee, and its subsidiary bodies, to conform its conduct to international norms, and the Organization's condemnation of its blatant disregard of these norms, the DPRK continues its reckless course with wild abandon. The increasing frequency of its ballistic missile tests place the world, including mariners at sea, at growing risk, and is a threat to peace, security and safety at sea. This year alone, the DPRK has launched more than 40 ballistic missiles including six ICBM-class ballistic missiles into sea areas used by international commercial shipping. These launches occurred without prior notification in contravention of IMO General Assembly Resolution A.706 (17) which provides for Member States to give notice of incidents, which might affect the safety of navigation, including the launch of missiles, so that navigational warning and maritime safety information may be transmitted to the ships in the sea area concerned.
The United States continues to condemn these wanton acts by the DPRK and commits to continue its work with others to implement the international regime to its fullest extent."

**Ongoing military conflict between the Russian Federation and Ukraine and its effect on international shipping and seafarers; and Black Sea Grain Initiative**

**Statement by the delegation of Panama**

"El Perú comparte la preocupación expresada por la delegación de Panamá por la situación de vulnerabilidad de los buques y de las tripulaciones de diversos pabellones que continúan varados en el Mar Negro y espera que la OMI pueda aportar significativamente al logro de la salida, de manera segura y confiable, de todas las naves y personas que permanecen atrapados en la zona de conflicto.
En esa medida, el Perú desea reiterar a la Secretaría General de la OMI y a los Estados de pabellón concernidos su apoyo a estos valiosos y urgentes esfuerzos para lograr la evacuación de los buques y tripulaciones del Mar Negro y continuará respaldando las iniciativas y propuestas en el marco de la OMI que puedan contribuir a este objetivo. "

**Statement by the delegation of Australia**

"Australia joins others in condemning the Russian Federation's unilateral, illegal, and immoral aggression against the people of Ukraine. The invasion is a gross violation of international law. The Russian Federation's actions present an immediate and ongoing threat to the safety of shipping and the marine environment in the Black Sea and the Sea of Azov.
Despite continued requests from Member States for the Russian Federation to cease its aggressive actions against Ukraine, the invasion continues to put the lives of seafarers at risk.
Australia remains a steadfast supporter of Ukraine's sovereignty and territorial integrity. The Russian Federation's invasion and ongoing occupation of parts of Ukraine are a flagrant violation of international law. The sham referenda held by Russia in occupied areas of Ukraine are illegitimate and have no legal effect. They do not form a lawful basis for any purported acquisition of Ukraine's territory by Russia. Australia will continue to work with the IMO and member States to support Ukraine's rights as a port, flag and coastal state and to protect seafarers and others impacted by the Russian Federation's ongoing aggression against Ukraine.
In this regard, Australia supports the proposal of Ukraine for the development of an MSC resolution on Search and Rescue operations during conflict and the establishment of a group at this session to draft such a resolution.
Australia also echoes the request of Panama for the release of ships stranded as a result of the Russian Federation's invasion of Ukraine."

**Statement by the delegation of Canada**

"Canada wishes to align itself with the statements of France, the UK and the US, and condemns in the strongest possible terms Russia's unprovoked, unjustifiable and illegal war of aggression against Ukraine. This invasion is not just an attack on Ukraine. This attack threatens the integrity of international institutions, the sanctity of human rights, the viability of the rule of law and the rules-based international order.
The invasion also severely threatens the safety of and security of merchant shipping, the protection of the marine environment, the lives of seafarers, the integrity of global supply lines, and, as noted by the Ukraine, search and rescue operations. Russia must be held accountable for its aggression in Ukraine.
Canada wishes to applaud the efforts of the Black Sea Grain Initiative and encourages the continued efforts under this program to ensure the safe and efficient movement of grain to support the global food supply.
Further, obligations under the SAR convention must be respected. We therefore support the Ukraine's proposal for the development of a resolution to re-enforce Members' obligations."

**Statement by the delegation of Croatia**

"Since it is the first time we take the floor today, I would like to start by expressing our condolences for the passing of Mr Breinholt.
On the matter at hand, Croatia would like to express our full solidarity with Ukraine and the Ukrainian people and condemn in the strongest possible terms Russia's war of aggression against Ukraine.
This delegation supports the proposal to adopt a resolution aimed at reminding States of their obligations in the field of search and rescue in the context of the current conflict. Therefore, we support the creation of a drafting group for the purpose of drafting of such a resolution.
Croatia fully aligns itself with the statement made by the delegation of France, and we would like this to be reflected in the report of the committee."

**Statement by the delegation of Finland**

"As we are taking the floor for the first time, at first we would like to express our sincere condolences to Denmark and family and friends of Christian Breinholdt. Finland would like to associate itself with the Statement of France , UK and others in condemning in the strongest possible terms the unprovoked invasion against the fully independent State of Ukraine. We wish to express our full solidarity with Ukraine and the Ukrainian people. We would like to support the proposal by Ukraine to draft and develop the resolution. We would like this statement to be attached to the report of our committee."

**Statement by the delegation of France (on behalf of the EU)**

"Au nom des États membres de l'Union européenne qui sont tous membres de l'OMI, la France souhaite exprimer sa pleine solidarité avec l'Ukraine et le peuple ukrainien, dont la vie a été affectée par la guerre d'agression de la Russie contre l'Ukraine, que nous condamnons avec la plus grande fermeté possible. La guerre d'agression injustifiable, non provoquée et illégale de la Russie contre l'Ukraine constitue une violation flagrante du droit international et de la Charte des Nations unies. Elle porte atteinte à la sécurité et à la stabilité européenne et mondiale, et cause des pertes massives en vies humaines et des blessures aux civils.
Nous rejetons fermement et condamnons sans équivoque la tentative d'annexion illégale par la Russie des régions ukrainiennes de Donetsk, Luhansk, Zaporizhzhia et Kherson. L'Union européenne a adopté le 6 octobre, à la suite de ces décisions, des mesures de sanction additionnelles contre le transport maritime d'hydrocarbures russes.
Nous prenons bonne note du fait que la Russie a décidé de reprendre sa participation à l'accord sur la mer Noire pour l'exportation de céréales et d'engrais.

La France apporte son soutien à la proposition du délégué ukrainien relative à la nécessité de rédiger et d'adopter une résolution visant à rappeler aux Etats, parties aux conventions SOLAS et SAR, de leurs obligations en matière de Sauvetage d'assistance et de recherche en mer dans le contexte du conflit actuel. Aussi nous souhaitons que notre comité élabore une telle résolution, et sommes favorable à la création d'un groupe de rédaction à cet effet.
Je souhaite que cette déclaration soit jointe au rapport de notre comité.

On behalf of the Member States of the European Union, which are all members of the IMO, France wishes to express its full solidarity with Ukraine and the Ukrainian people, whose lives have been affected by Russia's war of aggression against Ukraine, which we condemn in the strongest possible terms. Russia's unjustifiable, unprovoked and illegal agression war against Ukraine is a flagrant violation of international law and the UN Charter. It undermines European and global security and stability and causes massive loss of life and injury to civilians.
We strongly reject and unequivocally condemn Russia's attempted illegal annexation of the Ukrainian regions of Donetsk, Luhansk, Zaporizhzhia and Kherson. Following these decisions, the European Union adopted on 6 October sanction measures against Russian maritime transport of hydrocarbons.
We acknowledge the fact that Russia has decided to resume its participation to the Black Sea agreement for the export of grain and fertilisers.
France supports the proposal of the Ukrainian delegate concerning the need to draft and adopt a resolution aimed at reminding States, parties to the SOLAS and SAR conventions, of their obligations in the field of rescue, assistance and search at sea in the context of the current conflict. We would therefore like our committee to draft such a resolution, and are in favour of the creation of a drafting group for this purpose."

**Statement by the delegation of Germany**

"Germany expresses its full solidarity with Ukraine and its people and condemns Russia's war of aggression against Ukraine in the strongest possible terms.
To be brief, we align ourselves with the statement just made by France on behalf of the European Union and like to be associated with this statement in the report.
We would like this committee to draft a resolution reminding Member States of their obligations according to the SOLAS and SAR conventions, in the context of the current conflict – and we are in favour of forming a drafting group for this purpose."

**Statement by the delegation of Italy**

"Italy would like to reiterate what was already been affirmed by several delegation before us. As we always did, we wish to express once again our full solidarity with Ukraine and the Ukrainian people, condemning with the strongest possible terms Russia's aggression against Ukraine which constitute a flagrant violation of the international law and the UN Charter.
This delegation, since the 35th Extraordinary Session of the IMO Council, has always encouraged the creation of Maritime Safe Blue Corridors in the Black Sea; called for the protection of the seafarers involved in the conflict and the resumption of the supply chain.
Furthermore, concerning the proposal of the Ukrainian delegation, to draft and adopt a resolution aimed at reminding States - parties to the SOLAS and SAR Conventions - of their obligations in the field of assistance and Search and rescue at sea, Italy is in favour of the creation of a drafting group for this purpose."

**Statement by the delegation of Japan**

"Japan thanks the secretariat for the update on the Black Sea Grain Initiative.
We also thank Panama for their statement, in particular in highlighting the concerns on safety of ships and seafarers.

As highlighted by many others, Russia's aggression against Ukraine is an attempt of unilateral change of the status quo by force and an infringement of Ukraine's sovereignty and territorial integrity, which constitutes a clear violation of international law, and is a grave breach of the United Nations Charter.
All these actions that shake the very foundation of international order are absolutely unacceptable, and Japan condemns Russia's actions in the strongest terms.
In light of that, Japan appreciates and welcomes the proposal by the Ukraine, raising a quite important matter which the Committee needs to duly consider and address. We support working on this important proposal under the Drafting Group."

