Outcome of MSC 105

Korean Register

Convention & Legislation Service Team, May 2022

Outcome of MSC 105

1. Establishment of, or Amendments to, IMO instruments

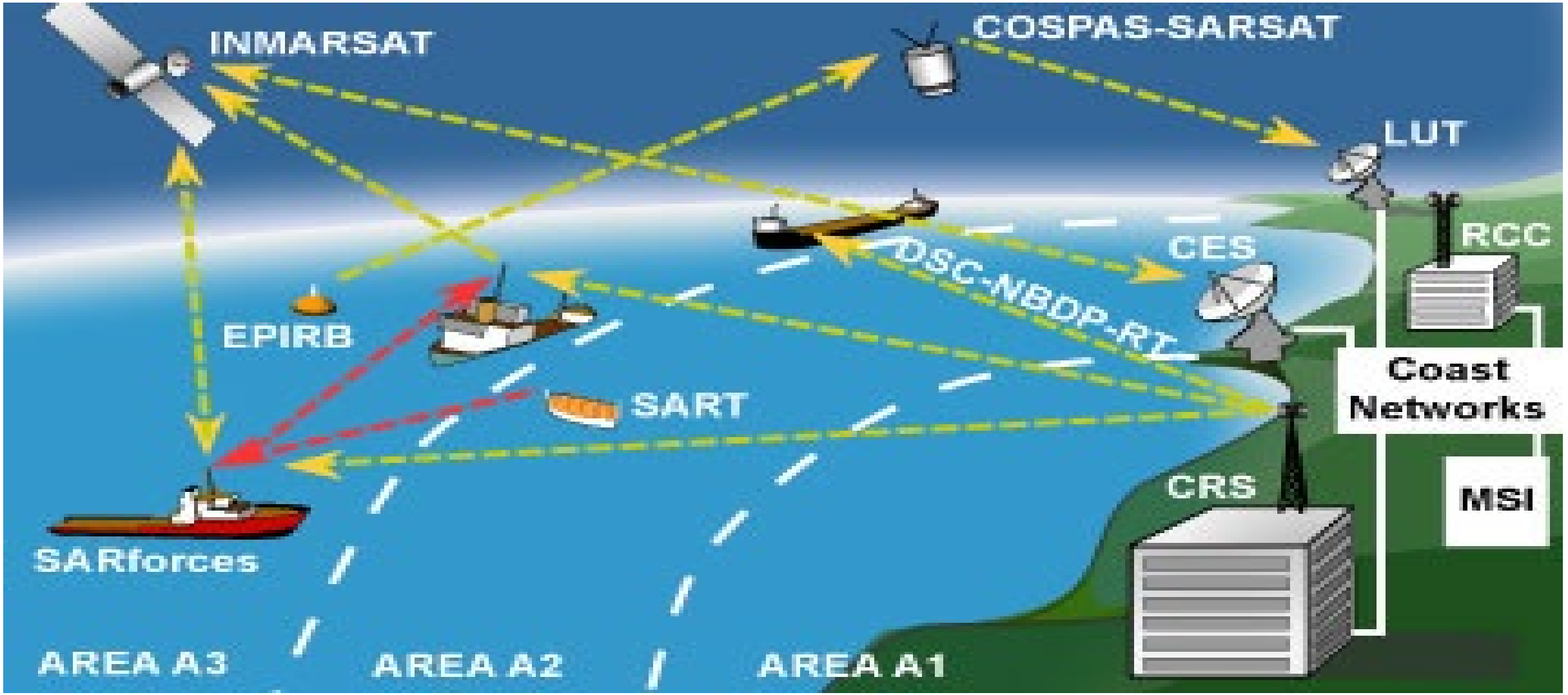
2. Approval of IMO instruments for subsequent adoption at the next session

3. New Work Programme

4. Other decisions

1. Establishment of, or amendments to, IMO Instruments

1. GMDSS Modernization



1. Establishment of, or amendments to, IMO Instruments

1. GMDSS Modernization

1.1 Adoption for amendments to mandatory IMO instruments pertaining to GMDSS Modernization (Resolutions MSC 496(105), 497(105), 498(105), and 499(105), Implementation Date: 1 Jan 2024)

1.1.1 Amendments to SOLAS 1974 (MSC Res. 496(105))

○ **SOLAS II-1/42 and 43 (Em'cy source of electrical power)**: References to MF/HF radio installation requirements in SOLAS II-1/42 and 43 were updated subsequent to the revisions to SOLAS IV/11 at this session.

> ".3 the MF/HF radio installation required by regulations ~~IV/10.2.1, IV/10.2.2 and~~ IV/11.1.1 and IV/11.1.2."

○ **SOLAS III/6 (Communications)**: Reg. 6.1 and 6.2 (Radio life-saving appliances, including two-way VHF radiotelephone apparatus and search and rescue locating device) were removed from SOLAS III for inclusion into SOLAS IV.

> "1 [Reserved*]
>
> 2 [Reserved*]
>
> * The provisions related to two-way VHF radiotelephone apparatus and search and rescue locating devices have been relocated under chapter IV (refer to resolution MSC.[…]). Paragraphs 1 and 2 were intentionally left blank to avoid renumbering of existing regulations."

1. Establishment of, or amendments to, IMO Instruments

1.1.1 Amendments to SOLAS 1974 (MSC Res. 496(105))

○ **SOLAS IV (GMDSS)**: Chapter 4 was entirely re-written to accommodate the GMDSS modernization. Outstanding amendments are as follows. It should be noted that there is no new installation requirement; thus, no phase-in or phase-out provisions.

- Use of generalized terms and expressions to address existing and/or future GMDSS technologies, such as:
  - Deleting the terms "Inmarsat";
  - Consistent use of the term "recognized mobile satellite services";
  - Generalizing the methods for Maritime Safety Information(MSI) from specific equipment such as "International NAVTEX service", "HF direct printing telegraphy" and RMSS(EGC);
  - Changing the term "~~Polar orbiting~~ Satellite service on 406 MHz"

- Updated footnotes of non-mandatory IMO instruments, such as performance standards, guidelines, etc., to SOLAS IV (for application as of 1 Jan 2024)

- **Reg. 7 (Radio equipment : General)** now consolidates SART(radar SART or AIS-SART) and two-way VHF radiotelephone apparatus requirements, which were deleted from SOLAS III/6.

