

The 103rd session of the IMO's Maritime Safety Committee (MSC) was held remotely from 5 to 14 May. The agenda ranged from the humanitarian crew change crisis to safety regulations for unmanned ships. With 200,000 seafarers still affected by the pandemic, it was recognized that the vaccination of seafarers is key to overcoming the crisis. A new goal-based IMO instrument was found to be the best way to safely introduce autonomous ships into the IMO regulatory framework, concluding the MSC review of existing instruments for this purpose.



#### Meeting highlights

- Adoption of an MSC resolution on recommended actions to prioritize the COVID-19 vaccination of seafarers
- Finalization of the regulatory scoping exercise for autonomous ships
- Agreement on the development of a new IMO instrument for autonomous ships as the most appropriate way forward
- Approval of guidelines for fishing vessels and pleasure yachts operating in polar waters
- Approval of amendments to the guidelines for the maintenance and inspections of fixed CO<sub>2</sub> fire-extinguishing systems

#### Adoption of amendments to mandatory instruments

MSC 103 adopted amendments to the following IMO instruments:

##### SOLAS – Safety of Life at Sea

**Water level detectors on non-bulk cargo ships:** A new SOLAS regulation II-1/25-1 requires new multiple-hold cargo ships to be fitted with water level detectors in each cargo hold intended for cargo. The new regulation harmonizes the requirements for bulk carriers and non-bulk carriers, and will not apply to tankers, liquid holds, and tanks entirely above the freeboard deck.

Consequential amendments to the “Performance standards for water level detectors on bulk carriers and single hold cargo ships other than bulk carriers” (MSC.188(79)) will be considered later.

**Launching of free-fall lifeboats:** Removal of the requirement to launch free-fall lifeboats with the ship making headway at speeds of up to 5 knots in calm water, as there is no additional dynamic load on the

launching arrangements to be accounted for. Amendments to SOLAS chapter III/33, the LSA Code and resolution MSC.81(70).

*The amendments will enter into force on 1 January 2024, with voluntary early implementation by flag States of SOLAS chapter III/33 on the launching of free-fall lifeboats.*

##### ESP Code – Enhanced Survey Programme

**Thickness measurements for oil tankers:** Amendments to the 2011 ESP Code so that thickness measurements only need to be taken of “suspect areas” at the first renewal survey of double-hull oil tankers. This will align the thickness measurement requirements for oil tankers with those for bulk carriers.

*The amendments will enter into force on 1 January 2023.*

##### FSS Code – Fire Safety Systems

**Fault isolation of fire detection systems:** Amendments to chapter 9 to adjust the requirements for short circuit isolators in fixed fire detection systems. Short circuit isolators do not need to be provided at each individually identifiable fire detector for cargo ships and for passenger ship balconies. For cargo ships, one per deck will typically be acceptable.

*The amendments will enter into force 1 January 2024.*

##### LSA Code – Life-Saving Appliances

**Launching of free-fall lifeboats:** Amendments to paragraph 4.4.1.3 following amendments to SOLAS chapter III/33.

##### STCW Convention and Code – Standards of Training, Certification, Watchkeeping

**Definitions:** A definition of “high voltage” as above 1,000 Volts is included in the STCW Convention Regulation 1/1, and a definition of “electro technical officer” is included in Section A-1/1 of the STCW Code.

*The amendments will enter into force on 1 January 2023.*

#### Maritime Autonomous Surface Ships

##### Maritime Autonomous Surface Ships (MASS)

The prospect of autonomous ships operating internationally with little or no human intervention has created the need for a regulatory framework for such ships, including their interaction and co-existence with conventional manned ships.

MSC 103 finalized a review of the existing regulatory framework, which generally assumes manning and human intervention, to determine how these regulations would apply to ships with varying degrees of autonomy.

It was agreed that a new goal-based IMO instrument would be the best way forward to introduce MASS into the regulatory framework. The new instrument may be mandated through SOLAS and/or other conventions or be limited to providing interim guidance on MASS operations at an early stage. The overall goal is clear: MASS should be as safe as conventional ships.

The regulatory scoping exercise identified many common challenges for MASS operations across several existing IMO instruments, for example the need to clarify the role and responsibility of the “master” for circumstances where shore personnel might control the ship, or the functional requirements of a remote control station. MSC 103 agreed that addressing these challenges, as well as achieving a common understanding of MASS terminology, should be high priority in connection with the development of a new instrument.