**Statement by the delegation of Poland**

"Poland aligns itself with the statement presented by France on behalf of the European Union.
We stand in full solidarity with Ukraine and the Ukrainian people, whose lives have been affected by Russia's war of aggression, which we condemn in the strongest possible terms. We are always thinking about all those who lost their lives, homes and loved ones during this War.
We strongly reject Russia's attempted illegal annexation of the Ukrainian regions.
Poland, therefore, supports the proposal presented by the distinguished delegation of Ukraine and supported by others. The idea of drafting and adopting a resolution to remind states and parties to the SOLAS and SAR conventions about their obligations to ensure rescue, assistance and search at sea in the context of the current war, merits our full support."

**Statement by the delegation of Portugal**

"As this our first time we take the floor, the delegation of Portugal conveys its deepest condolences to the Danish colleagues on the passing of Christian Breinholt.
Portugal fully aligns with the statement made by France and joins other delegations in condemning in the strongest possible terms the Russian aggression against Ukraine.
This delegation once again calls on Russia to cease all military hostilities, to withdraw its troops from Ukrainian territory and to fully comply with its obligations under international law.
We express our full solidarity with the Ukrainian people and support to the sovereignty and territorial integrity of Ukraine within its internationally recognized borders.
This delegation thanks the important update from the Secretariat on the Black Sea Grain Initiative. On this matter, we echo the intervention made by Panama about the need of the remaining stranded ships to leave the conflict area.
We also take good note about the resumption of the agreement after being temporarily suspended by the Russian side.
Regarding the proposal of Ukraine, this delegation also agrees to establish a group to draft a resolution on Search and Rescue Operations in the context of conflict."

**Statement by the delegation of the Republic of Korea**

"This delegation would like to thank the IMO Secretariat, especially Peter Adams for providing the document MSC 106/INF.11.
The Republic of Korea is grateful to the United Nations and other member states for setting up the Black Sea Grain Initiative to counter global food price inflation and severe food insecurity.
The report in the document confirms that implementing the Black Sea Grain Initiative has contributed to alleviating global food shortages and to safe, partially resuming commercial operations of ships at three Ukrainian ports.
In particular, this delegation agrees with the proposal to use SOLAS XI-2 and ISPS Code as a basis for successful implementation, as the Black Sea Grain Initiative is activated and promoted following SOLAS and ISPS Code.
Furthermore, the Republic of Korea will continue to utilize and expand the Ukrainian grain supply chain, and we look forward to further developing the Black Sea Grain Initiative.

As the Republic of Korea took its stance at the 35th IMO extraordinary session of the Council and the 72nd Technical Cooperation Committee, it is strongly believed that the Russia's invasion against Ukraine violates the principles of the UN Charter and cannot be justified under any circumstances.
The Republic of Korea agrees with the opinion of other Member States and promises to work together. As a responsible member of the international society, the Republic of Korea will actively participate in the international effort to resolve the problem we all face in a peaceful way.
Regarding the establishment of the MSC resolution drafting group, the Republic of Korea agrees with the proposal of Ukraine supported by other Member States."

**Statement by the delegation of Spain**

"España apoya en su totalidad la intervención de la delegación de Francia en la que se condena la agresión militar no provocada e injustificada de la Federación de Rusia contra Ucrania, la anexión ilegal de las regiones ucranianas de Donetsk, Luhansk, Zaporizhzhia and Kherson y donde se urge a la Federación de Rusia retome su participación en la iniciativa del grano en el Mar Negro.
Aprovechamos esta oportunidad para volver a expresar nuestro compromiso y solidaridad con el pueblo ucraniano ante la agresión de la que está siendo objeto por parte de la Federación de Rusia.
España desea expresar su apoyo a la propuesta realizada por Ucrania sobre la necesidad de redactar y adoptar una resolución destinada a recordar a los Estados, partes de los convenios SOLAS y SAR, sus obligaciones en materia de salvamento, asistencia y búsqueda en el mar en el contexto del conflicto actual, por lo que apoyamos también la constitución de un grupo de redacción a tales efectos.
Solicitamos por último que esta declaración sea incluida en el informe final del Comité.
España apoya en su totalidad la intervención realizada por la delegación de Francia en nombre de la Unión Europea, así como las intervenciones realizadas por los Estados Unidos, el Reino Unido y otras delegaciones en las que se condena la agresión militar no provocada e injustificada de la Federación de Rusia contra Ucrania, así como los intentos de anexión ilegal de las regiones ucranianas de Donetsk, Luhansk, Zaporizhzhia y Kherson, por lo que volvemos a aprovechar esta oportunidad para expresar nuestro compromiso y solidaridad con el pueblo ucraniano ante la agresión de la que está siendo objeto.
En lo que a la iniciativa del grano en el Mar Negro se refiere, España agradece los esfuerzos de la secretaria y del propio secretario general en promover y mantener esta iniciativa como parte de los esfuerzos conjuntos de las Naciones Unidas y se hace eco del contenido de la declaración formulada por la delegación de Panamá.
Esta delegación toma nota también de la reciente decisión de la Federación de Rusia por la que reconsidera su participación en la iniciativa del grano en el Mar Negro.
Por último, España desea expresar su apoyo a la propuesta realizada por Ucrania sobre la adopción de una resolución que recuerde las obligaciones en materia de búsqueda y salvamento en el contexto del conflicto actual.
Solicitamos por último que esta declaración sea incluida en el informe final del Comité. "

**Statement by the delegation of Türkiye**

"We would like to thank the Secretariat for the document MSC 106/INF.11 and the Secretary General for his updates on the Black Sea Grain Initiative.
We would like to commend the efforts of the United Nations in reaching an agreement on the Black Sea Grain Initiative. In this regard, we once again, express our appreciation for the technical expertise provided by our able Secretariat and support of the Secretary General.
Upon the invitation of the United Nations, Türkiye has also engaged in the intense negotiations.
The signing of the agreement in Istanbul gave hope to all of us in the midst of a war.

Türkiye, as the host country to the Joint Coordination Centre of the Initiative, has been doing her best for the smooth implementation of the deal.
The Black Sea Grain Initiative has enabled the export of over 9,5 million metric tons of grain and other foodstuffs since 1 August. It brought the global food prices down.
The Black Sea Grain Initiative has made a great contribution to protect the most vulnerable populations of the world. It also showed that the problems can be solved through cooperation and dialogue.
We believe that the initiative should be tackled on its own merit and be decoupled from the developments on the ground.
Türkiye have been in touch with the parties to ensure the continuation of this important initiative. We welcome the decision announced today to resume the implementation of the initiative. We hope that the Black Sea Grain Initiative will remain intact and in place.
We will also continue to support all diplomatic efforts to end the war in Ukraine."

**Statement by the delegation of Ukraine**
(**by the Head of the Shipping Administration of Ukraine**, **Mr. Vitalii Kindrativ)**

"Firstly, I would like to thank Mr. Adams for providing an update on the implementation of the Black Sea Grain Initiative.
I avail myself of this opportunity to draw a clear picture of the current state of affairs in Ukraine's maritime sector and the challenges facing not only my country but also the entire international community because of the lasting Russian aggression.
Before 2014, when the infamous Russia's attempted annexation of Crimea happened, Ukraine was a flourishing state with the largest territory of the Black Sea coastline and a diversified maritime economic landscape, playing a central role in the development of the region, given its.
Apart from that Ukraine was one of the recognized largest suppliers of highly qualified specialists to the global maritime labor market.
All of a sudden, the situation had drastically changed.
Creation of impediments for commercial shipping, and numerous threats to the safety of navigation: interference in the operation of global navigation systems, misuse of NAVTEX channels, forced capture of lighthouses and regional Global Maritime Distress and Safety System centres, as well as Search and Rescue units – many of those brutal Russian violations have been lasting for almost 8 years.
24 February 2022 was just a beginning of a new round of escalation, marked by seizure and massive shelling of ships and ports infrastructure.
As a result, the majority of commercial ports in Ukraine are blocked. Several of them are utterly ruined.
Maritime security is a phantom now due to the Russian menace.
Many Ukrainian seafarers lost their jobs. Some of them changed their naval uniforms to military ones and stood up for their country.
These devastating effects of Russian invasion of Ukraine were recognized by the decisions taken by all IMO bodies during this year.
Even in such circumstances, we managed to achieve a certain breakthrough – the Black Sea Grain Initiative.
This allowed us to prevent the growing world food crisis and release the ships stranded in Ukrainian ports due the threat of Russian missile attacks, so that they can safely sail home.
Under the Black Sea Grain Initiative, over 400 ships with almost 10 million tons of agricultural products left Ukrainian ports for the countries of Asia, Europe and Africa.
Ukrainian maritime services are doing their utmost to speed up cargo processing and facilitate the ships' movement.
However, over these months Russia did almost everything to thwart the Initiative and put in jeopardy the food security of the entire world.
The most recent attempts were lengthy and indeed reluctant inspections of vessels.

There are more than a hundred examples when ships loaded with the foodstuffs so needed in the countries of their destination were forced to stay for over 2 weeks in the Bosporus awaiting inspection.
Russia's unmotivated delays in inspections, accompanied by demands of new concessions, prevented the exportation of additional 3 million tons of grain. 10 million people in the world did not get food on time because of Russia's political ambitions.
As all words and deeds of Russian leadership prove, this terrorist state has not abandoned its plans to wage a devastating war against Ukraine, no matter what.
While Ukraine is confronting the Russian threat on the battlefield, I plea to all our partners to step up their fight against this scourge on the diplomatic and economic fronts:

.1 to strengthen the existing sanctions regimes;
.2 to deny the registration of vessels owned by Russian-affiliated companies under your national flag;
.3 to investigate the possible involvement of your national companies in Russia's criminal activities, like the illicit trafficking of Ukraine's grain; and
.4 to do everything to prevent the aggressor state from enjoying the privileges of the membership in this respectable Organization.

