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MEASURES TO ADDRESS MARITIME AUTONOMOUS SURFACE SHIPS (MASS) IN INSTRUMENTS UNDER THE PURVIEW OF THE LEGAL COMMITTEE

Report of the MSC-LEG-FAL Joint Working Group on Maritime Autonomous Surface Ships (MASS) on its third session

Note by the Secretariat

SUMMARY

Executive summary:	This document provides the report of the MSC-LEG-FAL Joint Working Group on Maritime Autonomous Surface Ships (MASS) on its third session.
Strategic direction, if applicable	2
Output	2.10
Action to be taken:	Paragraph 41
Related document:	MASS-JWG 3/WP.1

General

1 The MSC-LEG-FAL Joint Working Group (JWG) on Maritime Autonomous Surface Ships (MASS) met from 8 to 10 May 2024 and was chaired by Professor Gen Goto (Japan). The Co-Chair, Mr. Henrik Tunfors (Sweden), was also present.

2 The Group was attended by delegations from the following Member States:

ANGOLA
ARGENTINA
BAHAMAS
BANGLADESH
BELGIUM
BRAZIL
CANADA
CHILE
CHINA
CYPRUS
DENMARK
EGYPT
FIJI
FINLAND
FRANCE
GERMANY
GUATEMALA
INDIA
INDONESIA
JAPAN
LIBERIA
LIBYA
MALAWI
SOUTH AFRICA

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SPAIN
SWEDEN
THAILAND
TÜRKİYE
MALAYSIA
MARSHALL ISLANDS
MEXICO
MYANMAR
MOROCCO
NETHERLANDS (KINGDOM OF THE)
NEW ZEALAND
NIGERIA
NORWAY
OMAN
PAKISTAN
PALAU
PANAMA
PARAGUAY
PERU
PHILIPPINES
POLAND
PORTUGAL
QATAR
REPUBLIC OF KOREA
RUSSIAN FEDERATION
SAUDI ARABIA
SINGAPORE
UNITED ARAB EMIRATES
UNITED KINGDOM
UNITED STATES
URUGUAY

as well as representatives from the following Associate Member of IMO:

HONG KONG, CHINA

and by observers from the following intergovernmental organizations:

EUROPEAN COMMISSION (EC)
MARITIME ORGANISATION FOR WEST AND CENTRAL AFRICA (MOWCA)
INDIAN OCEAN MEMORANDUM OF UNDERSTANDING ON PORT STATE CONTROL (IO MOU)

3 The session was also attended by observers from the following non-governmental organizations in consultative status:

INTERNATIONAL CHAMBER OF SHIPPING (ICS)
COMITÉ MARITIME INTERNATIONAL (CMI)
BIMCO
INTERNATIONAL ASSOCIATION OF CLASSIFICATION SOCIETIES (IACS)
OIL COMPANIES INTERNATIONAL MARINE FORUM (OCIMF)
INTERNATIONAL MARITIME PILOTS' ASSOCIATION (IMPA)
INTERNATIONAL FEDERATION OF SHIPMASTERS' ASSOCIATIONS (IFSMA)
CESA
INTERNATIONAL ASSOCIATION OF INDEPENDENT TANKER OWNERS (INTERTANKO)
INTERNATIONAL GROUP OF PROTECTION AND INDEMNITY ASSOCIATIONS (P&I CLUBS)
INTERNATIONAL MARITIME RESCUE FEDERATION (IMRF)
THE INSTITUTE OF MARINE ENGINEERING, SCIENCE AND TECHNOLOGY (IMarEST)
INTERATIONAL PARCEL TANKERS ASSOCIATION (IPTA)
WORLD SAILING LTD. (WORLD SAILING)
INTERNATIONAL MARINE CONTRACTORS ASSOCIATION (IMCA)
INTERNATIONAL TRANSPORT WORKERS' FEDERATION (ITF)
THE NAUTICAL INSTITUTE (NI)
PACIFIC ENVIRONMENT

Terms of reference

4 The Joint MSC-LEG-FAL Working Group on Maritime Autonomous Surface Ships (hereinafter, "the Group"), following the outcome of the regulatory scoping exercises conducted by the three Committees (MSC.1/Circ.1638, LEG.1/Circ.11 and FAL.5/Circ.49) and the discussions during MASS-JWG 2, had been instructed to:

.1 further address the common issues, taking into account the discussions at, and outcome of, FAL 47, LEG 110 and MSC 107, including:

.1 the role and responsibilities of the MASS master and MASS crew;

.2 certificates and other documents;

.3 sharing of information as part of the obligation to communicate with coastal and port States, port authorities, etc.; and

.4 issues relating to connectivity, cybersecurity and remotely controlled operations, based on annex 1 to document MASS-JWG-2/WP.1, as appropriate;

.2 consider the following, as appropriate:

.1 definitions and terminology regarding MASS;

.2 issues associated with the "remote operations centre" and "remote operator", including situations when the ROC is located outside of the flag State;

.3 update the work plan; and

.4 provide a written report to the Committees.

Report on the outcome of MSC 107, FAL 48 and LEG 111

5 The Group noted, in general, the outcomes and decisions of MSC 107, FAL 48 and LEG 111 with respect to their consideration of MASS, and their actions on the report of MASS-JWG 2 (17 to 21 April 2023).

6 In particular, the Group noted that:

.1 MSC 107 had agreed to establish an intersessional working group to further develop the draft MASS Code, and that its report will be considered by MSC 108;

.2 FAL 48 was informed of the holding of the seminar on implications, challenges and opportunities of MASS operations for ports and public authorities on 11 April 2024;

.3 FAL 48 had updated and approved a road map on addressing MASS issues related to the FAL Convention;

.4 LEG 111 had approved a road map for its work on MASS;

.5 LEG 111, following consideration of the proposal in document LEG 111/10/5 (United Arab Emirates), had agreed to forward the proposal in paragraph 8 thereof to MSC, for appropriate action (LEG 111/WP.1/Rev.1, paragraph 10.21); and

.6 the following outcomes of LEG 111, in its consideration of issues on ROCs and the effective exercise of flag State jurisdiction:

.1 following discussion, there was support in the Committee for using the ISM Code as a potential model for dealing with ROCs, and it was viewed as a practical and pragmatic way forward. No legal roadblocks were specifically identified, however, the Committee agreed that further development of the model and its application to ROC would have to take place in MSC (paragraph 10.26, LEG 111/WP.1/Rev.1); and

.2 with respect to concerns raised about appropriate flag State oversight and how to meet obligations under Articles 91 and 94 of UNCLOS, those considerations would have to be taken into account as progress is made with the development of MASS and once actual situations of ROCs in jurisdictions other than that of the flag State arise. Moreover, those situations would necessitate appropriate arrangements between the flag State and the host State of an ROC in order to ensure effective oversight (paragraph 10.27, LEG 111/WP.1/Rev.1).

Consideration of the common issues

7 The Group proceeded with its consideration of common issues in accordance with the substantive items outlined in its terms of reference.

Information documents on national and regional MASS projects

8 The Group noted the following information documents:

.1 MASS-JWG 3/INF.2 (Republic of Korea), providing information on national regulations for the promotion of the development and commercialization of MASS in the Republic of Korea; and

.2 MASS-JWG 3/INF.3 (European Commission), providing an overview on the research outcomes of the Autonomous Shipping Initiative for European Waters (the AUTOSHIP project) regarding the definitions of "master," "crew," and "responsible person"; the roles and responsibilities of operators in Remote Operations Centres (ROC); and requirements for MASS certificates and documentation.

Certificates and other documents

9 The Group considered document MASS JWG 3/3/1 (China), proposing in paragraph 12, that MASS and ROCs should keep appropriate certificates and documents, as listed in appendix 12 of the *Procedures for Port State Control, 2023* (resolution A.1185(33)), to show compliance with relevant requirements and to support safe operations; that for MASS with no crew on board, exemption on records, manuals and instructions only relevant to human activities on board should be considered; and that the use and acceptance of certificates and documents in electronic format, including records, publications, manuals, and instructions, is also suggested to be clarified for MASS.

10 Subsequently, the Group agreed to recommend that the proposal outlined in paragraph 9 above be further considered by MSC.

Sharing of information as part of the obligation to communicate with coastal and port States, port authorities, etc.

11 The Group focused its discussion on points raised in document MASS JWG 3/3/1 (China), in particular in its paragraphs 13 and 14, containing proposals on the sharing of information.

Arrival, stay and departure of the MASS in port

12 The Group considered the proposal in paragraph 13 of document MASS-JWG 3/3/1, proposing that information and data, as part of the formalities required by public authorities on the arrival, stay and departure of the MASS, should be added to the general declaration and Crew List, including the concept of operation, basic information on ROC(s) and remote operators. In addition, identified data elements and data sets should also be included in the IMO Compendium on Facilitation and Electronic Business.

13 With respect to the type of information detailed in paragraph 8 of document MASS-JWG 3/3/1, one delegation expressed concerns regarding the amount of data submitted about an ROC, which should only provide the information necessary for the safe operation of MASS in a standardized format, and not all the information available.

14 Subsequently, the Group agreed to recommend that the proposal outlined in paragraph 12 above should be further considered by the FAL Committee.

Port State control inspections

15 The Group considered the proposal in paragraph 14 of document MASS-JWG 3/3/1, suggesting that, for the purpose of port State control (PSC) inspections, the appropriate way for PSC officers (PSCOs) to get access to information on certificates, documents and possibly other relevant system records from ROC and MASS needs to be considered, especially in the case of MASS with no crew on board.

16 Following discussion, the Group agreed to recommend that the proposal outlined in paragraph 15 above should be further considered by MSC.

Issues relating to connectivity, cybersecurity and remotely controlled operations

17 The Group had for its consideration the following documents:

.1 MASS JWG 3/3/1, which also discussed matters relating to cybersecurity; and

.2 MASS JWG 3/3/3 (Liberia et al.), on network governance, proposing, among others, that MASS control networks should be given dedicated communications channels or higher priority over the other commercial use of data networks.

18 The Group noted that a similar document on network governance had also been submitted to MSC 108 (MSC 108/4/9 Liberia et al.), and that this matter will be considered by MSC 108. In relation thereto, commenting document MSC 108/4/12 (Japan and United States) had also been submitted for consideration by MSC 108.

19 Following discussion, the Group agreed that, while the issue of connectivity was part of this Group's terms of reference, the technical aspect of connectivity was a matter outside the remit of the Group and the discussion should take place at MSC. The Group noted that any potential implications for liability should be further considered by the Legal Committee.

The role and responsibilities of the master and crew of MASS

20 The Group had for its consideration the following documents:

.1 MASS JWG 3/3 (Russian Federation), inviting the Group to recognize the importance of the human element and competencies of the MASS crew; and

.2 MASS JWG 3/WP.2 (Secretariat), providing a listing of relevant provisions on the master in UNCLOS and selected IMO instruments.

21 One delegation expressed a view, which was supported by another delegation, that consideration on the role and responsibilities of the master and crew is an overarching issue under the Organization's Strategic Plan (strategic direction 6), and that, therefore, thorough consideration should be given to this matter.

22 The Group agreed that substantive consideration on matters, such as competencies, qualifications and training relating to the crew of MASS, would be within the remit of MSC and the HTW Sub-Committee, and any further discussion in the Group, before the finalization of the non-mandatory MASS Code, would be premature. Views were also expressed that further consideration on other matters on the roles and responsibilities of the crew of MASS, would also be needed.

Potential joint work of IMO and ILO on MASS

23 Some delegations expressed the importance of involving ILO in discussions on matters related to the human element and MASS, and the Group recalled that the Secretariat had already provided possible options to bring developments relating to MASS to the attention of ILO at MASS-JWG 2.

24 The Group noted the view that the Joint IMO/ILO Tripartite Working Group (JTWG) to identify and address seafarers' issues and the human element (JTWG-SIHE) could be a potential body. However, the view was also noted that the work plan of the next session of the JTWG was already agreed, and any extension of the mandate and work plan of the JTWG would need to be decided by the governing bodies of the organizations.

