

MARITIME SAFETY COMMITTEE
100th session
Agenda item 20

MSC 100/20
10 January 2019
Original: ENGLISH

**REPORT OF THE MARITIME SAFETY COMMITTEE
ON ITS ONE HUNDREDTH SESSION**

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1 INTRODUCTION – ADOPTION OF THE AGENDA

1.1 The 100th session of the Maritime Safety Committee was held at IMO Headquarters from 3 to 7 December 2018, chaired by Mr. Bradley Groves (Australia). The Vice-Chair of the Committee, Mr. Juan Carlos Cubisino (Argentina), was also present.

1.2 The session was attended by Members and Associate Members; representatives from the United Nations Programmes, specialized agencies and other entities; observers from intergovernmental organizations with agreements of cooperation; and observers from non-governmental organizations in consultative status, as listed in document MSC 100/INF.1.

1.3 The session was also attended by the Chair of the Council, Mr. Xiaojie Zhang (China), the Chair of the Legal Committee, Mr. Volker Schöfisch (Germany) and the Chair of the Facilitation Committee, Mr. Yury Melenas (Russian Federation).

1.4 On the occasion of the 100th session of the Committee, a special celebratory event under the title "MSC 100 – One hundred sessions enhancing safety and security of international shipping" was held in the afternoon of 3 December 2018; and the Committee was honoured by the presence of Her Royal Highness The Princess Royal in the afternoon of 5 December 2018.

Opening address of the Secretary-General

1.5 The Secretary-General welcomed participants and delivered his opening address, which included a brief history of the Committee's achievements to commemorate its 100th session, the full text of which can be downloaded from the IMO website at the following link: <http://www.imo.org/MediaCentre/SecretaryGeneral/Secretary-GeneralsSpeechesToMeetings>

Sinking of a passenger ship on Lake Victoria

1.6 In his opening address, the Secretary-General, on behalf of the Organization, conveyed sincere condolences to the people of Uganda, and in particular to the bereaved families and friends of the victims, with respect to the tragic sinking of a passenger ship on Lake Victoria on 24 November 2018.

1.7 In this context, the delegation of the United Republic of Tanzania made a statement on the tragic capsizing of the Tanzanian ferry **Nyerere** on Lake Victoria in September 2018, as set out in annex 16.

Chair's remarks

1.8 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

1.9 The delegations of Ukraine and the Russian Federation made statements related to a recent incident between the two countries in the Kerch Strait and Sea of Azov area, as set out in annex 16.

1.10 The delegations of Australia, Canada, Denmark, Estonia, France, Georgia, Germany (on behalf of the EU members), Iceland, Ireland, Luxembourg, Slovenia, Spain, Sweden, the United Kingdom, the United States and the EC observer made statements supporting Ukraine, as also set out in annex 16. The delegations of Finland, Latvia, Lithuania, Luxembourg and Norway associated themselves with the statements made by the delegation of Germany and others.

1.11 In this regard, the Committee also noted a statement by the delegation of Brazil, expressing their grave concern and urging the Governments of the Russian Federation and Ukraine to seek a peaceful solution to the crisis, in accordance with international law; also noting that, upon the request of the Russian Federation, the United Nations Security Council would meet to address this matter.

1.12 The Committee further noted a statement by the delegation of China, expressing their understanding of the positions of both parties and urging all parties to show restraint and appropriately resolve the divergences through dialogue and consultation; at the same time inviting the Committee to note that IMO was the technical organization to discuss maritime safety and marine environmental protection issues and that military or political issues were outside its mandate.

Adoption of the agenda and related matters

1.13 The Committee adopted the agenda (MSC 100/1) and agreed to be guided in its work, in general, by the annotations contained in document MSC 100/1/1 and by the provisional timetable (MSC 100/1/1, annex).

Credentials

1.14 The Committee noted that the credentials of 99 of the delegations attending the session were in due and proper form.

2 DECISIONS OF OTHER IMO BODIES

2.1 The Committee, having noted the decisions of C 120 (MSC 100/2), FAL 42 (MSC 100/2/1), TC 68 (MSC 100/2/2) and MEPC 72 and MEPC 73 (MSC 100/2/3) with regard to its work, agreed to take action as appropriate under the relevant agenda items.

Greater public access to information

2.2 The Committee noted, in particular, the decisions of C 120 on measures to allow greater public access to information at IMO (MSC 100/2, paragraph 2).

2.3 In this connection, the Committee concurred with the following decisions of MEPC 73 regarding measures to allow the public greater access to information (MSC 100/2/3, paragraph 3.13):

- .1 Member States and international organizations could indicate at the time of submission whether their documents should be released to the public via IMODOCS prior to a meeting and, in the absence of such an indication, those documents would be kept private prior to the meeting of the committees;
- .2 notes by the Secretariat would be made publicly available via IMODOCS prior to the meeting, unless the committees had decided otherwise in advance;
- .3 sub-committees should follow the same practice as agreed for the committees; and
- .4 all the documents by the Secretariat expected to be submitted under agenda items of PPR 6, CCC 6 and III 6 would be made publicly available prior to the sessions,

and added SDC 6, SSE 6 and HTW 6 to the list of sub-committees for which all documents by the Secretariat should be made publicly available. The Committee agreed to revisit the matter when considering the items to be included in the agendas for MSC 101 and MSC 102 (see paragraph 17.38).

Conversion of model courses into e-learning courses

2.4 The Committee, having noted that TC 68 had requested MSC and MEPC to identify and prioritize which of the model courses could be considered for conversion into e-learning model courses, and to consider reviewing the *Revised guidelines for the development, review and validation of model courses* (MSC-MEPC.2/Circ.15), if deemed appropriate, concurred with the decision of MEPC 73 to instruct the HTW Sub-Committee to consider the request of TC 68 and advise the Committees accordingly.

Safety implications associated with the use of low-sulphur fuel oil

2.5 The Committee noted that the outcome of MEPC 72 and MEPC 73 concerning safety implications associated with the use of low-sulphur fuel oil (MSC 100/2/3, paragraphs 2.3 and 3.4), would be considered under agenda item 8 (Pollution prevention and response) (see paragraphs 8.5 to 8.22).

Outcome of C 121

2.6 The Committee noted information provided by the Secretariat on the outcome of C 121, in particular that the Council:

- .1 agreed to renew the mandate of Mr. Kitack Lim as Secretary-General for another four-year term, concluding on 31 December 2023, recognizing his leadership, initiative and the commitment with which the affairs of the Organization have been conducted by Mr. Lim as IMO Secretary-General, subject to the approval of A 31; and
- .2 with regard to the review and reform initiative, established an open-ended working group on the reform of the Council, which discussed a number of substantive issues and will be re-established at the Council's next session, C 122 in July 2019.

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 the International Code on the Enhanced Programme of Inspections during Surveys of Bulk Carriers and Oil Tankers, 2011 (2011 ESP Code) (MSC 100/3).

3.2 More than one third of the Contracting Governments to the 1974 SOLAS Convention were present during the consideration of said amendments by the expanded MSC, in accordance with article VIII(b)(iii) of the Convention. The proposed amendments to the 2011 ESP Code 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.3848 of 30 May 2018.

3.3 The Committee was also invited to consider and adopt draft amendments to the Code of Safety for Special Purpose Ships (SPS Code) (resolution A.534(13)) (MSC 100/3/1).

Proposed amendments to the 2011 ESP Code

3.4 The Committee recalled that MSC 99 had approved draft amendments to the 2011 ESP Code, which had been circulated in accordance with SOLAS article VIII, with a view to adoption at this session.

3.5 In considering the draft amendments, together with the modifications proposed in document MSC 100/3/2 (IACS and Secretariat), as set out in annex 1 to document MSC 100/WP.5, the Committee noted, inter alia, the following views:

- .1 the language used in the draft amendments was not in accordance with IMO nomenclature, i.e. "is to/are to" instead of "shall", which could be detrimental to the future development of the IMO regulations as it could result in ambiguity and inconsistency;
- .2 the draft amendments should take into account the draft consolidated version of the Code currently under development by the SDC Sub-Committee; and
- .3 the draft amendments, as set out in document MSC 100/3, should be finalized at this session.

3.6 In this context, the Committee noted additional information provided by the Secretariat regarding the work being undertaken by the Committee and the SDC Sub-Committee in regard to the ESP Code, in particular that:

- .1 the proposed amendments to the 2011 ESP Code (MSC 100/3, annex) were expected to be considered and adopted at this session; and
- .2 the consolidated version of the draft ESP Code is expected to be finalized by SDC 6 for approval at MSC 101, with a view to adoption by A 31 as the 2019 ESP Code, superseding the 2011 ESP Code, as amended. In this regard, an associated SOLAS amendment will be prepared by SDC 6 to make the 2019 ESP Code mandatory, for submission to MSC 101 for approval with a view to subsequent adoption at MSC 102, following the adoption of the 2019 ESP Code by A 31.

3.7 Following discussion, the Committee decided to hold the adoption of the draft amendments to the 2011 ESP Code in abeyance and invited IACS to work together with the Secretariat intersessionally to prepare a revised set of draft amendments to the Code using "shall/should" instead of "is to/are to", as appropriate, for submission to MSC 101 with a view to adoption.

3.8 Consequently, the Committee instructed the SDC Sub-Committee to ensure that the consolidated version of the draft 2019 ESP Code, expected to be finalized by SDC 6 with a view to approval by MSC 101 for submission to A 31, includes the aforementioned revised draft amendments to the 2011 Code.

Proposed amendments to the SPS Code

3.9 The Committee recalled that MSC 99 had adopted amendments to chapter IV of, and the appendix (Certificates) to, the 1974 SOLAS Convention by resolution MSC.436(99) and an associated amendment to the 2008 SPS Code by resolution MSC.445(99). In this context, MSC 99 had requested the Secretariat to prepare a draft MSC resolution on amendments to the SPS Code (resolution A.534(13)), incorporating the amendments adopted by MSC/Circ.739 and resolution MSC.183(79), and the draft amendment proposed in the annex to document MSC 99/3/2/Add.1 (Secretariat), for consideration at this session.

3.10 Having noted that no comments had been submitted on the proposed amendments to the SPS Code, the Committee confirmed their contents, as set out in annex 2 to document MSC 100/WP.5, subject to editorial improvements, if any.

Date of taking effect of the proposed amendments

3.11 The Committee agreed that the aforementioned consequential amendments to the SPS Code should take effect on 1 January 2020, in conjunction with the entry into force of the amendments to chapter IV of, and the appendix to, the 1974 SOLAS Convention, adopted by resolution MSC.436(99) (see paragraph 3.9).

Establishment of a drafting group

3.12 Having considered the above matters, the Committee established the Drafting Group on Amendments to Mandatory Instruments and instructed it, taking into account comments and decisions made in plenary, to prepare, for consideration by the Committee with a view to adoption, the draft amendments to the SPS Code and the draft associated MSC resolution, based on annex 2 to document MSC 100/WP.5.

Report of the Drafting Group

3.13 Having considered the report of the Drafting Group (MSC 100/WP.7), the Committee approved it in general and took action as outlined below.

Adoption of amendments to the SPS Code

3.14 The Committee considered the final text of the proposed amendments to the SPS Code prepared by the Drafting Group (MSC 100/WP.7, annex) and adopted them by resolution MSC.453(100), as set out in annex 1, having recalled its earlier agreement that they should take effect on 1 January 2020 (see paragraph 3.11).

3.15 In adopting resolution MSC.453(100), the Committee, having noted that further amendments to the SPS Code were necessary to update the Record of Equipment for the SPS Safety Certificate (MSC 100/WP.7, paragraphs 5 and 6), invited IACS to work together with the Secretariat intersessionally to prepare a new set of draft amendments to the SPS Code for consideration by MSC 101.

Instructions to the Secretariat

3.16 The Committee authorized the Secretariat, when preparing the final text of the amendments, to effect any editorial corrections that might be identified, as appropriate, and to bring to the attention of the Committee any errors or omissions that would require action by Member States.

4 MEASURES TO ENHANCE MARITIME SECURITY

Updates on developments related to maritime security

4.1 The Committee considered documents MSC 100/4 and MSC 100/INF.8 (Secretariat), reporting on developments related to maritime security since MSC 99 and noted information on the delivery of maritime security-related activities as part of the Integrated Technical Cooperation Programme (ITCP), in particular that:

- .1 the information that 25% of all port facilities registered in the maritime security module of GISIS submitted by Member States in accordance with SOLAS regulation XI-2/13.4 required updating; and
- .2 the new functionalities (i.e. web services) to enable the secure electronic transfer of information between Member States and the maritime security module of GISIS had been developed and required further testing by interested Member States; and, in this regard, specifications on data exchange had been created by the Secretariat, as set out in document MSC 100/INF.8.

4.2 In this context, the Committee:

- .1 urged SOLAS Contracting Governments to review and update the information contained in the maritime security module of GISIS, in particular that relating to port facility security plans;
- .2 encouraged Member States to participate in the testing phase and finalization of the specifications and guidance for the new functionalities for the electronic transfer of information into the maritime security module of GISIS;
- .3 having noted the support from the delegations of Germany and Norway for increasing the functionality of the GISIS maritime security module to allow for bulk data retrieval in the data exchange facility, in addition to the requirements for the electronic transfer of information provided in the draft guidance available within the module, encouraged other Member States to indicate their interest in this regard to the Secretariat;
- .4 noted that recent recurring themes among participating officials during IMO's technical assistance activities on maritime security were cyber risk management and self-assessment of implementation, including Port Facility Security Officer (PFSO) training and certification requirements;
- .5 encouraged Member States to share guidance which may have been developed with regard to the recent recurring themes and which could form part of IMO's maritime security training and awareness-raising activities, as well as to identify interested maritime security experts with experience in conducting training of officials; and
- .6 invited Member States to consider making donations to the International Maritime Security Trust (IMST) Fund to support the continued delivery of technical assistance under the global programme for the enhancement of maritime security.

Guidelines on cyber security onboard ships

4.3 With reference to cyber risk management, the BIMCO observer advised that the third edition of the industry cyber risk management *Guidelines on cyber security onboard ships* was available, which addressed the requirement to incorporate cyber risks in a ship's safety management system (SMS), reflected experience with risk assessments of operational technology, such as navigational systems and engine controls, and provided added guidance for dealing with cyber risks to a ship arising from parties in the supply chain.

5 REGULATORY SCOPING EXERCISE FOR THE USE OF MARITIME AUTONOMOUS SURFACE SHIPS (MASS)

Background

5.1 The Committee recalled that MSC 99 had recognized that, before moving forward with the regulatory scoping exercise for the use of Maritime Autonomous Surface Ships (MASS), it was necessary to establish a framework in order to provide a common understanding of the work required and how it would be conducted. In this context, MSC 99, *inter alia*:

- .1 endorsed a framework for the scoping exercise (MSC 99/WP.9, annex 1) as work in progress;
- .2 established a correspondence group on MASS, under the coordination of Finland, with terms of reference as set out in paragraph 5.30 of the report of MSC 99 (MSC 99/22);
- .3 requested the Secretariat to review the work already undertaken to date by several organizations that had considered regulatory arrangements and submit a consolidated report on such work for consideration by MSC 100; and
- .4 agreed to the development of interim guidelines for MASS trials and invited interested Member States and international organizations to submit proposals in this respect to MSC 100.

5.2 The Committee recalled also that MSC 99 had agreed that it should review only instruments under its remit and, noting that an output had been approved by the LEG Committee for the conduct of a regulatory scoping exercise on MASS for instruments under its purview, had invited the MEPC and the FAL Committees to contribute as appropriate, by undertaking a review of instruments under their purview, respectively. MSC 99 also had agreed that it should take a coordinating role and provide relevant information to other IMO committees on aspects under their responsibility needing consideration and, in this respect, had invited them to take into account any relevant decisions made by it, in order to harmonize the results of the respective scoping exercises.

5.3 The Committee noted that MEPC 73 had considered the Committee's invitation and agreed to consider, in the future, the matter of a regulatory scoping exercise on MASS, when significant progress had been made by MSC so that it could follow the process for such an exercise (MEPC 73/19, paragraph 2.3).

Framework for the regulatory scoping exercise

5.4 The Committee had for its consideration the following documents:

- .1 MSC 100/5 (Finland), providing the report of the Correspondence Group on MASS, containing the results of the testing of the framework and methodology for the scoping exercise and proposed amendments to the framework;
- .2 MSC 100/5/1 (ISO), providing comments from ISO TC8 on the scoping exercise, presenting a proposal to better describe the degrees of autonomy and inviting Member States and observer organizations to participate in the development of a proposed new ISO standard for terminology and concepts for ship autonomy;
- .3 MSC 100/5/4 (Secretariat), commenting on document MSC 100/5, in particular regarding the degrees of autonomy, the level and detail of the analysis of the provisions and the method of work for the scoping exercise;
- .4 MSC 100/5/5 (Japan), commenting on document MSC 100/5 and proposing to define a generic model for each degree of autonomy and the development of guidelines or recommendations prescribing safety measures for degrees of autonomy one and two;
- .5 MSC 100/5/6 (Australia et al.), commenting on document MSC 100/5 and proposing a framework to define levels, or degrees, of autonomy and control, as a basis for future work;
- .6 MSC 100/5/7 (China), commenting on document MSC 100/5 and recommending amendments to the methodology for the scoping exercise; and
- .7 MSC 100/5/8 (United States), commenting on document MSC 100/5 and recommending a method of work for the scoping exercise.

5.5 The Committee noted the information contained in the following documents:

- .1 MSC 100/INF.3 (Secretariat), providing, as requested by MSC 99, an initial review of IMO instruments under the purview of MSC, based on documents submitted to MSC 99;
- .2 MSC 100/INF.6 (China), providing information on a preliminary analysis of the International Regulations for Preventing Collisions at Sea, 1972, for MASS operating in fully autonomous mode; and
- .3 MSC 100/INF.10 (Republic of Korea), providing information on the results of a technology assessment on MASS.

5.6 In considering the report of the Correspondence Group (MSC 100/5), the Committee noted that the framework and methodology for the scoping exercise agreed at MSC 99 (MSC 99/WP.9, annex 1) would be, in principle, suitable for its purpose and that additional work on the framework would be required, especially regarding the level of detail and depth of the analysis.

5.7 The Committee considered the proposed amendments to the framework for the regulatory scoping exercise (MSC 100/5, annex, appendix 1), taking into account comments and recommendations contained in documents MSC 100/5/1, MSC 100/5/4, MSC 100/5/5, MSC 100/5/6, MSC 100/5/7 and MSC 100/5/8, as indicated in the ensuing paragraphs.

Degrees of autonomy

5.8 In considering the degrees of autonomy, the Committee took into account, in particular, the following:

- .1 that the Correspondence Group had considered a number of proposals to expand the degrees of autonomy and decided, in the end, to maintain the four degrees agreed by MSC 99 (MSC 100/5, annex, paragraphs 13 to 21);
- .2 the revised classification proposed by ISO as a possible way to better describe the degrees of autonomy (MSC 100/5/1, annex 2);
- .3 the comments by the Secretariat related to the possible impact on the time required to complete the scoping exercise if the degrees were expanded, and the possible deletion of degree one (MSC 100/5/4, paragraphs 5 to 10);
- .4 the proposal by Japan regarding the need to define a generic model for each degree of autonomy (MSC 100/5/5, paragraphs 6 to 8); and
- .5 the proposal by Australia et al. regarding the levels of autonomy and control (MSC 100/5/6, paragraphs 5 to 11 and annex).