Russia must bear responsibility for all damaged destinies and ruined infrastructure.
Ukraine will restore everything by coordinating efforts with such respected organizations like the IMO. With your assistance, we can even become a launching ground for innovations in the maritime domain.
One I am confident of is that our seas will never be calm for invaders.
There is nothing more valuable than the protection of human life, especially at sea.
Based on this understanding and guided by the outcome of the last session of Sub-Committee on Navigation, Communications and Search and Rescue in June this year, Ukraine decided to introduce a proposal to consider the adoption of a resolution during this Committee's session related to the operation of Search-and-Rescue (SAR) services during the armed conflict.
We would appreciate it if the Committee supports our call to establish a drafting group comprised of like-minded states to consider a relevant draft document.
To our firm belief, the future resolution should encompass principled points on the impermissibility of:

.1 seizing of SAR units, Rescue Coordination Centres (RCC) and Rescue Sub Centres (RSC);
.2 detaining crew members of SAR vessels and RCC/RSC personnel;
.3 preventing SAR crafts from performing their functions, as envisaged by relevant conventions and Global SAR plan; and
.4 hampering the effective coordination of SAR operations.

It may also include other elements from a wider range of aspects of the protection of human life at sea that this Committee considers necessary to reflect in the draft.
This step would further strengthen the role of the IMO, and the Committee in particular, in maintaining the international maritime order and safety of life at sea."

**Statement by the delegation of United Kingdom**

"The United Kingdom and our international partners stand united in condemning the Russian government's unprovoked, premeditated and barbaric attack against a sovereign democratic state. Russia's invasion of Ukraine is an egregious violation of international law, including the UN Charter, and an assault on the international norms that protect us all.
As a Permanent Member of the UN Security Council, Russia has a particular responsibility to uphold international peace and security. But as it attempts to redraw the borders of Europe by force, causing widespread suffering in Ukraine and across the globe, it is clear the Russian government was never serious about acting responsibly, or engaging in diplomacy. President Putin is focused only on furthering his territorial ambitions.
Russia's holding of so-called referendums on sovereign Ukrainian territory in September was a further violation of Ukraine's independence, sovereignty and territorial integrity, and of

international law. These referendums were a blatant sham designed to illegally grab Ukraine's land, its resources, and its identity; part of President Putin's playbook that we have seen before in Crimea in 2014. The UK rejects the results of these illegitimate referendums, and any Russian attempts to illegally annex Ukrainian territory. We will never accept the four regions as anything other than Ukrainian territory.
These illegal "annexations" do not change our approach. We will remain resolute in providing political and practical support to Ukraine as it continues to defend itself against Russia's aggression, because, as a free and democratic country, Ukraine has the right to determine its own future. And we will continue to work together with our international partners to make sure that Russia cannot further undermine European stability.
Our call on Russia since the start of its illegal invasion has been simple: observe your obligations under international law, end this war and withdraw from Ukraine. We reiterate that call today."

**Statement by the delegation of United States**

"The United States condemns in the strongest possible terms the Russian Federation's unprovoked and illegal invasion of Ukraine. The United States does not, and will never, recognize any of the Kremlin's claims to sovereignty over parts of Ukraine that it seized by force and now purports to incorporate into Russia. The sham referenda that Russia recently staged in Russian-controlled areas of Ukraine were a flagrant violation of international law. They were transparently fraudulent and have no legal significance whatsoever. The world has clearly seen, and continues to see, that Ukrainians do not want to be part of Russia. They continue to fight valiantly for their sovereignty and independence, and the United States will continue to support their efforts.
The United States deplores this war, and Russian Federation attacks striking commercial vessels and ports with the effect of disrupting and stealing global market access by sea and threatening the safety and welfare of seafarers, search and rescue and maritime communications services, the marine environment, and global food security.
We commend the arrangement mediated by the United Nations and Turkiye to enable safe export of grain from Black Sea ports. The Black Sea Grain Initiative has already moved more than 9 million metric tons of food and brought prices down around the world, which has been critically important for low- and middle-income countries. It has been a success and must continue. We further call on all participants to allow the automatic extension of the arrangement when the initial 120 days ends in mid-November.
We support the statement by the distinguished delegate of Panama and welcome the proposal by the distinguished representative of Ukraine for the Committee to consider addressing in some way the effects of Russia's unlawful invasion on the carrying out of search and rescue activities normally envisioned within the IMO framework. This matter is an urgent one that the Committee should address. It is important to the United States that search and rescue activities be facilitated even in situations involving armed conflict. In this regard, we believe that parties to an armed conflict should refrain from preventing search and rescue units from performing their functions or hampering the effective and efficient coordination of SAR operations. We recall the Committee at its last session established a drafting group to finalize a resolution to address urgent matters under the Committee's remit affected by the Russian Federation's full-scale invasion of Ukraine. If the Committee decides to refer this proposal to a drafting group, we look forward to assisting the Committee or through any other appropriate mechanism as the Committee decides."

**Statement by the Russian Federation**

"Прежде всего, Российская делегация решительно отвергает все безосновательные обвинения, сделанные в адрес России касательно атак на гражданскую портовую инфраструктуру, блокаду украинских портов, удержание моряков и атак на гражданские

суда. Более того у нас имеются неопровержимые доказательства вины Украины в подобных деяниях.

Далее, наша делегация благодарит Генерального секретаря и его команду за участие в целом и представленную информацию о ходе реализации зерновой инициативы, включая последние новости по этому вопросу. Также хотели бы поблагодарить Правительство Турции и сотрудников ООН за содействие в подписании соответствующих документов и реализации данной инициативы.

При этом следует напомнить, что при обсуждении зерновой инициативы, со стороны западных стран звучало много голосов, подчеркивавших необходимость поставок продовольствия для развивающихся стран, наиболее пострадавших от текущего кризиса. Однако, до настоящего времени российский экспорт для уменьшения глобальной нехватки продовольствия, что являлось частью зерновой инициативы, не производится из-за отсутствия каких-либо действий со стороны западных стран по снятию санкций, препятствующих такому экспорту. В то же время статистика ясно показывает, что большая часть экспорта продуктов питания из украинских портов идет в Европу и другие страны, не включенные в список самых уязвимых и нуждающихся.

Далее, относительно последних событий вокруг зерновой инициативы ( со ссылкой на официальные заявления делегации Российской Федерации в Совете Безопасности ООН). 29 октября 2022 года украинские вооруженные силы под прикрытием гуманитарного зернового коридора, созданного в рамках Черноморской инициативы, нанесли массированные авиационные и морские удары по кораблям и инфраструктуре Черноморского флота России в Севастополе. Подвергшиеся нападению российские корабли были задействованы в обеспечении безопасности зернового коридора по вывозу сельхозпродукции из украинских портов. Данная подрывная акция со стороны Украины грубо нарушила Стамбульские договоренности от 22 июля 2022 года и по сути своей поставила тогда крест на их гуманитарном измерении, поскольку коридор был создан исключительно для гуманитарных целей. В связи с такими действиями украинской стороны Российская Федерация не могла гарантировать безопасность гражданских судов, участвующих в Черноморской инициативе, поскольку неизвестно какие еще теракты готовили украинские вооруженные силы. Исключительно по этой причине Российская Федерация была вынуждена приостановить со своей стороны реализацию этой инициативы с 29 октября 2022 года. Данная информация была доведена до Генерального Секретаря ООН и до Совета Безопасности ООН. Заявления некоторых западных делегаций о том, что предпринятые Российской Федерацией меры якобы угрожали продовольственной безопасности, являются, по сути, не более чем очередной попыткой переложить ответственность. Те страны, которые лицемерно обвиняют нашу страну в провоцировании мирового голода, умалчивают, что именно их санкции блокируют не только российский сельхоз экспорт, но и безвозмездные поставки удобрений и других товаров жизнеобеспечения именно для нуждающихся стран. Со своей стороны Российская Федерация всё это время добросовестно и честно работала над обеспечением вывоза украинского продовольствия, которое было направлено отнюдь не голодающим странам, как это было обещано, в том числе и Генсекретарем ООН, а в Европу и другие развитые страны.

Далее (со ссылкой на заявления Российских официальных лиц от сегодняшнего дня), благодаря участию представителей ООН, а также содействию Турции, удалось получить необходимые письменные гарантии со стороны Украины о неиспользовании гуманитарного коридора и украинских портов, которые определены в интересах вывоза сельскохозяйственной продукции, для ведения боевых действий против Российской Федерации. В частности, Украинская сторона официально заверила, что морской гуманитарный коридор будет использоваться только в соответствии с положениями Черноморской инициативы и связанном с ней положении о Совместном Координационном Центре (СКЦ). В этой связи Российская Федерация считает, что полученные гарантии на данный момент представляются достаточными и соответственно возобновила реализацию соглашения – «Инициативу по безопасной

транспортировке зерна и продовольствия из портов Украины», которое было приостановлено с нашей стороны после указанного теракта в Севастополе.
Многие из выступавших сейчас делегаций затронули также тему прошедших референдумов в Донбассе, Херсонской и Запорожской областях, при этом называя эти референдумы нелегитимными. В этой связи хотелось бы отметить следующее.
В период с 23 по 27 сентября этого года в Донецкой и Луганской Народных Республиках, Херсонской и Запорожской областях состоялись референдумы о вхождении этих регионов в состав Российской Федерации. Итоги волеизъявления населения этих территорий подведены – подавляющее большинство проголосовавших поддержали идею объединения этих регионов с Российской Федерацией.
Референдумы были проведены в полном соответствии с нормами и принципами международного права. Народ Донбасса и юга Украины реализовал свое законное право на самоопределение в соответствии с Уставом ООН и другими соответствующими международноправовыми документами.
В этой связи призываем всех уважать законный выбор этих людей, претерпевших множество страданий и лишений от киевского режима.
В отношении предложений о рассмотрении и принятии резолюции об обязательствах государств-членов в отношении поисково-спасательных операций в соответствии с Конвенциями SOLAS и SAR в контексте вооруженных конфликтов, а также создании в этой связи каких-либо редакционных групп, мы призываем Комитет и его Председателя строго следовать Правилам Процедуры и документу по Организации и методам работы Комитета, принимая во внимание то количество рабочих и редакционных групп, которые уже образованы или предполагаются к установлению на текущей сессии, а также тот факт, что среди участников Комитета до сих пор не был распространен документ с проектом резолюции.