25 Following the Secretariat's advice, the Group agreed that any joint work of IMO and ILO on MASS-relevant issues would first require a concrete proposal for consideration by the relevant IMO Committees.

List of relevant provisions on the master in UNCLOS and IMO instruments

26 The Group considered document MASS JWG 3/WP.2 (Secretariat), containing a list of relevant provisions on the master in UNCLOS and selected IMO instruments, which had been produced pursuant to a request made at MASS-JWG 2. The Secretariat highlighted that the document is intended to be used for reference purposes only.

27 In consideration of further information that may be added to the list, suggestions were made as to the inclusion of provisions relating to the master in UNCLOS and other relevant mandatory IMO instruments, including those in document LEG 110/11/3 (United Arab Emirates) on relevant provisions in UNCLOS. In this regard, the Group noted that there may be other mandatory instruments to be added to the list. The Secretariat was requested to send supplementary information to the relevant Committees directly, as appropriate.

28 The Group agreed that the list (set out in the annex) would be useful as a reference for further work in the development of the MASS Code, alongside the results of the regulatory scoping exercises, and to invite the Committees to consider it for their future work, with respect to instruments under their purview, and to update the list as necessary.

Role and responsibilities of the master

29 With respect to the role and responsibilities of the master, one delegation was of the view that:

.1 the role of a master included overriding authority and responsibility for the safety of the ship, persons on board and the environment, and that this role cannot be delegated;

.2 this overarching principle of overriding authority and responsibility was independent of technology and, as drafted in the ISM Code, implied that the master needed to be on board;

.3 there are situations where a master may be in the ROC but there are issues that need to be addressed, in particular when there are persons on board; and

.4 the conditions when responsibility is transferred to a master ashore need to be clearly set, as there is a potential to undermine the existing regulatory regime.

30 The Group recalled that it had agreed, at MASS-JWG 2, that:

.1 there should be a human master responsible for a MASS, regardless of mode of operation or degree/level of autonomy;

.2 the master may not need to be on board, depending on the technology used in the MASS and human presence on board, if any; and

.3 regardless of mode of operation or degree or level of autonomy, the master of a MASS should have the means to intervene when necessary.

31 The Group agreed that the overriding responsibility and authority of the master cannot be delegated, but certain tasks and functions of a master may be delegated.

32 With regard to the situation of a MASS remotely controlled from an ROC, the following views were expressed:

.1 several difficulties arise with regard to the delegation of authority in situations when there are persons or crew on board a MASS, while the master is at the ROC, in particular, in cases of loss of connectivity;

.2 having back-up plans in place would be a way to address emergency situations following a loss of connectivity between a MASS and the ROC. One solution would be to consider that a person on board, who has the qualifications of a master, can take on the tasks of a master, until the connectivity is regained;

.3 as long as there are backup plans and sufficient connection, the master can continue to perform his/her responsibilities from the ROC and can delegate tasks as may be necessary;

.4 in determining when and whether another person could step into the role of a master, additional factors, beyond a person's possession of the relevant qualifications, would need to be considered; and

.5 multiple and subsequent changes of the master at an ROC, as part of the watch schedule within short periods of time, may cause a challenge in discharging the authority or responsibility of a master, even though this is a common practice in the ferry industry.

33 Following discussion, the Group agreed that the issue of a master being at the ROC, in particular when crew are on board, was a matter for MSC to further consider.

Issues associated with the "remote operations centre" and "remote operator", including situations when the ROC is located outside of the flag State

34 The Group drew its attention to document MASS JWG 3/3/2 (Japan) and noted that document LEG 111/10/8 (Belgium and Republic of Korea), which references document MSC 108/4/2 (Belgium, Liberia and Republic of Korea), would be relevant for the Group when discussing issues associated with the ROC and remote operator. The Group also noted the discussion of LEG 111, as captured above in paragraphs 6.6 and 6.7.

Flag State oversight over ROC

35 Some delegations expressed concern with a flag State exercising oversight in the host State of an ROC, which would require appropriate arrangements between the two States.

36 One delegation was of the view that an ROC, unlike a ship, cannot be regarded as the extension of the flag State's territory, and, therefore, the scope of jurisdiction of the flag State over ROCs may need to be defined clearly.

37 Another delegation expressed the view that seafarers had experienced problems due to complications stemming from jurisdictional arrangements, and that these experiences and lessons learned should be considered and applied during finalization of jurisdictional measures for ROCs.

38 Having recalled the extensive discussions in various IMO bodies on these matters, in particular at LEG 111, the Group did not see the need to further address the concerns raised in paragraphs 35 to 37 above.

Work plan of the MSC-LEG-FAL Joint Working Group on MASS

39 In considering any outstanding matters to be addressed, the Group concluded that there was no further work to be undertaken, at this stage; and any further consideration of the common issues warrants further progress on the MASS Code. Consequently, the Group did not update its work plan, which the Committees are invited to consider as completed.

Next meeting of the MASS-JWG and proposed provisional terms of reference

40 In light of the earlier conclusion that there was no further outstanding work to be undertaken at this stage, the Group recommended to the Committees to agree that its fourth meeting should only take place at the request of any of the three Committees, in consultation among the three Chairs.

Action requested of the MSC/LEG/FAL Committees

41 The MSC/LEG/FAL Committees are invited to approve the report in general and, in particular, to:

.1 consider the proposals in document MASS-JWG 3/3/1 (China) as follows:

.1 for MSC, the proposal in paragraphs 13 and 15 (paragraphs 10 and 16); and

.2 for FAL, the proposal in paragraph 14 (paragraph 14);

.2 note that the Group agreed that:

.1 while the issue of connectivity was important to discuss, the technical aspect of connectivity was a matter outside the remit of the Group, and the discussion should take place at MSC (paragraph 19);

.2 substantive consideration on matters such as competencies, qualifications and training relating to the crew of MASS would be within the remit of MSC and the HTW Sub-Committee, and any further discussion in the Group before the finalization of the non-mandatory MASS Code would be premature (paragraph 22);

.3 any joint work of IMO and ILO on MASS-relevant issues would first require a concrete proposal for consideration by the relevant IMO committee(s) (paragraph 25);

.4 the overriding responsibility and authority of the master cannot be delegated, but certain tasks and functions of a master may be delegated (paragraph 31); and

.5 the issue of a master being at the ROC, in particular when crew are on board, was a matter for MSC to further consider (paragraph 33);

.3 consider the list of relevant provisions on the master in UNCLOS and selected IMO instruments for the respective committees' future work on instruments under their purview, and note that the Secretariat was requested to update it as may be necessary and to send supplementary information to the relevant committees directly (paragraphs 27 and 28, and annex);

.4 note that the Group did not see the need to further address the concerns relating to flag State oversight over ROCs (paragraph 38);

.5 note that the Group agreed that there was no further work to be undertaken at this stage and concluded that any further consideration of the common issues warrants further progress on the MASS Code (paragraph 39);

.6 note that the Group did not update its work plan, and endorse that the current work plan of the Group is completed (paragraph 39); and

.7 agree that the fourth meeting of the Group should only take place at the request of any of the three Committees, in consultation among the three Chairs (paragraph 40).

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ANNEX

CONSIDERATION OF THE COMMON ISSUES, TAKING INTO ACCOUNT THE DISCUSSIONS OF FAL, LEG AND MSC

Relevant legal provisions on the role and responsibilities of the master

Note by the Secretariat

1 This document has been prepared by the Secretariat in consultation with the Chair of the Joint MSC-LEG-FAL Working Group on MASS (MASS-JWG), based on the Group's request for a compilation of a list of provisions on the roles and responsibilities of a master in existing IMO instruments and UNCLOS, in order to identify which roles of the master can be delegated or entrusted to some other party (MASS-JWG 2/WP.1, paragraph 67.3).

2 To streamline and facilitate the use of this document as a reference, only provisions from the SOLAS Convention, among the instruments under the purview of the Maritime Safety Committee, and provisions from the International Safety Management (ISM) Code, among the instruments that have been made mandatory to the SOLAS Convention, were included.

3 The relevant provisions, set out in the annexes, are as follows:

Appendix I: Provisions under the UN Convention on the Law of the Sea

Appendix II: Provisions under the SOLAS Convention

Appendix III: Provisions under the ISM Code

Appendix IV: Provisions under the instruments emanating from the Legal Committee

Appendix V: Provisions under the Convention on Facilitation of International Maritime Traffic (FAL 1965)

4 In some cases, portions of the provisions referred to in the annex have been omitted for brevity. For particularly lengthy provisions, specific text relating to the master has been shaded in grey for ease of reading.

APPENDIX I

RELEVANT LEGAL PROVISIONS ON THE MASTER UNDER THE UNITED NATIONS CONVENTION ON THE LAW OF THE SEA

Article 27: Criminal jurisdiction on board a foreign ship

1. The criminal jurisdiction of the coastal State should not be exercised on board a foreign ship passing through the territorial sea to arrest any person or to conduct any investigation in connection with any crime committed on board the ship during its passage, save only in the following cases:
   (a) if the consequences of the crime extend to the coastal State;
   (b) if the crime is of a kind to disturb the peace of the country or the good order of the territorial sea;
   (c) if the assistance of the local authorities has been requested by the master of the ship or by a diplomatic agent or consular officer of the flag State; or
   (d) if such measures are necessary for the suppression of illicit traffic in narcotic drugs or psychotropic substances.
2. The above provisions do not affect the right of the coastal State to take any steps authorized by its laws for the purpose of an arrest or investigation on board a foreign ship passing through the territorial sea after leaving internal waters.
3. In the cases provided for in paragraphs 1 and 2, the coastal State shall, if the master so requests, notify a diplomatic agent or consular officer of the flag State before taking any steps, and shall facilitate contact between such agent or officer and the ship's crew. In cases of emergency this notification may be communicated while the measures are being taken.

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Article 94: Duties of the flag State

1. Every State shall effectively exercise its jurisdiction and control in administrative, technical and social matters over ships flying its flag.
2. In particular every State shall:
   (a) maintain a register of ships containing the names and particulars of ships flying its flag, except those which are excluded from generally accepted international regulations on account of their small size; and
   (b) assume jurisdiction under its internal law over each ship flying its flag and its master, officers and crew in respect of administrative, technical and social matters concerning the ship.
3. Every State shall take such measures for ships flying its flag as are necessary to ensure safety at sea with regard, inter alia, to:
   (a) the construction, equipment and seaworthiness of ships;
   (b) the manning of ships, labour conditions and the training of crews, taking into account the applicable international instruments;
   (c) the use of signals, the maintenance of communications and the prevention of collisions.
4. Such measures shall include those necessary to ensure:
   (a) that each ship, before registration and thereafter at appropriate intervals, is surveyed by a qualified surveyor of ships, and has on board such charts, nautical publications and navigational equipment and instruments as are appropriate for the safe navigation of the ship;
   (b) that each ship is in the charge of a master and officers who possess appropriate qualifications, in particular in seamanship, navigation, communications and marine engineering, and that the crew is appropriate in qualification and numbers for the type, size, machinery and equipment of the ship;

(c) that the master, officers and, to the extent appropriate, the crew are fully conversant with and required to observe the applicable international regulations concerning the safety of life at sea, the prevention of collisions, the prevention, reduction and control of marine pollution, and the maintenance of communications by radio.

5. In taking the measures called for in paragraphs 3 and 4 each State is required to conform to generally accepted international regulations, procedures and practices and to take any steps which may be necessary to secure their observance.

6. A State which has clear grounds to believe that proper jurisdiction and control with respect to a ship have not been exercised may report the facts to the flag State. Upon receiving such a report, the flag State shall investigate the matter and, if appropriate, take any action necessary to remedy the situation.

7. Each State shall cause an inquiry to be held by or before a suitably qualified person or persons into every marine casualty or incident of navigation on the high seas involving a ship flying its flag and causing loss of life or serious injury to nationals of another State or serious damage to ships or installations of another State or to the marine environment. The flag State and the other State shall cooperate in the conduct of any inquiry held by that other State into any such marine casualty or incident of navigation.

