

IMO SUB-COMMITTEE ON NAVIGATION, COMMUNICATIONS, SEARCH & RESCUE

Relevant for ship owners, managers, and flag administrations.

April 2021

The 8th session of the IMO's Sub-Committee on Navigation, Communications and Search and Rescue (NCSR) was held remotely from 19 to 23 April 2021. The session finalized the work on the modernization of the requirements for the global maritime distress and safety system, with the aim to adapt to modern communication systems and remove carriage requirements for obsolete systems. It was also decided to recommend recognition of the Japanese Quasi-Zenith Satellite System as a component of the worldwide radio navigation system.



Meeting highlights:

- Finalized draft amendments to SOLAS Chapters III and IV and the related IMO instruments to modernize the requirements for the global maritime distress and safety system.
- Agreed to develop mandatory navigation and voyage planning requirements for non-SOLAS ships operating in polar waters.
- Agreed to recommend recognition of the Japanese Quasi-Zenith Satellite System as a component of the worldwide radio navigation system.
- Agreed to develop generic performance standards for shipborne receivers for a global navigation satellite system.

The Quasi-Zenith Satellite System (QZSS)

All ships shall carry a receiver for a global navigation satellite system (GNSS) or a terrestrial radio navigation system. This requirement relies on recognition of systems provided and operated by governments or organizations, for example GPS (USA), Galileo (EU), GLONASS (Russia), BeiDou (China) and IRNSS (India).

NCSR 8 prepared a draft safety of navigation (SN) circular for recognizing the QZSS as a component of the World Wide Radio Navigation System (WWRNS), which will be forwarded to MSC 104 (October 2021) for approval. Performance standards for receivers for the QZSS were already approved by MSC 102.

Generic performance standards for GNSS

NCSR agreed to continue the work on generic performance standards for shipborne satellite navigation system receiver equipment in a correspondence group until NCSR 9 in 2022. Such performance standards could combine the performance standards for the different GNSS receiver equipment into one document.

Non-SOLAS ships operating in polar waters

Fishing vessels and yacht incidents in polar waters pose a risk to human life, to the polar environment and to search and rescue operations. The IMO has initiated the 2nd phase of the Polar Code to consider safety measures for non-SOLAS ships operating in polar waters.

NCSR 8 agreed to develop amendments to the application provisions of SOLAS Chapter XIV and to the Polar Code, so that mandatory navigation and voyage planning requirements would also be applicable to the following non-SOLAS ships operating in the Arctic and the Antarctic:

- Fishing vessels of 24 m and above
- Pleasure yachts of 300 GT and above not engaged in trade
- Cargo ships of 300 GT and above, but below 500 GT

The work will be carried out in a correspondence group until NCSR 9 in 2022.

Modernization of the Global Maritime Distress and Safety System (GMDSS)

The GMDSS, adopted in 1988, has been subject to review and modernization with the aim to adapt to modern communication systems and remove carriage requirements for obsolete systems.

NCSR 8 finalized draft amendments to SOLAS Chapters III and IV to modernize the GMDSS requirements, as well as consequential draft amendments to the High-Speed Craft (HSC), Special Purpose Ships (SPS) and Mobile Offshore Drilling Units (MODU) Codes.

The provisions for communication equipment currently in SOLAS Chapter III on life-saving appliances and arrangements have been moved to Chapter IV on radiocommunications. References to outdated resolutions and circulars have been replaced. New and amended draft resolutions and circulars are listed in the Annex.