First of all, the Russian delegation strongly rejects all groundless allegations made against Russia regarding attacks on civilian port infrastructure, blockade of Ukrainian ports, holding of seafarers and attacks on civilian ships. Moreover, we have irrefutable evidence of Ukraine's guilt in such acts.
Further, our delegation thanks the Secretary-General and his team for their overall participation and for the information provided on the progress of the Grain Initiative, including the latest updates on this issue. We would also like to thank the Government of Türkiye and the UN staff for their assistance in signing the relevant documents and implementing this Initiative.
At the same time, it should be recalled that when discussing the Grain Initiative, there were many voices from Western countries emphasizing the need for food supplies for the developing countries most affected by the current crisis. However, to date, Russian export to reduce a global food supply shortage, which was also part of the Grain Initiative, has not been taken place due to the lack of any action on the part of Western countries in lifting sanctions that prevent such export, while statistics clearly illustrate that most of the foodproduce exports from the Ukrainian ports go to Europe and other countries not included in the list of the most vulnerable.
Regarding the latest developments around the Grain Initiative (with the reference to the official statements of the delegation of the Russian Federation in the UN Security Council) we would like to note the following. On October 29, 2022, the Ukrainian armed forces, under the cover of the humanitarian grain corridor created as part of the Black Sea Initiative, launched massive air and sea strikes against navy ships and infrastructure of the Russian Black Sea Fleet in Sevastopol. The attacked Russian navy ships were involved in securing the grain corridor for the export of agricultural products from the Ukrainian ports. This subversive action on the part of Ukraine grossly violated the Istanbul agreements of July 22, 2022 and, in essence, put an end to their humanitarian dimension then, since the corridor was created exclusively for humanitarian purposes. In connection with such actions of the Ukrainian side, the Russian Federation could not guarantee the safety of civilian ships participating in the Black Sea Initiative, since it was unknown what other terrorist attacks were being prepared by the Ukrainian armed forces. For this only reason, the Russian Federation was forced to suspend

the implementation of this initiative from October 29, 2022. This information was brought to the UN Secretary-General and to the UN Security Council. Statements by some Western delegations that the measures taken by the Russian Federation allegedly threatened food security are, in fact, nothing more than another attempt to shift responsibility. Those countries that hypocritically accuse our country of provoking world hunger are silent about the fact that it is their sanctions that block not only Russian agricultural exports, but also gratuitous supplies of fertilizers and other life-support goods specifically for countries in need. For its part, the Russian Federation has been conscientiously and honestly working all this time to ensure the export of Ukrainian food, which was indeed sent not to starving countries, as promised, including by the UN Secretary General, but to Europe and other developed countries.

Further (with reference to the statements of Russian officials from today) - thanks to the participation of UN representatives, as well as the assistance of Türkiye, it became possible to obtain the necessary written guarantees from the Ukrainian side on not using the humanitarian corridor and Ukrainian ports, which are designated in the interests of the export of agricultural products, for conducting military operations against the Russian Federation. In particular, the Ukrainian side officially assured that the maritime humanitarian corridor will be used only in accordance with the provisions of the Black Sea Initiative and the related provision on the Joint Coordination Centre (JCC). In this regard, the Russian Federation believes that the guarantees received at the moment seem to be sufficient and, accordingly, resumed the implementation of the agreement - "Initiative for the safe transportation of grain and food from the ports of Ukraine", which was suspended on our part after the terrorist attack in Sevastopol.

Many of the delegations that have spoken have also referred to the referenda held in Donbass, the Kherson and Zaporozhye regions, calling these referenda illegitimate. In this regard, we would like to note the following.

On September 23-27, the Donetsk and Lugansk People's Republics, the Kherson and Zaporozhye regions held referenda on their accession to the Russian Federation. The results of the expression of will of the population of these territories have been summed up - the overwhelming majority of those who voted supported the unification of these regions with Russia.

The referenda took place in full conformity with the standards and principles of the international law. The people of Donbass, the Kherson and Zaporozhye regions exercised their lawful right to self-determination in accordance with the UN Charter and other relevant international legal instruments.

In this regard, we call on everyone to respect the legitimate choice of these people who have endured much suffering and deprivation from the Kiev regime.

With reference to the proposals to consider and adopt a resolution on the obligations of Member States with regard to search and rescue operations under the SOLAS and SAR Conventions in the context of armed conflicts, as well as the establishment of any drafting groups in this connection, we call on the Committee and its Chair to strictly follow the Rules of Procedure and the provisions of the Organization and Method of Work of the Committee, taking into account the number of working and drafting groups already established or expected to be established at the current session, and the fact that no document has yet been circulated among the members of the Committee with the draft resolution. "

**Statement by the delegation of Ukraine**

"We regret that the Russian delegation has once again reverted to the manipulation of facts, searching for a false pretext for not abiding by its international obligations and carrying forward the deadly attacks against Ukraine with the use of the same ships from the Russian Black Sea Fleet.

Recent provocation with the suspension of the Grain Initiative was just another Russia's try to destabilize the situation in the world.

The incidents with Russian warships do not affect the functioning of the Grain Initiative. Their main obligation is to ensure the safety of the Grain Initiative by not impeding the grain transportation and respectively not attacking the convoys or involved port infrastructure etc.

Ukraine has never taken actions that may threaten the humanitarian nature of the Grain Initiative.
On the opposite, we sadly faced challenges, created by the Russian Federation, that endangered the grain shipments, among them:

- attacks, which took place on the very next day after the signature of the Grain Initiative, when grain depots in Odesa seaport were hit with 2 "Calibre" cruise missiles (from one of the Russian Black Sea Fleet warships);
- shelling of grain silos across Ukraine's south;
- the deliberate killing of the owner of the Ukrainian grain and logistic company "Nibulon" and the destruction of its grain terminal, the second biggest in Ukraine;
- recent shelling of 2 civilian tugboats transporting barges with grain shipments to ports involved in the Initiative, which led to civilian casualties.

Despite all these facts, Ukraine continued to faithfully fulfil its obligations under the Grain Initiative.
We are grateful to Turkey and the UN for their steadfast efforts in finding a resolution to the global food crisis. This has brought results and made the Russian side change its mind.
Notwithstanding all the challenges, the Grain Initiative has proved its value in providing the world with food. Thus, it should be further extended beyond the initial duration period.
We profoundly thank all the delegations that expressed their solidary with Ukraine and spoke in favour of the unhindered functioning of the Grain Initiative, including its expansion, as well as of the proposal to develop a MSC document aimed at recapping the obligations of the SOLAS and SAR parties about the SAR operation in times of armed conflict.
Your unwavering support shows us that, as the delegation of the Bahamas pointed out, even in the grimmest hours there is always hope for the ray of light to come and defeat darkness.

**Statement by the delegation of Hong Kong, China**

This delegation considers that it is appropriate in bringing the attention of all IMO member States to the problems relating to fare treatment of seafarers and safety of life at sea.
In particular, a Hong Kong flagged vessel "JOSEPH SCHUTLE" IMO No. 9605243, a dry cargo ship capable of carrying grain, has been stuck at the port of Odessa since the beginning of the conflict in February this year in the concerned region. Every effort has been made for the release of the vessel but so far without success. Although the original crews onboard have been replaced and repatriated, the current crew are still stuck onboard.
Since the signing of the Black Sea Grain Initiative by the Russian Federation, Türkiye, Ukraine and the United Nations, which is very welcome by this delegation, every effort has been made by Hong Kong, China as a Flag State for securing the release of the vessel. While all conditions for the vessel to depart are in place and ready to sail imminently, an unknown last-minute obstacle was encountered.
It should be highlighted that the current level of fuel onboard is continuously depleting, and bunkering the appropriate specifications of fuel is not possible. Using other specifications of fuel would render damages to the main and auxiliary engines, hence it is critical in facilitating the safe departure of the vessel soonest possible in the next couple of days.
This delegation would like to strongly urge all parties concerned in working together for facilitating the release and safe passage of the vessel "JOSEPH SCHULTE" and the crew onboard without further delay.
In addition, there are other vessels being stuck in the region, and actions are being taken for their safe release. We will follow closely on the development and report in due course as appropriate."

**Statement by the delegation of Ukraine**

"This delegation would like to exercise its right of reply and provide comments to the statement made by the Hong Kong delegation concerning the problems faced by its ship in the ports of Ukraine, which have been blocked due to Russian aggression since the end of February this

year. The question is how long the delegation of Hong Kong waited to highlight that the problem until it became inevitable. Since it hasn't raised this issue with the Ukrainian side. From the very beginning of Russia's full-scale invasion of Ukraine, this delegation has repeatedly declared its readiness to ensure the unhindered departure of foreign-flagged ships from its ports. The only obstacles to this were regular attacks by the Russian occupying forces on ships trying to leave the area of hostilities, on the port infrastructure, which resulted in significant damage, as well as Russian mining of the most navigable areas. The Grain Initiative, which was concluded this July, proved its suitability not only for overcoming the challenges of the global food crisis, which was primarily caused by Russia's blocking of Ukrainian grain exports but also to return part of the blocked vessels to effective circulation within the global supply chains.