Article 97: Penal jurisdiction in matters of collision or any other incident of navigation

1. In the event of a collision or any other incident of navigation concerning a ship on the high seas, involving the penal or disciplinary responsibility of the master or of any other person in the service of the ship, no penal or disciplinary proceedings may be instituted against such person except before the judicial or administrative authorities either of the flag State or of the State of which such person is a national.

Xxx

Article 98: Duty to render assistance

1. Every State shall require the master of a ship flying its flag, insofar as he can do so without serious danger to the ship, the crew or the passengers:
   (a) to render assistance to any person found at sea in danger of being lost;
   (b) to proceed with all possible speed to the rescue of persons in distress, if informed of their need of assistance, insofar as such action may reasonably be expected of him;
   (c) after a collision, to render assistance to the other ship, its crew and its passengers and, where possible, to inform the other ship of the name of his own ship, its port of registry and the nearest port at which it will call.

2. Every coastal State shall promote the establishment, operation and maintenance of an adequate and effective search and rescue service regarding safety on and over the sea and, where circumstances so require, by way of mutual regional arrangements cooperate with neighbouring States for this purpose.

Article 211: Pollution from vessels

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3. States which establish particular requirements for the prevention, reduction and control of pollution of the marine environment as a condition for the entry of foreign vessels into their ports or internal waters or for a call at their offshore terminals shall give due publicity to such requirements and shall communicate them to the competent international organization. Whenever such requirements are established in identical form by two or more coastal States in an endeavour to harmonize policy, the communication shall indicate which States are participating in such cooperative arrangements. Every State shall require the master of a vessel flying its flag or of its registry, when navigating within the territorial sea of a State participating in such cooperative arrangements, to furnish, upon the request of that State, information as to whether it is proceeding to a State

of the same region participating in such cooperative arrangements and, if so, to indicate whether it complies with the port entry requirements of that State. This article is without prejudice to the continued exercise by a vessel of its right of innocent passage or to the application of article 25, paragraph 2.
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Notes:

1. "xxx" indicates text omitted from the provisions for brevity.

2. For particularly lengthy provisions, relevant text on the master has been shaded in grey for ease of reading.

APPENDIX II

RELEVANT LEGAL PROVISIONS ON THE MASTER UNDER THE INTERNATIONAL CONVENTION OF THE SAFETY OF LIFE AT SEA, 1974 (SOLAS CONVENTION)

***Article IV: Cases of* force majeure**
(a) A ship, which is not subject to the provisions of the present Convention at the time of its departure on any voyage, shall not become subject to the provisions of the present Convention on account of any deviation from its intended voyage due to stress of weather or any other case of force majeure. (b) Persons who are on board a ship by reason of force majeure or in consequence of the obligation laid upon the master to carry shipwrecked or other persons shall not be taken into account for the purpose of ascertaining the application to a ship of any provisions of the present Convention.
Chapter 1: General provisions
Regulation 11 *Maintenance of conditions after survey* xxx **I** Whenever an accident occurs to a ship or a defect is discovered, either of which affects the safety of the ship or the efficiency or completeness of its life-saving appliances or other equipment, the master or owner of the ship shall report at the earliest opportunity to the Administration, the nominated surveyor or recognized organization responsible for issuing the relevant certificate, who shall cause investigations to be initiated to determine whether a survey, as required by regulations 7, 8, 9 or 10, is necessary. If the ship is in a port of another Contracting Government, the master or owner shall also report immediately to the appropriate authorities of the port State and the nominated surveyor or recognized organization shall ascertain that such a report has been made.
Chapter II-1: Construction – Structure, subdivision and stability, machinery and electrical installations
Regulation 5 *Intact Stability* xxx **4** Where any alterations are made to a ship so as to materially affect the stability information supplied to the master, amended stability information shall be provided. If necessary, the ship shall be re-inclined. The ship shall be re-inclined if anticipated deviations exceed one of the values specified in paragraph 5. Xxx

Regulation 5-1
Stability information to be supplied to the master
1 The master shall be supplied with such information to the satisfaction of the Administration as is necessary to enable him by rapid and simple processes to obtain accurate guidance as to the stability of the ship under varying conditions of service. A copy of the stability information shall be furnished to the Administration.
2 The information should include:
.1 curves or tables of minimum operational metacentric height (GM) and maximum permissible trim versus draught which assures compliance with the intact and damage stability requirements where applicable, alternatively corresponding curves or tables of the maximum allowable vertical centre of gravity (KG) and maximum permissible trim versus draught, or with the equivalents of either of these curves or tables;
.2 instructions concerning the operation of cross-flooding arrangements; and
.3 all other data and aids which might be necessary to maintain the required intact stability and stability after damage.
3 The intact and damage stability information required by regulation 5-1.2 shall be presented as consolidated data and encompass the full operating range of draught and trim[2]. Applied trim values shall coincide in all stability information intended for use on board. Information not required for determination of stability and trim limits should be excluded from this information.
xxx
6 When curves or tables of minimum operational metacentric height (GM) or maximum allowable KG versus draught are not provided, the master shall ensure that the operating condition does not deviate from approved loading conditions, or verify by calculation that the stability requirements are satisfied for this loading condition.

Regulation 7-2
Calculation of the factor s_i
xxx
5 Unsymmetrical flooding is to be kept to a minimum consistent with the efficient arrangements. Where it is necessary to correct large angles of heel, the means adopted shall, where practicable, be self-acting, but in any case where controls to equalization devices are provided they shall be operable from above the bulkhead deck of passenger ships and the freeboard deck of cargo ships. These fittings together with their controls shall be acceptable to the Administration. Suitable information concerning the use of equalization devices shall be supplied to the master of the ship.
5.1 Tanks and compartments taking part in such equalization shall be fitted with air pipes or equivalent means of sufficient cross section to ensure that the flow of water into the equalization compartments is not delayed.
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Regulation 8-1
System capabilities and operational information after a flooding casualty on passenger ships

1 Application
Passenger ships having length, as defined in regulation II-1/2.5, of 120 metres or more or having three or more main vertical zones shall comply with the provisions of this regulation.
xxx
3 Operational information after a flooding casualty
3.1 For the purpose of providing operational information to the master for safe return to port after a flooding casualty, passenger ships, as specified in paragraph 1, shall have:
.1 an onboard stability computer; or
.2 shore-based support,
based on guidelines developed by the Organization.
3.2 Passenger ships constructed before 1 January 2014 shall comply with the provisions in paragraph 3.1 not later than the first renewal survey after 1 January 2025.

Regulation 13
Openings in watertight bulkheads below the bulkhead deck in passenger ships
xxx
10 Portable plates on bulkheads shall not be permitted except in machinery spaces. The Administration may permit not more than one power-operated sliding watertight door in each watertight bulkhead larger than those specified in paragraph 7.1.2 to be substituted for these portable plates, provided these doors are intended to remain closed during navigation except in case of urgent necessity at the discretion of the master. These doors need not meet the requirements of paragraph 7.1.4 regarding complete closure by hand-operated gear in 90 seconds.
Xxx

Regulation 15
Openings in the shell plating below the bulkhead deck of passenger ships and the freeboard deck of cargo ships
xxx
3.1 Subject to the requirements of the International Convention on Load Lines in force, no sidescuttle shall be fitted in such a position that its sill is below a line drawn parallel to the bulkhead deck at side and having its lowest point 2.5% of the breadth of the ship above the deepest subdivision draught, or 500 mm, whichever is the greater.
3.2 All sidescuttles the sills of which are below the bulkhead deck of passenger ships and the freeboard deck of cargo ships, as permitted by paragraph 3.1, shall be of such construction as will effectively prevent any person opening them without the consent of the master of the ship.
4 Efficient hinged inside deadlights, so arranged that they can be easily and effectively closed and secured watertight, shall be fitted to all sidescuttles except that, abaft one eighth of the ship's length from the forward perpendicular and above a line drawn parallel to the bulkhead deck at side and having its lowest point at a height of 3.7 metres plus 2.5% of the breadth of the ship above the deepest subdivision draught, the deadlights may be portable in passenger accommodation, unless the deadlights are required by the International Convention on Load Lines in force to be permanently attached in their proper positions. Such portable deadlights shall be stowed adjacent to the sidescuttles they serve.
5.1 No sidescuttles shall be fitted in any spaces which are appropriated exclusively to the carriage of cargo.
5.2 Sidescuttles may, however, be fitted in spaces appropriated alternatively to the carriage of cargo or passengers, but they shall be of such construction as will effectively prevent any person opening them or their deadlights without the consent of the master.
6 Automatic ventilating sidescuttles shall not be fitted in the shell plating below the bulkhead deck of passenger ships and the freeboard deck of cargo ships without the special sanction of the Administration.
Xxx

Regulation 19
Damage control information
1 There shall be permanently exhibited, or readily available on the navigation bridge, for the guidance of the officer in charge of the ship, plans showing clearly for each deck and hold the boundaries of the watertight compartments, the openings therein with the means of closure and position of any controls thereof, and the arrangements for the correction of any list due to flooding. In addition, booklets containing the aforementioned information shall be made available to the officers of the ship.
2 General precautions to be included shall consist of a listing of equipment, conditions, and operational procedures considered by the Administration to be necessary to maintain watertight integrity under normal ship operations.
3 Specific precautions to be included shall consist of a listing of elements (i.e. closures, security of cargo, sounding of alarms, etc.) considered by the Administration to be vital to the survival of the ship, passengers and crew.
4 In case of ships to which damage stability requirements of part B-1 apply, damage stability information shall provide the master with a simple and easily understandable way of assessing the ship's survivability in all damage cases involving a compartment or group of compartments

Regulation 20
Loading of ships
1 On completion of loading of the ship and prior to its departure, the master shall determine the ship's trim and stability and also ascertain and record that the ship is upright and in compliance with stability criteria in relevant regulations. The determination of the ship's stability shall always be made by calculation or by ensuring that the ship is loaded according to one of the precalculated loading conditions within the approved stability information. The Administration may accept the use of an electronic loading and stability computer or equivalent means for this purpose.
xxx

Regulation 22
Prevention and control of water ingress, etc.
xxx
4 Portable plates on bulkheads shall always be in place before the voyage commences, and shall not be removed during navigation except in case of urgent necessity at the discretion of the master. The necessary precautions shall be taken in replacing them to ensure that the joints are watertight. Power-operated sliding watertight doors permitted in machinery spaces in accordance with regulation 13.10 shall be closed before the voyage commences and shall remain closed during navigation except in case of urgent necessity at the discretion of the master.
xxx
7 The following doors, located above the bulkhead deck of passenger ships and the freeboard deck of cargo ships, shall be closed and locked before the voyage commences and shall remain closed and locked until the ship is at its next berth:
.1 cargo loading doors in the shell or the boundaries of enclosed superstructures;
.2 bow visors fitted in positions as indicated in paragraph 7.1;
.3 cargo loading doors in the collision bulkhead; and
.4 ramps forming an alternative closure to those defined in paragraphs 7.1 to 7.3 inclusive.
8 Where a door cannot be opened or closed while the ship is at the berth, such a door may be opened or left open while the ship approaches or draws away from the berth, but only so far as may be necessary to enable the door to be immediately operated. In any case, the inner bow door must be kept closed.
9 Notwithstanding the requirements of paragraphs 7.1 and 7.4, the Administration may authorize that particular doors can be opened at the discretion of the master, if necessary for the operation of the ship or the embarking and disembarking of passengers when the ship is at safe anchorage and provided that the safety of the ship is not impaired..
10 The master shall ensure that an effective system of supervision and reporting of the closing and opening of the doors referred to in paragraph 7 is implemented.
11 The master shall ensure, before any voyage commences, that an entry in such logbook as may be prescribed by the Administration is made of the time the doors specified in paragraph 12 are closed and the time at which particular doors are opened in accordance with paragraph 13.
12 Hinged doors, portable plates, sidescuttles, gangways, cargo and bunkering ports and other openings, which are required by these regulations to be kept closed during navigation, shall be closed before the voyage commences. The time at which such doors are opened and closed (if permissible under these regulations) shall be recorded in such logbook as may be prescribed by the Administration.
13 Where in a between-deck, the sills of any of the sidescuttles referred to in regulation 15.3.2 are below a line drawn parallel to the bulkhead deck at side of passenger ships and the freeboard deck at side of cargo ships, and having its lowest point 1.4 m plus 2.5% of the breadth of the ship above the water when the voyage commences, all the sidescuttles in that between-deck shall be closed watertight and locked before the voyage commences, and they shall not be opened before the ship arrives at the next port. In the application of this paragraph the appropriate allowance for fresh water may be made when applicable.
.1 The time at which such sidescuttles are opened in port and closed and locked before the voyage commences shall be recorded in such logbook as may be prescribed by the Administration.
.2 For any ship that has one or more sidescuttles so placed that the requirements of paragraph 13 would apply when it was floating at its deepest subdivision draught, the Administration may indicate the limiting mean draught at which these sidescuttles will have their sills above the line drawn parallel to the bulkhead deck at side of passenger ships and the freeboard deck at side of cargo ships, and having its lowest point 1.4 m plus 2.5% of the breadth of the ship above the waterline corresponding to the limiting mean draught, and at which it will therefore be permissible for the voyage to commence without them being closed and locked and to be opened during

navigation on the responsibility of the master during navigation. In tropical zones as defined in the International Convention on Load Lines in force, this limiting draught may be increased by 0.3 metres.

