**MSC 105 – April 20-29, 2022**

The 105th session of the IMO's Maritime Safety Committee (MSC 105) was held 20-29 April 2022 online.

***Adoption of mandatory instruments***

Major mandatory instruments:

* SOLAS, HSC Codes (1994 and 2000), MODU Codes (1979, 1989 and 2009) and SPS Code (1983 and 2008): GMDSS package for modernization.

The provisions for communication equipment have been moved from SOLAS Chapter III on life-saving appliances to Chapter IV on radio communications.

The amendments to SOLAS Chapters III and IV will not require the reissuance of existing SOLAS certificates;

- IMDG Code: Routine updates, including carriage of Lithium-ion batteries; and

- IMSBC Code: Routine updates, including “dynamic separation”.

While most of the amendments will enter into force on 1 January 2024, the amendments to the IMSBC Code will enter into force on 1 December 2023.

***Oil fuel safety***

MSC 105 concluded:

- Draft amendments to SOLAS chapter II-2 in relation to flashpoint, including reporting and actions against the cases of violation for subsequent adoption by MSC 106;

- For the repeatability and reproducibility of the oil fuel analyses, encouraged members to work with ISO.

MSC 105 invited MEPC 78 to urgently address the draft amendments to the SOLAS Convention for possible inclusion of flashpoint in the MARPOL bunker delivery note.

MSC 105 re-established the correspondence group (CG), which will report to MSC 107 (June 2023) to work on the safety of ships relating to the use of oil fuel, including to:

- Develop guidelines for the fuel sampling procedure;

- Collect information on possible further measures to enhance the safety of ships relating to the use of oil fuel;

- Consider possible measures related to oil fuel parameters other than the flashpoint.

MSC 105 further encouraged members to work on oil fuel contamination.

***Goal-based new ship construction standards***

MSC 105 focused on past submissions which had been postponed to this session. Documents submitted to MSC 105 were deferred to MSC 106.

MSC 105 noted IMO audit records to IACS members, which included:

- Update of corrective actions;

- How to record actions against “observations”; and

- Organizing IMO GBS workshop for feedback and improvements.

MSC 105 also reviewed and approved the future audit programme.

MSC 105 noted information papers, which propose a probabilistic approach for the development of GBS-compliant ship construction rules.

***Maritime autonomous surface ships***

MSC 105 worked on a roadmap toward the mandatory MASS Code based on the findings from the Regulatory Scoping Exercise (RSE).

The MSC 105 developed the draft roadmap toward 2025, when a goal-based mandatory code is completed for entry into force on 1 January 2028, while the first task is to develop a goal-based non-mandatory code.

MSC 105 included “Considerations of gaps not covered by the RSE but important for the development of a MASS Code”. These include artificial intelligence, machine learning, cyber security etc.

The meeting of MSC/FAL/LEG Joint working group (JWG) will be held 6 – 8 September online to address the common issue. The JWG is the subsidiary body of the committees concerned, not steering the direction of each committee.

MSC 105 set up the Correspondence group to continue the work, which will report to MSC 107 (June 2023).

***Cost implications for MSI and SAR information providers***

Accepting Iridium as part of GMDSS Recognized Mobile Satellite Service poses additional financial burdens and resource burdens to the MSI coordinators and Rescue Co-ordination Centres (RCCs), as they have to broadcast information through both Inmarsat and Iridium.

Five options were presented:

- Option 1: Current practice;

- Option 2: From the existing IMO budget;

- Option 3: New and dedicated fund;

- Option 4: Drop charge (or reduce it) by the satellite service provider; and

- Option 5: Introduce a coast ceiling.

As a matter of principle, MSC 105 agreed to urge MSI providers to make the necessary efforts to provide MSI on all approved recognized mobile satellite services.

However, with regard to the cost options, MSC 105 could not conclude the matter as each option has an issue to resolve, e.g. waiving cost under resolution A.707(17) has implications on the agreement with recognized mobile satellite service providers.

The matter was referred to the Sub-Committee on Navigation, Communications and Search and Rescue (NCSR) for further discussion.