The Ukrainian side repeatedly raised within the framework of the Joint Coordination Centre the issue of allowing the withdrawal of other ships that do not fall under the Grain Initiative, in particular from those ports where the security situation is conducive to facilitating their safe departures. In particular, at the last stage of this discussion, the Ukrainian delegation at the JCC confirmed the readiness for the departure of a number of vessels, including Hong Kong's "Joseph Schulte" and other vessels under the flag of Denmark, Malta, Panama, Liberia, Marshall Islands, and the Cayman Islands, if there is the consent of the JCC. However, the request of the Ukrainian side remains unanswered. Madam Chair,

The validity of the initial Agreement, which allowed to supply of about 10.5 million tons of Ukrainian food to foreign markets, expires on 19 November 2022. We share the generic concerns raised by the Hong Kong delegation and other flag states and support the IMO Secretary-General initiatives aimed at expanding the Grain Initiative until the complete de-blockade of Ukraine's seaports by the Russian Federation - regardless of the cargo supplied. The experience gained during the functioning of grain corridors gives us grounds for this step. In fact, Ukraine has already submitted a proposal to Turkey and the UN to extend the agreement for a lengthier period, as well as to expand it to the ports of the south of the Mykolaiv region, which provided 35% of Ukrainian food exports before the invasion of the Russian Federation. In addition, we consider that it is necessary to streamline the procedures of the mandatory inspection of ships, as the Russian Federation deliberately slows them down at the current stage to reduce the speed of exports.

We hope that our partners from Turkey and the UN will positively react to our proposals as soon as possible, and the whole shipping market will also have a clear signal regarding the further functioning of the expanded Grain Initiative."

**Statement by the Russian Federation**

"В отношении заявления делегации Гонконга относительно судьбы судна JOSEPH SCHULTE и заявления делегации Украины хотелось бы отметить следующее.

Еще в апреле месяце этого года данное судно намеревалось покинуть порт Одесса и воспользоваться гуманитарным безопасным морским коридором в Черном море, который установила Российская Федерация. В этой связи владельцы судна обращались к задействованным сторонам за содействием. Однако, из-за действий Украинских властей судно не смогло покинуть порт Одессы, выйти в открытое море и воспользоваться гуманитарным коридором.

Образованный Совместный координационный центр (СКЦ) осуществляет свою деятельность на основе четких инструкций, которые в свою очередь основаны на достигнутых договоренностях.

Наша делегация, будучи последовательной в своих заявлениях по данному вопросу, остается приверженной скорейшему выходу всех гражданских судов, которые остаются на данный момент в портах Украины и скорейшему возвращению членов экипажей. В подтверждении этого факта следует напомнить о том, что Российской Федерацией был установлен специальный гуманитарный безопасный морской коридор для этих целей. Надеемся на скорейшее разрешение данной ситуации.

With regard to the statement of the delegation of Hong Kong concerning the fate of the ship JOSEPH SCHULTE and the statement by the delegation of Ukraine, we would like to note the following.
Back in April of this year, this vessel intended to leave the port of Odessa via the humanitarian safe maritime corridor in the Black Sea established by the Russian Federation. In this regard, the owners of the vessel turned to the parties involved for assistance. However, due to the actions of the Ukrainian authorities, the ship was unable to depart from the port of Odessa, proceed to the open sea and use the humanitarian corridor.
The established Joint Coordinating Centre (JCC) carries out its activities on the basis of clear instructions, which in turn are based on the relevant agreements reached.
Our delegation, being consistent in its statements on this issue, remains committed to the speedy departure of all civilian ships that currently remain in the ports of Ukraine as well as their crew members. In confirmation of this commitment, it should be mentioned that the Russian Federation established a special humanitarian safe maritime corridor for these purposes. We hope for a swift resolution of this situation. "

**AGENDA ITEM 5**

**Statement by the delegation of Argentina**

"La Argentina participó en el grupo de trabajo sobre MASS. Agradecemos al Sr. Henrik Tunfors por su eficiente coordinación, y también a la Secretaría.
Señora, así como en el grupo de trabajo, y un párrafo del informe lo indica, mi delegación ha venido llamando la atención sobre el hecho de que los vehículos MASS presentan importantes desafíos jurídicos a la luz de la Convención de las Naciones Unidas sobre el Derecho del Mar.
El Grupo de Trabajo Conjunto, así como el LEG, han correctamente indicado que cualquier desarrollo reglamentario en materia de MASS debe darse en el marco de la Convención del Mar.
Por ejemplo, en nuestros trabajos ya se ha identificado algunos de esos desafíos jurídicos, como la definición de "tripulación" o "capitán", como responsable a bordo, a la luz del art. 94 de la Convención del Mar.
Asimismo, se ha ido identificando aspectos que exceden la seguridad del vehículo, como la seguridad de la navegación (SAR) y la protección del medio ambiente.
En adición, la Argentina nuevamente desea mencionar la importancia de abordar oportunamente la cuestión de la responsabilidad civil del Estado del pabellón por los hechos dañosos ocasionados por los MASS con los más altos niveles de autonomía, y es nuestra opinión que correspondería una responsabilidad de carácter objetivo e ilimitado. En adición a ello, correspondería definir, oportunamente, la aplicación a los buques MASS de las obligaciones en materia seguros y de búsqueda y salvamento marítimos.
Debido a todo esto, quisiera dejar constancia de que la OMI sólo tendrá la competencia para regular o recomendar sobre la navegación de MASS cuyo grado de autonomía suponga prescindir de la presencia de un capitán responsable a bordo, o formular recomendaciones en esa materia, sólo una vez que la Convención del Mar admita esa posibilidad como un ejercicio legítimo del derecho de navegación, lo cual no se encuentra establecido. Los aspectos jurídicos relativos a la Convención del mar deben ser abordados en el foro competente – la Reunión de Estados Partes en la Convención del Mar- antes del desarrollo de regulaciones para los niveles de autonomía completa.
Señora, a la luz de ello, la Argentina está trabajando con el fin de adoptar oportunamente una norma previendo las condiciones bajo las cuales podría permitir en el futuro la navegación de ese tipo de buques en sus aguas jurisdiccionales y que, mientras cualquier desarrollo normativo internacional no cuente con el apoyo normativo por los fosos competentes, en particular en lo que hace a las normas de la Convención del Mar, toda actividad que involucre buques no tripulados en los espacios marítimos bajo la jurisdicción de la República Argentina

sólo será permitida en los casos en que medie autorización previa y expresa de las autoridades argentinas competentes.
Si me lo permite, enviaré esta Declaración a la Secretaría para que conste en el informe.
La Argentina participó en el grupo de trabajo sobre MASS. Agradecemos al Sr. Henrik Tunfors por su eficiente coordinación, y también a la Secretaría.
Señora, así como en el grupo de trabajo, y un párrafo del informe lo indica en su párrafo 27, mi delegación ha venido llamando la atención sobre el hecho de que los vehículos MASS presentan importantes desafíos jurídicos a la luz de la Convención de las Naciones Unidas sobre el Derecho del Mar.
El Grupo de Trabajo Conjunto, así como el LEG, han correctamente indicado que cualquier desarrollo reglamentario en materia de MASS debe darse en el marco de la Convención del Mar.
Por ejemplo, en nuestros trabajos ya se ha identificado algunos de esos desafíos jurídicos, como la definición de "tripulación" o "capitán", como responsable a bordo, a la luz del art. 94 de la Convención del Mar.
Asimismo, se ha ido identificando aspectos que exceden la seguridad del vehículo, como la seguridad de la navegación (SAR) y la protección del medio ambiente.
En adición, la Argentina nuevamente desea mencionar la importancia de abordar oportunamente la cuestión de la responsabilidad civil del Estado del pabellón por los hechos dañosos ocasionados por los MASS con los más altos niveles de autonomía, y es nuestra opinión que correspondería una responsabilidad de carácter objetivo e ilimitado. En adición a ello, cabría definir, oportunamente, la aplicación a los MASS de las obligaciones en materia seguros y de búsqueda y salvamento marítimos.
Debido a todo esto, quisiera dejar constancia de que la OMI sólo tendrá la competencia para regular o recomendar sobre la navegación de MASS cuyo grado de autonomía suponga prescindir de la presencia de un capitán responsable a bordo, o formular recomendaciones en esa materia, sólo una vez que la Convención del Mar admita esa posibilidad como un ejercicio legítimo del derecho de navegación, lo cual no se encuentra establecido. Los aspectos jurídicos relativos a la Convención del mar deben ser abordados en el foro competente – la Reunión de Estados Partes en la Convención del Mar- previo al desarrollo de regulaciones para los niveles de autonomía completa.
Señora, a la luz de ello, la Argentina está trabajando con el fin de adoptar oportunamente una norma previendo las condiciones bajo las cuales podría permitir en el futuro la navegación de ese tipo de vehículos en sus aguas jurisdiccionales y que, mientras cualquier desarrollo normativo internacional no cuente con el apoyo normativo por los fosos competentes, en particular en lo que hace a las normas de la Convención del Mar, toda actividad que involucre buques no tripulados en los espacios marítimos bajo la jurisdicción de la República Argentina sólo será permitida en los casos en que medie autorización previa y expresa de las autoridades argentinas competentes."

**AGENDA ITEM 7**

**Statement by the observer from ReCAAP-ISC**

"I would like to provide an update of Piracy and Armed Robbery (PAR) incidents against ships for the period January-September this year. There is no incident of Piracy in Asia, however, a total of 62 incidences of armed robbery against ships were reported - a 13% increase in comparison with the same period of 2021. Of these, 41 incidents occurred in Singapore Strait whilst there has been decrease in incidents in other locations in Asia.
There was no incident of abduction of crew for ransom in Sulu-Celebes seas and waters off Eastern Sabah since Jan 2020. The Philippines authorities after evaluating the prevailing threat situation, recommended the downgrading of threat level from potentially high to moderate which implies that incidents are possible to occur but of relatively less severe in nature. ReCAAP ISC has appropriately issued advisory to the maritime community to exercise

vigil and maintain communication with the Operations Centres of the littoral States when transiting the area.
Recognising that the PAR against ships is the shared responsibilities of all stakeholders, the ReCAAP ISC, works very closely with the coastal States, Flag States, and the shipping industry to further the shared mission in ensuring safe and secured seas for maritime trade and commerce, bringing about economic prosperity for all in the Asian region."