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Regulation 23

Special requirements for ro-ro passenger ships

1 Special category spaces and ro-ro spaces shall be continuously patrolled or monitored by effective means, such as television surveillance, so that any movement of vehicles in adverse weather conditions and unauthorized access by passengers thereto can be detected during navigation.

2 Documented operating procedures for closing and securing all shell doors, loading doors and other closing appliances which, if left open or not properly secured, could, in the opinion of the Administration, lead to flooding of a special category space or ro-ro space, shall be kept on board and posted at an appropriate place.

3 All accesses from the ro-ro deck and vehicle ramps that lead to spaces below the bulkhead deck shall be closed before the voyage commences and shall remain closed until the ship is at its next berth.

4 The master shall ensure that an effective system of supervision and reporting of the closing and opening of such accesses referred to in paragraph 3 is implemented.

5 The master shall ensure, before the voyage commences, that an entry in the logbook, as required by regulation 22.12, is made of the time of the last closing of the accesses referred to in paragraph 3.

6 Notwithstanding the requirements of paragraph 3, the Administration may permit some accesses to be opened during the voyage, but only for a period sufficient to permit through passage and, if required, for the essential working of the ship.

7 All transverse or longitudinal bulkheads which are taken into account as effective to confine the seawater accumulated on the ro-ro deck shall be in place and secured before the voyage commences and remain in place and secured until the ship is at its next berth.

8 Notwithstanding the requirements of paragraph 7, the Administration may permit some accesses within such bulkheads to be opened during the voyage but only for sufficient time to permit through passage and, if required, for the essential working of the ship.

9 In all ro-ro passenger ships, the master or the designated officer shall ensure that, without the expressed consent of the master or the designated officer, no passengers are allowed access to an enclosed ro-ro deck during navigation.

Regulation 24

Additional requirements for prevention and control of water ingress, etc. in cargo ships

1 Openings in the shell plating below the deck limiting the vertical extent of damage shall be kept permanently closed during navigation.

2 Notwithstanding the requirements of paragraph 3, the Administration may authorize that particular doors may be opened at the discretion of the master, if necessary for the operation of the ship and provided that the safety of the ship is not impaired.

3 Watertight doors or ramps fitted to internally subdivide large cargo spaces shall be closed before the voyage commences and shall be kept closed during navigation. The time at which such doors are opened or closed shall be recorded in such logbook as may be prescribed by the Administration.

4 The use of access doors and hatch covers intended to ensure the watertight integrity of internal openings shall be authorized by the officer of the watch.

Regulation 28

Means of going astern

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3 The stopping times, ship headings and distances recorded on trials, together with the results of trials to determine the ability of ships having multiple propellers to navigate and manoeuvre with one or more propellers inoperative, shall be available on board for the use of the master or designated personnel.

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Chapter II-2: Construction – Fire protection, fire detection and fire extinction

Regulation 11

Structural integrity

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6 Protection of cargo tank structure against pressure or vacuum in tankers

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6.4 Size of vent outlets

Vent outlets for cargo loading, discharging and ballasting required by paragraph 6.1.2 shall be designed on the basis of the maximum designed loading rate multiplied by a factor of at least 1.25 to take account of gas evolution, in order to prevent the pressure in any cargo tank from exceeding the design pressure. The master shall be provided with information regarding the maximum permissible loading rate for each cargo tank and, in the case of combined venting systems, for each group of cargo tanks.

Regulation 20

Protection of vehicle, special category and ro-ro spaces

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6.1.4 The requirement of this paragraph shall apply to ships constructed on or after 1 January 2010. Ships constructed on or after 1 July 2002 and before 1 January 2010 shall comply with the previously applicable requirements of paragraph 6.1.4, as adopted by resolution MSC.99(73). When fixed pressure water-spraying systems are fitted, in view of the serious loss of stability which could arise due to large quantities of water accumulating on the deck or decks during the operation of the fixed pressure water-spraying system, the following arrangements shall be provided:

.1 in passenger ships:

.1.1 in the spaces above the bulkhead deck, scuppers shall be fitted so as to ensure that such water is rapidly discharged directly overboard, taking into account the guidelines developed by the Organization;

.1.2.1 in ro-ro passenger ships, discharge valves for scuppers, fitted with positive means of closing operable from a position above the bulkhead deck in accordance with the requirements of the International Convention on Load Lines in force, shall be kept open while the ships are at sea;

.1.2.2 any operation of valves referred to in paragraph 6.1.4.1.2.1 shall be recorded in the logbook;

.1.3 in the spaces below the bulkhead deck, the Administration may require pumping and drainage facilities to be provided additional to the requirements of regulation II-1/35-1. In such case, the drainage system shall be sized to remove no less than 125% of the combined capacity of both the water-spraying system pumps and the required number of fire hose nozzles, taking into account the guidelines developed by the Organization. The drainage system valves shall be operable from outside the protected space at a position in the vicinity of the extinguishing system controls. Bilge wells shall be of sufficient holding capacity and shall be arranged at the side shell of the ship at a distance from each other of not more than 40 metres in each watertight compartment;

.2 in cargo ships, the drainage and pumping arrangements shall be such as to prevent the build-up of free surfaces. In such case, the drainage system shall be sized to remove no less than 125% of the combined capacity of both the water-spraying system pumps and the required number of fire hose nozzles, taking into account the guidelines developed by the Organization. The drainage system valves shall be operable from outside the protected space at a position in the vicinity of the extinguishing system controls. Bilge wells shall be of sufficient holding capacity and shall be arranged at the side shell of the ship at a distance from each other of not more than 40 metres in each watertight compartment. If this is not possible, the adverse effect upon stability of the added weight and free surface of water shall be taken into account to the extent deemed necessary by the Administration in its approval of the stability information. Such information shall be included in the stability information supplied to the master as required by regulation II-1/5-1.

Chapter III: Life-saving appliances and arrangements

Regulation 10

Manning of survival craft and supervision

1 This regulation applies to all ships.

2 There shall be a sufficient number of trained persons on board for mustering and assisting untrained persons.

3 There shall be a sufficient number of crew members, who may be deck officers or certificated persons, on board for operating the survival craft and launching arrangements required for abandonment by the total number of persons on board.

4 A deck officer or certificated person shall be placed in charge of each survival craft to be used. However, the Administration, having due regard to the nature of the voyage, the number of persons on board and the characteristics of the ship, may permit persons practised in the handling and operation of liferafts to be placed in charge of liferafts in lieu of persons qualified as above. A second-in-command shall also be nominated in the case of lifeboats.

5 The person in charge of the survival craft shall have a list of the survival craft crew and shall see that the crew under his command are acquainted with their duties. In lifeboats the second-in-command shall also have a list of the lifeboat crew.

6 Every motorized survival craft shall have a person assigned who is capable of operating the engine and carrying out minor adjustments.

7 The master shall ensure the equitable distribution of persons referred to in paragraphs 2, 3 and 4 among the ship's survival craft.

Regulation 27

Information on passengers

1 All persons on board all passenger ships shall be counted prior to departure.

2 Details of persons who have declared a need for special care or assistance in emergency situations shall be recorded and communicated to the master prior to departure.

3 In addition, not later than 1 January 1999, the names and gender of all persons on board, distinguishing between adults, children and infants shall be recorded for search and rescue purposes.

4 The information required by paragraphs 1, 2 and 3 shall be kept ashore and made readily available to search and rescue services when needed.

5 Administrations may exempt passenger ships from the requirements of paragraph 3, if the scheduled voyages of such ships render it impracticable for them to prepare such records.

Regulation 29

Decision support system for masters of passenger ships

1 This regulation applies to all passenger ships. Passenger ships constructed before 1 July 1997 shall comply with the requirements of this regulation not later than the date of the first periodical survey after 1 July 1999.

2 In all passenger ships, a decision support system for emergency management shall be provided on the navigation bridge.

3 The system shall, as a minimum, consist of a printed emergency plan or plans. All foreseeable emergency situations shall be identified in the emergency plan or plans, including, but not limited to, the following main groups of emergencies:

.1 fire;
.2 damage to ship;
.3 pollution;
.4 unlawful acts threatening the safety of the ship and the security of its passengers and crew;
.5 personnel accidents;
.6 cargo-related accidents; and
.7 emergency assistance to other ships.

4 The emergency procedures established in the emergency plan or plans shall provide decision support to masters for handling any combination of emergency situations.

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Regulation 37

Muster list and emergency instructions

1 The muster list shall specify details of the general emergency alarm and public address system prescribed by section 7.2 of the Code and also action to be taken by crew and passengers when this alarm is sounded. The muster list shall also specify how the order to abandon ship will be given.

2 Each passenger ship shall have procedures in place for locating and rescuing passengers trapped in their staterooms.

3 The muster list shall show the duties assigned to the different members of the crew including:

.1 closing of the watertight doors, fire doors, valves, scuppers, sidescuttles, skylights, portholes and other similar openings in the ship;
.2 equipping of the survival craft and other life-saving appliances;
.3 preparation and launching of survival craft;

.4 general preparations of other life-saving appliances;
.5 muster of passengers;
.6 use of communication equipment;
.7 manning of fire parties assigned to deal with fires;
.8 special duties assigned in respect to the use of fire-fighting equipment and installations; and
.9 for passenger ships only, damage control for flooding emergencies.

4 The muster list shall specify which officers are assigned to ensure that life-saving and fire appliances are maintained in good condition and are ready for immediate use.

5 The muster list shall specify substitutes for key persons who may become disabled, taking into account that different emergencies may call for different actions.

6 The muster list shall show the duties assigned to members of the crew in relation to passengers in case of emergency. These duties shall include:

.1 warning the passengers;
.2 seeing that they are suitably clad and have donned their lifejackets correctly;
.3 assembling passengers at muster stations;
.4 keeping order in the passageways and on the stairways and generally controlling the movements of the passengers; and
.5 ensuring that a supply of blankets is taken to the survival craft.

7 The muster list shall be prepared before the ship proceeds to sea. After the muster list has been prepared, if any change takes place in the crew which necessitates an alteration in the muster list, the master shall either revise the list or prepare a new list.

8 The format of the muster list used on passenger ships shall be approved.

Chapter V: Safety of navigation

Regulation 5

Meteorological services and warnings

1 Contracting Governments undertake to encourage the collection of meteorological data by ships at sea and to arrange for their examination, dissemination and exchange in the manner most suitable for the purpose of aiding navigation. Administrations shall encourage the use of meteorological instruments of a high degree of accuracy and shall facilitate the checking of such instruments upon request. Arrangements may be made by appropriate national meteorological services for this checking to be undertaken, free of charge to the ship.

2 In particular, Contracting Governments undertake to carry out, in cooperation, the following meteorological arrangements:

.1 To warn ships of gales, storms and tropical cyclones by the issue of information in text and, as far as practicable, graphic form, using the appropriate shore-based facilities for terrestrial and space radiocommunications services.

