

MARITIME SAFETY COMMITTEE
98th session
Agenda item 23

MSC 98/23
28 June 2017
Original: ENGLISH

**REPORT OF THE MARITIME SAFETY COMMITTEE ON ITS
NINETY-EIGHTH SESSION**

TABLE OF CONTENTS

Section		Page
1	INTRODUCTION – ADOPTION OF THE AGENDA	5
2	DECISIONS OF OTHER IMO BODIES	5
3	CONSIDERATION AND ADOPTION OF AMENDMENTS TO MANDATORY INSTRUMENTS	6
4	EARLY IMPLEMENTATION/APPLICATION OF IMO INSTRUMENTS	19
5	MEASURES TO ENHANCE MARITIME SECURITY	28
6	GOAL-BASED NEW SHIP CONSTRUCTION STANDARDS	32
7	CARRIAGE OF CARGOES AND CONTAINERS (report of the third session of the Sub-Committee)	40
8	POLLUTION PREVENTION AND RESPONSE (report of the fourth session of the Sub-Committee)	40
9	HUMAN ELEMENT, TRAINING AND WATCHKEEPING (report of the fourth session of the Sub-Committee)	41
10	SHIP DESIGN AND CONSTRUCTION (report of the fourth session of the Sub-Committee)	44
11	NAVIGATION, COMMUNICATIONS, SEARCH AND RESCUE (report of the fourth session of the Sub-Committee)	50
12	SHIP SYSTEMS AND EQUIPMENT (report of the fourth session of the Sub-Committee)	56
13	CAPACITY BUILDING FOR THE IMPLEMENTATION OF NEW MEASURES	65
14	FORMAL SAFETY ASSESSMENT	66

15	PIRACY AND ARMED ROBBERY AGAINST SHIPS	67
16	UNSAFE MIXED MIGRATION BY SEA	73
17	IMPLEMENTATION OF INSTRUMENTS AND RELATED MATTERS	75
18	RELATIONS WITH OTHER ORGANIZATIONS	77
19	APPLICATION OF THE COMMITTEE'S GUIDELINES	77
20	WORK PROGRAMME	78
21	ELECTION OF CHAIR AND VICE-CHAIR FOR 2017	90
22	ANY OTHER BUSINESS	90
23	ACTIONS REQUESTED OF OTHER IMO ORGANS	99

LIST OF ANNEXES

ANNEX 1	DRAFT MSC RESOLUTION ON AMENDMENTS TO PART A OF THE INTERNATIONAL CODE ON INTACT STABILITY, 2008 (2008 IS CODE) (UNDER THE 1974 SOLAS CONVENTION)
ANNEX 2	DRAFT MSC RESOLUTION ON AMENDMENTS TO PART A OF THE INTERNATIONAL CODE ON INTACT STABILITY, 2008 (2008 IS CODE) (UNDER THE 1988 LOAD LINES PROTOCOL)
ANNEX 3	RESOLUTION MSC.421(98) – AMENDMENTS TO THE INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974, AS AMENDED
ANNEX 4	RESOLUTION MSC.422(98) – AMENDMENTS TO THE INTERNATIONAL CODE OF SAFETY FOR SHIPS USING GASES OR OTHER LOW-FLASHPOINT FUELS (IGF CODE)
ANNEX 5	RESOLUTION MSC.423(98) – AMENDMENTS TO THE INTERNATIONAL CODE OF SAFETY FOR HIGH-SPEED CRAFT, 1994 (1994 HSC CODE)
ANNEX 6	RESOLUTION MSC.424(98) – AMENDMENTS TO THE INTERNATIONAL CODE OF SAFETY FOR HIGH-SPEED CRAFT, 2000 (2000 HSC CODE)
ANNEX 7	RESOLUTION MSC.425(98) – AMENDMENTS TO THE INTERNATIONAL LIFE-SAVING APPLIANCE (LSA) CODE
ANNEX 8	RESOLUTION MSC.426(98) – AMENDMENTS TO THE INTERNATIONAL MARITIME SOLID BULK CARGOES (IMSBC) CODE
ANNEX 9	RESOLUTION MSC.427(98) – AMENDMENTS TO THE REVISED RECOMMENDATION ON TESTING OF LIFE-SAVING APPLIANCES (RESOLUTION MSC.81(70), AS AMENDED)
ANNEX 10	RESOLUTION MSC.428(98) – MARITIME CYBER RISK MANAGEMENT IN SAFETY MANAGEMENT SYSTEMS

-
- ANNEX 11 DRAFT ASSEMBLY RESOLUTION ON THE CODE FOR THE TRANSPORT AND HANDLING OF HAZARDOUS AND NOXIOUS LIQUID SUBSTANCES IN BULK ON OFFSHORE SUPPORT VESSELS (OSV CHEMICAL CODE)
- ANNEX 12 RESOLUTION MSC.429(98) – REVISED EXPLANATORY NOTES TO THE SOLAS CHAPTER II-1 SUBDIVISION AND DAMAGE STABILITY REGULATIONS
- ANNEX 13 DRAFT AMENDMENTS TO SOLAS REGULATIONS II-1/1 AND II-1/8-1
- ANNEX 14 RESOLUTION MSC.430(98) – AMENDMENTS TO THE REVISED PERFORMANCE STANDARDS FOR NARROW-BAND DIRECT-PRINTING TELEGRAPH EQUIPMENT FOR THE RECEPTION OF NAVIGATIONAL AND METEOROLOGICAL WARNINGS AND URGENT INFORMATION TO SHIPS (NAVTEX) (RESOLUTION MSC.148(77))
- ANNEX 15 RESOLUTION MSC.431(98) – AMENDMENTS TO THE REVISED PERFORMANCE STANDARDS FOR ENHANCED GROUP CALL (EGC) EQUIPMENT (RESOLUTION MSC.306(87))
- ANNEX 16 RESOLUTION MSC.432(98) – AMENDMENTS TO PERFORMANCE STANDARDS FOR MULTI-SYSTEM SHIPBORNE RADIONAVIGATION RECEIVERS (RESOLUTION MSC.401(95))
- ANNEX 17 RESOLUTION MSC.433(98) – GUIDELINES AND CRITERIA FOR SHIP REPORTING SYSTEMS
- ANNEX 18 RESOLUTION MSC.434(98) – PERFORMANCE STANDARDS FOR A SHIP EARTH STATION FOR USE IN THE GMDSS
- ANNEX 19 DRAFT AMENDMENTS TO THE 1994 HSC CODE
- ANNEX 20 DRAFT AMENDMENTS TO THE 2000 HSC CODE
- ANNEX 21 DRAFT AMENDMENTS TO THE 2008 SPS CODE
- ANNEX 22 DRAFT AMENDMENTS TO SOLAS CHAPTER IV AND APPENDIX (CERTIFICATES)
- ANNEX 23 RESOLUTION MSC.435(98) – AMENDMENTS TO THE CODE FOR THE CONSTRUCTION AND EQUIPMENT OF MOBILE OFFSHORE DRILLING UNITS, 2009 (2009 MODU CODE)
- ANNEX 24 DRAFT ASSEMBLY RESOLUTION ON ESCAPE ROUTE SIGNS AND EQUIPMENT LOCATION MARKINGS
- ANNEX 25 DRAFT AMENDMENTS TO THE INTERNATIONAL CODE FOR APPLICATION OF FIRE TEST PROCEDURES, 2010 (2010 FTP CODE)
- ANNEX 26 DRAFT MSC-MEPC CIRCULAR ON REVISED GUIDELINES FOR FORMAL SAFETY ASSESSMENT (FSA) FOR USE IN THE IMO RULE-MAKING PROCESS

- ANNEX 27 DRAFT MSC-MEPC.5 CIRCULAR ON GUIDANCE ON COMPLETING THE CERTIFICATE OF FITNESS UNDER THE IBC, BCH, IGC, GC AND EGC CODES
- ANNEX 28 DRAFT AMENDMENTS TO THE INTERNATIONAL CODE FOR THE CONSTRUCTION AND EQUIPMENT OF SHIPS CARRYING DANGEROUS CHEMICALS IN BULK (IBC CODE)
- ANNEX 29 DRAFT AMENDMENTS TO THE CODE FOR THE CONSTRUCTION AND EQUIPMENT OF SHIPS CARRYING DANGEROUS CHEMICALS IN BULK (BCH CODE)
- ANNEX 30 DRAFT AMENDMENTS TO THE INTERNATIONAL CODE FOR THE CONSTRUCTION AND EQUIPMENT OF SHIPS CARRYING LIQUEFIED GASES IN BULK (IGC CODE)
- ANNEX 31 DRAFT AMENDMENTS TO THE CODE FOR THE CONSTRUCTION AND EQUIPMENT OF SHIPS CARRYING LIQUEFIED GASES IN BULK (GC CODE)
- ANNEX 32 DRAFT AMENDMENTS TO THE CODE FOR EXISTING SHIPS CARRYING LIQUEFIED GASES IN BULK (EGC CODE)
- ANNEX 33 RULES OF PROCEDURE OF THE MARITIME SAFETY COMMITTEE
- ANNEX 34 BIENNIAL STATUS REPORT OF THE SUB-COMMITTEES
- ANNEX 35 PROVISIONAL AGENDAS FOR THE SUB-COMMITTEES
- ANNEX 36 BIENNIAL STATUS REPORT OF THE MARITIME SAFETY COMMITTEE ALIGNED TO THE NEW STRATEGIC DIRECTIONS AGREED BY C 117
- ANNEX 37 POST-BIENNIAL AGENDA OF THE MARITIME SAFETY COMMITTEE
- ANNEX 38 OUTPUTS OF THE MARITIME SAFETY COMMITTEE FOR THE 2018-2019 BIENNIUM ALIGNED TO THE NEW STRATEGIC DIRECTIONS AGREED BY C 117
- ANNEX 39 STATEMENTS BY DELEGATIONS AND OBSERVERS

1 INTRODUCTION – ADOPTION OF THE AGENDA

1.1 The ninety-eighth session of the Maritime Safety Committee was held at the IMO Headquarters from 7 to 16 June 2017, chaired by Mr. Brad Groves (Australia). The Vice-Chair of the Committee, Mr. Juan Carlos Cubisino (Argentina), was also present.

1.2 The session was attended by delegations from Members and Associate Members; by representatives from the United Nations Programmes, specialized agencies and other entities; by observers from intergovernmental organizations with agreements of cooperation; and by observers from non-governmental organizations in consultative status; as listed in document MSC 98/INF.1.

1.3 The session was also attended by the Chair of the Council, Mr. Jeffrey G. Lantz (United States), the Chair of the Marine Environment Protection Committee, Mr. Arsenio Dominguez (Panama) and the Chair of the Facilitation Committee, Mr. Yury Melenas (Russian Federation).

Opening address of the Secretary-General

1.4 The Secretary-General welcomed participants and delivered his opening address, the full text of which can be downloaded from the IMO website at the following link: <http://www.imo.org/MediaCentre/SecretaryGeneral/Secretary-GeneralsSpeechesToMeetings>.

Chair's remarks

1.5 The Chair thanked the Secretary-General for his opening address and stated that his advice and requests would be given every consideration in the deliberations of the Committee.

Statements by delegations

1.6 The delegation of the Marshall Islands made a statement related to the loss of the very large ore carrier **Stellar Daisy** in the South Atlantic off Uruguay on 31 March this year, as set out in annex 39. The delegation of the Philippines, commenting on the statement by the Marshall Islands, thanked the authorities of Argentina, Brazil and Uruguay for their search and rescue efforts.

Adoption of the agenda and related matters

1.7 The Committee adopted the agenda (MSC 98/1) and agreed to be guided in its work, in general, by the annotations contained in document MSC 98/1/1 and the arrangements in document MSC 98/1/2.

Credentials

1.8 The Committee noted that credentials of the delegations attending the session were in due and proper form.

2 DECISIONS OF OTHER IMO BODIES

Outcome of C 117, FAL 41 and LEG 104

2.1 The Committee noted the decisions of C 117 (MSC 98/2), FAL 41 (MSC 98/2/1) and LEG 104 (MSC 98/2/2); and took appropriate action under the relevant agenda items.

3 CONSIDERATION AND ADOPTION OF AMENDMENTS TO MANDATORY INSTRUMENTS

GENERAL

3.1 Contracting Governments to the 1974 SOLAS Convention were invited to consider and adopt proposed amendments to:

- .1 chapters II-1, II-2 and III, and the appendix to the annex to the 1974 SOLAS Convention, as amended, in accordance with the provisions of article VIII of the Convention;
- .2 the International Code of Safety for Ships using Gases or other Low-flashpoint Fuels (IGF Code), in accordance with the provisions of article VIII and regulation II-1/2.29 of the Convention;
- .3 the International Code of Safety for High-speed Craft, 1994 (1994 HSC Code), in accordance with the provisions of article VIII and regulation X/2.1 of the Convention;
- .4 the International Code of Safety for High-speed Craft, 2000 (2000 HSC Code), in accordance with the provisions of article VIII and regulation X/2.2 of the Convention;
- .5 the International Life-Saving Appliances Code (LSA Code), in accordance with the provisions of article VIII and regulation III/3.10 of the Convention; and
- .6 the International Maritime Solid Bulk Cargoes Code (IMSBC Code), in accordance with the provisions of article VIII and regulation VI/1-1.1 of the Convention.

3.2 More than one third of the Contracting Governments to the 1974 SOLAS Convention were present during the consideration and adoption of said amendments by the expanded Maritime Safety Committee, in accordance with articles VIII(b)(iii) and VIII(b)(iv) of the Convention. The proposed amendments to the 1974 SOLAS Convention and the Codes mandatory under the Convention had been circulated, in accordance with SOLAS article VIII(b)(i), to all IMO Members and Contracting Governments to the Convention by Circular Letter No.3644 of 20 May 2016, Circular Letter No.3678 of 26 September 2016 and Circular Letter No.3697 of 6 December 2016.

3.3 The Committee was also invited to consider and:

- .1 adopt a draft MSC resolution on *Amendments to the Revised recommendation on testing of life-saving appliances* (resolution MSC.81(70));
- .2 approve a draft MSC circular on Revised Guidance for watertight doors on passenger ships which may be opened during navigation; and
- .3 approve a draft MSC circular on Revised lists of solid bulk cargoes for which a fixed gas fire-extinguishing system may be exempted or for which a fixed gas fire-extinguishing system is ineffective (MSC.1/Circ.1395/Rev.2).

PROPOSED AMENDMENTS TO THE 1974 SOLAS CONVENTION**Proposed amendments to SOLAS chapter II-1*****Regulation 6 – Required subdivision index R***

3.4 The Committee recalled that MSC 97 had:

- .1 considered draft amendments to SOLAS chapter II-1 on subdivision and damage stability regulations that had been prepared by SDC 3 and approved by MSC 96, with a view to adoption;
- .2 taking into account the modifications proposed in documents MSC 97/3/4 (Bahamas) and MSC 97/3/5 (United States) and editorial improvements, confirmed the contents of the amendments to SOLAS chapter II-1 on subdivision and damage stability regulations, except for regulation II-1/6 (required subdivision index *R*); and
- .3 after an in-depth discussion, in which a divergence of views were expressed regarding an appropriate level for the required subdivision index *R*, agreed to hold the adoption of the draft amendments to SOLAS chapter II-1 in abeyance until MSC 98 and invited interested Member States and international organizations to work together intersessionally, with a view to submitting proposals to MSC 98 in order to achieve consensus on this important issue.

3.5 The Committee had for its consideration document MSC 98/3/3 (China, Japan, Philippines, United States), proposing a modified formula for the required subdivision index *R* for passenger ships in the draft amendment to SOLAS regulation II-1/6, with the following features:

- .1 for the carriage of less than 400 persons on board, *R* is constant at 0.722. This level will ensure a reasonable increase above the current safety level while still being considered achievable for small passenger ships that have less flexibility in their subdivision arrangements, may have more port facility constraints, and generally encompass a greater variety of primary design types. In addition, the 400 person breakpoint aligns with the regulation II-1/8 one-compartment/two-compartment deterministic damage breakpoint;
- .2 for the carriage of 400 to 1,350 persons on board, *R* increases linearly to the *R* level that was approved by MSC 96. This area reflects the transition to larger passenger ships and the proposed *R* level is considered a suitable "middle ground" given the differing views for ships in this general size range. In addition, the proposed *R* is smooth and avoids any sharp increases or steps; and
- .3 for the carriage of more than 1,350 persons on board, *R* is the same as approved by MSC 96. In this regard, for the carriage of more than 6,000 persons on board, the two-part formula for calculation of index *R*, approved at MSC 96, has been simplified to a single formula that provides the same *R* value.

3.6 The Committee unanimously agreed with the modified formula for the required subdivision index *R* for passenger ships proposed in document MSC 98/3/3. Subsequently, the Committee confirmed the contents of the proposed amendments to SOLAS regulation II-1/6, subject to editorial improvements, if any.

Editorial modifications to the draft amendments to SOLAS chapter II-1

3.7 The Committee had for its consideration document MSC 98/3/5 (Japan), proposing editorial modifications to the draft amendments to SOLAS chapter II-1, as follows:

- .1 replace the phrase "satisfactory to the Administration" with "to the satisfaction of the Administration", in paragraphs 3.2.2, 6 and 7 of regulation II-1/9. Similarly, a new amendment to regulation 5-1.1 was proposed as a minor correction; and
- .2 throughout the text of the draft amendments to SOLAS chapter II-1 as contained in annex 1 to document MSC 98/WP.5, replace the phrase "the bulkhead deck in passenger ships and freeboard deck in cargo ships" with "the bulkhead deck of passenger ships and the freeboard deck of cargo ships".

3.8 Following the discussion, the Committee agreed to the editorial modifications to the draft amendments to SOLAS chapter II-1 as proposed in document MSC 98/3/5. Subsequently, the Committee confirmed the contents of the proposed amendments to SOLAS chapter II-1, as set out in annex 1 to document MSC 98/WP.5, subject to editorial improvements, if any.

Proposed amendments to SOLAS chapter II-2

Regulation II-2/3.56 on the definition of vehicle carrier

3.9 The Committee noted that MSC 97 had considered the decisions of the Sub-Committee on Ship Systems and Equipment (SSE) at its third session, that only "pure car and truck carriers" needed to comply with SOLAS regulation II-2/20-1 and that the definition provided in SOLAS regulation II-2/3.56 should be amended accordingly, taking into account document MSC 97/8/7 (Antigua and Barbuda, Germany, Norway and IACS).

3.10 The Committee also noted that MSC 97 had approved the draft amendments to SOLAS regulation II-2/3.56 on the definition of vehicle carrier, with a view to adoption at this session, while inviting Member States and international organizations to submit proposals to MSC 98 for further consideration under agenda item 3 (MSC 97/22, paragraphs 8.18 and 8.19).

3.11 In this context, the Committee had for its consideration paragraphs 4 to 7 of document MSC 98/3/6 (Japan), proposing modifications to the draft amendments to SOLAS regulation II-2/3.56 on the definition of vehicle carrier, and document MSC 98/3/7 (IACS), proposing to revise the draft amendments to SOLAS regulation II-2/3.56 in order to prevent the unintentional loophole in the definition of vehicle carrier and to eliminate any inconsistencies with the other SOLAS regulations, and to amend SOLAS regulation II-2/20-1.2.1 for consistency with the draft amendments to regulation II-2/3.56.

3.12 Following the discussion, the Committee agreed that the definition of vehicle carrier should reflect the following two principles:

- .1 the decision of MSC 97 that a vehicle carrier is intended for pure car/truck carriers only; and
- .2 the existing definitions in the SOLAS Convention, in particular definitions for "ro-ro space" and "vehicle space", should be taken into account.

3.13 Subsequently, the Committee agreed to instruct the Drafting Group, taking into account the principles in paragraph 3.12 and comments in document MSC 98/3/6, to prepare the definition for vehicle carrier and amendments to SOLAS regulation II-2/20-1.2.1 using document MSC 98/3/7 as a base document.

Regulation II-2/20.2 on the protection of vehicle, special category and ro-ro spaces

3.14 The Committee noted that the draft new SOLAS regulation II-2/20.2 on fire safety requirements for cargo spaces containing vehicles with fuel in their tanks for their own propulsion had been prepared by CCC 3 and approved by MSC 97 (MSC 97/22, paragraph 10.5).

3.15 In this context, the Committee had for its consideration paragraphs 8 and 9 of document MSC 98/3/6 (Japan), proposing modifications to the draft amendments to SOLAS regulation II-2/20.2 to clarify the carriage requirements, requirements for spaces and the phrase "spaces which do not meet the requirements of this regulation", and document MSC 98/3/8 (IACS), proposing improvements to the text of the draft amendments in order to make the intent clearer without changing the technical content of the draft amendments as approved by MSC 97. Furthermore, IACS requested the Committee to confirm, or otherwise advise, that SOLAS regulation II-2/19 and the IMDG Code could be applied to cargo spaces on ships other than vehicle carriers when carrying vehicles with compressed hydrogen or compressed natural gas in the tanks for their own propulsion.

3.16 Having noted the significant similarities of the proposals contained in documents MSC 98/3/6 and MSC 98/3/8, the Committee agreed to instruct the Drafting Group to prepare the amendments to SOLAS regulation II-2/20.2, based on the proposals contained in documents MSC 98/3/6 and MSC 98/3/8.

3.17 Furthermore, the Committee confirmed that SOLAS regulation II-2/19 and the IMDG Code could be applied to cargo spaces on ships other than vehicle carriers when carrying vehicles with compressed hydrogen or compressed natural gas in the tanks for their own propulsion, as appropriate.

Proposed new regulations II-2/9.4.1.3.4 to II-2/9.4.1.3.6

3.18 The Committee noted that the draft new SOLAS regulations II-2/9.4.1.3.4 to II-2/9.4.1.3.6, prepared in order to clarify the requirements for fire integrity of windows on passenger ships carrying not more than 36 passengers, had been developed by SSE 3 and approved by MSC 97 (MSC 97/22, paragraph 8.6).

3.19 Having noted no other comments on the proposed amendments to SOLAS regulation II-2/9.4.1.3, as set out in annex 1 to document MSC 98/WP.5, the Committee confirmed their contents, subject to editorial improvements, if any.

Proposed amendments to SOLAS regulations III/1.4, III/30 and III/37 on damage control drills for passenger ships

3.20 The Committee noted that the draft amendments to SOLAS regulations III/1.4, III/30 and III/37 on damage control drills for passenger ships had been developed by SDC 3 and approved by MSC 96 (MSC 96/25, paragraph 11.19).

3.21 The Committee also noted that MSC 97 had recognized that the draft amendments to SOLAS chapter III were related to the draft amendments to SOLAS chapter II-1 and agreed to hold in abeyance the draft amendments to SOLAS chapter III until MSC 98 (MSC 97/22, paragraph 3.23).

3.22 Having noted no other comments on the proposed amendments to SOLAS regulations III/1.4, III/30 and III/37, as set out in annex 1 to document MSC 98/WP.5, the Committee confirmed their contents, subject to editorial improvements, if any.

Draft amendments to the appendix (Certificates) to the annex to the 1974 SOLAS Convention

3.23 The Committee noted that the draft amendments to the appendix (Certificates) to the annex to the 1974 SOLAS Convention had been developed and approved by MSC 97 (MSC 97/22, paragraph 21.2).

3.24 Having noted no other comments on the proposed amendments to the appendix (Certificates) to the annex to the 1974 SOLAS Convention, as set out in annex 1 to document MSC 98/WP.5, the Committee confirmed their contents, subject to editorial improvements, if any.

Date of entry into force of the proposed amendments

3.25 The Committee agreed that the above amendments to chapters II-1, II-2 and III, and the appendix to the annex to the 1974 SOLAS Convention, proposed for adoption at the current session, should be deemed to have been accepted on 1 July 2019 and enter into force on 1 January 2020, in accordance with the *Guidance on entry into force of amendments to the 1974 SOLAS Convention and related mandatory instruments* (MSC.1/Circ.1481).

3.26 In this context, the Committee noted the views expressed by the delegation of Germany that the date deemed to be accepted could be set to an earlier date, so that the certified copy of the authentic text could also be issued earlier to assist the implementation by the contracting Governments.

AMENDMENTS TO THE IGF CODE, 1994 HSC CODE, 2000 HSC CODE, LSA CODE AND IMSBC CODE, MANDATORY UNDER THE 1974 SOLAS CONVENTION**Draft amendments to the IGF Code**

3.27 The Committee recalled that the draft amendments to chapter 11 (paragraph 11.3.2) of the IGF Code, regarding the fire rating of wheelhouse windows, had been developed and approved by MSC 97 (MSC 97/22, paragraph 3.100).

3.28 Having noted that no comments had been submitted on the proposed amendments, the Committee confirmed the contents of the proposed amendments to chapter 11 of the IGF Code, as set out in annex 2 to document MSC 98/WP.5, subject to editorial improvements, if any.

Date of entry into force of the proposed amendments

3.29 The Committee agreed that the above amendments to the IGF Code, proposed for adoption at the current session, should be deemed to have been accepted on 1 July 2019 and enter into force on 1 January 2020.

Draft amendments to the 1994 HSC Code

3.30 The Committee recalled that the draft amendments to chapter 8, paragraph 8.10.1 of the 1994 HSC Code, on rearranging and exception provisions for exempting high-speed craft of less than 20 m in length from carrying a rescue boat, had been developed by SSE 3 and approved by MSC 97 (MSC 97/22, paragraph 8.25).

3.31 Having noted that no comments had been submitted on the proposed amendments, the Committee confirmed the contents of the proposed amendments to chapter 8 of the 1994 HSC Code, as set out in annex 3 to document MSC 98/WP.5, subject to editorial improvements, if any.

Date of entry into force of the proposed amendments

3.32 The Committee agreed that the above amendments to the 1994 HSC Code, proposed for adoption at the current session, should be deemed to have been accepted on 1 July 2019 and enter into force on 1 January 2020.

Draft amendments to the 2000 HSC Code

3.33 The Committee recalled that the draft amendments to chapter 8, paragraph 8.10.1 of the 2000 HSC Code, on rearranging and exception provisions for exempting high-speed craft of less than 30 m in length from carrying a rescue boat, had been developed by SSE 3 and approved by MSC 97 (MSC 97/22, paragraph 8.25).

3.34 Having noted that no comments had been submitted on the proposed amendments, the Committee confirmed the contents of the proposed amendments to chapter 8 of the 2000 HSC Code, as set out in annex 4 to document MSC 98/WP.5, subject to editorial improvements, if any.

Date of entry into force of the proposed amendments

3.35 The Committee agreed that the above amendments to the 2000 HSC Code, proposed for adoption at the current session, should be deemed to have been accepted on 1 July 2019 and enter into force on 1 January 2020.

Draft amendments to the LSA Code

3.36 The Committee recalled that the draft amendments to paragraphs 6.1.1.5 and 6.1.1.6 of the LSA Code, providing consistency to the static tests and their proof loads that launching appliances had to withstand, had been developed by SSE 3 and approved by MSC 97 (MSC 97/22, paragraph 8.34).

3.37 Having noted that no comments had been submitted on the proposed amendments, the Committee confirmed the contents of the proposed amendments to chapter VI of the LSA Code, as set out in annex 5 to document MSC 98/WP.5, subject to editorial improvements, if any.

Date of entry into force of the proposed amendments

3.38 The Committee agreed that the above amendments to the LSA Code, proposed for adoption at the current session, should be deemed to have been accepted on 1 July 2019 and enter into force on 1 January 2020.

3.39 In this regard, the Committee noted the views expressed by the observer from IACS that, at a future stage, the Committee should further clarify the application date for the amendments to the LSA Code. Consequently, the Committee invited interested Member States and international organizations to submit comments and proposals on this issue to a future session of the Committee.

Draft amendments to the IMSBC Code

3.40 The Committee noted that CCC 3 had agreed to prepare three sets of draft amendments to the IMSBC Code as follows:

- .1 draft amendments (04-17) excluding the matters related to substances that were harmful to the marine environment (HME) and paragraphs 4.5.1 and 4.5.2, to be finalized by E&T 26, for submission to MSC 98 with a view to adoption (MSC 98/3/Add.1, annex 1);
- .2 draft amendments to paragraphs 4.5.1 and 4.5.2 of the IMSBC Code, highlighting the responsibility of the shipper for ensuring that a test to determine the transportable moisture limit (TML) of a solid bulk cargo was conducted, for approval of MSC 97 and subsequent adoption at MSC 98 in conjunction with the adoption of the draft amendments (04-17) to the IMSBC Code (MSC 98/3/Add.1, annex 2); and
- .3 draft amendments related to HME substances, for the approval of MSC 97 and subsequent adoption at MSC 98, taking into consideration any related comments from MEPC 71, in conjunction with the adoption of the draft amendments (04-17) to the IMSBC Code (MSC 98/3/Add.1, annex 2).

3.41 The Committee also noted that MSC 97 had approved the draft amendments to the IMSBC Code regarding HME substances and the draft amendments to paragraphs 4.5.1 and 4.5.2 with regard to TML testing (MSC 97/22, paragraphs 10.3 and 10.6).

3.42 Having noted that no comments had been submitted on the proposed amendments, the Committee confirmed the contents of the proposed amendments to the IMSBC Code, as set out in annex 6 to document MSC 98/WP.5, subject to editorial improvements.

Date of entry into force of the proposed amendments

3.43 The Committee agreed that the above amendments to the IMSBC Code, proposed for adoption at the current session, should be deemed to have been accepted on 1 July 2018 and enter into force on 1 January 2019. Contracting Governments to the SOLAS Convention may apply the amendments from 1 January 2018 on a voluntary basis.

NON-MANDATORY INSTRUMENTS**Proposed amendments to the Revised Recommendation on testing of life-saving appliances (resolution MSC.81(70))**

3.44 The Committee noted that draft amendments to the *Revised recommendation on testing of life-saving appliances* (resolution MSC.81(70)), had been approved, in principle, by MSC 97, with a view to subsequent adoption, in conjunction with the adoption of the draft amendments to the LSA Code (MSC 97/22, paragraph 8.35).

3.45 Having noted that no comments had been submitted on the proposed amendments, the Committee confirmed the contents of the proposed amendments to resolution MSC.81(70), as set out in annex 7 to document MSC 98/WP.5, subject to editorial improvements, if any.