- VHF-EPIRB was deleted from **Reg. 8 (Radio equipment: Sea area A1)**; therefore, as of 1 Jan 2024, is no longer accepted for sea area A1 in lieu of a satellite EPIRB.

1. Establishment of, or amendments to, IMO Instruments

1.1.1 Amendments to SOLAS 1974 (MSC Res. 496(105))

○ **SOLAS IV (GMDSS)**: Chapter 4 was entirely re-written to accommodate the GMDSS modernization. Outstanding amendments are as follows. It should be noted that there is no new installation requirement; thus, no phase-in or phase-out provisions.

- The scopes of **Reg. 9, 10 and 11** were respectively changed from A1+A2, A1+A2+A3 and A1+A2+A3+A4 to A2, A3 and A4, taking account of the cases as illustrated below, i.e. A2 and A3 do not respectively include A1 and A1+A2

1. Establishment of, or amendments to, IMO Instruments

1.1.1 Amendments to SOLAS 1974 (MSC Res. 496(105))

○ **SOLAS IV (GMDSS)**: Chapter 4 was entirely re-written to accommodate the GMDSS modernization. Outstanding amendments are as follows. It should be noted that there is no new installation requirement; thus, no phase-in or phase-out provisions.

- Amongst two options (i.e. "RMSS + MF" (Reg.10.1) and "MF/HF" (Reg.10.2)) in **Reg.10 (Radio equipment: Sea area A3)**, the option "MF/HF" (previous Reg.10.2) was entirely deleted, thus, is no longer a basic option for A3. "MF/HF" is now allowed as a basic option for A4, or may be accepted as duplication of equipment for A3.

- MF/HF NBDP for distress/safety purposes, previously required by Reg. 10.2 (A3) and **Reg.11 (Radio equipment: Sea area A4)** is no longer required.

- The definition of the term "Sea area A3", in **Reg. 2 (Definition)**, was changed from an area within the coverage of INMARSAT (Latitude 70N to 70S) to Recognized Mobile Satellite Service (RMSS). By the modification, the coverages of A3 and A4 now becomes variable to each ship based on the type of shipboard RMSS Ship Earth Station.

> *Sea area A3* means an area, excluding sea areas A1 and A2, within the coverage of ~~an Inmarsat geostationary satellite~~ a recognized mobile satellite service supported by the ship earth station carried on board, in which continuous alerting is available.

NB: Where IRIDIUM is used as a shipboard RMSS, "Sea area A3" means the whole terrestrial area, excluding sea areas A1 and A2, but including polar waters. Where a ship does not satisfy A3 (RMSS + MF) but A4 (MF+HF) requirements, "Sea area A4" means the whole terrestrial area, excluding sea areas A1 and A2, but including polar waters, as the sea area A3 does not exist for the ship.

1. Establishment of, or amendments to, IMO Instruments

1.1.1 Amendments to SOLAS 1974 (MSC Res. 496(105))

○ **SOLAS V (Safety of Navigation)**: The references of regulation numbers in Reg.5 (Meteorological services and warnings) and Reg.19-1 (LRIT) were updated from the revision of SOLAS IV.

○ **Forms of Certificates**: The following forms and records of certificates were modified to accommodate the amendments to SOLAS 1974. Given that the amended certificate forms also incorporated the amendments already adopted by MSC Res.456(101), MSC 105 decided to revoke MSC Res.456(101). It was also confirmed by MSC 105 that, in accordance with MSC-MEPC.5/Circ.6, re-issuance of the relevant certificates, after entry into force of the amendments pertaining to the GMDSS modernization, would not be necessary until their expiry.

- Passenger Ship Safety Certificate and its Form P
- Cargo Ship Safety Equipment Certificate and its Form E
- Cargo Ship Safety Radio Certificate and its Form R
- Form C of Cargo Ship Safety Certificate (NB: Only Form C exists.)
- Nuclear Passenger Ship Safety Certificate (using Form P)
- Nuclear Cargo Ship Safety Certificate (using Form C)

1. Establishment of, or amendments to, IMO Instruments

1. GMDSS Modernization

1.1 Adoption for amendments to mandatory IMO instruments pertaining to GMDSS Modernization (Resolutions MSC 496(105), 497(105), 498(105), and 499(105), Implementation Date: 1 Jan 2024)

1.1.2 Amendments to the protocol of 1988 relating to SOLAS 1974 (MSC Res. 497(105))

○ **Forms of Certificates**: The following forms of certificates were modified to accommodate the amendments to SOLAS 1974. However, it was confirmed by MSC 105 that, in accordance with MSC-MEPC.5/Circ.6, re-issuance of the relevant certificates, after entry into force of the amendments pertaining to the GMDSS modernization, would not be necessary until their expiry.

- Passenger Ship Safety Certificate
- Cargo Ship Safety Equipment Certificate
- Cargo Ship Safety Radio Certificate
- Cargo Ship Safety Certificate

1. Establishment of, or amendments to, IMO Instruments

1. GMDSS Modernization

1.1 Adoption for amendments to mandatory IMO instruments pertaining to GMDSS Modernization (Resolutions MSC.496(105), 497(105), 498(105), and 499(105), Implementation Date: 1 Jan 2024)

1.1.4 Amendments to 1994 and 2000 HSC Codes (Res. MSC.498(105) and MSC. 499(105))

○ **Chapter 8 (LSA) of both the 1994 and 2000 HSC Codes** were modified to remove the requirements pertaining to two-way VHF radiotelephone apparatus and search and rescue locating device(or SART), in line with the amendments to SOLAS III/Reg.6.2, as adopted at this session.

○ **Chapter 14 (Radio-communications) of the 1994 HSC Code** was modified to change the reference to the amendments to chapter 14 of the 2000 HSC Code, as adopted at this session.

○ **Chapter 14 (Radio-communications) of the 2000 HSC Code** was re-written in line with the amendments to SOLAS 1974, as adopted as this session.

○ **Forms of Certificates**: The Forms and Records of Equipment of the HSC Safety Certificates were modified to accommodate the amendments to the HSC Codes. However, it was confirmed by MSC 105 that, in accordance with MSC-MEPC.5/Circ.6, re-issuance of the relevant certificates, after entry into force of the amendments pertaining to the GMDSS modernization, would not be necessary until their expiry.