MSC 105 also noted that Iridium offered to waive the cost for the use of SafetyCast services but also recognized that this is only a temporary solution.

***Implementation of IMO instruments***

MSC 105 had an intense discussion on whether to expand the current work on mandating carriage requirements of the electronic inclinometer.

The current work addresses only container ships and bulk carriers, but III 7 suggested expanding the work to all SOLAS ship types.

The opinions were divided between support and not support.

Even among supporters of expanding the scope, many did not support application to existing ships. MSC 105 instructed NCSR 9 to consider the matter and advise MSC.

MSC 105 endorsed the findings of IMO Consolidated Audit Summary Reports (CASRs) which identify areas of non-conformity.

***Carriage of cargoes and containers***

Major issues that MSC 105 approved from the 7th meeting of the Sub-Committee on Carriage of Cargoes and Containers (CCC 7) were:

* Interim guidelines for the safety of ships using fuel cell power installation;

- Updates of IGF and IGC Codes;

- MSC Circulars on the use of the high-manganese austenitic steel; and

- Routine updates of IMDG and IMSBC Code.

***Ship design and construction***

MSC 105 reviewed the outcome of the eighth meeting of the Sub-Committee on Ship Design and Construction (SDC 8):

* Approved IP Code (International Code of Safety for Ships Carrying Industrial Personnel) and relevant SOLAS regulations, which applies to new and existing OSVs or any other ships that carry IP for transportation. The IP Code and SOLAS amendments is expected to be adopted at MSC 106 for entry into force on 1 July 2024;

- Noted ongoing discussions on the development of goals, functional requirements and expected performances for SOLAS chapter II-1, parts C, D and E with a view to amending the Guidelines on alternative design and arrangements for SOLAS chapters II-1 and III; and

- Adopted MSC.188(79)/Rev.1 on Revised performance standards for water level detectors on ships subject to SOLAS regulations II-1/25, II-1/25-1 and XII/12.

***Human element, training and watchkeeping***

MSC 105 reviewed the outcome of the eighth meeting on the Sub-Committee on Human Element, Training and Watchkeeping (HTW 8):

- Approved the establishment of the Joint ILO/IMO Tripartite Working Group to Identify and Address Seafarers' Issue, which will deal with seafarer abandonment etc.;

- Noted that HTW 8 could not conclude crowd management training for the crew of ships transporting industrial personnel to offshore sites;

- Approved the revision and the improved use of the human element checklist;

- Agreed to add bullying and harassment, including sexual assault and harassment, to the work of the above-mentioned joint ILO/IMO working group; and

- Invited Member States and Management Companies to address and monitor the cases of bullying and harassment.

***New work programme***

Main proposals are:

- Ammonia fuel safety (guidelines);

- Carriage of Hydrogen cargo; and

- Comprehensive revision of the STCW Convention (with bullying and harassment, including sexual assault and harassment, as a separate high-priority item).

Due to the heavy workload of the Sub-Committee concerned, the following were included in the post-biennium output list (waiting list):

- New ECDIS standard, including digital voyage planning data transmission (to review the scope of the work first);

- Revision of SOLAS chapters II-1 (part C) and V and related instruments regarding steering and propulsion requirements to address both traditional and non-traditional propulsion and steering systems for new ships:

- Fatigue of seafarers;

- Ro-ro/vehicle/special category space protection for the carrying of new energy vehicles.

 MSC 105 instructed III Sub-Committee to assess the proposal on the mandatory root cause investigation of incidents.

***Russia-Ukraine matter – outcome of C/ES 35***

MSC 105 reviewed the outcome of 35th Extraordinary Session of the IMO Council (C/ES 35), concerning the impacts on shipping and seafarers of the situation in the Black Sea and the Sea of Azov.

MSC 105 adopted resolution MSC.495(105) on Actions to facilitate the urgent evacuation of seafarers from the war zone area in and around the Black Sea and the Sea of Azov as a result of the Russian Federation invasion of Ukraine.