5.9 The Committee had a long debate on the degrees of autonomy. After a number of interventions, the Chair summarized that it was important to finalize the framework at this session and to keep it concise. With regard to expanding the degrees of autonomy, the Chair noted that some delegations had indicated their support for a more detailed description of degrees of autonomy, but that this should be conducted after the scoping exercise. A view was also expressed that IMO should be the leading organization in defining the different degrees of autonomy and related terminology. With respect to the definition of a generic model for each degree of autonomy, the Chair noted that while those delegations that spoke were not against the proposal, the development of these models could be time consuming and could, consequently, delay the scoping exercise and should therefore not be further pursued at this time.

5.10 The Committee had a further discussion on degrees one and four and whether they should be part of the scoping exercise. In this context, the Committee agreed with the summation of the Chair that all four degrees should be retained as part of the framework but that priority should be given to degrees two and three during the scoping exercise.

Instruments and level of detail of their analysis

5.11 During consideration of the instruments to be included in the scoping exercise and the level of detail of their analysis, the Committee took into account:

- .1 issues highlighted by the Correspondence Group regarding the level of detail of the analysis of the respective instruments (MSC 100/5, annex, paragraphs 7 to 9);

- .2 the recommendation by the Secretariat to conduct the analysis of instruments at regulation/rule level, addressing issues only at high level, in accordance with previous decisions of the Committee (MSC 100/5/4, paragraphs 11 and 12); and
- .3 the proposal by the United States to consider prioritizing the review of mandatory instruments before considering non-mandatory provisions and the level of review of each instrument (MSC 100/5/8, paragraphs 4 and 7).

5.12 Having considered a number of interventions, the Committee agreed with the Chair's summation that the analysis of regulations/rules during the scoping exercise should be high level, i.e. at the level of rules and regulations, and that the review of mandatory instruments should be the priority.

Methodology

5.13 In considering the methodology for the scoping exercise, the Committee took into account:

- .1 discussions and related proposals considered by the Correspondence Group (MSC 100/5, paragraphs 25 to 39);
- .2 amendments to the methodology proposed by China (MSC 100/5/7, paragraph 16); and
- .3 comments by the United States regarding the second step of the methodology (MSC 100/5/8, paragraph 5).

5.14 After some discussion, the Committee agreed with the Chair's summation that the amendments to the methodology proposed in document MSC 100/5/7 were not supported as this could complicate the process and that the analysis to determine the most appropriate way forward to address MASS operations (i.e. the second step of the methodology) should be retained and should be conducted only after completion of the identification of provisions in IMO instruments and how they apply or not to MASS operations (i.e. the first step).

5.15 During the considerations, a view was expressed that the HTW Sub-Committee should be tasked to define new competencies in the context of MASS and to start working on the development of new model courses on MASS. The Committee agreed that this would be premature at that time, but that the HTW Sub-Committee could be tasked accordingly in due course.

Method and plan of work

5.16 In considering the method and plan of work, the Committee took into consideration:

- .1 issues and challenges identified by the Correspondence Group during the consideration of SOLAS regulations II-1/3-4, III/17-1, V/19.2 and V/22, and Load Lines regulation 10, the consolidation of results and the method of work, including the use of Microsoft Word and Excel;
- .2 the proposal by the Secretariat regarding the development of a web platform, as part of GISIS, to facilitate the scoping exercise and the proposed method of work (MSC 100/5/4, paragraphs 13 to 19); and

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- .3 the proposal by the United States regarding the process for conducting the scoping exercise (MSC 100/5/8, paragraphs 8 to 13).

5.17 Noting the comments of some delegations supporting the development of a web platform; and of others expressing concerns regarding the difficulties that some Members might encounter when participating in the review process of instruments conducted at the same time by different volunteering Member States; and the need for an alternative plan to avoid full dependence on an electronic platform, the Committee agreed to forward the issue to the Working Group for further consideration.

Other issues

ISO standards

5.18 Having noted the development of international standards for terminology and concepts for ship autonomy by ISO, the Committee invited interested Member States to participate in the work of ISO on this matter, if they so wished.

Guidelines or recommendations prescribing safety measures for degrees of autonomy one and two

5.19 Having considered a proposal by Japan for the development of guidelines or recommendations prescribing safety measures for degrees of autonomy one and two (MSC 100/5/5, paragraph 9), the Committee agreed that it was premature to consider this matter and that the development of such guidelines or recommendations could be discussed after the completion of the scoping exercise.

Interim guidelines for MASS trials

5.20 The Committee considered the following documents related to the development of interim guidelines for MASS trials:

- .1 MSC 100/5/2 (Norway and BIMCO), providing an initial draft to facilitate the development of interim guidelines and proposing consideration for the development of guidelines for MASS test areas; and
- .2 MSC 100/5/3 (Republic of Korea), proposing relevant elements that should be considered during the development of interim guidelines.

5.21 During the ensuing discussions, the following views were, inter alia, expressed:

- .1 the results of MASS trials were essential for an appropriate consideration of MASS requirements after the scoping exercise, in particular those related to safety;
- .2 concerns regarding a reduction of the number of seafarers due to the introduction of MASS; and that manning should not be reduced during the conduct of the trials;
- .3 a verification process was needed in order to ensure that MASS trials in international waters would be conducted in an appropriate and safe manner;
- .4 the development of guidelines for MASS trials is outside the scope of the current output;

- .5 the MASS Working Group could consider the development of interim guidelines, but priority should be given to the completion of the framework for the regulatory scoping exercise and the plan and method of work;
- .6 further work on the interim guidelines would be required before they could be considered by a working group and they may be further developed intersessionally by interested Member States and international organizations, based on the draft text provided in the annex to document MSC 100/5/2 and taking into account the key elements of document MSC 100/5/3; and
- .7 the involvement of relevant expert bodies, such as the HTW and NCSR Sub-Committees, should be considered at a later stage.

5.22 With respect to the nature of interim guidelines for MASS trials, delegations that spoke indicated that such guidelines should:

- .1 be general in nature and not address detailed technical issues in order to avoid prescribing functions or specific technical solutions;
- .2 be developed as a single consolidated set addressing the industry, Administrations and all relevant stakeholders;
- .3 focus on, inter alia, the processes, roles and responsibilities; how to report the results of trials to the Organization; and the reporting of information to relevant coastal States on trials to be conducted, for dissemination to all mariners in the specific area (i.e. through VTS); and
- .4 include safety requirements higher or at least equal to those for existing ships and not override any provisions contained in international instruments.

5.23 After lengthy consideration, the Committee agreed with the Chair's summation that the MASS Working Group should consider a set of principles for the further development of the guidelines and that:

- .1 the interim guidelines should be a single set, addressing issues in general, and not too technical in nature;
- .2 the framework should cover the safe, secure and environmentally sound operation of MASS;
- .3 trials should be conducted safely and the results should be reported to the Organization;
- .4 principles of existing international instruments should be taken into account; and
- .5 the involvement of expert sub-committees was premature at this stage.

5.24 In this connection, the Committee agreed that the MASS Working Group, time permitting, should give further consideration to the development of interim guidelines for MASS trials and, in particular, to the principles that should be captured within such guidelines.

Establishment of a working group

5.25 Subsequently, the Committee established the Working Group on Maritime Autonomous Surface Ships and instructed it, taking into account comments made and decisions taken in plenary, to:

- .1 finalize the framework for the regulatory scoping exercise, including the template and the plan and method of work, taking into account documents MSC 100/5, MSC 100/5/4 and MSC 100/5/8; and
- .2 if time permits, consider principles for the development of interim guidelines for MASS trials and advise the Committee, as appropriate.

5.26 In this regard, the Chair clarified that in accordance with earlier decisions (see paragraph 5.10) the Working Group should finalize the framework, including the descriptions of degrees one and four, but that priority should be given to degrees two and three when conducting the scoping exercise.

Report of the Working Group

5.27 Having considered the report of the MASS Working Group (MSC 100/WP.8), the Committee approved it in general and took action as described hereunder.

Framework for the regulatory scoping exercise

5.28 The Committee approved the Framework for the regulatory scoping exercise for the use of maritime autonomous surface ships (MASS), as set out in annex 2, including the plan of work and procedures, and:

- .1 invited Member States willing to volunteer to lead the initial review of specific instruments, as well as Member States and international organizations willing to support the initial review of instruments, to inform the Secretariat (MASS@imo.org), not later than 31 December 2018; and
- .2 encouraged interested Member States and international organizations to participate actively in the scoping exercise.

5.29 The Committee requested the Secretariat to:

- .1 develop a web platform for the scoping exercise, taking into account the agreed framework;
- .2 assist with certain tasks during the scoping exercise, such as pre-populating the platform, assigning relevant permissions to users and dealing with any other administrative issues, as appropriate; and
- .3 submit a status report to MSC 101 containing information on the progress of the scoping exercise for consideration and in order to address any necessary actions.

Intersessional meeting of the Working Group on MASS

5.30 The Committee approved, subject to endorsement by the Council, the holding of an intersessional meeting of the Working Group on MASS from 2 to 6 September 2019, in order

to review the results of the first step of the scoping exercise and authorize, on behalf of the Committee, the commencement of the second step (see also paragraph 17.37). In this regard, the Committee agreed to develop terms of reference for the group at its next session.

Provisional principles for the development of interim guidelines for MASS trials

5.31 The Committee noted the provisional principles for the development of interim guidelines for MASS trials (MSC 100/WP.8, paragraph 23) and invited interested parties to submit proposals with regard to the draft guidelines to its next session, taking into account those principles.

5.32 The delegation of Norway indicated that they would continue to develop the interim guidelines for MASS trials together with interested parties, with a view to submission to MSC 101.

6 GOAL-BASED NEW SHIP CONSTRUCTION STANDARDS

Background

6.1 The Committee recalled that MSC 99 had agreed to further consider the following matters for finalization at this session:

- .1 draft Revised guidelines for verification of conformity with goal-based ship construction standards for bulk carriers and oil tankers; and
- .2 draft Interim guidelines for development and application of the IMO goal-based standards safety level approach.

6.2 The Committee also recalled that MSC 97 had invited Member States and international organizations to submit proposals addressing the financial arrangements for future maintenance of verification audits.

Initial GBS Verification Audit of Türk Loydu

6.3 The Committee noted that the recognized organization (RO) Türk Loydu Uygunluk Değerlendirme Hizmetleri A.Ş. (Türk Loydu) had requested the Secretary-General, on 26 March 2018, to conduct an initial verification of its ship construction rules for bulk carriers and oil tankers against the Tier I goals and Tier II functional requirements of *the International goal-based ship construction standards for bulk carriers and oil tankers* (the Standards) (resolution MSC.287(87)), based on the criteria in part B of the *Guidelines for verification of conformity with goal-based ship construction standards for bulk carriers and oil tankers* (GBS Verification Guidelines) (resolution MSC.296(87)).

6.4 In this connection, the Committee noted that the Secretary-General, in pursuance of the above request, had established a three-person Audit Team to conduct the initial GBS verification audit of the Türk Loydu rules and had requested the Audit Team to provide its final report to MSC 100, as well as a separate report on its observations on the audit process, as required by the GBS Verification Guidelines.

6.5 The Committee had the following documents for its consideration:

- .1 MSC 100/6/4 (Secretary-General), containing the final report of the GBS initial verification audit of the ship construction rules for bulk carriers and oil tankers of Türk Loydu, for consideration by the Committee, to establish conformity with the GBS;

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- .2 MSC 100/6/6 (Secretariat), containing, *inter alia*, the observations of the Audit Team on the GBS initial verification audit of Türk Loydu;
 - .3 MSC 100/6/8 (Secretariat), on the Corrective Action Plans submitted by Türk Loydu in response to the non-conformities and observations identified by the Audit Team in their audit report (MSC 100/6/4), setting out the plan to address each of the three non-conformities raised;
 - .4 MSC 100/6/9 (IACS), providing information and comments to facilitate the Committee's consideration of documents MSC 100/6/4, MSC 100/6/6 and MSC 100/6/8; on the IACS unified technical requirements, including the Common Structural Rules, that were publicly available; the fact that the capability to apply IACS requirements by non-IACS members was outside of the control of IACS; and the confidential nature of some information and documentation that was developed and submitted in relation to the GBS audit process; and
 - .5 MSC 100/6/11 (Turkey), commenting on documents MSC 100/6/4, MSC 100/6/6 and MSC 100/6/8; questioning the appropriateness of the action requested by IACS following the observations provided by the Audit Team in document MSC 100/6/6 on the use of IACS documents and publications; and requesting the Committee to strictly adhere to the GBS Guidelines and not to consider the confidentiality issues raised by IACS.

6.6 With regard to document MSC 100/6/4, the Committee noted that the Audit Team had identified three non-conformities related to Functional Requirements 3 (Structural strength) and 10 (Design transparency) and one of general nature, as well as nine observations. The Committee also noted that the Audit Team had concluded that Türk Loydu's rules conformed to the Standards, provided that the non-conformities identified in paragraph 1.4.2 of the final report (MSC 100/6/4) were rectified and the observations addressed, taking into account the recommendations made by the Audit Team, and that Türk Loydu submitted a new request for a rectification of non-conformities verification audit.

6.7 With regard to document MSC 100/6/6, the Committee noted the observations of the Audit Team and, in particular, concerns raised that the documentation package submitted by Türk Loydu was almost identical to that submitted by IACS members, including the confidential self-assessment and rule linkage table, and that, while this might not violate any legal provisions, the Audit Team was of the view that this "mirroring" might defeat the spirit of GBS and the verification of the Tier II functional requirements and constituted a lack of incentive to improve ROs' rules after a successful initial verification audit.

6.8 In considering the aforementioned documents, the Committee noted, *inter alia*, the following views:

- .1 Türk Loydu's rules should be confirmed as conforming to the Standards (MSC 100/6/4, annex 1, section 1.5) in line with the recommendations of the Audit Team, provided that the identified non-conformities were rectified;
- .2 the decision on whether to confirm Türk Loydu's rules as conforming to the Standards should be postponed and Türk Loydu should be requested to provide new documentation and information in light of the observations of the Audit Team (MSC 100/6/6, paragraphs 4 and 5);

- .3 although the GBS Verification Guidelines do not restrict an RO or Administration from incorporating third-party rules (i.e. IACS' Common Structural Rules (CSR)) in their own rule set, this practice may conflict with the objectives of the GBS programme and, as such, the GBS Verification Guidelines should be revised to address this issue with a view to ensuring the original intent of the Standards is not jeopardized; and
- .4 the issue of confidentiality and intellectual property rights is beyond the remit of the Committee and, therefore, should not be considered for the purpose of verifying conformity with the Standards.

6.9 During a lengthy discussion, a clear majority of the delegations that spoke endorsed the Audit Team's recommendation to confirm Türk Loydu's rules as being in compliance with the Standards, taking into account Türk Loydu's commitment to rectify the identified non-conformities and address the observations of the auditors (MSC 100/6/8).

6.10 Consequently, the Committee confirmed that the information provided by Türk Loydu had demonstrated that its rules conformed to the Standards and, in particular:

- .1 requested the Secretary-General to notify the Turkish Administration and Türk Loydu that the submitted rules conformed to the Tier I Goals and Tier II Functional Requirements of the Standards;
- .2 agreed to circulate the result of the successful verification to Member States by means of an MSC circular (see paragraph 6.11) and requested the Secretariat to maintain the original copy of the documentation package submitted by Türk Loydu that had been verified for conformity;
- .3 agreed that the identified non-conformities were to be rectified, taking into account the recommendations made by the Audit Team and the Corrective Action Plan, and that Türk Loydu should submit a request for a verification audit on the rectification of non-conformities; and
- .4 requested Türk Loydu to address the identified observations in the future, taking into account the recommendations made by the Audit Team and the Corrective Action Plan, and to report on the status of the observations in accordance with the timescales set out in the annex to document MSC 100/6/10.

6.11 The Committee, taking into account the decision in paragraph 6.10.2 and recalling MSC.1/Circ.1518 on *Promulgation of rules for the design and construction of bulk carriers and oil tankers of an organization, which is recognized by Administrations in accordance with the provisions of SOLAS regulation XI-1/1, confirmed by the Maritime Safety Committee to be in conformity with the goals and functional requirements of the Goal-based Ship Construction Standards for Bulk Carriers and Oil Tankers*, requested the Secretariat to prepare a revision of the circular for the purpose of promulgating the successful GBS verification of Türk Loydu, to be issued as MSC.1/Circ.1518/Rev.1.

6.12 Following discussion, the Committee instructed the GBS Working Group to finalize the draft amendments to the GBS Verification Guidelines (resolution MSC.296(87)), based on annex 1 to document MSC 99/WP.8, taking into account documents MSC 100/6/4, MSC 100/6/5 and MSC 100/6/6 and addressing the following issues:

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- .1 consider drafting provisions to address cases where ship construction rules of ROs and Administrations incorporate publicly available third-party rules already approved by the Committee as GBS-conforming; and
 - .2 consider the observations of the Audit Teams contained in document MSC 100/6/6.

6.13 Having confirmed that Türk Loydu's rules complied with the Standards, the Committee expressed its appreciation to the Secretary-General, the Secretariat, the auditors and Türk Loydu for the work carried out.

GBS maintenance of verification audit of the 12 IACS member ROs

6.14 The Committee recalled that MSC 96 had confirmed that the 12 IACS member ROs had demonstrated that their rules conformed to the Standards; and that MSC 98 had established that all non-conformities had been rectified to the satisfaction of the Audit Team and had subsequently confirmed that the whole process of the initial verification audit of the 12 IACS member ROs had been successfully completed.

6.15 The Committee also recalled that, in order to establish continued conformity with the Standards in accordance with the GBS Verification Guidelines, maintenance of verification audits should be conducted on an annual basis (GBS Verification Guidelines, part A, paragraph 19).

6.16 In this respect, the Committee had for its consideration the final report of the GBS maintenance of verification audit of the 12 ROs (MSC 100/6/5 and Add.1) that had requested an audit in order to establish conformity of their rule sets with the Standards, in accordance with the GBS Verification Guidelines.

6.17 The Committee noted that the Audit Team had identified two IACS CSR-related non-conformities: the first relating to Functional Requirement 4 (Fatigue life) and the second relating to Functional Requirement 11 (Construction quality procedures), as well as four observations, but had, nevertheless, concluded that all IACS member ROs' rules, except for DNV-GL (MSC 100/6/3, paragraphs 6.23 to 6.27) (see paragraphs 6.21 to 6.25), conformed to the Standards, provided that the non-conformities identified in paragraph 1.4.1 of the final report were rectified and the observations addressed, taking into account the recommendations made by the Audit Team and that IACS member ROs should submit a joint request for a rectification of non-conformities verification audit.

6.18 In addition to the audit report (MSC 100/6/5), the Committee had the following documents for its consideration:

- .1 MSC 100/6/6 (Secretariat) (part), containing, inter alia, the observations of the Audit Team on the GBS maintenance of verification audit of the 12 ROs;
- .2 MSC 100/6/10 (IACS), on the Corrective/Improvement Action Plans submitted in response to the findings identified during the first GBS maintenance of verification audit; and
- .3 MSC 100/INF.7 (Secretariat), containing the report of China Classification Society (CCS) on the status of their addressed observations.