**AGENDA ITEM 8**

**Statement by the observer from UNHCR**

"Despite the obligations established in the relevant international conventions for the protection of persons moving by sea, several serious obstacles continue to hinder the rescue of refugees and migrants in distress, as well as the identification of a place of safety for swift disembarkation upon their rescue.
i. Gaps in search and rescue: the role of the shipping sector
Following the increase in persons attempting to cross the Mediterranean in the mid-2000s, UNHCR has witnessed the continuous involvement of the private shipping sector in conducting search and rescue (SAR) operations, saving countless lives. While the 1982 United Nations Convention on the Law of the Sea (UNCLOS) provides the basis for the shipmaster's duty to render assistance to persons in distress at sea, the Convention does not provide adequate guidance to shipmasters on how to address the challenges they face whenever engaging in SAR operations.
In the Central Mediterranean, merchant vessels, together with NGOs involved in SAR operations, have often filled a gap in State capacities to rescue refugees and migrants in distress. This is often due to faltering political commitment and lack of solidarity and sharing of responsibility on offering places for safe disembarkation and the proper processing of persons rescued. There are also challenges in coordination of rescue operations among the competent authorities of some coastal states.
Similarly worrying trends have emerged in other regions, as demonstrated by the number of reported casualties of refugees and migrants from shipwrecks along the Atlantic coast adjacent to West Africa, in the Andaman Sea in South East Asia, in the Caribbean, the Gulf of Aden and, more recently, along the sea route connecting Tanzania to Mayotte via the Comoros in south-eastern Africa.
ii. Rescue and disembarkation: international responsibilities
Responsibility for a Search and Rescue Region (SRR) engages the international legal responsibilities of different states, including to conduct and to coordinate SAR operations. These responsibilities may, in some cases, be seen to conflict with migration management priorities. Additional complicating factors may include a disproportionately sized SRR and/or limited capacity to implement SAR obligations or to receive people rescued at sea upon disembarkation. Regardless of the reasons, the result cannot be the avoidance or delegation of responsibilities to other actors nor a general dereliction of duties. There needs to be accountability for such failures. Further, repeated failure or inability to fulfil obligations may call into question the viability and the credibility of continued designation of some SRRs in the Central Mediterranean Sea.
Refugees and migrants rescued by merchant vessels need to be quickly disembarked as required by the international law of the sea. If this is not happening in a predictable manner, many ship masters will resort to practices inconsistent with their maritime obligations to rescue people. Disembarkation should happen with full respect for their rights, including protection against refoulement and other risks of serious harm, as required by international refugee law and human rights law.
It is thus incumbent on state authorities to promptly release shipmasters from their obligations by allowing them to disembark refugees and migrants with minimum further deviation from the

ships' intended voyage[2] and to avoid instructing shipmasters to disembark persons rescued at sea where they could be exposed to risks or to transship them to vessels flagged to states known for not fulfilling the requirements of a "place of safety".[3]

iii. Regional cooperative arrangements

As noted in the 2018 joint UNHCR-IOM Proposal to the European Union for a regional cooperative arrangement ensuring predictable disembarkation and subsequent processing of persons rescued-at-sea the effective functioning of maritime commerce requires shipmasters to have full confidence in prompt and predictable disembarkation. Since launching the proposal, UNHCR has been working with States to improve disembarkation procedures and has offered support to States together with other international organizations in dealing with persons rescued at sea. Progress has been achieved in Mauritania and Tunisia.

As confirmed by recent discussions at the Inter-Agency Group on the Protection of Refugees and Migrants moving by sea, regional dialogues to address irregular population movements, such as the Bali Process on People Smuggling, Trafficking in Persons and Related Transnational Crime (Bali Process) and the Euro-African Dialogue on Migration and Development (Rabat Process) may constitute opportunities for the development of regional arrangements to enhance cooperative responses to rescue at sea situations.

The Model Framework for Cooperation in Rescue at Sea Operations[4] provide useful guidance on the development of mechanisms for international cooperation on rescue at sea.

iv. Place of Safety

In May 2022, through a joint statement on the concept of "place of safety" in rescue-at-sea operations, a group of UN entities recalled that the obligation to protect people at sea continues after their rescue. In view of this, the signatory agencies called on states to adopt measures ensuring that persons retrieved at sea are disembarked in places where their lives and human rights are safeguarded and encouraged them to consider the need to further develop, in line with international law, the requirement to deliver the persons retrieved at sea to a place of safety as elaborated upon through the Guidelines contained in resolution MSC 167(78).

In light of this, UNHCR would like to reiterate its call to the Member States to

- Reinvigorate efforts at regional and sub-regional level to establish effective cooperative arrangements enabling safe and predictable disembarkation, as required by all those engaged in rescue-at-sea, including the shipping sector;
- Engage in inter-state discussions to further define the concept of "place of safety" and consider, where necessary, the development or amendment of existing provisions of international law of the sea.

UNHCR and other UN partners are ready to work with Member States to support work towards these ends."

**AGENDA ITEM 11**

**Statement by the delegation of New Zealand**

"New Zealand can accept the proposals made in paragraphs 7 to 11, but we do not accept that the guidelines for lifting appliance do not provide clear requirements under SOLAS regulation I-1/3-13 for existing lifting appliances which may not hold valid certificates of test and through examination as noted in para 3.3.3 of the guidelines.

It is clear to New Zealand that existing lifting appliance are required to be tested and thoroughly examined in accordance with the guidelines paras 3.2.1.2 and 3.2.2.1.

Para 3.3.3 was drafted by SSE working group to specifically allow states flexibility, particularly states party to ILO 152 convention. Para 3.3.3 allows these states to utilise their current

2 SOLAS regulation V/33, MSC 78/26

3 Guidelines on the Treatment of Persons Rescued at Sea, MSC Res. 167(78).

4 Expert Meeting in Djibouti - Summary Conclusions, 8 to 10 November 2011

legislation and systems implementing ILO 152 to fulfil the requirements of the guidelines for testing and examination.
Existing lifting appliances which are not currently under ILO 152 or certificated under other suitable intentional instruments acceptable to the Administration, will need to be load tested and thoroughly examined in accordance with paras 3.2.1.2 and 3.2.2.1.
New Zealand wishes to see no delays in the approval of the anchor handling and lifting appliances guidelines. This organisation has been working on this output for over 11 years and New Zealand initially raised the need at MSC 83 some 15 years ago where New Zealand submitted data that showed Between 2000 and May 2007, New Zealand experienced a total of 334 incidents on foreign flagged ships, of these 64 involved ships' lifting appliances while undertaking cargo operations within New Zealand ports. The 64 incidents resulted in one fatality and 18 serious injuries. This equates to approximately one lifting appliance incident every five weeks. New Zealand does not wish to see this risk remain, it has taken too long. It is time to protect ship's crew, and port workers engaged with ships lifting appliances.
With this in mind and in the spirit of co-operation, provided it does not delay the approval of the guidelines and I stress the "does not delay approval"; New Zealand could accept the proposal under para 13.3 and the development of a unified interpretation to further clarify that existing lifting appliances to which para 3.3.3 does not apply should be load tested and thoroughly examined in accordance with paras 3.2.1.2 and 3.2.2.1. New Zealand would request the cosponsors of MSC 106/11/4 develop the text of a UI and bring it to SSE under any other business alternatively the clarification provided by New Zealand here, if plenary agrees, could be recorded in the body of the report of this meeting.
With reference to the draft terms of reference for working group 2, New Zealand suggests there is no need for action item point 4. New Zealand does not wish to see the guidelines on lifting appliances re-opened for discussion, and we believe they can be approved in principle as presented under annex 6 of the SSE 8 report to MSC 106."

**AGENDA ITEM 13**

**Statement by the observer from Pew**

"As this is the first statement by the Pew Charitable Trusts at this meeting, we would like to join others in extending our sincere condolences to the delegation of Denmark and the family of Mr. Christian Breinholt.
To the matter at hand. This delegation would like to provide two comments:
1 one in relation to the proposed amendments to SOLAS chapter XIV and the Polar Code with regard to their application to fishing vessels; and
2 the other regarding the importance of avoiding having any conflicts between the three mandatory IMO instruments concerning shipborne navigational equipment and arrangements on fishing vessels.
We hope that the proposed changes to SOLAS and the Polar Code will not only contribute to improved safety of fishing vessels, operating in polar waters, but also complement the 2012 Cape Town Agreement, which is expected to enter into force soon. We feel, therefore, that the proposed amendments to SOLAS and the Polar Code need to be aligned with the requirements of the Cape Town Agreement.
For example, the proposed application of SOLAS chapter XIV and the Polar Code, to fishing vessels, is "fishing vessels of 24 metres in length overall and above". This delegation feels that the application of SOLAS chapter XIV and the Polar Code to fishing vessels should instead be "fishing vessels of 24 metres in length (L) and over" which is the application used in the Cape Town Agreement.
The second comment concerns the possible conflict of requirements on navigational equipment and arrangements on fishing vessels.
Resolution 10 of the 1993 Torremolinos Conference, with the title "Shipborne navigational equipment and arrangements" invites the Maritime Safety Committee to adopt, by the time of the entry into force of the 1993 Torremolinos Protocol, an amendment to SOLAS chapter V so

that the requirements for shipborne navigational equipment and arrangements, applicable to fishing vessels contained therein, should not apply to fishing vessels required to comply with chapter X of the Protocol (i.e. the Cape Town Agreement).
The delegation of Pew felt, therefore, that it would be appropriate to highlight this issue now, as the expected review of the requirements on shipborne navigational equipment and arrangements on fishing vessels may, in addition to chapter V of SOLAS and chapter 10 of the Cape Town Agreement, also have to take into consideration the requirements of the new chapter 9-1 of the Polar Code, in order to avoid any conflicts between the three mandatory instruments."

