



IMO News Brief

NCSR 11



The 11th session of Sub-committee on Navigation, Communications and Search and Rescue (hereinafter referred to as NCSR) was convened at IMO Headquarters from 04th to 13th June 2024. This news flash briefs on the outcomes of NCSR 11 on major technical issues.

1. Developments in GMDSS services, including guidelines on maritime safety information (MSI) (Agenda 5)

At the 108th session of the Maritime Safety Committee (MSC) in May 2024, discussions were held regarding the development of the Global Maritime Distress and Safety System (GMDSS), particularly the dissemination of Marine Safety Information (MSI). The committee instructed the NCSR to draft amendments to SOLAS to enable the dissemination of marine safety information and search and rescue information through the currently recognized mobile satellite services (RMSS*) by December 31, 2026.

* RMSS(Recognized Mobile Satellite Service) : This means satellite services approved by the IMO to provide GMDSS services, such as Inmarsat and Iridium.

As a result of the 11th session of NCSR, the charges for distress, urgency, and safety communication messages through GMDSS RMSS (Resolution A.707(17)) were amended. This amendment is scheduled for approval at the 109th session of the Maritime Safety Committee (MSC 109, December 2024) and for adoption at the 34th IMO Assembly (A 34, November 2025).

2. Development of global maritime SAR services, including harmonization of maritime and aeronautical procedures and amendments to the IAMSAR Manual (Agenda 7)

The International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual is a guidebook for international aviation and maritime search and rescue operations, providing standardized procedures to ship and search and rescue operators to support international cooperation and efficient search and rescue operations.

At the 11th session of NCSR, agreement was reached on the draft revision of the IAMSAR Manual for 2025. This revision is scheduled for approval at MSC 109 ('24 December). The new IAMSAR Manual is expected to come into effect 12 months after approval at MSC 109 ('25 December).

3. Development of performance standards for a digital navigational data system (NAVDAT) (Agenda 8)

The Digital Navigational Data System (NAVDAT) is a equipment designed to receive marine safety information and search and rescue-related data using the MF band (500 kHz) and HF band (4,226 kHz). Unlike NAVTEX (Navigational Telex), NAVDAT offers significantly improved communication speeds, enabling

reception of not only text information but also image data.

At MSC 103 ('21 May), development of performance standards for NAVDAT was decided upon, with an informal expert group drafting the initial performance standards for submission to NCSR 10. Following discussions at NCSR 10, it was agreed that the draft NAVDAT performance standards should be re-examined at NCSR 11 ('24 June) based on outcomes from WRC-23.

Subsequently, during the 19th IMO/ITU Joint Expert Group Meeting ('23 October), the document reviewing the performance standards draft was submitted to NCSR 11. It was decided to request approval for the draft amendment of Resolution MSC.509(105) concerning the provision of radio services for international maritime safety, along with NAVDAT performance standards, at MSC 109 ('24 December).

4. Development of amendments to SOLAS chapters IV and V and performance standards and guidelines to introduce VHF Data Exchange System (VDES) (Agenda 9)

The Very High Frequency (VHF) Data Exchange System (VDES) integrates the function of the Automatic Identification System (AIS), Application Specific Message (ASM), Terrestrial component of VHF Data Exchange (VDE-TER) and Satellite component of VHF Data Exchange (VDE-SAT) to enable the exchange of digital data.

MSC 103 (May 2021) agreed to develop amendments to SOLAS chapter IV(radiocommunications) and V(safety of navigation) to introduce the use of VDES and to develop performance standards and guidelines.

NCSR 10 agreed the development of SOLAS amendments to introduce VDES as the alternative to AIS should be prioritized while taking a more careful approach before introducing the new communication tool under the GMDSS to disseminate Maritime Safety Information. And also, it was agreed that a technical, regulatory and operational analysis of VDES should be undertaken including its communication component which includes AIS, ASM, VDE-TER and VDES-VDE-SAT elements.