6.19 In considering the above documents, the Committee confirmed that the information provided by the Submitters (all IACS member ROs, except for DNV-GL) had demonstrated

continued conformance with the Standards and agreed that the identified non-conformities should be rectified, taking into account the recommendations made by the Audit Team and the Corrective Action Plan as submitted by IACS in document MSC 100/6/10; and that IACS member ROs should submit a joint request for a verification audit on the rectification of non-conformities, as the identified non-conformities concerned only IACS' CSR.

6.20 Having noted the information contained in documents MSC 100/6/10 and MSC 100/INF.7, addressing observations made by the Audit Team, the Committee requested IACS and CCS to provide further information on the status reports addressing observations, in accordance with the timescales set out in documents MSC 100/6/10 and MSC 100/INF.7, respectively.

Consideration of DNV-GL's ship construction rules

6.21 The Committee considered document MSC 100/6/3 (Secretariat), containing a proposal to conduct a re-verification audit of DNV-GL's ship construction rules, as provided for in paragraph 20 of part A of the GBS Verification Guidelines, in view of the fact that the Audit Team had been unable to conduct the audit of the rule changes submitted by DNV-GL to verify continued conformity with the Standards (MSC 100/6/5, paragraph 5), for the reasons set out in the ensuing paragraphs.

6.22 The Committee noted the special case of DNV-GL as a classification society formed as the result of a merger between DNV and GL at a time when the initial verification requests for GBS audits were due to be submitted; and that DNV-GL had, after submitting their original documentation package based on DNV's rules for the initial GBS verification audit, conducted a comprehensive review of its rule set to include a number of GL's rules, procedures and technical documentation to improve their rule set and services, making it impracticable to report each single rule change to the Audit Team.

6.23 Content with the explanations provided in document MSC 100/6/3 and acknowledging the special nature of this case, the Committee agreed to the conduct of a re-verification audit of DNV-GL's rules, in accordance with paragraph 20 of part A of the GBS Verification Guidelines.

6.24 In this connection, the Committee also agreed that ships contracted by DNV-GL since the successful initial verification audit (MSC 96/25, paragraph 5.8) were deemed to meet the Standards, pending consideration of the audit report on the re-verification of DNV-GL's ship construction rules. The Committee noted in this regard that DNV-GL had already submitted a letter, dated 10 August 2018, to the Secretary-General, requesting a re-verification audit of its rules.

6.25 Consequently, the Committee requested the Secretariat to initiate the aforementioned re-verification audit as soon as reasonably possible, so that the audit report could be considered at MSC 101.

Costs for GBS maintenance/rectification of non-conformities audits

6.26 The Committee recalled that MSC 86 had noted that, for the maintenance of verification audits, the Submitter should be responsible for the Audit Team's expenses, such as fees, travel and DSA, which would be in proportion to the volume of rule changes selected for audit.

6.27 The Committee also recalled that the Secretariat (MSC 87/5/2, paragraph 20) had estimated the costs for the maintenance of verification audit to be approximately \$50,000 per

year, based on the assumption that a total of 20 ROs would submit their rule changes on an annual basis; and that these estimates might require adjustment in light of the experience gained with the implementation of the GBS verification scheme and any financial fluctuations, such as exchange rate variations or changes to the UN salary scale, travel expenses and fee structure.

6.28 The Committee further recalled that MSC 90 had considered the financial arrangements for the maintenance of verification audits (MSC 90/5/1), in particular that, while the initial verification required a non-refundable audit fee of \$50,000, no provisions had been made with regard to the financing of the maintenance of verification audits, taking into account that the establishment of Audit Teams would need to be financed in some way, as they gave rise to auditors' fees and travel expenses.

6.29 In this regard, the Committee had the following documents for its consideration:

- .1 MSC 100/6/1 (Secretariat) providing an analysis of the costs incurred to conduct the first GBS maintenance audit, the costs of verifying that non-conformities had been rectified and a recommendation on how these audit fees should be calculated in the future to ensure a fair financial contribution from Submitters; and
- .2 MSC 100/6/7 (Secretariat) providing the financial status report of the GBS Trust Fund, established as a source of financial support for the GBS verification audits.

6.30 In considering the above documents, as well as comments made in plenary, the Committee:

- .1 agreed to formally require that, in cases where a Submitter's rule set had been confirmed to meet the Standards, subject to all non-conformities being rectified, a rectification of non-conformities audit would need to be requested by the Submitter;
- .2 instructed the GBS Working Group to further consider the financial implications of conducting GBS maintenance and rectification of non-conformities audits and to advise on the cost calculation, taking into account the proposal in document MSC 100/6/1; and
- .3 agreed that scheduled maintenance of verification audits should take place at the same time for all those ROs that had successfully completed the initial verification and that, as included in the draft Revised GBS Guidelines, this would be every three years, following the cycle established for the 12 IACS member ROs.

Draft amendments to the GBS Verification Guidelines

6.31 The Committee recalled that, based on the experience gained during the initial GBS verification audits of the individual rules of the 12 IACS member ROs, and taking into account the observations made by the GBS auditors during the first auditing process, MSC 96 had agreed to the development of amendments to the GBS Verification Guidelines.

6.32 The Committee also recalled that MSC 99 had approved, in principle, draft Revised GBS Verification Guidelines (MSC 99/WP.8, annex 1) with a view to subsequent adoption at this session and taking effect one year after adoption.

6.33 In considering document MSC 100/6 (Secretariat), containing a draft MSC resolution on the Revised GBS Verification Guidelines (MSC 99/WP.8, annex 1), together with editorial modifications suggested by the Secretariat, the Committee instructed the GBS Working Group to finalize the draft revised guidelines with a view to adoption at this session, taking into account the lessons learned from the most recent audits.

Pool of GBS auditors

6.34 The Committee noted information provided by the Secretariat regarding difficulties experienced when establishing GBS Audit Teams to conduct the initial verification of Türk Loydu and the maintenance of verification audit of the 12 IACS member ROs, as a number of auditors nominated by Member States and international organizations were no longer available for a variety of reasons.

6.35 In this connection, the Committee also considered a proposal by the Secretariat to develop a GISIS functionality under the existing module "National Contacts" to allow Member States and international organizations to nominate GBS auditors directly in GISIS and to update the list of auditors, as necessary.

6.36 The Committee, having noted that this GISIS functionality would:

- .1 reduce the administrative burden for nominating Member States, international organizations and the Secretariat;
- .2 increase transparency as the information would be available to all GISIS users; and
- .3 build upon the existing GISIS structure, thereby not incurring additional costs to the Organization,

agreed to its development and requested the Secretariat to take the necessary action and provide an update on the progress made to MSC 101.

Draft Interim guidelines for development and application of IMO goal-based standards safety level approach (GBS-SLA)

6.37 The Committee recalled that:

- .1 MSC 95, as part of the work plan for the development of draft Interim guidelines for the 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 decide on the future direction of the safety level approach (SLA) (MSC 95/22, paragraph 5.18.3);
- .2 MSC 98 had made further progress on the development of the draft Interim guidelines by considering how to generically describe the process of developing IMO instruments using risk-based methods; and
- .3 MSC 99 had approved, in principle, the draft Interim guidelines (MSC 99/WP.8, annex 3) for consideration at this session with a view to approval, and requested the Secretariat to prepare the associated draft MSC circular (MSC 99/22, paragraph 6.21).

6.38 Having considered document MSC 100/6/2 (Secretariat), containing the draft Interim guidelines agreed in principle at the last session, the Committee approved MSC.1/Circ.1596 on *Interim guidelines for development and application of the IMO goal-based standards safety level approach*.

Experience gained in the application of the Generic guidelines for developing IMO goal-based standards

6.39 The Committee noted that SSE 5 had established a working group to develop draft goals and functional requirements for onboard lifting appliances and anchor handling winches (OLAW), taking into account the *Generic guidelines for developing IMO goal-based standards* (MSC.1/Circ.1394/Rev.1) and, after having considered the Group's report (SSE 5/WP.5), agreed to forward the experience gained with the application of the Generic guidelines to the Committee for consideration (SSE 5/17, paragraph 10.36).

6.40 One delegation expressed the view that the experience reported by the SSE Sub-Committee regarding the application of the Generic guidelines revealed that there was still a misconception about their use, since they were not intended to prevent the development of prescriptive requirements.

6.41 Consequently, the Committee, having considered the outcome of SSE 5 and recognizing the benefit of the lessons learned in the application of the Generic guidelines, instructed the GBS Working Group, if time permitted, to consider the views expressed at SSE 5 on the matter and to advise the Committee on any actions that might need to be taken.

Establishment of a working group

6.42 Having considered the above matters, the Committee established the Working Group on Goal-based Standards (GBS) and instructed it, taking into account the comments and decisions made in plenary, to:

- .1 finalize the draft amendments to the GBS Verification Guidelines (resolution MSC.296(87)), based on annex 1 to document MSC 99/WP.8, taking into account documents MSC 100/6/4, 100/6/5 and 100/6/6 and considering the following issues:
 - .1 drafting provisions to address cases where ship construction rules of ROs and Administrations incorporate publicly available third-party rules already approved by the Committee as conforming to the Standards; and
 - .2 the observations of the Audit Teams contained in document MSC 100/6/6;
- .2 further consider the financial implications of conducting GBS maintenance and rectification of non-conformity audits and advise the Committee on such costs, taking into account the proposal in document MSC 100/6/1;
- .3 if necessary, update the revised timetable and schedule of activities for the implementation of the GBS verification scheme (MSC 99/22/Add.1, annex 15); and
- .4 if time permits, consider the views expressed at SSE 5 (SSE 5/17, paragraph 10.36) on the experience gained in the application of the *Generic*

guidelines for developing IMO goal-based standards (MSC.1/Circ.1394/Rev.1) and advise the Committee on any actions to be taken, as appropriate.

Report of the Working Group

6.43 Having considered the report of the GBS Working Group (MSC 100/WP.10), the Committee approved it in general and took action as described in the following paragraphs.

Draft amendments to the GBS Verification Guidelines

6.44 The Committee, having noted the amendments to the draft Revised GBS Verification Guidelines prepared by the Group, in particular those addressing the concerns outlined in document MSC 100/6/6 concerning ROs using third-party rules, adopted resolution MSC.454(100) on *Revised guidelines for verification of conformity with goal-based ship construction standards for bulk carriers and oil tankers*, as set out in annex 3, with a date of taking effect of 1 January 2020.

Costs of GBS maintenance/rectification of non-conformities audits

6.45 Having considered the Group's proposals regarding the fees related to maintenance audits and verification of non-conformities audits and the recommendation to allow flexibility for the Secretariat in adjusting these fees, depending on the nature and complexity of the maintenance audit and the non-conformities, the Committee agreed to the following fees:

- .1 maintenance of verification audits: \$30,000 maintenance audit fee, which, if combined into a single maintenance or unscheduled audit for several ROs, would be divided by the number of ROs to be audited; and
- .2 rectification of non-conformity audits: \$6,000 per non-conformity up to, but not more than, \$30,000 for a single rectification of non-conformity audit (for joint submissions by ROs the costs should be equally divided between all of the submitters).

6.46 In this regard, the Committee also agreed that the above fees should be applied with immediate effect and requested the Secretariat to take action accordingly.

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

6.47 The Committee endorsed the view of the group that there was no need to revise the current timetable and schedule of activities (MSC 99/WP.8, annex 2).

Experience gained in the application of the Generic guidelines for developing IMO goal-based standards

6.48 The Committee considered the Group's discussion in respect of the experience gained in the application of the *Generic guidelines for developing IMO goal-based standards* (MSC.1/Circ.1394/Rev.1), as reported by SSE 5 (SSE 5/17, paragraph 10.36), and endorsed the Group's views that:

- .1 when developing a new regulation that mainly required high-level directions, the goal-based approach is easier to achieve than for existing highly technical regulations;

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- .2 work on goal-based rules should start by setting the goals first before identifying hazards and subsequent functional requirements, followed by the drafting of prescriptive regulations; and
 - .3 it should be the prerogative of the concerned organ of the Organization to use any approach considered suitable.

6.49 Subsequently, the Committee, having endorsed the Group's recommendation to amend the Generic guidelines to aid their application throughout the Organization, invited Member States and international organizations to submit proposals in this respect to MSC 101.

7 SAFETY MEASURES FOR NON-SOLAS SHIPS OPERATING IN POLAR WATERS

7.1 The Committee recalled that MSC 99 had agreed to establish a working group at this session to further consider outstanding issues, provide clear instructions to the NCSR Sub-Committee, and further consider the Roadmap prepared by the Working Group (MSC 99/WP.10, annex 2); and invited Member States and international organizations to submit proposals addressing the aforementioned issues to this session.

7.2 The Committee had for its consideration the following documents:

- .1 MSC 100/7 (Canada and New Zealand) proposing amendments to SOLAS chapter XIV to mandate the Polar Code, part I-A, chapter 10, for all ships operating in polar waters to which SOLAS chapter IV applied, and chapters 9 and 11, for all ships operating in polar waters to which SOLAS chapter V applied, while maintaining the application of provisions of SOLAS regulation V/1.4; and to aid Administrations in following the intent of regulation V/1.4 consistently when applying the requirements of chapter 9 of the Polar Code, that a linkage table (MSC 100/7, annex 2) be included as an amendment to the Polar Code, part I-B; and
- .2 MSC 100/7/1 (Canada) proposing that, in addition to the proposals in document MSC 100/7, certain methodologies for determining ships' operational limitations in ice be made mandatory for non-SOLAS ships operating in polar waters; and that the carriage of the Polar Water Operational Manual (PWOM) (or equivalent) be made mandatory for such ships, together with the required definitions, performance standards and operational assessments.

7.3 The Committee noted that the above proposals addressed one of the outstanding issues, i.e. consideration of the wider application of the Polar Code, chapters 9 to 11.

7.4 During the ensuing discussion, the following views were, inter alia, expressed:

- .1 seafarers on non-SOLAS ships deserved the same level of protection as those serving on board SOLAS ships;
- .2 the initiative to widen the scope of the Polar Code was well founded and would enhance the safety of ships operating in extreme areas where SAR missions were particularly challenging;
- .3 the intention of making some of the navigation and communication provisions of the Polar Code mandatory for non-SOLAS ships was supported;

- .4 the proposals in the documents were pragmatic, operational and straightforward;
- .5 careful consideration should be given to determining which provisions of chapters 9 to 11 of the Polar Code should be made mandatory for which type of ship, and a proper impact assessment for individual provisions for each ship type should be carried out by appropriate technical sub-committees;
- .6 amendments to SOLAS were not supported at this time, as a compelling need had not been demonstrated; and an alternative way of regulating non-SOLAS ships would be to expand the development of non-mandatory safety guidelines for fishing vessels and yachts, under consideration by the SDC Sub-Committee;
- .7 SOLAS amendments could potentially undermine and conflict with national requirements of some countries for domestic ships; and proposed measures could impose costly equipment, as well as operational and administrative burdens on ships, which needed to be balanced against the likely improvements to safety at sea for these ships;
- .8 ships engaged only in domestic voyages should not be subject to the same level of mandatory provisions applicable to those engaged in international voyages;
- .9 fishing vessel safety was regulated by the 2012 Cape Town Agreement and was outside the scope of SOLAS;
- .10 some of the proposals were not practical for recreational sailing ships; and
- .11 with regard to possible mandatory carriage requirements for a PWOM, more information was required for proper consideration, in particular what elements of the PWOM should be made mandatory and how to address these issues.

7.5 Following the discussion, the Committee decided to refer documents MSC 100/7 and MSC 100/7/1 to the Working Group for further detailed consideration.

Consideration of mandatory safety measures for fishing vessels and small cargo ships

7.6 The Committee noted that there was one other outstanding issue which might need to be addressed, i.e. the consideration of mandatory safety measures for fishing vessels of 24 m in length and over, limited to SOLAS chapter V, and cargo ships of 300 gross tonnage and upwards but less than 500 gross tonnage, limited to SOLAS chapters IV and V.

7.7 In view of the absence of any submissions on this matter, the Committee decided not to consider possible amendments to SOLAS chapters IV and V and part I-A of the Polar Code at this stage, but to concentrate on the proposed amendments to SOLAS chapter XIV and part I-B of the Code, with the aim to extend the applicability of existing mandatory and recommendatory provisions for SOLAS ships to non-SOLAS ships.

Reference table and Roadmap

7.8 In light of the foregoing, the Committee forwarded the reference table on the existing regulatory provisions for non-SOLAS ships operating in polar waters (MSC 99/WP.10,

annex 1) and the Roadmap (MSC 99/WP.10, annex 2) to the Working Group for further consideration and updating.

Establishment of a working group

7.9 Subsequently, the Committee established the Working Group on Safety Measures for Non-SOLAS Ships Operating in Polar Waters and instructed it, taking into account comments made and decisions taken in plenary, to:

- .1 further consider draft amendments to SOLAS regulations XIV/2 (Application) and XIV/3 (Requirements for ships to which this chapter applies) to widen the scope of application of the Polar Code to certain non-SOLAS ships, using the text in document MSC 100/7, annex 1, as the basis;
- .2 further consider draft amendments to part I-B of the Polar Code on add-on linkages between the Polar Code, section 9.3, and SOLAS chapter V regulations referenced in regulation V/1.4, using the text in document MSC 100/7, annex 2, as the basis;
- .3 consider document MSC 100/7/1 proposing certain mandatory methodologies for determining ships' operational capabilities in ice in the context of voyage planning (Polar Code, chapter 11) and mandatory carriage requirement of a Polar Water Operational Manual (PWOM), and provide advice on the implementation of the proposal; and
- .4 update the reference table on existing regulatory provisions for non-SOLAS ships operating in polar waters (MSC 99/WP.10, annex 1) and the Roadmap (MSC 99/WP.10, annex 2).

Report of the Working Group

7.10 Having considered the report of the Working Group (MSC 100/WP.9), the Committee approved it in general and took action as described hereunder.

Wider scope of application of the Polar Code

7.11 The Committee noted the discussion and diverse views in the Group on widening the mandatory application of the Polar Code and the progress made on a preliminary draft text for a new paragraph in SOLAS regulation XIV/3 relating to the Polar Code, part I-A, chapters 9 (Safety of navigation) and 11 (Voyage planning), as set out in annex 1 to document MSC 100/WP.9, and agreed to take this draft text into account in the future work.

7.12 In this context, the Committee invited Member States and international organizations to submit information to MSC 101 that would assist to determine the feasibility and consequences of applying the requirements in chapters 9 and 11 of the Polar Code to non-SOLAS ships, in order to progress the work at the next session.

Amendments to part I-B of the Polar Code

7.13 The Committee, having noted that the reference table illustrated linkages between the Polar Code, section 9.3 and corresponding SOLAS chapter V regulations, but did not indicate the provisions proposed to be made mandatory to non-SOLAS ships, endorsed the Group's view that it was not necessary at this stage to prepare a table to be included in part I-B of the Polar Code, but that the existing table could be referenced in future discussions regarding the revision of SOLAS chapter XIV.

Voyage planning

7.14 The Committee noted that more precise proposals justifying the need for a PWOM (or equivalent) and methodologies for determining ships' operational capabilities in ice would be required in order to consider the issue further.