**Statement by the observer from FOEI**

"FOEI welcomes the approval of the draft amendments to SOLAS chapter XIV and the Polar Code to make navigation and voyage planning mandatory requirements for non-SOLAS polar vessels. FOEI has long been advocating for polar code measures to be extended to fishing vessels, pleasure yachts and small cargo vessels which make up around half of the vessels operating in polar waters. So, while FOEI would have liked to have seen even wider application of this measure to smaller fishing vessels, these draft amendments remain very important developments to improve navigation and voyage planning in remote and sensitive polar waters."

**Statement by the delegation of Argentina**

"Argentina is pleased that the NCSR Sub-Committee has completed its consideration of the draft Guidelines on Places of refuge for ships in need of assistance. We thank the Coordinator of the Correspondence Group, Mr. Stephan Hennig, from the United Kingdom and the Chairman of its Working Group, Mr. Joris Brouwers, from the Netherlands.
Argentina had presented document NCSR 9/8/1, which highlighted some aspects that we consider important. The delegations displayed a cooperative spirit that allowed many of our concerns to be addressed.
We support approval of the Guidelines, because they will be a useful guide, of a non-mandatory nature, and we would like to state the following, for the record:
There is a paragraph in the guidelines expressing:
"The right of a foreign ship to enter a port or internal waters of another State in situations of force majeure or distress is not regulated by UNCLOS, although this constitutes an internationally accepted practice, at least in order to preserve human life or for the protection of the environment. This, however, does not preclude the adoption of rules or guidelines complementing the provisions of UNCLOS".
Argentina highlights that there is no "right" for a foreign ship to enter a port or internal waters of another State or any "internationally accepted practice". The Guidelines will always be subject to the United Nations Convention on the Law of the Sea and other norms of international law; and none of them provide for an obligation for the coastal State to grant refuge. The draft guidelines actually make this very clear, and Argentina understands that the decision to grant a place of refuge or not must be based on an assessment that prioritizes the protection and preservation of the marine environment, which is an obligation of the coastal State and of other States. In this sense, the reference to article 221 and Part V (EEZ) of the Convention on the Law of the Sea, brings together the considerations relating to the marine environment, navigation, and others of a socio-economic nature, that the coastal State will have to make in order to decide whether to agree to grant refuge.
When a document originating in a specific region of the world is taken as a basis, it is necessary to make a "mutatis mutandis", that is, contemplating the necessary adaptations to other regional or geographical circumstances. The draft has made it clear that this is so.
Regarding "what" is to be safeguarded, Argentina understands that it is clear that the priority is the protection and preservation of the marine environment. The priority can never be the

safeguarding of material assets, such as the ship or its cargo, at the expense of possible damage to the marine environment.
Consistent with this, moreover, it is clear that the coastal State has the right to require the provision of insurance or a financial guarantee, which may even be provided by the flag State, as it is part of the assessment of the situation of the vessel. Any operative costs, as well as any damage to the marine environment, must be compensated.
The role of the master, the person or company in charge of salvage and the coastal State are clear, but these Guidelines must be understood in light of the current law of the sea, so the responsibilities of the flag State clearly come into play, and the guidelines are also clear on this.
In short, Mr. Chair, Argentina is pleased that the technical aspects of this draft have been finalized and thanks the original proponents of it. Argentina also supports its approval at MSC and that it be sent to MEPC and LEG for consideration by those committees, in particular because there might be some fine tuning to do at LEG."

**Statement by the delegation of the Bolivarian Republic of Venezuela**

"Muy buenos días a todos. Mi Delegación agradece a la IMSO y a su equipo técnico por el informe presentado sobre cuestiones técnicas y operacionales; lo acogemos con mucha satisfacción y apoyamos en su totalidad el documento MSC 106/13/2 presentado por la Delegación de la República Popular China. Hacemos constar que estamos de acuerdo con la Declaración de Reconocimiento contenida en su documento anexo.
Mi delegación solicita que esta intervención aparezca en el informe final y en tal sentido la enviaremos al correo correspondiente."

**AGENDA ITEM 15**

**Statement by the delegation of the Cook Islands**

"We appreciate this proposal stems from the lesson learning process that happened during the challenging times of Covid 19 lockdowns and travel restrictions; we also understand that there is a backlog of work that needs to be completed by this Committee. However this delegation is not supporting the proposed amendments to the Committee's method of work. We do not believe that more efficiency should come at the price of limiting discussions and wide participation to the debate within this Committee. On the contrary we believe that facilitating such discussions and give ample opportunity to every delegation to have a say in plenary is the key to come to decisions that have been properly considered and supported by the majority of delegations. The right and proper way to consider any proposals is through constructive debate , proper deliberation and a consideration of all the impacts, costs and benefits of a particular policy.
In our opinion introducing papers is an added value that should be kept as it provides the submitters with a chance to give more context to their proposal as well as highlighting its key points. The co-sponsors of MSC 106/2/2 mentioned in paragraph 6 that submitters will be "able to add additional supporting information to their document during their interventions in the absence of a formal introduction". So we don't see why this opportunity should not be given automatically to the submitters and leave to them deciding, in case, whether to take the floor or not to introduce or elaborate on their papers.
Also limiting the discussion in plenary for what concerns the items dealt with by correspondence (as proposed in Para 7 of 106/2/2) is not acceptable. We believe that delegations should be allowed to intervene should they not be in agreement with any decision that has not been taken or agreed to during the plenary of the Committee. This is a slippery slope in our opinion and if we agree to this reasoning, in the future the need for more efficiency might justify limiting the comments or interventions for decisions that have been already taken in Correspondence Groups or in Working Groups, therefore jeopardizing the full participation to the decision making process for smaller countries and smaller delegations."

**AGENDA ITEM 16**

**Statement by the observer from Pew**

"The Pew Charitable Trusts welcomes all steps taken by Member States to accede to this first-ever treaty to specifically protect fishers' lives at sea. The Cape Town Agreement is indeed close to become a success, after the first attempts of 1977 and 1993.
We understand that the Covid-19 pandemic may have impeded Member States in the roll-out of their internal accession process. That is why we wish to encourage them to continue pursuing their efforts so as to achieve this highly positive objective, which has been expected by fishers for more than 45 years now.
We welcome the work of the group of interested Parties on the development of a dedicated guidance on the implementation of the Agreement; we address our particular thanks to Mr Victor Jiménez Fernandez of Spain, for his excellent coordination. The comprehensive work of the group is accessible in English in document III 8/17/1 on matters concerning both new and existing fishing vessels.
Regarding existing fishing vessels, The Pew Charitable Trusts is happy to inform the Sub-Committee that a Spanish translation has been made available to Member States in annex to document III 8/17/2. This translation can be easily accessed by everyone online, and we hope it will be helpful in facilitating the implementation of the Agreement.
The Pew Charitable Trusts would like to thank you, Madam Chair, and all the Member States which are on the road to securing the historic entry into force of the Cape Town Agreement. We are looking forward to the Maritime Safety Committee's agreement to the proposal that is currently being considered."

**AGENDA ITEM 18**

**Statement by the observer from IBIA**

"We thank the co-sponsors of MSC 106/18/1 in relation to off specification occurrence rates during 2020, highlighting regional differences which we are aware of. We are very much supportive of the proposal in the document that relevant authorities should be encouraged to consider implementing and enforcing a licensing scheme for bunker suppliers operating within their jurisdiction. The approach of the Maritime and Port Authority of Singapore in connection with the recent case in Singapore of Organic Chlorides described in MSC 106 / INF.19 is a prime example of the benefits of a licensing scheme.
In regards to MSC 106/18/1, we would highlight that the data as presented are overly alarming for the following reasons:
1 – The data is from 2020, when there were some teething problems with VLSFO causing more off-specs than usual during the first half of the year.
2 – According to ISO 4259, which is incorporated for every individual test method listed in ISO 8217, a fuel is considered off-spec only if the tested value exceeds both the actual limit and the 95% confidence interval for each specific parameter. The data presented in document MSC 106/18/1 does not appear to take the 95% confidence interval into account, hence the percentage of off-specs is greater than if the paper had followed the industry accepted approach to test results. Data from two testing agencies from the start of 2021 to Q3 of 2022 that **do** take 95% confidence into account show the percentage of off-specs at much lower levels. For the ARA region, for example, where data in MSC 106/18/1 shows off-specs including sulphur at 19%, data from 2021 and 2022 show off-specs including sulphur averaging 6.76% from one fuel testing agency and quarterly averages ranging from 2.4 – 4.3% from another.
3 – Most importantly, it should be noted that an "off-spec" fuel does not necessarily pose a significant safety risk to the ship. One of the most common off-specs is excess water, which is easily managed at twice the specification limit. A more critical parameter like Al+Si, meanwhile, is harmful even at on-spec concentrations if the fuel is not properly managed onboard, yet

fuels testing above the limit may often be safely managed onboard with due care and attention.
In conclusion, this paper does not reflect the percentage of oil fuels that present a significant safety risk to the receiving ship, and we would therefor suggest a more selective approach to examining fuel quality data relating to the safety of ships."