.2 To issue, at least twice daily, by terrestrial and space radiocommunication services, as appropriate, weather information suitable for shipping containing data, analyses, warnings and forecasts of weather, waves and ice. Such information shall be transmitted in text and, as far as practicable, graphic form, including meteorological analysis and prognosis charts transmitted by facsimile or in digital form for reconstitution on board the ship's data processing system.

.3 To prepare and issue such publications as may be necessary for the efficient conduct of meteorological work at sea and to arrange, if practicable, for the publication and making available of daily weather charts for the information of departing ships.

.4 To arrange for a selection of ships to be equipped with tested marine meteorological instruments (such as a barometer, a barograph, a psychrometer and suitable apparatus for measuring sea temperature) for use in this service, and to take, record and transmit meteorological observations at the main standard times for surface synoptic observations (i.e. at least four times daily, whenever circumstances permit) and to encourage other ships to take, record and transmit observations in a modified form, particularly when in areas where shipping is sparse.

.5 To encourage companies to involve as many of their ships as practicable in the making and recording of weather observations; these observations to be transmitted using the ship's terrestrial or space radiocommunications facilities for the benefit of the various national meteorological services.

.6 The transmission of these weather observations is free of charge to the ships concerned.

.7 When in the vicinity of a tropical cyclone, or of a suspected tropical cyclone, ships should be encouraged to take and transmit their observations at more frequent intervals whenever practicable, bearing in mind navigational preoccupations of ships' officers during storm conditions.

.8 To arrange for the reception and transmission of weather messages from and to ships, using the appropriate shore-based facilities for terrestrial and space radiocommunications services.

.9 To encourage masters to inform ships in the vicinity and also shore stations whenever they experience a wind speed of 50 knots or more (force 10 on the Beaufort scale).

.10 To endeavour to obtain a uniform procedure in regard to the international meteorological services already specified, and as far as practicable, to conform to the technical regulations and recommendations made by the World Meteorological Organization, to which Contracting Governments may refer, for study and advice, any meteorological question which may arise in carrying out the present Convention.

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Regulation 11

Ship reporting systems

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7 The master of a ship shall comply with the requirements of adopted ship reporting systems and report to the appropriate authority all information required in accordance with the provisions of each such system.

8 All adopted ship reporting systems and actions taken to enforce compliance with those systems shall be consistent with international law, including the relevant provisions of the United Nations Convention on the Law of the Sea.

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Regulation 14

Ship's manning

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3 On all ships, to ensure effective crew performance in safety matters, a working language shall be established and recorded in the ship's log-book. The Company, as defined in regulation IX/1, or the master, as appropriate, shall determine the appropriate working language. Each seafarer shall be required to understand and, where appropriate, give orders and instructions and to report back in that language. If the working language is not an official language of the State whose flag the ship is entitled to fly, all plans and lists required to be posted shall include a translation into the working language.

4 On ships to which chapter I applies, English shall be used on the bridge as the working language for bridge-to-bridge and bridge-to-shore safety communications as well as for communications on board between the pilot and bridge watchkeeping personnel, unless those directly involved in the communication speak a common language other than English.

Regulation 16

Maintenance of equipment

1 The Administration shall be satisfied that adequate arrangements are in place to ensure that the performance of the equipment required by this chapter is maintained.

2 Except as provided in regulations I/7(b)(ii), I/8 and I/9, while all reasonable steps shall be taken to maintain the equipment required by this chapter in efficient working order, malfunctions of that equipment shall not be considered as making the ship unseaworthy or as a reason for delaying the ship in ports where repair facilities are not readily available, provided suitable arrangements are made by the master to take the inoperative equipment or unavailable information into account in planning and executing a safe voyage to a port where repairs can take place.

Regulation 19-1

Long-range identification and tracking of ships

1 Nothing in this regulation or the provisions of 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.

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7 Systems and equipment used to meet the requirements of this regulation shall be capable of being switched off on board or be capable of ceasing the distribution of long-range identification and tracking information:

.1 where international agreements, rules or standards provide for the protection of navigational information; or

.2 in exceptional circumstances and for the shortest duration possible where the operation is considered by the master to compromise the safety or security of the ship. In such a case, the master shall inform the Administration without undue delay and make an entry in the record of navigational activities and incidents maintained in accordance with regulation 28 setting out the reasons for the decision and indicating the period during which the system or equipment was switched off.

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Regulation 22

Navigation bridge visibility

1 Ships of not less than 55 metres in length, as defined in regulation 2.4, constructed on or after 1 July 1998, shall meet the following requirements:

.1 The view of the sea surface from the conning position shall not be obscured by more than two ship lengths, or 500 m, whichever is less, forward of the bow to 10° on either side under all conditions of draught, trim and deck cargo;

.2 No blind sector, caused by cargo, cargo gear or other obstructions outside of the wheelhouse forward of the beam which obstructs the view of the sea surface as seen from the conning position, shall exceed 10°. The total arc of blind sectors shall not exceed 20°. The clear sectors between blind sectors shall be at least 5°. However, in the view described in .1, each individual blind sector shall not exceed 5°;

.3 The horizontal field of vision from the conning position shall extend over an arc of not less than 225°, that is from right ahead to not less than 22.5° abaft the beam on either side of the ship;

.4 From each bridge wing, the horizontal field of vision shall extend over an arc of at least 225°, that is from at least 45° on the opposite bow through right ahead and then from right ahead to right astern through 180° on the same side of the ship;

.5 From the main steering position, the horizontal field of vision shall extend over an arc from right ahead to at least 60° on each side of the ship;

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4 Notwithstanding the requirements of paragraphs 1.1, 1.3, 1.4 and 1.5, ballast water exchange may be undertaken provided that:

.1 the master has determined that it is safe to do so and takes into consideration any increased blind sectors or reduced horizontal fields of vision resulting from the operation to ensure that a proper lookout is maintained at all times;

.2 the operation is conducted in accordance with the ship's ballast water management plan, taking into account the recommendations on ballast water exchange adopted by the Organization; and

.3 the commencement and termination of the operation are recorded in the ship's record of navigational activities pursuant to regulation 28.

Regulation 30

Operational limitations

1 This regulation applies to all passenger ships to which chapter I applies.

2 A list of all limitations on the operation of a passenger ship, including exemptions from any of these regulations, restrictions in operating areas, weather restrictions, sea state restrictions, restrictions in permissible loads, trim, speed and any other limitations, whether imposed by the Administration or established during the design or the building stages, shall be compiled before the passenger ship is put in service. The list, together with any necessary explanations, shall be documented in a form acceptable to the Administration, which shall be kept on board readily available to the master. The list shall be kept updated. If the language used is not English or French, the list shall be provided in one of the two languages.

Regulation 31

Danger messages

1 The master of every ship which meets with dangerous ice, a dangerous derelict, or any other direct danger to navigation, or a tropical storm, or encounters sub-freezing air temperatures associated with gale force winds causing severe ice accretion on superstructures, or winds of force 10 or above on the Beaufort scale for which no storm warning has been received, is bound to communicate the information by all means at his disposal to ships in the vicinity, and also to the competent authorities. The form in which the information is sent is not obligatory. It may be transmitted either in plain language (preferably English) or by means of the International Code of Signals.

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Regulation 32

Information required in danger messages

The following information is required in danger messages: 1 Ice, derelicts and other direct dangers to navigation:

.1 The kind of ice, derelict or danger observed.
.2 The position of the ice, derelict or danger when last observed.
.3 The time and date (Universal Coordinated Time) when the danger was last observed.

2 Tropical cyclones (storms):

.1 A statement that a tropical cyclone has been encountered. This obligation should be interpreted in a broad spirit, and information transmitted whenever the master has good reason to believe that a tropical cyclone is developing or exists in the neighbourhood.
.2 Time, date (Universal Coordinated Time) and position of ship when the observation was taken.
.3 As much of the following information as is practicable should be included in the message:
- barometric pressure, preferably corrected (stating millibars, millimetres, or inches, and whether corrected or uncorrected);
- barometric tendency (the change in barometric pressure during the past three hours);
- true wind direction;
- wind force (Beaufort scale);
- state of the sea (smooth, moderate, rough, high);
- swell (slight, moderate, heavy) and the true direction from which it comes. Period or length of swell (short, average, long) would also be of value;
- true course and speed of ship.

Subsequent observations

3 When a master has reported a tropical cyclone or other dangerous storm, it is desirable, but not obligatory, that further observations be made and transmitted hourly, if practicable, but in any case at intervals of not more than 3 hours, so long as the ship remains under the influence of the storm.

4 Winds of force 10 or above on the Beaufort scale for which no storm warning has been received. This is intended to deal with storms other than the tropical cyclones referred to in paragraph 2; when such a storm is encountered, the message should contain similar information to that listed under the paragraph but excluding the details concerning sea and swell.

5 Sub-freezing air temperatures associated with gale force winds causing severe ice accretion on superstructures:

.1 Time and date (Universal Coordinated Time).

.2 Air temperature.

.3 Sea temperature (if practicable).

.4 Wind force and direction.

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Regulation 33

Distress situations: obligations and procedures

1 The master of a ship at sea which is in a position to be able to provide assistance, on receiving information from any source that persons are in distress at sea, is bound to proceed with all speed to their assistance, if possible informing them or the search and rescue service that the ship is doing so. This obligation to provide assistance applies regardless of the nationality or status of such persons or the circumstances in which they are found. If the ship receiving the distress alert is unable or, in the special circumstances of the case, considers it unreasonable or unnecessary to proceed to their assistance, the master must enter in the log-book the reason for failing to proceed to the assistance of the persons in distress, taking into account the recommendation of the Organization to inform the appropriate search and rescue service accordingly.

1-1 Contracting Governments shall coordinate and cooperate to ensure that masters of ships providing assistance by embarking persons in distress at sea are released from their obligations with minimum further deviation from the ships' intended voyage, provided that releasing the master of the ship from the obligations under the current regulation does not further endanger the safety of life at sea. The Contracting Government responsible for the search and rescue region in which such assistance is rendered shall exercise primary responsibility for ensuring such coordination and cooperation occurs, so that survivors assisted are disembarked from the assisting ship and delivered to a place of safety, taking into account the particular circumstances of the case and guidelines developed by the Organization. In these cases the relevant Contracting Governments shall arrange for such disembarkation to be effected as soon as reasonably practicable.

2 The master of a ship in distress or the search and rescue service concerned, after consultation, so far as may be possible, with the masters of ships which answer the distress alert, has the right to requisition one or more of those ships as the master of the ship in distress or the search and rescue service considers best able to render assistance, and it shall be the duty of the master or masters of the ship or ships requisitioned to comply with the requisition by continuing to proceed with all speed to the assistance of persons in distress.

3 Masters of ships shall be released from the obligation imposed by paragraph 1 on learning that their ships have not been requisitioned and that one or more other ships have been requisitioned and are complying with the requisition. This decision shall, if possible, be communicated to the other requisitioned ships and to the search and rescue service.

4 The master of a ship shall be released from the obligation imposed by paragraph 1 and, if his ship has been requisitioned, from the obligation imposed by paragraph 2 on being informed by the persons in distress or by the search and rescue service or by the master of another ship which has reached such persons that assistance is no longer necessary.

5 The provisions of this regulation do not prejudice the Convention for the Unification of Certain Rules of Law relating to Assistance and Salvage at Sea, signed at Brussels on 23 September 1910, particularly the obligation to render assistance imposed by article 11 of that Convention.

6 Masters of ships who have embarked persons in distress at sea shall treat them with humanity, within the capabilities and limitations of the ship.

Regulation 34

Safe navigation and avoidance of dangerous situations

1 Prior to proceeding to sea, the master shall ensure that the intended voyage has been planned using the appropriate nautical charts and nautical publications for the area concerned, taking into account the guidelines and recommendations developed by the Organization.

2 The voyage plan shall identify a route which:

.1 takes into account any relevant ships' routeing systems;

.2 ensures sufficient sea room for the safe passage of the ship throughout the voyage;

.3 anticipates all known navigational hazards and adverse weather conditions; and

.4 takes into account the marine environmental protection measures that apply, and avoids, as far as possible, actions and activities which could cause damage to the environment.