Member States were invited to submit new output proposals for how to address MASS in the IMO regulatory framework to MSC 104 in October 2021, recognizing that future MASS-related regulatory work may require liaison with the IMO’s Facilitation and Legal Committees.

#### Safety of ships relating to the use of fuel oil

When the MARPOL sulphur cap forced ships to consider new types of fuel oil, MSC agreed to develop the corresponding safety measures. Low-flashpoint fuels are attractive from an environmental perspective due to their clean burning characteristics and low sulphur content.

An interim recommendation developed by MSC 101 encourages the reporting of non-compliant fuel, particularly with respect to the SOLAS flashpoint requirements, and actions against suppliers of non-compliant fuel, as well as the application of international standards for marine distillate fuels.

Moving from interim recommendations to mandatory requirements, MSC 103 drafted SOLAS amendments requiring contracting Governments to report confirmed cases to the IMO where oil fuel suppliers have failed to meet the SOLAS flashpoint requirements, and to take actions against oil fuel suppliers delivering fuel that does not meet the flashpoint requirements. Mandatory requirements regarding the bunker suppliers’ obligation to document the flashpoint of the actual fuel batch when bunkering were also considered.

MSC 103 also progressed draft guidelines for ships to address situations where indicative test results suggest that the oil fuel supplied may not comply with the flashpoint requirements.

The draft requirements and the draft guidelines will be further considered in a correspondence group until MSC 105 in 2022, noting the need to coordinate the work with the IMO’s Maritime Environmental Protection Committee.

#### Domestic ferry safety

The global number of accidents and casualties related to domestic ferries has remained high for decades. While recognizing that domestic operations are outside the scope of the IMO’s responsibilities, MSC 103 considered a draft framework for non-mandatory model regulations, implementation guidelines and training programmes and agreed to further develop these at MSC 104 in October 2021.

#### Measures to enhance maritime security

##### Cyber risk management for ships and ports

MSC 103 agreed to disseminate the fourth version of the industry-developed “Guidelines on cyber security onboard ships” as an MSC circular.

MSC 103 also agreed to update the “Guidelines on maritime cyber risk management” (MSC-FAL.1/Circ.3) with a reference to the consolidated IACS “Recommendation on cyber resilience” (Recommendation 166), subject to concurrent decision by the IMO’s Facilitation Committee.

#### Human element, training and watchkeeping

##### Role of the human element – the COVID-19 pandemic

The COVID-19 pandemic has created problems in terms of the renewal of various documents, such as certificates of proficiency and health certificates, and of the fact that many seafarers are having difficulty maintaining their certificates because the necessary courses are not available. The second problem is now becoming acute.

MSC 103 endorsed the establishment of a correspondence group to identify in detail certification and training issues related to the COVID-19 pandemic, with a view to develop guidance for harmonizing, to the extent possible, measures and solutions, as well as to consider the possible adverse effects of these measures when normality returns.

##### Proposed amendment to the IMO Strategic Plan for 2018–2023

MSC 103 agreed to propose a specific strategic direction on the human element in the Strategic Plan for the Organization, particularly in the context of the global crisis stemming from the COVID-19 pandemic and the need to protect the seafarers. The proposal will be sent to the IMO Council for consideration.

#### Ship design and construction

##### Non-SOLAS ships in polar waters

Incidents in polar waters pose risks to human life, to the polar environment and to search and rescue operations. Accordingly, the IMO is working on a Phase 2 of the Polar Code to address safety measures also for non-SOLAS ships operating in polar waters.

MSC 103 approved guidelines for the following non-SOLAS ships operating in polar waters:

- Fishing vessels of at least 24 metres in length. These guidelines are aligned with the 2012 Cape Town Agreement
- Pleasure yachts above 300 gross tonnage not engaged in trade

The guidelines outline recommendations for mitigating hazards in polar waters, such as icing, low temperatures, darkness, high latitudes, and delays in emergency response.

#### Industrial Personnel (IP)

MSC 103 noted that an intersessional working group finalized a draft of a new SOLAS regulation and an accompanying draft of the IP Code in March 2021 for vessels carrying more than 12 industrial personnel on international voyages. Grandfathering provisions for existing ships operating under the interim recommendation on the safe carriage of more than 12 industrial personnel (resolution MSC.418(97)) are included in the draft of the new SOLAS regulation.