Reference table on existing regulatory provisions and the Roadmap

7.15 The Committee endorsed the Group's views that the reference table on existing regulatory provisions for non-SOLAS ships operating in polar waters (MSC 99/WP.10, annex 1) remains relevant for its original purpose and may be used to assist sub-committees during their work on this output and that it is not necessary to include the table in part I-B of the Polar Code at this stage (see paragraph 7.13).

7.16 The Committee endorsed the updated Roadmap, as set out in annex 2 to document MSC 100/WP.9.

Development of interim measures and generic guidance for non-SOLAS ships

7.17 The Committee endorsed the Group's view that, as an interim measure, a resolution to urge Member States to implement recommendatory measures for non-SOLAS ships operating in polar waters could be developed, and invited Member States and international organizations to submit proposals for such a resolution to MSC 101.

8 POLLUTION PREVENTION AND RESPONSE

8.1 The Committee noted that the Sub-Committee on Pollution Prevention and Response (PPR) held its fifth session from 5 to 9 February 2018 and that its report on that session had been circulated under the symbols PPR 5/24 and PPR 5/24/Add.1.

8.2 The Committee also noted that the Marine Environment Protection Committee (MEPC) had held its seventy-third session from 22 to 26 October 2018 and that its report on that session had been circulated under the symbols MEPC 73/19 and MEPC 73/19/Add.1.

Draft amendments to the IBC and BCH Codes

8.3 Having noted that MEPC 73 had approved draft amendments to the IBC Code prepared by PPR 5 with a view to adoption at MEPC 74, the Committee concurrently approved the draft amendments to the IBC Code, as set out in annex 4, and requested the Secretary-General to circulate them in accordance with SOLAS article VIII, with a view to adoption at MSC 101.

8.4 The Committee also noted that MEPC 73 had approved draft consequential amendments to the BCH Code prepared by PPR 5, with a view to adoption at MEPC 74, and concurrently approved the draft amendments to the BCH Code, as set out in annex 5, with a view to adoption at MSC 101, in conjunction with the adoption of the corresponding amendments to the IBC Code (see paragraph 8.3).

Safety implications associated with the use of low-sulphur fuel oil***Background***

8.5 In considering matters related to safety implications associated with the use of low-sulphur fuel oil, the Committee recalled that MEPC 72 had reiterated its decision taken at

MEPC 71 that the PPR Sub-Committee should report to MSC any safety issues that might be identified with regard to the use of low-sulphur fuel oil (MSC 100/2/3, paragraph 2.3).

8.6 The Committee noted that an Intersessional Meeting on Consistent implementation of regulation 14.1.3 of MARPOL Annex VI (ISWG-AP 1) had taken place from 9 to 13 July 2018 and that the outcome of the meeting had been reported to MEPC 73 (MEPC 73/5), recalling that MSC 99 had noted that the outcome of MEPC 73's consideration of the part of the report of ISWG-AP 1 related to safety issues that might be identified with regard to the use of low-sulphur fuel oil would be reported to MSC 100 for consideration.

8.7 With regard to the outcome of MEPC 73 related to consistent implementation of regulation 14.1.3 of MARPOL Annex VI (MSC 100/2/3, paragraph 3.4), the Committee noted that MEPC 73 had:

- .1 adopted, by resolution MEPC.305(73), amendments to MARPOL Annex VI concerning the prohibition of the carriage of non-compliant fuel oil for combustion purposes for propulsion or operation on board a ship (MEPC 73/19, paragraph 3.15 and annex 1);
- .2 approved MEPC.1/Circ.878 on *Guidance on the development of a ship implementation plan for the consistent implementation of the 0.50% sulphur limit under MARPOL Annex VI* (MEPC 73/19, paragraph 5.27);
- .3 invited further concrete proposals to MEPC 74 on how to enhance the implementation of regulation 18 of MARPOL Annex VI, in particular on fuel oil quality and reporting of non-availability of compliant fuel oils, including the enhancement of the GISIS module for data collection and analysis (MEPC 73/19, paragraph 5.33);
- .4 urged Parties to MARPOL Annex VI to inform the Organization of the availability of compliant fuel oils in their ports and terminals via the GISIS MARPOL Annex VI module well in advance of 1 January 2020, in accordance with regulation 18.1 of MARPOL Annex VI (MEPC 73/19, paragraph 5.36);
- .5 approved MEPC.1/Circ.880 on *Reporting of availability of compliant fuel oils in accordance with regulation 18.1 of MARPOL Annex VI* (MEPC 73/19, paragraph 5.36);
- .6 re-established the Correspondence Group on Fuel Oil Quality and instructed it to finalize draft guidance on best practice for Member States/coastal States (MEPC 73/19, paragraph 5.78); and
- .7 approved MEPC.1/Circ.875/Add.1 on *Guidance on best practice for fuel oil suppliers for assuring the quality of fuel oil delivered to ships* (MEPC 73/19, paragraph 5.79),

and that PPR 5 had agreed to a work plan to complete the output on "Consistent implementation of regulation 14.1.3 of MARPOL Annex VI" and the outline of draft guidelines for consistent implementation of regulation 14.1.3 of MARPOL Annex VI (MEPC 73/19, paragraph 5.17).

8.8 The Committee considered the outcome of ISWG-AP 1 concerning the safety implications associated with the use of low-sulphur fuel oil (MEPC 73/5, paragraphs 16 to 23; and PPR 6/8), together with document MSC 100/8/1 (Liberia et al.), providing proposals to

assist the Committee to address the safety concerns identified by ISWG-AP 1 and to improve safety, in particular emphasizing that fuel safety was an existing concern, and pointing out that these concerns were expected to become more acute when the amendments to regulation 14 of MARPOL Annex VI entered into force on 1 January 2020; and took action as described in paragraphs 8.9 to 8.23.

Mechanisms for dealing with fuel oil safety matters

8.9 In considering the proposals in paragraphs 27 and 28 of document MSC 100/8/1, the Committee noted, inter alia, the following views:

- .1 Member States and stakeholders were fully committed to the implementation of the 0.50% sulphur limit and concurred that the discussions and decisions on this issue would not affect the limit nor delay the date of entry into force of the sulphur limit;
- .2 maritime safety was the primary concern of this Organization and any developments or amendments to other instruments should not contravene SOLAS;
- .3 fuel quality and safety were longstanding existing concerns and related matters were fully under the responsibility of this Committee;
- .4 cooperation between MSC and MEPC was functioning well, i.e. MEPC regulated fuel oil matters related to environmental protection and air emissions and, in the case that any safety-related requirements were identified, MEPC would consult with MSC before a decision was made;
- .5 currently, 0.50% sulphur limit related regulations were appropriately covered under MARPOL but fuel oil safety was a broader matter and should not be seen as an issue driven only by the implementation of the sulphur cap;
- .6 the Committee should further consider the development of a mechanism that would be fully within its scope and would not address MARPOL regulations, with a view to ensuring that the safety risks associated with fuel oil could be mitigated appropriately;
- .7 the identified safety issues, in particular those associated with blended fuels, should not be underestimated but should be urgently and properly addressed well in advance of the implementation of the new requirements, so that the safe transition of the shipping industry towards the 0.50% sulphur limit was ensured;
- .8 environmental compliance, in particular relating to the implementation of the 0.50% sulphur limit, and the assurance of ship safety were separate and distinct issues;
- .9 fuel oil safety was addressed in different IMO instruments, e.g. SOLAS chapter II-2, which regulated the flash-point of fuel oil, and regulation 18 of MARPOL Annex VI, which regulated the general quality and safety of fuel oil;
- .10 some SOLAS Contracting Governments regarded fuel oil quality as a commercial matter; and some existing regulations were not effectively implemented and the current system of leaving the responsibility for fuel oil testing to the end user was outdated and required modification;

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- .11 with regard to regulation 18 of MARPOL Annex VI, it was not clear what specific requirement was needed in addition to the current MARPOL and SOLAS regulations; and
 - .12 the ISO 8217 fuel quality standard should be taken into account, in particular the specified limits for several safety-related parameters which were routinely tested for, and the relationship between these parameters and operational issues was well understood.

8.10 Following discussion and endorsing the co-sponsors' view that, while fuel safety was a longstanding existing concern which needed to be carefully addressed, this should not affect Member States' commitment to implementing the 2020 sulphur limit, the Committee:

- .1 reiterated that the MARPOL Convention was under the auspices of MEPC and, therefore, any proposals to amend certain MARPOL provisions needed to be brought to the attention of that Committee;
- .2 recognized that maritime safety was its primary responsibility and this included fuel safety issues; and
- .3 acknowledged that urgent actions were required to address the safety implications associated with the use of low-sulphur fuel oil, but that long-term solutions to enhance the safety of ships relating to the use of fuel oil were also needed.

8.11 The Committee agreed that:

- .1 in order to develop long-term solutions to enhance the safety of ships relating to the use of fuel oil, a new output on fuel safety issues would be needed; and
- .2 a working group could be established at MSC 101 (see paragraph 17.39), with a view to further progressing the development of measures to enhance the safety of ships relating to the use of fuel oil, and document MSC 100/8/2 (Bahamas et al.) could be considered in that working group.

New output dealing with fuel oil safety matters

8.12 Having considered the above matters, the Committee established the Drafting Group on Fuel Oil Safety Matters and instructed it, taking into account the comments and decisions made in plenary, to develop a title for a new output dealing with fuel oil safety matters and the associated scope of work.

8.13 Having considered the report of the Drafting Group (MSC 100/WP.11), the Committee approved it in general and agreed to include in its biennial agenda an output on "Development of further measures to enhance the safety of ships relating to the use of fuel oil", with a target completion year of 2021 and an associated scope of work as follows:

"Based on the review of existing safety provisions for fuel oil and information concerning the safety implications associated with the use of fuel oil, develop further measures to enhance the safety of ships relating to the use of fuel oil."

8.14 The Committee agreed to include the above-mentioned new output in the agenda for MSC 101 (see annex 15) and invited interested Member States and international organizations to submit concrete proposals under the new output to that session.

Register of bunker suppliers

8.15 The Committee considered paragraph 29 of document MSC 100/8/1 and, having noted that the requirement to maintain a register of bunker suppliers was under the purview of MARPOL, agreed that the proposed bunker supplier licensing schemes should be addressed by MEPC.

GISIS module for fuel oil safety matters

8.16 In considering the proposal in paragraph 30 of document MSC 100/8/1, the Committee noted that MEPC 73 had invited further concrete proposals to MEPC 74 on how to enhance the implementation of regulation 18 of MARPOL Annex VI, in particular regarding fuel oil quality and reporting of non-availability of compliant fuel oils, including the enhancement of the GISIS module for data collection and analysis.

8.17 Following discussion, the Committee supported the enhancement of GISIS to provide greater granularity in fuel safety reports and invited MEPC 74 to advise MSC 101 on improvements to GISIS in this regard, e.g. update of existing GISIS modules or creation of a new module.

8.18 Furthermore, having recalled its earlier decision regarding the creation of a new output and possible establishment of a working group on fuel oil safety matters at MSC 101 (see paragraphs 8.13 and 8.14), the Committee noted that the development of a new GISIS module could also be affected by the outcome of future discussions.

MSC circular on ensuring fuel suppliers deliver compliant fuel oils

8.19 With respect to the proposal in paragraph 31 of document MSC 100/8/1, the Committee overwhelmingly supported the development of a draft circular recommending that all Member States take appropriate action to ensure that fuel oil suppliers under their jurisdiction deliver compliant fuel oils. In this context, the Committee instructed PPR 6 to develop a joint MSC-MEPC circular addressing the delivery of compliant fuel oils by suppliers, with a view to approval by MEPC 74 and MSC 101.

Further technical information and review of further potential safety implications identified by ISWG-AP 1

8.20 The Committee considered document MSC 100/8/2, providing further technical information and a review of potential safety implications identified by ISWG-AP 1, and highlighting that fuel oil safety was a longstanding existing concern that should not be considered only as a transitional matter for the implementation of regulation 14.1.3 of MARPOL Annex VI.

8.21 Having noted the initiative of industry organizations to develop guidance to address potential safety and operational issues related to the supply and use of low-sulphur fuels (MEPC 73/5/17), which was expected to be reported to PPR 6, the Committee agreed to forward document MSC 100/8/2 to PPR 6 for further consideration, with a view to reporting the outcome to MSC 101 (see also paragraph 8.11).

8.22 The Committee requested the Secretariat to inform MEPC 74 and PPR 6 of the outcome of the discussions under this agenda item.

9 SHIP SYSTEMS AND EQUIPMENT

Report of SSE 5

9.1 The Committee approved, in general, the report of the fifth session of the Sub-Committee on Ship Systems and Equipment (SSE) (SSE 5/17 and MSC 100/9) and took action as indicated in paragraphs 9.2 to 9.24, recalling that MSC 99 had already taken action on urgent matters emanating from SSE 5 (MSC 99/22, section 13).

Safety objectives and functional requirements for the Guidelines on alternative design and arrangements for SOLAS chapters II-1 and III

9.2 The Committee noted the outcome on matters related to the safety objectives and functional requirements for the *Guidelines on alternative design and arrangements for SOLAS chapters II-1 and III* (MSC.1/Circ.1212), in particular that SSE 5 had considered the presentation of functional requirements and expected performance and that a gap analysis was necessary, taking into account the relevant documents submitted. Consequently, SSE 5 re-established the Correspondence Group on Life-Saving Appliances and instructed it to progress the work in relation to the draft goals, functional requirements and expected performance for SOLAS chapter III, as well as to develop draft amendments to the guidelines.

Draft amendment to paragraph 6.1.1.3 of the LSA Code

9.3 The Committee considered a proposed draft amendment to paragraph 6.1.1.3 of the LSA Code regarding manual launching of rescue boats (SSE 5/17, annex 1), together with the following documents:

- .1 MSC 100/9/2 (Japan), proposing to clarify the application of the draft amendment to paragraph 6.1.1.3 of the LSA Code; and
- .2 MSC 100/9/9 (IACS), providing comments on the draft amendment to paragraph 6.1.1.3 of the LSA Code, in particular on the perceived ambiguity in the text "means for bringing the rescue boat against the ship's side" and the application date of the draft amendment.

9.4 In the ensuing discussion, the Committee noted, inter alia, the following views:

- .1 an application date should not be included, taking into account the conclusion of SSE 5 that an application date based on the installation date of the equipment was unnecessary;
- .2 an application date would bring more clarity when implementing the relevant provision of the LSA Code;
- .3 a clearer interpretation of the last sentence of the draft amendment was needed in regard to the means for bringing the rescue boat against the ship's side; and
- .4 the draft amendment in question did not provide sufficient clarity, in particular for the rescue boats which were not used as the ship's survival craft, and the SSE Sub-Committee should consider the matter further.

9.5 Following discussion, the Committee agreed to approve the draft amendment to the LSA Code at this session, with a view to adoption at MSC 101. Notwithstanding this decision, the Committee invited SSE 6 to consider the concerns raised during the discussion, with a view to advising MSC 101, as appropriate, and invited interested Member States and international organizations to submit relevant proposals to SSE 6, taking into account documents MSC 100/9/2 and MSC 100/9/9.

9.6 Consequently, the Committee approved the draft amendment to paragraph 6.1.1.3 of the LSA Code, as set out in annex 6, and requested the Secretary-General to circulate it in accordance with SOLAS article VIII, with a view to adoption at MSC 101.

Consequential work related to the Polar Code

9.7 The Committee, having acknowledged that SSE 5 could not finalize the draft interim guidelines on life-saving appliances and arrangements for ships operating in polar waters, and the consideration of suitable regulatory options to address future new test and performance criteria, noted the progress made with regard to the consequential work related to the Polar Code.

Draft amendments to the Revised guidelines for the design and approval of fixed water-based fire-fighting systems for ro-ro spaces and special category spaces

9.8 The Committee considered draft amendments to the *Revised guidelines for the design and approval of fixed water-based fire-fighting systems for ro-ro spaces and special category spaces* (MSC.1/Circ.1430); together with document MSC 100/9/3 (Japan), proposing that the application date of the amended Revised guidelines be changed from "1 July 2018" to "1 January 2021", to provide more time for ship designers to develop systems to meet the requirements prior to the date.

9.9 During the discussion, the Committee noted the following views:

- .1 the proposed application date was too far in the future and this could compromise the safety requirements, therefore the date should be brought forward; and
- .2 in order to provide more clarity in relation to type approvals of new and existing systems, a similar approach to that stipulated in resolution MSC.265(84) on *Amendments to the Revised Guidelines for approval of sprinkler systems equivalent to that referred to in SOLAS regulation II-2/12 (resolution A.800(19))* could be taken.

9.10 Following discussion, the Committee agreed to amend the application date of the amended Revised guidelines to "1 January 2021" and approved MSC.1/Circ.1430/Rev.1 on *Revised guidelines for the design and approval of fixed water-based fire-fighting systems for ro-ro spaces and special category spaces*.

Scope of application of new requirements for onboard lifting appliances and anchor handling winches (OLAW)

9.11 The Committee considered how the scope of application of the new requirements for onboard lifting appliances and anchor handling winches should be specified, taking into account the three options proposed by SSE 5, i.e. a "list of inclusions"; or a "list of inclusions with some exclusions"; or a "list of exclusions", together with the following documents:

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- .1 MSC 100/9/1 (Japan et al.), proposing to modify the draft SOLAS amendments prepared by SSE 5 with respect to the definition of lifting appliance, in support of a "list of inclusions with some exclusions" to clarify the scope of application; and
 - .2 MSC 100/9/5 (IMCA), providing information in respect of onboard lifting appliances installed on offshore construction ships, in particular requesting the Committee to agree that lifting appliances on such ships were already highly regulated and, therefore, should not be included within the scope of the new SOLAS regulations.

9.12 In the ensuing discussion, the Committee noted, inter alia, the following views:

- .1 as the MODU Code was not mandatory, it should not be referenced in a mandatory instrument and the insertion of a new category of ships, e.g. offshore construction ships, should be avoided;
- .2 a list of inclusions with some exclusions in the application could obscure the proper implementation of the draft provisions, rather than clarifying;
- .3 a list of inclusions with some exclusions could provide better coverage of the application; however, the final wording should be finalized at SSE 6;
- .4 some other types of shipboard winches and cranes were not captured in the proposed amendments and, therefore, more consideration by the SSE Sub-Committee would be necessary; and
- .5 preference should be given to exclusions only, as inclusions could jeopardize the validity of the new regulations.

9.13 Taking the above views into account, the Committee agreed that a "list of inclusions with some exclusions" approach should be taken when drafting the relevant SOLAS amendments in relation to OLAW; and that lifting appliances on offshore construction ships should be excluded from the new requirements. Subsequently, the Committee instructed the SSE Sub-Committee to further consider which lifting appliances and winches should be indicated in the draft amendments, in light of the views expressed in paragraph 9.12.1 and based on documents MSC 100/9/1 and MSC 100/9/5.

