

IMO NCSR 13

Meeting summary

23 July 2026



The 13th meeting of the IMO's Sub-Committee on Navigation, Communication and Search and Rescue (NCSR 13) was held 22 – 26 June at the IMO Headquarters in London. The meeting was supplemented by hybrid (online) arrangements.

LISCR participated in the following groups, in addition to the plenary:

Working Group	Agenda items
Working Group 1	GMDSS, ITU matters, S-100 ECDIS IP connectivity and Digital VHF
Working Group 2	Augmentation System, Gyro-compass and R-Mode
Working Group 3	IAMSAR and EPIRB
Experts Group on Ships' Routeing	Routeing measures and ship reporting systems

Opening

Outcome of MSC 111 - Maritime Autonomous Surface Ships (MASS)

NCSR 13 noted that the 111th session of the Maritime Safety Committee (MSC 111) had adopted the non-mandatory International Code of Safety for Maritime Autonomous Surface Ships (MASS Code), extended the target completion year for the mandatory MASS Code to 2030, established an Experience-Building Phase (EBP), and tasked the relevant Sub-Committees with contributing to its further development, with detailed instructions to be issued by MSC 112. NCSR 13 considered a document on search and rescue (SAR) provisions for MASS and acknowledged that chapter 21 of the MASS Code would require future consideration, including technical capabilities, Governments' SAR responsibilities, liability, certification of remote control centre personnel and cybersecurity. However, NCSR 13 agreed that it would be premature for the NCSR Sub-Committee to commence such work until clear instructions were received from the Maritime Safety Committee.

Routeing measures

Routeing measures off the east coast of the United States

NCSR 13 approved amendments to the following measures, for implementation six months after adoption by the MSC 112, scheduled for December 2026.

- Off Delaware Bay;
- Off New York;
- In the approaches to the Cape Fear River; and

- In the approaches to Chesapeake Bay

Ship Reporting System in Europe

NCSR 13 approved amendments to the mandatory ship reporting system to introduce automated reporting systems and additional requirements for information on liability certificates, for implementation six months after adoption by MSC 112.

- In the Dover Strait/Pas De Calais (CALDOVREP);
- In the Western European Particularly Sensitive Sea Area (WETREP); and
- In the Strait of Bonifacio (BONIFREP).

Routeing measures off Germany's coast

Due to the construction of offshore windfarms under its national regulation, Germany provided information on a national traffic regulation in the German territorial sea in the Southwestern Baltic Sea west of Ruegen Island.

Long Range Identification and Tracking (LRIT)

NCSR 13 noted the outcome of MSC 111 regarding the forthcoming amendments to the LRIT framework and developments in the operation of the LRIT system since NCSR 12, including testing activities, Public Key Infrastructure (PKI) certificate management and governance arrangements. NCSR 13 agreed to remove the Yemen National LRIT Data Centre from the LRIT Data Distribution Plan (DDP) following the expiry of its PKI certificate, urged LRIT Data Centres to participate in future disaster recovery testing of the International LRIT Data Exchange (IDE), and invited SOLAS Contracting Governments to review and update, where necessary, their geographical polygons in the LRIT Data Distribution Plan and to keep their LRIT contact details up to date. NCSR 13 also noted information on the operational status, performance, audits and charging arrangements of the LRIT system, as well as views expressed by several delegations on the use and performance of LRIT services.

Global Maritime Distress and Safety System (GMDSS), including dissemination of Maritime Safety Information (MSI)

GMDSS master plan

NCSR 13 noted the Secretariat's analysis of the GMDSS Master Plan and assistance provided to Member States on the Enhanced Group Call (EGC) services module, and reminded SOLAS Contracting Governments to ensure that information submitted to the GMDSS Master Plan remained complete, accurate, up to date and, where applicable, consistent with information provided to other organizations.

NAVTEX and EGC

NCSR 13 noted reports from the IMO NAVTEX and EGC Coordinating Panels and, concerning EGC services, encouraged Member States, METAREAs, NAVAREAs and SAR authorities, as appropriate, to make use of available guidance and training resources, review and update the EGC services information in the GMDSS Master Plan, ensure that MSI broadcast times corresponded with the published schedules, and verify that the Global SAR Plan accurately identified rescue coordination centres disseminating information through EGC services. NCSR 13 also encouraged METAREA VIII and urged NAVAREAs

and METAREAs XIII, XX and XXI to complete the implementation of the Iridium SafetyCast service in support of the agreed transition to dissemination of MSI through all recognized mobile satellite service providers by 31 December 2026.