The modernization implies inter alia:

- More generic requirements, independent of specific service providers or technologies, for example:
 - The reference to the sole service provider Inmarsat in the definition of sea area A3 have been replaced by a reference to a recognized mobile satellite service.
 - Explicit references to providers of Maritime Safety Information (MSI), such as NAVTEX, EGC or HF-MSI, have been deleted and replaced by a general requirement to receive “MSI and search and rescue-related information throughout the entire voyage”.
 - Specification of the type of EPIRB has been removed.
- Amended equipment requirements for sea areas A1 to A4:
 - The requirements in the draft SOLAS IV, regulation 8 applies to all ships operating in sea area A1, not only to those exclusively in A1 as currently required.
 - The draft SOLAS IV, regulations 9 to 11 refers to the explicit sea areas only and do not include requirements to the “lower” sea areas, meaning that regulation 9 applies only to sea area A2, regulation 10 to sea area A3 and regulation 11 to sea area A4.
 - NBDP radiotelex terminals are no longer required to be carried for ships operating in sea areas A3 and A4.
- Maintenance criteria to ensure GMDSS availability will be at the discretion of the flag Administration:
 - The footnote in SOLAS IV, regulation 15.7 refers to IMO resolution A.702(17), which is recommended to be revoked.
 - The maintenance criteria are planned to be included in the “Guidelines for the harmonization of GMDSS requirements for radio installations onboard SOLAS ships” (COMSAR/Circ. 32), which is planned to be updated at a later session.

The draft SOLAS amendments and the accompanying draft performance standards and guidelines will be submitted to MSC 104 (October 2021) for approval. The amended requirements are expected to enter into force on 1 January 2024, subject to subsequent adoption by MSC 105.

NCSR 8 approved the following circulars:

- Draft COMSAR circular on “Guidance on minimum communication needs of maritime rescue coordination centres (MRCCs)” (COMSAR.1/Circ.37/Rev.1)
- Draft COMSAR circular on “Distress priority communications for RCCs from shore-to-ship via Global Maritime Distress and Safety System (GMDSS) satellite service providers” (COMSAR.1/Circ.50/Rev.4)

The circulars will be submitted to MSC for endorsement.

Developments in GMDSS satellite services

Although Iridium is accepted by the IMO as a recognized GMDSS satellite system, the Iridium global satellite enhanced group calling (IRIDIUM-EGC) service provided through SafetyCast is not fully operative and not yet recognized as a global service. NCSR will

consider the Interim Iridium SafetyCast service manual at a future session.

The information communicated by member States to the IMO on the implementation of the Iridium SafetyCast service is available in IMO’s online database GISIS.

Guidelines on places of refuge for ships

The “Guidelines on Places of Refuge for Ships in Need of Assistance” (resolution A.949(23)) intends to assist flag States, masters, companies and salvors in responding effectively to marine incidents. The guidelines are subject to review and updating to reflect the organizational, operational and technical developments in the maritime industry since the guidelines were first adopted in 2004.

NCSR 8 agreed to continue the consideration of a revision of the guidelines in a correspondence group until NCSR 9 in 2022.

Any other business

Performance standards for Voyage Data Recorders (VDR)

NCSR 8 approved consequential amendments to the performance standards for simplified VDR (resolution MSC.163/78)) and VDR (resolution MSC.333(90)), following the updated guidelines on the annual testing of VDR and S-VDR (MSC.1/Circ.1222).

The performance standards will be submitted to MSC 104 in October 2022 for adoption.

IEC standards

NCSR 8 noted progress on the development of the following standards by the International Electrotechnical Commission (IEC) related to maritime navigation and communication equipment and systems:

- IEC 63154 on maritime cybersecurity
- IEC 63173-1 on maritime data structure
- IEC 63173-2 on maritime data structure
- IEC PAS 61174-1 on maritime data structure
- IEC PAS 63343 on automatic identification systems
- IEC 63269 on automatic identification systems
- IEC 61108-6 on IRNSS

Recommendations

As NCSR is a sub-committee, all decisions concerning rules, regulations and dates are subject to further consideration and approval by the Maritime Safety Committee (MSC). DNV recommends that our customers monitor the outcome of MSC 104 in October 2021.