The draft of the new SOLAS regulation and the draft of the new IP Code will be submitted to MSC 104 in October 2024 for approval and is expected to enter into force on 1 January 2025.

#### Ship systems and equipment

**Maintenance of fixed carbon dioxide (CO<sub>2</sub>) fire-extinguishing systems**  
MSC 103 approved amendments to the “Guidelines for the maintenance and inspections of fixed CO<sub>2</sub> fire-extinguishing systems” (MSC.1/Circ.1318). The amendments follow accidental releases of CO<sub>2</sub> into machinery spaces and CO<sub>2</sub> cylinder rooms.

The amendments represent a significant increase in the hydrostatic test regime for CO<sub>2</sub> cylinders. Ten per cent (10%) of the total number of CO<sub>2</sub> cylinders shall still be tested at the 10-year inspection, but the 20-year test regime has been expanded from testing another 10% to testing all cylinders not tested so far (90%). All cylinders (100%) shall be tested at every 10-year anniversary thereafter.

#### ISO standard references for the testing of life-saving appliances

MSC 103 approved minor corrections to the ISO standards referred to for material tests for inflatable life rafts and hydrostatic release unit membranes in the “Revised recommendation on testing of life-saving appliances” (MSC.81(70)).

#### Work programme

MSC 103 agreed to the following new work items:

##### Sub-committee on Carriage of Cargo and Containers (CCC)

###### *IGC Code update*

Review and update the International Code for the Construction of Ships Carrying Liquefied Gases in Bulk (IGC Code) based on experiences since the code entered into force on 1 January 2016.

###### *Containers lost at sea*

Develop measures to facilitate detection, reporting, positioning, tracking and recovery of containers lost at sea.

##### Sub-committee on Ship Design and Construction (SDC)

###### *MODU Code asbestos ban*

Align the wording and guidance for the asbestos ban in the non-mandatory MODU Code with that contained in SOLAS.

###### *Amendments to the 2011 ESP Code*

Amendments to the International Code on the Enhanced Programme of Inspections during Surveys of Bulk Carriers and Oil Tankers (ESP Code) to address safety issues following the loss of the *MV Stellar Daisy* in 2017.

SDC will also provide advice to MSC regarding a proposed new output on amendments to the SOLAS requirements for bulk carriers.

###### *Emergency towing for all ships*

Extend the requirements for emergency towing devices for tankers to all ships over a certain size to facilitate emergency assistance and towing operations and thereby reduce the risk of ship wreckage and pollution.

###### *Safe Return to Port*

Review the Safe Return to Port guidelines for passenger ships to facilitate uniform implementation of the concept.

##### Sub-committee on Ship Systems and Equipment (SSE)

###### *Container ship fire safety*

Evaluate fire safety measures on container ships.

###### *FTP Code update*

Revise the Fire Test Procedures (FTP) Code to implement unified interpretations, review references and accommodate new fire protection systems and materials.

##### Sub-committee on Navigation, Communications and Search and Rescue (NCSR)

###### *VHF Data Exchange System*

Introduce the VHF Data Exchange System (VDES) to digitalize maritime radiocommunication.

###### *Digital navigational data system (NAVDAT)*

Develop performance standards and supporting documents for the digital navigational data system (NAVDAT) for the reception of safety and security-related information as part of the modernization plan for the Global Maritime Distress and Safety System (GMDSS).

##### Sub-committee on Implementation of IMO Instruments (III)

###### *New entrant training manual for PSC personnel*

Produce a new entrant training manual for PSC personnel, regularly updated, for voluntary use.

###### *IMSAS guidelines for implementation of the III Code*

Develop guidance in relation to the IMO Member State Audit Scheme to assist in the implementation of the III Code by Member States.

#### Any other business – COVID-19-related matters

##### *Ongoing crew change crisis*

MSC 103 noted that only 58 of the 174 Member States have so far notified the IMO of their recognition of seafarers as key workers. While global collaborative efforts have brought down the number of seafarers waiting to either be relieved or join their ships from 400,000

in 2020 to an estimated 200,000 in May 2021, the humanitarian crisis is not over.