Training and certification of crews and shore-based personnel using OLAW

9.14 The Committee noted the views expressed by various delegations during SSE 5 regarding the training and certification of crews and shore-based personnel using OLAW and how to address the training requirements, in particular that:

- .1 the original output did not cover training requirements;
- .2 the HTW Sub-Committee should be an associated organ;
- .3 anyone using OLAW should be trained, whether they were ship's crew or shore-based personnel; and
- .4 SOLAS might not be the instrument to address training matters and the Organization had already issued guidelines for training of shore-based personnel, such as the *Guidelines on minimum training and education for mooring personnel* (FAL.6/Circ.11/Rev.1).

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

9.15 Having noted that SSE 5 had identified some difficulties in the practical application of the Generic guidelines when reviewing the goal and formulating the functional requirements for the draft SOLAS regulation on OLAW, the Committee recalled that it had forwarded the views expressed on the experience gained in the application of the Guidelines (SSE 5/17, paragraph 10.36) to the GBS Working Group for consideration and advice, as appropriate (see paragraphs 6.42.4, 6.48 and 6.49).

Draft amendments to paragraph 2.2 of chapter 15 of the FSS Code

9.16 The Committee, aiming to provide a unified understanding of arrangements for inert gas lines and related indicators and alarms for monitoring the pressure of the inert gas mains, approved draft amendments to chapter 15 of the FSS Code, as set out in annex 7; and requested the Secretary-General to circulate them in accordance with SOLAS article VIII, with a view to adoption at MSC 101.

Unified interpretations of chapter 15 of the FSS Code

9.17 Having considered proposed amendments to the *Unified interpretations of chapter 15 of the FSS Code* (MSC.1/Circ.1582), as agreed by SSE 5 (SSE 5/17, paragraph 12.21 and annex 4), as an interim solution prior to the entry into force of the draft amendments to paragraph 2.2 of chapter 15 of the FSS Code (see paragraph 9.16), the Committee approved MSC.1/Circ.1582/Rev.1 on *Revised unified interpretations of chapter 15 of the FSS Code*.

Survey requirements of SOLAS chapter I with regard to surveys carried out in accordance with resolution MSC.402(96)

9.18 The Committee noted that III 5 had been requested by SSE 5 to consider concerns expressed regarding the survey requirements of SOLAS chapter I with respect to surveys carried out in accordance with resolution MSC.402(96) on *Requirements for maintenance, thorough examination, operational testing, overhaul and repair of lifeboats and rescue boats, launching appliances and release gear*; and that III 5 had forwarded its views to SSE 6 accordingly, agreeing to the requirement for the presence of a surveyor during examinations, overhauls and operational tests, carried out at intervals of at least once every five years (III 5/15, paragraph 8.8).

Unified Interpretation of paragraph 4.4.8.1 of the LSA Code

9.19 The Committee considered a draft MSC circular on a unified interpretation of paragraph 4.4.8.1 of the LSA Code, aiming at exempting lifeboats with two independent propulsion systems from being equipped with sufficient buoyant oars and their related items (thole pins, crutches or equivalent arrangements) to make headway in calm seas; together with document MSC 100/9/6 (Japan) proposing a further amendment to paragraph 4.4.8.1 of the LSA Code aimed at achieving consistency between the requirement of the Code and the draft unified interpretation prepared by SSE 5.

- 9.20 In the ensuing discussion, the Committee noted, inter alia, the following views:
- .1 although the reasoning behind the proposal by Japan was appreciated, the suggested amendment was not a "minor correction" and, therefore, a new submission should be required to address this topic in the SSE Sub-Committee;
 - .2 the draft amendment could be approved by the Committee at this session, with a view to adoption at MSC 101, taking into account the concerns expressed in sub-paragraph .1; and
 - .3 the issue of "two independent propulsion systems" and the associated components should be clarified to avoid any misinterpretation.

9.21 Following discussion, the Committee agreed to the following draft unified interpretation:

"For a lifeboat equipped with two independent propulsion systems, where the arrangement consists of two separate engines, shaft lines, fuel tanks, piping systems and any other associated ancillaries, paragraph 4.4.8.1 of the LSA Code need not be applied. For all other aspects, the lifeboat should be in full compliance with paragraph 4.4.8 of the LSA Code."

9.22 Consequently, the Committee approved MSC.1/Circ.1597 on *Unified interpretation of paragraph 4.4.8.1 of the LSA Code*.

9.23 In order to align the above unified interpretation with the LSA Code, the Committee also approved an associated draft amendment to paragraph 4.4.8.1 of the LSA Code, as set out in annex 6, and requested the Secretary-General to circulate it in accordance with SOLAS article VIII, with a view to adoption at MSC 101.

Substantive documents considered under the agenda item "Any other business"

9.24 The Committee noted the concerns expressed by SSE 5 regarding the proliferation of substantive documents being considered under the agenda item "Any other business" before the proposals in such documents had been properly addressed by the Committee, in accordance with the relevant procedures for new outputs.

Other matters

Fire-fighter radios required by SOLAS regulation II-2/10

- 9.25 The Committee had for its consideration the following documents:
- .1 MSC 100/9/4 (CIRM), informing that some companies manufacturing dedicated fire-fighter radios as required by SOLAS regulation II-2/10 had been encountering a significant shortage of electronic component parts and, therefore, difficulties in delivering a sufficient quantity of radios in time for customers' ships to comply with the above carriage requirement; and
 - .2 MSC 100/9/8 (ICS), providing statistical information on the availability of fire-fighter radios procured by companies to meet the requirements of SOLAS regulation II-2/10.10.4 and supporting the actions requested of the Committee in document MSC 100/9/4.

9.26 In considering the aforementioned documents, the Committee noted, inter alia, the following views:

- .1 the scarcity of the components for fire-fighter radio manufacturing was a known issue and, as requested in the documents above, a pragmatic and flexible approach should be taken by Administrations;
- .2 the decisions taken by the Committee should be implemented firmly without postponing the requirements emanating from IMO instruments;
- .3 a circular stating the importance of a pragmatic approach should be issued by the Committee, for Administrations to take into account; and
- .4 rather than providing exemptions, temporary dispensations by Administrations could be a way forward.

9.27 A relevant statement by the delegation of the Russian Federation is set out in annex 16.

9.28 Consequently, the Committee noted the challenges faced by some manufacturers of dedicated fire-fighter radios and invited Administrations to take them into account when conducting the first survey after 1 July 2018, with a view to taking a pragmatic and flexible approach.

Proposed amendments to SOLAS Records of Equipment

9.29 The Committee considered document MSC 100/9/7 (China), highlighting a perceived inconsistency in interpreting item 8.1 on "Rudder, propeller, thrust, pitch and operational mode indicator" in the Records of Equipment, Forms C, E and P contained in the appendix to the SOLAS Convention and proposing to add a footnote to provide the necessary clarification.

9.30 Following consideration, the Committee approved the draft amendments to the appendix (Certificates) to the SOLAS Convention, as set out in annex 8, and requested the Secretary-General to circulate them in accordance with SOLAS article VIII, with a view to adoption at MSC 101.

Ventilation of totally enclosed lifeboats

9.31 The Committee noted that SSE 5 had considered ventilation requirements for totally enclosed lifeboats and prepared draft amendments to the LSA Code concerning ventilation means and openings of the ventilation system and their means of closing for eventual submission to the Committee for approval, once the related amendments to the LSA Code regarding ventilation on survival craft other than totally enclosed lifeboats had been finalized.

9.32 In this regard, the Committee considered document MSC 100/9/10 (ICS et al.), commenting on paragraph 4.10 of the report of SSE 5 (SSE 5/17) with regard to the draft amendments to the LSA Code on the ventilation of totally enclosed lifeboats, expressing concerns regarding the practicalities and feasibility of the proposed ventilation requirements for lifeboats and that the desired ventilation rate might not be achievable, and pointing out that no formal safety assessment had been undertaken in order to arrive at the correct values and how they should be managed.

- 9.33 In the ensuing discussion, the Committee noted, inter alia, the following views:
- .1 when the draft amendments to the LSA Code had been considered by SSE 4 and SSE 5, sufficient consideration had been given to water-tightness, shock resistance, consumption of electric power and effects on space inside totally enclosed lifeboats, including functional requirements and cost evaluation; and therefore, necessity and practicality aspects had been addressed, requiring no further consideration of these draft amendments;
 - .2 a formal safety assessment could have far-reaching implications, which would compromise the timely implementation of the new amendments; and
 - .3 although the need for a habitable environment was not questioned, the technical nature of the criteria should be re-considered and, therefore, an in-depth discussion was still required.

9.34 A relevant statement by the delegation of Germany is set out in annex 16.

9.35 Taking into account the above views, and noting that the majority of those that spoke on the matter felt that this issue had already been adequately addressed by SSE 4 and SSE 5, the Committee decided not to take any action in relation to the proposal contained in document MSC 100/9/10.

10 HUMAN ELEMENT, TRAINING AND WATCHKEEPING

Report of HTW 5

10.1 The Committee approved, in general, the report of the fifth session of the Sub-Committee on Human Element, Training and Watchkeeping (HTW) (HTW 5/16 and MSC 100/10) and took action as outlined in paragraphs 10.2 to 10.10 below.

Procedural aspects related to the drafting of amendments to safety-related IMO conventions

10.2 The Committee endorsed the Sub-Committee's agreement that only selected provisions of the *Procedural aspects related to the drafting of amendments to safety-related IMO conventions, other than the 1974 SOLAS Convention, and related mandatory instruments* (MSC.1/Circ.1587), i.e. those related to the amendments' approval and adoption stages and other general matters such as the drafting group arrangements and the use of tracked changes, were applicable to the STCW Convention and STCW Code.

Model courses under the purview of IMO bodies other than the HTW Sub-Committee

10.3 With regard to model courses falling under the purview of IMO bodies other than the HTW Sub-Committee, the Committee instructed the following Sub-Committees to consider whether model courses under their responsibility might need to be revised and, if that was the case, to do so in accordance with the *Revised guidelines for the development, review and validation of model courses* (MSC-MEPC.2/Circ.15) at the earliest opportunity, in consultation with the Secretariat in order to streamline the process:

- .1 CCC Sub-Committee, Model Courses:
 - .1 3.18 on *Safe packing of Cargo Transport Units (CTUs)* (year of publication 2011); and

- .2 1.10 on *Dangerous, hazardous and harmful cargoes* (year of publication 2014);
- .2 III Sub-Committee, Model Course 3.11 on *Marine accident and incident investigation* (year of publication 2014);
- .3 NCSR Sub-Committee, Model Courses:
 - .1 3.08 on *Survey of navigational aids and equipment* (year of publication 2004);
 - .2 3.13 on *SAR administration (IAMSAR Manual vol. 1)* (year of publication 2014); and
 - .3 3.15 on *SAR on-scene coordinator (IAMSAR Manual vol. 3)* (year of publication 2014);
- .4 SDC Sub-Committee, model course 3.07 on *Hull and structural surveys* (year of publication 2004); and
- .5 SSE Sub-Committee, Model Courses:
 - .1 3.03 on *Survey of machinery installations* (year of publication 2004);
 - .2 3.04 on *Survey of electrical installations* (year of publication 2004);
 - .3 3.05 on *Survey of fire appliances and provisions* (year of publication 2004); and
 - .4 3.06 on *Survey of life-saving appliances and arrangements* (year of publication 2004).

10.4 Following the above instructions to sub-committees, the Committee decided to include the CCC, III, NCSR, SDC and SSE Sub-Committees¹ as associated organs in output 1.3 on "Validated model training courses".

10.5 In this connection, the Committee noted that MEPC 73 had already taken action to address the review of model courses under its purview and that of the PPR Sub-Committee.

10.6 The Committee also noted a statement by the Chair of the HTW Sub-Committee, who expressed appreciation for the hard work undertaken by Member States, NGOs and IGOs taking the role as developers; review groups; and the Secretariat, enabling the validation of 10 new and revised model courses by HTW 5, which represented a very significant increase compared to recent years.

Amendments to the Revised guidelines for the development, review and validation of model courses

10.7 The Committee approved draft amendments to the *Revised guidelines for the development, review and validation of model courses* (MSC-MEPC.2/Circ.15), to be issued as

¹ Refer to paragraph 3.1 of the *Revised guidelines for the development, review and validation of model courses* (MSC-MEPC.2/Circ.15/Rev.1).

MSC-MEPC.2/Circ.15/Rev.1, having noted that MEPC 73 had approved the draft amendments subject to the concurrent decision of MSC 100.

Guidelines on fatigue

10.8 The Committee approved MSC.1/Circ.1598 on *Guidelines on fatigue* and, in this context, endorsed the agreement of HTW 5 that any proposals to include fatigue risk management tools as appendices to the guidelines could be considered under the agenda item on "Role of the human element" at future sessions of the HTW Sub-Committee, taking into account that such tools should be relevant to the maritime sector, practical, useful for seafarers and consistent with IMO instruments.

Amendments to part B of the STCW Code

10.9 The Committee agreed that amendments to part B of the STCW Code should be adopted by means of resolutions instead of STCW.6 circulars from this session onwards and adopted resolution MSC.455(100) on *Amendments to Part B of the STCW Code*, as set out in annex 9, consequential to the adoption of amendments to the 1978 STCW Convention and the STCW Code by resolutions MSC.416(97) and MSC.417(97), respectively, relating to the Polar Code.

10.10 In this context, the Committee noted an intervention by the ICS observer concerning the renaming of section B-V/g of the STCW Code as B-V/4, in particular highlighting that:

- .1 section B-V/g of the STCW Code already existed when both STCW regulation V/4 and section A-V/4 entered into force;
- .2 the linkage between the aforementioned provisions would only exist for the period related to the transitional provisions in STCW regulation V/4, paragraphs 6 and 7, after which current section B-V/g would be superseded; and
- .3 the renaming of section B-V/g as B-V/4 should not change its current status of interim guidance.

Other related matters

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

10.11 The Committee considered the report for the Plurinational State of Bolivia, as set out in document MSC 100/WP.3; confirmed that the information provided demonstrated that full and complete effect had been given to the provisions of the STCW Convention; and requested the Secretariat to issue an update of the list of Parties giving full and complete effect to the relevant provisions of the Convention, by means of MSC.1/Circ.1163/Rev.11.

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

10.12 The Committee considered the reports for Croatia, Ethiopia, Finland, Iceland, Jamaica, Japan, Malta, Marshall Islands and Singapore, as set out in document MSC 100/WP.3/Add.1; confirmed that the information provided by the aforementioned Parties confirmed that they continued to give full and complete effect to the provisions of the STCW Convention; and requested the Secretariat to issue updated information concerning the reports of independent evaluation by means of MSC.1/Circ.1164/Rev.20.

10.13 The Committee also encouraged Parties to the STCW Convention to submit their independent evaluation reports, in accordance with regulation I/8 thereof.

Approval of competent persons

10.14 The Committee considered documents MSC 100/10/3 and Add.1 (Secretariat), containing information provided by STCW Parties regarding experts made available or recommended for inclusion in the list of competent persons, as well as competent persons withdrawn from the list.

10.15 Following consideration, the Committee:

- .1 approved the inclusion of two competent persons recommended by two Parties in the *List of competent persons maintained by the Secretary-General pursuant to section A-I/7 of the STCW Code (MSC.1/Circ.797/Rev.31)* and requested the Secretariat to issue the revised list by means of MSC.1/Circ.797/Rev.32;
- .2 noted the competent persons who had been withdrawn from the List by three STCW Parties; and
- .3 invited STCW Parties to inform the Secretariat of any amendments that the List might require (withdrawals, additions, change of address, etc.), with a view to ensuring that those listed in the latest revision were available to serve as competent persons and were readily contactable.

10.16 The Committee, having thanked those STCW Parties that had nominated competent persons, encouraged all Parties to nominate more competent persons to ensure the effective implementation of the provisions of the STCW Convention.

Revision of the Guidance on arrangements between Parties to allow for recognition of certificates under regulation I/10 of the STCW Convention

10.17 The Committee considered document MSC 100/10/1 (Japan and Panama), proposing draft amendments to the *Guidance on arrangements between Parties to allow for recognition of certificates under regulation I/10 of the STCW Convention (MSC.1/Circ.1450)* to clarify that, where the maritime authorities of the Administration and/or of the certificate-issuing Party were not authorized to conclude an international agreement in their national laws and regulations, the undertaking might be signed between such maritime authorities in the form of a non-legally binding document.

10.18 In the ensuing discussion, the following views were, inter alia, expressed:

- .1 the undertaking agreed by Parties should be legally binding as it might impact any other Parties and stakeholders dealing with STCW certification matters;
- .2 recognition of certificates was not possible without a legally-binding undertaking between the Parties involved;
- .3 the application of STCW regulation I/10 imposed legally-binding actions, responsibilities and accountability on participating Parties;
- .4 in agreeing undertakings for the recognition of certificates, legal practices of each Administration should be taken into account;

-
- .5 each Party should be responsible for determining the entities of its Administration entitled to agree undertakings and this was not a matter to be decided by the Committee; and
 - .6 undertakings under STCW regulation I/10 should have a lower legal status than the treaty itself and this fact should not undermine the binding commitment of the Parties involved.

10.19 Following discussion, the Committee, having noted that:

- .1 Parties to the 1978 STCW Convention were responsible for identifying entities of their respective Administrations authorized to agree undertakings under regulation I/10; and
- .2 undertakings under regulation I/10 should be legally binding for the Parties involved,

did not agree to the draft amendments to the guidance proposed in document MSC 100/10/1.

Supplementary training for crew and personnel on ships operating in polar waters

10.20 The Committee considered document MSC 100/10/2 (Finland), providing information on supplementary training for crew and personnel on board ships operating in polar waters in line with paragraph 8.3.3.3 of chapter 8 (Life-saving appliances and arrangements) of part I-A (Safety measures) of the Polar Code; and proposing that this information be taken into account in any future work on provisions dealing with polar waters training on board ships.

10.21 Having noted a view that the current training of masters and deck officers on ships operating in polar waters in accordance with the provisions of the 1978 STCW Convention, as amended, was very theoretical, the Committee noted the information provided in the aforementioned document with a view to taking it into account in any future work on training provisions for crew on ships operating in polar waters.

Mandatory seagoing service of candidates for certification under the 1978 STCW Convention

10.22 The Committee considered document MSC 100/10/4 (Mexico), drawing its attention to possible solutions to facilitate access to seagoing service with a view to submitting a proposal for a new output to the next session, taking into account the requirement for mandatory seagoing service for candidates for certification under the 1978 STCW Convention, as well as the *Strategic Plan for the Organization for the period 2018 to 2023* (resolution A.1110(30)).

10.23 In the ensuing discussion, the following views were, inter alia, expressed:

- .1 difficulties to complete seagoing service as required by the Convention would preclude certification of candidates;
- .2 the options proposed in the document were welcomed and should be further explored;
- .3 increased commitment of shipowners in recent years has actually improved candidates' access to seagoing service for certification;

- .4 the IMO Maritime Ambassador Scheme may provide a useful tool to address the issue of seagoing service;
- .5 access to seagoing service should not be financially supported in the context of the Integrated Technical Cooperation Programme (ITCP) of the Organization;
- .6 existing barriers should be identified with a view to proposing effective measures to overcome the issue of access to seagoing service;
- .7 seagoing service of candidates for certification should not be a mandatory requirement; and
- .8 addressing the issues raised in the document would require a proposal for a new output.

10.24 Following consideration, the Committee, having recognized the difficulties associated with access to seagoing service of candidates for certification, invited interested parties to submit a proposal for a relevant new output in accordance with the Committees' method of work (MSC-MEPC.1/Circ.5/Rev.1) to a future session.