Revised guidance for watertight doors on passenger ships which may be opened during navigation

3.46 The Committee noted that MSC 95 had approved, in principle, the draft MSC circular on Revised guidance for watertight doors on passenger ships which may be opened during navigation, that had been developed by SDC 2, with a view to approval at this session, in conjunction with the adoption of the draft amendments to SOLAS regulation II-1/22 (MSC 95/22, paragraph 10.23).

3.47 The Committee also noted that MSC 97 had confirmed the contents of the draft circular but had deferred the adoption of the draft amendments to SOLAS chapter II-1 to MSC 98, and had agreed to hold the approval of the draft circular in abeyance until MSC 98 (MSC 97/22, paragraph 3.62).

3.48 The Committee had for its consideration document MSC 98/3/2 (United States) proposing the modifications to the draft MSC circular and, in particular, amendments to the text of the draft circular and the chapeau to paragraph 6 of the annex to the MSC circular, by replacing the word "Administrations" with "passenger shipowners and operators".

3.49 Following discussion, the Committee noted the following views expressed on this matter:

- .1 the existing SOLAS regulation II-1/22.3 contained no provision to require the Administration to approve or authorize the categorization of watertight doors. However, Administrations should be involved with approval or authorization of the categorization and some had approved such watertight doors for all their passenger ships;
- .2 it was the role of the Administration to authorize the categorization of doors subject to SOLAS regulation II-1/22.3;
- .3 the authorization by the Administration had already been reflected in the draft MSC circular; and
- .4 the deletion of the requirements for the authorization by the Administration and inclusion in the stability information, as contained in the existing SOLAS regulation II-1/22.4, was an omission, which could lead to a situation where approved stability information might not adequately be taking into account the safety implications of these watertight doors being in the opened condition, or being opened in an unauthorized manner.

3.50 In this context, the Committee decided that the authorization by the Administration and inclusion of door categories in the stability information should be reflected in SOLAS regulation II-1/22.3 by adding the two following new sentences at the end of the paragraph:

"The Administration shall authorize such doors only after careful consideration of the impact on ship operations and survivability taking into account guidance issued by the Organization*. A watertight door permitted to be opened during navigation shall be clearly indicated in the ship's stability information and shall always be ready to be immediately closed.

* Refer to the Revised guidance for watertight doors on passenger ships which may be opened during navigation (MSC.1/Circ.1564)"

Furthermore, the Committee agreed that consequential amendments should be introduced in the draft Revised guidance for watertight doors on passenger ships which may be opened during navigation and its associated MSC circular.

3.51 Subsequently, the Committee instructed the Drafting Group to incorporate the amendments to SOLAS regulation II-1/22.3 into the draft amendments as contained in document MSC 98/WP.5, and prepare the final text of the draft MSC circular on Revised guidance for watertight doors on passenger ships which may be opened during navigation, subject to editorial improvements, if any.

Consequential amendments to MSC.1/Circ.1395/Rev.2 in relation to the draft amendments (04-17) to the IMSBC Code

3.52 The Committee noted that CCC 3 had authorized E&T 26 to prepare the draft consequential amendments to MSC.1/Circ.1395/Rev.2, in relation to the draft amendments (04-17) to the IMSBC Code and instructed E&T 26 to submit them directly to MSC 98 for approval, together with the associated amendments to the IMSBC Code (CCC 3/15, paragraph 5.82).

3.53 Having noted that no comments had been submitted on the proposed amendments, the Committee confirmed the contents of the proposed amendments to MSC.1/Circ.1395/Rev.2, as set out in annex 9 to document MSC 98/WP.5, subject to editorial improvements, if any.

REFERENCES TO THE FOOTNOTE IN AMENDMENTS TO PART A OF THE 2008 IS CODE, AS ADOPTED BY RESOLUTIONS MSC.413(97) AND MSC.414(97)

3.54 The Committee had for its consideration document MSC 98/3/4 (Secretariat), requesting the Committee to provide guidance to the Secretariat with respect to references to the footnote adopted in resolutions MSC.413(97) and MSC.414(97) on *Amendments to the Introduction and part A of the International Code on Intact Stability, 2008 (2008 IS Code)*, prior to the issuance of the certified true copy of those amendments.

3.55 Following discussion, the Committee noted the following views expressed on this matter:

- .1 there should be no footnote in the certified true copy of amendments to mandatory instruments;
- .2 the footnote to part A of the 2008 IS Code, adopted by resolutions MSC.413(97) and MSC.414(97), should be deleted; and

- .3 in the existing regulations of chapter 2 of the 2008 IS Code, there were several other references to part B of the Code, which should be moved into footnotes.

3.56 After some discussion, the Committee agreed that the footnote to the title of chapter 2 of part A to the 2008 IS Code should be deleted. Accordingly, the Committee instructed the Secretariat to prepare the draft amendments to 2008 IS Code and its associated draft MSC resolutions, for approval by the Committee at this session with a view to adoption at MSC 99.

3.57 Having considered document MSC 98/WP.11 (Secretariat), the Committee approved the draft Amendments to part A of the International Code on Intact Stability, 2008 (2008 IS Code), and associated draft MSC resolutions, as set out in annexes 1 and 2, respectively, and requested the Secretary-General to circulate the draft amendments in accordance with SOLAS article VIII, with a view to adoption at MSC 99.

3.58 With regard to other references to part B of the 2008 IS Code in the existing regulations of part A of the Code, the Committee instructed SDC 5 to further consider this matter under the agenda item on "Any other business" and advise the Committee accordingly.

ESTABLISHMENT OF THE DRAFTING GROUP ON AMENDMENTS TO MANDATORY INSTRUMENTS

3.59 Having considered the above matters, the Committee established the Drafting Group on Amendments to Mandatory Instruments and instructed it, taking into account decisions taken in plenary, to prepare, for consideration by the Committee with a view to adoption or approval, as appropriate:

- .1 the final text of the draft amendments to chapters II-1, II-2 and III, and the appendix to the annex to the 1974 SOLAS Convention, as amended, including the requisite MSC resolution;
- .2 the final text of the draft amendments to chapter 11 of the IGF Code, including the requisite MSC resolution;
- .3 the final text of the draft amendments to chapter 8 of the 1994 HSC Code, including the requisite MSC resolution;
- .4 the final text of the draft amendments to chapter 8 of the 2000 HSC Code, including the requisite MSC resolution;
- .5 the final text of the draft amendments to chapter VI of the LSA Code, including the requisite MSC resolution;
- .6 the final text of the draft amendments to the IMSBC Code, including the requisite MSC resolution;
- .7 the final text of the draft amendments to the *Revised Recommendation on testing of life-saving appliances* (resolution MSC.81(70)), including the requisite MSC resolution;
- .8 the final text of the draft MSC circular on *Revised Guidance for watertight doors on passenger ships which may be opened during navigation*; and

- .9 the final text of the draft revised MSC circular on Lists of solid bulk cargoes for which a fixed gas fire-extinguishing system may be exempted or for which a fixed gas fire-extinguishing system is ineffective (to be issued as MSC.1/Circ.1395/Rev.3).

REPORT OF THE DRAFTING GROUP ON AMENDMENTS TO MANDATORY INSTRUMENTS

3.60 Having considered the report of the Drafting Group on Amendments to Mandatory Instruments (MSC 98/WP.6), the Committee approved it in general and took action as indicated in paragraphs 3.61 to 3.80.

Adoption of amendments to the 1974 SOLAS Convention, as amended, including related mandatory codes

Adoption of amendments to the 1974 SOLAS Convention

3.61 The Committee concurred with the Drafting Group's recommendation to add "as amended" after "resolution MSC.266(84)" in the footnote referring to the Code of Safety for Special Purpose Ships, 2008 (resolution MSC.266(84) in SOLAS regulation II-1/4.2.1.6.

3.62 Subsequently, the expanded Committee, including delegations of 102 Contracting Governments to the 1974 SOLAS Convention, considered the final text of the proposed amendments to the 1974 SOLAS Convention, prepared by the Drafting Group (MSC 98/WP.6, annex 1), and adopted the amendments unanimously by resolution MSC.421(98), as set out in annex 3.

3.63 In adopting resolution MSC.421(98), the expanded Committee determined, in accordance with article VIII(b)(vi)(2)(bb) of the 1974 SOLAS Convention, that the adopted amendments to the Convention should be deemed to have been accepted on 1 July 2019 (unless, prior to that date, objections are communicated to the Secretary-General, as provided for in article VIII(b)(vi)(2) of the Convention) and enter into force on 1 January 2020, in accordance with the provisions of SOLAS article VIII.

Adoption of amendments to the IGF Code

3.64 The expanded Committee, including delegations of 102 Contracting Governments to the 1974 SOLAS Convention, considered the final text of the proposed amendments to the IGF Code prepared by the Drafting Group (MSC 98/WP.6, annex 2), and adopted the amendments unanimously by resolution MSC.422(98), as set out in annex 4.

3.65 In adopting resolution MSC.422(98), the expanded Committee determined, in accordance with article VIII(b)(vi)(2)(bb) of the 1974 SOLAS Convention, that the adopted amendments to the IGF Code should be deemed to have been accepted on 1 July 2019 (unless, prior to that date, objections were communicated to the Secretary-General, as provided for in article VIII(b)(vi)(2) of the Convention) and enter into force on 1 January 2020, in accordance with the provisions of SOLAS article VIII.

Adoption of amendments to the 1994 HSC Code

3.66 The expanded Committee, including delegations of 102 Contracting Governments to the 1974 SOLAS Convention, considered the final text of the proposed amendments to the 1994 HSC Code, prepared by the Drafting Group (MSC 98/WP.6, annex 3), and adopted the amendments unanimously by resolution MSC.423(98), as set out in annex 5.

3.67 In adopting resolution MSC.423(98), the expanded Committee determined, in accordance with article VIII(b)(vi)(2)(bb) of the 1974 SOLAS Convention, that the adopted amendments to the 1994 HSC Code should be deemed to have been accepted on 1 July 2019 (unless, prior to that date, objections were communicated to the Secretary-General, as provided for in article VIII(b)(vi)(2) of the Convention) and enter into force on 1 January 2020, in accordance with the provisions of SOLAS article VIII.

Adoption of amendments to the 2000 HSC Code

3.68 The expanded Committee, including delegations of 102 Contracting Governments to the 1974 SOLAS Convention, considered the final text of the proposed amendments to the 2000 HSC Code prepared by the Drafting Group (MSC 98/WP.6, annex 4), and adopted the amendments unanimously by resolution MSC.424(98), as set out in annex 6.

3.69 In adopting resolution MSC.424(98), the expanded Committee determined, in accordance with article VIII(b)(vi)(2)(bb) of the 1974 SOLAS Convention, that the adopted amendments to the 2000 HSC Code should be deemed to have been accepted on 1 July 2019 (unless, prior to that date, objections were communicated to the Secretary-General, as provided for in article VIII(b)(vi)(2) of the Convention) and enter into force on 1 January 2020, in accordance with the provisions of SOLAS article VIII.

Adoption of amendments to the LSA Code

3.70 The expanded Committee, including delegations of 102 Contracting Governments to the 1974 SOLAS Convention, considered the final text of the proposed amendments to the LSA Code, prepared by the Drafting Group (MSC 98/WP.6, annex 5), and adopted the amendments unanimously by resolution MSC.425(98), as set out in annex 7.

3.71 In adopting resolution MSC.425(98), the expanded Committee determined, in accordance with article VIII(b)(vi)(2)(bb) of the 1974 SOLAS Convention, that the adopted amendments to the LSA Code should be deemed to have been accepted on 1 July 2019 (unless, prior to that date, objections were communicated to the Secretary-General, as provided for in article VIII(b)(vi)(2) of the Convention) and enter into force on 1 January 2020, in accordance with the provisions of SOLAS article VIII.

Adoption of amendments to the IMSBC Code

3.72 The Committee invited interested Member States and international organizations to submit comments and proposals to the CCC Sub-Committee with regard to the requirements for protection for persons under the section for "Precautions" in the individual schedules, under the agenda item "Amendments to the IMSBC Code and supplements".

3.73 Having noted the Group's discussion on consistency matters within the IMSBC Code, the Committee instructed the CCC Sub-Committee to carry out an editorial harmonization of the Code, possibly with a view to preparing a consolidated version of the IMSBC Code. In this context, the Committee also noted the information provided by the Chair of CCC that the editorial harmonization issues for the IMSBC Code had already been identified by CCC 3 and E&T 26, and that CCC 4 would further consider this matter.

3.74 Subsequently, the expanded Committee, including delegations of 102 Contracting Governments to the 1974 SOLAS Convention, considered the final text of the proposed amendments to the IMSBC Code, prepared by the Drafting Group (MSC 98/WP.6, annex 6), and adopted the amendments unanimously by resolution MSC.426(98), as set out in annex 8.

3.75 In adopting resolution MSC.426(98), the expanded Committee determined, in accordance with article VIII(b)(vi)(2)(bb) of the 1974 SOLAS Convention, that the adopted amendments to the IMSBC Code should be deemed to have been accepted on 1 July 2018 (unless, prior to that date, objections were communicated to the Secretary-General, as provided for in article VIII(b)(vi)(2) of the Convention) and enter into force on 1 January 2019, in accordance with the provisions of SOLAS article VIII.

3.76 The Committee agreed, in accordance with the procedure adopted by MSC 86 for the adoption of amendments to the IMSBC Code with regard to voluntary application of new amendments one year prior to the date of entry into force, as stated in operative paragraph 4 of the above resolution, that Contracting Governments could apply the aforementioned amendments in whole or in part on a voluntary basis from 1 January 2018, pending their entry into force on 1 January 2019.

3.77 In this regard, the Committee invited MEPC 71 to note that MSC 98 had adopted amendments to the IMSBC Code, in particular those amendments regarding the declaration of HME substances classified under MAPOL Annex V.

Adoption/approval of amendments to non-mandatory instruments

3.78 The Committee considered the final text of amendments to non-mandatory instruments prepared by the Drafting Group (MSC 98/WP.6, annexes 7 to 9) and:

- .1 adopted the amendments to the *Revised recommendation on testing of life-saving appliances* (resolution MSC.81(70)) by resolution MSC.427(98), as set out in annex 9; and
- .2 approved the following MSC circulars:
 - .1 MSC.1/Circ.1564 on Revised guidance for watertight doors on passenger ships which may be opened during navigation; and
 - .2 MSC.1/Circ.1395/Rev.3 on Revised Lists of solid bulk cargoes for which a fixed gas fire-extinguishing system may be exempted or for which a fixed gas fire-extinguishing system is ineffective.

INSTRUCTIONS TO THE SECRETARIAT

3.79 The Committee authorized the Secretariat, when preparing the authentic texts of the amendments adopted at this session, to make any editorial corrections that might be identified, including updating references to renumbered paragraphs, and to bring to the attention of the Committee any errors or omissions which required action by the Contracting Governments to the 1974 SOLAS Convention.

3.80 The Committee further requested the Secretariat to ensure that the final text of the amendments contained in the annexes of the Committee's report be presented as clean text (i.e. without track-changes).

4 EARLY IMPLEMENTATION/APPLICATION OF IMO INSTRUMENTS

GENERAL

4.1 The Committee recalled that MSC 97 had:

- .1 agreed to include the new item on "Early implementation/application of IMO instruments" in the provisional agenda for MSC 98, with a view to reviewing the matters related to early implementation/application of amendments to SOLAS and related mandatory instruments, including corrections to existing provisions in force or about to become effective;
- .2 agreed also that, after the general principles related to early implementation/application and correction of errors had been considered, the pending issues related to:
 - .1 the use of butterfly valves on cargo ships;
 - .2 exemption for foam-type extinguishers of at least 135 l capacity; and
 - .3 amendments to the IGC, IGF and HSC Codes,should be revisited at this session; and
- .3 decided that all the issues relating to practical application of the *Guidance on drafting of amendments to the 1974 SOLAS Convention and related mandatory instruments* (MSC.1/Circ.1500), highlighted by the Secretariat in document MSC 97/16/3, should be further examined and had agreed to consider the matter, together with the issue of the early implementation of amendments to SOLAS, at this session.

EARLY IMPLEMENTATION/APPLICATION OF AMENDMENTS TO SOLAS AND RELATED MANDATORY INSTRUMENTS

4.2 The Committee had the following documents for its consideration:

- .1 MSC 98/4 (Secretariat), explaining the procedure for provisional application of a treaty and the practice of early implementation at IMO, and providing legal advice regarding the potential relevance of article 25 of the Vienna Convention on the Law of Treaties, 1969 (VCLT), concerning provisional application, and the appropriateness of application of the term "early application" instead of "early implementation";
- .2 MSC 98/4/1 (Secretariat), providing legal advice on the correction of errors in treaties and amendments, taking into account that the manner in which an error or mistake was rectified depended, to a large extent, on the type of error;
- .3 the part of document MSC 98/4/2 (Secretariat), providing a summary of decisions taken by MSC 97 concerning the early implementation/application of amendments to the 1974 SOLAS Convention and related mandatory instruments;

- .4 MSC 98/4/3 (Bahamas), referring to the decisions taken by MSC 97 regarding early implementation/application of mandatory requirements, providing an analysis of the issues related to the concept of "early implementation" of mandatory requirements and offering a number of possible solutions;
- .5 MSC 98/4/4 (India), commenting on the legal advice provided by the Secretariat regarding early implementation/application of mandatory requirements (MSC 98/4) and proposals made by the Bahamas (MSC 98/4/3);
- .6 MSC 98/4/5 (Germany), commenting on the acceptance of early implementation/application by port State control authorities (MSC 98/4/3) and the possibility of introducing the mandatory provisional application under article 25 of the VCLT into IMO procedures (MSC 98/4), and suggesting to use the existing mechanisms, in particular the provision on equivalent arrangements in SOLAS regulation I/5;
- .7 MSC 98/4/6 (United States), offering specific comments and amendments to the proposals provided by the Bahamas (MSC 98/4/3); and
- .8 MSC 98/4/7 (United States), commenting on the legal advice provided by the Secretariat regarding correction of errors and amendments, suggested possible solutions, and proposals on rectifying problems in existing or adopted texts (MSC 98/4/1).

Mandatory mechanism of provisional application

4.3 Following the introduction of the above documents, the Committee agreed to first consider whether there was a need for developing any special mandatory mechanism of provisional application of amendments to the 1974 SOLAS Convention and related mandatory instruments. Subsequently, the Committee noted the following views expressed:

- .1 the provisional application under article 25 of the VCLT could be used in exceptional circumstances, on a case-by-case basis;
- .2 the use of the provisional application under article 25 of the VCLT could potentially lead to confusion and legal difficulties and, therefore, expanding the exceptional circumstances, as set out in section 4 of the annex to the *Guidance of entry into force of amendments to the 1974 SOLAS Convention and related mandatory instruments* (MSC.1/Circ.1481), should be considered instead;
- .3 the provisional application under article 25 of the VCLT should not be:
 - .1 applied to SOLAS amendments as it did not take into account the tacit acceptance procedure; or
 - .2 introduced into the IMO practice with a view to solving the problem related to early application;
- .4 the four-year cycle of SOLAS amendments should be revoked;

-
- .5 in order to reduce the administrative burden caused by frequent entries into force of SOLAS amendments, the four-year cycle of entry into force should continue to be carried out in accordance with MSC.1/Circ.1481;
 - .6 IMO had never had any experience of using article 25 of the VCLT and, therefore, there was a possibility that it would make a legal procedure more complex and cumbersome;
 - .7 while amendments to the 1974 SOLAS Convention required at least 18 months from the adoption to entry into force, in accordance with SOLAS article VIII, there might be a case when the amendment(s) needed to be implemented immediately after its adoption, without waiting for the entry-into-force date. In such a case, it would be appropriate to agree on a voluntary early implementation and issue a circular to inform all stakeholders; and
 - .8 the issue needed to be simplified without introducing any new mechanism and, in this context, the proposal in document MSC 98/4/5 (Germany) should be used as a base for further discussion.

After an in-depth discussion, the Committee decided that there was no need for the introduction of the provisional application procedure under article 25 of the VCLT and endorsed the view that the issue could be addressed with the existing mechanism for exceptional circumstances in MSC.1/Circ.1481.

Voluntary early implementation

4.4 Bearing in mind that MSC 97 had decided to develop guidelines and identify criteria for a consistent approach to address voluntary early implementation, the Committee noted the following views expressed:

- .1 the term "implementation" was traditionally used by this Organization, in context of the "implementation of IMO instruments";
- .2 if the Committee decided to promote early implementation, then guidelines should be developed to clarify the aspects related to the Organization's work, rather than to address the individual needs of a Member State;
- .3 bearing in mind that both terms (i.e. "application" and "implementation") had been used by the Committee since 2004, when issuing its circulars, clear and unified understanding of their meaning was necessary to avoid any inadvertent impact;
- .4 the *Procedures for port State Control, 2011* (resolution A.1052(27)) should be amended, based on the proposal in annex 1 to document MSC 98/4/3, bearing in mind that only mandatory measures were applied under port State control regimes and, therefore, early implementation, being of non-mandatory nature, should be treated as national requirements;
- .5 paragraph 1.2.3 of the *Procedures for port State Control, 2011* (resolution A.1052(27)) should be taken into account when considering the proposal in annex 1 to document MSC 98/4/3;

- .6 the voluntary early implementation should be clarified in the guidelines, without amending resolution A.1052(27); and
- .7 the voluntary early implementation should not be enforced by port State control regimes for the foreign ships calling at their ports.

After an in-depth discussion, the Committee agreed to instruct the Working Group on Early Implementation/Application of IMO Instruments, taking into account documents MSC 98/4 (part), MSC 98/4/3, MSC 98/4/4, MSC 98/4/5 and MSC 98/4/6, and the comments made in plenary, to develop draft guidelines, including criteria for a consistent approach and advice regarding port State control activities related to voluntary early implementation, and advise the Committee on how such an approach should be introduced in IMO practice.

Postponement of implementation

4.5 Following the discussion regarding the need for issuing time-limited MSC circulars offering advice on enforcement, to be used for the postponement of implementation of an amendment, when the required technology remained under development or the required technology was not widely available on the market, or where implementation must be delayed for practical reasons, the Committee noted the following views expressed:

- .1 a template for preparation of the aforementioned MSC circulars should be developed to avoid variations in the language used;
- .2 a postponement could be encouraged by the development of the template for such MSC circulars;
- .3 the development of a template could potentially lead to the development of guidelines for the postponement of implementation of amendments;
- .4 it might be better to consider the replacement of the term "postponement"; and
- .5 this issue should be addressed on a case-by-case basis, when facing difficulties.

After an in-depth discussion, the Committee decided that no further actions should be taken on this issue.

Correction of substantive errors and/or omissions

4.6 Having considered whether any new mechanism, including the proposal in document MSC 98/4/1, for correction of errors and/or omissions (that are substantive or more than editorial in nature) should be developed or the existing amendment process, as contained in article VIII(b)(i) of the 1974 SOLAS Convention, MSC.1/Circ.1481 and MSC.1/Circ.1500, could be accepted as providing a satisfactory mechanism for addressing any substantive provisions that might need to be amended, the Committee agreed that it was not necessary to introduce any new mechanisms as the existing amendment process was adequate.

4.7 The Committee also agreed that the issue of MSC circulars on notification of amendments (similar to the *Notification of an amendment to paragraph 11.3.2 of the IGF Code* (MSC.1/Circ.1549)) would be helpful and, therefore, could be added to the aforementioned existing process of correction of substantive errors on a case-by-case basis.

4.8 Having considered the Secretariat's request for clarification on which section of IMODOCS (i.e. "Notes Verbales" or "Treaties") should be used to upload notes verbales (NVs) on the correction of errors in texts of treaties (MSC 98/4/1, paragraph 20), the Committee, taking into account that international non-governmental organizations had no access to section "Treaties", agreed that such NVs should be uploaded onto both aforementioned sections.

4.9 Following the concern expressed regarding the delay in issuing certified true copies under the four-year cycle of SOLAS amendments, the Committee noted, with appreciation, the information provided by the Secretariat that the whole process of production of certified true copies, in all cases, should not take longer than 100 days for non-bulky documents (those containing six pages or fewer) and 160 days for bulky documents (those containing more than six pages) after the date of adoption of the amendment.

Early implementation of amendments to SOLAS regulations II-1/12.6.1, II-2/1 and II-2/10, the IGC, IGF, and 1994 and 2000 HSC Codes

4.10 In considering how to deal with early implementation of amendments to SOLAS regulations II-1/12.6.1, II-2/1 and II-2/10, paragraph 3.2.5 of the IGC Code, paragraph 11.3.2 of the IGF Code and paragraphs 8.10.1.4 to 8.10.1.6 of the 1994 and 2000 HSC Codes, taking into account the decisions taken under paragraphs 4.3, 4.4, 4.6 and 4.7 above, the Committee instructed the Working Group on Early Implementation/Application of IMO Instruments to prepare draft MSC circulars on notification of amendments to SOLAS regulations II-1/12.6.1, II-2/1 and II-2/10, paragraph 11.3.2 of the IGF Code and paragraphs 8.10.1.4 to 8.10.1.6 of the 1994 and 2000 HSC Codes.

PRACTICAL APPLICATION OF THE GUIDANCE ON DRAFTING OF AMENDMENTS TO THE 1974 SOLAS CONVENTION AND RELATED MANDATORY INSTRUMENTS (MSC.1/CIRC.1500)

4.11 The Committee recalled that MSC 97 had agreed to consider the issues relating to the practical application of MSC.1/Circ.1500, as highlighted in document MSC 97/16/3 (Secretariat), at this session together with issues related to early implementation/application of SOLAS amendments.

4.12 Having considered the part of document MSC 97/16/3 advising of the three cases identified by the Secretariat where it might not be practicable to follow the provisions on keeping records for regulatory development, as set out in the annex to MSC.1/Circ.1500, and proposing to apply the same practice of keeping records for regulatory development to other safety and environment-related IMO conventions, the Committee took action as outlined in paragraphs 4.13 to 4.18 below.

Draft amendments having a long history of development and refinement

4.13 In considering how the provisions of MSC.1/Circ.1500 should be followed for draft amendments having a long history of development and refinement, the Committee decided that it should be the sub-committees' responsibility to ensure completion of check/monitoring sheets and records for regulatory development for such complicated issues.

Draft amendments to be considered and finalized by sub-committees in plenary within one session

4.14 The Committee agreed that the Secretariat for the draft amendments to be considered and finalized by sub-committees in plenary within one session could be instructed, when necessary, to complete part III of the check/monitoring sheet and the records for regulatory development after the session, instead of establishing a specific working/drafting group.

Minor corrections

4.15 The Committee endorsed the Secretariat's view that "minor corrections" (referred to in paragraph 3.2(vi) of document C/ES.27/D) could be excluded from application of the provisions for completion of the check/monitoring sheet and the records for regulatory development.

Application of MSC.1/Circ.1500 to other safety and environment-related IMO conventions

4.16 Having discussed the need to apply the practice of keeping records for regulatory development to other safety-related IMO conventions, such as the 1966 LL Convention, the 1988 LL Protocol, the 1969 TM Convention, the 1978 STCW Convention, COLREG 1972 and 1972 CSC, the Committee agreed to expand the application of MSC.1/Circ.1500 to all safety-related IMO conventions and mandatory instruments under those conventions.

4.17 In view of the above decisions, the Committee requested the Secretariat, taking into account paragraphs 4.14 to 4.16 above, to prepare draft amendments to sections 3.2.1 and 3.2.2 of the *Guidance on drafting of amendments to the 1974 SOLAS Convention and related mandatory instruments* (MSC.1/Circ.1500), for consideration at MSC 99.

4.18 The Committee also agreed that the decision regarding the need to apply MSC.1/Circ.1500 to environment-related conventions should be taken by the Marine Environment Protection Committee.

ESTABLISHMENT OF THE WORKING GROUP

4.19 Having considered the above matters, the Committee established the Working Group on Early Implementation/Application of IMO Instruments and, taking into account the relevant decisions taken and comments made in plenary, instructed it to:

- .1 consider documents MSC 98/4, MSC 98/4/3, MSC 98/4/4, MSC 98/4/5 and MSC 98/4/6, and develop draft guidelines, including criteria for a consistent approach and advice regarding port State control activities related to voluntary early implementation, and advise the Committee on how such an approach should be introduced in IMO practice; and
- .2 prepare draft MSC circulars on notification of amendments to SOLAS regulations II-1/12.6.1, II-2/1 and II-2/10, paragraph 11.3.2 of the IGF Code and paragraphs 8.10.1.4 to 8.10.1.6 of the 1994 and 2000 HSC Codes.

REPORT OF THE WORKING GROUP

4.20 Having considered the report of the Working Group on Early Implementation/Application of IMO Instruments (MSC 98/WP.8), the Committee approved it in general and took action as described hereunder.

Voluntary early implementation

Amendments to the Procedures for Port State Control, 2011 (resolution A.1052(27))

4.21 In considering the Group's proposals on how a consistent approach related to voluntary early implementation should be introduced in IMO practice and, in particular, the proposal to amend the existing paragraph 1.2.3 of the *Procedures for Port State Control, 2011* (resolution A.1052(27)), the Committee endorsed:

- .1 the introduction of the following text in the aforementioned Procedures:

"In relation to voluntary early implementation of amendments to the 1974 SOLAS Convention and/or related mandatory instruments, Parties should take into account the *Guidelines on the voluntary early implementation of amendments to the 1974 SOLAS Convention and related mandatory instruments* (MSC.1/Circ.1565)",

taking into account that this text should not be incorporated as a footnote; and

- .2 the addition of the reference to the *Guidelines on the voluntary early implementation of amendments to the 1974 SOLAS Convention and related mandatory instruments* (MSC.1/Circ.1565) in the existing list of instruments set out in appendix 18 to the Procedures.

4.22 Following the above decision, the Committee instructed III 4 to:

- .1 incorporate the text, as set out in paragraph 4.21.1 above, without introducing any changes/amendments, in the main body of the draft revised *Procedures for Port State Control* and not as a footnote, which would be submitted for adoption at the thirtieth session of the Assembly. In this context, the Sub-Committee was requested to decide in which section/paragraph of the draft Procedures the aforementioned text should be incorporated; and
- .2 add the reference to the *Guidelines on the voluntary early implementation of amendments to the 1974 SOLAS Convention and related mandatory instruments* (MSC.1/Circ.1565) in the existing list of instruments currently set out in appendix 18 to the *Procedures for Port State Control, 2011* (resolution A.1052(27)).