NAVDAT

NCSR 13 considered the report of the IMO/ITU Experts Group on Maritime Radiocommunication Matters and related submissions concerning the implementation of NAVDAT, and approved an updated road map for its introduction. The updated road map confirmed that NAVDAT is intended to complement, rather than replace, NAVTEX, and identified the remaining work, including completion of IEC standards, further field trials, finalization of the NAVDAT Manual, capacity-building activities and consequential amendments to related IMO instruments, before implementation can be completed.

GMDSS mobile satellite service providers

NCSR 13 noted that recognized GMDSS mobile satellite service providers continued to meet the required public service obligations, invited Contracting Governments to encourage migration from SafetyNET to SafetyNET II, and noted concerns regarding restrictions on access to satellite communication services, with IMSO advising that the matter had been referred to Council 137 for further consideration.

Cospas-Sarsat system

NCSR 13 noted the status of the Cospas-Sarsat system, invited Member States to improve the reliability of communications between Cospas-Sarsat mission control centres and SAR points of contact, encouraged the development of national procedures to address non-distress ELT(DT) alerts, and noted Thailand's commissioning of its MEOSAR system.

ITU matters

Draft IMO position on relevant WRC-27 agenda items

IMO continued work to ensure that WRC-27 regulatory changes will not adversely affect GMDSS or other maritime safety services. Work also continued on a future WRC agenda item to support implementation of the Mandatory MASS Code..

Guidance for the dissemination of search and rescue related information through the international enhanced group call service (MSC.1/Circ.1659)

NCSR 13 agreed to the draft revision to MSC.1/Circ.1659 on *Guidance for the dissemination of search and rescue related information through the international enhanced group call service*, with a view to approval by MSC 112, to clarify that maritime safety information (MSI) and search and rescue (SAR)-related information should be disseminated through all operational recognized mobile satellite service providers, rather than a single provider.

Radar Search and Rescue Transponder (SART)

NCSR 13 considered issues relating to the visualization of radar SART signals, recalled that MSC 109 had already issued interim guidance through SN.1/Circ.345 on *Difficulties and risks involved in the setting of radar displays to correctly visualize radar SAR transponder (SART) signals*, and identified the need for a long-term solution, and invited interested Member States and international organizations to provide technical feedback to the United States and through the relevant IEC and ITU forums.

Search and Rescue (SAR)

Global SAR plan

NCSR 13 noted the Secretariat's analysis of the Global SAR Plan, reminded SOLAS Contracting Governments and Parties to the 1979 SAR Convention to maintain complete, accurate and up-to-date information in GISIS, emphasized its operational importance for saving lives at sea, and requested the Secretariat to continue reviewing the information and following up with Member States, as appropriate.

List of documents and publications which should be held by a maritime or joint rescue coordination centre

NCSR 13 approved draft SAR.7/Circ.17 on the *List of documents and publications which should be held by a maritime or joint rescue coordination centre*, revoking SAR.7/Circ.16, and invited MSC to endorse this action.

Use of LRIT by SAR services

NCSR 13 considered the use of LRIT for search and rescue (SAR) services and, while recognizing that LRIT should complement rather than replace other ship tracking systems, encouraged SOLAS Contracting Governments to ensure that their SAR services made full and effective use of LRIT through maintaining RCC access, training SAR operators, and integrating LRIT into SAR procedures. NCSR 13 tasked the IMO/ICAO Joint Working Group (JWG) to further develop guidance on the use of LRIT and other ship tracking systems for SAR..

Emergency Position-Indicating Radio Beacon

NCSR 13 developed draft amendments to resolution MSC.471(101) on *Performance standards for float-free Emergency Position-Indicating Radio Beacons (EPIRBs) operating on 406 MHz*, to introduce the Galileo Return Link Service two-way communication capability as an optional feature for Emergency Position-Indicating Radio Beacons (EPIRBs). NCSR 13 agreed that operational guidance for the use of two-way communication EPIRBs should be further developed through the Joint IMO/ICAO Working Group (JWG) and invited interested Member States and international organizations to submit information accordingly. NCSR 13 also agreed that human element and training issues should be addressed separately from the equipment performance standards and invited the Maritime Safety Committee to inform the Sub-Committee on Human Element, Training and Watchkeeping (HTW), as appropriate.