10.25 In this connection, the Committee noted the offer by the delegation of Mexico² to coordinate intersessional work with a view to preparing the aforementioned proposal.

Fatigue among Panama Canal tugboat captains

10.26 The Committee noted document MSC 100/10/5 (ITF), providing recommendations and proposals on occupational health and safety intended to mitigate fatigue and prevent safety risks in relation to the service provided by the Panama Canal tugboats, as a result of research commissioned by ITF into fatigue of tugboat captains following the expansion of the Panama Canal; together with a pertinent statement by the delegation of Panama, as set out in annex 16.

11 CARRIAGE OF CARGOES AND CONTAINERS

Urgent matters emanating from CCC 5

11.1 The Committee considered urgent matters emanating from the fifth session of the Sub-Committee on Carriage of Cargoes and Containers (CCC) (CCC 5/13), as outlined in document MSC 100/11 (Secretariat), and took action as indicated in paragraphs 11.2 to 11.10.

Draft amendments to parts A and A-1 of the IGF Code

11.2 The Committee recalled that MSC 99 had agreed to hold the approval of draft amendments to parts A and A-1 of the IGF Code in abeyance and instructed CCC 5, taking into account document MSC 99/8/1 (Denmark), proposing the inclusion of an alternative solution to protect against leakage, and the views expressed at the session (MSC 99/22, paragraph 8.4), to reconsider the draft amendments to regulation 9.5.6 and report the outcome to MSC 100 as an urgent matter.

²

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11.3 Having considered the outcome of CCC 5 on the matter, the Committee concurred with the conclusion of the Sub-Committee that no further changes to regulation 9.5.6 regarding an alternative solution to protect against leakage were needed.

11.4 The Committee also had for its consideration document MSC 100/11/1 (ICS and SGMF), providing comments on document MSC 100/11 regarding draft amendments to paragraph 9.5 of the IGF Code and proposing the inclusion of additional text in order to ensure the applicability of leakage detection requirements for pipes carrying liquefied fuel, i.e. to amend paragraph 9.5.6 (CCC 4/12, annex 1) by using wording similar to that used in paragraph 6.4.5.3. In the ensuing discussion, the Committee noted, inter alia, the following views:

- .1 the IGF Code Working Group concluded during CCC 5 that the requirements for leakage detection were already covered by existing provisions of the IGF Code, i.e. paragraphs 15.8.1.1 and 15.8.1.2 and table 1, and therefore no additional amendments were necessary;
- .2 the amendments to paragraph 9.5.6, as set out in annex 1 to document CCC 4/12, did not cover requirements for leakage detection and this issue therefore needed to be addressed;
- .3 the proposed amendments could be further improved by replacing the term "secondary enclosure" with "secondary space"; and
- .4 the proposed amendments could be accepted, in principle, but further consequential amendments to paragraph 15.8.1.2 would be needed.

11.5 Having noted that the views on this matter were divided and that further proposals could still be submitted at the adoption stage, the Committee agreed to the text as prepared by the CCC Sub-Committee (CCC 4/12, annex 1), approved the draft amendments to parts A and A-1 of the IGF Code, as set out in annex 10, and requested the Secretary-General to circulate them in accordance with SOLAS article VIII, with a view to adoption at MSC 101.

Draft interim guidelines for the safety of ships using methyl/ethyl alcohol as fuel

11.6 The Committee endorsed the referral of relevant parts of the draft interim guidelines for the safety of ships using methyl/ethyl alcohol as fuel to PPR 6, SDC 6, SSE 6 and HTW 6 for consideration and advice to CCC 6, as appropriate (CCC 5/13, paragraph 3.30 and annex 1).

Interim guidelines on the application of high manganese austenitic steel for cryogenic service

11.7 The Committee approved MSC.1/Circ.1599 on *Interim guidelines on the application of high manganese austenitic steel for cryogenic service*. In this context, the Committee agreed to a proposal by the delegation of the Republic of Korea to insert a footnote in the IGC and IGF Codes, respectively, containing a reference to the Interim guidelines and requested the Secretariat to take the necessary action when preparing the next publication of the IGC and IGF Codes.

11.8 The Committee recalled that the proposal for an expansion of the existing output on "Suitability of high manganese austenitic steel for cryogenic service and development of any necessary amendments to the IGC and IGF Codes" to include the related guidance for

approving alternative metallic material for cryogenic service had been considered under agenda item 17 (see paragraphs 17.19 and 17.20).

Interim guidance for conducting the refined MHB (CR) corrosivity test

11.9 The Committee approved MSC.1/Circ.1600 on *Interim guidance for conducting the refined MHB (CR) corrosivity test*.

Meetings of the E&T Group in 2019

11.10 The Committee approved the holding of two intersessional meetings of the E&T Group in 2019 to prepare the next set of amendments to the IMDG Code, one in the first half of 2019 and another directly after CCC 6 (see also paragraph 17.37).

Expression of appreciation

11.11 The Committee expressed its sincere thanks and appreciation to Mr. H. Xie of China, the outgoing Chair of the CCC Sub-Committee, for having successfully guided the DSC and CCC Sub-Committees over the past seven years.

12 IMPLEMENTATION OF IMO INSTRUMENTS

12.1 The Committee noted that no urgent matters emanating from III 5 had been referred to it, and that the outcome of III 5 (III 5/15), including the provisional agenda for the fourth session of the Joint FAO/IMO Ad Hoc Working Group on Illegal, Unreported and Unregulated (IUU) Fishing and Related Matters, would be reported to MEPC 74 and MSC 101.

13 CAPACITY-BUILDING FOR THE IMPLEMENTATION OF NEW MEASURES

Background

13.1 The Committee recalled that MSC 99 (MSC 99/22, paragraph 15.4) had requested the Vice-Chair, in consultation with the Chair and with the assistance of the Secretariat, to submit to MSC 100 a preliminary assessment of the capacity-building implications and technical assistance needs related to draft amendments to mandatory instruments and new outputs related to mandatory instruments which had been approved at that session.

Assessment of capacity-building implications for implementation of new measures

Preliminary assessment of capacity-building implications

13.2 The Committee considered document MSC 100/13 (Vice-Chair), providing the outcome of the aforementioned preliminary assessment, and agreed that there were no capacity-building implications or technical assistance needs with regard to the draft amendments and outputs related to the proposals to amend mandatory instruments which had been approved at MSC 99. Consequently, the Committee concluded that there was no need to establish the Ad hoc Capacity-Building Needs Analysis Group (ACAG) at this session.

Recommendation to discontinue assessment of new outputs

13.3 In considering the recommendation to discontinue the practice of assessing new outputs proposing to amend mandatory instruments (MSC 100/13, paragraphs 6 and 7.2), the Committee noted, inter alia, the following views:

- .1 the assessment of capacity-building implications could be performed after the approval of a new regulation or instrument;
- .2 in lieu of the Committee's capacity-building assessment, the recommendations for technical cooperation issued by the IMO Member State Audit Scheme (IMSAS) could be used in order to determine the capacity-building implications of a new regulation or instrument;
- .3 the provisions of the Committee's method of work (MSC-MEPC.1/Circ.5/Rev.1) should be revised accordingly if changes were made regarding the assessment of new outputs; and
- .4 future assessments could take into account the country maritime profiles as provided in GISIS.

13.4 Having considered the above views, the Committee agreed to discontinue the preliminary assessment of capacity-building implications and technical assistance needs related to new outputs proposing to amend mandatory instruments because of the difficulties to fully evaluate the implications of a new output before any amendments or other related mandatory instruments had been finalized for consideration.

13.5 In light of the above decision, the Committee requested the Secretariat to:

- .1 prepare associated draft amendments to the Committees' method of work (MSC-MEPC.1/Circ.5/Rev.1), for consideration at MSC 101; and
- .2 provide to MSC 101 an analysis of past capacity-building assessments to determine whether the findings resulted in any "added value" action being taken.

13.6 Finally, the Committee invited MEPC to concur with the decision taken (see paragraphs 13.4 and 13.5) and requested the Secretariat to inform the Technical Cooperation Committee of the outcome of its considerations under this agenda item.

Preliminary assessment for the next session

13.7 The Committee requested the Vice-Chair, in consultation with the Chair and with the assistance of the Secretariat, to submit to MSC 101 a preliminary assessment of the capacity-building implications and technical assistance needs related to draft amendments to mandatory instruments approved at this session.

14 PIRACY AND ARMED ROBBERY AGAINST SHIPS

Developments since MSC 99, including information sharing on incidents of piracy and armed robbery

14.1 The Committee, having considered document MSC 100/14 (Secretariat) reporting on developments on piracy and armed robbery against ships since MSC 99, including piracy and armed robbery statistics and regional developments, took the following action:

- .1 reminded Member States to update the information related to their National Point(s) of Contact for communication of information on piracy and armed robbery to the Organization;

- .2 requested Member States to continue to provide information on such incidents to the Secretariat through marsec@imo.org, using the reporting form in appendix 5 of MSC.1/Circ.1333/Rev.1;
- .3 requested Member States to complete the *Questionnaire on information on port and coastal State requirements related to privately contracted armed security personnel on board ships* (MSC-FAL.1/Circ.2); and
- .4 requested Member States as well as owners, operators and managers of ships and shipboard personnel to continue the diligent application of the Best Management Practices and IMO guidance; and invited Member States 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.

14.2 The Committee noted, in particular:

- .1 information provided by the delegation of Nigeria on actions taken to address piracy and armed robbery against ships in the Gulf of Guinea. The full text of their statement is set out in annex 16;
- .2 the importance of updating the details of National Points of Contact for communication of information on piracy and armed robbery; and
- .3 the cooperation between the littoral states of Indonesia, Malaysia and Singapore in the fight against piracy and armed robbery in the Sulu-Celebes Seas and Straits of Malacca and Singapore.

Progress report of the Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP)

14.3 The Committee noted with appreciation the information contained in document MSC 100/INF.4 (ReCAAP-ISC) providing an update of the activities carried out by ReCAAP-ISC and the situation of piracy and armed robbery against ships in Asia and thanked them for their continuous support to the Organization's piracy reporting.

Standardized reporting of global piracy and armed robbery incidents

14.4 The Committee noted the information contained in document MSC 100/INF.12 (Marshall Islands et al.) on an informal working group looking at harmonizing global maritime security incident type definitions and simplifying the incident reporting framework; and the invitation to interested parties to participate in the group.

Industry Counter Piracy Guidance

14.5 The Committee recalled that MSC 89 had recognized the importance of Best Management Practices (BMP) for protection against Somalia-based piracy and the need to comply with the provisions therein, and expressed its understanding of the need to keep BMP alive, relevant, dynamic and updated.

14.6 In this connection, the Committee considered document MSC 100/14/1 (ICS et al.), informing it of the development of new Global Counter Piracy Guidance for Companies, Masters and Seafarers; revised Best Management Practices to Deter Piracy and Enhance Maritime Security in the Red Sea, Gulf of Aden, Indian Ocean and Arabian Sea, which were

at that time on their fifth edition (BMP 5); and updated guidance for protection against piracy and armed robbery in the Gulf of Guinea region.

- 14.7 In the ensuing discussion, the Committee noted, inter alia, the following views:
- .1 the new industry guidance set out in the annex to document MSC 100/14/1 was vital to counter piracy attacks;
 - .2 existing IMO guidance and regional guidance should also be recognized in any new circular to be approved;
 - .3 in order to amend the definition of high-risk area (HRA), further research and various risk assessments would be required; and
 - .4 the HRA should be defined by IMO given that it was highly related to the safety and security of marine navigation, and had a profound impact on industry.

14.8 Following discussion, the Committee approved the revised Best Management Practices guidance as well as the new Global Counter Piracy Guidance for Companies, Masters and Seafarers and the updated guidance for protection against piracy and armed robbery in the Gulf of Guinea region, for issuance as MSC.1/Circ.1601 on *Revised Industry Counter Piracy Guidance*, revoking MSC.1/Circ.1339, based on the text set out in the annex to document MSC 100/14/1; requesting the Secretariat to include additional text recognizing the importance of existing IMO guidance as well as any regional guidance on piracy and armed robbery.

Seafarers' mental and psychological health when navigating high risk areas

14.9 In considering document MSC 100/14/3 (Islamic Republic of Iran), providing draft recommendations on how to deal with mental and psychological effects of navigating in high risk areas, the Committee noted a view that seafarers' mental and psychological health when navigating high risk areas should be discussed by the HTW Sub-Committee, and invited interested Member States and international organizations to submit further comments and proposals on this issue to HTW 6.

Proposal to amend the boundaries of the northern Indian Ocean High-Risk Area

14.10 The Committee considered document MSC 100/14/2 (Oman), requesting that the Committee recommend, to the appropriate bodies, the exclusion of the specific area adjacent to the east of the Omani coast from the HRA.

- 14.11 During the discussion, the following views were, inter alia, expressed:
- .1 the definition of the HRA did not cover territorial waters or affect cargo costs;
 - .2 the BMP industry authors were currently undertaking a review of the geographical limits of the HRA to better reflect the ongoing threat of piracy in the region and welcomed input from stakeholders, noting the open and friendly bilateral discussions with representatives from Oman;
 - .3 piracy had only been suppressed and not eradicated as witnessed by the recent attack on the **KSL Sydney** 300 nautical miles off Somalia;

- .4 many delegations supported the proposal by Oman due to the absence of incidents in the Arabian Sea since 2014 as reported in MSC.4 circulars; and
- .5 further discussion between the BMP industry authors and Oman and other impacted Member States was important to ensure an appropriate revision of the definition of the HRA.

14.12 Related statements made by the delegations of Jordan, Oman and the United Arab Emirates are set out in annex 16.

14.13 Having noted that a significant number of delegations supported the proposal made by Oman and recalling that the BMP industry authors were responsible for reviewing the HRA, the Committee encouraged the BMP industry authors and appropriate bodies to:

- .1 note that a number of Member States supported the request made by Oman;
- .2 note that a number of Member States also recognized that the HRA was not in the mandate of the Organization;
- .3 take steps to progress a new review of the geographical boundaries of the HRA expected to be finished during the second quarter of 2019; and
- .4 provide the Committee with an update report, taking into consideration further consultations with Oman, at MSC 101.

15 UNSAFE MIXED MIGRATION BY SEA

Global compacts for migration and on refugees

15.1 The Committee recalled that MSC 99, when considering document MSC 99/18 (Secretariat) on the Inter-agency Meeting on Mixed Migration held at IMO Headquarters on 30 October 2017, had invited the Secretariat to inform MSC 100 of the progress made with the Global Compact for Safe, Orderly and Regular Migration (Global compact for migration) and the Global Compact on Responsibility-sharing for Refugees (Global compact on refugees).

15.2 The Committee considered document MSC 100/15 (Secretariat), containing information on the progress made with the Global compact for migration and the Global compact on refugees.

15.3 The Committee noted that UN Member States had finalized the text of the Global compact for migration on 13 July 2018, which was developed through an open, transparent and inclusive process of consultations and negotiations and with the effective participation of all relevant stakeholders, including civil society, the private sector, academic institutions, parliaments, diaspora communities and migrant organizations in both the intergovernmental conference and its preparatory process. The Committee further noted that an Intergovernmental Conference to adopt the Global compact for migration would be held on 10 and 11 December 2018 in Marrakech, Morocco.

15.4 The Committee also noted that formal consultations had taken place between February and July 2018 to discuss the iterative draft texts of the Global compact on refugees, and that the final draft text would be proposed by the High Commissioner for Refugees in his 2018 annual report to the United Nations General Assembly.

- 15.5 In the ensuing discussion, the Committee noted, inter alia, the following views:
- .1 Spain had a dramatic increase in incidents related to persons rescued at sea in 2018 compared with the 2016-2017 period, i.e. more than 59,300 persons rescued in 2018 (an increase of 73%), more than 4,900 boats assisted (an increase of 31%), and 358 fatalities (an increase of 77%);
 - .2 the overall numbers of refugees and migrants crossing by sea to Europe had fallen significantly in 2018; this, in large part, reflected the changed situation in the central Mediterranean, where arrivals to Italy at the end of November stood at close to a fifth of those arriving in 2017;
 - .3 resolution MSC.167(78) on *Guidelines on the treatment of persons rescued at sea* was not binding, but reflected notably the binding non-refoulement obligations under international law which coastal and flag States needed to respect at all times;
 - .4 masters should be relieved of the obligation of maintaining migrants and refugees rescued at sea at the earliest opportunity, and for this reason countries concerned should improve cooperation to facilitate a safe port of disembarkation;
 - .5 UNHCR and IOM had proposed a regional cooperative arrangement ensuring predictable disembarkation and subsequent processing of persons rescued at sea, which was discussed in July 2018 by Mediterranean coastal States at a meeting jointly convened by IOM/UNHCR, with the valuable participation of IMO. This proposal did not seek to promote new regulations, but rather to support effective regional cooperative arrangements in line with existing international law and frameworks;
 - .6 the Global compact on refugees sought to translate the long-standing principles of burden and responsibility sharing of the international refugee protection regime into concrete, practical arrangements that provided an architecture of support for host countries and communities affected by large numbers of refugees. The regional disembarkation proposal sought, inter alia, to operationalize the spirit of burden and responsibility sharing promoted in the Global compact on refugees, in the context of unsafe mixed movements by sea in the Mediterranean region;
 - .7 EUNAVFOR MED operation SOPHIA had been contributing – as part of the EU "Comprehensive Approach" – to disrupting the smugglers' business model, fighting illicit activities at sea and supporting the stabilization of Libya; had neutralized more than 500 boats; referred 150 suspected smugglers to the Italian judicial authorities; rescued more than 45,000 migrants; and would continue to play the maritime security provider role in the Mediterranean Sea in accordance with EU Member States' decisions;
 - .8 the Libyan Coastguard had saved more than 30,000 lives since July 2017, and special recognition should be paid to this organization, taking into account the difficulties it faced in its work;
 - .9 the Mediterranean Maritime Search and Rescue Conference, held in October 2018 in Rome to facilitate multilateral cooperation and seek solutions to common problems by sharing expertise and best practices in a cooperative

manner, was attended by representatives of SAR organizations from 15 Mediterranean States and Portugal, EU, UNHCR, IOM, IMO, WFP and UNODC, as well as national authorities; and highlighted, in particular, the importance of defining the meaning of "distress case" and "place of safety" in accordance with current IMO guidelines;

.10 during the second week of December 2018, Morocco would host, in Marrakech, the Intergovernmental Conference to adopt the Global Compact for Safe, Orderly and Regular Migration and, by promoting a comprehensive approach, was determined to make a contribution to strengthening international cooperation with regard to migration, in consultation with other States, while respecting their sovereignty and the obligations imposed by international law; and

.11 in 2010, Morocco set up the Regional MRCC of the North West Africa zone which had initiated rescue operations to assist 33,907 persons in difficulty during 2018 and up to date. This success would not have been possible without the close and fruitful coordination of neighbouring States, especially Spain.

15.6 Related statements made by the delegations of Italy, Malta, Spain and the observers from IOM, UNHCR, EC (EUNAVFOR MED operation SOPHIA) and ICS are set out in annex 16.

15.7 The Committee invited the Secretariat and the United Nations agencies concerned to inform MSC 101 of the progress made with the global compacts.