4.23 In regard to the decisions in paragraphs 4.21 and 4.22 above, the Committee noted the statement made by the delegation of the Russian Federation, as set out in annex 39.

Guidelines for voluntary early implementation

4.24 Having considered the basic principles for early implementation of amendments to the 1974 SOLAS Convention and related mandatory instruments agreed by the Group, the Committee endorsed the following:

- .1 early implementation was the sole decision of a Contracting Government and the draft Guidelines were meant to provide a mechanism for the Committee to invite voluntary early implementation, however, the absence of such an invitation should not preclude Contracting Governments from implementing amendments earlier than the entry-into-force date;

- .2 the draft Guidelines should not contain any aspects related to the early entry into force which may be treated as changes to the four-year cycle of SOLAS amendments; and
- .3 Contracting Governments should only voluntarily implement amendments early with respect to ships entitled to fly their flag (i.e. not to foreign ships calling at their ports) and that the draft Guidelines should contain provisions regarding the notification of such an early implementation (e.g. via GISIS).

4.25 The Committee, with a view to clarifying the term "voluntary early implementation", endorsed the following definition for inclusion in the draft Guidelines:

"Voluntary early implementation means a decision by a Contracting Government to the Convention to bring into effect the adopted amendment(s), with respect to ships entitled to fly its flag, prior to the entry-into-force date of those amendments."

4.26 In considering what needed to be taken into account when making a decision to invite Contracting Governments to implement amendments earlier, the Committee endorsed the following approach:

- .1 the list of considerations should be developed based on existing MSC circulars on early implementation;
- .2 this list should not overlap exceptional circumstances, as set out in section 4 of the annex to MSC.1/Circ.1481; and
- .3 these considerations should not lead to a "yes/no" decision but provide the Committee with necessary flexibility in the decision-making process.

4.27 The Committee endorsed that any decision regarding an invitation for voluntary early implementation should be clearly recorded in the report of the Committee and in case of a positive decision to do so, an MSC circular inviting voluntary early implementation should be issued.

4.28 Taking into account the need to follow the four-year cycle of entry into force of amendments to SOLAS and related mandatory instruments (MSC.1/Circ.1481), the Committee endorsed the view that voluntary early implementation should not be used on a regular basis but rather on very rare occasions.

4.29 With regard to communication of voluntary early implementation, the Committee endorsed the Group's view that:

- .1 voluntary early implementation should be communicated by the Contracting Government to the Organization for dissemination through a new area "Voluntary early implementation" created in the GISIS module "Survey and Certification"; and
- .2 the new area "Voluntary early implementation" should contain the following information:
 - .1 the number of the MSC circular on voluntary early implementation;
 - .2 the title of the MSC circular on voluntary early implementation;

-
- .3 the amended IMO instrument (i.e. the 1974 SOLAS Convention or the title of the relevant mandatory instrument);
 - .4 the number of the amended regulation(s)/paragraph(s);
 - .5 the title of the amended regulation(s)/paragraph(s); and
 - .6 the intended implementation date (as notified by the Contracting Government).

4.30 In this context, the Committee requested the Secretariat to prepare necessary technical specifications for the aforementioned new area in GISIS for presentation to the III Sub-Committee as soon as practicable.

4.31 In addition to the aforementioned communications of voluntary early implementation, the Committee agreed that a Contracting Government may also consider the use of the existing provisions for equivalent arrangements under SOLAS regulation I/5 to cover the interim period between the date of the voluntary early implementation and the entry-into-force date of the amendment(s).

4.32 The Committee, having discussed the need to provide specific guidance on voluntary early implementation to PSC officers, endorsed the view that it would be appropriate to encourage Contracting Governments to take into account the Committee's invitations for early implementation of amendments and decisions by flag States to early implement these amendments.

4.33 The Committee endorsed the development of a uniform template for MSC circulars on voluntary early implementation, with a view to ensuring a consistent approach related to voluntary early implementation.

4.34 Following the discussion in paragraphs 4.24 to 4.33 above, the Committee approved MSC.1/Circ.1565 on *Guidelines on the voluntary early implementation of amendments to the 1974 SOLAS Convention and related mandatory instruments*.

MSC circulars on notification of amendments

4.35 Taking into account the decision taken at MSC 97 (MSC 97/22, paragraph 3.66), the Committee endorsed the Group's decision to develop the draft MSC circular on voluntary early implementation of amendments to SOLAS regulations II-2/1 and II-2/10, following the new template (see paragraph 4.33 above), instead of a draft MSC circular on notification.

4.36 In this context, the Committee approved MSC.1/Circ.1566 on *Voluntary early implementation of the amendments to SOLAS regulations II-2/1 and II-2/10, adopted by resolution MSC.409(97)*.

4.37 The Committee also approved:

- .1 MSC.1/Circ.1567 on *Notification of amendments to SOLAS regulation II-1/12.5.1*;
- .2 MSC.1/Circ.1568 on *Notification of amendments to paragraph 11.3.2 of the IGF Code*; and
- .3 MSC.1/Circ.1569 on *Notification of amendments to paragraphs 8.10.1.5 and 8.10.1.6 of the 1994 and 2000 HSC Codes*.

4.38 In regard to the approval of the MSC circulars referred in paragraph 4.37 above, the Committee noted the concern expressed by one delegation that these circulars might be incomplete from the practical point of view, as they had no operative paragraph.

5 MEASURES TO ENHANCE MARITIME SECURITY

Guidance on maritime cyber risk management

5.1 The Committee recalled that MSC 96, having considered the urgent need to raise awareness on cyber risk threats and vulnerabilities, had approved MSC.1/Circ.1526 on *Interim guidelines on maritime cyber risk management*, with the understanding that the circular could be superseded in the future by a joint MSC-FAL circular once the work of FAL 41 on facilitation aspects had been completed.

5.2 The Committee also recalled that MSC 97, having considered document MSC 97/4 (Islamic Republic of Iran) proposing the development of a mandatory instrument to ensure consistent application of cybersecurity measures and procedures on board ships and on shore-based systems interfacing with ships, had agreed to wait for FAL 41 to complete the work on facilitation aspects before giving any further consideration to a possible mandatory nature of cyber risk management.

5.3 In this context, the Committee noted that, in the absence of any further proposals to amend the interim guidelines and bearing in mind that the guidelines had been drafted in general terms to address both cyber risk management on board ships and ashore, FAL 41 had agreed to approve a joint MSC-FAL.1 circular on *Guidelines on maritime cyber risk management*, using the same text of the interim guidelines, subject to the concurrent decision of MSC 98.

5.4 In light of the foregoing, the Committee approved MSC-FAL.1/Circ.3 on *Guidelines on maritime cyber risk management*, superseding the interim guidelines contained in MSC.1/Circ.1526.

5.5 Regarding the implementation of maritime cyber risk management, the Committee, noting the advice provided by the Legal Affairs and External Relations Division that cyber risks could be addressed as part of the existing provisions of the International Ship and Port Facility Security (ISPS) Code and of the International Safety Management (ISM) Code and that some delegations were of the view that the mandatory implementation of maritime cyber risk management was an issue, agreed that this would require further consideration after gaining more experience from the use of the guidelines.

5.6 The Committee considered document MSC 98/5/2 (United States), proposing that cyber risks should be appropriately assessed and managed in accordance with the safety management requirements of the ISM Code and, in this respect, shipowners and operators should be required to incorporate cyber risk management into their safety management systems no later than the first annual verification of the company's Document of Compliance following their next renewal after 1 January 2018.

5.7 During the discussion, the following views were expressed that:

- .1 there was a need to address maritime cyber risk management, as a matter of urgency;
- .2 cyberthreats could be addressed through the safety management system and the ISM Code;

-
- .3 cyberthreats could be addressed instead as part of the provisions of the ISPS Code;
 - .4 an MSC resolution, such as that proposed in document MSC 98/5/2, would provide clear instructions to shipowners, operators and other stakeholders for the implementation of maritime cyber risk management;
 - .5 the adoption of an MSC resolution to introduce the use of non-mandatory guidelines as part of safety management systems could be contrary to the principle of the ISM Code and an alternative solution could be amending MSC.1/Circ.1371 on *List of codes, recommendations, guidelines and other safety- and security-related non-mandatory instruments*, as referred to in paragraph 1.2.3.2 of the Code, to also take into account the guidelines on maritime cyber risk management;
 - .6 cyberthreat was just one example of a threat to the safe operations of ships and was therefore already addressed by the ISM Code; specific threats to safe operations were not identified in the ISM Code, but it was the responsibility of the company to assess those, and therefore there was no need to single out the cyberthreat;
 - .7 the proposed draft resolution focused on the mitigation of operational risk; however, there was a need to address the cyberthreat holistically in order to incorporate cybersecurity at the ship and equipment design and build stage, and take into account operational issues;
 - .8 a more realistic timeline for implementation of cyber risk as part of safety management systems was needed in order to build capability and gain knowledge of cyber issues on board ships and ashore, including among future auditors and inspectors;
 - .9 further consideration should be given to safeguard the confidentiality of information, in particular the security-related information during port State control inspections; and
 - .10 in the context of assessing the adequacy of mitigation of cyberthreat measures on a ship, there was a need for a uniform application of port State control measures.

5.8 Having considered the above views, the Committee agreed to refer document MSC 98/5/2 to the Maritime Security Working Group for further consideration and advice on the best way forward.

5.9 The Committee noted that Singapore, BIMCO and the ICS had developed cyber risk management posters for distribution to ships to raise crew awareness of cyber issues, and that version 2.0 of the industry cyber guidelines would be released shortly and would be reported to the Organization.

5.10 The Committee also noted that the ISO had started its work on Cyber Risk Safety Assessment with a focus on cybersecurity on board ships.

5.11 The Committee noted with appreciation the information provided in document MSC 98/INF.4 (France), containing an analysis of how to improve cybersecurity on board ships.

Revision of IMO model courses related to maritime security that fall under the responsibility of the Committee

5.12 The Committee considered document MSC 98/5/1 (Secretariat), providing information on maritime security-related model courses which were under the purview of the Committee and related training material developed by the Organization to assist SOLAS Contracting Governments with the implementation of maritime security measures.

5.13 The Committee considered also document MSC 98/5/3 (Islamic Republic of Iran), commenting on document MSC 98/5/1 (Secretariat), supporting a review of the maritime security-related model courses to include new security threats, such as bioterrorism, cybersecurity and global aspects of supply chain security.

5.14 In this regard, the Committee noted that MSC-MEPC.2/Circ.15 on *Revised guidelines for the development, review and validation of model courses* provided, in section 6, relevant procedures for updating model courses.

5.15 Having noted the support for the review and correction of the security-related model courses, as proposed in document MSC 98/5/1, the Committee agreed to instruct the Maritime Security Working Group to develop terms of reference to revise model course 3.24 on Security Awareness Training for Port Facility Personnel with Designated Security Duties, taking into account document MSC 98/5/3, for approval, and to recommend a review group's coordinator for appointment by the Committee.

5.16 The Committee also instructed the Working Group to develop a corrigendum to section 16.5 of model course 3.21 on Port Facility Security Officer for approval by the Committee.

5.17 The Committee noted with appreciation the offer by the delegation of the Islamic Republic of Iran to volunteer as course developer for the revision of model course 3.24.

5.18 Having considered the above matters, the Committee invited interested parties to submit comments on model courses 3.20, 3.23 and 3.25 to the Secretariat (marsec@imo.org), indicating any areas in need of update or revision.

Communication of information through the Maritime Security Module of GISIS

5.19 The Committee recalled that MSC 97, having considered document MSC 97/4/1 (Secretariat), had requested the Secretariat to develop and implement a data transfer mechanism for the Maritime Security module of the Global Integrated Shipping Information System (GISIS) and to submit to the Committee for approval, before the mechanism was made available for use, any procedures to be followed or conditions relating to the use of such a mechanism.

5.20 The Committee considered document MSC 98/5 (Secretariat), providing draft guidance for the electronic transfer of information into the Maritime Security module of GISIS, including a list of functions to be implemented as part of the data exchange mechanism and conditions of use for data exchange which should be observed by SOLAS Contracting Governments willing to implement the proposed mechanism.

5.21 After consideration, the Committee:

- .1 endorsed, as work in progress, the draft guidance for the electronic transfer of information into the Maritime Security module of GISIS, as set out in the annex of document MSC 98/5;
- .2 authorized the Secretariat to further develop the draft guidance based on the technical implementation and testing to be conducted with at least one interested Member State;
- .3 invited interested Member States willing to assist with the technical implementation and testing to contact the Secretariat (marsec@imo.org);
- .4 requested the Secretariat to submit the final version of the guidance to a future session of the Committee, for final approval; and
- .5 noted that the data protocols and formats to be finalized by the Secretariat would become the sole format that all subsequent data exchange partners would need to adopt in order to transfer data into the Maritime Security module of GISIS.

Establishment of the Working Group

5.22 Having considered the above matters, the Committee established the Working Group on Maritime Security and instructed it, taking into account the comments made and decisions taken in plenary, to:

- .1 consider document MSC 98/5/2 and recommend the approach to be taken;
- .2 develop the terms of reference for the revision of model course 3.24 on Security Awareness Training for Port Facility Personnel with Designated Security Duties, using the template provided in annex 2 of MSC-MEPC.2/Circ.15 and taking into account document MSC 98/5/3, for approval by the Committee, and recommend a review group's coordinator for appointment by the Committee; and
- .3 develop corrections to section 16.5 of model course 3.21 on Port Facility Security Officer for approval by the Committee.

Report of the Working Group

5.23 Having considered the report of the Working Group on Maritime Security (MSC 98/WP.9), the Committee approved it in general and took action as described hereunder.

Maritime cyber risk management

5.24 The Committee agreed that there was an urgent need to raise awareness of cyber risk threats and vulnerabilities in order to support safe and secure shipping, which was operationally resilient to cyber risks, and that an important part of achieving this would be to consider cyber risk as part of existing safety management systems.

5.25 The Committee noted the discussions of the Working Group on the relationship between the recommendations contained in MSC-FAL.1/Circ.3 on *Guidelines on maritime cyber risk management* and the existing requirements of the ISM Code, as well as the need to achieve a pragmatic and straightforward implementation schedule.

5.26 The Committee considered the draft MSC resolution on Maritime cyber risk management in safety management systems prepared by the Working Group and, after some discussion, adopted resolution MSC.428(98) on *Maritime cyber risk management in safety management systems*, as set out in annex 10, with a minor amendment to operative paragraph 2. In doing so, the Committee agreed that operative paragraph 2 and the resolution as a whole was recommendatory in nature.

5.27 In this context, the Committee also agreed to update MSC.1/Circ.1371/Add.2 on *List of codes, recommendations, guidelines and other safety- and security-related non-mandatory instruments*, as referred to in paragraph 1.2.3.2 of the ISM Code, to include a reference to MSC-FAL.1/Circ.3 on *Guidelines on maritime cyber risk management*. Accordingly, the Committee, taking into account the decision of MSC 93 (MSC 93/22, paragraph 17.11.1), instructed the Secretariat to update the module "Non-mandatory instruments" of GISIS accordingly.

Revision of IMO model courses

5.28 The Committee validated the draft amendments to model course 3.21 on Port Facility Security Officer, as set out in annex 2 to document MSC 98/WP.9, and instructed the Secretariat to issue a corrigendum to the model course as soon as possible.

5.29 The Committee approved the terms of reference for the review of model course 3.24 on Security Awareness Training for Port Facility Personnel with Designated Security Duties, as set out in annex 3 to document MSC 98/WP.9, with a view to validation by MSC 99.

5.30 The Committee agreed with the recommendation of the Working Group to appoint the Islamic Republic of Iran as course developer for the revision of model course 3.24 and Malaysia as the review group's coordinator.

6 GOAL-BASED NEW SHIP CONSTRUCTION STANDARDS

GENERAL

6.1 The Committee recalled that:

- .1 MSC 96, having considered the final GBS verification audit reports delivered by the five audit teams established for this purpose, had confirmed that the information provided by the submitters demonstrated that their rules conformed to the GBS Standards; had agreed that the six non-conformities identified were to be rectified (MSC 96/25, paragraphs 5.8 and 5.9); and had requested that the corresponding recognized organizations (ROs) address the identified observations in the future, taking into account the recommendations made by the audit teams and the corrective action plans, together with the comments contained in document MSC 96/5/9 (Greece), and that they submit the outcome of their review to the Committee in the future (MSC 96/25, paragraph 5.8.4);

- .2 regarding the financial arrangements for the maintenance of verification audits, MSC 97 had noted the information and data available, as well as the views expressed by the auditors after the initial verification audits concerning financial matters, and had invited Member States and international organizations to submit proposals addressing the financial arrangements for the maintenance of verification; and
- .3 based on the experience gained during the initial verification process, and having noted the opinion of the participating audit teams that there was room for improvement in the GBS Verification Guidelines, MSC 96 had decided that work on the amendments to the Guidelines should be initiated at MSC 97.

6.2 In this regard, the Committee noted that the amendments to parts A and B of the GBS Verification Guidelines should be finalized at MSC 98 and MSC 100, respectively, in accordance with the revised timetable and schedule of activities for the implementation of the GBS verification scheme approved at MSC 96 (MSC 96/25/Add.1, annex 12).

6.3 The Committee also recalled that MSC 96 had made progress on the further development of the draft Interim Guidelines for development and application of the IMO goal-based standards safety level approach and that MSC 95, as part of the work plan for the development of the draft Interim Guidelines, had agreed that MSC 98 should review the outcome of the SSE Sub-Committee on the development of functional requirements of SOLAS chapter III and the progress made at MSC 96 and MSC 97, and make a decision on the future direction of the safety level approach (SLA) (MSC 95/22, paragraph 5.18.3), which was to be considered together with the consideration of the report of SSE 4 (see paragraphs 12.7 to 12.11, 12.15 and 12.16).

GBS NON-CONFORMITIES VERIFICATION AUDIT REPORT

6.4 The Committee had for its consideration document MSC 98/6/1 (Secretary-General), containing the GBS non-conformities verification audit report, as submitted by the audit team established in order to verify the rectification of the six non-conformities reported by the audit teams at the initial verification audit, and highlighting that all non-conformities had been rectified to the satisfaction of the audit team.

6.5 In this context, the Committee noted the statements of the delegation of Greece and the observer from INTERCARGO, as set out in annex 39, as well as the following views expressed:

- .1 the report of the Secretary-General confirmed that all non-conformities had been rectified to the satisfaction of the audit team;
- .2 the GBS verification scheme had proved to be robust, thorough and independent;
- .3 additional verification actions should be considered after the corrective actions related to the non-conformities had been completed and the observations had been addressed;
- .4 any verification actions taken after the observations had been addressed would not allow to distinguish the difference between non-conformities and observations and create confusion and uncertainty in the shipping industry; and
- .5 methodologies or processes that were not stated in the GBS Verification Guidelines should not be undertaken.

6.6 After an in-depth discussion, the Committee confirmed that the request of MSC 96 that the identified non-conformities be rectified had been duly accomplished and that the whole process of the initial verification audit had been successfully completed in accordance with paragraphs 6 to 18 of the GBS Verification Guidelines. In this regard, the Committee expressed its appreciation to all involved for bringing the initial verification to a successful conclusion.

6.7 In addition, the Committee noted the information contained in the following documents:

- .1 MSC 98/INF.7 (IACS), providing an IACS action plan to address "other minority views" as referred to in document MSC 96/5, on the basis that they offered an "opportunity for improvement", taking into account document MSC 96/5/9, in accordance with the instructions of MSC 96;
- .2 MSC 98/INF.12 (IACS), providing the status of the work undertaken to address IACS' "common" observations as of 31 March 2017; and
- .3 MSC 98/INF.14 (Secretariat), providing the status of the work undertaken in response to the observations in the 12 individual audit reports of IACS' member ROs as of 31 December 2016, as requested by IACS on behalf of its member ROs.

6.8 Having noted the information contained in said documents and that all observations were being addressed following established timelines, the Committee requested IACS and its member ROs to provide further reports to the Committee annually.

ONGOING WORK RELATED TO GBS AND GBS-SLA

6.9 The Committee had for its consideration document MSC 98/6 (Secretariat), containing an outline of the ongoing work on GBS and GBS-SLA, in particular:

- .1 the finalization of the non-conformities verification audit following the instructions of MSC 96 as a result of the initial verification audit (see paragraph 6.4);
- .2 a recommendation that, before establishing the necessary financial arrangements for the maintenance of verification, more experience was necessary in relation to the volume of rule changes, taking also into account the current ongoing work on draft amendments to the GBS Verification Guidelines;
- .3 the remaining work concerning the preparation of the draft amendments to the GBS Verification Guidelines, which should focus on unresolved issues and those issues yet to be considered by the GBS Working Group; and
- .4 the agreement of MSC 95 that MSC 98 should review the outcome of the SSE Sub-Committee on the development of functional requirements of SOLAS chapter III and the progress made at MSC 96 and MSC 97, and make a decision on the future direction of SLA, which should be considered under agenda item 12.

6.10 Having noted the information provided in document MSC 98/6, the Committee confirmed that, before establishing the necessary financial arrangements for the maintenance of verification audits, the ROs whose rules had been verified as conforming to the goals and

functional requirements of the *International Goal based Ship Construction Standards for Bulk Carriers and Oil Tankers* (resolution MSC.287(87)) were to be requested to notify and make available, at least annually, any rule changes, including any errata, corrigenda or clarifications, to the Secretary-General and to all Administrations that had recognized them, as provided in paragraph 19 of the GBS Verification Guidelines.

6.11 Subsequently, the Committee invited Member States and international organizations to submit proposals regarding the financial arrangements for the maintenance of verification when rule changes, including the number of rules amended or changes to rules, were made available and the frequency of the maintenance of verification audits was decided by the Committee.

AMENDMENTS TO THE GBS VERIFICATION GUIDELINES

Maintenance of verification

6.12 The Committee had for its consideration the following documents:

- .1 MSC 98/6/2 (Germany), providing the views that:
 - .1 as there was no experience in the application of the existing maintenance of verification system of the GBS Verification Guidelines, no benefit was anticipated in replacing such system, which was based on rule changes, with a periodic system based on a time schedule; and
 - .2 it was essential that the financial arrangements reflected the maintenance of verification procedure and that they were able to cover the costs incurred by the agreed system;
- .2 MSC 98/6/3 (Argentina), proposing changing the current maintenance of verification procedure of the GBS Verification Guidelines triggered by rule changes to a periodic audit system, based on the understanding that the GBS compliance emerging from the initial audit was limited only to the sample taken and that auditing was intended to verify processes that were by nature ongoing;
- .3 MSC 98/6/7 (Japan), providing comments on document MSC 98/6/3, in particular supporting the current procedure of the verification audit, which was to verify the conformity of the Submitters' rules based on a self-assessment conducted by them following each evaluation criterion stipulated in part B of the GBS Verification Guidelines, and opposing the introduction of periodic audits, as proposed in document MSC 98/6/3; and
- .4 MSC 98/6/8 (IACS), providing comments on the concept of "periodic verification", as discussed in document MSC 98/6/3, taking into account that verification (GBS Verification Guidelines, paragraph 4.13) meant that the rules/rule set/documentation package had been compared to the Standards and had been found to be in conformity with the goals and functional requirements as set out in the Standards (resolution MSC.287(87)); as well as highlighting that the "need to modify the current maintenance of verification procedure" based on the assumption that the current system "ignores the fact that auditing is intended to verify processes that are by nature ongoing" was not justified, as the implementation of the rules fell within the RO's Quality System, which was subject to the RO Code and not to the GBS verification.

6.13 In the ensuing discussion, the Committee noted the following views expressed:

- .1 with reference to the proposal for a periodic audit system, it should be recognized that the GBS verification scheme was unique and different from other audit regimes and, therefore, a GBS periodic audit scheme was not necessary;
- .2 bearing in mind that there was no current experience in the conduct of the maintenance of verification audits and that the preparation of amendments to the GBS Verification Guidelines was in progress, including consideration of the frequency of the maintenance of verification audits, the current maintenance scheme should not be modified;
- .3 the periodic audit concept might lead to a comprehensive re-verification of rule sets even if no significant changes had been made and, therefore, such a concept, if implemented, would add a significant burden and might require additional resources;
- .4 the scope of the maintenance of verification should not overlook relevant rule changes, therefore, careful consideration should be given to the percentage and selection of rule changes that should be subject to verification;
- .5 the periodic audit concept should not be additional to the maintenance of verification, but instead the former should replace the latter; and
- .6 bearing in mind the principles highlighted in document MSC 98/6/3, the GBS verification scheme should embody the continuous improvement concept, as well as allow for the monitoring of the safety levels achieved by the system.

6.14 Having considered the above views, the Committee confirmed that the current maintenance of verification concept did not need to be modified as it was in line with the underlying principles of the GBS verification audits.

PROPOSED AMENDMENTS TO PARTS A AND B OF THE GBS VERIFICATION GUIDELINES

6.15 The Committee had for its consideration the following documents:

- .1 MSC 98/6/4 (IACS), providing a follow-up to the documents submitted by IACS to MSC 97 (MSC 97/5/2 and MSC 97/5/4) on draft amendments to part A of the GBS Verification Guidelines (resolution MSC.296(87)) and, based on IACS' experience of the audit process to date, proposing further amendments to parts A and B and the appendix to the Guidelines, in particular:
 - .1 the introduction of the new "Improvement action" concept to distinguish actions taken to address observations from those related to non-conformities (corrective actions);
 - .2 the addition of a relevant procedure to address the "Follow-up of observations";

- .3 the use of the term "validated" instead of "benchmarked", as appropriate throughout the "Information and documentation requirements" and the "Evaluation criteria" sections; and
 - .4 the deletion of the "Evaluation criteria" (paragraphs 9.3.6 and 14.3.1) that made explicit reference to IMO requirements, since paragraph 12 of part A allowed the Submitter to not reiterate those issues already covered by IMO mandatory instruments; and
- .2 MSC 98/6/6 (Japan), proposing an amendment to the GBS Verification Guidelines intended to ensure that the result of the verification audits yield the "necessary and sufficient level of safety", as well as a "sound balance between safety and adverse impact on the environment".

6.16 After some discussion, and noting that the proposal in document MSC 98/6/6 could lead to the unintended expansion of the evaluation criteria's scope, resulting in subjective differing standards being used by the audit teams, the Committee agreed to refer only document MSC 98/6/4 to the GBS Working Group for detailed review in the context of amendments to the GBS Verification Guidelines.

ESTABLISHMENT OF THE WORKING GROUP ON GOAL-BASED STANDARDS

6.17 Subsequently, the Committee established the Working Group on Goal-based Standards and instructed it (see also paragraph 12.11), taking into account the comments made and decisions taken in plenary, to:

- .1 finalize draft amendments to part A of the GBS Verification Guidelines (resolution MSC.296(87)) and its appendices, based on document MSC 97/WP.8 and taking into account documents MSC 97/5/1, MSC 97/5/2, MSC 97/5/3, MSC 97/5/4, MSC 97/5/6 and MSC 98/6/4;
- .2 prepare draft amendments to part B of the GBS Verification Guidelines taking into account documents MSC 97/5/1 and MSC 98/6/4; and
- .3 update the revised timetable and schedule of activities for the implementation of the GBS verification scheme, based on annex 2 to document MSC 97/WP.8, taking into account the progress made on the amendments to the GBS Verification Guidelines.

REPORT OF THE GBS WORKING GROUP

6.18 Having considered the report of the GBS Working Group (MSC 98/WP.7) dealing with this agenda item, the Committee took action as described hereunder.

Draft amendments to the GBS Verification Guidelines

Amendments to definitions

6.19 The Committee endorsed the Group's actions relating to the draft definitions, in particular:

- .1 taking into account the decisions already made by the Committee (see also paragraph 6.14) that the proposed definition of the term "audit follow-up" was not included as it was no longer necessary due to its linkage with the concept of "periodical verification"; and
- .2 the inclusion of a definition for the term "improvement action", taking into account the distinct nature of non-conformities and observations and, as a consequence, the need to differentiate which actions should be taken in each case.

Part A – Verification process

6.20 The Committee noted that the draft amendments to part A, prepared by the Group at this session, were intended to:

- .1 streamline the verification process;
- .2 align it with the reality of the verification audits, based on the experience gained to date; and
- .3 fill identified procedural gaps in the current Guidelines.

6.21 Having also noted the Group's view that the revision of part A of the GBS Verification Guidelines had been completed, the Committee endorsed, in principle, draft amendments to part A, as set out in annex 1 to document MSC 98/WP.7, subject to editorial review, changes consequential to the revision of part B and changes that might emanate from the consideration of documents at a future session relating to maintenance of verification approaches other than those included in draft part A, taking into account the actions of the Group set out in paragraphs 7 to 15 and 19 to 22 of document MSC 98/WP.7.

6.22 In this regard, taking into account the Group's in-depth consideration of different approaches for the issue of frequency of maintenance of verification audits, the Committee noted that:

- .1 the Group had reflected a three-year cycle for the maintenance of verification in draft part A; and
- .2 Member States and international organizations could submit proposals to the Committee on other approaches for the maintenance of verification before the adoption of the draft Revised guidelines, tentatively scheduled at MSC 100.

6.23 In this context, the Committee noted the concerns expressed by the delegation of Argentina, and supported by Spain, about the possible legal implications emanating from a three-year cycle for the maintenance of verification for both the Administration and the Organization, in particular the fact that the rules could be considered as conforming to the Standards even when a significant number of changes had been notified during such three-year cycle.

Part B – Information/documentation requirements and evaluation criteria

6.24 The Committee noted that the draft amendments introduced by the Group in part B were intended to provide more flexibility within the process of demonstrating adequacy of methodologies, procedures or requirements and to align the provisions in part B with the agreed definitions.

6.25 In this context, the Committee also noted the progress made by the Group on the preparation of draft amendments to part B of the GBS Verification Guidelines, in particular:

- .1 bearing in mind the auditors' observation following the initial verification audit that an information and documentation requirement did not always correspond to an evaluation criterion or vice-versa, the Group's agreement to include a provision in order to satisfy the aforementioned observation;
- .2 having highlighted that the use of the terms "rules" and "rule set" were not identical in the context of IMO goal-based standards compared to the context of the IACS and its members, the Group's agreement that careful consideration should be given at a future session to the corresponding definition in part A and the references to "rules" and "rules set" throughout the Guidelines;
- .3 the changes regarding the terms "validated" and "benchmarked" throughout the "information and documentation requirements" and the "evaluation criteria", in order to align their use with the corresponding definitions in part A; and
- .4 in line with existing paragraph 12 of part A, the deletion of the evaluation criteria requiring those rules, not part of the submitted rules, to address functional requirements covered by IMO requirements.