1. Establishment of, or amendments to, IMO Instruments

1. GMDSS Modernization

1.2 Adoption for amendments to non-mandatory IMO instruments pertaining to GMDSS Modernization (Implementation Date: 1 Jan 2024)

1.2.1 Amendments to the 1983 and 2008 SPS Codes (MSC Res. 502(105) and MSC Res. 503(105))

○ **Forms of Certificates:** The Forms and Records of Equipment of the Special Purpose Ship(SPS) Safety Certificates were modified to accommodate the amendments to SOLAS 1979, as adopted at this session. However, it was confirmed by MSC 105 that, in accordance with MSC-MEPC.5/Circ.6, re-issuance of the relevant certificates, after entry into force of the amendments pertaining to the GMDSS modernization, would not be necessary until their expiry.

1. Establishment of, or amendments to, IMO Instruments

1. GMDSS Modernization

1.2 Adoption for amendments to non-mandatory IMO instruments pertaining to GMDSS Modernization (Implementation Date: 1 Jan 2024)

1.2.2 Amendments to the 1979, 1989 and 2009 MODU Codes (Resolutions MSC. 504(105), MSC. 505(105), and MSC.506(105))

○ **Chapter 10 (LSA) of the 1979, 1989 and 2009 MODU Codes** were modified to remove the requirements pertaining to two-way VHF radiotelephone apparatus and radar transponders, in line with the amendments to SOLAS III/Reg.6.2, as adopted at this session.

○ **Chapter 11 (Radio-communication installations) of the 1979 and 1989 MODU Codes** were modified to simply refer to Chapter 11 of the 2009 MODU Code.

○ **Chapter 11 (Radio-communication installations) of the 2009 MODU Code** was amended to accommodate, as appropriate, the amendments to SOLAS 1974, as adopted as this session.

* NB: Related Forms of Certificates were not amended, at this time.

1. Establishment of, or amendments to, IMO Instruments

1. GMDSS Modernization

1.2 Adoption for amendments to non-mandatory IMO instruments pertaining to GMDSS Modernization (Implementation Date: 1 Jan 2024)

1.2.3 Approval of related IMO Resolutions and Circulars

○ **System performance standard for the promulgation and coordination of MSI using HF NBDP, MSC Res.507(105)**: **Governments** to **note** the new resolution, which supersedes Res.A.699(17).

○ **Performance standards for the reception of MSI and Search and Rescue related information by MF (NAVTEX) and HF, MSC Res.508(105)**: NAVTEX and HF-MSI receivers, installed on or after 1 Jan 2024, should conform to the performance standards. Ships carrying MF/HF radio installations in accordance with [MSC Res.512(105)] may be allowed to use such equipment in lieu of equipment complying with MSC Res.508(105).

○ **Provision of radio services for the GMDSS, MSC Res.509(105)**: **Governments** to **note** the new resolution, which supersedes Res.A.801(19).

○ **Performance standards for Search and Rescue Radar Transponders (Radar SART), MSC Res.510(105)**: This resolution supersedes Res.A.530(13) and Res.A.802(19), as amended, as of 1 Jan 2024.

1. Establishment of, or amendments to, IMO Instruments

1.2.3 Approval of related IMO Resolutions and Circulars

○ **Performance standards for shipborne VHF radio installations capable of voice communication and DSC, MSC Res.511(105)**: VHF installed on or after 1 Jan 2024 should conform to the performance standards.

○ **Performance standards for shipborne MF and MF/HF radio installations capable of voice communication, DSC and reception of MSI and Search and Rescue related information, MSC Res.512(105)**: MF and MF/HF installed on or after 1 Jan 2024 should conform to the performance standards.

○ **Performance standards for INMARSAT-C Ship Earth Stations capable of transmitting and receiving direct-printing communications, MSC Res.513(105)**: INMARSAT-C SES installed on or after 1 Jan 2024 should conform to the performance standards.

○ **Guidelines for the avoidance of false distress alerts, MSC Res.514(105)**: This resolution supersedes Res.A.814(19) as of 1 Jan 2024.

○ **Performance standards for survival craft portable two-way VHF radio-telephone apparatus, MSC Res.515(105)**: Portable two-way VHF installed on or after 1 Jan 2024 should conform to the performance standards.

○ **Amendments to the performance standards for radio-communication equipment (MSC Res.80(70)), MSC Res.516(105)**: On-scene (aeronautical) two-way VHF installed on or after 1 Jan 2024 should conform to MSC Res.80(70), as amended by this resolution. (NB: The equipment is needed for passenger ships and for ships subject to the Polar Code)

1. Establishment of, or amendments to, IMO Instruments

1.2.3 Approval of related IMO Resolutions and Circulars

○ **Performance standards for a shipborne Integrated Communication System (ICS) when used in the GMDSS, MSC Res.517(105)**: A shipborne ICS when used in the GMDSS, if installed on or after 1 Jan 2024, should conform to the performance standards.

○ **Participation of non-SOLAS ships in the GMDSS and guidance on the development of training materials for GMDSS operators on non-SOLAS ships, MSC.1/Circ.803/Rev.1**: This circular is intended to assist the Administrations with developing national measures aimed at facilitating participation of non-SOAS ships in the GMDSS, and supersedes MSC/Circ.803.

○ **Guidance for the reception of MSI and Search and Rescue related information as required in the GMDSS, MSC.1/Circ.1645**: This circular provides guidance on the recognized MSI and SAR related information broadcast services and related shipboard equipment, and should become applicable as of 1 Jan 2024.

○ **(Reference only) Resolution MSC.471(101) and IACS UI SC295 (for EPIRB):**

Interpretation

For application of resolution MSC.471(101), the phrase "installed on or after 1 July 2022" shall be interpreted as follows:

(a) for ships for which the building contract is placed on or after 1 July 2022, or in the absence of the contract, constructed on or after 1 July 2022, "installed on or after 1 July 2022" means any installation on the ship; and

(b) for ships other than those ships prescribed in (a) above, "installed on or after 1 July 2022" means a contractual delivery date for the equipment or, in the absence of a contractual delivery date, the actual delivery of the equipment to the ship on or after 1 July 2022.

1. Establishment of, or amendments to, IMO Instruments

1. GMDSS Modernization

1.2 Adoption for amendments to non-mandatory IMO instruments pertaining to GMDSS Modernization (Implementation Date: 1 Jan 2024)

1.2.4 Revocation of related IMO Resolutions and Circulars (as of 1 Jan 2024)

○ As a consequence of the GMDSS modernization, MSC 105 agreed to revoke resolutions MSC.131(75), MSC.199(80) and MSC.247(83); and MSC/Circ.1038, MSC/Circ.1123, MSC.1/Circ.1382/Rev.2 and COMSAR/Circ.17.