At NCSR 11, it was agreed to implement VDES on a voluntary basis alongside AIS as further developments progress. However, due to time constraints, NCSR 11 did not advance in preparing draft amendments to SOLAS Chapter V, draft performance standards for VDES, or draft operational guidelines for shipborne VDES. A Correspondence Group was reconvened to continue this work between sessions, with finalization expected at NCSR 12 ('25 May). Additionally, NCSR 11 decided not to pursue amendments to Chapter IV at this time and encouraged interested Member States and international organizations to consider proposing new measures for integrating VDES as communication equipment under SOLAS Chapter IV in the future, if necessary.

5. 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)) (Agenda 11)

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

However, both the resolution and circular were formulated at a time when the only acknowledged mobile satellite system was a geostationary system*. This posed challenges when assessing a Low Earth Orbit system** like Iridium. As a result, it was decided that the guidelines should be revised.

* eostationary satellite systems orbit the Earth at the same speed as the Earth's rotation, maintaining a fixed position approximately 35,000 km above the Earth's surface. This allows satellites to remain stationary relative to a specific point on the Earth's surface. Inmarsat utilizes geostationary satellites to provide global communication services.

** Low Earth Orbit (LEO) satellite systems operate with satellites orbiting at approximately 2,000 km altitude, moving quickly around the Earth. Being closer to the Earth allows them to achieve low latency and provide global coverage. Iridium and Starlink are prominent examples of LEO satellite systems.

NCSR 11 agreed an draft Assembly resolution on criteria for providing mobile satellite communication systems in the GMDSS. This resolution revokes A.1001(25) and MSC.1/Circ.1414. It applies to both current and future RMSSs without imposing additional constraints or costs on existing systems. The draft will be presented for approval at MSC 109, with the goal of adoption at Assembly 34 in December 2025.

6. Development of guidelines for the use of electronic nautical publications (Agenda 12)

Following the discussions at NCSR 11, agreement was reached to develop guidelines on the use of Electronic Nautical Publications (ENPs). However, concerns were raised regarding cyber security, the use of portable tablets like iPads for backup facilities, title of the guidelines and user education. It was decided to establish an intersessional correspondence group to further consider these issues, with final discussions scheduled for the 12th session of NCSR ('25 May).

Electronic Nautical Publications replace traditional paper-based navigational publications by providing charts, light lists, maritime meteorological information, port information, and more in electronic format. ENPs are already in use on many ships due to advantages such as easier updates and management. However, there is currently a lack of unified IMO-level guidelines, with guidelines issued only by some navigation states.

7. Revision of SOLAS regulation V/23 and associated instruments to improve the safety of pilot transfer arrangements (Agenda 13)

Despite great efforts having been made by the IMO to improve the safety of pilots by adopting amendments to SOLAS regulation V/23 (resolution MSC.308(88)) and standards for pilot transfers (resolution A.1045(27)), it is regrettable to see accidents involving the tragic loss of pilots continue to happen worldwide and statistics by IMPA over the past years suggest an unacceptable high rate of non-compliant pilot transfer arrangements installed on all ship types.

In this regard, MSC 106 ('22 November) agreed to develop amendments to SOLAS regulation V/23 (pilot transfer arrangements) and associated instruments to improve the safety of pilot transfer arrangements.

NCSR 11 agreed to draft amendments to SOLAS regulation V/23 and associated resolution to improve the safety of pilot transfer arrangements. The sub-committee also agreed the draft MSC resolution on Performance Standards for pilot transfer arrangements. The draft amendments to the regulations are expected to be approved by MSC 109, for adoption at MSC 110 ('25 June).

NCSR 11 also agreed on the draft MSC circular for the voluntary early implementation of the amendments to SOLAS regulation V/23, with approval anticipated at MSC 109.