6.26 Having considered the above matters, the Committee endorsed the Group's view that the remaining work concerning the amendments to part B of the GBS Verification Guidelines should focus on unresolved issues as well as new proposals to MSC 99, based on the Group's report.

Revised timetable and schedule of activities for the implementation of the GBS verification scheme

6.27 Having noted the timeline of the IACS' rule changes process for GBS rules and the need to preserve the Group's understanding that, according to the existing Guidelines, the maintenance of verification audits should be conducted annually, the Committee approved the revised timetable and schedule of activities for the implementation of the GBS verification scheme, as set out in annex 2 to document MSC 98/WP.7.

6.28 In this context, the Committee endorsed the Group's recommendation that the maintenance of verification report should be submitted to MSC 100 by the deadline for commenting documents in October 2018.

7 CARRIAGE OF CARGOES AND CONTAINERS

Report of the third session of the Sub-Committee

7.1 Having recalled that MSC 97 had already taken action on urgent matters emanating from CCC 3 (MSC 97/22, section 10), the Committee approved, in general, the report of the third session of the Sub-Committee on Carriage of Cargoes and Containers (CCC) (CCC 3/15) and took action as indicated in paragraphs 7.2 to 7.4 below.

Draft amendments (39-18) to the IMDG Code and instructions to the E&T Group

7.2 The Committee noted that the Sub-Committee had authorized E&T 27 (8 to 12 May 2017) to prepare the draft amendments (39-18) to the IMDG Code, for submission to CCC 4.

First meeting of the E&T Group in 2018

7.3 The Committee approved the holding of the twenty-ninth meeting of the E&T Group in the first half of 2018 to prepare draft amendments (05-19) to the IMSBC Code (see also paragraph 20.53).

Draft amendments (04-17) to the IMSBC Code and associated circulars

7.4 The Committee recalled that the draft amendments (04-17) to the IMSBC Code (MSC 98/3/Add.1, annex 1) and the consequential amendments to the *Lists of solid bulk cargoes for which a fixed gas fire-extinguishing system may be exempted or for which a fixed gas fire-extinguishing system is ineffective* (MSC.1/Circ.1395/Rev.2) (MSC 98/3/1, annex 3), as finalized by E&T 26 directly after CCC 3, as well as the draft amendments to the IMSBC Code related to moisture contents and substances that are harmful to the marine environment (HME) (MSC 98/3/Add.1, annex 2), as approved by MSC 97, had been considered under agenda item 3 (see paragraphs 3.72 to 3.78).

8 POLLUTION PREVENTION AND RESPONSE

Report of the fourth session of the Sub-Committee

8.1 The Committee considered the action requested in paragraph 2 of document MSC 98/8 and took action as indicated in paragraphs 8.2 and 8.3 below.

Draft amendments to the IBC Code

8.2 Subject to concurrent approval by MEPC 71, the Committee approved, in principle, the draft revised chapter 21 of the IBC Code (PPR 4/21, annex 1), pending finalization of the revision of chapters 17 and 18 of the Code, for subsequent circulation of all three revised chapters and with a view to adoption.

OSV Chemical Code

8.3 The Committee had for its consideration the draft Assembly resolution on the Code for the Transport and Handling of Hazardous and Noxious Liquid Substances in Bulk on Offshore Support Vessels (OSV Chemical Code) (PPR 4/21/Add.1, annex 3).

8.4 In this context, after some discussions, the Committee agreed to the following amendments to paragraphs 1.2.21, 2.1.5, 2.7.4, 2.7.6 and 3.1.1 of the draft OSV Chemical Code:

- .1 in paragraph 1.2.21, the words "on main deck" are replaced with the words "on the main deck, except in compartments for cargo hoses,";
- .2 in paragraph 2.1.5, the words "in this chapter are in addition to the applicable SOLAS requirements" are deleted and at the end of the paragraph the words "in parts B, B-1, B-2 and B-4 of SOLAS chapter II-1 should apply to vessels covered by this Code, except that SOLAS regulations II-1/6 to II-1/7-3 should not be applied, unless expressly provided otherwise" are inserted;
- .3 in paragraphs 2.7.4 and 2.7.6, the words "and comply with part B of SOLAS chapter II-1" are replaced with the words "and should also comply with SOLAS regulations II-1/6 to II-1/7.3"; and
- .4 in paragraph 3.1.1, the words "machinery spaces of Category A as defined in SOLAS chapter II-1" are replaced with the words "machinery spaces as defined in 1.2.28 and 1.2.29".

8.5 Subsequently, the Committee approved the draft Assembly resolution on the Code for the Transport and Handling of Hazardous and Noxious Liquid Substances in Bulk on Offshore Support Vessels (OSV Chemical Code), as set out in annex 11, including the amendments listed in paragraph 8.4 above, subject to concurrent approval by MEPC 71, for submission to A 30, with a view to adoption.

9 HUMAN ELEMENT, TRAINING AND WATCHKEEPING

Report of the fourth session of the Sub-Committee

General

9.1 The Committee approved, in general, the report of the fourth session of the Sub-Committee on Human Element, Training and Watchkeeping (HTW 4/16 and MSC 98/9) and took action as indicated hereunder.

Guidance for STCW Code, section B-I/2

9.2 The Committee agreed to rename the output on "Guidance for the implementation of the 2010 Manila Amendments" as "Guidance for STCW Code, section B-I/2" and extended the target completion year of the renamed output to 2018.

New GISIS module related to reporting and information communication requirements

9.3 The Committee approved the framework for the proposed new GISIS module related to reporting and information communication requirements under articles IV, VIII, IX of the STCW Convention, 1978, as amended, and instructed the Secretariat to develop this new GISIS module.

Interim Guidance for Parties, Administrations, port State control authorities, recognized organizations and other relevant parties on the requirements under the STCW Convention, 1978, as amended

9.4 The Committee endorsed the decision that the Sub-Committee had approved STCW.7/Circ.24 on *Interim Guidance for Parties, Administrations, port State control authorities, recognized organizations and other relevant parties on the requirements under the STCW Convention, 1978, as amended*.

Guidance for port State control officers on issues related to certificates of competency

9.5 The Committee revoked MSC/Circ.1030 and MSC/Circ.1032, and instructed the Secretariat to reissue STCW.7/Circ.24 as STCW.7/Circ.24/Rev.1, deleting "Interim" from the title of the circular.

Procedures for port State control, 2011 (resolution A.1052(27))

9.6 The Committee referred the draft proposed amendments to the *Procedures for port State control, 2011* (resolution A.1052(27)), as set out in annex 4 to document HTW 4/16, to III 4 for its consideration, when reviewing resolution A.1052(27).

ECDIS Guidance for good practice

9.7 The Committee approved the amendments to MSC.1/Circ.1503 on *ECDIS-Guidance for good practice*, and instructed the Secretariat to issue it as MSC.1/Circ.1503/Rev.1.

Revision of guidelines on fatigue

9.8 The Committee extended the target completion year of the output on "Revision of guidelines on fatigue" to 2018.

9.9 The Committee considered whether the Maritime Labour Convention (MLC) 2006 could be referenced in the body of the revised *Guidelines on fatigue*, with a view to providing appropriate advice to the HTW Sub-Committee to facilitate progress with the revision of the aforementioned guidelines.

9.10 In the ensuing discussion the following views were expressed, that:

- .1 since the Maritime Labour Convention (MLC) 2006 was not a joint IMO and ILO instrument, IMO had no control over its contents and that the standards therein had been agreed by a tripartite mechanism;
- .2 there was coherence between IMO and ILO instruments on the issue of fatigue and the MLC made references to shared competences between IMO and the ILO;
- .3 a number of standards in the MLC that were already referenced in the Guidelines had already been revised;
- .4 the ILO standard on the living and working conditions of seafarers had relevance to the mitigation and management of fatigue;
- .5 the references should be correct and should not be placed out of context, and their inclusion in the Guidelines should not provide interpretations of the MLC, which was a mandatory instrument;

-
- .6 the established practice of the Organization was not to refer to instruments of other organizations over which IMO had no control; and
 - .7 only a general reference to the MLC should be made in the revised *Guidelines on fatigue*.

9.11 After some discussion, the Committee agreed that general references to the Maritime Labour Convention (MLC) 2006 could be made in the body of the revised *Guidelines on fatigue*, and the interpretation of, and guidance on, any standards of the MLC referenced in the revised Guidelines should be avoided.

Guidelines for port State control officers on certification of seafarers, hours of rest and manning

9.12 The Committee approved the draft Guidelines for port State control officers on certification of seafarers, hours of rest and manning (HTW 4/16, annex 9), and referred the Guidelines to III 4 for inclusion in the ongoing work on the revision of resolution A.1052(27) on *Procedures for port State control, 2011*.

Guidelines for Dynamic Positioning system (DP) operator training

9.13 The Committee approved the amendments to the *Guidelines for Dynamic Positioning system (DP) operator training*, to be issued as MSC.1/Circ.738/Rev.2.

Amendments to part B of the STCW Code

9.14 The Committee approved STCW.6/Circ.13 on *Amendments to part B of the STCW Code*, relating to section B-V/f on guidance on Dynamic Positioning system (DP) operator training.

Biennial status report of the Sub-Committee for the 2018-2019 biennium and provisional agenda for HTW 5

9.15 The Committee noted that the Sub-Committee's biennial status report and the provisional agenda for HTW 5 would be considered under agenda item 20 (Work Programme).

Secretary-General's report pursuant to STCW regulation I/7, paragraph 2

9.16 The Committee noted that no reports pursuant to STCW regulation I/7, paragraph 2 had been submitted to this session.

Secretary-General's report pursuant to STCW regulation I/8

9.17 In introducing the Secretary-General's report pursuant to STCW regulation I/8 (MSC 98/WP.3), the Director of the Maritime Safety Division, on behalf of the Secretary-General, advised the Committee that, in preparing the reports required by STCW regulation I/8, paragraph 3, the Secretary-General had solicited and taken into account the views of the competent persons selected from the list established pursuant to paragraph 7 of section A-I/7 of the STCW Code and circulated as MSC.1/Circ.797. Each of the seven reports, as required by MSC.1/Circ.1449, was comprised of:

- .1 the Secretary-General's report to the Committee;
- .2 a description of the procedures followed; and
- .3 a summary of the conclusions reached in the form of a comparison table.

9.18 The Committee was subsequently invited to consider the reports attached to document MSC 98/WP.3 for the purpose of confirming that the information provided by the STCW Parties pursuant to STCW regulation I/8 confirmed that full and complete effect had been given to the provisions of the STCW Convention.

9.19 As was the case with the Secretary-General's reports to previous sessions of the Committee, the Committee agreed to consider all the reports collectively in order to:

- .1 review the procedures report to identify any entries requiring clarification;
- .2 review the information presented in comparison table format; and
- .3 confirm that each report reflected that the procedures for the assessment of the information provided by the Parties concerned had been correctly followed.

9.20 The Committee confirmed that the procedures for the assessment of information provided had been correctly followed in respect of seven STCW Parties and requested the Secretariat to issue an updated circular as MSC.1/Circ.1164/Rev.18.

9.21 The Committee encouraged Parties to the STCW Convention to submit their reports of independent evaluation in accordance with regulation I/8 of the STCW Convention.

Approval of competent persons

9.22 The Committee approved additional competent persons nominated by Member States (MSC 98/9/1) and requested the Secretariat to issue an updated circular as MSC.1/Circ.797/Rev.30.

9.23 In this regard, the Committee encouraged Member States to nominate more competent persons, and to update the details of those already nominated, to effectively implement the STCW Convention.

10 SHIP DESIGN AND CONSTRUCTION

Report of the fourth session of the Sub-Committee

10.1 The Committee approved, in general, the report of the fourth session of the Sub-Committee on Ship Design and Construction (SDC) (SDC 4/16 and MSC 98/10) and took action as indicated hereunder.

Revised Explanatory Notes to SOLAS chapter II-1 subdivision and damage stability regulations

10.2 Consequent to the consideration of the draft amendments to SOLAS chapter II-1 (see paragraphs 3.8 and 3.62), the Committee, to ensure their uniform application, adopted, by resolution MSC.429(98), the *Revised Explanatory Notes to the SOLAS chapter II-1 subdivision and damage stability regulations*, as set out in annex 12, with the application dates as defined in SOLAS regulation II-1/1.1.1 (i.e. based on the "three-date criteria") (see also paragraph 10.15).

Amendments to SOLAS regulation II-1/8-1 on the availability of passenger ships' electrical power supply in cases of flooding from side raking damage

10.3 The Committee, with a view to better reflecting the scope of the work to be done under the current output 5.2.1.13, approved the change of the existing title (i.e. "Amendments to SOLAS regulations II-1/6 and II-1/8-1") to "Amendments to SOLAS regulation II-1/8-1 on the availability of passenger ships' electrical power supply in cases of flooding from side raking damage" and extended the target completion year for this output to 2019.

Draft amendments to SOLAS regulations II-1/1 and II-1/8-1 and relevant guidelines on computerized stability support for the master in case of flooding for existing passenger ships

10.4 The Committee recalled that MSC 94, following consideration of document MSC 94/6/1 (Bahamas, et al.), agreed to include a new output in the post-biennial agenda of the Committee on "Computerized stability support for the master in case of flooding for existing passenger ships", assigning the SDC Sub-Committee as the coordinating organ, with a view to including provisions in SOLAS chapter II-1 for passenger ships constructed before 1 January 2014.

10.5 The Committee noted that SDC 4, having discussed how the applicability of SOLAS regulation II-1/8-1.3 should be implemented for existing passenger ships, endorsed the view that any limitations of applicability of the current guidelines, i.e. MSC.1/Circ.1400, MSC.1/Circ.1532 and MSC.1/Circ.1229, should be addressed by means of developing a new set of guidelines on stability computers and shore-based support for passenger ships constructed before 1 January 2014.

10.6 The Committee also noted that SDC 4, having agreed to the draft amendments to SOLAS regulations II-1/1 and II-1/8-1 related to computerized stability support for the master in case of flooding for existing passenger ships (SDC 4/16, annex 2), had not been able to decide on the entry-into-force process of the proposed draft amendments, owing to the fact that the complexity of the criteria for stability computers in the new set of guidelines would impact on the application date of the new draft regulations for existing passenger ships.

10.7 In discussing the aforementioned draft amendments, the Committee noted the following views expressed:

- .1 the application date of SOLAS regulation II-1/8-1.3 to passenger ships constructed before 1 January 2014 could be clarified only after the finalization of a new set of guidelines on stability computers and shore-based support for such passenger ships; and
- .2 if the draft amendments to SOLAS regulations II-1/1 and II-1/8-1, as prepared by the SDC Sub-Committee, were approved at this session, they could be adopted by MSC 99, provided that the application date was confirmed by SDC 5 and a new set of guidelines on stability computers and shore-based support for passenger ships constructed before 1 January 2014 was approved by 1 January 2020.

10.8 Following the discussion, the Committee approved draft amendments to SOLAS regulations II-1/1 and II-1/8-1, as set out in annex 13, with a view to adoption at MSC 99, provided that SDC 5 confirmed the application date for the draft SOLAS regulation II-1/8-1.3 and finalized the draft guidelines on stability computers and shore-based support for passenger ships constructed before 1 January 2014.

10.9 In this context, the Committee requested the Secretary-General to circulate the aforementioned draft amendments in accordance with SOLAS article VIII, with a view to adoption at MSC 99.

10.10 Notwithstanding the above decision, the Committee noted the views expressed by the delegation of Japan, in particular that it did not support the approval of the draft amendments to SOLAS regulations II-1/1 and II-1/8-1 at this stage, as the draft SOLAS amendments required existing passenger ships to have on-board stability computer or shore-based support. In this context, the delegation pointed out that a correspondence group established at SDC 4 was currently working on the finalization of the draft guidelines, which were referred to in the draft SOLAS regulation II-1/8-1 to prescribe the concrete requirements on stability computers and shore-based support for existing passenger ships. Additionally, there was no certainty that the draft guidelines could be finalized by the aforementioned correspondence group. The Committee also noted that the delegation of Japan considered that it was not an easy task to develop requirements for existing passenger ships, taking into account the technical practicability of retroactive application of such requirements.

10.11 Bearing in mind the decision in paragraph 10.8 above and noting the progress made by SDC 4 on the development of draft guidelines on stability computers and shore-based support for existing passenger ships, the Committee extended the target completion year for this output to 2018.

Amendments to SOLAS regulation II-2/13 or chapter 13 of the FSS Code with regard to open decks

10.12 The Committee endorsed the Sub-Committee's view that no further amendments should be developed to SOLAS regulation II-2/13 or chapter 13 of the FSS Code with regard to open decks, and, therefore, agreed to complete the output without any further action.

Amendments to section 3 of the Guidelines for damage control plans and information to the master (MSC.1/Circ.1245)

10.13 The Committee approved MSC.1/Circ.1570 on *Amendments to section 3 of the Guidelines for damage control plans and information to the master* (MSC.1/Circ.1245).

Amendments to the 2011 ESP Code

10.14 The Committee noted the discussion, comments made and decisions taken at SDC 4, regarding the development of a consolidated text of the ESP Code.

Unified interpretations on drainage of enclosed spaces situated on the bulkhead deck, and on special requirements for vehicle ferries, ro-ro ships and other ships of similar type

10.15 The Committee approved MSC.1/Circ.1571 on *Unified interpretations of SOLAS chapter II-1*, in conjunction with the adoption of the draft Revised Explanatory Notes to SOLAS chapter II-1 subdivision and damage stability regulations (see paragraph 10.2).

Revised guidelines on the means of access to structures for inspection and maintenance of oil tankers and bulk carriers (MSC/Circ.686)

10.16 The Committee approved MSC/Circ.686/Rev.1 on *Guidelines on the means of access to structures for inspection and maintenance of oil tankers and bulk carriers* (SOLAS regulation XI-1/2).

Unified interpretations of SOLAS chapters II-1 and XII, of the Technical provisions for means of access for inspections (resolution MSC.158(78)) and of the Performance standards for water level detectors on bulk carriers and single hold cargo ships other than bulk carriers (resolution MSC.188(79))

10.17 The Committee approved:

- .1 MSC.1/Circ.1572 on *Unified interpretations of SOLAS chapters II-1 and XII, of the Technical provisions for means of access for inspections (resolution MSC.158(78)) and of the Performance standards for water level detectors on bulk carriers and single hold cargo ships other than bulk carriers (resolution MSC.188(79))*; and
- .2 MSC.1/Circ.1464/Rev.1/Corr.2 on *Unified interpretations of SOLAS chapters II-1 and XII, of the Technical provisions for means of access for inspections (resolution MSC.158(78)) and of the Performance standards for water level detectors on bulk carriers and single hold cargo ships other than bulk carriers (resolution MSC.188(79))*.

Use of even-keel hydrostatics for determination of the regulatory deadweight to be entered on relevant statutory certificates

10.18 The Committee approved MSC.1/Circ.1573 on *Unified interpretation of SOLAS regulations II-1/2.20 and II-2/3.21*, regarding the use of even-keel hydrostatics for determination of the regulatory deadweight to be entered on relevant statutory certificates.

10.19 In this context, the Committee noted that SDC 4 had not reached a conclusion regarding the acceptance for a loading manual and stability information to include a loading condition at a trimmed waterline with a corresponding deadweight that exceeded the even-keel deadweight corresponding to the load line mark in use, and invited interested Member States to bring this issue to the attention of the Committee.

Design of arrangements and selection of equipment for safe mooring

10.20 The Committee noted the progress made by SDC 4 with regard to the matters related to the design of arrangements and selection of equipment for safe mooring, and extended the target completion year for this output to 2019.

Interim guidelines for use of FRP elements within ship structures

10.21 The Committee approved MSC.1/Circ.1574 on *Interim guidelines for use of Fibre Reinforced Plastic (FRP) elements within ship structures: Fire safety issues*.

10.22 Following the approval of MSC.1/Circ.1574, the Committee endorsed the view that four years would be a suitable period for Administrations to gather experience in the application of the Interim guidelines, with a view to reviewing them, and agreed to maintain the output on "Guidelines for use of Fibre Reinforced Plastic (FRP) within ship structures" on its post-biennial agenda.

10.23 In this context, the Committee also noted that a paragraph inviting Member States and international organizations to submit information, observations, comments and recommendations based on the practical experience gained through the application of the Interim guidelines to the SDC Sub-Committee under the agenda item "Any other business", was included in MSC.1/Circ.1574.

Second phase of the Polar Code work

10.24 The Committee noted the decision of SDC 4 that no further action could be taken with regard to the second phase of the International Code for Ships Operating in Polar Waters (Polar Code), without receiving clear policy instructions regarding:

- .1 when the development of the second phase of the Polar Code should begin;
- .2 the scope of application of the second phase of the Polar Code; and
- .3 the recommendatory or mandatory status of the second phase of the Polar Code.

10.25 In this context, the Committee had the following documents for its consideration:

- .1 MSC 98/10/1 (New Zealand), suggesting a possible approach for progression of the second phase of work on the Polar Code and including a preliminary analysis of how this Code, as adopted by resolutions MSC.385(94) and MEPC.264(68), could be applied to non-SOLAS ships; and
- .2 MSC 98/10/2 (Fiji et al.), responding to the questions raised at SDC 4 to the Committee, with a view to deciding on when the development of the second phase of the Polar Code should begin, its scope of application and its recommendatory or mandatory status.

10.26 The Committee also noted with appreciation the information provided by the FOEI, the WWF and Pacific Environment in document MSC 98/INF.3, containing extracts from the Legal Memo prepared for the Antarctic and Southern Ocean Coalition (ASOC) on the potential application of the Polar Code to fishing vessels and yachts, and by New Zealand in document MSC 98/INF.8, explaining why the development of the second phase of the Polar Code was relevant to a significant number of IMO Member States who were not traditionally known to be active in the Antarctic region.

10.27 Furthermore, with regard to document MSC 98/INF.3, the Committee noted that paragraph 9 of the main body of this document and the relevant parts of the annex (e.g. section B of Part III) contradicted the decision taken by MSC 89 (MSC 89/25, paragraphs 9.17 and 9.18) and Resolution 2 of the International Conference on the Safety of Fishing Vessels (SFV-P/CONF.1/17) that States should not ratify or otherwise express their consent to be bound by the 1993 Torremolinos Protocol and should instead become a Party to the Cape Town Agreement of 2012.

10.28 In considering the above documents, the Committee noted the following views expressed:

- .1 the output had already been agreed for mandatory measures as the best and most effective improvement in safety for seafarers and passengers already at risk in the polar regions;
- .2 while there was an opportunity to apply the second phase of the Polar Code to all ships operating in polar waters, for the Antarctic the most important issue was to ensure safety of fishing vessels and yachts;
- .3 part II-A of the Polar Code applied to non-SOLAS ships and, therefore, port State control officers were already able to board and inspect these vessels;

-
- .4 the advantage of the Polar Code, being developed as a goal-based model, was that the goals and most of the functional requirements were written in such a way that they were already appropriate for all ships and, therefore, the prescriptive requirements would need to be developed depending on what types of ships should be addressed;
 - .5 with regard to the scope of the future work, it might be suggested to develop the second phase for the Antarctic area in the first instance and, after a period of lessons learned, extend it to the Arctic waters;
 - .6 the development of the second phase should benefit from the collective expertise of the Organization and a way forward should be developed together;
 - .7 it was clear that the loss of lives and impact on the environment, both associated with non-SOLAS ships operating in polar waters, demanded urgent action, and, therefore, the Committee was urged, without any further delay, to commence the work on the application of the mandatory Polar Code to non-SOLAS ships operating in polar waters, by agreeing to place this output on the agenda of the SDC Sub-Committee as an urgent item;
 - .8 taking into account that the basis for commencing the work on the second phase of the Polar Code was now available in the annexes to document MSC 98/10/1, the SDC Sub-Committee should be instructed to carry out an analysis regarding the scope of application of the second phase of the Polar Code, mandatory or recomendatory status and types of vessels to be addressed, as a matter of high-priority;
 - .9 the work related to the second phase for non-SOLAS ships should not begin until experience was gained with the new Code for SOLAS ships;
 - .10 bearing in mind that the 2012 Cape Town Agreement had not entered into force yet, even if it was decided to start the second phase, based on the analysis of the accidents within polar waters, for the overall safety of fishing vessels, it would be preferable to discuss the matter after the entry into force of the 2012 Cape Town Agreement;
 - .11 in view of the unacceptable accident statistics for fishing vessels, the vast majority of which happened outside polar waters, Member States were urged to sign the 2012 Cape Town Agreement and make every effort to ensure that it entered into force; this would be a major step forward in ensuring the safety of fishing vessels all over the world, including polar waters;
 - .12 the Polar Code was an add-on to the 1974 SOLAS Convention and contained only a part of the safety requirements that ships to which the Polar Code applied were required to meet; for non-SOLAS ships there was no internationally agreed safety standard to build on and, therefore, simply picking from the Polar Code would not address the overall safety of a vessel;
 - .13 the Polar Code did not apply to cargo ships between 300 gross tonnage and 500 gross tonnage, and fishing vessels and pleasure yachts had no basic international safety standards; and

- .14 the consideration of the scope of application of the second phase of the Polar Code, its mandatory or recomendatory status and types of vessels to be addressed required a policy decision and, therefore, could not be dealt with by the Sub-Committee. In this connection, the Committee had to decide on these issues before the work on the second phase could commence.

10.29 Having considered the above views, the Committee agreed to:

- .1 change the title of this output to "Safety measures for non-SOLAS ships operating in polar waters"; and
- .2 taking into account the urgency of this issue, move this existing output from the post-biennial agenda of the Committee to its agenda for the 2018-2019 biennium and the provisional agenda of MSC 99, with a view to taking a policy decision regarding the scope of application of the second phase of the Polar Code, its mandatory or recommendatory status and types of vessels to be addressed.

11 NAVIGATION, COMMUNICATIONS AND SEARCH AND RESCUE

REPORT OF THE FOURTH SESSION OF THE SUB-COMMITTEE

General

11.1 The Committee approved, in general, the report of the fourth session of the Sub-Committee on Navigation, Communications and Search and Rescue (NCSR 4/29 and MSC 98/11) and took action as indicated hereunder.

Traffic separation schemes (TSS) and associated measures

11.2 The Committee adopted, in accordance with resolution A.858(20), the amendments to the existing Long Sand Head two-way route and SUNK Inner precautionary area in the traffic separation scheme "In the SUNK area and in the Northern approaches to the Thames Estuary", for dissemination by means of COLREG.2/Circ.69.

Routeing measures other than TSS

11.3 In accordance with resolution A.858(20), the Committee adopted the establishment of the following new routeing measures other than traffic separation schemes:

- .1 recommended route "Off the western coast of Izu O Shima Island";
- .2 area to be avoided "Off Peninsula de Osa in the Pacific coast off Costa Rica"; and
- .3 area to be avoided as an associated protective measure for the "Tubbataha Reefs Natural Park Particularly Sensitive Sea Area (PSSA) in the Sulu Sea",

for dissemination by means of SN.1/Circ.335.

11.4 The Committee noted the appreciation expressed by the delegation of Japan for the adoption of the recommended routeing measure, and a statement made by the delegation of the Philippines as set out in annex 39.

Implementation of the adopted routing measures

11.5 The Committee agreed that the new and amended routing measures, as adopted at this session, be implemented on 1 January 2018 at 00.00 hours UTC.

Addressing the protection of marine environmental issues in ships' routing measures

11.6 The Committee noted the view of the Sub-Committee that the establishment of an appropriate procedure might be required to address the protection of marine environmental issues in ships' routing measures, other than those related to the identification and designation of particular sensitive sea areas (PSSAs) (resolution A.982(24)). After a brief discussion, the Committee authorized the Sub-Committee to forward proposals, where the proposed routing measures were primarily related to environmental protection, to the Marine Environment Protection Committee for advice with respect to marine environment aspects only, before considering those proposals further in detail.

Interconnection of NAVTEX and Inmarsat SafetyNET receivers and their display on Integrated Navigation Display Systems***Narrow-band direct-printing telegraph equipment for the reception of navigational and meteorological warnings and urgent information to ships (NAVTEX)***

11.7 The Committee adopted resolution MSC.430(98) on *Amendments to the Revised performance standards for narrow-band direct-printing telegraph equipment for the reception of navigational and meteorological warnings and urgent information to ships (NAVTEX)* (resolution MSC.148(77)), as set out in annex 14.

Integrated navigation systems (INS)

11.8 In order to avoid multiple amendments to resolution MSC.252(83) on *Revised performance standards for integrated navigation systems (INS)*, the Committee, after some discussion, concurred with the proposal by the Cook Islands, Germany, the Republic of Korea and the CIRM (MSC 98/11/7) to postpone the approval of the amendments to this resolution until completion of the related work on the *Guidelines for the harmonized display of navigation information received via communications equipment* at NCSR 5.

11.9 In this context, the Committee agreed to keep output 5.2.6.1 on "Additional modules to the *Revised performance standards for integrated navigation systems (INS)* (resolution MSC.252(83)) relating to the harmonization of bridge design and display of information" in the post-biennial agenda of the Sub-Committee, in order to further consider the matter at the appropriate time.

Enhanced group call (EGC) equipment

11.10 The Committee adopted resolution MSC.431(98) on *Amendments to the Revised performance standards for enhanced group call (EGC) equipment* (resolution MSC.306(87)), as set out in annex 15.

Liaison statements

11.11 The Committee endorsed the action taken by the Sub-Committee in instructing the Secretariat to convey the liaison statement on Changes consequential to displaying NAVTEX and Inmarsat-C SafetyNET information on Integrated Navigation Displays to the IHO, the WMO and IEC TC 80 (NCSR 4/29, annex 6).

Guidelines associated with multi-system shipborne radionavigation receivers dealing with the harmonized provision of PNT data and integrity information

11.12 The Committee approved MSC.1/Circ.1575 on *Guidelines for shipborne position, navigation and timing (PNT) data processing*.

11.13 The Committee adopted resolution MSC.432(98) on *Amendments to Performance standards for multi-system shipborne radionavigation receivers* (resolution MSC.401(95)), as set out in annex 16.