Regulation 34-1

Master's discretion

The owner, the charterer, the Company operating the ship as defined in regulation IX/1, or any other person shall not prevent or restrict the master of the ship from taking or executing any decision which, in the master's professional judgement, is necessary for safety of life at sea and protection of the marine environment.

Chapter VI: Carriage of cargoes and oil fuels

Regulation 2

Cargo information

1 The shipper shall provide the master or his representative with appropriate information on the cargo sufficiently in advance of loading to enable the precautions which may be necessary for proper stowage and safe carriage of the cargo to be put into effect. Such information shall be confirmed in writing and by appropriate shipping documents prior to loading the cargo on the ship.

2 The cargo information shall include:

.1 in the case of general cargo, and of cargo carried in cargo units, a general description of the cargo, the gross mass of the cargo or of the cargo units, and any relevant special properties of the cargo. For the purpose of this regulation the cargo information required in sub-chapter 1.9 of the Code of Safe Practice for Cargo Stowage and Securing, adopted by the Organization by resolution A.714(17), as may be amended, shall be provided. Any such amendment to sub-chapter 1.9 shall be 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;

.2 in the case of solid bulk cargo, information as required by section 4 of the IMSBC Code.

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5 The shipper of a container shall ensure the verified gross mass is stated in the shipping document. The shipping document shall be:

.1 signed by a person duly authorized by the shipper; and

.2 submitted to the master or his representative and to the terminal representative sufficiently in advance, as required by the master or his representative, to be used in the preparation of the ship stowage plan.

6 If the shipping document, with regard to a packed container, does not provide the verified gross mass and the master or his representative and the terminal representative have not obtained the verified gross mass of the packed container, it shall not be loaded on to the ship.

Regulation 5-2

Prohibition of the blending of bulk liquid cargoes and production processes during sea voyages

1 The physical blending of bulk liquid cargoes during sea voyages is prohibited. Physical blending refers to the process whereby the ship" cargo pumps and pipelines are used to internally circulate two or more different cargoes with the intent to achieve a cargo with a new product designation. This prohibition does not preclude the master from undertaking cargo transfers for the safety of the ship or protection of the marine environment.

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Regulation 6

Special provisions for solid bulk cargoes

Prior to loading a solid bulk cargo, the master shall be in possession of comprehensive information on the ship's stability and on the distribution of cargo for the standard loading conditions. The method of providing such information shall be to the satisfaction of the Administration.

Regulation 7

Loading, unloading and stowage of solid bulk cargoes

1 For the purpose of this regulation, terminal representative means a person appointed by the terminal or other facility, where the ship is loading or unloading, who has responsibility for operations conducted by that terminal or facility with regard to the particular ship.

2 To enable the master to prevent excessive stresses in the ship's structure, the ship shall be provided with a booklet, which shall be written in a language with which the ship's officers responsible for cargo operations are familiar. If this language is not English, the ship shall be provided with a booklet written also in the English language. The booklet shall, as a minimum, include:

.1 stability data, as required by regulation II-1/5-1;

.2 ballasting and deballasting rates and capacities;

.3 maximum allowable load per unit surface area of the tank top plating;

.4 maximum allowable load per hold;

.5 general loading and unloading instructions with regard to the strength of the ship's structure including any limitations on the most adverse operating conditions during loading, unloading, ballasting operations and the voyage;

.6 any special restrictions such as limitations on the most adverse operating conditions imposed by the Administration or organization recognized by it, if applicable; and

.7 where strength calculations are required, maximum permissible forces and moments on the ship's hull during loading, unloading and the voyage.

3 Before a solid bulk cargo is loaded or unloaded, the master and the terminal representative shall agree on a plan which shall ensure that the permissible forces and moments on the ship are not exceeded during loading or unloading, and shall include the sequence, quantity and rate of loading or unloading, taking into consideration the speed of loading or unloading, the number of pours and the deballasting or ballasting capability of the ship. The plan and any subsequent amendments thereto shall be lodged with the appropriate authority of the port State.

4 The master and terminal representative shall ensure that loading and unloading operations are conducted in accordance with the agreed plan.

5 If during loading or unloading any of the limits of the ship referred to in paragraph 2 are exceeded or are likely to become so if the loading or unloading continues, the master has the right to suspend operation and the obligation to notify accordingly the appropriate authority of the port State with which the plan has been lodged. The master and the terminal representative shall ensure that corrective action is taken. When unloading cargo, the master and terminal representative shall ensure that the unloading method does not damage the ship's structure.

6 The master shall ensure that ship's personnel continuously monitor cargo operations. Where possible, the ship's draught shall be checked regularly during loading or unloading to confirm the tonnage figures supplied. Each draught and tonnage observation shall be recorded in a cargo logbook. If significant deviations from the agreed plan are detected, cargo or ballast operations or both shall be adjusted to ensure that the deviations are corrected.

Regulation 9

Requirements for cargo ships carrying grain

1 In addition to any other applicable requirements of the present regulations, a cargo ship carrying grain shall comply with the requirements of the International Grain Code, and hold a document of authorization as required by that Code. For the purpose of this regulation, the requirements of the Code shall be treated as mandatory.

2 A ship without such a document shall not load grain until the master satisfies the Administration, or the Contracting Government of the port of loading on behalf of the Administration, that the ship will comply with the requirements of the International Grain Code in its proposed loaded condition.

Chapter VII: Carriage of dangerous goods

Regulation 6

Reporting of incidents involving dangerous goods

1 When an incident takes place involving the loss or likely loss overboard of dangerous goods in packaged form into the sea, the master, or other person having charge of the ship, shall report the particulars of such an incident without delay and to the fullest extent possible to the nearest coastal State. The report shall be drawn up based on general principles and guidelines developed by the Organization.

2 In the event of the ship referred to in paragraph 1 being abandoned, or in the event of a report from such a ship being incomplete or unobtainable, the Company, as defined in regulation IX/1.2, shall, to the fullest extent possible, assume the obligations placed upon the master by this regulation.

Regulation 7-4

Reporting of incidents involving dangerous goods

1 When an incident takes place involving the loss or likely loss overboard of dangerous goods in solid form in bulk into the sea, the master, or other person having charge of the ship, shall report the particulars of such an incident without delay and to the fullest extent possible to the nearest coastal State. The report shall be drawn up based on general principles and guidelines developed by the Organization.

2 In the event of the ship referred to in paragraph 1 being abandoned, or in the event of a report from such a ship being incomplete or unobtainable, the Company, as defined in regulation IX/1.2, shall, to the fullest extent possible, assume the obligations placed upon the master by this regulation.

Chapter VIII: Nuclear ships

Regulation 12

Casualties

In the event of any accident likely to lead to an environmental hazard the master of a nuclear ship shall immediately inform the Administration. The master shall also immediately inform the competent governmental authority of the country in whose waters the ship may be, or whose waters the ship approaches in a damaged condition.

Chapter IX: Management for the safe operation of ships

Regulation 4

Certification

1 A Document of Compliance shall be issued to every company which complies with the requirements of the International Safety Management Code. This document shall be issued by the Administration, by an organization recognized by the Administration, or at the request of the Administration by another Contracting Government.

2 A copy of the Document of Compliance shall be kept on board the ship in order that the master can produce it on request for verification.

3 A Certificate, called a Safety Management Certificate, shall be issued to every ship by the Administration or an organization recognized by the Administration. The Administration or organization recognized by it shall, before issuing the Safety Management Certificate, verify that the Company and its shipboard management operate in accordance with the approved safety management system.

Chapter XI-1: Special measures to enhance maritime safety

Regulation 4

Port State control on operational requirements

1 A ship when in a port of another Contracting Government is subject to control by officers duly authorized by such Government concerning operational requirements in respect of the safety of ships, when there are clear grounds for believing that the master or crew are not familiar with essential shipboard procedures relating to the safety of ships.

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Regulation 5

Continuous Synopsis Record

1 Every ship to which chapter I applies shall be issued with a Continuous Synopsis Record.

2.1 The Continuous Synopsis Record is intended to provide an onboard record of the history of the ship with respect to the information recorded therein.

2.2 For ships constructed before 1 July 2004, the Continuous Synopsis Record shall, at least, provide the history of the ship as from 1 July 2004.

3 The Continuous Synopsis Record shall be issued by the Administration to each ship that is entitled to fly its flag and it shall contain, at least, the following information (the Continuous Synopsis Record shall contain the information in paragraphs 3.7 and 3.10 when it is issued or updated on or after 1 January 2009):

- **.1** the name of the State whose flag the ship is entitled to fly;
- **.2** the date on which the ship was registered with that State;
- **.3** the ship's identification number in accordance with regulation 3;
- **.4** the name of the ship;
- **.5** the port at which the ship is registered;
- **.6** the name of the registered owner(s) and their registered address(es);
- **.7** the registered owner identification number;
- **.8** the name of the registered bareboat charterer(s) and their registered address(es), if applicable;
- **.9** the name of the Company, as defined in regulation IX/1, its registered address and the address (es) from where it carries out the safety-management activities;
- **.10** the Company identification number;
- **.11** the name of all classification society(ies) with which the ship is classed;
- **.12** the name of the Administration or of the Contracting Government or of the recognized organization which has issued the Document of Compliance (or the Interim Document of Compliance), specified in the ISM Code as defined in regulation IX/1, to the Company operating the ship and the name of the body which has carried out the audit on the basis of which the Document was issued, if other than that issuing the Document;
- **.13** the name of the Administration or of the Contracting Government or of the recognized organization that has issued the Safety Management Certificate (or the Interim Safety Management Certificate), specified in the ISM Code as defined in regulation IX/1, to the ship and the name of the body which has carried out the audit on the basis of which the Certificate was issued, if other than that issuing the Certificate;

.14 the name of the Administration or of the Contracting Government or of the recognized security organization that has issued the International Ship Security Certificate (or the Interim International Ship Security Certificate), specified in part A of the ISPS Code as defined in regulation XI-2/1, to the ship and the name of the body which has carried out the verification on the basis of which the Certificate was issued, if other than that issuing the Certificate; and

15 the date on which the ship ceased to be registered with that State.

4.1 Any changes relating to the entries referred to in paragraphs 3.4 to 3.12 shall be recorded in the Continuous Synopsis Record so as to provide updated and current information together with the history of the changes.

4.2 In case of any changes relating to the entries referred to in paragraph 4.1, the Administration shall issue, as soon as is practically possible but not later than three months from the date of the change, to the ships entitled to fly its flag either a revised and updated version of the Continuous Synopsis Record or appropriate amendments thereto.

4.3 In case of any changes relating to the entries referred to in paragraph 4.1, the Administration, pending the issue of a revised and updated version of the Continuous Synopsis Record, shall authorize and require either the Company as defined in regulation IX/1 or the master of the ship to amend the Continuous Synopsis Record to reflect the changes. In such cases, after the Continuous Synopsis Record has been amended, the Company shall, without delay, inform the Administration accordingly.

5.1 The Continuous Synopsis Record shall be in English, French or Spanish language. Additionally, a translation of the Continuous Synopsis Record into the official language or languages of the Administration may be provided.

5.2 The Continuous Synopsis Record shall be in the format developed by the Organization and shall be maintained in accordance with guidelines developed by the Organization. Any previous entries in the Continuous Synopsis Record shall not be modified, deleted or, in any way, erased or defaced.

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Chapter XI-2: Special measures to enhance maritime security

Regulation 5

Specific responsibility of Companies

The Company shall ensure that the master has available on board, at all times, information through which officers duly authorized by a Contracting Government can establish:

.1 who is responsible for appointing the members of the crew or other persons currently employed or engaged on board the ship in any capacity on the business of that ship;

.2 who is responsible for deciding the employment of the ship; and

.3 in cases where the ship is employed under the terms of charter party(ies), who are the parties to such charter party(ies).