Reporting of migrant incidents at sea

15.8 The Committee recalled that MSC 99, having noted that the level of reporting of migrant incidents at sea and of suspected smugglers and vessels as requested by the *Interim measures for combating unsafe practices associated with the trafficking, smuggling or transport of migrants by sea* (MSC.1/Circ.896/Rev.2) was low, had encouraged Member States to provide and update the information included in the appendix to the circular via the Inter-agency platform for information-sharing on migrant smuggling by sea in GISIS.³

15.9 Having noted that since the launch of the aforementioned Inter-agency platform on 6 July 2015 only seven incidents had been reported, the Committee encouraged Member States to provide and update the information included in the appendix to MSC.1/Circ.896/Rev.2 via the platform.

16 APPLICATION OF THE COMMITTEE'S METHOD OF WORK

16.1 The Committee recalled that A 30 had requested the Council and committees to review and revise, during the 2018-2019 biennium, their Method of work, taking into account resolution A.1110(30) on *Strategic Plan for the Organization for the six-year period 2018 to 2023*.

16.2 In this context, the Committee noted that MSC-MEPC.1/Circ.5/Rev.1 on *Organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (Committees' method of work) had been issued, following the approval of the revision by MSC 99 and MEPC 72.

³ Refer to Global Integrated Shipping Information System (GISIS) – Inter-agency platform for information sharing on migrant smuggling by sea (Circular Letter No.3569).

17 WORK PROGRAMME

Proposals for new outputs

Revision of resolution A.949(23) on Guidelines on places of refuge for ships in need of assistance

17.1 The Committee considered documents MSC 100/17/1 and Corr.1 (Australia et al.), proposing the revision of the *Guidelines on places of refuge for ships in need of assistance* (resolution A.949(23)), to ensure that they remained up to date and continued to serve as an effective instrument providing a clear framework to deal with a ship in need of assistance seeking a place of refuge in a consistent and harmonized manner globally; and agreed to include in its post-biennial agenda an output on "Revision of the *Guidelines on places of refuge for ships in need of assistance* (resolution A.949(23))", with two sessions needed to complete the item, assigning the NCSR Sub-Committee as the coordinating organ.

SOLAS requirements for cargo hold high water level detection and alarms

17.2 The Committee considered document MSC 100/17/2 (United States), proposing to expand the applicability of the requirements of SOLAS regulation II-1/25 for cargo hold water level detectors by developing a new SOLAS regulation applying to cargo ships with multiple cargo holds. While the proposal recommended that the SSE Sub-Committee be assigned as the coordinating organ, the Committee was of the view that the SDC Sub-Sub-Committee was the more appropriate body to deal with the matter, taking into account that cargo ships with multiple cargo holds were evaluated under the damage stability requirements in SOLAS chapter II-1.

17.3 Consequently, the Committee agreed to include in its post-biennial agenda an output on "Development of amendments to SOLAS chapter II-1 to include requirements for water level detectors on non-bulk carrier cargo ships with multiple cargo holds", with two sessions needed to complete the item, assigning the SDC Sub-Committee as the coordinating organ, in association with the SSE Sub-Committee as and when requested by the SDC Sub-Committee.

17.4 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 cargo ships with multiple cargo holds other than bulk carriers;
- .2 the instrument to be amended was SOLAS chapter II-1; and
- .3 the amendments to be developed should enter into force on 1 January 2024, provided that they were adopted before 1 July 2022.

Guidance for the use of emergency personal radio devices in multiple casualty situations

17.5 The Committee considered document MSC 100/17/3 (United Kingdom), proposing to develop guidance on the training on and operation of Emergency Personal Radio Devices (EPRD) in multiple casualty situations, including the management of additional personal devices being taken on board ships, and agreed to include in its post-biennial agenda an output on "Guidance on the training on and operation of Emergency Personal Radio Devices in multiple casualty situations", with one session needed to complete the item, assigning the NCSR Sub-Committee as the coordinating organ.

Revised guidelines for the development, review and validation of model courses

17.6 The Committee considered document MSC 100/17/4 (China and IMLA), proposing to develop an action verb taxonomy for the detailed teaching syllabus applicable to IMO model courses, to be included in the *Revised guidelines for the development, review and validation of model courses* (MSC-MEPC.2/Circ.15/Rev.1), in order to improve the uniform understanding of model course developers/revisers and course users; as well as further promoting model courses, together with document MSC 100/17/12 (IMHA) commenting on the proposal.

17.7 Following discussion, the Committee agreed to include in the biennial agenda of the HTW Sub-Committee and the provisional agenda for HTW 6 an output on "Development of amendments to the Revised guidelines for the development, review and validation of model courses (MSC-MEPC.2/Circ.15/Rev.1)", with a target completion year of 2020.

17.8 The Committee also agreed that Miller's Pyramid of Assessment (MSC 100/17/12), which provided a framework for assessing clinical competences to be used in the process of defining learning outcomes/competences in Model Courses 1.13 (Elementary First Aid), 1.14 (Medical First Aid) and 1.15 (Medical Care) should be considered in the context of the work.

Revision of ECDIS – Guidance for good practice

17.9 The Committee considered document MSC 100/17/5 (China), proposing to revise *ECDIS – Guidance for good practice* (MSC.1/Circ.1503/Rev.1) with a view to improving the unified implementation of ECDIS type approval when approving ECDIS's software and relevant updates; and agreed to include in its post-biennial agenda an output on "Revision of ECDIS-Guidance for good practice (MSC.1/Circ.1503/Rev.1)", assigning the NCSR Sub-Committee as the coordinating organ, with two sessions needed to complete the item, in association with the III Sub-Committee as and when requested by the NCSR Sub-Committee.

Assessment of the practicality of survival craft seating arrangements

17.10 The Committee considered document MSC 100/17/6 (Marshall Islands and RINA), proposing to examine and assess the practicality of survival craft seating arrangements as allowed under the LSA Code and to recommend suitable amendments to the Code, together with document MSC 100/17/13 (ILAMA) commenting on the proposal.

17.11 Following discussion, the Committee agreed that document MSC 100/17/6 should be considered by the SSE Sub-Committee in the context of its work on the post-biennial output on "Revision of SOLAS chapter III and the LSA Code" once the output had been included in its biennial agenda.

Use of electronic certificates pursuant to the STCW Convention and Code

17.12 The Committee considered document MSC 100/17/7 (Belarus and Russian Federation), proposing to allow the use of electronic certificates and documents issued pursuant to the STCW Convention and Code, and agreed to include in the biennial agenda of the HTW Sub-Committee and the provisional agenda for HTW 6 an output on "Development of amendments to the STCW Convention and Code for the use of electronic certificates and documents of seafarers", with a target completion year of 2020, in association with the III Sub-Committee as and when requested by the HTW Sub-Committee. Having recalled that the FAL Committee had approved *Guidelines for the use of electronic certificates* (FAL.5/Circ.39/Rev.2), the Committee agreed to inform the FAL Committee of the new output and requested the Secretariat to take the necessary action.

Performance standards and carriage requirements for shipborne voyage data recorders

17.13 The Committee considered document MSC 100/17/8 (United States), proposing to require float-free arrangements for voyage data recorder (VDR) installations and to enhance VDR performance standards in order to record all communications between shipboard control stations and both sides of all communications with the bridge.

17.14 The majority of delegations that intervened were of the view that more clarification was needed to take a decision on the scope of the proposal, in particular on the application of the requirements of those performance standards to float free and non-float free devices. Consequently, the Committee invited the United States to submit a revised proposal with more information to a future session, taking into account the outcome of the discussion.

Inspection programmes for cargo transport units carrying dangerous goods

17.15 The Committee considered document MSC 100/17/9 (New Zealand and ICHCA), proposing to revise the *Inspection programmes for cargo transport units carrying dangerous goods* (MSC.1/Circ.1442, as amended by MSC.1/Circ.1521), in order to broaden the inspection programmes for cargo transport units (CTUs); and agreed to include in the biennial agenda of the CCC Sub-Committee and the provisional agenda for CCC 6 an output on "Revision of the *Inspection programmes for cargo transport units carrying dangerous goods* (MSC.1/Circ.1442, as amended by MSC.1/Circ.1521)", with a target completion year of 2020.

17.16 In this regard, the Committee noted a statement by the representative of FAO, affirming that CTU cleanliness was an integral part of the Code of Practice for Packing of Cargo Transport Units (CTU Code) and that FAO and the Secretariat of the International Plant Protection Convention (IPPC) had proposed to include CTU cleanliness among the selection criteria for the container inspection programmes to be developed. Such an inclusion could take the form of one or two cleanliness questions in the manual used for container inspections, would not unduly add to the workload of the inspector, and would assist in determining the number of incidences of pest contamination of containers and their cargoes thus complementing data collected by national plant protection organizations (NPPOs), and in identifying ways to manage pest risks associated with the movement of sea containers.

SOLAS regulation II-2/13.4 regarding means of escape from machinery spaces below the bulkhead deck for new ships

17.17 The Committee considered document MSC 100/17/10 (Panama et al.), proposing to amend SOLAS regulation II-2/13.4 regarding means of escape from machinery spaces below the bulkhead deck for new ships so that seafarers could safely and swiftly escape to the lifeboat and liferaft embarkation deck in case of emergency.

17.18 Several delegations stated that doors opening in way of the direction of the escape was not the best option in all cases. Consequently, the Committee invited the co-sponsors to submit a revised proposal with more information to a future session, taking into account the outcome of the discussion.

Expansion of existing output proposed by the CCC Sub-Committee

17.19 The Committee considered a proposal by CCC 5 (CCC 5/13, annex 6) to expand the existing output OW 35 on "Suitability of high manganese austenitic steel for cryogenic service and development of any necessary amendments to the IGC and IGF Codes" to include related guidance for approving alternative metallic material for cryogenic service; and agreed to replace the title of the output with "Amendments to the IGC and IGF Codes to include high

manganese austenitic steel and related guidance for approving alternative metallic material for cryogenic service" and to include it in the biennial agenda of the CCC Sub-Committee and the provisional agenda for CCC 6, with a target completion year of 2020.

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

- .1 the amendments to be developed should not amend the scope of application of the IGC Code and IGF Codes, adopted respectively by resolutions MSC.370(93) and MSC.391(95);
- .2 the instruments to be amended were the IGC and IGF Codes; and
- .3 the amendments to be developed should enter into force on 1 January 2024, provided that they were adopted before 1 July 2022.

Relocation of some existing outputs to other strategic directions

17.21 The Committee considered document MSC 100/17/11 (China), proposing to reassign three outputs currently under "Other work" ("Amendments to the IMDG Code and supplements", "Amendments to the IMSBC Code and supplements" and "Measures to harmonize port State control (PSC) activities and procedures worldwide") (resolution A.1110(30)) to strategic directions in order to better reflect the effectiveness of the work achieved by the Organization.

17.22 Having noted the view of some delegations that these outputs were continuous and that this was the reason they had been allocated under "Other work", the Committee requested the Secretariat to study this matter and advise MSC 101 accordingly.

Biennial agendas of the Sub-Committees and provisional agendas for their forthcoming sessions

Biennial agenda of the CCC Sub-Committee and provisional agenda for CCC 6

17.23 The Committee, having recalled its earlier decisions to:

- .1 include a new output on "Revision of the *Inspection programmes for cargo transport units carrying dangerous goods* (MSC.1/Circ.1442, as amended by MSC.1/Circ.1521)" in the biennial agenda of the Sub-Committee and the provisional agenda for CCC 6 (see paragraph 17.15); and
- .2 replace the title of existing output OW 35 with "Amendments to the IGC and IGF Codes to include high manganese austenitic steel and related guidance for approving alternative metallic material for cryogenic service" (see paragraph 17.19),

approved the Sub-Committee's biennial agenda and the provisional agenda for CCC 6, as set out in annexes 11 and 12, respectively; and requested the Secretariat to inform MEPC 74 accordingly.

Biennial agenda of the HTW Sub-Committee and provisional agenda for HTW 6

17.24 The Committee, having recalled its earlier decisions to include two new outputs on "Development of amendments to the *Revised guidelines for the development, review and*

validation of model courses (MSC-MEPC.2/Circ.15/Rev.1)" and "Development of amendments to the STCW Convention and Code for the use of electronic certificates and documents of seafarers" (see paragraphs 17.7 and 17.12, respectively) in the biennial agenda of the Sub-Committee and the provisional agenda for HTW 6, approved the Sub-Committee's biennial agenda and the provisional agenda for HTW 6, as set out in annexes 11 and 12, respectively.

Biennial agenda of the III Sub-Committee and provisional agenda for III 6

17.25 The Committee approved the Sub-Committee's biennial agenda and the provisional agenda for III 6, as set out in annexes 11 and 12, respectively; and requested the Secretariat to inform MEPC 74 accordingly.

Biennial agenda of the NCSR Sub-Committee and provisional agenda for NCSR 6

17.26 The Committee confirmed the Sub-Committee's biennial agenda and the provisional agenda for NCSR 6 as approved by MSC 99, as set out in annexes 11 and 12, respectively.

Biennial agenda of the SDC Sub-Committee and provisional agenda for SDC 6

17.27 The Committee confirmed the Sub-Committee's biennial agenda and the provisional agenda for SDC 6 as approved by MSC 99, as set out in annexes 11 and 12, respectively.

Biennial agenda of the SSE Sub-Committee and provisional agenda for SSE 6

17.28 The Committee confirmed the Sub-Committee's biennial agenda and the provisional agenda for SSE 6 as approved by MSC 99, as set out in annexes 11 and 12, respectively.

Endorsement of new outputs

17.29 In accordance with the relevant provisions of the *Application of the Strategic Plan of the Organization* (resolution A.1111(30)), the Committee, having agreed to the sub-committees' biennial agendas and the provisional agendas for their forthcoming sessions, invited the Council to endorse, for inclusion in the current list of outputs:

- .1 the following four new outputs:
 - .1 Development of further measures to enhance the safety of ships relating to the use of fuel oil (paragraph 8.14);
 - .2 Development of amendments to the *Revised guidelines for the development, review and validation of model courses* (MSC-MEPC.2/Circ.15/Rev.1) (paragraph 17.7);
 - .3 Development of amendments to the STCW Convention and Code for the use of electronic certificates and documents of seafarers (paragraph 17.12); and
 - .4 Revision of the *Inspection programmes for cargo transport units carrying dangerous goods* (MSC.1/Circ.1442, as amended by MSC.1/Circ.1521 (paragraph 17.15); and
- .2 the expanded and renamed output OW 35 on "Amendments to the IGC and IGF Codes to include high manganese austenitic steel and related guidance for approving alternative metallic material for cryogenic service" (paragraph 17.19).

Biennial status report and post-biennial agenda of the Committee

17.30 Having recalled that, as usual, the status of outputs and the updated post-biennial agenda would be produced after the session as annexes to its report to avoid any unnecessary duplication of work, the Committee invited the Council to note the report on the status of outputs of MSC for the 2018-2019 biennium and the post-biennial agenda of MSC, as set out in annexes 13 and 14, respectively.

Plan of meeting weeks of the committees and their subsidiary bodies for the 2020-2021 biennium

17.31 The Committee recalled that paragraph 3.5 of the *Guidelines on the organization and method of work of the Maritime Safety Committee and the Marine Environment Protection Committee and their subsidiary bodies* (MSC-MEPC.1/Circ.5/Rev.1) required that, at the end of the first year of a biennium, the Committee Chairs should submit to their respective Committees a joint plan covering the activities, priorities and meetings of the Committees and their subsidiary bodies for the coming biennium, for consideration in the subsequent year, with a view to inclusion in the Secretary-General's relevant budget proposals.

17.32 Having considered the planned meeting weeks proposed by the MSC and MEPC Chairs (MSC 100/17), the Committee agreed that, for planning purposes, 22.4 meeting weeks for MSC and MEPC and their subsidiary bodies should be included in the Secretary-General's relevant budget proposals for the 2020-2021 biennium; and requested the Secretariat to inform C 122 accordingly, bearing in mind that any final decision made by Council would take into account the views of both MSC and MEPC. In this respect, the Committee noted that MEPC 73 had approved the proposed plan of 22.4 meeting weeks, subject to the concurrent decision of MSC.

17.33 Consequently, the Committee approved eight days for MSC 102 (May 2020), five days for MSC 103 (November 2020) and eight days for MSC 104 (June 2021), and requested the Secretariat to inform C 122 accordingly.

17.34 The Committee considered and agreed to the proposal in document MSC 100/17 that HTW 7 would convene in the first half of 2020, and HTW 8 in the second half of 2021, i.e. 18 months after the first session of the Sub-Committee in the biennium, and from HTW 8 onwards meet every 18 months, further agreeing that this decision would be subject to future review, depending on the workload of the Sub-Committee; and requested the Secretariat to inform C 122 accordingly.

17.35 Having recalled the decision of MSC 99 to extend the number of meeting days of the NCSR Sub-Committee to eight, for a trial period of two sessions starting with NCSR 6, the Committee requested the Secretariat to report to MSC 101 regarding the effect of the longer duration of NCSR 6 on the workload of the Sub-Committee.

Intersessional meetings

17.36 The Committee recalled that it had approved at MSC 99, and C 120 had endorsed, the holding of the following intersessional meetings in 2019:

- .1 the fifteenth meeting of the Joint IMO/ITU Experts Group on Maritime Radiocommunication Matters; and
- .2 the twenty-sixth meeting of the ICAO/IMO Joint Working Group on Search and Rescue.

17.37 The Committee recalled that it had earlier approved, subject to endorsement by C 122, the holding of the following additional intersessional meetings in 2019:

- .1 the thirty-first meeting of the Editorial and Technical (E&T) Group on the IMDG Code, to be held from 1 to 5 April 2019 (paragraph 11.10);
- .2 a meeting of the MASS Working Group, to be held from 2 to 6 September 2019 (paragraph 5.30); and
- .3 the thirty-second meeting of the E&T Group on the IMDG Code, to be held directly after CCC 6, from 16 to 20 September 2019 (paragraph 11.10).

Substantive items for inclusion in the agendas for MSC 101 and MSC 102

17.38 Having considered the proposals in document MSC 100/WP.6, the Committee agreed to the substantive items to be included in the agendas of its 101st and 102nd sessions, as set out in annex 15. In this connection, the Committee also agreed that Secretariat documents submitted under the agenda items on "Measures to enhance maritime security" and "Piracy and armed robbery against ships" should not be made publicly available prior to MSC 101 (see also paragraph 2.3).

Establishment of working and drafting groups during MSC 101

17.39 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 MSC 101:

- .1 regulatory scoping exercise for the use of maritime autonomous surface ships (MASS);
- .2 goal-based ship construction standards;
- .3 measures to enhance the safety of ships relating to the use of fuel oil; and
- .4 consideration and adoption of amendments to mandatory instruments.

Dates of the next two sessions

17.40 The Committee noted that MSC 101 had been scheduled to take place from 5 to 14 June 2019 and that MSC 102 had been tentatively scheduled for May 2020.

18 ELECTION OF CHAIR AND VICE-CHAIR FOR 2019

18.1 The Committee unanimously re-elected Mr. Bradley Groves (Australia) as Chair, and Mr. Juan Carlos Cubisino (Argentina) as Vice-Chair, both for 2019.