Contact

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Annex:

List of draft resolutions and circulars agreed by NCSR 8 for the modernization of the GMDSS:

- Draft MSC resolution on “System performance standard for the promulgation and coordination of maritime safety information using high-frequency narrow-band direct printing”, revising and superseding resolution A.699(17)
- Draft MSC resolution on “Performance standards for the reception of maritime safety information and search and rescue related information by MF (NAVTEX) and HF”, revising and consolidating resolutions A.700(17) and MSC.148(77)
- Draft MSC resolution on “Provision of radio services for the Global Maritime Distress and Safety System (GMDSS)”, revising and superseding resolution A.801(19)
- Draft MSC resolution on “Performance standards for search and rescue radar transponders”, revising and superseding resolutions A.530(13) and A.802(19)
- Draft MSC resolution on “Performance standards for shipborne VHF radio installations capable of voice communication and digital selective calling”, revising resolution A.803(19)
- Draft MSC resolution on “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”, revising and consolidating resolutions A.804(19) and A.806(19)
- Draft MSC resolution on “Performance standards for Inmarsat-C ship earth stations capable of transmitting and receiving direct-printing communications”, revising resolution A.807(19)
- Draft MSC resolution on “Guidelines for the avoidance of false distress alerts”, revising and superseding resolution A.814(19)
- Draft MSC resolution on “Performance standards for survival craft portable two-way VHF radiotelephone apparatus”, revising resolution MSC.149(77)
- Draft MSC resolution on “Amendments to the performance standards for radiocommunication equipment”, resolution MSC.80(70)
- Draft MSC resolution on “Performance standards for a shipborne integrated communication system (ICS) when used in the GMDSS”, revising resolution A.811(19)
- Draft MSC circular on “Participation of non-SOLAS ships in the Global Maritime Distress and Safety System (GMDSS) and guidance on the development of training materials for GMDSS operators on non-SOLAS ships” (MSC.1/Circ.803/Rev.1)
- Draft MSC circular on “Guidance for the reception of maritime safety information and search and rescue-related information as required in the GMDSS”
- Draft MSC circular on “Guidance on the validity of radiocommunication equipment installed and used on ships” (MSC.1/Circ.1460/Rev.3)
- Draft MSC circular on “Guidelines for shore-based maintenance of satellite EPIRBs” (MSC.1/Circ.1039/Rev.1)
- Draft MSC circular on “Guidelines on annual testing of 406 MHz satellite EPIRBs” (MSC.1/Circ.1040/Rev.2)

List of resolutions and circulars expected to be revoked for the modernization of the GMDSS:

- Recommendation on operational standards for radiotelephone transmitters and receivers (resolution A.334(IX))
- Operational standards for radiotelephone watch receivers (resolution A.383(X))
- Operational standards for VHF radiotelephone installations (resolution A.385 (X))
- Operational standards for radiotelephone alarm signal generators (resolution A.421(XI))
- Performance standards for VHF multiple watch facilities (resolution A.524(13))
- Type approval of ship earth stations (resolution A.570(14))
- Performance standards for float-free VHF emergency position-indicating radio beacons (resolution A.612(15))
- Carriage of radar operating in the frequency band 9,300-9,500 MHz (resolution A.614(15))
- Carriage of satellite emergency position-indicating radio beacons (resolution A.660(16))
- Performance standards for float-free satellite emergency position-indicating radio beacons operating through the geostationary Inmarsat satellite system on 1.6 GHz (resolution A.661(16))
- Carriage of Inmarsat enhanced group call SafetyNET receivers under GMDSS (resolution A.701(17))
- Radio maintenance guidelines for the global maritime distress and safety system (GMDSS) related to sea areas A3 and A4 (resolution A.702(17))
- Training of radio personnel in GMDSS (resolution A.703(17))
- Performance standards for float-free VHF emergency position-indicating radio beacons (resolution A.805(19))
- Maintenance of a continuous listening watch on VHF channel 16 by SOLAS ships whilst at sea and installation of VHF DSC facilities on non-SOLAS ships (resolution MSC.131(75))
- Guidelines on the annual testing of 406 MHz satellite EPIRBs (MSC/Circ.882)
- Guidelines for general radiocommunications (MSC/Circ.1038)
- Guidelines on annual testing of L-band satellite EPIRBs (MSC/Circ.1123)
- Revised questionnaire on shore-based facilities for the GMDSS (MSC.1/Circ.1382/Rev.2)
- Recommendation on use of GMDSS equipment for non-safety communications (COMSAR/Circ.17)