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IMO Navigation, Communications and Search and Rescue Tenth session

Agenda Preview

Executive Summary

Below are some of the topics expected to be discussed at NCSR 10 which will have some impact on current practices. These can be found in detail under the relevant subject headings in the document.

- NCSR 10 is expected to begin the work to develop revisions to SOLAS regulation V/23 and associated instruments to improve the safety of **pilot transfer arrangements**. The intent is to include the fundamental provisions for design, installation, inspection, maintenance and rigging of pilot transfer arrangements in SOLAS V/23 and to develop a performance standard for pilot transfer arrangements covering detailed technical aspects relevant to the approval of equipment and arrangements.
- NCSR 10 is also expected to begin the work to develop performance standards for a **digital navigational system (NAVDAT)** which is mooted to be the successor to NAVTEX. A roadmap for the development and implementation of NAVDAT will also be developed.
- As part of the revision to the GMDSS, NCSR 9 approved **COMSAR.1/Circ.32/Rev.1 Harmonisation of GMDSS Requirements for Radio Installations on board SOLAS Ships**. Subsequently, a number of discrepancies, gaps and inconsistencies have been found in the circular. NCSR 10 is expected to urgently consider the findings and proposed amendments as this circular supports the new requirements for the GMDSS which enter into force 1 January 2024.

Introduction

NCSR 10 will take place 10 – 19 May 2023. This briefing summarises the discussions which are significant to Lloyd's Register's work with our customers.

Additional Information

Lloyd's Register's [NCSR 9 Summary Report](#)

Lloyd's Register will contribute to the work in the following working group:

- WG 2 – Navigation

Decisions of other IMO bodies

Additional Information

Lloyd's Register's [CCC 8 Summary Report](#), [MEPC 79 Summary Report](#) and [MSC 106 Summary Report](#)

Please note that these items will be discussed under the relevant agenda item during NCSR 10.

Agenda item 3 – MEPC 79 agreed that an area of the North-Western Mediterranean Sea will be designated as a Particularly Sensitive Sea Area (PSSA). This will encompass two areas already designated as Special Protected Areas of Mediterranean Importance (SPAMIs) under the Barcelona Convention and the UN Mediterranean Action Plan. NCSR 10 is expected to approve the associative protective measures.

Agenda item 21 - CCC 8 finalised draft amendments to SOLAS chapter V, which will require the Master to report any lost containers to the nearest coastal State and flag State without delay. The draft amendments are expected to be adopted at MSC 108 and enter into force 1 January 2026.

Agenda item 21 – Following reports of the tampering of AIS transponders to disguise illicit practices, MSC 106 referred a recommendation that IMO should consider the review of hardware and software security standards for prevention of such tampering to the NCSR Sub-Committee for their consideration and advice. NCSR 10 is expected to refer discussion to the Communications Working Group.

Additionally, NCSR 10 is expected to note the following:

III 8 considered safety issues resulting in man overboard incidents from fishing vessels and noted the following points:

- The attitude within the fishing industry concerning personal flotation devices (PFDs) needed to be changed to improve the perception that use of PFDs is essential for an increased chance of survival.
- Technology, such as Search and Rescue Transponders (SART), provide better means to locate a person falling overboard from fishing vessels. The introduction of such technology for increasing the ability of survival could be considered.

Navigation

Additional Information

Lloyd's Register's [NCSR 9 Summary Report](#)

Development of generic performance standards for shipborne satellite navigation system receiver equipment

Noting the increasing number of performance standards for standalone global and regional satellite systems which, apart from system-specific information, are based on identical passages of text, the IMO agreed to develop consolidated performance standards. Shipborne satellite navigation system receiver equipment provides position, navigation, and time data (PNT) together with associated information.

NCSR 8 began the work to draft a generic resolution which is intended to provide a functional approach and modular framework which allows for differences in installed equipment and implementation options, measurements principles, supported functionalities, signal sources, scope of data as well as usability in specific regions. System specific information will be provided in an annex.

NCSR 10 is expected to consider the report of the correspondence group on the Development of Generic Performance Standards for shipborne satellite navigation system receiver equipment and finalise the draft consolidated performance standards.

Application: Once approved and adopted, Administrations and Global Navigation Satellite Systems (GNSS) providers should use this framework for the development of performance standards for new systems and when amending performance standards for existing GNSS or Regional Navigation Satellite Systems (RNSS).

Subject: Generic performance standards for shipborne satellite navigation system receiver equipment.

Impact: Provides a generic framework for the development of performance standards for satellite navigation system receiver equipment.