Revised Guidelines and criteria for ship reporting systems

11.14 The Committee adopted resolution MSC.433(98) on *Guidelines and criteria for ship reporting systems*, revising resolution MSC.43(64), as set out in annex 17.

11.15 The Committee endorsed the Sub-Committee's conclusion that no further action was needed with respect to the perceived administrative burdens on the reporting requirements relating to SOLAS regulations V/11.7 and V/28.2.

Performance standards for a ship earth station for use in the GMDSS

11.16 The Committee considered the draft MSC resolution on Performance standards for a ship earth station for use in the GMDSS, prepared by NCSR 4 (NCSR 4/29, annex 10), together with documents submitted to this session as indicated hereunder.

Amendment to preambular paragraph 3 of the resolution

11.17 The Committee, having considered the proposal by the IMSO (MSC 98/11/8, paragraph 7) and after a brief discussion, agreed to amend preambular paragraph 3 of the draft resolution.

Amendment to paragraph 3.8.2.5 of the draft performance standards

11.18 The Committee considered proposals by the United Kingdom (MSC 98/11/2) and the CIRM (MSC 98/11/6) to amend paragraph 3.8.2.5 of the draft performance standards and, after some discussion, agreed to amend this paragraph to: "if the ship's position is older than 24 hours, the position is clearly identified with date and time of the fix in UTC for distress alerting purposes".

Operative paragraph 2 of the resolution

11.19 The Committee had for its consideration the following documents with respect to operative paragraph 2 of the resolution:

- .1 MSC 98/11/2 (United Kingdom), providing a proposal based on option 2;
- .2 MSC 98/11/5 (Norway), expressing concerns on both options and the preference for using option 1 as the basis for discussions; and
- .3 MSC 98/11/9 (United States), recommending an effective date of 16 June 2017 for the new performance standards and adoption of option 2.

11.20 After some discussion, the Committee adopted, with minor modifications, resolution MSC 434(98) on *Performance standards for a ship earth station for use in the GMDSS*, as set out in annex 18.

Modernization Plan of the GMDSS

11.21 The Committee approved the Modernization Plan of the Global Maritime Distress and Safety System (GMDSS) (NCSR 4/29, annex 11).

Draft amendments to SOLAS chapter IV and appendix (certificates)

Consequential draft amendments to the HSC and SPS Codes

11.22 After brief discussion, the Committee approved the proposed consequential amendments (paragraph 11.29 refers), set out in document MSC 98/11/1 (IACS), to the International Code of Safety for High-Speed Craft, 1994 and the International Code of Safety for High-Speed Craft, 2000, as set out in annexes 19 and 20, respectively, and requested the Secretary-General to circulate those draft amendments, in accordance with SOLAS article VIII, with a view to adoption at MSC 99.

11.23 The Committee also approved, in principle, the proposed consequential amendments set out in document MSC 98/11/1 (IACS) to the *Code of Safety for Special Purpose Ships, 2008* (resolution MSC.266(84)), as set out in annex 21, with a view to adoption at MSC 99 in conjunction with the adoption of the amendments to SOLAS chapter IV and appendix (certificates) (paragraph 11.29 refers). The Committee further requested the Secretariat to prepare draft consequential amendments to the *Code of Safety for Special Purpose Ships* (resolution A.534(13)), with a view to adoption at MSC 99.

11.24 Furthermore, the Committee noted the views that further work in relation to the HSC and SPS Codes might be required when considering the revision of SOLAS chapters III and IV in relation to the Modernization of the GMDSS.

Timing of replacement of existing certificates

11.25 With regard to a proposal by IACS (MSC 98/11/1, paragraph 5), the Committee agreed that paragraph 3.1 of MSC-MEPC.5/Circ.6 on *Guidance on the timing of replacement of existing certificates by the certificates issued after the entry into force of amendments to certificates in IMO instruments* should apply to the aforementioned amendments.

Use of the term "recognized mobile satellite service"

11.26 After a brief discussion, the Committee agreed with the proposal submitted by the United Kingdom (MSC 98/11/3) regarding the inclusion of a definition of the term "recognized mobile satellite service" in SOLAS regulation IV/2.1. In this regard, the Committee noted the view that, although this definition would be incorporated in this set of amendments, further consideration on this matter could be given when considering the revision of SOLAS chapters III and IV in relation to the modernization of the GMDSS.

Amendment to SOLAS regulation IV/7.1.5

11.27 The Committee considered comments provided by the United Kingdom (MSC 98/11/4) on the proposed amendments to SOLAS regulation IV/7.1.5, highlighting an issue with the carriage requirement in sea area A4 and providing an alternative proposal for amendments to this regulation.

11.28 After some discussion, the Committee agreed with the proposal, taking into account that it was an interim solution until the revision of SOLAS chapters III and IV in relation to the modernization of the GMDSS would have been completed.

11.29 Consequently, the Committee, bearing in mind that any gaps or inconsistencies could be resolved under the proposed new output on the revision of SOLAS chapters III and IV for modernization of the GMDSS, as proposed by the Sub-Committee under agenda item 20 (see paragraph 20.27), approved the draft amendments to SOLAS chapter IV and appendix (certificates), with a view to subsequent adoption at MSC 99, as set out in annex 22. The Committee requested the Secretary-General to circulate the draft amendments in accordance with SOLAS article VIII.

Inmarsat FleetBroadband Maritime Safety Data Service for use in the GMDSS

11.30 The Committee recalled that MSC 97 had instructed the NCSR Sub-Committee to consider how the process should be undertaken for recognition and use in the GMDSS and, in particular, whether the Inmarsat FleetBroadband Maritime Safety Data Service was to be considered as a new application, or as a bolt-on addition to the existing services.

11.31 In this context, the Committee endorsed the view of the Sub-Committee that the recognition of the Inmarsat FleetBroadband Maritime Safety Data Service for use in the GMDSS should be treated as a new application, noting that not all elements of resolution A.1001(25) on *Criteria for the provision of mobile satellite communication systems in the Global Maritime Distress and Safety System (GMDSS)* would need to be reviewed in detail in this specific case and that it would be subject to the IMSO's evaluation of these elements.

11.32 Accordingly, the Committee invited the IMSO to undertake the necessary technical and operational assessment of the Inmarsat FleetBroadband Maritime Safety Data Service and provide a report for consideration by the NCSR Sub-Committee.

Use of light-emitting diodes (LEDs)

11.33 The Committee endorsed the view of the Sub-Committee that it was of importance to consider the risks associated with light-emitting diodes (LEDs) used in emergency equipment, navigation aids and obstruction lighting not detectable by night vision equipment. In this context, the Committee encouraged interested parties to submit relevant proposals for a new output to the Committee.

Revised guidelines for preparing plans for cooperation between search and rescue services and passenger ships

11.34 The Committee approved the revision of the *Guidelines for preparing plans for cooperation between search and rescue services and passenger ships* (MSC.1/Circ.1079), to be issued as MSC.1/Circ.1079/Rev.1.

Unified interpretation of provisions of IMO safety, security, and environment related Conventions

11.35 The Committee approved MSC.1/Circ.1576 on *Unified interpretation of the provisions of SOLAS relating to the annual testing of the VDR, S-VDR, AIS and EPIRB*.

11.36 The Committee approved MSC.1/Circ.1577 on *Unified interpretation on the application of COLREG with respect to the placement of sidelights*.

IMO/IHO Harmonization Group on Data Modelling (HGDM)

11.37 The Committee agreed to activate the IMO/IHO Harmonization Group on Data Modelling (HGDM) to work only on the output to "Develop guidance on definition and harmonization of the format and structure of MSPs"; and endorsed the holding of the first meeting of this Group, at the IMO Headquarters in London, from 16 to 20 October 2017 (refer to NCSR 4/29, paragraph 27.10 and NCSR 4/WP.4, annex 5).

Guidance on the validity of radiocommunications equipment installed and used on ships

11.38 The Committee approved MSC.1/Circ.1460/Rev.2 on *Guidance on the validity of radiocommunications equipment installed and used on ships*.

Perceived administrative burdens related to reporting requirements

11.39 The Committee endorsed the action taken by the Sub-Committee to invite interested Member States wishing to pursue any of the recommendations on perceived administrative burdens related to reporting requirements in SOLAS regulations V/26.6, V/28.1, V/29 and V/30.2, to submit relevant proposals for new outputs to the Committee.

Termination of the World VTS Guide

11.40 The Committee revoked MSC/Circ.586/Rev.1 on *World VTS Guide*, and noted that the references to the World VTS Guide in resolution A.857(20) on *Guidelines for Vessel Traffic Services* were no longer valid.

Consequential work related to the Polar Code

11.41 The Committee endorsed the action taken by the Sub-Committee to establish a Correspondence Group on consequential work (on matters within the purview of the NCSR Sub-Committee) related to the Polar Code. The Committee, noting the revised details of the coordinator¹, encouraged participation in the Correspondence Group.

Performance Standards for Navigation Decision Support Systems (NDSS) for Collision Avoidance (CA)

11.42 The Committee noted, with appreciation, the information provided by Israel and Poland (MSC 98/INF.10) on Performance Standards for Navigation Decision Support Systems (NDSS) for Collision Avoidance (CA).

¹

Coordinator:

Mr. Kai-Jens Schulz-Reifer
Bundesamt fuer Seeschifffahrt und Hydrographie (BSH) (Federal Maritime and Hydrographic Agency)
Bernhard-Nocht-Str. 78
20359 Hamburg
Germany
Tel: +49 (0) 40 3190-7200
Fax: +49 (0) 40 3190-5000
Email: kai-jens.schulz-reifer@bsh.de
<http://www.bsh.de>

Experience gained from implementation of the mandatory ship reporting system "In the Gulf of Finland (GOFREP)"

11.43 The Committee noted, with appreciation, the information provided by Finland (MSC 98/INF.11) on experience gained from implementation of the mandatory ship reporting system "In the Gulf of Finland (GOFREP)".

Safety and security of navigation in the north-eastern part of the Black Sea

11.44 The delegation of Ukraine made a statement as set out in annex 39.

12 SHIP SYSTEMS AND EQUIPMENT

REPORT OF THE FOURTH SESSION OF THE SUB-COMMITTEE

General

12.1 The Committee approved, in general, the report of the fourth session of the Sub-Committee on Ship Systems and Equipment (SSE) (SSE 4/19 and MSC 98/12) and took action as indicated hereunder.

Draft functional requirements and expected performance for SOLAS chapter III

12.2 The Committee noted the related background information as contained in annexes 2 to 5 to document SSE 4/3 in the context of the development of a goal-based SOLAS chapter III.

12.3 The Committee considered the draft functional requirements and the expected performance for SOLAS chapter III, with a view to proceeding with their development for achieving a more quantifiable version that could contribute to the future development of the GBS-SLA, in conjunction with document MSC 98/12/6 (Germany), proposing that the issue of quantification of expected performance be considered by the GBS Working Group in order to provide instructions to the SSE Sub-Committee, with a view to finalizing the functional requirements for SOLAS chapter III, taking into account:

- .1 the outcome of SSE 4;
- .2 that the *Generic guidelines for developing IMO goal-based standards* (MSC.1/Circ.1394/Rev.1) stated that the expected performance should provide a description of the necessary function of the functional requirement in quantitative terms; and
- .3 that these functional requirements, as well as the workflow for their development, would provide the basis for developing functional requirements for SOLAS chapter II-1 (parts C, D and E).

12.4 Following consideration of the outcome of the Sub-Committee, as well as the proposal contained in document MSC 98/12/6, and having noted the views expressed that:

- .1 the description of functional requirements in quantitative terms would contribute to addressing the recognized drawbacks of SOLAS chapter III; and
- .2 in addition to goals and functional requirements, the development of implementable performance standards and the verification of conformity was crucial,

the Committee decided to further instruct the GBS Working Group to consider the quantification of expected performance, and advise the Committee accordingly.

Experience gained on the application of the *Generic guidelines for developing IMO goal-based standards (MSC.1/Circ.1394/Rev.1)*

12.5 The Committee considered:

- .1 the experience gained on the application of MSC.1/Circ.1394/Rev.1 in the context of the development of the draft functional requirements and the expected performance for SOLAS chapter III (SSE 4/19, paragraph 3.22 and annex 2); and
- .2 document MSC 98/12/3 (China), suggesting that a format with four ranks (i.e. part, section, regulation and requirement), which referred to goals, generic functional requirements, specific functional requirements and expected performance, respectively, be applied to the goal-based framework of IMO instruments, in line with MSC.1/Circ.1394/Rev.1 and recommending that the Committee instruct the SSE Sub-Committee to further collect and record the experience gained on the implementation of MSC.1/Circ.1394/Rev.1 in order for the Sub-Committee to revise it and include a guidance on how to develop the functional requirements of SOLAS chapter III, once the Committee had approved the quantified expected performance for SOLAS chapter III.

12.6 Having noted the view expressed that the experience gained on the application of MSC.1/Circ.1394/Rev.1 on the development of functional requirements for SOLAS chapter III was fundamental for the development of a new framework for a goal-based standard convention, the Committee instructed the SSE Sub-Committee to revise MSC.1/Circ.1394/Rev.1 at a future session, taking into account document MSC 98/12/3, and to include guidance on how to develop the functional requirements of SOLAS chapter III once the Committee had approved their quantified expected performance.

Future direction of the safety level approach (SLA)

12.7 The Committee recalled, when considering agenda item 6, that MSC 95, as part of the work plan for the development of the draft Interim Guidelines for development and application of the IMO goal-based standards safety level approach, had agreed that MSC 98 should review the outcome of the SSE Sub-Committee on the development of functional requirements of SOLAS chapter III and the progress made at MSC 96 and MSC 97 and make a decision on the future direction of the SLA (see also paragraph 6.3).

12.8 The Committee had for its consideration document MSC 98/6/5 (Germany), providing a proposal for a new section 14 of the draft Interim Guidelines for development and application of IMO goal-based standards safety level approach.

12.9 In considering document MSC 98/6/5 and the future direction of the SLA, the Committee noted the following views expressed:

- .1 the process described in document MSC 98/6/5 was comparable to that provided in several parts of SOLAS Convention for "alternative design and arrangements";
- .2 the safety level approach would be useful to develop regulations, which would be more rational in relation to the acceptable risk, based on analysis of data using a state-of-the-art methodology; and

- .3 the conclusion of the draft Interim Guidelines for development and application of IMO goal-based standards safety level approach would be an important achievement.

12.10 After an in-depth discussion, the Committee agreed to refer document MSC 98/6/5 to the GBS Working Group for consideration, if time permitted, in the context of the development of the draft Interim Guidelines for development and application of IMO goal-based standards safety level approach, and advise to the Committee.

Instructions to the GBS Working Group

12.11 The Committee further instructed the GBS Working Group, established under agenda item 6 (see also paragraph 6.17), taking into account comments made and decisions taken in plenary, to:

- .1 consider the description of the necessary function of the draft functional requirements for SOLAS chapter III (expected performance) in quantitative terms, with a view to providing instructions to the SSE Sub-Committee, taking into account document MSC 98/12/6, and advise the Committee accordingly; and
- .2 if time permitted, prepare a new section 14 of the draft Interim Guidelines for development and application of IMO goal-based standards safety level approach, in order to generically describe the process of developing IMO instruments using risk-based methods, based on document MSC 98/6/5.

Report of the GBS Working Group

12.12 Having considered the part of the report of the GBS Working Group (MSC 98/WP.7) dealing with matters related to this agenda item, the Committee took action as described hereunder.

Draft functional requirements for SOLAS chapter III

12.13 In considering the Group's recommendations regarding the draft functional requirements for SOLAS chapter III, the Committee instructed the SSE Sub-Committee to consider the following principles when describing the necessary function of the draft functional requirements (expected performance) in quantitative terms:

- .1 functional requirements ought to be formulated in a clear, unambiguous and objective manner;
- .2 the expected performance should be expressed as precisely as possible, preferably in quantitative terms; and
- .3 the approach proposed in document MSC 98/12/6 and the information contained in annex 4 to document SSE 4/3 should be used by the Sub-Committee to take the initial steps in attempting to describe functional requirements in quantitative terms.

12.14 In this context, the Committee invited Member States and international organizations to submit relevant information and data to the SSE Sub-Committee for consideration and action, as appropriate.

Section 14 of the draft Interim Guidelines for development and application of IMO goal-based standards safety level approach

12.15 In considering the proposed new section 14 of the draft Interim Guidelines, the Committee, having noted the strong support for the proposal in the annex to document MSC 98/6/5, endorsed the Group's recommendation to keep both the existing and the proposed section 14 in square brackets within the draft Interim Guidelines.

12.16 In this context, the Committee invited Member States and international organizations to submit concrete GBS-SLA examples as well as comments on both options for section 14, with a view to further developing the draft Interim Guidelines at MSC 99.

Guidelines on safety during abandon ship drills using lifeboats

12.17 The Committee considered:

- .1 the draft Guidelines on safety during abandon ship drills using lifeboats, emanating from the adoption of the *Requirements for maintenance, thorough examination, operational testing, overhaul and repair of lifeboats and rescue boats, launching appliances and release gear* (resolution MSC.402(96)) (SSE 4/19, paragraph 4.10 and annex 3); and
- .2 document MSC 98/12/4 (France), providing comments on the draft Guidelines on safety during abandon ship drills using lifeboats, in particular, expressing the concern that the draft Guidelines lacked operation of the release mechanism in simulated launching of free-fall lifeboats during drills; and proposing the inclusion of adequate measures for the operation of such mechanisms in the definition of "simulated launching carried out during drills" for consistency with the provisions of SOLAS regulation III/19.3.4.4.

12.18 In the ensuing discussion, the Committee noted the following views expressed relating to the proposed amendment contained in document MSC 98/12/4:

- .1 the use of the term "company" might not be in line with the definition of the mentioned term in SOLAS regulation IX/1.2;
- .2 the proposed text might lead to issues during a port State control inspection where additional training certification could be requested of the crew; and
- .3 the proposed text provided conditions related to the training on the operation of the release mechanism of free-fall lifeboats that should not be placed in a definition.

12.19 In light of the foregoing and having recognized the need to appropriately address the crew's familiarization with the activation of the free-fall lifeboats' release mechanism, the Committee approved, with modifications, MSC.1/Circ.1578 on *Guidelines on safety during abandon ship drills using lifeboats*.

Amendments to the Guidelines for developing operation and maintenance manuals for lifeboat systems (MSC.1/Circ.1205)

12.20 The Committee approved MSC.1/Circ.1579 on *Amendments to the guidelines for developing operation and maintenance manuals for lifeboat systems (MSC.1/Circ.1205)*.

Draft amendment to paragraph 6.1.1.3 of the LSA Code

12.21 The Committee considered:

- .1 the draft amendment to paragraph 6.1.1.3 of the LSA Code, aiming at allowing the use of hand-operated mechanisms for launching rescue boats which did not form part of the ship's survival craft, as opposed to the current requirement that a launching appliance must not depend on any means other than gravity or stored mechanical power, taking into account that hand-operated mechanisms were already accepted by some Administrations (SSE 4/19, paragraph 5.9 and annex 5); and
- .2 document MSC 98/12/2 (Japan), proposing to rearrange the text of the draft amendment making the provisions to be complied with the condition that the launching appliance of the boat did not depend on gravity or stored mechanical power means and also to change the application of the draft amendment to new ships only, as stated in annex 3 of the original proposal contained in document MSC 96/23/6 (Republic of Korea, IACS).

12.22 In the ensuing discussion, the Committee noted the following views expressed:

- .1 if this amendment was approved, as a consequence:
 - .1 a manual launching arrangement of a rescue boat without the operating crew on board would be acceptable compared to the current situation where a fully loaded and equipped rescue boat was launched by means of a gravity or stored power mechanism; and
 - .2 the operating crew would be required to board the rescue boat after it had been swung outboard, which introduced a new safety hazard, established a different safety regime for crews on cargo ships from those on passenger ships and was incompatible with the general requirement for safe launching with the operating crew on board as required in paragraph 6.1.1.1.2 of the LSA Code;
- .2 it should be taken into account that this amendment would only be applicable to rescue boats that were not one of the ship's survival craft and that SOLAS chapter III addressed differently cargo and passenger ships in this regard, i.e. the provision "the rescue boat can be boarded and launched directly from the stowed position with the number of persons assigned to crew the rescue boat on board" was only applicable to passenger ships;
- .3 the technical criteria applied to the draft amendment, i.e. a launching appliance of a rescue boat, which was not one of the ship's survival craft, did not need to be fitted with stored mechanical power, should be applicable not only to new ships but also to existing ships; and
- .4 the date of application of the amendment should be based on the installation date of the equipment.

12.23 After an in-depth discussion, the Committee agreed to instruct SSE 5 to further consider the draft amendment to paragraph 6.1.1.3 of the LSA Code, taking into account the above-mentioned comments, and advise the Committee accordingly.

Amendments to the Code for the Construction and Equipment of Mobile Offshore Drilling Units, 2009 (2009 MODU Code)

12.24 The Committee adopted resolution MSC.435(98) on *Amendments to the Code for the Construction and Equipment of Mobile Offshore Drilling Units, 2009 (2009 MODU Code)*, as set out in annex 23, to take effect on 1 January 2020, and authorized the Secretariat to introduce all necessary editorial modifications when preparing the final text.

Onboard Lifting Appliances and Winches (OLAW)

12.25 The Committee noted the Sub-Committee's:

- .1 agreement that the new provisions for Onboard Lifting Appliances and Winches (OLAW) should be included in SOLAS chapter II-1; and
- .2 discussion on the issue of "out of order" or "out of service" OLAW and the validity of the SOLAS certification of the ship and that this matter would be considered at SSE 5.

12.26 In this context, the Committee considered document MSC 98/12/5 (Germany), proposing a work plan in order for the GBS Working Group to consider the review of goals and functional requirements for onboard lifting appliances and winches, i.e. to align the work of the SSE Sub-Committee with the agreed concept of GBS, as applied by the GBS Working Group, similarly to the work plan agreed for the development of functional requirements for SOLAS chapter III.

12.27 In the ensuing discussion, the Committee noted the following views expressed:

- .1 with regard to the placeholder of the new provisions for OLAW and the related issue of "out of order" and "out of service" OLAW, a new chapter in SOLAS would de-link the OLAW from the ship's safety construction certification;
- .2 the decision on which SOLAS chapter should include the new provisions for OLAW was still open; and
- .3 with reference to the work plan proposed in document MSC 98/12/5:
 - .1 bearing in mind that the expertise on developing goal-based provisions rested with the GBS Working Group, the assistance of the aforementioned group, with the focus on the formulation of the OLAW new regulations, would be helpful;
 - .2 the referral of the goals and functional requirements for OLAW developed by the SSE Sub-Committee to the GBS Working Group might set the precedent that all goal-based regulations developed by the Organization needed to be reviewed by the GBS Working Group; and
 - .3 a systematic process and criteria should be established for developing goal-based regulations given the increasing trend for these types of regulations.

12.28 After an in-depth discussion, the Committee:

- .1 endorsed the work plan to review the development of requirements for onboard lifting appliances and winches, as set out in the annex to document MSC 98/12/5; and
- .2 expressed the view that the determination of which SOLAS chapter should include the new OLAW provisions needed further consideration.

12.29 In endorsing the above-mentioned work plan, the Committee noted the concerns expressed by the delegation of Norway that the work to be carried out by a correspondence group on OLAW, if established at SSE 5, could be delayed if the review of the draft goals and functional requirements was conducted by the GBS Working Group at MSC 99.

Guidelines for vessels and units with dynamic positioning (DP) systems

12.30 The Committee approved MSC.1/Circ.1580 on *Guidelines for vessels and units with dynamic positioning (DP) systems*, which would generally apply to vessels and units constructed on or after 9 June 2017. In this context, the Committee noted that for existing vessels the *Guidelines for vessels with dynamic positioning systems* (MSC/Circ.645) would still be applicable.

Draft Escape route signs and equipment location markings

12.31 The Committee approved the draft Escape route signs and equipment location markings, together with the associated draft Assembly resolution, as set out in annex 24, with a view to subsequent adoption by A 30.

SOLAS regulations II-1/13 and II-1/13-1 and other related regulations for new ships

12.32 The Committee noted the progress made by the Sub-Committee with regard to matters related to SOLAS regulations II-1/13 and II-1/13-1 and related regulations for new ships.

Minimum width of external escape routes on cargo ships

12.33 The Committee noted the Sub-Committee's discussion on the minimum width of external escape routes on cargo ships emanating from:

- .1 the vague expression of SOLAS regulation II-2/13.1 "...provide means of escape so that persons on board can safely and swiftly escape to the lifeboat and liferaft embarkation deck..."; and
- .2 the lack of detailed provisions regarding external escape routes.

12.34 In the ensuing discussion, the Committee noted the following views expressed:

- .1 port State control officers (PSCOs) should restrict themselves to applying the requirements of the instruments; and this principle should be confirmed by the Committee; and
- .2 the III Sub-Committee should not be instructed to consider the differing interpretations among the Administrations and PSCOs.

12.35 After some discussion, the Committee agreed not to instruct the III Sub-Committee to consider the differing interpretations among the Administrations and PSCOs on this matter.

12.36 In this context, the Committee further noted the intervention from the observer of IACS that:

- .1 SOLAS provisions did not address the minimum width of external escape routes on cargo ships;
- .2 PSCOs applied interpretations of the minimum width of external escape routes on cargo ships in order to implement the vague expression of SOLAS regulation II-2/13.1; and
- .3 the lack of provisions on the minimum width of external escape routes on cargo ships prevented the matter being addressed by means of a unified interpretation.

Unified interpretations of SOLAS chapter II-2

12.37 The Committee, in considering the draft MSC circular on Unified interpretations of SOLAS chapter II-2, noted that SOLAS provided clear restrictions on which spaces could be located within the cargo area and agreed that the text corresponding to the draft unified interpretation of SOLAS regulation II-2/9.2.4.2 could contradict the provisions in the Convention. In this context, the Committee instructed SSE 5 to further consider the above-mentioned draft unified interpretation, and advise the Committee at its next session.

12.38 Following discussion, the Committee approved, with modifications, MSC.1/Circ.1581 on *Unified interpretations of SOLAS chapter II-2*, which did not include the UI related to SOLAS regulation II-2/9.2.4.2.

Corrigendum to the *Unified interpretation of SOLAS chapter II-2 on the number and arrangement of portable fire extinguishers on board ships* (MSC.1/Circ.1275)

12.39 The Committee noted that the Sub-Committee had endorsed the draft corrigendum to the *Unified interpretation of SOLAS chapter II-2 on the number and arrangement of portable fire extinguishers on board ships* (MSC.1/Circ.1275) and that the Secretariat had issued it as MSC.1/Circ.1275/Corr.1.

Unified interpretations of chapter 15 of the FSS Code

12.40 The Committee approved MSC.1/Circ.1582 on *Unified interpretations of chapter 15 of the FSS Code*.

Amendment to the *Unified interpretation of SOLAS regulation II-1/29* (MSC.1/Circ.1398)

12.41 The Committee approved MSC.1/Circ.1583 on *Amendment to the unified interpretation of SOLAS regulation II-1/29* (MSC.1/Circ.1398).

Review of SOLAS chapter II-2 and associated codes to minimize the incidence and consequences of fires on ro-ro spaces and special category spaces of new and existing ro-ro passenger ships

12.42 In considering the review of SOLAS chapter II-2 and associated codes, the Committee:

- .1 agreed that the work on the review of SOLAS chapter II-2 and associated codes could consequentially lead to the development of amendments to SOLAS chapters II-2 and III, the FSS and 2010 FTP Codes, the STCW Convention and Code and relevant guidelines and, therefore, the development of such consequential amendments should not require a proposal for a new output; and
- .2 approved the scope of work for, and the work plan on, the review of SOLAS chapter II-2 and associated codes regarding ro-ro spaces and special category spaces of new and existing ro-ro passenger ships, as set out in annexes 13 and 14 to document SSE 4/19, respectively, which had been prepared following the instructions of MSC 97.

Consequential work related to the Polar Code

12.43 The Committee noted the progress made by the Sub-Committee with regard to the consequential work related to the Polar Code, in particular regarding the necessary testing and performance standards for life-saving appliances and arrangements on board ships operating in polar waters.

Amendments to the guidelines for evaluation and replacement of lifeboat release and retrieval systems (MSC.1/Circ.1392)

12.44 The Committee approved MSC.1/Circ.1584 on *Amendments to the guidelines for evaluation and replacement of lifeboat release and retrieval systems (MSC.1/Circ.1392)*.

Corrigendum to the Requirements for maintenance, thorough examination, operational testing, overhaul and repair of lifeboats and rescue boats, launching appliances and release gear (resolution MSC.402(96))

12.45 The Committee noted that the Sub-Committee had instructed the Secretariat to prepare a corrigendum to the *Requirements for maintenance, thorough examination, operational testing, overhaul and repair of lifeboats and rescue boats, launching appliances and release gear (resolution MSC.402(96))*, which had been issued as document MSC 96/25/Add.1/Corr.1.

Other matters

Fire protection materials and required approval test methods

12.46 The Committee had for its consideration document MSC 98/12/1 (Republic of Korea, IACS), providing a proposal to amend table 1 of annex 3 to the 2010 FTP Code in order to:

- .1 clarify that the fire protection materials and required approval test methods contained therein applied to passenger ships carrying more than 36 passengers as well as to passenger ships carrying not more than 36 passengers; and
- .2 update some references of said table.

12.47 In considering the proposed amendments, the Committee, notwithstanding the statement by the Chair of the SSE Sub-Committee that SSE 3:

- .1 had only noted the Fire Protection Working Group's view that table 1 of annex 3 to the 2010 FTP Code should also be applicable to passenger ships carrying not more than 36 passengers and that a possible solution could be to delete the phrase "carrying not more than 36 passengers" from the table; and
- .2 had considered this matter under the agenda item on "Unified interpretation of provisions of IMO safety, security, and environment related conventions", but an amendment to the 2010 FTP Code had not been considered,

approved the draft amendments to table 1 of annex 3 to the 2010 FTP Code, as set out in annex 25, and requested the Secretary-General to circulate them in accordance with SOLAS article VIII, with a view to adoption at MSC 99.