<Application details of the draft amendments to SOLAS regulation V/23>

- 1) Pilot transfer arrangements installed on or after 1 January 2028 shall be designed, manufactured, constructed, secured and installed in accordance with parts A, B and C of the performance standards*.
- 2) Pilot transfer arrangements installed before 1 January 2028 on ships to which chapter I applies shall comply with parts A, B and C of the performance standards, not later than the first survey on or after 1 January 2029.
- 3) Inspection, stowage, maintenance, replacement and familiarization of all pilot transfer arrangements, regardless of the installation date, shall comply with parts D and E of the performance standards.
- 4) Pilot transfer arrangements shall be approved by the Administration in accordance with part F

* A(DESIGN, MANUFACTURE AND CONSTRUCTION), B(RIGGING), C(INSTALLATION OF PILOT LADDER WINCH REELS), D(OPERATIONAL READINESS, ONBOARD INSPECTION AND MAINTENANCE), E(FAMILIARIZATION), F(APPROVAL)

8. Identification of measures to improve the security and integrity aspects of AIS (Agenda 14)

MSC 105 ('22 April) investigate how ships without proper registration were able to obtain a Maritime Mobile Service Identity (MMSI), in particular to manipulate AIS data transmissions. At MSC 106 ('22 November), review for the hardware and software security standards for preventing the tampering of AIS transponders was made. MSC 107 ('23 June) included "Identification of measures to improve the security and integrity aspects of AIS" in NCSR's agenda.

Following the discussions at NCSR 11, a draft MSC resolution on performance standards for a universal shipborne automatic identification system (AIS), enhancing the existing requirement for the entry of the IMO number into the AIS equipment and introducing new requirements for entry of a "unique manufacturer equipment identification number" and an "official flag State number", where the ship has no IMO number. The proposed effective date of this resolution is January 1, 2029, allowing time for the development of testing standards and equipment production considerations, and it is expected to be adopted at MSC 109 ('24. December)

9. Any other business (Agenda 18)

9.1 Implementation of MSC.1/Circ.1460/Rev.4 on Guidance on the validity of radiocommunications equipment installed and used on ships

MSC.1/Circ.1460/Rev.4 covers revised frequencies and channels that VHF radio communication equipment installed on ships and shores shall comply with. Ship's VHF radio equipment should be adjusted to conform to the latest channel arrangements in appendix 18 of the RR by the first radio survey after January 1, 2028, through appropriate measures such as software upgrades or equipment replacement.

Following discussions at NCSR 11, Noted all newly manufactured VHF radiocommunication equipment was capable of supporting both the current and new channel arrangements in appendix 18 of the RR at the same time. In addition, the Group noted that approximately 50% of existing VHF radiocommunication equipment

installed on ships could be updated to the same standard as new equipment. Also, it was decided that ships must be capable of using VHF radiotelephony to communicate with shore facilities in their operational area. It should be noted that some administrations may have already implemented new available channels before January 1, 2028. All VHF radiocommunication equipment on board ships must comply with the latest channel arrangements in Appendix 18 of the RR by the first radio survey scheduled on or after January 1, 2028, or earlier as applicable.

It was decided to request approval for the amendments to the revised guidelines at the 109th session of the MSC ('24 December).

9.2 Update on the progress of S-100 development and implementation

During MSC 106, resolution Res.MSC.530(106) was adopted regarding Performance Standards for electronic chart display and information systems (ECDIS). The Committee also requested the International Hydrographic Organization (IHO) to provide updates to IMO on the development and implementation progress of the IHO Universal Hydrographic Data Model (S-100) framework standard.

Res.MSC.530(106) includes voluntary installation of S-100 ECDIS from January 1, 2026, and mandatory installation for all new ECDIS from January 1, 2029. Furthermore, amendments to the ECDIS performance standards were developed to enable the exchange of route plans, including route schedules, through ECDIS to facilitate data exchange between shore and ship for MSC route planning information. These amendments were approved at MSC 108 ('24 May).

NCSR 11 noted the considerations for developing operational guidance for route exchange as per operative paragraph 4 of resolution MSC.530(106)/Rev.1. Interested Member States are invited to submit proposals for new outputs at MSC 109 ('24 December) and agreed to include into the post-biennial agenda.

Should you have inquiries, please contact P.I.C. Thank you.

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