Application: Administrations and GNSS system providers should use this framework for the development of performance standards for new systems and when amending the performance standards of existing GNSS or RNSS systems.

The consolidated performance standards are expected to be adopted at MSC 108 (May 2024).

Amendments to ECDIS Performance Standards (resolution MSC.530(106)) to facilitate a standardized digital exchange of ships' route plans

NCSR 10 will continue to consider a proposal to develop a standardised and cyber-secure method for route exchange from ship-to-shore and from shore-to-ship to be added as an additional functionality in ECDIS. It is not proposed that it will be mandatory for masters of the ships to use this additional functionality but given that masters already use external input for route planning, a standardised, cyber-secure, method may reduce workload and encourage the use of a common method instead of non-standardised solutions.

NCSR 9 agreed that the scope of the work should be limited to amendments necessary to facilitate a standardised digital exchange of ships' route plans based on the ECDIS performance standards recently agreed (*Performance standards for Electronic Chart Display and Information Systems (ECDIS)* (MSC.530(106))).

NCSR 10 is expected to consider and finalise the proposed draft amendments to resolution MSC.530(106). Once finalised it is expected that the draft amendments will go to MSC 108 (Spring 2024) for adoption.

Application: Application to new and existing ECDIS systems is yet to be decided.

Subject: Amendments to MSC.530(106).

Impact: Revisions to the performance standards to add additional functionality to ECDIS to enable the digital exchange of route plans.

Application: Expected to be non-mandatory functionality to aid route planning.

Application to new and existing ECDIS systems is yet to be decided.

Development of amendments to VDR performance standards and carriage requirements

MSC 101 agreed to a new output to amend SOLAS regulation V/20 on Voyage Data Recorders and resolutions MSC.333(90) *Performance standards for shipborne voyage data recorders (VDRs)* and MSC.163(78) *Performance standards for shipborne simplified voyage data recorders (S-VDRs)*. The aim of this proposal is to expand the requirement for float-free arrangements on all new VDR installations and to capture both sides of a ship's internal telephone calls.

Although it was intended that this work should start at NCSR 9 (2022), no papers were received and as a consequence consideration of this item was deferred to NCSR 10. However, no papers have been submitted to this session either so it is expected that NCSR will consider deferring the item to a later session.

Revision of SOLAS regulation V/23 and associated instruments to improve the safety of pilot transfer arrangements

Accidents involving the tragic loss of pilots continue to happen worldwide despite previous efforts to improve pilot safety through amendments to SOLAS regulation V/23 (resolution MSC.308(88)) and standards for pilot transfers (resolution A.1045(27)). Statistics published by the International Maritime Pilots Association (IMPA) over the past few years show that an unacceptably high rate of non-compliant pilot transfer arrangements installed on all types of ship, together with the improper use of pilot ladders and a lack of regular and effective maintenance and inspection, are major contributing factors.

NCSR 10 is expected to consider:

- Draft amendments to SOLAS regulation V/23 together with draft revisions to A.1045(27) and the following two options:
 - Option 1: SOLAS V/23 should contain all the detailed requirements for design, installation, inspection, maintenance and rigging of pilot transfer arrangements, making resolution A.1045(27) *Pilot Transfer Arrangements* redundant.
 - Option 2: SOLAS V/23 contains fundamental provisions for design, installation, inspection, maintenance and rigging of pilot transfer arrangements and makes resolution A.1045(27), as amended, a performance standard for pilot transfer arrangements covering detailed technical aspects relevant to the approval of equipment and arrangements.
- Clarification of the application of the updated footnote in the SOLAS consolidated edition 2020 publication and potential modifications to MSC.1/Circ.1428.

Application: If finalised, approved and adopted by 1 July 2026 the amendments are expected to enter into force 1 January 2028 and will be applicable to new ships from that date. Existing ships will need to comply not later than the first survey required by SOLAS regulations I/7 or I/8 after 1 January 2028.

NCSR 10 is also expected to note information on the results of the IMPA Safety Campaign/Survey 2022 and an assessment of Safety Campaign/Survey results, 2018 to 2022.

Lloyd's Register's View

Lloyd's Register welcomes these proposals to improve the safety of pilot transfer arrangements although we consider that further discussion is need on some aspects of the proposals. Lloyd's Register favours option 2 (above) and will actively take part in the work at IMO.

Subject: Draft amendments to SOLAS regulation V/23 and A.1045(27) as amended.