Regulation 8

Master's discretion for ship safety and security

1 The master shall not be constrained by the Company, the charterer or any other person from taking or executing any decision which, in the professional judgement of the master, is necessary to maintain the safety and security of the ship. This includes denial of access to persons (except those identified as duly authorized by a Contracting Government) or their effects and refusal to load cargo, including containers or other closed cargo transport units.

2 If, in the professional judgement of the master, a conflict between any safety and security requirements applicable to the ship arises during its operations, the master shall give effect to those requirements necessary to maintain the safety of the ship. In such cases, the master may implement temporary security measures and shall forthwith inform the Administration and, if appropriate, the Contracting Government in whose port the ship is operating or intends to enter. Any such temporary security measures under this regulation shall, to the highest possible degree, be commensurate with the prevailing security level. When such cases are identified, the Administration shall ensure that such conflicts are resolved and that the possibility of recurrence is minimized.

Regulation 9

Control and compliance measures

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2 Ships intending to enter a port of another Contracting Government

2.1 For the purpose of this chapter, a Contracting Government may require that ships intending to enter its ports provide the following information to officers duly authorized by that Government to ensure compliance with this chapter prior to entry into port with the aim of avoiding the need to impose control measures or steps:

.1 that the ship possesses a valid Certificate and the name of its issuing authority;

.2 the security level at which the ship is currently operating;

.3 the security level at which the ship operated in any previous port where it has conducted a ship/ port interface within the time frame specified in paragraph 2.3;
.4 any special or additional security measures that were taken by the ship in any previous port where it has conducted a ship/port interface within the time frame specified in paragraph 2.3;
.5 that the appropriate ship security procedures were maintained during any ship-to-ship activity within the time frame specified in paragraph 2.3; or
.6 other practical security-related information (but not details of the ship security plan), taking into account the guidance given in part B of the ISPS Code.

If requested by the Contracting Government, the ship or the Company shall provide confirmation, acceptable to that Contracting Government, of the information required above.

2.2 Every ship to which this chapter applies intending to enter the port of another Contracting Government shall provide the information described in paragraph 2.1 on the request of the officers duly authorized by that Government. The master may decline to provide such information on the understanding that failure to do so may result in denial of entry into port.

2.3 The ship shall keep records of the information referred to in paragraph 2.1 for the last 10 calls at port facilities.

2.4 If, after receipt of the information described in paragraph 2.1, officers duly authorized by the Contracting Government of the port in which the ship intends to enter have clear grounds for believing that the ship is in non-compliance with the requirements of this chapter or part A of the ISPS Code, such officers shall attempt to establish communication with and between the ship and the Administration in order to rectify the non-compliance. If such communication does not result in rectification, or if such officers have clear grounds otherwise for believing that the ship is in non-compliance with the requirements of this chapter or part A of the ISPS Code, such officers may take steps in relation to that ship as provided in paragraph 2.5. Any such steps taken must be proportionate, taking into account the guidance given in part B of the ISPS Code.

2.5 Such steps are as follows:
.1 a requirement for the rectification of the non-compliance;
.2 a requirement that the ship proceed to a location specified in the territorial sea or internal waters of that Contracting Government;
.3 inspection of the ship, if the ship is in the territorial sea of the Contracting Government the port of which the ship intends to enter; or
.4 denial of entry into port.

Prior to initiating any such steps, the ship shall be informed by the Contracting Government of its intentions. Upon this information the master may withdraw the intention to enter that port. In such cases, this regulation shall not apply.

Annex 1: Certificates and documents required to be carried on board ships

Section 1. All ships to which the referenced Convention applies:

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Stability information (SOLAS 1974, regulations II-1/5 and II-1/5-1; LL 1966, regulation 10; LL Protocol 1988, regulation 10)

Every passenger ship regardless of size and every cargo ship of 24 metres and over shall be inclined on completion and the elements of their stability determined. The master shall be supplied with stability information containing such information as is necessary to enable him, by rapid and simple procedures, to obtain accurate guidance as to the stability of the ship under varying conditions of service to maintain the required intact stability and stability after damage. For bulk carriers, the information required in a bulk carrier booklet may be contained in the stability information.

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Manoeuvring booklet (SOLAS 1974, regulation II-1/2)

The stopping times, ship headings and distances recorded on trials, together with the results of trials to determine the ability of ships having multiple propellers to navigate and manoeuvre with one or more propellers inoperative, shall be available on board for the use of the master or designated personnel.

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Certificates for masters, officers or ratings (STCW 1978, article VI, regulation I/2; STCW Code, section A-I/2)

Certificates for masters, officers or ratings shall be issued to those candidates who, to the satisfaction of the Administration, meet the requirements for service, age, medical fitness, training, qualifications and examinations in accordance with the appropriate provisions of the 1978 STCW Convention and STCW Code. Formats of certificates are given in section A-I/2 of the STCW Code. Certificates must be kept available in their original form on board the ships on which the holder is serving.

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Section 2. In addition to the certificates listed in section 1 above, passenger ships shall carry: xxx *Decision support system for masters* (SOLAS 1974, regulation III/29) In all passenger ships, a decision support system for emergency management shall be provided on the navigation bridge. Xxx
Section 3: In addition to the certificates listed in section 1 above, cargo ships shall carry: xxx *Cargo information* (SOLAS 1974, regulations VI/2 and XII/10; MSC/Circ.663) The shipper shall provide the master or his representative with appropriate information, confirmed in writing, on the cargo, in advance of loading. In bulk carriers, the density of the cargo shall be provided in the above information. xxx *Bulk Carrier Booklet* (SOLAS 1974, regulations VI/7 and XII/8; BLU Code) To enable the master to prevent excessive stress in the ship's structure, the ship loading and unloading solid bulk cargoes shall be provided with a booklet referred to in SOLAS regulation VI/7.2. The booklet shall be endorsed by the Administration or on its behalf to indicate that SOLAS regulations XII/4, 5, 6 and 7, as appropriate, are complied with. As an alternative to a separate booklet, the required information may be contained in the stability information. xxx *Document of authorization for the carriage of grain and grain loading manual* (SOLAS 1974, regulation VI/9; Grain Code, section 3) A document of authorization shall be issued for every ship loaded in accordance with the regulations of the International Code for the Safe Carriage of Grain in Bulk. The document shall accompany or be incorporated into the grain loading manual provided to enable the master to meet the stability requirements of the Code. Xxx

Notes:

1. "xxx" indicates text omitted from the provisions for brevity.

2. For particularly lengthy provisions, relevant text on the master have been shaded in grey for ease of reading.

APPENDIX III

RELEVANT LEGAL PROVISIONS ON THE MASTER UNDER THE INTERNATIONAL SAFETY MANAGEMENT (ISM) CODE

Part A: Implementation

5 Master's responsibility and authority

5.1 The Company should clearly define and document the master's responsibility with regard to:

.1 implementing the safety and environmental protection policy of the Company;
.2 motivating the crew in the observation of that policy;
.3 issuing appropriate orders and instructions in a clear and simple manner;
.4 verifying that specified requirements are observed; and
.5 periodically reviewing the SMS and reporting its deficiencies to the shore-based management.

5.2 The Company should ensure that the SMS operating on board the ship contains a clear statement emphasizing the master's authority. The Company should establish in the SMS that the master has the overriding authority and the responsibility to make decisions with respect to safety and pollution prevention and to request the Company's assistance as may be necessary.

6 Resources and personnel

6.1 The Company should ensure that the master is:

.1 properly qualified for command;
.2 fully conversant with the Company's SMS; and
.3 given the necessary support so that the master's duties can be safely performed.

6.2 The Company should ensure that each ship is:

.1 manned with qualified, certificated and medically fit seafarers in accordance with national and international requirements; and
.2 appropriately manned in order to encompass all aspects of maintaining safe operations on board.

6.3 The Company should establish procedures to ensure that new personnel and personnel transferred to new assignments related to safety and protection of the environment are given proper familiarization with their duties. Instructions which are essential to be provided prior to sailing should be identified, documented and given.

6.4 The Company should ensure that all personnel involved in the Company's SMS have an adequate understanding of relevant rules, regulations, codes and guidelines.

6.5 The Company should establish and maintain procedures for identifying any training which may be required in support of the SMS and ensure that such training is provided for all personnel concerned.

6.6 The Company should establish procedures by which the ship's personnel receive relevant information on the SMS in a working language or languages understood by them.

6.7 The Company should ensure that the ship's personnel are able to communicate effectively in the execution of their duties related to the SMS.

Part B: Certification and verification

13 Certification and periodical verification

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13.6 A copy of the Document of Compliance should be placed on board in order that the master of the ship, if so requested, may produce it for verification by the Administration or by an organization recognized by the Administration or for the purposes of the control referred to in regulation IX/6.2 of the Convention. The copy of the document is not required to be authenticated or certified.

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14 Interim certification

14.1 An Interim Document of Compliance may be issued to facilitate initial implementation of this Code when:

.1 a Company is newly established; or

.2 new ship types are to be added to an existing Document of Compliance,

following verification that the Company has a safety management system that meets the objectives of paragraph 1.2.3 of this Code, provided the Company demonstrates plans to implement a safety management system meeting the full requirements of this Code within the period of validity of the Interim Document of Compliance. Such an Interim Document of Compliance should be issued for a period not exceeding 12 months by the Administration or by an organization recognized by the Administration or, at the request of the Administration, by another Contracting Government. A copy of the Interim Document of Compliance should be placed on board in order that the master of the ship, if so requested, may produce it for verification by the Administration or by an organization recognized by the Administration or for the purposes of the control referred to in regulation IX/6.2 of the Convention. The copy of the document is not required to be authenticated or certified.

14.2 An Interim Safety Management Certificate may be issued:

.1 to new ships on delivery;

.2 when a Company takes on responsibility for the operation of a ship which is new to the Company; or

.3 when a ship changes flag.

Such an Interim Safety Management Certificate should be issued for a period not exceeding 6 months by the Administration or an organization recognized by the Administration or, at the request of the Administration, by another Contracting Government.

14.3 An Administration or, at the request of the Administration, another Contracting Government may, in special cases, extend the validity of an Interim Safety Management Certificate for a further period which should not exceed 6 months from the date of expiry.

14.4 An Interim Safety Management Certificate may be issued following verification that:

.1 the Document of Compliance, or the Interim Document of Compliance, is relevant to the ship concerned;

.2 the safety management system provided by the Company for the ship concerned includes key elements of this Code and has been assessed during the audit for issuance of the Document of Compliance or demonstrated for issuance of the Interim Document of Compliance;

.3 the Company has planned the internal audit of the ship within three months;

.4 the master and officers are familiar with the safety management system and the planned arrangements for its implementation;

.5 instructions, which have been identified as being essential, are provided prior to sailing; and

.6 relevant information on the safety management system has been given in a working language or languages understood by the ship's personnel.

Notes:

1. "xxx" indicates text omitted from the provisions for brevity.

2. For particularly lengthy provisions, relevant text on the master have been shaded in grey for ease of reading.

APPENDIX IV

RELEVANT LEGAL PROVISIONS ON THE MASTER UNDER INSTRUMENTS EMANATING FROM THE LEGAL COMMITTEE

International Convention on Salvage, 1989
Article 6: Salvage Contracts
1. This Convention shall apply to any salvage operations save to the extent that a contract otherwise provides expressly or by implication. 2. The master shall have the authority to conclude contracts for salvage operations on behalf of the owner of the vessel. The master or the owner of the vessel shall have the authority to conclude such contracts on behalf of the owner of the property on board the vessel. 3. Nothing in this article shall affect the application of article 7 nor duties to prevent or minimize damage to the environment.
Article 8: Duties of the salvor and of the owner and master
Xxx 2. The owner and master of the vessel or the owner of other property in danger shall owe a duty to the salvor: a. to cooperate fully with him during the course of the salvage operations; b. in so doing, to exercise due care to prevent or minimize damage to the environment; and c. when the vessel or other property has been brought to a place of safety, to accept redelivery when reasonably requested by the salvor to do so.
Article 10: Duty to render assistance
1. Every master is bound, so far as he can do so without serious danger to his vessel and persons thereon, to render assistance to any person in danger of being lost at sea. 2. The States Parties shall adopt the measures necessary to enforce the duty set out in paragraph 1. 3. The owner of the vessel shall incur no liability for a breach of the duty of the master under paragraph 1.
Article 15: Apportionment between salvors
Xxx 3. The apportionment between the owner, master and other persons in the service of each salving vessel shall be determined by the law of the flag of that vessel. If the salvage has not been carried out from a vessel, the apportionment shall be determined by the law governing the contract between the salvor and his servants. Xxx
Article 19: Prohibition of salvage operations
Services rendered notwithstanding the express and reasonable prohibition of the owner or master of the vessel or the owner of any other property in danger which is not and has not been on board the vessel shall not give rise to payment under this Convention.