○ Further, MSC 105 invited Assembly 33 to revoke A.334(IX), A.383(X), A.385 (X), A.421(XI), A.524(13), A.530(13), A.570(14), A.612(15), A.614(15), A.660(16), A.661(16), A.699(17), A.701(17), A.702(17), A.703(17), A.801(19), as amended, A.802(19), as amended, A.805(19) and A.814(19)

1. Establishment of, or amendments to, IMO Instruments

1. GMDSS Modernization

○ **Implication**:

- **Ship owners** and/or **operators** are invited to **consider** the implication of the amendments and take actions as appropriate:

SOLAS IV	Amendments	Implications
Reg. 8	VHF-EPIRB will be no longer accepted in lieu of satellite EPIRB for sea area A1	Where a ship (sea area A1) has VHF-EPIRB in lieu of satellite EPIRB, the VHF-EPIRB needs to be replaced by a satellite EPIRB before 1 Jan 2024
Reg. 2	The coverage of sea area A3 became variable by the type of Recognized Mobile Satellite Service SES	Where relevant, the sea area indicated in SR certificates or any safety certificates which cover GMDSS needs to be modified, due to the modified definition and equipment requirement of sea area A3. Nonetheless, the certificates need not be re-issued until their expiry dates, in accordance with the confirmation made at MSC 105.
Reg. 10/11	MF/HF radio installation is no longer categorized as an equipment for sea area A3 but remains only for sea area A4	
Reg. 11	MF/HF NBDP for distress and safety purpose is no longer required	MF/HF NBDP for distress and safety purpose may be removed from 1 Jan 2024. However, in this case, the SR certificate or any other related safety certificates needs to be re-issued to update the record of equipment appended to the certificates.
Reg. 14	Updated footnotes of revised performance standards (for application as of 1 Jan 2024)	New installation or replacement of GMDSS equipment, on or after 1 Jan 2024, shall conform to the revised Performance standards

1. Establishment of, or amendments to, IMO Instruments

1. GMDSS Modernization

○ **Implication**:

- **Ship builders** are invited to **note** the amendments to SOLAS IV (GMDSS) in general, and **apply** them in new constructions, as appropriate. In particular, **GMDSS equipment installed on or after 1 Jan 2024** will need to comply with the revised Performance standards, which are newly adopted at this session and footnoted to SOLAS IV/Reg.14

- **Manufacturers of GMDSS equipment** are invited to **apply** the revised Performance standards, approved at this session, in producing their related equipment

- **The Administrations** are invited to **note** the amendments to SOLAS IV (GMDSS) in general, consider establishing their own national legislations, and, in particular, **follow up** as appropriate with the following revised Performance standards **in providing their own radio services** in accordance with SOLAS IV Part B:

  - System performance standard for the promulgation and coordination of MSI using HF NBDP, MSC Res.507(105); and
  - Provision of radio services for the GMDSS, MSC Res.509(105)

- **Korean Register** will endeavor to clarify the application date of 1 Jan 2024 for the revised Performance standards through discussion in International Association of Classification Societies (IACS) or in consultation with the flag Administrations.

1. Establishment of, or amendments to, IMO Instruments

1. GMDSS Modernization

○ **(Only for Reference)** Please refer to the installation provisions, including the duplicated one, as revised in the draft COMSAR/Circ.32

Equipment	A1	A2	A3	A4
VHF telephony installation with DSC capable of:	x	x	x	x
DSC watch on channel 70	x	x	x	x
Radiotelephony watch on channel 16	x	x	x	x
Watch on other appropriate frequency or frequencies for urgency and safety communications for the area in which the ship is navigating	x	x	x	x
MF telephony installation with MF DSC capable of:		x	x	
DSC watch on 2 187.5 kHz		x	x	
Watch on other appropriate frequency or frequencies for urgency and safety communications for the area in which the ship is navigating		x	x	
Ship earth station providing RMSS			x	
MF/HF telephony installation with DSC capable of:				x
DSC watch on 2 187.5 kHz and 8 414.5 kHz				x
Depending on time of day and geographical position, DSC watch on at least one of the frequencies 4 207.5 kHz, 6 312 kHz, 12 577 kHz or 16 804.5 kHz				x
Watch on other appropriate frequency or frequencies for urgency and safety communications for the area in which the ship is navigating				x
Duplicated VHF with DSC including watch keeping capability			x	x
Duplicated SES providing RMSS including watch keeping capability			x[4]	
Duplicated MF/HF telephony with DSC including watch keeping capability			x[4]	x
Receiver(s) for MSI and SAR-related information[4]	x	x	x	x[3]
Float-free EPIRB	x	x	x	x
Radar SART or AIS SART	x[1]	x[1]	x[1]	x[1]
Portable GMDSS VHF transceivers	x[2]	x[2]	x[2]	x[2]
Automatic updating of position to all relevant radiocommunication equipment	x	x	x	x
The following additional requirements apply to passenger ships				
Distress panel and distress alarm panel (SOLAS regulations IV/6.4 and 6.6)	x	x	x	x
Two-way-on-scene radiocommunication on 121.5 and 123.1 MHz from the navigating bridge. (SOLAS regulation IV/7.6)	x	x	x	x

~~[4])~~ ~~Outside NAVTEX coverage area.~~
[1)] Cargo ships between 300 and 500 gt.: 1 set. Cargo ships of 500 gt. and upwards and passenger ships: 2 sets.
[2)] Cargo ships between 300 and 500 gt.: 2 sets. Cargo ships of 500 gt. and upwards and passenger ships: 3 sets.
[3] This may be either a combined ship earth station and EGC receiver or separate pieces of equipment.
~~[4)]~~ ~~Inmarsat E-EPIRB cannot be utilized in sea area A4.~~
[4] Ships in sea areas A3 may choose between duplication with either complete MF/HF transceiver or ship earth station providing a recognized mobile satellite service (See Section 1.6.3).