Impact: Detailed requirements for the operational readiness, maintenance, inspection and periodical testing of pilot transfer arrangements.

Application: If approved and adopted by 1 July 2026 the new regulations are expected to apply to new ships from 1 January 2028 and existing ships not later than the first survey required by regulation I/7 or I/8 after 1 January 2028.

Communications

Development of amendments to SOLAS chapters IV and V and performance standards and guidelines to introduce VHF data exchange system (VDES)

The Very High Frequency (VHF) Data Exchange System (VDES) integrates the functions of terrestrial and satellite VHF data exchange, Application Specific Messages (ASM) and Automatic Identification System (AIS), enabling the exchange of digital data. IMO has agreed to develop amendments to SOLAS chapter IV and chapter V to introduce the use of VDES and to develop performance standards and guidelines to facilitate the widespread adoption of the system.

NCSR 10 will consider preliminary draft performance standards for VDES, the necessity of amendments to both SOLAS chapters IV and V and a proposal for an intersessional correspondence group.

If the work is finalised at NCSR 11 as expected, then any amendments to SOLAS will enter into force 1 January 2028. However, as the system is already in use, MSC 103 agreed that any amendments to SOLAS that are developed could be considered exempt from the usual four-year amendment cycle although this is yet to be agreed.

Subject: Amendments to SOLAS chapters IV and V and performance standards and guidelines to introduce VHF data exchange system (VDES).

Impact: VDES is already in use. Inclusion in SOLAS and the development of performance standards will provide a global standard for such systems.

Application: The development, installation and use of VDES. Entry into force is yet to be decided.

Development of performance standards for a digital navigational data system (NAVDAT)

Compared with NAVTEX, the digital navigation data system (NAVDAT) offers more comprehensive information that is delivered to ships more efficiently and displayed in a more user-friendly way. Digital technology allows NAVDAT to broadcast files in different modes:

- General broadcast (to all ships);
- Selective broadcast (to ships located in a specific area, or for groups of ships according to the ship's position, Maritime Mobile Service Identity (MMSI) or group identification); and
- Dedicated message (according to ship's MMSI).

There are also possibilities for encrypting sensitive files in the three modes of broadcasting. In that respect, NAVDAT can be used for more applications than the broadcasting of Maritime Safety Information (MSI) and search and rescue related information.

NCSR 10 is expected to consider:

- A proposed draft MSC resolution on Performance standards for the reception of maritime safety information and search and rescue related information by MF and HF NAVDAT.
- Proposed draft amendments to resolution MSC.509(105) on *Provision of radio services for the Global Maritime Distress and Safety System (GMDSS)*.
- A proposed draft NAVDAT Manual.
- Proposals on the way forward with the introduction of NAVDAT.

Subject: Draft performance standards, amendments to MSC.509(105) and new NAVDAT Manual.

Impact: NAVDAT is a new system for use in the GMDSS. Limited impact immediately but is expected to work alongside NAVTEX initially.

Application: Not expected to be completed until NCSR 11 (2024). Full application yet to be decided.

Application: The work is expected to be finalised at NCSR 11 (2024) for subsequent adoption by MSC. Full application is yet to be decided.

Revision of the Criteria for the provision of mobile satellite communication services in the Global Maritime Distress and Safety System (GMDSS) (Resolution A.1001(25))

Resolution A.1001(25) *Criteria for the provision of mobile satellite communication services in the Global Maritime Distress and Safety System (GMDSS)* sets out the criteria that a satellite communications system must meet in order to be recognised as a service provider in the GMDSS. Guidance is also provided in MSC.1/Circ.1414 *Guidance to Prospective GMDSS Satellite Service Providers*.

However, both the resolution and circular were developed when the only recognised mobile satellite system was a geostationary system and this presented difficulties when it came to evaluating a low Earth orbit (LEO) system (Iridium). Consequently, it was agreed that the instruments should be revised.

NCSR 10 will consider the report of the intersessional correspondence group and the proposed draft MSC resolution which is intended to replace resolution A.1001(25).

Application: Once finalised and adopted the revised resolution will apply:

- to the evaluation of mobile satellite services notified by Governments for possible recognition for use in the GMDSS, within the context of the relevant regulations of SOLAS chapter IV; and
- to the oversight of existing satellite systems and services for use in the GMDSS, within the context of the relevant regulations of SOLAS chapter IV.

Search and Rescue

Amendments to the IAMSAR Manual

This is a standing agenda item which addresses amendments to the IAMSAR Manual. Shipowners, Operators and Masters should note that the IAMSAR Manual is a surveyable item and ships are required to carry the most up to date edition. The current edition of the IAMSAR Manual was published 1 June 2022.