The Secretary-Generals of the IMO, the International Civil Aviation Organization (ICAO), the International Labour Organization (ILO), the World Health Organization (WHO) and the International Organization for Migration (IOM) have issued joint and individual statements urging all UN members to designate seafarers as key workers, to prioritize seafarers in their COVID-19 vaccination programmes and to ensure their safe movement across borders.

Recommended action to prioritize the COVID-19 vaccination of seafarers

MSC 103 reaffirmed the unique and essential work of seafarers for international shipping and for the world, contributing to the uninterrupted transportation of vital medical supplies, food and other basic necessities during the COVID-19 pandemic.

A resolution on “Recommended action to prioritize Covid-19 vaccination of seafarers” was adopted, recommending that member states prioritize seafarers in their national COVID-19 vaccination programmes, consider exempting seafarers from any national policies requiring proof of vaccination during travels, and to develop plans, where feasible, to provide the necessary infrastructure and facilities to support the vaccination of seafarers.

Protocols for safe crew change

MSC 103 endorsed a revision of the industry-developed “Recommended framework of protocols for ensuring safe ship crew changes and travel during the COVID-19 pandemic” (MSC.1/Circ.1636/Rev.1), taking into account the global roll-out of vaccines and their role in facilitating ships’ crew changes and the efficient movement of world trade.

Information on ports facilitating crew changes

A new module, agreed by MSC 102, is available in the IMO’s online information database GISIS to make information about both national focal points of contact and ports that facilitate crew changes available to shipping companies. Member states were encouraged to use the module to provide relevant information on facilities for crew changes and repatriation of seafarers.

### Recommendations

DNV recommends that its customers monitor the outcome of future MSC sessions for information on inter alia the Harmonized System of Survey and Certification (HSSC) guidelines, the goal-based ship construction standards for bulk carriers and oil tankers, and the implementation of the 2012 Cape Town Agreement, as the agenda of MSC 103 was reduced to accommodate a remote session.

### Contact

#### For customers:

DATE – Direct Access to Technical Experts via [My Services](#) on Veracity.

#### Otherwise:

Use our [office locator](#) to find the nearest DNV office.

## Provisional list of resolutions and circulars

*Please note that the list and document references are provisional:*

Resolution MSC...(103)  
Amendments to the International Convention for the Safety of Life at Sea (SOLAS), 1974

Resolution MSC...(103)  
Amendments to the International Code on the Enhanced Programme of Inspections during Surveys of Bulk Carriers and Oil Tankers, 2011 (2011 ESP Code)

Resolution MSC...(103)  
Amendments to the International Code for Fire Safety Systems (FSS Code)

Resolution MSC...(103)  
Amendments to the International Life-Saving Appliance Code (LSA Code)

Resolution MSC...(103)  
Amendments to the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW), 1978

Resolution MSC...(103)  
Amendments to Part A of the Seafarers' Training, Certification and Watchkeeping (STCW) Code

Resolution MSC...(103)  
Amendments to the Revised Recommendation on Testing of Life-Saving Appliances (resolution MSC.81(70))

Draft Assembly Resolution  
[Prevention and suppression of piracy, armed robbery against ships and illicit maritime activity in the Gulf of Guinea]

Resolution MSC...(103)  
Recommended action to prioritize Covid-19 vaccination of seafarers

MSC.1/Circ.[...]  
Voluntary early implementation of the draft amendments to the SOLAS Convention and the LSA Code

MSC.1/Circ.[...]  
Guidelines on cyber security onboard ships

MSC-FAL.1/Circ.3/Rev.1  
Guidelines on maritime cyber risk management

MSC.1/Circ.1601/Rev.1  
Revised Industry Counter Piracy Guidance

MSC.1/Circ.797/Rev.35  
List of competent persons maintained by the Secretary-General pursuant to section A-I/7 of the STCW Code

MSC.1/Circ.[...]  
Amendments to the IAMSAR Manual

MSC.1/Circ.[...]  
Guidelines for safety measures for fishing vessels of 24m in length and over operating in polar waters

MSC.1/Circ.[...]  
Guidelines for pleasure yachts of 300 gross tonnage and above not engaged in trade operating in polar waters

MSC.1/Circ.1318/Rev.1  
Revised guidelines for the maintenance and inspections of fixed carbon dioxide fire-extinguishing systems