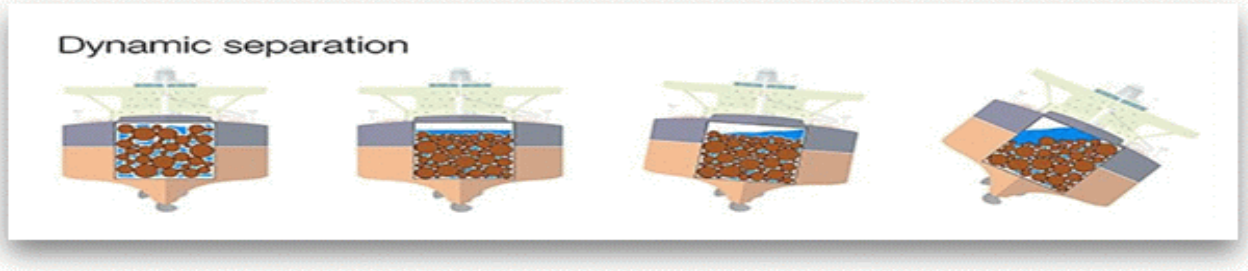
2. Adoption for amendments to the IMSBC Code (MSC Res.500(105), Implementation Date: 1 Dec 2023)

2.1 Amendment to the IMSBC Code (06-21) (MSC Res.500(105))

○ The amendments to the IMSBC Code may be early implemented on a voluntary basis from 1 Jan 2023

○ To address the risk arising from “dynamic separation”, the definition of “Group A” was revised, and the definition of “dynamic separation” was newly established. Consequently, related modifications were introduced in the amendments.

Group A	In the definition for "*Group A*", replace the text to read "*Group A* consists of cargoes which possess a hazard due to moisture that may result in liquefaction or dynamic separation if shipped at a moisture content in excess of their transportable moisture limit."
Dynamic Separation	"*Dynamic separation* means the phenomenon of forming a liquid slurry (water and fine solids) above the solid material, resulting in a free surface effect which may significantly affect the ship's stability."



2. Adoption for amendments to the IMSBC Code (MSC Res.500(105), Implementation Date: 1 Dec 2023)

2.1 Amendment to the IMSBC Code (06-21) (MSC Res.500(105))

○ The individual schedule "Ammonium Nitrate Based Fertilizer (non-hazardous)" was deleted from Appendix 1 of the IMSBC Code.

○ The individual schedule "SUPERPHOSPHATE (triple, granular)" was re-written in Appendix 1 of the IMSBC Code.

○ The new individual schedules "Ammonium Nitrate Based Fertilizer", "Ammonium Nitrate Based Fertilizer MHB", "CLAM SHELL", and "LEACH RESIDUE CONTAINING LEAD" were established in Appendix 1 of the IMSBC Code.

2.2 Consequential amendments to non-mandatory IMO instruments

○ MSC.1/Circ.1600/Rev.1, "Guidance for conducting the refined MHB (CR) test"

○ MSC.1/Circ.1395/Rev.5, "Lists of solid bulk cargoes for which a fixed gas fire-extinguishing system may be exempted or for which a fixed gas fire-extinguishing system is ineffective"

2. IMSBC Code Amendments

○ **Implication**:

- **Ship owners** and/or **operators** are invited to **note** the updated individual schedules, and, where relevant and/or necessary, **apply** KR for a related survey and/or review of cargoes with a view to updating the IMSBC SOC issued to their fleet, on or after **[1 Dec 2023]***.

- **Ship owners** and/or **operators** are also invited to **note** that SOLAS FFEA exemption certificates issued to their fleet may need to be updated in accordance with MSC.1/Circ.1395/Rev.5, , in conjunction with the re-issuance of the IMSBC SOC, on or after **[1 Dec 2023]***.

- Where the IMSBC SOC and/or SOLAS FFEA exemption certificates are reissued or renewed on or after **[1 Dec 2023]***, the aforementioned may be taken up by KR as per the amendments.

- **Ship builders** are invited to **note MSC.1/Circ.1395/Rev.5** with regard to the need of installing FFEA for cargo holds

- The **Administrations** are invited to **note** the amendments to SOLAS IV (GMDSS) in general, and **consider** establishing their own national legislation and/or early implementing as of 1 January 2023.

* The date [1 Dec 2023], which is the implementation date of the IMSBC Code amendments, may be changed subject the need of early implementation.

1. Establishment of, or amendments to, IMO Instruments

3. Adoption for amendments to the IMDG Code (MSC Res.501(105), Implementation Date: 1 Jan 2024)

3.1 Amendments to the IMDG Code (41-22) (MSC Res.501(105))

3.2 Consequential amendments to non-mandatory IMO instruments

○ MSC.1/Circ.1588/Rev.2, "Revised emergency response procedures for ships carrying dangerous goods (EmS Guide)"

○ MSC.1/Circ.1361/Rev.1, "Revised recommendations on the safe use of pesticides in ships applicable to the fumigation of cargo transport units"

1. Establishment of, or amendments to, IMO Instruments

4. Any other non-mandatory IMO instruments approved or adopted at MSC 105

4.1 MSC 105

○ MSC Res 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 aggression against Ukraine"

○ MSC Res 518(105) on "Model Regulation on Domestic Ferry Safety"

4. Any other non-mandatory IMO instruments approved at MSC 105

4.2 CCC 7

○ MSC.1/Circ.1647 on "Interim guidelines for the safety of ships using fuel cell power installations"

These Interim Guidelines have been developed to provide international standard for ships using fuel cell power installations. The goal of these Interim Guidelines is to provide criteria for the arrangement and installation of fuel cell power installations, regardless of fuel cell type and fuel, so as to ensure at least the same level of safety and reliability that conventional oil-fueled main and auxiliary machinery installations have. Depending on the fuel used, other regulations (e.g. IGF Code, part A) and provisions (e.g. Interim guidelines for the safety of ships using methyl/ethyl alcohol as fuel) are applicable in addition to these Interim Guidelines.

○ MSC.1/Circ.1648 on the amendments to the "Guidelines for the acceptance of alternative metallic materials for cryogenic service in ships carrying liquefied gases in bulk and ships using gases or other low-flashpoint fuels"

○ MSC.1/Circ.1599/Rev.2 on "Revised guidelines on the application of high manganese austenitic steel for cryogenic service"

The revision now expands the application of high manganese austenitic steel for cryogenic service to the cargoes and/or fuels of Butane, Butane-propane mixture, Carbon Dioxide, Ethane, Ethylene, Methane (LNG), Pentane, and Propane from those of LNG.