Nairobi International Convention on the Removal of Wrecks, 2007

Article 5: Reporting Wrecks

1. A State Party shall require the master and the operator of a ship flying its flag to report to the Affected State without delay when that ship has been involved in a maritime casualty resulting in a wreck. To the extent that the reporting obligation under this article has been fulfilled either by the master or the operator of the ship, the other shall not be obliged to report.
2. Such reports shall provide the name and the principal place of business of the registered owner and all the relevant information necessary for the Affected State to determine whether the wreck poses a hazard in accordance with article 6, including:
   a. the precise location of the wreck;
   b. the type, size and construction of the wreck;
   c. the nature of the damage to, and the condition of, the wreck;
   d. the nature and quantity of the cargo, in particular any hazardous and noxious substances; and
   e. the amount and types of oil, including bunker oil and lubricating oil, on board.

Convention for the Suppression of Unlawful Acts against the Safety of Maritime Navigation, 1988, as amended by its 2005 Protocol

Article 8

1. The master of a ship of a State Party (the "flag State") may deliver to the authorities of any other State Party (the "receiving State") any person who he has reasonable grounds to believe has committed one of the offences set forth in article 3, 3*bis*, 3*ter*, or 3*quater*.
2. The flag State shall ensure that the master of its ship is obliged, whenever practicable, and if possible before entering the territorial sea of the receiving State carrying on board any person whom the master intends to deliver in accordance with paragraph 1, to give notification to the authorities of the receiving State of his intention to deliver such person and the reasons therefor.
3. The receiving State shall accept the delivery, except where it has grounds to consider that the Convention is not applicable to the acts giving rise to the delivery, and shall proceed in accordance with the provisions of article 7. Any refusal to accept a delivery shall be accompanied by a statement of the reasons for refusal.
4. The flag State shall ensure that the master of its ship is obliged to furnish the authorities of the receiving State with the evidence in the master's possession which pertains to the alleged offence.
5. A receiving State which has accepted the delivery of a person in accordance with paragraph 3 may, in turn, request the flag State to accept delivery of that person. The flag State shall consider any such request, and if it accedes to the request it shall proceed in accordance with article 7. If the flag State declines a request, it shall furnish the receiving State with a statement of the reasons therefor.

Article 8bis

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10. Safeguards:
   a. Where a State Party takes measures against a ship in accordance with this article, it shall:
      i. take due account of the need not to endanger the safety of life at sea;
      ii. ensure that all persons on board are treated in a manner which preserves their basic human dignity, and in compliance with the applicable provisions of international law, including international human rights law;
      iii. ensure that a boarding and search pursuant to this article shall be conducted in accordance with applicable international law;
      iv. take due account of the safety and security of the ship and its cargo;
      v. take due account of the need not to prejudice the commercial or legal interests of the flag State;
      vi. ensure, within available means, that any measure taken with regard to the ship or its cargo is environmentally sound under the circumstances;
      vii. ensure that persons on board against whom proceedings may be commenced in connection with any of the offences set forth in article 3, 3*bis*, 3*ter* or 3*quater* are afforded the protections of paragraph 2 of article 10, regardless of location;

viii. ensure that the master of a ship is advised of its intention to board, and is, or has been, afforded the opportunity to contact the ship's owner and the flag State at the earliest opportunity; and

ix. take reasonable efforts to avoid a ship being unduly detained or delayed.

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e. For the purposes of this article "law enforcement or other authorized officials" means uniformed or otherwise clearly identifiable members of law enforcement or other Government authorities duly authorized by their Government. For the specific purpose of law enforcement under this Convention, law enforcement or other authorized officials shall provide appropriate government-issued identification documents for examination by the master of the ship upon boarding.

Notes:

1. "xxx" indicates text omitted from the provisions for brevity.

2. For particularly lengthy provisions, relevant text on the master have been shaded in grey for ease of reading.

APPENDIX V

RELEVANT LEGAL PROVISIONS ON THE MASTER UNDER THE CONVENTION ON FACILITATION OF INTERNATIONAL MARITIME TRAFFIC

Annex
Section 1: Definitions and general provisions
A. Definitions xxx *Attempted stowaway*. A person who is secreted on a ship, or in cargo which is subsequently loaded on the ship, without the consent of the shipowner or the master or any other responsible person, and who is detected on board the ship before it has departed from the port. xxx *Master.* The person having command of a ship. xxx *Ship agent*. The party representing the ship's owner and/or charterer (the Principal) in port. If so instructed, the agent is responsible to the Principal for arranging, together with the port, a berth, all relevant port and husbandry services, tending to the requirements of the master and crew, clearing the ship with the port and other authorities (including preparation and submission of appropriate documentation) along with releasing or receiving cargo on behalf of the Principal. xxx *Ship's documents.* Certificates and other documents which must be made available by a ship's master in order to demonstrate the ship's compliance with international or national regulations. xxx *Stowaway.* A person who is secreted on a ship, or in cargo which is subsequently loaded on the ship, without the consent of the shipowner or the master or any other responsible person and who is detected on board the ship after it has departed from a port, or in the cargo while unloading it in the port of arrival, and is reported as a stowaway by the master to the appropriate authorities. Xxx
Section 2: Arrival, stay and departure of the ship
F. Errors and amendments in declarations and penalties therefor xxx 2.19 Standard. If errors are found in the information transmitted, which has been authenticated by or on behalf of a shipowner or master, no penalties shall be imposed until an opportunity has been given to satisfy the public authorities that the errors were inadvertent, not of a serious nature, not due to recurrent carelessness and not made with intent to violate the laws or regulations of the port State. Xxx
G. Special measures of facilitation for ships calling at ports in order to put ashore sick or injured crew members, passengers, persons rescued at sea or other persons for emergency medical treatment 2.20 Standard. Public authorities shall seek the cooperation of shipowners to ensure that, when ships intend to call at ports for the sole purpose of putting ashore sick or injured crew members, passengers, persons rescued at sea or other persons for emergency medical treatment, the master shall give the public authorities as much notice as possible of that intention, with the fullest possible details of the sickness or injury and of the identity of the persons. 2.21 Standard. Public authorities shall, by the fastest channels available, inform the master, before the arrival of the ship, of the documentation and the procedures necessary to put the sick or injured persons ashore expeditiously and to clear the ship without delay. Xxx

Section 3: Arrival and departure of persons
G. Further measures of facilitation for foreigners belonging to the crews of ships engaged in international voyages – shore leave *xxx* 3.44*bis* Standard. In any case where permission for shore leave has been refused, the relevant public authorities shall communicate their reasons for shore leave denial to the seafarer concerned and the master. If requested by the seafarer concerned or the master, such reasons shall be provided in writing. Xxx
Section 4: Stowaways
A. General Principles xxx 4.2 Standard. Public authorities, port authorities, shipowners and masters shall cooperate to the fullest extent possible in order to prevent stowaway incidents and to resolve stowaway cases expeditiously and securely, so that an early return or repatriation of the stowaways will take place. All appropriate measures shall be taken in order to avoid situations where stowaways must stay on board ships for a significant period of time. 4.2.1 Recommended Practice. Public authorities, ports, shipowners or masters should not give any payments, or other benefits to the stowaways beyond the minimal requirements to ensure the security, general health, welfare and safety of the stowaways while on board or onshore, as that might act as an incentive to reoffend or as an encouragement to other persons attempting to stow away on board ships.
B. Preventive measures xxx 4.3.2 Shipowner/master 4.3.2.1 Standard. Contracting Governments shall require that shipowners and masters, as well as other responsible persons, have security arrangements in place which, as far as practicable, will prevent intending stowaways from getting aboard the ship, and, if this fails, as far as practicable, will detect them before the ship leaves port. Xxx
C. Treatment of the stowaway while on board 4.4 General Principles – Humane treatment xxx 4.4.2 Standard. Contracting Governments shall require that masters operating ships entitled to fly their flag, take appropriate measures to ensure the security, general health, welfare and safety of the stowaway while he/she is on board, including providing him/her with adequate provisioning, accommodation, proper medical attention and sanitary facilities. xxx 4.6 Questioning and notification by the master 4.6.1 Standard. Contracting Governments shall require masters to take practicable steps to establish the identity, including nationality/citizenship of the stowaway and the port of embarkation of the stowaway, and to notify the existence of the stowaway along with relevant details to the public authorities of the first planned port of call. This information shall also be provided to the shipowner, public authorities at the port of embarkation, the flag State and, if necessary, subsequent ports of call. 4.6.2 Recommended Practice. When gathering relevant details for notification, the master should use the form as specified in appendix 3. 4.6.3 Standard. Contracting Governments shall instruct masters operating ships entitled to fly their flag that when a stowaway declares himself or herself to be a refugee or an asylum seeker, this information shall be treated as confidential to the extent necessary for the security of the stowaway. When stowaways declare themselves to be a refugee or an asylum seeker, information regarding the declaration or intention of the stowaway shall not be shared with public authorities of the stowaway's country of origin or of habitual residence. Xxx

D. Deviation from the planned route

4.8 Recommended Practice. Contracting Governments and their public authorities should recommend shipowners operating ships entitled to fly their flag to advise their masters not to deviate from the planned voyage to seek the disembarkation of stowaways discovered on board the ship after it has left the territorial waters of the country where the stowaways embarked, unless:

- permission to disembark the stowaway has been granted by the public authorities of the State to whose port the ship deviates; or
- repatriation has been arranged elsewhere with sufficient documentation and permission for disembarkation; or
- there are extenuating safety, security, health or compassionate reasons; or
- attempts to disembark in other ports on the planned voyage have failed and deviation is necessary in order to avoid that the stowaway remain on board for a significant period of time.

Irrespective of whether or not a ship deviates from the planned route, the disembarkation of stowaways who declare themselves to be a refugee or an asylum seeker should not be conducted in their (alleged) country of origin or any other country from which they have fled and in which they claim a risk of harm.

E. Disembarkation and return of a stowaway

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4.13 The flag State

4.13.1 Standard. The public authorities of the flag State of the ship shall assist and cooperate with the master/shipowner or the appropriate public authority at ports of call in:

- identifying the stowaway and determining his or her nationality;
- making representations to the relevant public authority to assist in the removal of the stowaway from the ship at the first available opportunity; and
- making arrangements for the removal or repatriation of the stowaway.

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4.15 Cost of return and maintenance of stowaways

4.15.3 Standard. Public authorities shall, according to national legislation, consider mitigation of penalties against ships where the master of the ship has properly declared the existence of a stowaway to the appropriate authorities in the port of arrival, and has shown that all reasonable preventive measures had been taken to prevent stowaways gaining access to the ship.

Section 5: Arrival, stay and departure of cargo and other articles

This section contains the provisions concerning the formalities required by public authorities from the shipowner, his or her agent or the master of the ship.

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Section 6: Public health and quarantine, including sanitary measures for animals and plants

B. Response to a public health emergency of international concern

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6.17 Recommended Practice. Without prejudice to the relevant Articles of the International Health Regulations (2005), Contracting Governments and their relevant authorities should request the masters of ships visiting ports or anchorages in their territory, to:

a) report any cases of illness or symptoms on board, related to the public health emergency of international concern, using the Maritime Declaration of Health in accordance with the International Health Regulations, as early as possible before arrival, to the relevant authority in the port;

b) monitor shipboard personnel regularly, while the ship is visiting ports or anchorages in their territory, for the exhibition of any symptoms; and

c) report any changes in circumstances of the health of shipboard personnel to the relevant authority in the port.

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