NCSR 10 will consider if the IAMSAR Manual should be amended to include guidance on emergency notification devices given the growth in the number of providers of a satellite distress communication service that does not fall within GMDSS or the typical international distress alerting system.

The sub-committee is also expected to refer the issues to the ICAO/IMO Joint Working Group to review the IAMSAR Manual and provide advice to NCSR 11.

Any other business

Under this agenda item NCSR 10 will consider the following:

Concerns on the implementation of GMDSS requirements due to the gaps and/or inconsistencies existing in COMSAR.1/Circ.32/Rev.1

As part of the longstanding project for the modernisation of the GMDSS, NCSR 9 approved revisions to COMSAR.1/Circ.32 *Harmonisation of GMDSS Requirements for Radio Installations on board SOLAS Ships* which was endorsed by MSC 106 as COMSAR.1/Circ.32/Rev.1. NCSR 10 is expected to consider the several gaps and inconsistencies that have been identified in the revised text together with the extensive amendments that have been proposed.

Lloyd's Register's View

Lloyd's Register fully supports the need to review COMSAR.1/Circ.32/Rev.1 in light of the discrepancies and inconsistencies found. As this circular supports the new requirements for the GMDSS which enter into force 1 January 2024, this work is urgent and in our view needs to be completed at this session of NCSR.

With regard to the issues of electromagnetic compatibility (EMC). Lloyd's Register agrees that Light Emitting Diode (LED) lights that do not act as purely resistive loads to the electrical system have the capability to act as sources of conducted or radiated emissions. If such emissions are not limited by the design of the LED light, the devices can cause unwanted disturbances or mal operation of adjacently installed or connected electrical and electronic equipment. Accordingly, testing to the Marine Electromagnetic Compatibility (EMC) standards as per IEC 60945 or a similar specification is required to ensure that any EMC issues are resolved.

In Lloyd's Register's experience, LED EMC problems are not widespread and we consider that properly applied standards will resolve the LED EMC problem.

Clarification on the requirements for the location of the EPIRB

As part of the discussion on the necessary revisions to COMSAR.1/Circ.32/Rev.1, NCSR 10 is expected to consider whether the common practise of locating the EPIRB on top of the navigation bridge is compliant with the requirement that it is 'located so that it may easily be released manually and brought to the survival craft by one person'.

Lloyd's Register's View

Lloyd's Register considers that in general the existing provisions for the installation of EPIRB's are adequate. Locating the EPIRB on top of the wheelhouse allows the EPIRB to float free without hindrance in the event the vessel sinks and there are currently no known incidents where this location has had a negative impact on a quick response if the crew are required to abandon the ship.

Progress on standards development by IEC

IEC TC 80 prepares standards to support performance standards and other IMO instruments. This is a standard report of the progress on standards under development by the IEC including (but not limited to):

- Bridge alert management which includes the document *Bridge alert management for mariners* ([Bridge Alert Management \(iec.ch\)](#))
- Digital interfaces
- GMDSS
- GNSS

- ECDIS

NCSR 10 is expected to note the information.

Delays affecting the availability of new GMDSS radio equipment from 1 January 2024

It is reported that delays are being experienced with the availability of new GMDSS radio equipment recommended for installation on or after 1 January 2024, in compliance with the revised performance standards set out in resolutions MSC.511(105) *Performance standards for shipborne VHF radio installations capable of voice communication and digital selective calling* and 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*.

NCSR 10 will consider extending the continued installation of GMDSS radio equipment conforming to the previous performance standards until 1 January 2026.

Development of guidelines for the use of electronic record books under SOLAS regulation V/28

SOLAS regulation V/28.1 requires that all ships engaged on international voyages keep a record of navigational activities and incidents which are of importance to the safety of navigation, and which must contain sufficient detail to restore a complete record of the voyage. While the IMO has developed guidance on the use of electronic record books as required under MARPOL, specific guidelines or reference to existing international standards has not been provided for the use of electronic record books under SOLAS regulation V/28.

NCSR 10 will consider a proposal to develop the necessary guidance for both the shipping industry and the Administration when approving the use of electronic record books.

Lloyd's Register's View

Lloyd's Register agrees that there is a need for guidance in the use of electronic record books and supports the proposal to develop generic guidelines under SOLAS and MARPOL which can be disseminated as a circular with consequential amendments to SOLAS regulation V/28.1.

Regulatory Affairs

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