○ MSC.1/Circ.1649 on "Guidelines for the implementation of the inspection programmes for cargo transport units"

○ MSC.1/Circ.1650 on "List of non-exhaustive voluntary guidance on pest contamination"

1. Establishment of, or amendments to, IMO Instruments

4.2 CCC 7

○ MSC.1/Circ.1625, which provides an additional UI to MSC.1/Circ.1625 (i.e. IACS UI GC32) on unified interpretations of the IGC Code: The additional UI, which was submitted to CCC 6 and modified at CCC 7, now finalizes the interpretations on the IGC Code 5.4.4 and 5.13.2.4. (CCC 7/15, Annex 9)

The expression "duct" in 5.4.4 and 5.13.2.4 should mean to include the equipment enclosure required in 16.4.3.1 and 16.4.3.2 (e.g. GVU enclosure) as well as the structural pipe duct intended to contain any release of gas from inner pipe or equipment. The term "structural pipe duct" should mean an outer duct forming part of a structure such as a hull structure or superstructure or deck house, where permitted, other than gas valve unit rooms.

GVU enclosures and structural pipe ducts are deemed as ducts as required in the IGC Code 5.4.4 and 5.13.2.4

The gas valve unit rooms should be:

.1 gastight toward other enclosed spaces;

.2 equipped with mechanical exhaust ventilation having a capacity of at least 30 air changes per hour and arranged to maintain a pressure less than the atmospheric pressure; and

.3 able to withstand the maximum built-up pressure arising in the room in case of a gas pipe rupture, as documented by suitable calculations taking into account the ventilation arrangements.

The requirements for GVU rooms are clarified. For your reference, the IGC Code 5.4.4 requires that the design pressure of the outer pipe or duct of gas fuel systems shall not be less than the maximum working pressure of the inner gas pipe, or alternatively that, for gas fuel piping systems with a working pressure greater than 1 MPa, the design pressure of the outer duct shall not be less than the maximum built-up pressure

1. Establishment of, or amendments to, IMO Instruments

4.2 CCC 7

○ **Implication**:

- **Ship builders** are invited to **pay** close attention to **MSC.1/Circ.1647**, MSC.1/Circ.1648, MSC.1/Circ.1599/Rev.2, and **MSC.1/Circ.1625**.

- **Ship owners and/or operators** are invited to **note** MSC.1/Circ.1650.

1. Establishment of, or amendments to, IMO Instruments

4. Any other non-mandatory IMO instruments approved at MSC 105

4.3 SDC 8

○ MSC.1/Circ.1652 on "Explanatory notes to the interim guidelines on the second generation intact stability criteria (MSC.1/Circ.1627)"

The Explanatory Notes provides clarifications and explanations to the elements in MSC.1/Circ.1627 pertaining to the second generation intact stability.

○ MSC.1/Circ.1653 on "Unified interpretation regarding timber deck cargo in the context of damage stability requirements" (**IACS UI SC 161 (Rev.3)** for application to ships contracted for construction on or after 1 Jan 2023)

- The unified interpretation supersedes MSC/Circ.988 and clarifies the application of the damage stability requirements to ships carrying timber deck cargoes, taking into consideration the buoyancy of such cargoes.
- It now applies the stowage, lashing and upright requirements of the 2011 TDC Code (resolution A.1048(27)), in lieu of the 1991 TDC Code (resolution A.715(17)), which was already revoked.
- It interprets that the height and extent of the timber deck cargoes needs to be in accordance with the 2008 IS Code, Part A, Section 3.3.2 (not the 2011 TDC Code), i.e. the alternative stability criteria for cargo ships carrying timber deck cargoes.

4. Any other non-mandatory IMO instruments approved at MSC 105

4.3 SDC 8

○ MSC.1/Circ.1654 on "Unified interpretation on the noise level limit in workshops on board ships" (SDC 8/18, Annex 7 / Adopted as **IACS UI 296** for application to ships contracted for construction on or after 1 Jan 2023)

- For the application of the Noise Code, the "workshop other than those forming part of machinery spaces" means an enclosed workshop which is separated from the engine room with bulkheads, including sound-insulated access doors. In such a case, the limit for noise level **85 dB(A)** applies. However, where the workshop forms part of machinery space other than the above, the limit for nose level **110 dB(A)** should apply.

Designation of rooms and spaces	Ship size	
	1,600 up to 10,000 GT	≥10,000 GT
4.2.1 Workspaces (see 5.1)		
Workshops other than those forming part of machinery spaces	85	85

Interpretation

For the purposes of applying provisions in the annex to resolution MSC.337(91) on the Code on noise levels on board ships, "workshops other than those forming part of machinery spaces" should be enclosed workshops which are separated from the engine-room with bulkheads, which may include access doors of the equivalent acoustic insulating properties as the bulkhead. Workbenches and workstations located inside the machinery space should not be considered as "workshops other than those forming part of machinery spaces".

The noise level limit for workshops, which are forming part of machinery space, should be as for the machinery space: 110 dB(A).

1. Establishment of, or amendments to, IMO Instruments

4. Any other non-mandatory IMO instruments approved at MSC 105

4.3 SDC 8

○ MSC.1/Circ.1535/Rev.2 on "Unified interpretations relating to the Protocol of 1988 relating to the International Convention on Load Lines, 1966" (SDC 8/18, Annex 8/ Adopted as **IACS UI LL81 (New, May 2022)** for application to ships contracted for construction on or after 1 Jan 2023)

- Reg. 37(3) of the ICLL 1988 Protocol reads that "For ships of type 'B' where the effective length of a forecastle is less than 0.07L no deduction is allowed"

- The UI is intended to interpret whether the prohibition of the superstructure deduction, i.e. "no deduction", in the Reg.37(3) is applicable only to the forecastle or extended to other superstructure. The UI now clarifies that "no deduction" applies to all superstructure

Regulation 37 – Deduction for superstructures and trunks

Regulation 37(3)

4 For ships assigned a type "B" freeboard, including reduced type "B", if the effective length of a forecastle is less than 0.07 *L*, a superstructure deduction cannot be applied to the ship.

For example, if the ship has no forecastle, or the effective length of the forecastle is less than 0.07 *L*, and has other superstructure, no superstructure deduction is to be applied.

In case the ship has a full superstructure (one that extends from AP to FP, per regulation 3(10)(h) of Annex B of the 1988 Load Lines Protocol), the deduction for a superstructure may be applied in accordance with regulation 37(1) of Annex B of the 1988 Load Lines Protocol.