13 CAPACITY BUILDING FOR THE IMPLEMENTATION OF NEW MEASURES

General

13.1 The Committee recalled that MSC 97 (MSC 97/22, paragraph 12.3) had requested the Vice-Chair of the Committee, in consultation with the Chair and with the assistance of the Secretariat, to submit to MSC 98 a preliminary assessment of the capacity-building implications and technical assistance needs related to approved draft amendments to mandatory instruments and the new outputs related to mandatory instruments, which had been approved at that session.

Assessment of capacity-building implications for the implementation of new measures

13.2 The Committee considered document MSC 98/13 (Vice-Chair), providing the outcome of the aforementioned preliminary assessment, and agreed with the assessment that there were no capacity-building implications or a need for technical assistance with regard to the draft amendments and the outputs related to proposals to amend mandatory instruments, which had been approved at MSC 97.

13.3 Consequently, the Committee concluded that there was no need to establish the Ad hoc Capacity-Building Needs Analysis Group (ACAG) at this session. In this regard, the Committee noted the recommendation in paragraph 5 of document MSC 98/13 that the preliminary assessment of the output on "Review of SOLAS chapter II-2 and associated codes

to minimize the incidence and consequences of fires on ro-ro spaces and special category spaces of new and existing ro-ro passenger ships" should be updated once the scope of the work had been better defined.

Preliminary assessment for the next session

13.4 The Committee requested the Vice-Chair, in consultation with the Chair and with the assistance of the Secretariat, to submit to MSC 99 a preliminary assessment of the capacity-building implications and technical assistance needs related to the approved draft amendments to mandatory instruments and the new outputs related to mandatory instruments, which were approved at this session.

14 FORMAL SAFETY ASSESSMENT

Background

14.1 The Committee recalled that MSC 97 had:

- .1 requested the Secretariat to amend the flow chart shown in figure 2 referred to in paragraph 27 of appendix 10 to the *Revised guidelines for Formal Safety Assessment (FSA) for use in the IMO rule-making process* (MSC-MEPC.2/Circ.12/Rev.1), with a view to aligning it with paragraph 26 of appendix 10 to the Revised FSA guidelines and annex 6 to the document on *Organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (MSC-MEPC.1/Circ.5), for further consideration at this session; and
- .2 invited China and any other interested delegations to contact the Secretariat in regard to providing more details about the problem on the speed of the GISIS marine casualties and incidents (MCI) module, and had requested the Secretariat to carry out an analysis on the input and output speed of the GISIS MCI module and the possibility to increase the speed of the GISIS MCI module and take action as appropriate.

Amendments to the flow chart in figure 2 of appendix 10 to the FSA Guidelines

14.2 Having considered document MSC 98/14 (Secretariat), proposing the draft amended flow chart, with a view to replacing figure 2 of appendix 10 to the Revised FSA guidelines (MSC-MEPC.2/Circ.12/Rev.1), the Committee approved the amended flow chart and authorized the Secretariat to make any necessary editorial amendments, when finalizing the text of the Revised FSA guidelines (as MSC-MEPC.2/Circ.12/Rev.2), and to inform MEPC 72 of the Committee's decision.

14.3 Subsequently, the Committee approved the draft MSC-MEPC circular on *Revised guidelines for Formal Safety Assessment (FSA) for use in the IMO rule-making process*, as set out in annex 26, subject to concurrent approval by MEPC 72, and noted that the provisions of the Revised FSA guidelines (MSC-MEPC.2/Circ.12/Rev.2) would be applicable with immediate effect.

Analysis on the input and output speed of the GISIS MCI module

14.4 With regard to the analysis on the input and output speed of the GISIS MCI module, the Committee noted that the assessment of the need to improve the function of the revised module and possibility to increase its speed was ongoing, and the Secretariat would report the outcome to III 4.

15 PIRACY AND ARMED ROBBERY AGAINST SHIPS

Developments since MSC 97, including information sharing on incidents of piracy and armed robbery

15.1 In considering document MSC 98/15 (Secretariat) related to developments on piracy and armed robbery against ships since MSC 97, the Committee noted, in particular, that according to the information reported to the Organization, as contained in MSC 4/Circ.245 (2016 annual report on acts of piracy and armed robbery against ships), a total of 221 piracy and armed robbery incidents had occurred worldwide in 2016, representing a reduction of about 27% compared to 2015, where 303 incidents were reported. However, the Committee noted with concern that in West Africa, incidents had increased by 77% (62 incidents in 2016 against 35 in 2015) and although piracy and armed robbery activity in the South China Sea had decreased slightly with 68 cases reported in 2016 compared to 81 in 2015, developments in the South East Asian region, particularly in the Sulu-Celebes Sea, were also concerning (2 incidents in 2015 and 16 in 2016). In addition, piracy activity off the coast of Somalia was still active, with eight incidents reported between January and April 2017 involving six merchant ships and two dhows and around 39 crew members taken hostage/kidnapped.

15.2 The Committee noted, with appreciation, the information contained in document MSC 98/INF.6 (ReCAAP-ISC), providing an update on the activities carried out by the ReCAAP-ISC and the situation of piracy and armed robbery against ships in Asia since the last update in November 2016.

15.3 The Committee also noted the information provided by an observer delegation related to recent incidents with two tankers in Bab-el-Mandeb Strait, in the western part of the Gulf of Aden, where small high-speed boats carrying a considerable amount of explosives were used to try to board the ships. The modus operandi represented a new kind of threat to shipping in the area.

15.4 A number of delegations provided information related to activities being undertaken to counteract piracy and armed robbery, as well as other illicit activities.

15.5 In this context, the Committee noted that the threat to merchant ships from Somali pirates and others remained and that merchant shipping should continue to take protective measures against possible piracy attacks through diligent application of IMO guidance and best management practices (BMP).

15.6 The Committee noted with appreciation the statements of the Philippines, Spain and the European Commission (on behalf of EU NAVFOR), as set out in annex 39, related to actions taken by governments and security forces regarding piracy and armed robbery against ships.

15.7 The Secretary-General expressed appreciation for the work done by ReCAAP-ISC which was based on good cooperation with coastal States, as well as to the coastal States in the Asia-Pacific region for the actions taken to address the issue of piracy. He also thanked

EU NAVFOR for its significant and ongoing contribution to the protection of merchant ships transiting the Gulf of Aden and the western Indian Ocean, as well as those governments that had contributed warships and aircraft to the Combined Maritime Forces, NATO, EU NAVFOR, or as independent national contributions to the protection of maritime transport. He also reiterated that the situation in that area remained a cause for concern and that the diligent application of IMO guidance and best management practices must continue and the temptation to take risks and cut corners must be resisted. He called upon governments to continue to provide naval assets, and flag States to continue to monitor the threat to ships flying their flag and set appropriate security levels in accordance with the ISPS Code.

Regional agreements

15.8 The Committee noted that with the adoption, in January this year, of the "Jeddah Amendment to the Djibouti Code of Conduct 2017", participating States had agreed to work together, with support from IMO and other stakeholders, to build national and regional capacity to address wider maritime security issues, as well as piracy and armed robbery against ships in the western Indian Ocean and the Gulf of Aden.

15.9 The delegation of Kenya, while welcoming the reduction of piracy and armed robbery incidents in the east African region, indicated that the Government of Kenya had signed the Jeddah Amendment to the Djibouti Code of Conduct on 6 June 2017.

Maritime Domain Awareness for Trade – Gulf of Guinea

15.10 The Committee noted the new "Maritime Domain Awareness for Trade – Gulf of Guinea" (or MDAT-GoG), established by the Governments of France and the United Kingdom, which had been in operation since 20 June 2016 (Circular Letter No.3684 refers) and that the information provided by ships to the MDAT-GoG when transiting west African waters was helping build a common maritime picture between countries in the region and support actions and interventions by regional navies in response to piracy attacks.

15.11 In this context, the Committee also considered document MSC 98/15/1 (Liberia et al.), expressing concern over the alleged significant under-reporting of piracy and armed robbery incidents within the Gulf of Guinea region (estimated as high as 60 to 70%) and inviting the Committee to encourage accurate and timely reporting of information on incidents of piracy and armed robbery to the IMB Piracy Reporting Centre (PRC) and to the MDAT-GoG.

15.12 In considering the above proposal, the Committee noted the statements of Angola, Nigeria, Pakistan and the ReCAAP-ISC, as set out in annex 39, and the following views expressed during the discussion:

- .1 the MDAT-GoG was a reporting mechanism, established in response to a request by the global shipping community, to support the Yaoundé Code of Conduct and the efforts of regional States in combating piracy and armed robbery in the Gulf of Guinea;
- .2 the under-reporting of piracy and armed robbery incidents within the Gulf of Guinea region could lead to a misleading analysis of the scale and frequency of risks to seafarers and trade within the region, restricting the ability of coastal States to mount a properly resourced and focused response;
- .3 an MSC circular should be prepared to encourage reporting of information to MDAT-GoG and IMB PRC, as appropriate;

-
- .4 collective efforts were required to address the increasing security-related issues in the Gulf of Guinea and to support the Yaoundé Code of Conduct, including participation of States from the region, the International Maritime Organization, the shipping industry and other interested stakeholders;
 - .5 the strategy for combating piracy in the Gulf of Guinea was set out in the Yaoundé Code of Conduct and the implementation of appropriate measures required actions by the signatory States and through the Inter-regional Coordination Centre (ICC) in Cameroon;
 - .6 MSC.1/Circ.1333/Rev.1 on *Recommendations to Governments for preventing and suppressing piracy and armed robbery against ships* and MSC.1/Circ.1334 on *Guidance to shipowners and ship operators, shipmasters and crews on preventing and suppressing acts of piracy and armed robbery against ships* provided already the necessary guidance for reporting of incidents; however, these circulars had been issued long ago and could be reviewed to provide a holistic approach for reporting instead of issuing a new MSC circular;
 - .7 in accordance with MSC.1/Circ.1333/Rev.1 and MSC.1/Circ.1334, coastal States should remain the main focal point for reporting as they had the responsibility and jurisdiction to respond, apprehend and prosecute those who were associated with maritime crimes;
 - .8 piracy was a global challenge and countries from the Gulf of Guinea were making efforts to address this issue; and
 - .9 close consultation with countries from the region was required so as to avoid undermining the role and responsibilities of coastal States.

15.13 The Secretary-General recognized the importance of the Yaoundé Code of Conduct and the MDAT-GoG and welcomed the efforts of collaboration with coastal States in the region. He indicated that lessons learned from the successful implementation of the Djibouti Code of Conduct and the ReCAAP-ISC in other regions should be taken into consideration to address the issues in the Gulf of Guinea.

15.14 After an in-depth discussion, the Committee:

- .1 urged flag States, shipmasters, shipowners/operators and shipping companies to report incidents of piracy and armed robbery in a timely manner to reporting organizations, such as the MDAT-GoG and the IMB PRC, in order to allow better response by coastal States, promptly alert other ships in the vicinity and develop a more meaningful understanding of the risk level to ships operating in areas where incidents of piracy and armed robbery occurred; and
- .2 instructed the Maritime Security Working Group to prepare an MSC circular to provide accurate and timely information on incidents of piracy and armed robbery to the IMB PRC and the MDAT-GoG, taking into account the primacy of coastal States, as well as the views expressed in paragraph 15.12 above.

Use of data from GISIS

15.15 The Committee authorized the NATO Shipping Centre to use data from the Global Integrated Shipping Information System (GISIS) to create and share reports on piracy and armed robbery at sea to help raise awareness of current trends.

Incident reporting and questionnaire on privately contracted armed security personnel

15.16 The Committee requested Member States to:

- .1 provide to the Secretariat (marsec@imo.org) information related to national points of contact for communication of information on piracy and armed robbery, in accordance with MSC.1/Circ.1333/Rev.1 on *Recommendations to Governments for preventing and suppressing piracy and armed robbery against ships*; and
- .2 complete the questionnaire annexed to MSC-FAL.1/Circ.2 on *Information on port and coastal State requirements related to privately contracted armed security personnel on board ships*.

15.17 The Committee urged Member States as well as shipmasters, shipowners/operators and commercial companies to report piracy and armed robbery incidents to the Organization, using the reporting form set out in appendix 5 of MSC.1/Circ.1333/Rev.1.

Proposed draft guidelines for floating armouries

15.18 The Committee recalled that:

- .1 MSC 96, having noted the information contained in document MSC 96/INF.11 (Marshall Islands), which provided a progress report on the completion of a comprehensive survey of the number of floating armouries in the piracy High Risk Area (HRA), as defined in the Best Management Practices for Protection against Somalia Based Piracy, version 4 (BMP 4), to ascertain the extent of their use and methods of operation, had invited flag States to consider supporting the completion of the comprehensive survey; and
- .2 MSC 97 having considered document MSC 97/19/11 (India) proposing a new output to develop guidelines to regulate floating armouries, the majority of delegations that had spoken had not found that the compelling need for a compulsory regulatory instrument had been demonstrated and that a number of delegations had supported instead the development of non-mandatory guidance. Thus, the Committee had agreed not to include the proposed output in the biennial agenda of the Committee and had invited Member States and international organizations to submit proposals to MSC 98 for further consideration.

15.19 In this context, the Committee considered document MSC 98/15/2 (India), proposing the development of draft guidelines for floating armouries to assist Member States, shipowners, ship operators and seafarers while using merchant ships as floating armouries, in order to ensure their safety and security.

15.20 In the ensuing discussion, the following views were expressed:

- .1 unregulated floating armouries represented a threat to maritime security;
- .2 the guidance for floating armouries could provide a regulatory framework not only for companies providing armed security personnel, but also for flag Administrations, coastal States and shipping companies using these services;
- .3 the issue of floating armouries had implications both for flag States and coastal States;
- .4 floating armouries should be regulated by flag Administrations using, for example, the existing provisions of the ISPS Code;
- .5 the proposed guidelines in the annex to document MSC 98/15/2 would warrant further work, particularly in respect to their voluntary nature, objectives and certain terms and concepts introduced in the document which could cause serious problems if they were not more precisely defined; moreover, parts of the proposed guidelines contained extensions of the coastal States' responsibilities that went beyond the provisions of UNCLOS and could therefore not be supported;
- .6 the reporting of sensitive information to coastal States could represent a risk to the safety and security of the ship;
- .7 no new information had been provided to the Committee justifying the compelling need for such guidance, and the comprehensive survey had not been concluded;
- .8 the Organization had previously issued MSC-FAL.1/Circ.2 on *Questionnaire on information on port and coastal State requirements related to privately contracted armed security personnel on board ships* which had generated relatively few responses, thus efforts should be focused on improving existing guidance;
- .9 the issue of floating armouries was beyond the remit of the Organization and could instead be addressed by industry or possibly through the ISO; and
- .10 the issue of floating armouries could be considered by the UN Monitoring Group on Somalia and Eritrea or by the Contact Group on Piracy off the Coast of Somalia (CGPCS).

15.21 Having considered the above views, the Committee invited the Secretary-General to convey an invitation to the CGPCS to consider the proposal contained in document MSC 98/15/2 (India) in detail, through its Working Group on legal matters, and to submit their advice to the next session of the Committee.

Proposal to amend the boundaries of the piracy High Risk Area, as defined in the Best Management Practices for protection against Somalia based Piracy

15.22 The Committee considered document MSC 98/15/3 (Oman), proposing to further amend the boundaries of the northern portion of the High Risk Area (HRA), as defined in BMP 4, as no ships had been hijacked in the western part of the Arabian Sea during the last three years.

15.23 The Committee recalled that MSC 95 had considered document MSC 95/15/5 (Oman) on the extent of the piracy HRA, as defined in BMP 4, and that the issues raised by Oman, at that time, were not supported by the Committee. The Committee further recalled that the geographical extent of the HRA was set out in the BMP and was defined by the authors of the BMP and its signatories.

15.24 A number of delegations supported the proposal made by Oman due to the absence of incidents in the Arabian Sea since 2014 and were of the view that it could contribute to reduce operating costs for shipowners.

15.25 A delegation made reference to an incident in the Gulf of Oman on 1 June 2017, which was confirmed by EU NAVFOR, where a ship had been attacked by suspected pirates, and requested taking this information into consideration when considering the proposal submitted in document MSC 98/15/3.

15.26 The Committee noted the information provided by the ICS observer that the HRA was defined in BMP 4, which provided guidance by the shipping industry for the shipping industry and its amendment was not an action that IMO could either undertake or require. The definition of the HRA was periodically reviewed taking into account the threat assessments produced by annual shared awareness and deconfliction meetings of naval forces deployed in the western Indian Ocean to counter piracy, as well as other relevant threat-related information, including changes in military mandates. The request in document MSC 98/15/3 had been noted by the co-authors of BMP 4 and would be taken into consideration in the next review of the extent of the HRA.

15.27 After some discussion, the Committee, noting the general support to the proposal presented by Oman, invited the co-authors of BMP 4 to consider the request made by Oman, as well as the comments made during the consideration of the proposal, when reviewing the HRA.

15.28 The ICS observer indicated that further consideration would be given to the proposal in consultation with Oman and that the outcome would be reported to the next session of the Committee.

Instruction for the Working Group

15.29 Having considered the above matters, the Committee instructed the Working Group on Maritime Security, already established under agenda item 5, taking into account the comments made and decisions taken in plenary, to consider document MSC 98/15/1 concerning the reporting of piracy and armed robbery incidents within the Gulf of Guinea and prepare a draft MSC circular to provide accurate and timely information on incidents of piracy and armed robbery to IMB PRC and MDAT-GoG, taking into account the primacy of coastal States.

Report of the Working Group

15.30 Having considered the part of the report of the Working Group on Maritime Security (MSC 98/WP.9) for this agenda item, the Committee took action as described hereunder.

15.31 The Committee urged the MDAT-GoG that it should work in collaboration with coastal States in the implementation of the Yaoundé Code of Conduct.

15.32 The Committee approved MSC.1/Circ.1585 on *Reporting of incidents of piracy and armed robbery against ships in the Gulf of Guinea*.

16 UNSAFE MIXED MIGRATION BY SEA

16.1 The Committee noted that no documents had been submitted on this agenda item to MSC 96 or to MSC 97.

16.2 The Committee recalled that MSC 97 had noted that since MSC 96 only two incidents with the information included in the appendix to MSC.1/Circ.896/Rev.2 had been reported, by one Member State via the facilitation module in GISIS, and no information of relevance to the SUA provisions of MSC.1/Circ.896/Rev.2 had been provided.

16.3 The Committee recalled that MSC 97 had noted that since MSC 96, the Secretariat had participated in the Conference on Maritime Security and Migrant Protection in the Bay of Bengal and Andaman Sea, held in Jakarta on 26 and 27 July 2016; and the United Nations General Assembly high-level United Nations Summit for Refugees and Migrants held at the United Nations Headquarters in New York, on 19 September 2016. MSC 97 had been further informed that the Secretary-General had used the International Seapower Symposium, a gathering of over 100 Chiefs of Navies and Coast Guards held at the United States Naval War College in October 2016, to recognize the significant contributions of ships from many of the world's navies and coastguards, to the rescue of mixed migrants by sea.

16.4 The Committee recalled that MSC 97 had noted that the United Nations Security Council had adopted on 6 October resolution 2312 (2016), that extended the provisions of resolution 2240 (2015) on Measures to fight against migrant smuggling and human trafficking and prevent loss of life in the high seas off Libyan Coast for a further period of 12 months.

16.5 The Committee recalled that MSC 97 had invited Member States and international organizations to submit documents to MSC 98, and had encouraged Member States to report the incidents with the information included in the appendix of MSC.1/Circ.896/Rev.2 via the facilitation module in GISIS².

16.6 The Committee noted that since MSC 97 one incident with the information included in the appendix to MSC.1/Circ.896/Rev.2 had been reported by one Member State via the facilitation module in GISIS.

16.7 The Committee considered document MSC 98/16 (ICS), providing information on the increasing death toll of migrants attempting to reach Europe via the central Mediterranean region and inviting the Committee to support further action by the Organization, in parallel with other United Nations specialized agencies, to promote appropriate and effective action at the United Nations.

² Details of the joint platform were promulgated in Circular Letter No.3569, issued on 15 July 2015.

16.8 In this regard, statements were made by the delegations and observers from Malta, Spain, the ICS, the IFSMA, the IOM, UNHCR, and UNODC, which are set out in annex 39.

16.9 In the ensuing discussions, Member States and international organizations affirmed their concern for the humanitarian situation and the loss of life and agreed that the way forward was to promote appropriate and effective action at the United Nations.

16.10 In this regard, the Committee noted that the United Nations-led Global Compact for Migration (GCM) was a three-phase approach that could culminate in a UN-wide approach to address the issue and that the consultation phase was taking place from April 2017 to November 2017. The Committee encouraged Member States and international organizations in consultative status to participate in that process.

16.11 The Committee further noted the opinions expressed that:

- .1 SAR was not an acceptable long-term response to mixed migration by sea;
- .2 international legislation, including UNCLOS, SOLAS and SAR, established the obligations of coastal States to provide SAR services and to rescue persons in distress irrespective of their origin;
- .3 the international community should be prepared to review the international regulatory regime, as necessary;
- .4 there were other routes of irregular migration other than the central Mediterranean Sea, also with a high number of migrants rescued at sea, where coastal States were making significant efforts to maintain adequate SAR services for rescuing migrants;
- .5 a United Nations-administered Humanitarian Assistance Zone in the central Mediterranean region might have a negative impact due to the "call effect" to traffickers; and
- .6 there was potential for a traumatic long-term impact to seafarers involved in large-scale rescue operations, as seafarers were not trained for these situations unlike coast guards, military and SAR personnel.

16.12 The Secretary-General reiterated his sincere appreciation to Member States that had been contributing to the rescue of migrants at sea using naval, military and intelligence services, and informed the Committee that he was in contact with the IOM to organize a meeting among the relevant United Nations agencies, to share views and to find possible measures to solve this complex problem, under the remit of the Organization. The outcome of this interagency meeting would be reported to the next session of the Committee.

16.13 In this regard, the Committee encouraged Member States to report the incidents with the information included in the appendix of MSC.1/Circ.896/Rev.2 via the facilitation module in GISIS.

16.14 The Committee agreed to extend the target completion year of this output to 2019.

17 IMPLEMENTATION OF INSTRUMENTS AND RELATED MATTERS

Certificates of Fitness under the IBC, BCH, IGC, GC and EGC Codes

17.1 The Committee recalled that MSC 97 had considered document MSC 97/16 (IACS), in relation to recently introduced amendments to the IBC, BCH, GC, IGC and EGC Codes, proposing to:

- .1 establish a long-term approach for resolving the issue of the lack of reference to the approved stability documentation in the Certificate of Fitness (CoF);
- .2 establish an interim approach on how CoFs should be completed for ships that did not yet have to comply with the amendment requiring the provision of an approved stability instrument; and
- .3 address the matter of the resolutions that should be stated on page 1 of the CoF.

17.2 The Committee also recalled that MSC 97, having been informed that MEPC 70 had considered the aforementioned matters and:

- .1 instructed the Secretariat to prepare:
 - .1 as an interim measure, a draft joint MSC-MEPC circular addressing the issues; and
 - .2 draft amendments to the IBC, BCH, GC, IGC and EGC Codes; and
- .2 invited MSC 98 to consider the issues, raised by IACS, and approve the draft MSC-MEPC circular and draft amendments to the IBC, BCH, GC, IGC and EGC Codes, for concurrent approval by MEPC 71,

had instructed the Secretariat to take action accordingly, taking into account the comment made by the Chair of the MEPC that the MEPC did not have the four-year cycle for the entry into force of amendments, and agreed to consider the matter at this session, as requested by MEPC 70.

17.3 The Committee considered document MSC 98/17 (Secretariat), attaching the draft MSC-MEPC.5 circular on Guidance on completing the Certificate of Fitness under the IBC, BCH, IGC, GC and EGC Codes (MSC 98/17, annex 1), and the draft amendments to the Certificates of Fitness (CoF) under the IBC, BCH, GC, IGC and EGC Codes (MSC 98/17, annexes 2 to 6, respectively), including a distinct paragraph in the CoF clarifying the requirement for an approved loading and stability manual/booklet to be supplied to the ship, with a view to allowing Administrations or recognized organizations to unambiguously certify that requirement.

17.4 With regard to the comment by the Chair of the MEPC during MSC 97 that the MEPC did not have the four-year cycle for the entry into force of amendments, the Committee noted the explanation by the Chair that, if the draft amendments to the IBC Code were approved at this session and adopted at MSC 99, the amendments would be expected to enter into force on 1 January 2020 (i.e. 18 months following adoption), and that, in this particular case, the four-year cycle for the entry into force of amendments to the 1974 SOLAS Convention and related mandatory instruments would not delay the entry into force of the amendments to the IBC Code, beyond the minimum 18 months required by SOLAS article VIII.

17.5 Having noted the proposal from the observer from IACS to modify paragraph 5.2 of the draft MSC-MEPC.5 circular for clarification of the application, the Committee agreed that the words "All up to and including resolution MSC.220(82) and paragraphs 2.2.6 and 2.2.7 of resolution MSC.370(93)" be replaced with the words "All applicable requirements contained in resolutions up to and including resolution MSC.220(82) and the requirements in paragraph 2.2.6 or 2.2.7 of the IGC Code, as amended by resolution MSC.370(93)".

17.6 Subsequently, the Committee:

- .1 approved the draft MSC-MEPC.5 circular on *Guidance on completing the Certificate of Fitness under the IBC, BCH, IGC, GC and EGC Codes*, as set out in annex 27, including the modification described in paragraph 17.5 above;
- .2 approved the draft amendments to the Certificates of Fitness under the IBC, BCH, IGC, GC and EGC Codes, as set out in annexes 28, 29, 30, 31 and 32, respectively; and
- .3 referred the above draft Guidance and the amendments to the IBC and BCH Codes to MEPC 71, for consideration with a view to concurrent approval.

17.7 In this context, the Committee requested the Secretary-General to circulate the draft amendments to the IBC and IGC Codes, as set out in annexes 28 and 30, in accordance with SOLAS article VIII, with a view to adoption at MSC 99, in conjunction with the adoption of the corresponding amendments to the Codes that were not mandatory under SOLAS (BCH, GC and EGC Codes). Consequently, the Secretariat was also requested to prepare the relevant resolutions for the adoption of the non-mandatory codes, for consideration at MSC 99.

Consistency of In-Water Survey (IWS) provisions for passenger and cargo ships

17.8 The Committee noted that III 2, having considered the views that the survey regimes for passenger ships and cargo ships were different regarding the In-Water Survey (IWS) and that more technical data regarding rudder bearing clearance was needed, invited the IACS to submit more data supporting its proposed removal of perceived inconsistency between provisions for passenger and cargo ships to the MSC for its consideration as to whether this issue should be referred to other sub-committees.

17.9 The Committee considered document MSC 98/17/1 (IACS), providing technical data regarding rudder bearing clearances on cargo and passenger ships, and proposing that III 4 be tasked to prepare draft amendments to the *Survey Guidelines under the Harmonized System of Survey and Certification (HSSC), 2015* (resolution A.1104(29)), for removal of perceived inconsistency between the In-Water Survey (IWS) provisions for passenger and cargo ships by dispensing the requirement to take measurements of the rudder bearing clearances on cargo ships. In this regard, the IACS observer raised discrepancies between paragraph 5.10.3 of the Survey Guidelines under the HSSC on inspection of the outside of passenger ship's bottom and paragraph 5.1.7 of the *Guidelines for the assessment of technical provisions for the performance of an in-water survey in lieu of bottom inspection in dry-dock to permit one dry-dock examination in any five-year period for passenger ships other than ro-ro passenger ships* (MSC.1/Circ.1348).

17.10 In the ensuing discussion, the following concerns were expressed on the IACS' proposal to waive the requirement of measuring the rudder bearing clearances on cargo ships:

- .1 survey regimes of cargo and passenger ships under SOLAS regulations were different in general; and
- .2 data analysis should not be limited to mean values but should also take into account extreme values.

17.11 After some discussion, the Committee, bearing in mind the comments made related to the safety issue of under-water inspection, agreed to instruct III 4 to further consider the issue raised by IACS (MSC 98/17/1), taking into account the aforementioned concerns, and prepare draft amendments to the Survey Guidelines under the HSSC, if appropriate, with a view to adoption by A 30. The Committee noted the IACS' intention to submit a document to III 4 regarding its concern on the discrepancies between resolution A.1104(29) and MSC.1/Circ.1348.

Application of the Polar Code marine mammal avoidance provisions

17.12 The Committee considered document MSC 98/17/2 (FOEI, WWF and Pacific Environment), calling attention to the marine mammal avoidance provisions in part I-A, chapter 11 (Voyage planning) of the Polar Code, and reviewing data and communication tools relevant to its implementation and requesting Member States and relevant organizations to report on the status of their collection of marine mammal information with a view to communicating the same to masters transiting polar waters.

17.13 After a brief discussion, the Committee invited Member States and relevant international organizations to report on the status of their collection of marine mammal information and their communication of this information to masters transiting polar waters.

17.14 The Committee noted the comment by the delegation of Panama on whether or not this agenda item should be deleted since other committees did not have such an agenda item, which would be raised under agenda item 20 (Work programme).

18 RELATIONS WITH OTHER ORGANIZATIONS

Relations with non-governmental organizations

18.1 The Committee noted the information in document MSC 98/18 (Secretariat), reporting on decisions of C 117 concerning relations with non-governmental organizations and related matters.

18.2 The Committee noted the statement by the delegation of Panama that this agenda item should be deleted since other committees did not have such an agenda item and would propose to do so under agenda item 20 (Work programme).

19 COMMITTEE'S ORGANIZATION AND METHOD OF WORK

Draft revised Rules of Procedure of the MSC

19.1 The Committee, noting document MSC 98/19 (Secretariat), recalled that MSC 97 was advised that C 116 had agreed to harmonize the terms of office in the Rules of Procedure of the committees (and by extension sub-committees) to limit the total term of office of the Chair and Vice-Chair to five years in office and to establish the use of the new gender-neutral term "Chair", and requested the relevant committees to amend their Rules of Procedure accordingly.

19.2 The Committee also recalled that MSC 97 had considered documents submitted by the Chairs of the MSC and the MEPC (MSC 97/18/1 and MSC 97/INF.5), proposing to revise and harmonize the Rules of Procedure of the two Committees so that the same rules would apply to both Committees.

19.3 The Committee further recalled that MSC 97, noting that MEPC 70 agreed to the Rules of Procedure of the MEPC as proposed by the Chairs, had not agreed to the Rules of Procedure of the MSC, and invited Member States to submit proposals to this session with a view to finalization.