**Statement by the observer from ISO**

"ISO - takes note of the submission MSC 106/18/1 giving details of 2020 'off spec' fuels, with the following observations:
.1 It is our understanding, that the term 'off-spec' has been used for any result exceeding the parameter limit; whereas the industry norm is to follow the ISO 4259 approach referenced in ISO 8217 and integrated into each individual test method. ISO 4259 applies a 95% confidence level on the test result and a fuel is only considered 'off-spec' when this confidence level is exceeded – so we raise the caution in this instance that the % 'off spec' may be overstated in this submission.
.2 Other data taken for the years 2021 and 2022 provide a different picture, as especially the first half 2020 was very much a transition period for the supply industry.
.3 In view of the above, should the committee consider a more comprehensive cross industry fuel quality assessment of further value – ISO TC 28 SC4 WG 6 working with CIMAC WG7 Fuels could be approached.
It should be noted that 'off-spec' fuels do not necessarily impose a significant risk for the ship receiving the fuel – but rather requires the ship to manage the off-spec parameter of the fuel within the confines of their on board handling capability."

**Statement by the observer from ITF**

"On 8 August 2022, the vessel **Heroic Idun** (Marshall Islands Flag, IMO# 9858058) was approached in international waters by a Nigerian Navy vessel. Unaware of the true identity of the navy vessel and suspecting it may be a pirate vessel, the master ordered the vessel away from potential danger and immediately reported a potential piracy incident.
On 12 August 2022, the vessel was intercepted in international waters by an Equatorial Guinean Navy vessel and ordered to proceed to Luba Bay. Fifteen members of the crew were subsequently removed from the vessel, detained in prison and subjected to lengthy interrogations of up to fourteen hours.
We are concerned that the Equatorial Guinean authorities have illegally detained the vessel and have subjected the crew to unnecessary detention and interrogation. The crew have not been charged with an offence despite more than two months of detention.
The Nigerian authorities have now requested that the vessel and crew be moved to Nigeria. It is not clear what legal channels are being used to allow this. We are highly concerned that the crew will not be afforded the fair treatment they are rightfully entitled to.
We are also concerned for the wellbeing of the crew and the safety of the vessel. Several crew members have been suffering with typhoid and malaria in recent weeks.
ITF request that governments of Equatorial Guinea, Nigeria, and the Flag State to cooperate and take immediate action to resolve the issue on the basis of human and seafarers rights.
In addition, the ITF would ask that the IMO and ILO use any and all diplomatic channels available to resolve the situation in the interests of the crew of the Heroic Idun. "

**Statement by the delegation of Nigeria**

"The Nigerian delegation thank ITF for the information and note with emphasis the importance Nigeria places on the welfare of Seafarers, more so, as we have a pool of Seafarers across the world with a large number still undergoing training at various institutions arising from the National Seafarers Development Programme, which is a deliberate policy of Nigeria government aimed at addressing the gap in Seafarers in Nigeria.

Still on Seafarers, Nigeria is among the countries that have designated Seafarers as key workers, demonstrating yet again their importance. This is in addition to declaring Seafarers day, which is celebrated every year, hence Nigeria cannot undermine Seafarers welfare.
Chair, on the **Heroic Idun**, this delegation can confirm that the matter is currently being investigated by a joint team of the government of Nigeria and Equatorial Guinea. There is no doubt that upon completion of the investigation the details will be released appropriately.
Chair, this delegation will urge the committee to exercise caution in getting involved in this matter that bothers on National Security.
Chair, we note the call by ITF for cooperation in resolving the matter."

**Statement by the delegation of the Marshall Islands**

"We note the comments from the ITF, and we are also very concerned for the well-being of the crew and safety of the vessel.
We can advise that we have made multiple flag state and diplomatic requests to the relevant coastal state and diplomatic contacts, the first going out only three days after initial detention.
We can confirm that we are seeking all remedies to include the prompt release of the vessel."

**Statement by the observer from ICS**

"On behalf of the International Chamber of Shipping (ICS), we would like to raise awareness of Captain Yu Yihai's imprisonment without trial in Honduras. Captain Yu is the former Master of the **Mount Hikurangi**, a vessel owned and operated by Pacific Basin.
In August 2021 the Honduran port authorities in Puerto Cortes discovered bags of cocaine in the vent shaft of one of the Mount Hikurangi's cargo holds during discharge operations. We understand that there is no evidence linking Captain Yu, or any of the crew, to this discovery and that Captain Yu is detained primarily because he was the Master in charge of the vessel at the relevant time.
Following the discovery, the drugs were removed and then destroyed by the authorities. The vessel was allowed to sail with its crew but Captain Yu was imprisoned in a local jail and has remained in jail in Honduras ever since.
This equates to almost fifteen months of jail time without bail and without trial. That is fifteen months of Captain Yu not seeing his wife and family and without any indication as to when his ordeal will be over.
Captain Yu has only recently been formally indicted for a drug-smuggling offence.
Nevertheless, Captain Yu's resoluteness in the face of this adversity follows in the tradition of seafarers the world over who put themselves at the forefront of global trade. And yet, Captain Yu's health and wellbeing are of concern. He has suffered from dengue fever and has had regular bouts of flu. Additionally, the mental strain of being away from his wife and family have taken their toll when there is no end in sight. We must also spare a thought for Captain Yu's wife and family who have been without him for well over a year.
ICS wholeheartedly recognises that there have been too many incidents of this nature in recent years where the Master and/or crew have been detained on drug smuggling charges when it appears from an early stage of investigations that they are not complicit in the smuggling.
But in any case, without going into too many details in relation to the facts of this particular case before the trial takes place, it is evident that much more needs to be done at the international level to ensure that all seafarers are treated in a fair and humane manner when such allegations are made.
We are under no illusions that seeking to reduce the instances of such cases occurring worldwide is easy or straightforward.
We fully understand the damage caused to countries by the trafficking of illegal narcotics and the need to suppress and deter this criminal activity, including through the prosecution of offenders using the full force of the criminal law.

However, the plight of seafarers who are unjustly caught up in such criminal activities needs to be recognised and addressed in the context of their fair treatment, and hopefully this will be the case with the further work that is proposed on the Fair Treatment guidelines.
Captain Yu's employer and ICS is engaged in seeking both a resolution to his case and, in the interim, that he be released from custody (on bail) at least and to return home to his family until such time as he may be needed to assist in any further investigation, or the judicial proceedings.
Whilst we recognise that this Committee and this body has no locus over the matter, ICS would again make that plea to the Honduran administration as part of this wider debate on the Fair Treatment guidelines."

**Statement by the delegation of Hong Kong, China**

"This delegation would like to express our concern regarding the Hong Kong registered vessel "**Mount Hikurangi**", IMO No. 9580039. The Master of this vessel was apprehended for allegedly committed criminal offence in Honduras, which this delegation cannot verify one way or the other, however, the Master has been held for more than 14 months without bail and still awaited for legal proceedings in Honduras.
Chair, Hong Kong, China would like to request the relevant authorities to take actions in line with the ILO submission to LEG 106, paper LEG106/15/1, to ensure that the treatment received by seafarers detained on suspicion of committing maritime crimes is consistent with the Guidelines on Fair Treatment of Seafarers in the Event of a Maritime Accident as well as the relevant provisions in the ILO MLC 2006."

**Statement by the delegation of the Bahamas**

"The Bahamas Statement of Support for the work being undertaken at COP 27 in Egypt (06 to 18) November 2022
Thank you Chair, as the Maritime Safety Committee meet in its' 106th Session (MSC 106) most of the World leaders along with delegates, NGO, IGO, Climatologist and Scientist, Business and Industry leaders and other stake holders also meet in Sharm El Sheikh, Egypt as the 27th United Nations Climate Change Conference gets underway.
This comes on the heel of severe floods in Pakistan and Nigeria, destructive Hurricanes and Cyclones affecting Nations in the Caribbean, in Central America, the State of Florida, and Newfoundland in Canada, yes you heard me, Canada. In Southeast Asia, China, Japan, the Republic of Korea, and the Pacific Islands. Europe had its' worst heatwave this Summer since the Middle Ages, there were also megadroughts in China, the United States, Madagascar and elsewhere, while famine continues to stalk the Horn of Africa.
Elsewhere we are faced with the massive loss of the Sea Ice Shelves resulting in increasing sea level rise that threatens low lying Islands and even Cities. Accelerated melting of the world's Glaciers endangering major sources of fresh drinking water and presenting potential flash points for conflicts. The thawing of the Permafrost covering in the Arctic and other Regions resulting in the release of deadly Methane gases; continued deforestation of the Amazon, the Congo and across Central Africa and Indonesia, the warming and acidification of the Oceans and seas resulting in the loss of fish habitation and species including the Great Barrier Reefs of the world.
Delegates as you are aware the Worlds' Ecosystem is under severe stresses and strains and it is letting us know every day, by way of forest fires, flash floods, drought, and temperature rise. The Secretary-General of the United Nations have stated that "The climate crisis is the defining issue of our time and yet Climate action is being put on the back burner, despite overwhelming public support around the world." The Countries are in danger of failing to deliver on the Paris legally binding agreement to keep global warming under 1.5C above pre-industrial levels.
Again, the UN Secretary-General Antonio Guterres stated that "COP27 must be the place to close the ambition gap, the credibility gap, and the solidarity gap. It must put us back on track

to cutting emissions, boosting climate resilience and adaption. Keeping the promise on climate finance and addressing loss and damage from climate change." A "clear political will" to reduce emissions must be the outcome.

As the World Leaders, delegates and interested parties grapple with the difficult but necessary task before them. The Bahamas expresses its solidarity and encouragement for the difficult but necessary decisions that need to be taken on behalf of all.

In the meantime, The Bahamas encourages all IMO Member States at this session of the MSC to continue to progress the work under its remit that will help to achieve the 2018 Initial IMO Strategy to cut annual greenhouse gas emissions from international shipping by at least half by 2050, compared with their level in 2008, and work towards phasing out GHG emissions from shipping entirely as soon as possible in this century.

The Bahamas submits this statement for inclusion in the records of decision of this 106th Session."