1. Establishment of, or amendments to, IMO Instruments

4.3 SDC 8

○ MSC.1/Circ.1362/Rev.1 on "Unified interpretation of SOLAS chapter II-1" (SDC 8/18, Annex 9)

- The UI provides interpretation on SOLAS II-1/5.4 and 5.5, and EN to SOLAS II-1/Reg.5.4 (Res.MSC.429(98)/Rev.2) (NB: For new construction, SOLAS II-1/5.2 applies, i.e. the deviation of lightweight 1% and LCG 0.5% from a sister ship)

- It establishes the definition of the term "lightweight calculation", and requires that the documented weights and their centres of gravity shall be verified onboard by an attending class surveyor.

- It defines the term "stability information", as follows, to consistently apply lightship properties in all documents which use them:

"*Stability information*" includes any document (whether on paper or electronic) or electronic means of calculation of stability which includes lightship properties. This could include, but is not limited to, the approved stability book, computer software for onboard calculation of stability, the approved strength book and the loading instrument.

- It also summarizes the cases of alteration, where inclining test, lightweight calculation, or no update is need, as shown in the table

- Finally, it clarifies that a change in lightweight will result in a change in deadweight, which may have an impact on the compliance of other regulations, e.g. MARPOL Annex VI, unless there is an associated change in freeboard.

Scenario, as calculated by lightweight calculation	Requirement for Inclining Test	Update of Stability Information
Lightweight change > 2%	Yes	Yes, using new incline result
LCG change > 1% of L (either forward or aft)	Yes	Yes, using new incline result
VCG change > 1%	Yes	Yes, using new incline result
1% < Lightweight change ≤ 2%	No	Yes, using lightweight calculation
0.5% of L < LCG change ≤ 1% of L (either forward or aft)	No	Yes, using lightweight calculation
0.5% < VCG change ≤ 1%	No	Yes, using lightweight calculation
Lightweight change ≤ 1%	No	No
LCG change ≤ 0.5% of L (either forward or aft)	No	No
VCG change ≤ 0.5%	No	No

4. Any other non-mandatory IMO instruments approved at MSC 105

4.3 SDC 8

○ Res. 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" (SDC 8/18, Annex 10)

- The revision is intended to provide the updated performance standards, which covers all water level detector requirements in SOLAS II-1/25, II-1/25-1 and XII/12, for application to the water level detectors installed on or after 1 Jan 2024

- MSC 105 did not endorse the proposal in MSC 105/15/1 submitted by IACS et al (proposed and drafted by KR), due to the intervention of Germany and Netherland. Therefore, paragraph 2.2.2 of appendix to the revised performance standards, as currently adopted, needs to be further discussed at SDC 9, for any necessary amendment before 1 Jan 2024

2.2.2 The sensors should be located at the height specified in the regulations. These heights are to be measured from the upper surface of the inner bottom and if the bottom of the bilge well is below the upper surface of the inner bottom, its heights are to be measured from the bottom of the bilge well.

(Modified text for submission to SDC 9) *2.2.2 The sensors should be located at the height specified in the regulations. These heights are to be measured from the upper surface of the inner bottom.* ~~*and*~~

2.2.2.1 For bilge level sensors in SOLAS regulation II-1/25-1.3, ~~*i*~~*if the bottom of the bilge well is below the upper surface of the inner bottom,* ~~*its*~~ *the heights of those sensors are to be measured from the bottom of the bilge well.*

1. Establishment of, or amendments to, IMO Instruments

4.3. SDC 8

○ **Implication**:

- **Ship builders** are invited to **pay** close attention to MSC.1/Circ.1652, MSC.1/Circ.1653, MSC.1/Circ.1654, MSC.1/Circ.1535/Rev.2 and MSC.1/Circ.188(79)/Rev.1.

- **Ship owners and/or operators** are invited to pay close attention to **MSC.1/Circ.1362/Rev.1**. In particular, it should be noted that where ship's deadweight is modified subsequent to the change of lightweight due to retrofitting of equipment, other convention requirements subjected to the deadweight will need to be carefully verified.

Outcome of MSC 105

1. Establishment of, or Amendments to, IMO instruments

2. Approval of IMO instruments for subsequent adoption at the next session

3. New Work Programme

4. Other decisions

2. Approval of IMO instruments for subsequent adoption at the next session

1. Draft amendments to Chapter II-2 of SOLAS 1974 (Target implementation date: 1 Jan 2026, MSC 105/20, Annex 27)

○ The draft amendments to SOLAS II-2 were intended to address the concern on the delivery of oil fuel not complying with SOLAS II-2/Reg.4.2.1 (i.e. flashpoint less than 60°C). They were developed by WG fuel oil safety established directly under MSC; and were approved at MSC 105 for subsequent adoption at MSC 106.

○ What's new?

- New definitions of the terms "Confirmed case (flash point)", " Representative sample" and "Oil fuel" for SOLAS II-2
- Prior to bunkering, ships to be provided with a declaration signed and certified by the fuel oil supplier to confirm the conformity with SOLAS II-2/Reg.4.2.1
- Bunker Delivery Note (BDN) to be provided onboard indicating the flash point or a statement that flashpoint has been measured at or above 70°C (NOT 60°C)
- The obligation of the contracting governments to report any violation (i.e. confirmed cases) to the IMO and to take action as appropriate against non-compliant oil fuel supplier

2. Draft amendments to the IGC Code and the IGF Code (Target implementation date: 1 Jan 2026, MSC 105/20, Annexes 30 and 31)

○ The draft amendments are developed by CCC Sub-Committee to permit the use of high-manganese austenitic steel. They were adopted at MSC 105 for subsequent adoption at MSC 106.

3. Draft new Chapter XV of SOLAS 1974 and IP Code (Target implementation date: 1 July 2024, MSC 105/20, Annexes 32 and 33)

○ SOLAS Chapter XV and the mandatory IP Code have been developed to provide safety requirements for cargo ships and high-speed cargo craft, of 500 GT and upwards, which carry more than 12 industrial personnel (IP). They were approved at MSC 105 for subsequent adoption at MSC 106.

○ Industrial Personnel, in this regard, means all persons who are transported or accommodated on board for the purpose of offshore industrial activities onboard other ships and/or offshore facilities.