19 ANY OTHER BUSINESS

Safety of navigation

Automated Merchant Vessel Reporting Service

19.1 The Committee considered the current status of the Automated Merchant Vessel Reporting (Amver) service presented in document MSC 100/19 (United States), highlighting the sixtieth anniversary of the service, its contribution to maritime safety and its continuous operation since establishment in July 1958. The Committee noted, in particular, the contributions of Member States and one Associate Member (MSC 100/19, paragraphs 4 and 5) and the 2017 Amver Business Report, set out in the annex to the document.

19.2 Recalling that the Secretary-General had commemorated the sixtieth anniversary of Amver in his opening address, the Committee expressed its sincere appreciation for the continuous operation of Amver and the cooperation of all Amver participants.

Draft IMO position on WRC-19 agenda items

19.3 The Committee recalled that MSC 99 had authorized the Joint IMO/ITU Experts Group to further develop the draft IMO position on ITU's 2019 World Radiocommunications Conference agenda items concerning matters relating to maritime services, for the Committee's approval and subsequent submission to ITU's Conference Preparatory Meeting (CPM), to be held from 18 to 28 February 2019.

19.4 In this context, the Committee approved the updated draft IMO position provided by the Experts Group (MSC 100/19/2) and requested the Secretariat to convey it to ITU's Conference Preparatory Meeting.

19.5 The Committee noted that NCSR 6 would update and finalize the draft IMO position for approval by MSC 101 and subsequent submission to ITU's 2019 World Radiocommunications Conference (WRC-19), to be held from 28 October to 22 November 2019.

Safety and security of navigation in the northern part of the Black Sea

19.6 The Committee noted the information provided in document MSC 100/19/5 (Ukraine) on the safety and security of navigation in the maritime areas adjacent to the Crimean peninsula, together with information provided in document MSC 100/19/11 (Russian Federation) in response to the submission by Ukraine.

19.7 In this connection, the Committee reiterated its previous decision that IMO was not the appropriate forum to discuss the matter. However, recognizing the importance of security and safety of navigation, Member States and interested parties were invited to notify the Organization of any threats to the security and safety of navigation in the northern part of the Black Sea, for circulation to all Member States in accordance with IMO procedures.

19.8 The delegations of Canada, China, Georgia, Germany, Ireland, Latvia, Sweden, United Kingdom, United States and the EC observer made reference to their statements related to a recent incident between Ukraine and the Russian Federation in the Kerch Strait and Sea of Asov area (see paragraphs 1.9 to 1.12 and annex 16). The delegations of the Netherlands and France associated themselves with the statements made by the delegation of Germany and others.

19.9 Relevant statements by the delegations of the Russian Federation and Ukraine are attached in annex 16.

Deceptive shipping practices

19.10 The Committee considered the proposal in document MSC 100/19/9 (Australia et al.) to issue an MSC circular on deceptive shipping practices employed by the Democratic People's Republic of Korea that endangered maritime security and threatened the safety of navigation, and in doing so, cited Assembly resolution A.706(17), as amended, which provided for Member States of IMO to notify designated safety warning coordinators of incidents which might affect the safety of navigation in order to transmit navigational warning and maritime safety information to the ships in the sea area concerned.

19.11 Following discussion, during which the majority of delegations that spoke supported the issuing of a circular as proposed in document MSC 100/19/9, the Committee approved MSC.1/Circ.1602 on *Deceptive shipping practices employed by the Democratic People's Republic of Korea*, based on the text set out in the annex to the document. A relevant statement by the delegation of the Democratic People's Republic of Korea is set out in annex 16.

Life-saving appliances

Minor corrections to references in the Revised recommendation on testing of life-saving appliances

19.12 The Committee recalled that MSC 99, having considered document MSC 99/20/13 (ISO), highlighting outdated references in the *Revised recommendation on testing of life-saving appliances* (resolution MSC.81(70)), had requested the Secretariat to prepare corrections to those references, for consideration at this session (MSC 99/22, paragraph 20.30).

19.13 Having considered document MSC 100/19/1 (Secretariat), containing draft amendments to the Revised recommendation, the Committee requested the Secretariat to prepare and submit to MSC 101 a draft MSC resolution on the adoption of amendments to the Revised recommendation. In this context, the ISO observer informed the Committee that they would notify the Committee of any changes in ISO standards, as appropriate.

Accelerated weathering tests of retro-reflective materials on life-saving appliances

19.14 The Committee had for its consideration document MSC 100/19/4 (Austria et al.), proposing amendments to resolution A.658(16) on *Use and fitting of retro-reflective materials on life-saving appliances* in order to allow new emerging technologies to be used for accelerated weathering tests of retro-reflective materials, noting in particular that paragraph 4.10 thereof referred to the "carbon arc" method, which was rare as new testing equipment and standards were based largely on "xenon arc" devices.

19.15 Following consideration, the Committee agreed that alternative 2 presented in the document, i.e. the deletion of "carbon arc" from paragraph 4.10 of annex 1 to resolution A.658(16), would be the most appropriate way forward and requested the Secretariat to prepare and submit a relevant draft Assembly resolution to the next session for approval.

Use of Fibre Reinforced Plastic (FRP) for seagoing ships

19.16 The Committee considered document MSC 100/19/3 (Russian Federation), requesting views on a possible new output for the development of requirements for design, construction and survey of seagoing vessels (including Maritime Autonomous Surface Ships (MASS) with FRP hulls and/or FRP structures, based on recent advances in technology and experience gained by the Russian Federation in the design and construction of small-sized vessels with FRP hulls, which they believed allowed for an increase in size of FRP hull vessels; and a lack of appropriate IMO requirements addressing the issue.

19.17 Following consideration, and having noted general support for the proposal, the Committee invited the Russian Federation and interested parties to submit a proposal for a new output in accordance with the Committees' method of work (MSC-MEPC.1/Circ.5/Rev.1) to a future session.

Domestic ferry safety

19.18 The Committee considered the following documents related to domestic ferry safety:

- .1 MSC 100/19/6 (China), proposing measures to improve domestic passenger ships' safety, based on a statistical analysis of domestic ferry incidents in Member States, including China, and suggesting that the Organization conduct a comprehensive study on elements that affect ferry safety; provide technical guidance to Member States and prioritize technical cooperation projects on this matter; and
- .2 MSC 100/19/10 (Secretariat), providing comments on document MSC 100/19/6 and updating the Committee on the Organization's efforts to address the safety of passenger ships on non-international voyages under ITCP, in particular describing the significant amount of work on the safety of passenger ships on non-international voyages carried out from 1996 to date.

19.19 During the discussion, the Committee noted, inter alia, the following views:

- .1 IMO's initiatives, support provided and steps taken in relation to domestic ferry safety were highly appreciated, however concerns still existed, taking into consideration the ongoing occurrence of ferry incidents, therefore, the proposal to improve domestic passenger ships' safety was supported;
- .2 the list of actions items presented in document MSC 100/19/6 was too broad and would require the involvement of other IMO bodies, therefore, a more concrete and focused proposal was necessary;
- .3 the issue should remain under the purview of MSC;
- .4 China's initiative was welcome and would stimulate cooperation among Member States; and
- .5 some Member States had taken action to address domestic ferry safety at the national level.

19.20 A relevant statement made by the delegation of Indonesia is set out in annex 16.

19.21 Having considered the above views and recognizing the complexity and multifaceted character of the matter, the Committee thanked the delegation of China for the document and agreed that a more detailed proposal for a new output would be necessary, also taking into account the possible involvement of other committees, e.g. the Technical Cooperation Committee. In this connection, the Secretary-General stated that the Secretariat would provide more information on how to move forward with this matter to MSC 101.

Status of ISO/TC 8 standards

19.22 The Committee noted document MSC 100/19/7 (ISO), containing an updated list of the international standards related to the work of the Committee recently published and currently under development by ISO/TC 8.

Trial for an independent assessment of the IACS Quality System Certification Scheme (QSCS)

19.23 The Committee recalled that MSC 61 had agreed that active participation by IMO in the IACS audit programme would serve a good purpose, bearing in mind that such participation would be at no cost to the Organization.

19.24 The Committee also recalled that MSC 99, having noted the information provided by the IMO consultant/observer on the IACS QSCS and its transition to accredited certification bodies (ACBs) (MSC 99/21/1), had agreed to the indefinite continuation of the IMO consultant/observer participation in the Scheme at no cost to the Organization, subject to any future decision of the Committee.

19.25 The Committee considered document MSC 100/19/8 (Liberia et al.) proposing to establish a fully independent International Quality Assessment Review Body (IQARB) for the QSCS for an initial trial and requesting the active participation of the Secretariat in the trial phase.

19.26 In the ensuing discussion, all delegations that spoke supported the proposal and the Committee noted that IQARB could be developed into a fully international and independent quality assessment review body with highly independent quality standards. Additionally, IQARB could be a component to assist Member States to fulfil some of their obligations under the III Code and the RO Code with regard to the oversight programme exercised by flag States over their ROs, however, it should not be seen as an alternative to the sovereign right and duty of a flag State to exercise effective oversight of the classification societies it authorized to act on its behalf.

19.27 Based on the foregoing, the Committee agreed to the active participation of the Secretariat in the trial phase of IQARB and for its meetings to be convened by IACS and hosted by IMO, bearing in mind that the participation of the Secretariat would be at no cost to the Organization; and requested the Secretariat to keep it regularly updated on any developments during the trial phase.

Global Integrated Shipping Information System (GISIS) update

19.28 The Committee noted information provided by the Secretariat (MSC 100/INF.2) on GISIS, in particular regarding the revised module on Survey and Certification, with a new area on "Voluntary early implementation" for SOLAS Contracting Governments to communicate to the Organization information regarding voluntary early implementation of amendments to SOLAS and related mandatory instruments with respect to ships entitled to fly their flag, prior to the entry-into-force date of those amendments.

19.29 Having been advised that after the release of document MSC 100/INF.2 the GMDSS module of GISIS had been completed, the Committee invited Member States to verify data migrated into the new module, using the guidance provided in the annex to document NCSR 6/9, as appropriate.

2012 Cape Town Agreement and IUU fishing

Global Fishery Forum

19.30 The Committee noted document MSC 100/INF.5 (Russian Federation et al.), providing a report on the outcome of the Global Fishery Forum held in St. Petersburg, the Russian Federation, from 13 to 15 September 2018. In this regard, the Committee expressed its sincere appreciation to the Pew Charitable Trusts for their support of the Organization's work on matters related to fishing vessel safety, IUU fishing and related issues.

IMO Conference to be held in Torremolinos, Spain

19.31 The Committee noted information provided by the Secretariat regarding an upcoming IMO Conference on Fishing Vessel Safety and IUU Fishing, tentatively planned for the second half of 2019 in Torremolinos, Spain, and funded from ITCP funds and donations from other sponsors. In this regard, the Committee noted that relevant information would be issued in due course to all Member States, UN agencies, international organizations and other parties concerned.

Korea Maritime Week 2018

19.32 The Committee noted information provided in document MSC 100/INF.9 (Republic of Korea) on the 2018 Korea Maritime Week, held in Seoul and Busan from 26 to 28 June 2018, discussing issues such as smart-shipping and green-shipping together with leading experts from the Government, academia and industrial circles.

One hundred sessions enhancing safety and security of international shipping

19.33 The Committee noted information provided by the Secretariat (MSC 100/INF.11) on the occasion of its 100th session, regarding salient features of the history of IMO and the Committee and other information relating to its work and achievements, and thanked the Secretariat for it.

Expression of appreciation

19.34 The Committee expressed its appreciation to delegates and members of the Secretariat who had recently relinquished their duties, retired, moved or been transferred to other duties, or were about to do so, for their contributions to its work and wished them a long and happy retirement or, as the case may be, every success in their new duties.

19.35 The Committee expressed, in particular, its appreciation to Mr. Joseph Angelo (United States), Head of numerous United States' delegations to MSC and MEPC meetings, former Managing Director of INTERTANKO, and one-time Chair of the Committee, for his invaluable contribution to the Committees' work and wished him a long, happy and healthy retirement.

20 ACTIONS REQUESTED OF OTHER IMO ORGANS

20.1 The Assembly, at its thirty-first session, is invited to:

- .1 note the special event held on the occasion of the Committee's 100th session and that the Committee was honoured by the presence of Her Royal Highness The Princess Royal on 5 December 2018 (paragraph 1.4);
- .2 note the adoption of amendments to the Code of Safety for Special Purpose Ships (SPS Code) (resolution A.534(13)) (paragraph 3.14 and annex 1);
- .3 note the developments on matters related to the regulatory scoping exercise for the use of maritime autonomous surface ships, in particular the approval of a framework for the scoping exercise (section 5 and annex 2); and
- .4 note the action taken on issues related to Goal-based ship construction standards for bulk carriers and oil tankers and the GBS verification audits (paragraphs 6.10 to 6.49 and annex 3).

20.2 The Council, at its 122nd session, is invited to:

- .1 consider the report of the 100th session of the Maritime Safety Committee and, in accordance with Article 21(b) of the IMO Convention, transmit the report, with its comments and recommendations, to the thirty-first session of the Assembly;
- .2 note the special event held on the occasion of the Committee's 100th session and that the Committee was honoured by the presence of Her Royal Highness The Princess Royal on 5 December 2018 (paragraph 1.4);
- .3 note the decisions taken regarding measures for greater public access to information (paragraphs 2.3 and 17.38);
- .4 note the adoption of amendments to the Code of Safety for Special Purpose Ships (SPS Code) (resolution A.534(13)) (paragraph 3.14 and annex 1);
- .5 note the action taken on issues related to maritime security (section 4);
- .6 note the developments on matters related to the regulatory scoping exercise for the use of maritime autonomous surface ships, in particular the approval of a framework for the scoping exercise (section 5 and annex 2);
- .7 note the action taken on issues related to Goal-based ship construction standards for bulk carriers and oil tankers and the GBS verification audits (section 6 and annex 3);
- .8 note the progress made on matters related to safety measures for non-SOLAS ships operating in polar waters (paragraphs 7.10 to 7.15);
- .9 note the action taken in regard to the outcome of the sub-committees reporting to this session, in particular regarding safety implications associated with the use of low-sulphur fuel oil (sections 8 to 12);

- .10 note the action taken in regard to capacity-building for the implementation of new measures (paragraphs 13.4 and 13.5);
- .11 note the action taken in regard to piracy and armed robbery against ships (section 14);
- .12 note the outcome on matters related to unsafe mixed migration by sea (section 15);
- .13 endorse the decision of the Committee to include one expanded and four new outputs in its 2018-2019 biennial agenda (paragraph 17.29);
- .14 note the status report of the outputs for the 2018-2019 biennium and the updated post-biennial agenda of the Committee (paragraph 17.30 and annexes 13 and 14);
- .15 note the plan of meeting weeks of the Committees and their subsidiary bodies for the coming biennium approved by the Committee (paragraphs 17.31 to 17.35);
- .16 endorse the intersessional meetings approved by the Committee for 2019 (paragraph 17.37); and
- .17 note the decision for the Secretariat to participate in the trial phase of the new International Quality Assessment Review Body (IQARB) for the IACS QSCS (paragraphs 19.23 to 19.27).

20.3 The Marine Environment Protection Committee, at its seventy-fourth session, is invited to:

- .1 note the concurrent approval of the measures for greater public access to information and the further action taken by the Committee (paragraphs 2.3 and 17.38);
- .2 note the concurrent approval to instruct the HTW Sub-Committee to consider the request of TC 68 to identify and prioritize which of the model courses could be considered for conversion into e-learning model courses and advise the Committees accordingly (paragraph 2.4);
- .3 note the developments on matters related to the regulatory scoping exercise for the use of maritime autonomous surface ships, in particular the approval of a framework for the scoping exercise (section 5 and annex 2);
- .4 note the progress made on matters related to safety measures for non-SOLAS ships operating in polar waters (paragraphs 7.10 to 7.15);
- .5 note the concurrent approval of draft amendments to the International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IBC Code) and the Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (BCH Code) (paragraphs 8.3 and 8.4 and annex 3);

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- .6 note the action taken on matters related to safety implications associated with the use of low-sulphur fuel oil (paragraphs 8.5 to 8.22), in particular:
- .1 the invitation to MEPC 74 to advise MSC 101 on the progress made on the new GISIS module for fuel oil safety matters (paragraph 8.17); and
 - .2 the instruction to PPR 6 to develop a joint MSC-MEPC circular addressing the delivery of compliant fuels by suppliers, with a view to approval by MEPC 74 and MSC 101 (paragraph 8.19);
- .7 note the action taken to address the review of model courses under the purview of IMO bodies other than the HTW Sub-Committee (paragraphs 10.3 to 10.5);
- .8 note the concurrent approval of the draft amendments to the *Revised guidelines for the development, review and validation of model courses* (MSC-MEPC.2/Circ.15), to be issued as MSC-MEPC.2/Circ.15/Rev.1 (paragraph 10.7);
- .9 concur with the decision to discontinue the preliminary assessment of capacity-building implications and technical assistance needs related to new outputs for amending mandatory instruments (paragraphs 13.3 to 13.6);
- .10 note the approval of the biennial agendas of the CCC and III Sub-Committees and the provisional agendas for CCC 6 and III 6 (paragraphs 17.23 and 17.25 and annexes 11 and 12); and
- .11 note the concurrent approval of the plan of meeting weeks of the Committees and their subsidiary bodies for the coming biennium (paragraphs 17.31 to 17.35).
- 20.4 The Facilitation Committee, at its forty-second session, is invited to:
- .1 note the developments on matters related to the regulatory scoping exercise for the use of maritime autonomous surface ships, in particular the approval of a framework for the scoping exercise (section 5 and annex 2);
 - .2 note the decision to discontinue the preliminary assessment of capacity-building implications and technical assistance needs related to new outputs for amending mandatory instruments (paragraphs 13.3 to 13.6);
 - .3 note that Member States have been invited to complete the *Questionnaire on information on port and coastal State requirements related to privately contracted armed security personnel on board ships* (MSC-FAL.1/Circ.2) (paragraph 14.1); and
 - .4 note the approval of the new output on "Development of amendments to the STCW Convention and Code for the use of electronic certificates and documents of seafarers", for inclusion in the biennial agenda of the HTW Sub-Committee and the provisional agenda for HTW 6 (paragraph 17.12).

20.5 The Technical Cooperation Committee, at its sixty-ninth session, is invited to:

- .1 note the concurrent approval to instruct the HTW Sub-Committee to consider the request of TC 68 to identify and prioritize which of the model courses could be considered for conversion into e-learning model courses and advise the Committees accordingly (paragraph 2.4);
- .2 note the developments on matters related to the regulatory scoping exercise for the use of maritime autonomous surface ships, in particular the approval of a framework for the scoping exercise (section 5 and annex 2);
- .3 note the outcome on matters related to capacity-building for the implementation of new measures, in particular the decision to discontinue the preliminary assessment of new outputs for capacity-building implications (section 13); and
- .4 note the outcome of the discussion on matters related to domestic ferry safety (paragraphs 19.18 to 19.21).

20.6 The Legal Committee, at its 106th session, is invited to note the developments on matters related to the regulatory scoping exercise for the use of maritime autonomous surface ships, in particular the approval of a framework for the scoping exercise (section 5 and annex 2).

(The annexes will be issued as an addendum to this document)