19.4 The Committee considered document MSC 98/19/1 (Cook Islands, United Kingdom and United States), proposing amendments to the draft revised Rules of Procedure of the MSC (annex to MSC 97/18/1), i.e. to delete rule 3 related to provisions for holding extraordinary sessions of the Committee (currently 15 Members were required), and to amend rule 34.1, raising the number of Member States required to constitute a quorum from 20 Members to one third of Members.

19.5 The Committee also considered documents MSC 98/2/1 (paragraphs 2.10 to 2.12) and MSC 98/19/2 (Secretariat), containing the outcomes of FAL 41 and LEG 104, respectively, on their draft revised Rules of Procedure and, in particular, noted that LEG 104 had decided to:

- .1 increase the number of Members required to request the holding of an extraordinary session, in rule 3, to 20, subject to approval by the Council for the holding of an extraordinary session after consideration of the budgetary implications; and
- .2 increase the number of Members required for a quorum to 25% of the Membership of the Organization.

19.6 In the ensuing discussions, the Committee agreed to modify the draft Rules of Procedure of the Maritime Safety Committee (MSC 97/18/1, annex), using the same text as agreed at LEG 104 (LEG 104/15, annex 8), to harmonize the committees' rules of procedure, in particular on rules 34.1 (quorum) and 3 (extraordinary session).

19.7 The Committee also agreed that the holding of an extraordinary session with budgetary implications should be subject to the approval of the Council.

19.8 Subsequently, the Committee adopted the revised Rules of Procedure of the Maritime Safety Committee, as set out in annex 33, and authorized the Secretariat to effect any consequential editorial changes that might be deemed necessary.

20 WORK PROGRAMME

MARITIME SAFETY COMMITTEE

Maritime Autonomous Surface Ships – Proposal for a regulatory scoping exercise

20.1 The Committee considered document MSC 98/20/2 (Denmark, Estonia, Finland, Japan, Netherlands, Norway, Republic of Korea, United Kingdom and United States), proposing to undertake a regulatory scoping exercise to determine how the safe, secure and environmentally sound operation of Maritime Autonomous Surface Ships (MASS) might be introduced in IMO instruments, and document MSC 98/20/13 (ITF) commenting on document MSC 98/20/2.

20.2 The Committee, following an in-depth discussion on the proposed new output and the commenting document, expressed its general support for the output on the regulatory scoping exercise and:

- .1 recognized the progress being made in the development of MASS and agreed that the Organization should be proactive and take a leading role on this issue;
- .2 recognized that this regulatory scoping exercise would be a complex issue that affected the whole Organization and impacted on many areas including safety, security, interactions with ports, pilotage, responses to incidents and marine environment;
- .3 noted the opinion of the majority of the delegations on the need to take into consideration the human element;
- .4 recognized that the scoping exercise was a starting point, and agreed that there was a need for a work plan where a proper consideration of the comments referred to in paragraph 11 of document MSC 98/20/13 (ITF) should be taken into account;
- .5 agreed that proper consideration should be taken into account on the legal aspects including where the responsibility would lie in case of an accident involving an MASS, its consequences to the cargo, and also the implications to the shoreside;
- .6 agreed on the need to define MASS when embarking on the process of the regulatory scoping exercise. However, while some delegations supported the need for a definition to have a better understanding on the scope of the work, others were in favour of defining it at a later stage in order not to limit the regulatory scoping exercise;
- .7 agreed on the need to address different levels of automation, including semi-autonomous and unmanned ships in the regulatory scoping exercise;
- .8 noted that CMI and other organizations had already commenced a gap analysis relating to the regulatory work for the introduction of MASS;
- .9 discussed whether to include subsurface vessels in the consideration of MASS but noted that subsurface craft were outside of the mandate of the Organization;
- .10 noted the proposal by one delegation that IMO should convene an international symposium, inviting relevant organizations, on this issue;
- .11 agreed to include in the 2018-2019 biennial agenda of the Maritime Safety Committee and the provisional agenda for MSC 99, an output on "Regulatory scoping exercise for the use of Maritime Autonomous Surface Ships (MASS)", with a target completion date of 2020; and
- .12 encouraged Member States and international organizations to submit substantive proposals and comments on this agenda item to MSC 99.

20.3 The statement made by the Philippines expressing concerns for wider humanitarian and employment considerations is set out in annex 39.

SUB-COMMITTEE ON CARRIAGE OF CARGOES AND CONTAINERS (CCC)

Proposal for a new output to amend the CSS Code to include conditions for weather dependent cargo securing

20.4 The Committee considered document MSC 98/20/10 (Sweden), proposing to amend chapter 7 of annex 13 to the CSS Code, to harmonize the legal framework on weather dependent lashing (WDL) with other IMO instruments and to enhance maritime safety by implementing recommendations based on the Lashing@Sea project.

20.5 During the ensuing discussions, some delegations expressed the view that the work for amending the Code should not be limited to voyage-specific cargo securing. The Committee noted the view that caution should be exercised in the context of cargo securing reduction factors in order to ensure that weather extremes that might occur on a specific route were taken into account in weather-dependent lashing calculations, rather than just the average historical weather conditions.

20.6 One delegation drew the attention of the Committee to the work currently being done by ISO to revise ISO standard 3874 (Series 1 freight containers – Handling and securing) and recommended that the revised standard be taken into account during work undertaken under the proposed output.

20.7 In light of the foregoing, the Committee agreed to include in the 2018-2019 biennial agenda of the CCC Sub-Committee and the provisional agenda for CCC 5, an output on "Amendments to the CSS Code with regard to weather-dependent lashing", with a target completion date of 2019.

20.8 The Committee also agreed to forward document CCC 3/10/4 (IACS) to CCC 5 for further consideration in the context of the new agreed output.

Proposal for a new output to amend the IMDG Code on portable tanks with shells made of Fibre Reinforced Plastics (FRP)

20.9 The Committee considered document MSC 98/20/11 (Russian Federation), proposing to consider amendments to the IMDG Code on portable tanks with shells made of Fibre Reinforced Plastics (FRP) for multimodal transportation of dangerous goods.

20.10 The Committee expressed its general support for the proposed new output but agreed that, as the proposal had multimodal transport implications, this work should not be initiated at IMO level until the Sub-Committee of Experts on the Transport of Dangerous Goods responsible for the UN Recommendations on the Transport of Dangerous Goods (UNTDG) had considered the matter, and the outcome of their deliberations had been transmitted to the Organization. Therefore, the Committee invited the Russian Federation to present the proposal to that forum.

20.11 Nevertheless, the Committee agreed to include in the post-biennial agenda of the Maritime Safety Committee, an output on "Amendments to the IMDG Code related to portable tanks with shells made of Fibre Reinforced Plastics (FRP) for multimodal transportation of dangerous goods", with two sessions needed to complete the item, assigning the CCC Sub-Committee as the coordinating organ and the work to commence only after the recommendation from UNTDG was received.

Biennial status report of the Sub-Committee and provisional agenda for CCC 4

20.12 The Committee confirmed the Sub-Committee's biennial status report and the provisional agenda for CCC 4, as set out in annexes 34 and 35, respectively. The Secretariat was requested to inform MEPC 71 accordingly.

SUB-COMMITTEE ON HUMAN ELEMENT, TRAINING AND WATCHKEEPING (HTW)**Proposal for a new output on the revision of SOLAS chapters III and IV for Modernization of the GMDSS, including related and consequential amendments to other existing instruments**

20.13 The Committee recalled that it had agreed to include in the 2018-2019 biennial agenda of the NCSR Sub-Committee and the provisional agenda for NCSR 5, an output on "Revision of SOLAS chapters III and IV for Modernization of the GMDSS, including related and consequential amendments to other existing instruments", with a target completion date of 2021, in association with the HTW and SSE Sub-Committees as and when requested by the NCSR Sub-Committee (see paragraph 20.27).

Biennial status report of the Sub-Committee and provisional agenda for HTW 5

20.14 The Committee approved the Sub-Committee's biennial status report and the provisional agenda for HTW 5, as set out in annexes 34 and 35, respectively.

SUB-COMMITTEE ON IMPLEMENTATION OF IMO INSTRUMENTS (III)**Proposal for a new output to update the Code for Recognized Organizations (RO Code)**

20.15 The Committee considered document MSC 97/20/5 (Democratic People's Republic of Korea), proposing to update the RO Code in accordance with ISO 9001:2015, taking into account the differences between ISO 9001:2008 and ISO 9001:2015.

20.16 The Committee recognized that the RO Code was a stand-alone document which, although it made references to ISO 9001:2008, was independent of ISO 9001:2008 and other international standards of quality. The new version of the ISO 9001 standard did not affect the RO Code per se and therefore, there was no need to amend the RO Code. In light of the foregoing, the Committee agreed not to include the proposed output in the post-biennial agenda of the Committee.

20.17 In this context, the Committee agreed to the interpretation that, although the RO Code made references to several ISO standards (section 6, part 1, and paragraphs 7.1 and 7.2, part 2), the understanding was that the references should be read as being made to the current version of ISO standards in force.

Proposal for a new output to set safety and marine environmental standards for vessels on a single voyage for demolition

20.18 The Committee considered document MSC 98/20/6 (Palau et al.), proposing to develop maritime safety and marine environment protection standards for vessels on a single voyage for demolition.

20.19 While introducing their proposal, the co-sponsors stated that the intention of their proposal was to develop non-mandatory guidelines and to include security aspects, and did not seek amendments to the SOLAS Convention.

20.20 During the discussions, a number of delegations, while expressing sympathy for the proposal, noted that there were problems caused by vessels on a single voyage for demolition for coastal States, and supported the need for non-mandatory guidelines.

20.21 While some delegations called upon Member States to ratify the Hong Kong Convention, others expressed the view that the MEPC should be informed and its advice sought on matters related to environmental issues.

20.22 Furthermore, some delegations expressed concerns on the scope of exemptions proposed to be given for vessels on a single voyage for demolition, as not all conventions provided for exemptions. Normally exemptions were granted only in exceptional cases by a flag State under SOLAS regulation I/4(a) for ships not engaged in international voyages.

20.23 In light of the foregoing, the Committee agreed not to include, at this stage, the proposed output in the post-biennial agenda of the Committee, and invited the co-sponsors to submit a revised proposal to the next session of the Committee, with further information on the scope of the proposed guidance, and taking into account the comments expressed in plenary.

Proposal for a new output to develop safety standards for cold ironing of vessels and guidance on safe operation of On-shore Power Supply (OPS) service in port

20.24 The Committee recalled that it had agreed to include in the 2018-2019 biennial agenda of the SSE Sub-Committee and the provisional agenda for SSE 5, an output on "Development of guidelines for cold ironing of ships and of amendments to SOLAS chapters II -1 and II-2, if necessary", with a target completion date of 2020, in association with the SDC and III Sub-Committees as and when requested by the SSE Sub-Committee (see paragraph 20.36).

Biennial status report of the Sub-Committee and provisional agenda for III 4

20.25 The Committee confirmed the Sub-Committee's biennial status report and the provisional agenda for III 4, as set out in annexes 34 and 35, respectively. The Secretariat was requested to inform MEPC 71 accordingly.

SUB-COMMITTEE ON NAVIGATION, COMMUNICATIONS AND SEARCH AND RESCUE (NCSR)

A proposal for a new output on the application of EGNOS in the maritime field

20.26 The Committee considered document MSC 98/20/3 (Austria et al.), proposing to recognize the European Geostationary Navigation Overlay Service (EGNOS) as a future component of the World-Wide Radionavigation System (WWRNS). However, the Committee did not agree to include the proposed output in the post-biennial agenda of the Committee, because the provisions of resolution A.1046(27) on *Worldwide Radionavigation System* applied to new radionavigation systems capable of providing adequate position information, but not for augmentation systems.

Proposal for a new output on the revision of SOLAS chapters III and IV for Modernization of the GMDSS, including related and consequential amendments to other existing instruments

20.27 The Committee considered the proposal for a new output prepared by NCSR 4 (NCSR 4/29, annex 12), to revise SOLAS chapters III and IV for Modernization of the GMDSS, including related and consequential amendments to other existing instruments, and agreed to include in the 2018-2019 biennial agenda of the NCSR Sub-Committee and the provisional

agenda for NCSR 5, an output on "Revision of SOLAS chapters III and IV for Modernization of the GMDSS, including related and consequential amendments to other existing instruments", with a target completion date of 2021, in association with the HTW and SSE Sub-Committees as and when requested by the NCSR Sub-Committee.

20.28 The Committee further agreed, in accordance with MSC.1/Circ.1481 and MSC.1/Circ.1500, that:

- .1 the amendments to be developed should apply to all ships to which SOLAS chapter IV applies;
- .2 the instrument to be amended was SOLAS, chapters III and IV; and
- .3 the amendments to be developed should enter into force on 1 January 2024, provided that they were adopted before 1 July 2022.

Biennial status report of the Sub-Committee and provisional agenda for NCSR 5

20.29 The Committee, having recalled the decision to keep the output 5.2.6.1, "Additional modules to the Revised Performance Standards for Integrated Navigation Systems (INS) (resolution MSC.252(83)) relating to the harmonization of bridge design and display of information" in the post-biennial agenda of Committee, in order to be further considered at the appropriate time (see paragraph 11.9), approved the Sub-Committee's biennial status report and the provisional agenda for NCSR 5, as set out in annexes 34 and 35, respectively.

SUB-COMMITTEE ON SHIP DESIGN AND CONSTRUCTION (SDC)

Proposal for a new output to develop safety standards for cold ironing of vessels and guidance on safe operation of On-shore Power Supply (OPS) service in port

20.30 The Committee recalled that it had agreed to include a new output on "Development of guidelines for cold ironing of ships and of amendments to SOLAS chapters II-1 and II-2, if necessary" in the agenda for the 2018-2019 biennium and the provisional agenda for SSE 5, with a target completion date of 2020, in association with the SDC and III Sub-Committees, as and when requested by the SSE Sub-Committee (see paragraph 20.36).

Biennial status report of the Sub-Committee and the provisional agenda for SDC 5

20.31 The Committee, having recalled its decisions to:

- .1 change the title of the existing output on the "Application of the Mandatory Code to non-SOLAS ships operating in polar waters" (currently maintained the Committee's post-biennial agenda) to "Safety measures for non-SOLAS ships operating in polar waters" (see paragraph 10.29.1);
- .2 move this output from the post-biennial agenda of the Committee to its agenda for the 2018-2019 biennium and the provisional agenda of MSC 99 (see paragraph 10.29.2); and

- .3 endorse the Sub-Committee's view that no further amendments to SOLAS regulation II-2/13 or chapter 13 of the FSS Code should be developed under output 5.1.1.3 (Amendments to SOLAS and FSS Code to make evacuation analysis mandatory for new passenger ships and review of the Recommendation on evacuation analysis for new and existing passenger ships) and, therefore, complete this output without any further action (see paragraph 10.12),

approved the Sub-Committee's biennial status report and the provisional agenda for SDC 5, as set out in annexes 34 and 35, respectively.

SUB-COMMITTEE ON SHIP SYSTEMS AND EQUIPMENT (SSE)

Provisions for fixed fire detection and alarm systems (chapter 9 of the FSS Code)

20.32 The Committee considered document MSC 98/20/4 (Antigua and Barbuda, Jamaica, IACS and CLIA), proposing to develop fault isolation requirements for individually identifiable fire detector systems installed in lieu of section identifiable fire detector systems on cargo ships and passenger ship cabin balconies.

20.33 In the context of the above, the Committee noted that some delegations had expressed concerns that the proposal would downscale the existing level of safety of fire detector systems, however, other delegations had expressed the view that the technological advances on new section identifiable systems allowed a similar level of safety, and were more cost-effective.

20.34 After some discussion, the Committee agreed to include in the 2018-2019 biennial agenda of the SSE Sub-Committee and the provisional agenda for SSE 6, an output on "Amendments to chapter 9 of the FSS Code for fault isolation requirements for cargo ships and passenger ship cabin balconies fitted with individually identifiable fire detector systems", with a target completion date of 2020.

20.35 The Committee further agreed, in accordance with MSC.1/Circ.1481 and MSC.1/Circ.1500, that:

- .1 the amendments to be developed should apply to new and existing (when systems are retrofitted) cargo ships and passenger ship cabin balconies to which SOLAS chapter II-2 apply;
- .2 the instrument to be amended was chapter 9 of the FSS Code; and
- .3 the amendments to be developed should enter into force on 1 January 2024, provided that they were adopted before 1 July 2022.

Proposal for a new output to develop safety standards for cold ironing of vessels and guidance on safe operation of On-shore Power Supply (OPS) service in port

20.36 The Committee considered document MSC 98/20/7 (China), proposing to develop mandatory and non-mandatory safety provisions for cold ironing of vessels and guidance on safe operation of On-shore Power Supply (OPS) service in port, including amendments to SOLAS chapters II-1 and II-2, and agreed to include in the 2018-2019 biennial agenda of the SSE Sub-Committee and the provisional agenda for SSE 5, an output on "Development of guidelines for cold ironing of ships and of amendments to SOLAS chapters II-1 and II-2, if necessary", with a target completion date of 2020, in association with the SDC and III Sub-Committees, as and when requested by the SSE Sub-Committee.

Proposal for a new output to amend MSC.1/Circ.1315

20.37 The Committee considered document MSC 98/20/8 (Republic of Korea), proposing to amend the *Guidelines for the approval of fixed dry chemical powder fire-extinguishing systems for the protection of ships carrying liquefied gases in bulk* (MSC.1/Circ.1315) to ensure the capabilities of fixed dry chemical powder fire-extinguishing systems, and agreed to include in the 2018-2019 biennial agenda of the SSE Sub-Committee and the provisional agenda for SSE 5, an output on "Amendments to MSC.1/Circ.1315", with a target completion date of 2019.

20.38 Notwithstanding the above, the Committee noted that some delegations had expressed the concern that sodium-based powders should not be included in the proposal as this might reduce the safety level of fire-extinguishing performance due to clogging. Concerns were also expressed relating to deletion of systems based on potassium powders from the guidelines.

Revision of SOLAS chapter III and the LSA Code

20.39 The Committee considered document MSC 98/20/9 (Germany), proposing to revise SOLAS chapter III and the LSA Code to remove gaps, inconsistencies and ambiguities based on the functional requirements and expected performance for SOLAS chapter III, taking into account the draft Interim guidelines for development and application of IMO goal-based standards safety level approach, and documents MSC 98/20/12 (RINA) and MSC 98/20/14 (Norway), commenting on document MSC 98/20/9.

20.40 The Committee expressed its general support for a work programme item on the revision of SOLAS chapter III and the LSA Code. However, the Committee agreed that the work on this output should not begin until the work on functional requirements and expected performance standards for SOLAS chapter III had been completed, and the Interim guidelines for development and application of IMO goal-based standards safety level approach had been finalized.

20.41 Consequently, the Committee agreed to include in the post-biennial agenda of the Maritime Safety Committee an output on "Revision of SOLAS chapter III and the LSA Code to remove gaps, inconsistencies and ambiguities based on the safety objectives, functional requirements and expected performance for SOLAS chapter III, taking into account the *Guidelines for development and application of IMO goal-based standards safety level approach* including possible relocation of measures related to the various sequences of evacuation and rescue currently addressed in various chapters of SOLAS to avoid possible overlaps and inconsistencies", with five sessions needed to complete the item, assigning the SSE Sub-Committee as the coordinating organ.

20.42 The Committee further agreed, in accordance with MSC.1/Circ.1481 and MSC.1/Circ.1500, that:

- .1 the amendments to be developed should apply to all ships to which SOLAS chapter III and the LSA Code applied;
- .2 the instruments to be amended were SOLAS chapter III and LSA Code; and
- .3 the amendments to be developed should enter into force on 1 January 2024, provided that they were adopted before 1 July 2022.

Proposal for a new output on the revision of SOLAS chapters III and IV for Modernization of the GMDSS, including related and consequential amendments to other existing instruments

20.43 The Committee recalled that it had agreed to include in the 2018-2019 biennial agenda of the NCSR Sub-Committee and the provisional agenda for NCSR 5, an output on "Revision of SOLAS chapters III and IV for Modernization of the GMDSS, including related and consequential amendments to other existing instruments", with a target completion date of 2021, in association with the HTW and SSE Sub-Committees as and when requested by the NCSR Sub-Committee (see paragraph 20.27).

Biennial status report of the Sub-Committee and provisional agenda for SSE 5

20.44 The Committee, taking into account the request of SSE 4 to include "anchor handling" in the description of the output number 5.2.1.22 (document MSC 98/12, paragraph 3.1), i.e. "Requirements for onboard lifting appliances and winches", to "Requirements for onboard lifting appliances and anchor handling winches", and the decision to keep the output number 5.2.1.28, "Uniform implementation of paragraph 6.1.1.3 of the LSA Code", in the provisional agenda of SSE 5 (see paragraph 12.23), approved the Sub-Committee's biennial status report and the provisional agenda for SSE 5, as set out in annexes 34 and 35, respectively.

BIENNIAL STATUS OF REPORT OF THE MARITIME SAFETY COMMITTEE

20.45 Having recalled that the status of outputs would only be produced after the session as an annex to the Committee's report, to avoid any unnecessary duplication of work, the Committee invited the Council to note the Report on the status of outputs for the 2016-2017 biennium, as set out in annex 36.

POST-BIENNIAL AGENDA OF THE COMMITTEE

20.46 The Committee, having noted that the updated post-biennial agenda would only be produced after the session as an annex to the Committee's report, to avoid any unnecessary duplication of work, invited the Council to note the updated post-biennial agenda of the Maritime Safety Committee, as set out in annex 37.

ALIGNMENT OF THE OUTPUTS OF THE MARITIME SAFETY COMMITTEE WITH THE NEW STRATEGIC PLAN FOR THE PERIOD 2018-2023, INCLUDING THE PROPOSED OUTPUTS OF THE MSC FOR THE 2018-2019 BIENNIUM

20.47 The Committee, having recalled the decision to amend the title of the output on the "Application of the Mandatory Code to non-SOLAS ships operating in polar waters" to "Safety measures for non-SOLAS ships operating in polar waters", and to move this existing output from the post-biennial agenda of the Committee to its agenda for the 2018-2019 biennium and the provisional agenda of MSC 99 with a view to taking a policy decision regarding the scope of application of the second phase of the Polar Code, its mandatory or recommendatory status and the types of vessels to be addressed (see paragraph 10.29), and the decision to keep the output 5.2.6.1, "Additional modules to the Revised Performance Standards for Integrated Navigation Systems (INS) (resolution MSC.252(83)) relating to the harmonization of bridge design and display of information" in the post-biennial agenda of the Committee, in order to be further considered at the appropriate time (see paragraph 11.9), considered document MSC 98/20/1 (Secretariat) and recalled the decision of the Assembly, at its twenty-ninth session, to develop a new strategic framework for the Organization for 2018-2023 with a target completion year of 2017.

20.48 The Committee noted that C 117 had agreed to a new Vision Statement, which set out overarching principles to be taken into account in all of the Organization's work and seven Strategic Directions (SDs) as follows:

- .1 improve implementation;
- .2 integrate new and advancing technologies in the regulatory framework;
- .3 respond to climate change;
- .4 engage in ocean governance;
- .5 enhance global facilitation and security of international trade;
- .6 ensure regulatory effectiveness; and
- .7 ensure organizational effectiveness.

20.49 The Committee noted the following information provided by the Secretariat on the new Strategic Plan (SP), which was expected to be adopted by the Assembly, at its thirtieth session:

- .1 the overall aim of the redevelopment of the SP was to simplify procedures and ensure it continued to serve the Organization by, for example, assisting in measuring performance;
- .2 the new structure of the SP did not change the ongoing work in the committees and sub-committees;
- .3 the SP should be focused over a six-year period, and it would be completely redeveloped every six years taking into account changing priorities. However, in order to ensure the Organization remained flexible and able to respond to emerging issues, the SP could be revised on a biennial basis, if necessary;
- .4 the new SDs would not cover all areas of work of the Organization, but only those that were considered to be strategic for the period in question;
- .5 not all outputs currently on the High-level Action Plan would be aligned to a Strategic Direction (SD); those outputs that were aligned to one or more SDs would directly contribute to the realization of the particular SD;
- .6 a number of performance indicators would be developed to monitor and measure progress in achieving the SDs;
- .7 outputs that were not aligned to SDs would still appear on the list of outputs along with those that were aligned to SDs, in order for all organs to review and consider their workload throughout the biennium;
- .8 the outputs of the Committee for the 2018-2019 biennium aligned to the new SDs agreed by C 117 were set out in the annex to document MSC 98/20/1;
- .9 outputs should be re-categorized according to their status as strategic and non-strategic;

- .10 a challenge in ensuring a consistent alignment was that some outputs were not phrased to actually describe the ongoing work. It would therefore be beneficial to review outputs to ensure that the descriptions represented the actual work to be undertaken in the 2018-2019 biennium; and
- .11 to ensure a smooth implementation of the new strategic planning process, the Council had requested the Secretariat to prepare a revised version of the document on *Application of the Strategic Plan and the High-level Action Plan of the Organization* (resolution A.1099(29)) which would be presented to C 118, along with the outputs for all organs for the 2018-2019 biennium aligned to the new SDs, and the proposed performance indicators that would be used to measure progress in achieving the SDs. A working group would be convened during C 118 to consider these matters with the aim of the Council to forward the new SP to the Assembly for adoption.

20.50 Following discussion, the Committee noted that:

- .1 some outputs included in the annex of document MSC 98/20/1 should be put under different SDs, e.g. 6.2.1.1, from SD.6 to SD.5; 1.1.1.1, 1.1.2.1, 5.2.1.20 and 5.2.4.2, being routine work of the Secretariat, should be placed under "Other work". Due to time constraints, some delegations offered to work with the Secretariat to prepare the revised text with the outputs for the 2018-2019 biennium aligned to the new SDs for the consideration of C 118; and
- .2 some outputs were under the overarching principle of the new SP of "outreach and collaboration", and therefore were relevant to all SDs.

20.51 Subject to the comments made in the paragraph above, the Committee approved the outputs for the 2018-2019 biennium aligned to the new SDs agreed by C 117, as set out in annex 38, for submission to C 118.

20.52 The Committee instructed the Secretariat to align the outputs approved by MSC 98 to the new SDs agreed by C 117, with a view to their submission to C 118.

INTERSESSIONAL MEETINGS

20.53 The Committee, taking into account the decisions made under various agenda items at MSC 97 and at this session, approved/confirmed, as appropriate, the following intersessional meetings:

- .1 the twenty-eighth meeting of the Editorial and Technical (E&T) Group (IMDG Code) to take place from 18 to 22 September 2017;
- .2 the twenty-ninth meeting of the Editorial and Technical (E&T) Group (IMBSC Code) to take place in the first half of 2018;
- .3 the twenty-third session of the PPR Working Group on the Evaluation of Safety and Pollution Hazards of Chemicals (ESPH 23) to take place from 16 to 20 October 2017;
- .4 the twenty-fourth meeting of the ICAO/IMO Joint Working Group on Search and Rescue, to be held in Wellington, New Zealand, from 2 to 6 October 2017;

-
- .5 a meeting of the ICAO/IMO Joint Working Group on Search and Rescue to take place in 2018;
 - .6 the thirteenth meeting of the Joint IMO/ITU Experts Group on Maritime Radiocommunication Matters to take place from 10 to 14 July 2017;
 - .7 a meeting of the Joint IMO/ITU Experts Group on Maritime Radiocommunication Matters to take place in 2018; and
 - .8 the first meeting of the IMO/IHO Harmonization Group on Data Modelling (HGDM) to take place from 16 to 20 October 2017,

and invited the Council to endorse the above decisions.

SUBSTANTIVE ITEMS FOR INCLUSION IN THE COMMITTEE'S AGENDAS FOR THE NEXT TWO SESSIONS AND PROPOSED ARRANGEMENTS FOR MSC 99

Substantive items for inclusion in the agendas for MSC 99 and MSC 100

20.54 The Committee, when considering document MSC 98/WP.10, and to streamline the agenda of the Committee, agreed to delete the items on "Implementation of instruments and related matters" and "Relations with other Organizations" from the agenda, and decided that any future discussions related to these items should be considered under the agenda items on "Any other business" and "Decisions of other IMO bodies", respectively.

20.55 The Committee agreed to the substantive items to be included in the agendas of its ninety-ninth and its 100th sessions, as set out in document MSC 98/WP.10, as amended.

Establishment of working and drafting groups during MSC 99

20.56 The Committee, taking into account the decisions made under various agenda items, anticipated that working and drafting groups on the following subjects could be established at the Committee's ninety-ninth session:

- .1 goal-based standards;
- .2 maritime autonomous surface ships;
- .3 safety measures for non-SOLAS ships operating in polar waters;
- .4 maritime security; and
- .5 consideration and adoption of amendments to mandatory instruments.

20.57 The Committee agreed that the Capacity-building Needs Analysis Group (ACAG) might also need to be established.

Duration and dates of the next two sessions

20.58 The Committee noted that its ninety-ninth session had been tentatively scheduled to take place from 16 to 25 May 2018; and its 100th session was tentatively scheduled to take place from 3 to 7 December 2018.

21 ELECTION OF CHAIR AND VICE-CHAIR FOR 2018

21.1 The Committee unanimously re-elected Mr. Brad Groves (Australia) as Chair, and Mr. Juan Carlos Cubisino (Argentina) as Vice-Chair, both for 2018.

22 ANY OTHER BUSINESS

Thematic priorities for the Integrated Technical Cooperation Programme (ITCP) for 2018-2019

22.1 The Committee recalled that, at its ninety-fourth session, it had agreed on the safety and security-related thematic priorities for the ITCP covering the 2016-2017 biennium (MSC 94/21, paragraphs 20.1 to 20.7).

22.2 In considering document MSC 98/22 (Secretariat) on the thematic priorities for the ITCP for 2018-2019, the Committee noted that the Technical Cooperation Committee, at its sixty-seventh session in July 2017, was expected to approve the ITCP for 2018-2019, which would be developed based on the assessed needs of the beneficiaries, the approved work programme of the Organization, the interests of developing partners and the thematic priorities agreed by the Committees, and the corresponding needs of developing countries.