○ Nonetheless, SDC Sub-Committee will continue to discuss any outstanding matters pertaining to the IP Code under the revised output "Further development of the IP Code and associated guidance", as a second phase

4. Draft amendments to the 2011 ESP Code (Target implementation date: 1 July 2024, MSC 105/20, Annex 34)

○ The amendments are intended to strengthen the inspection frequency of ballast tanks and double-sided void spaces for bulk carriers related to the coating condition

○ They also clarify the application scope of the ESP Code by explicitly excluding oil tankers with independent tanks, such as asphalt carriers

5. Draft amendments to SOLAS 1978 Protocol (Target implementation date: 1 Jan 2026, MSC 105/20, Annex 25)

○ The form of Cargo Ship Safety Equipment Certificate appended to SOLAS 1978 Protocol was modified to accommodate the changes made to the other safety certificate forms arising from the GMDSS modernization (i.e. deleting the radio installation component.)

Outcome of MSC 105

1. Establishment of, or Amendments to, IMO instruments

2. Approval of IMO instruments for subsequent adoption at the next session

3. New Work Programme

4. Other decisions

3. New Work Programme

New outputs approved by MSC 105	Responsible bodies	
Development of amendments to chapter 6 of the 2009 MODU Code regarding electrical equipment capable of operation after shutdown	SSE	Post-biennial
Development of amendments to chapter 15 of the FSS Code on enclosed spaces containing a nitrogen receiver or a buffer tank of nitrogen generator systems	SSE	Post-biennial
Review and update SOLAS regulation II-2/9 on containment of fire to incorporate existing guidance and clarify requirements	SSE	Post-biennial
Development of guidelines for the use of Electronic Nautical Publications (ENPs)	NCSR	Post-biennial
Comprehensive review of the 1978 STCW Convention and Code	HTW 9	Biennial
Amendment to the revised ECDIS Performance Standards (resolution MSC.232(82)) to facilitate a standardized digital exchange of ships' route plans[1]	NCSR	Post-biennial
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	SSE	Post-biennial
Development of guidelines for safety of ships using ammonia as fuel	CCC 8	Biennial
Revision of the Interim recommendation for carriage of liquefied hydrogen in bulk	CCC 8	Biennial
Scoping exercise and enhancement of the effectiveness of provisions on fatigue and seafarers' hours of work and rest	HTW	Post-biennial
Revision of the Guidelines for the application of plastic pipes on ships (resolution A.753(18))	SSE	Post-biennial
Evaluation of adequacy of fire protection, detection and extinction arrangements in vehicle, special category and ro-ro spaces in order to reduce the fire risk of ships carrying new energy vehicles [2]	SSE	Post-biennial

1. NCSR 9 was instructed to consider the scope of the approved output
2. SSE was instructed to evaluate the applicability of the new measures to existing ships and to address the charging of electric vehicle on board ships. As of 1 Jul 2022, New KR notation "AFP-C(EV)" was recently introduced to address the fire safety of roro cargo ships and vehicle carriers pertaining to the transport of battery-powered vehicles (which requires combined smoke/heat detectors, CCTV, two(2) portable thermal image detectors, use of fixed CO2 line by water supply, additional two(2) sets of fire-fighter's outfits, a water-mist lance, a fire blanket, installation of battery chargers for use during cargo loading/unloading, etc.). For more detail, please see KR Circular 9.161 (No. 2022-7-E)

NB: Due to the time constraint, MSC 105 could not complete its discussion on the submitted papers under the agenda "New Work Programme". Therefore, MSC Chair advised not to submit a new output proposal to MSC 106.

1. Establishment of, or amendments to, IMO Instruments

Work Programmes

○ **Implication**:

- **All concerned parties** are invited to **note** the approved new work programmes under the purview of MSC, and, where necessary, **consider** making an input to the discussion of the relevant Sub-Committees, through the IMO member States and/or international organizations to which they belong

Outcome of MSC 105

1. Establishment of, or Amendments to, IMO instruments

2. Approval of IMO instruments for subsequent adoption at the next session

3. New Work Programme

4. Other decisions

4. Other decisions

1. Establishment of intersessional correspondence groups

○ CG on MASS (NB: Interim oral report to MSC 106 and submission of a written report to MSC 107)
○ CG on Fuel Oil Safety (NB: Submission of a written report to MSC 107)

2. Development of a goal-based instrument for MASS (Autonomous Ships)

○ MSC 105 decided to develop a non-mandatory goal-based MASS Code, limited to cargo ships for the time being, as an interim solution prior to the adoption of a mandatory MASS Code.

○ The road map for developing a goal-based MASS Code (MSC 105/WP.8, Annex 1) was endorsed. The milestones of the road map, which may be a living document subjected to regular updates, are;

- The approval and entry into effect of a non-mandatory MASS Code at MSC 109 in 2024
- The adoption of the mandatory MASS Code at MSC 110 in 2025 for entry into force in 1 Jan 2028

○ MSC 105 further agreed to remotely convene the first meeting of a Joint MSC/LEG/FAL MASS Working Group from 6 to 8 Sep 2022, subject to the concurrent approval by FAL 46 and C 127, to address common high-priority issues identified by the MASS regulatory scoping exercises done by the three(3) Committees.

4. Other decisions

4. Cost implication for MSI and SAR information providers concerning the recognition of multiple GMDSS Mobile Satellite Services

○ MSC 105 could not reach an agreement on the methods to address cost implications for MSI and SAR information providers concerning the dissemination of information over multiple recognized mobile satellite services (RMSS), and instructed NCSR to further consider the issue from a technical perspective, including interoperability and broadcasting monitoring.

5. Maritime Fuel Oil Safety

○ The amendments to SOLAS II-2 in relation to flashpoint was approved for adoption at MSC 106

○ Guidelines for sampling procedures will be developed, and possible measures related to oil fuel parameters other than flashpoint will be considered at MSC 107.

6. Safe De-carbonization

○ CCC Sub-Committee was instructed to consider documents A32/12/2 and MSC 105/2/2 pertaining to safe de-carbonization.

4. Other decisions

7. Service providers for lifeboats, rescue boats, launching appliances and release gears (MSC Res.402(96), ISO PAS 23678, etc.)

○ Due to the time constraints, MSC 105 could not discuss as to whether ISO DIS 23678 may be accepted as an international standard, which supplements MSC Res.402(96). The matter was delay to MSC 106. Therefore, the difficulty maritime industry has faced may regretfully continue for the time being without a clear decision from MSC.

8. Next MSC meetings

○ MSC 106: 2 to 11 Nov 2022 (8 Days)

○ MSC 107 (Tentative): 31 May to 9 Jun 2023 (8 Days)