Among others, the Resolution:

- Requests the Secretary-General to continue to use his good offices to secure the assistance of international humanitarian bodies;

- Also requests the Secretary-General continue to examine the establishment of other corridors for the continued safe and expeditious evacuation of seafarers and ships from the zone of hostilities;

- Further requests the Secretary-General continue to provide regular updates;

- Urges Member States to raise concerns regarding the collateral impact on seafarers, port workers, safety and security of navigation, global supply chains and food security at the United Nations General Assembly and other United Nations Specialized Agencies, and request those bodies to seek a solution to alleviate these critical concerns, aiming to contribute to a peaceful solution.

***Decarbonization goal***

Following the submission to A 32 and MSC 105, MSC 105 instructed the Sub-Committee on Carriage of Cargoes and Containers (CCC) to examine safety requirements for GHG reduction technologies.

***Any other business***

MSC 105 noted information on the joint industry project, which addresses design limits, weather routing, ship movement, the safety margin of container stack and regulatory enforcement.

MSC 105 noted the submission on the need for updating MSC.1/Circ.1519 on Guidance on methodologies for assessing operational capabilities and limitations in ice and the other submission on additional challenges, such as establishing the polar service temperature and stagnation of environment discussion at the Arctic Council.

***Resolutions adopted by MSC 105***

- MSC.495(105) - Actions to facilitate the urgent evacuation of seafarers from the war zone area in and around the Black Sea and the Sea of Azov as a result of the Russian Federation aggression against Ukraine;

- MSC.496(105) - Amendments to the International Convention for the Safety of Life at Sea, 1974;

- MSC.497(105) - Amendments to the Protocol of 1988 relating to the International Convention for the Safety of Life at Sea, 1974;

- MSC.498(105) - Amendments to the International Code of Safety for High-Speed Craft, 1994 (1994 HSC Code);

 - MSC.499(105) - Amendments to the International Code of Safety for High-Speed Craft, 2000 (2000 HSC Code);

 - MSC.500(105) - Amendments to the International Maritime Soli Bulk Cargoes (IMSBC Code);

- MSC.501(105) - Amendments to the International Maritime Dangerous Goods (IMDG) Code;

- MSC.502(105) - Amendments to the Code of Safety for Special Purpose Ships, 1983 (1983 SPS Code);

 - MSC.503(105) - Amendments to the Code of Safety for Special Purpose Ships, 2008 (2008 SPS Code);

- MSC.504(105) - Amendments to the Code for the Construction and Equipment of Mobile Offshore Drilling Units, 1979 (1979 MODU Code);

- MSC.505(105) - Amendments to the Code for the Construction and Equipment of Mobile Offshore Drilling Units, 1989 (1989 MODU Code);

- MSC.506(105) - Amendments to the Code for the Construction and Equipment of Mobile Offshore Drilling Units, 2009 (2009 MODU Code);

- MSC.507(105) - System performance standard for the promulgation and coordination of maritime safety information using high-frequency narrow-band direct-printing;

- MSC.508(105) - Performance standards for the reception of maritime safety information and search and rescue related information by MF (NAVTEX) and HF;

- MSC.509(105) - Provision of radio services for the global maritime distress and safety system (GMDSS);

- MSC.510(105) - Performance standards for search and rescue radar transponders;

- MSC.511(105)-Performance standards for shipborne VHF radio installations capable of voice communication and digital selective calling;

- MSC.512(105) - Performance standards for shipborne MF and MF/HF radio installations capable of voice communication, digital selective calling and reception of maritime safety information and search and rescue related information;

- MSC.513(105) - Performance standards for Inmarsat-C ship earth stations capable of transmitting and receiving direct-printing communications;

- MSC.514(105) - Guidelines for the avoidance of false distress alerts;

- MSC.515(105) - Performance standards for survival craft portable two-way VHF radiotelephone apparatus;

- MSC.516(105)-Amendments to the performance standards for radiocommunication equipment (MSC.80(70);

- MSC.517(105) - Performance standards for a shipborne integrated communication system (ICS) when used in the Global Maritime Distress And Safety System (GMDSS);

- MSC.518(105) - Model regulations on domestic ferry safety;

- MSC.188(79)/REV.1 - Revised performance standards for water level detectors on ships subject to SOLAS regulations II-1/25, II-1/25-1 and XII/12.