22.3 The Committee further noted that, to facilitate its work in this regard and taking into account the review and reform initiative regarding the identification of a limited number of priority TC themes per year, the Secretariat had updated the thematic priorities agreed at MSC 94 for the ITCP covering the 2016-2017 biennium, to reflect the requests and decisions of MSC 94, MSC 95, MSC 96 and MSC 97 and was recommending the following four themes:

- .1 Seafarers training and human element (priority 1);
- .2 Maritime security and anti-piracy measures (priority 2);
- .3 IMDG and IMSBC Codes (priority 5); and
- .4 Safety of fishing vessels (priorities 6 and 7),

which, depending on the information captured in the Country Maritime Profile (CMP), would be included, as far as possible, in the ITCP for 2018-2019.

22.4 After a brief discussion, the Committee agreed on the thematic priorities for the 2018-2019 biennium as reflected in the annex to document MSC 98/22, and the four priority themes listed above.

22.5 The Committee also urged Member States that had not yet provided their CMPs to do so as soon as possible in GISIS and those who had already done so, to update them, as and when it would become necessary, so as to provide current and correct information.

IMO/IACS cooperation on the IACS Quality System Certification Scheme (QSCS)

22.6 The Committee recalled that MSC 95, having noted the information provided by the IMO consultant/observer on the IACS Quality System Certification Scheme (QSCS) and its transition to accredited certification bodies (ACBs) as indicated in the IMO observer's report annexed to document MSC 95/21/9, requested the Secretariat to continue the arrangement for IMO participation in the IACS QSCS Scheme for the next two years, with financial contributions provided by the IACS, and to provide reports during the current biennium.

22.7 The Committee noted that, in accordance with the participation agreement between IMO and the IACS, the IMO consultant/observer had continued participating in the implementation of the Scheme since the last report to the Committee (MSC 96/24/4).

22.8 In considering document MSC 98/22/1 (Secretariat), which was the latest report submitted by the IMO observer on developments and activities related to the Scheme, the Committee noted the following:

- .1 the developments in the Scheme during the sixth and seventh year where Accredited Certification Bodies (ACBs) had conducted audits and assessment of compliance with the Scheme;
- .2 the actions taken by IACS for promoting the IACS policy and objective of continued improvements to the Scheme; and
- .3 in particular, the amendments required for meeting the updated International Organization for Standardization (ISO) standard ISO 9001:2015 by the compliance date of 15 September 2018.

22.9 Having noted that the current arrangement between the IACS and IMO regarding the IMO observer's participation in the Scheme was due to end in June 2017 and the confirmed willingness of the IACS to maintain the current arrangements, the Committee requested the Secretariat to continue IMO's participation in the IACS QSCS Scheme for the next two years, with financial contributions provided by the IACS, and to provide a report to MSC 99.

Minimizing pest movement by sea containers

22.10 The Committee recalled that MSC 93 and MSC 94 had approved the *IMO/ILO/UNECE Code of Practice for Packing of Cargo Transport Units (CTU Code)* (MSC.1/Circ.1497) and the Informative material related to the CTU Code (MSC.1/Circ.1498), respectively, which contained sections related to pests, minimizing the risk of recontamination and species of concern regarding recontamination.

22.11 The Committee also recalled that MSC 96 had noted, with appreciation, the information provided in document MSC 96/24/2 (FAO), reporting on the ongoing activities to minimize pest movement by sea containers which had been undertaken under the framework of the International Plant Protection Convention (IPPC), particularly the work of the IPPC on developing an International Standard for Phytosanitary Measures (ISPM) on sea container cleanliness.

22.12 In this context, the Committee considered document MSC 98/22/2 (ICS, BIMCO, ICHCA, IICL and WSC) and noted with appreciation the Joint industry guidelines for cleaning of containers (MSC 98/22/2, annex) and the update on the work of the IPPC Commission on Phytosanitary Measures with regard to minimizing pest movement by sea containers.

22.13 Furthermore, the Committee encouraged Member States that were Parties to the IPPC to provide input to the IPPC Commission on Phytosanitary Measures with regard to items that might affect the transport of containers by sea.

Creation of a collaborative web-based workspace

22.14 In considering document MSC 98/22/3 (Secretariat), the Committee noted that a proposal to create a collaborative web-based workspace as a common area for working groups, correspondence groups and similar collaboration groups, had been made to FAL 40. FAL 40 had requested the Secretariat to investigate the implications of this proposal, including the budget implications, and to inform FAL 41 and other IMO bodies accordingly.

22.15 The Committee noted that FAL 41 had recognized the potential benefits of implementing a collaborative web-based workspace in the Organization. However, some delegations had expressed concerns on aspects such as whether the system would be applicable for working groups, the impact of the system on the current work practices of correspondence groups and working groups, and on the need to receive further information on budgetary implications. Based on these concerns, FAL 41 had agreed that:

- .1 the discussion should not be considered further by committees but by the Council;
- .2 invited Member States to submit proposals for the creation of a collaborative web-based workspace to C 118; and
- .3 instructed the Secretariat to present further information to the Council, with details on the collaborative web-based workspace, and in particular on accessibility to the system and the budgetary implications for developing and maintenance of the system.

22.16 The Committee agreed not to consider this proposal further until C 118 had decided on the matter.

Safety measures relating to man overboard (MOB) incidents of seafarers

22.17 The Committee had for its consideration the following documents:

- .1 MSC 98/22/4 (Panama, IMCA), reporting on a number of man overboard (MOB) incidents of seafarers between 2013 and 2015 and emphasizing that none of these reported incidents had resulted in the safe recovery of seafarers following an MOB casualty. Based on the reported situation, the document proposed possible measures in order to increase the probability of success when an MOB casualty took place; and invited comments on the information and approaches provided; and
- .2 MSC 98/22/9 (CLIA), providing comments on document MSC 98/22/4 (Panama, IMCA) and, in particular, highlighting possible drawbacks of some of the measures proposed in document MSC 98/22/4 in order to increase the visibility and location of crew members during a MOB casualty.

22.18 In the ensuing discussion, the Committee recognized the importance of prevention of MOB incidents involving seafarers, of rapid response, of effective equipment and measures for detection of persons in the water and of their efficient and speedy recovery.

22.19 The Committee noted support for the view that the matter of MOB incidents involving seafarers should not be limited to considerations relating to detection and survival equipment in the context of SOLAS chapter III but should be addressed comprehensively, taking into account incident investigation reports and experience gained from relevant search and rescue

operations. In this regard, the Committee also noted the view that it was important for Member States to report MOB incidents in the GISIS Marine Casualties and Incidents module and that it would be beneficial if the link between the Committee and the Working Group on Casualty analysis under the III Sub-Committee were strengthened.

22.20 In light of the foregoing and taking into account the request in paragraph 8 of document MSC 98/22/4 for comments on the information and approaches provided in the document, the Committee encouraged interested Member States and international organizations to exchange information on equipment, operational procedures and other aspects of prevention, response and recovery in the context of MOB incidents of seafarers, as appropriate. If amendments to IMO instruments were deemed necessary following such an exchange of information, proposals for a new output could be submitted to a future session, in accordance with the *Organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (MSC-MEPC.1/Circ.5).

Considerations on lessons learned from the casualty during the sea trial of an azimuth stern drive tug

22.21 The Committee noted, with appreciation, the information provided by China (MSC 98/22/5) concerning a very serious casualty during a sea trial in China's territorial waters and the associated safety issues related to azimuth stern drive (ASD) tugs, especially in the process of sea trials.

22.22 During the discussion, some delegations expressed the view that more information might need to be provided, particularly the actual condition of the ASD tug during the sea trial with regard to compliance with the 2008 IS Code and the LL Convention, loading conditions, watertight doors and the general integrity of the ship, as well as information on whether the ASD was in compliance with IEC standard 60092-501 or similar regarding the limitation of propulsion power, for further consideration.

22.23 After a brief discussion, the Committee invited Member States and organizations, taking into account the aforementioned views expressed, to submit proposals regarding the navigation safety of azimuth stern drive tugs and safety management of the sea trial to the next session of the Committee.

22.24 The delegation of the Bahamas expressed its view that the use of casualty data was extremely important, as mentioned by the Secretary-General during his opening remarks. However, it also believed that there was room for improvement in the existing arrangements. In this regard, the delegation of the Bahamas requested delegations to reflect on this matter, including whether the Casualty Analysis Working Group should sit at the Committee rather than the III Sub-Committee, as such an arrangement would allow for more direct and prompt decision-making when safety issues emerged from the review of casualty investigation reports.

Amendments to resolution A.1078(28) on IMO Ship Identification Number Scheme

22.25 The Committee recalled that:

- .1 MSC 92 had adopted resolution A.1078(28), revoking resolution A.600(15), both on the *IMO Ship Identification Number Scheme*, in order to allow its voluntary application to ships of 100 gross tonnage and above, including fishing vessels; and

- .2 the Sub-Committee on Implementation of IMO Instruments (III), at its third session, had endorsed the issuance of Circular Letter No.1886/Rev.6, which indicated that Administrations might obtain, on a voluntary basis, unique ship identification numbers, for passenger ships of less than 100 GT, high-speed passenger crafts and mobile drilling units covered by SOLAS regulation V/19-1; fishing vessels of non-steel hull construction of 100 GT and above; and all motorized inboard fishing vessels of less than 100 GT down to a size limit of 12 metres in length overall (LOA), that were authorized to operate outside waters under national jurisdiction.

22.26 The Committee considered document MSC 98/22/6 (Iceland et al.), proposing amendments to resolution A.1078(28) to extend the non-mandatory application of the *IMO Ship Identification Number Scheme* to fleets of passenger ships of less than 100 gross tonnage, high-speed passenger craft, and mobile drilling units covered by SOLAS regulation V/19-1; fishing vessels of non-steel hull construction of 100 gross tonnage and above; and all motorized inboard fishing vessels of less than 100 gross tonnage down to a size limit of 12 metres LOA, that were authorized to operate outside waters under national jurisdiction of the flag State. The full text of a relevant statement by the delegation of Vanuatu is set out in annex 39.

22.27 After some discussion, the Committee instructed III 4 to consider in detail the proposal contained in document MSC 98/22/6, including the review of the use of the terminology "outside waters under the jurisdiction of the flag State" for harmonization with other relevant instruments, and to finalize a draft Assembly resolution to revoke resolution A.1078(28) for reporting directly to A 30 with a view to adoption.

Fuel oil with a sulphur content of 0.50% m/m

22.28 The Committee recalled that:

- .1 MSC 96 had endorsed the view of CCC 3 that all safety concerns with regard to ships using low-flashpoint oil fuels should be addressed in the context of the IGF Code only, without reopening discussion on the possibility of amending the flashpoint requirements in SOLAS (MSC 96/25, paragraph 10.2);
- .2 at MSC 97, in the context of the decision of MEPC 70 that 1 January 2020 was to be the effective date of implementation for ships to comply with the 0.50% m/m sulphur content of fuel oil requirement, as set out in regulation 14.1.3 of MARPOL Annex VI, several delegations expressed the opinion that the Committee should consider all matters related to the implementation of the above-mentioned decision, as it could impact on the safety of ships, in particular with regard to the use of low-flashpoint fuels; and
- .3 MSC 97 had invited the MEPC to provide relevant information to the Committee where safety issues were identified, with a view to ensuring that safety aspects were adequately covered.

22.29 In this context, the Committee had the following two documents for its consideration:

- .1 MSC 98/22/8 (Brazil and Chile), providing considerations on the flashpoint of fuels with a maximum sulphur content of 0.50% m/m, in accordance with regulation 14.1.3 of MARPOL Annex VI; and

-
- .2 MSC 98/22/10/Rev.1 (Brazil), providing comments on document MSC 98/22/8, with a view to achieving consistent, safe and effective implementation of the global 0.50% sulphur limit for fuel oil used on ships, and requesting the Committee to consider the issue of handling such oil fuel with a flashpoint lower than 60°C on board ships from a safety perspective.

22.30 Prior to discussing the above documents, the Committee noted the following information provided by the Secretariat with regard to fuel oil availability and the relevant outcome of MEPC 70:

- .1 the final report of the assessment of fuel oil availability (MEPC 70/5/3 and MEPC 70/INF.6) that was undertaken in accordance with regulation 14.8 of MARPOL Annex VI, having been overseen by a steering committee consisting of representatives from 20 Member States and observer organizations, had been approved by MEPC 70 in October 2016;
- .2 the fuel oil availability review included a supply model used to estimate the ability of the refinery industry to supply the projected demand of marine and non-marine fuels in 2020 as per the scenarios. As part of a sensitivity analysis, eight refinery supply cases were modelled. These cases included one where fuel oil demand was high, one where fuel oil demand was low, and a base case. One case out of the eight assessed fuel oil availability if the minimum flashpoint were to be lowered from 60°C to 52°C;
- .3 the fuel oil availability review concluded that the refinery industry could produce sufficient amounts of marine fuels of the required quality in the base case, the high demand case and the low demand case, while at the same time supplying other sectors with the petroleum products they required. The review indicated that the use of fuel oils with a low-flashpoint was not necessary to ensure availability of fuel oils compliant with the 2020 standard;
- .4 in recognizing the concerns expressed regarding implementation, MEPC 70 requested PPR 4 to prepare a draft justification and scope for a new output on what additional measures might be developed to promote consistent implementation of the 0.50% global sulphur limit, for consideration at MEPC 71; and
- .5 PPR 4, in accordance with the request by MEPC 70, prepared a draft justification for a new output on "Consistent implementation of regulation 14.1.3 of MARPOL Annex VI" (PPR 4/21, annex 13), for approval by MEPC 71 in July 2017. The draft scope of the proposed new output included impact on fuel and machinery systems that might result from the use of fuel oils with a 0.50% sulphur limit.

22.31 In considering the above documents, the Committee noted, inter alia, the following comments made during the discussion:

- .1 there was a need to keep a close eye on the safety implications associated with efforts to meet the demand for fuels complying with the 0.50% m/m sulphur limit that was due to take effect on 1 January 2020;
- .2 supply of oil fuel to ships in 2020 would still need to meet the SOLAS flashpoint requirement of 60°C and fuels provided to the marine sector needed to meet the SOLAS requirements to be commercially viable;

- .3 caution was required when choosing blend components as the relationship between flashpoint and the blend components was not linear. Even a small amount of a low-flashpoint blend component could cause the resulting blend to be off specification, since the flashpoint was linked to the vapour created by volatile materials;
- .4 refineries and other parties in the marine fuel supply chain were cognisant of the SOLAS flashpoint requirements and would take due care that fuels offered to the marine market complied with the SOLAS requirements;
- .5 there were concerns relating to the stability and compatibility of fuel oil blends that were anticipated to enter the market to meet the 0.50% m/m sulphur limit;
- .6 ship engine-rooms were subject to temperatures above 50°C on a regular basis in many regions around the world. Current grades of marine heavy fuel oil had flashpoints above 80°C and had to be stored and processed at temperatures of above 75°C to keep them pumpable and to aid in the removal of water. It would be highly dangerous to have a fuel with a flashpoint of 55°C being stored and pumped around at 80°C, particularly since catastrophic fires could start if the vapours of such fuels came into contact with an ignition source in an engine room with an ambient temperature of 60°C;
- .7 the concerns and proposals contained in documents MSC 98/22/8 and MSC 98/22/10/Rev.1, as supported by several delegations including Colombia and Ecuador, should be addressed by the Committee;
- .8 the agreement at MEPC 70 regarding the effective date of implementation to comply with the 0.50% m/m sulphur content of fuel oil requirement was not conditional on a reduction in the lower flashpoint limit of 60°C;
- .9 all safety concerns with regard to ships using low-flashpoint oil fuels should be addressed in the context of the IGF Code only, without reopening discussion on the possibility of amending the flashpoint requirements in SOLAS, as agreed at MSC 96;
- .10 while the earliest implementation of the 0.50% global sulphur cap on marine fuel was supported, there was a need for practical certainty that in doing so, flag and port States could continue to give full and complete effect to their obligations under the SOLAS Convention, not least on the requirement for the minimum flashpoint of 60°C;
- .11 safety aspects relating to the use of low-flashpoint fuels had been addressed by the Committee through the adoption of the IGF Code. Therefore, there was no need for any additional safety level assessment for such fuels outside the scope of the IGF Code;
- .12 specific IGF Code requirements for low-flashpoint oil could be developed by the CCC Sub-Committee in order to avoid having to go through alternative design procedures. In this regard, the delegation of Germany informed the Committee that they planned to submit a document in this regard to CCC 4;

- .13 the issue of the flashpoint of oil fuels had been adequately addressed, however other safety aspects, such as stability of blends, could be included in the scope of the draft justification prepared by PPR 4;
- .14 all modelled fuel blends in the fuel availability study considered by MEPC 70 were safe and fit for use on board ships; and
- .15 out of specification marine fuel, including oil fuel that had a flashpoint below 60°C, was not only a theoretical concern as there were numerous reports of instances of such fuel being supplied to ships, placing seafarers at risk of fire and explosion.

22.32 The full text of the relevant statement by the observer from the IBIA is set out in annex 39.

22.33 After an in-depth discussion and taking into account the above views, the Committee:

- .1 emphasized that the requirement in SOLAS chapter II-2 for the flashpoint of oil fuel remained at 60°C for ships that did not comply with the IGF Code;
- .2 reiterated that the use of oil fuel with a flashpoint below 60°C was limited to ships that complied with the IGF Code, except as otherwise permitted in SOLAS regulation II-2/4.2.1;
- .3 encouraged interested Member States and international organizations to submit proposals to the CCC Sub-Committee with a view to developing specific requirements for low-flashpoint oil fuel, within the context of the IGF Code only, under output 5.2.1.2 (Amendments to the IGF Code and development of guidelines for low-flashpoint fuels);
- .4 invited MEPC 71, when considering the draft justification for the proposed output on "Consistent implementation of regulation 14.1.3 of MARPOL Annex VI" developed by PPR 4, to explicitly add, in the scope of the proposed output, considerations on the safety implications relating to the option of blending fuels in order to meet the 0.50% m/m sulphur limit that was due to take effect on 1 January 2020; and
- .5 instructed the PPR Sub-Committee to report to the Committee regarding any safety issues that might be identified with regard to low-sulphur oil fuel, subject to the aforementioned proposed output being approved by MEPC 71.

22.34 In this context, the Committee noted a proposal to invite the MEPC to consider adding a field in the Bunker Delivery Note for the flashpoint of the fuel oil to be declared. However, divergent views were expressed on this matter so no further action was taken.

Impact of new and advancing technologies to maritime transport and the regulatory framework

22.35 The Committee, having considered the information provided in document MSC 98/22/7 (Denmark et al.) on future possibilities for developments in the automation of ships, digitalization and the use of information technology, invited Member States and international organizations to submit information on studies including technical, legal, operational, training and maintenance aspects of autonomous shipping, information on ongoing research, testing and full-scale projects to future sessions of the Committee.

A pre-analysis on autonomous ships

22.36 The Committee noted, with appreciation, the information contained in document MSC 98/INF.13 (Denmark) relating to a pre-investigational report on autonomous ships.

Other information***Global Integrated Shipping Information System (GISIS)***

22.37 The Committee noted, with appreciation, the information provided by the Secretariat (MSC 98/INF.2) on the Global Integrated Shipping Information System (GISIS), and that a module on National Maritime Legislation was now online.

Guidance for the use of inert gas on oil tankers

22.38 The Committee noted, with appreciation, the information provided by OCIMF (MSC 98/INF.5), related to guidance for the use of inert gas on oil tankers and, in particular, the comments and analysis on the use of inert gas on oil tankers regardless of the ship size.

Information on closure of seaports in the Autonomous Republic of Crimea and the city of Sevastopol

22.39 The Committee noted the information provided by Ukraine (MSC 98/INF.9) on closure of seaports in the temporarily occupied territory of the Autonomous Republic of Crimea and the city of Sevastopol, Ukraine.

22.40 In this context, the delegation of the Russian Federation informed the Committee that all ports in the Crimean peninsula were open to all ships and no administrative restrictions were in effect. The full statement of the Russian Federation is set out in annex 39. In response, the delegation of Ukraine made a statement, as set out in annex 39. The delegation of Malta also made a statement, as set out in annex 39, which was supported by Australia, Croatia, Denmark, Finland, France, Germany, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, the Netherlands, Norway, Sweden, the United Kingdom and the United States.

22.41 Subsequently, the delegation of the Russian Federation recalled the relevant conclusion of MSC 97 that IMO was not the appropriate forum to discuss the matter of territorial possession and requested the Committee to confirm the understanding of the delegation that the Committee's invitation to Member States and interested parties to notify the Organization of any threats to the security and safety of navigation in the north-eastern part of the Black Sea, for circulation to all Member States in accordance with IMO procedures, meant that such notification should be circulated by means of circular letter rather than Committee documents.

22.42 In this regard, the Committee recalled the conclusion that had been reached at MSC 97 and reiterated the relevant decision from its previous session in the context of safety and security of navigation in the north-eastern part of the Black Sea, specifically that "IMO was not the appropriate forum to discuss the matter. However, recognizing the importance of security and safety of navigation, the Committee agreed to invite Member States and interested parties to notify the Organization of any threats to the security and safety of navigation in the north-eastern part of the Black Sea, for circulation to all Member States in accordance with IMO procedures" (MSC 97/22, paragraph 4.12). Accordingly, the Committee instructed the Secretariat to adhere to the decision of MSC 97.

22.43 Subsequently, the delegation of Ukraine made an additional statement, also set out in annex 39, with regard to paragraphs 22.39 to 22.42 above.

Expression of condolences

22.44 The Committee expressed its sincere and deepest condolences to the bereaved families, friends and colleagues of the innocent victims affected by the recent terrorist incidents in the Islamic Republic of Iran and the United Kingdom, as well as to those affected by the fire in the Grenfell tower block in West London.

22.45 The Committee also noted, with great sadness, the passing away of Mr. Giles Noakes, who was greatly respected by his colleagues and associates alike for his vast knowledge and deep commitment to the shipping industry. The Committee appreciated his contribution to the work of the Organization and requested the Secretary-General to convey the Committee's sincere sympathy to his family.

23 ACTIONS REQUESTED OF OTHER IMO ORGANS

23.1 The Assembly, at its thirtieth session, is invited to:

- .1 note the adoption by the Committee of amendments to the 1974 SOLAS Convention and related mandatory codes, and the approval/adoption of non-mandatory instruments (paragraphs 3.61 to 3.78, 5.26, 10.2, 11.7 to 11.20 and 12.24 and annexes 3 to 10, 12, 14 to 18 and 23);
- .2 note that the initial GBS verification audit has been successfully completed in accordance with the GBS Verification Guidelines (paragraph 6.6);
- .3 adopt the draft Assembly resolution on the Code for the Transport and Handling of Hazardous and Noxious Liquid Substances in Bulk on Offshore Support Vessels (OSV Chemical Code) (paragraph 8.5 and annex 11);
- .4 note the establishment of new routing measures, adopted in accordance with resolution A.858(20), which were disseminated by means of SN.1/Circ.335 (paragraph 11.3);
- .5 adopt the draft Assembly resolution on Escape route signs and equipment location markings (paragraph 12.31 and annex 24);
- .6 note that III 4, which will meet after MSC 98, has been authorized to report the outcome of its work on matters that would require the adoption of draft Assembly resolutions directly to A 30 (paragraphs 17.11 and 20.27); and
- .7 note that the Committee has revised its Rules of Procedure, taking into account the outcome of C 116 (paragraphs 19.1 to 19.8 and annex 33).

23.2 The Council, at its 118th session, is invited to:

- .1 consider the report of the ninety-eighth session of the Maritime Safety Committee and, in accordance with Article 21(b) of the IMO Convention, transmit it, with its comments and recommendations, to the thirtieth session of the Assembly (paragraphs 1.1 and 23.2);
- .2 note the adoption by the Committee of amendments to the 1974 SOLAS Convention and related mandatory codes, and the approval/adoption of non-mandatory instruments (paragraphs 3.61 to 3.78, 5.26, 10.2, 11.7 to 11.20 and 12.24 and annexes 3 to 10, 12, 14 to 18 and 23);

- .3 note the actions taken by the Committee on issues related to early implementation/application of IMO instruments (paragraphs 4.1 to 4.38);
- .4 note the actions taken by the Committee on issues related to maritime security and, in particular, the approval of guidelines for maritime cyber risk management, the adoption of an MSC resolution on maritime cyber risk management in safety management systems, and the revision of relevant security-related IMO model courses (paragraphs 5.1 to 5.30 and annex 10);
- .5 note that the Committee has confirmed that the identified non-conformities from the initial GBS verification audits have been duly rectified and, consequently, the initial verification audit has now been successfully completed in accordance with the GBS Verification Guidelines (paragraph 6.6);
- .6 note the decisions and actions taken in regard to the outcomes of sub-committees reporting to this session, in particular the approval of draft Assembly resolutions for the new OSV Chemical Code and escape route signage and equipment location markings, both for submission to A 30 with a view to adoption (paragraphs 8.5 and 12.31 and annexes 11 and 24);
- .7 note the decisions taken for matters related to formal safety assessment (paragraphs 14.1 to 14.4);
- .8 note the decisions taken in regard to piracy and armed robbery against ships (paragraphs 15.1 to 15.32);
- .9 note the decisions taken in regard to unsafe mixed migration at sea (paragraphs 16.1 to 16.14);
- .10 note that III 4, which will meet after MSC 98, has been authorized to report the outcome of its work on matters that would require the adoption of draft Assembly resolutions directly to A 30 (paragraphs 17.11 and 22.27);
- .11 note that the Committee revised its Rules of Procedure, taking into account the outcome of C 116 (paragraphs 19.1 to 19.8 and annex 33);
- .12 note the biennial status report of the Maritime Safety Committee (paragraph 20.45 and annex 36);
- .13 note the updated post-biennial agenda of the Maritime Safety Committee (paragraph 20.46 and annex 37);
- .14 endorse the outputs approved by the Committee for the 2018-2019 biennium, which have been aligned to the new Strategic Directions, as agreed by C 117 (paragraphs 20.51 and 20.52 and annex 38); and
- .15 endorse the intersessional meetings approved for 2017 and 2018 (paragraph 20.53).

23.3 The Marine Environment Protection Committee, at its seventy-first session, is invited to:

- .1 concurrently approve, in principle, the draft revised chapter 21 of the IBC Code (PPR 4/21, annex 1), pending finalization of the revision of chapters 17 and 18 of the Code (paragraph 8.2);
- .2 concurrently approve the draft Assembly resolution on the Code for the Transport and Handling of Hazardous and Noxious Liquid Substances in Bulk on Offshore Support Vessels (OSV Chemical Code), for submission to A 30 with a view to adoption (paragraph 8.5 and annex 11);
- .3 concurrently approve the draft MSC-MEPC.5 circular on *Guidance on completing the Certificate of Fitness under the IBC, BCH, IGC, GC and EGC Codes* (paragraph 17.6 and annex 27);
- .4 concurrently approve the draft amendments to the IBC and BCH Codes with a view to subsequent adoption (paragraph 17.6 and annexes 28 and 29);
- .5 note the adoption of amendments to the IMSBC Code, in particular those amendments regarding the declaration of HME substances classified under MAPOL Annex V (paragraph 3.77 and annex 8);
- .6 note that III 4, which will meet after MSC 98, has been authorized to report the outcome of its work on matters that would require the adoption of draft Assembly resolutions directly to A 30 (paragraphs 17.11 and 20.27);
- .7 note that the Committee revised its Rules of Procedure, taking into account the outcome of C 116 (paragraphs 19.1 to 19.8 and annex 33);
- .8 concurrently approve the biennial agenda of the CCC Sub-Committee and the provisional agenda for CCC 4 (paragraph 20.12 and annexes 34 and 35);
- .9 concurrently approve the biennial agenda of the III Sub-Committee and the provisional agenda for III 4 (paragraph 20.25 and annexes 34 and 35);
- .10 concurrently approve the intersessional working group meetings requested by the CCC and PPR Sub-Committees, to be held in 2017 and 2018 (paragraph 20.53); and
- .11 note the outcome of the discussion on matters related to low-flashpoint oil fuels and, in particular, when considering the draft justification for the proposed output on "Consistent implementation of regulation 14.1.3 of MARPOL Annex VI" prepared by PPR 4, to explicitly add, in the scope of the proposed output, considerations on the safety implications relating to the option of blending fuels in order to meet the 0.50% m/m sulphur limit that is due to take effect on 1 January 2020 (paragraph 22.33).;

23.4 The Marine Environment Protection Committee, at its seventy-second session, is invited to concurrently approve the draft MSC-MEPC circular on *Revised guidelines for Formal Safety Assessment (FSA) for use in the IMO rule-making process* (paragraph 14.3 and annex 26).

23.5 The Facilitation Committee, at its forty-second session, is invited to:

- .1 note the concurrent approval of MSC-FAL.1/Circ.3 on *Guidelines on maritime cyber risk management*, superseding the interim guidelines contained in MSC.1/Circ.1526 (paragraph 5.4);
- .2 note that the Committee urged Member States to complete the questionnaire annexed to MSC-FAL.1/Circ.2 on *Information on port and coastal State requirements related to privately contracted armed security personnel on board ships* (paragraph 15.16.2);
- .3 note the decisions taken in regard to unsafe mixed migration at sea (paragraphs 16.1 to 16.14);
- .4 note that the Committee revised its Rules of Procedure, taking into account the outcome of C 116 (paragraphs 19.1 to 19.8 and annex 33); and
- .5 note that the Committee agreed not to consider the proposal to create a collaborative web-based workspace until C 118 had decided on the matter (paragraphs 22.14 to 22.16).

23.6 The Technical Cooperation Committee, at its sixty-seventh session, is invited to:

- .1 note the outcome on matters related to capacity building for the implementation of new measures (paragraphs 13.1 to 13.4);
- .2 note that the Committee has revised its Rules of Procedure, taking into account the outcome of C 116 (paragraphs 19.1 to 19.8 and annex 33);
- .3 approve the thematic priorities for the ITCP for the 2018-2019 biennium (paragraph 22.4); and
- .4 note that the Committee has urged Member States to ensure that their technical assistance needs are well reflected in the CMPs and are kept up to date (paragraph 22.5).

23.7 The Legal Committee, at its 105th session, is invited to note that the Committee has revised its Rules of Procedure, taking into account the outcome of C 116 (paragraphs 19.1 to 19.8 and annex 33).

(The annexes will be issued as addenda to this document)