IP based connectivity of S-100 ECDIS

The revised IMO Performance Standards introduce the next technical generation of ECDIS based on the S-100 framework. Compared with the current S-57 ENC-based environment, S-100-enabled ECDIS can integrate, process and display a wider range of standardised navigational information and support additional functions, including:

- S-101 – Electronic Navigational Charts
- S-102 – Bathymetric Surface
- S-104 – Water Level Information for Surface Navigation
- S-111 – Surface Currents

- S-124 – Navigational Warnings
- S-125 – Marine Aids to Navigation
- S-129 – Under Keel Clearance Management
- S-421 – Route Plan, supporting the standardised exchange, sending and receipt of selected and alternative route plans with shore-based Maritime Service providers
- S-411 to S-414 – Dynamic ice, marine weather warnings, and marine weather and wave information

The transition to S-100 capable ECDIS commenced on 1 January 2026, with mandatory carriage expected from 1 January 2029 for applicable new installations by resolution MSC.530(106)/Rev.1. To support these services, IMO is developing a secure global framework for IP-based connectivity between shore-based facilities and ships for the standardized distribution and exchange of S-100 data products.

On 19 December 2025, Liberia issued Marine Advisory 43/2025 advising shipowners not to install equipment marketed as "S-100 compatible", "S-100 ready" or "S-100 ECDIS" until the relevant IEC test standards had been finalized and type approval completed. The Advisory noted that, despite the implementation timeline established by resolution MSC.530(106)/Rev.1, no fully compliant and type-approved S-100 ECDIS equipment was yet available.

Draft MSC circular on IP-based connectivity framework for S-100 capable ECDIS

NCSR 13 developed the draft MSC circular on *Guidance to establish a framework for data distribution and global IP-based connectivity for shore-based facilities and ships supporting ECDIS S-100 products*, for approval by MSC 112.

The guidance establishes a goal-based framework for the secure distribution and exchange of S-100 data products between shore-based facilities and ships using IP-based communications. It adopts a technology-neutral approach, while recognizing the Secure Communication between Ship and Shore (SECOM) and the Maritime Connectivity Platform (MCP) as the current reference technologies for secure communications, identity management and service discovery. The guidance also clarifies that S-100 information remains supplementary to GMDSS.

Draft MSC circular on operational guidance for digital route exchange

NCSR 13 developed the draft MSC circular on *Operational guidance for digital route exchange* for approval by MSC 112.

The guidance provides operational guidance for the voluntary exchange of digital route plans between ships and shore using S-421 (Route Plan), including roles and responsibilities of participating parties, operational procedures and good practices.

Implementation of S-100 capable ECDIS

NCSR 13, while completing the work under this output, acknowledged that the principal challenge now lies in implementing the S-100 concept, particularly ship-shore data connectivity ("last mile" issues). To support practical implementation, it emphasized the need for end-to-end testing and operational trials of the IP-based connectivity framework, encouraged Member States to participate and share the results, supported capacity-building activities, and recognized that consequential amendments to existing IMO instruments may be required.

Performance Standards for Augmentation Systems

NCSR 12, held in 2025, agreed that augmentation systems are not part of the Worldwide Radionavigation System (WWRNS) for IMO recognition, as they enhance, rather than constitute, radionavigation systems. Consequently, MSC 111 adopted amendments to resolution A.1046(27) introducing procedures and operational considerations for the voluntary use of augmentation systems, without requiring their recognition as WWRNS components.

NCSR 13 further progressed the development of performance standards for Dual Frequency Multi-Constellation Satellite-Based Augmentation Systems (DFMC SBAS) and Advanced Receiver Autonomous Integrity Monitoring (ARAIM) in shipborne radionavigation receivers by agreeing on key definitions, high-level functional requirements and goal-based design principles, for further consideration by the correspondence group.

Transition scheme for digital VHF voice communication

Draft MSC Circular on the transition scheme for the introduction of digital technology for VHF voice communications

NCSR 13 prepared a draft MSC circular on *the transition scheme for the introduction of digital technology for Very High Frequency (VHF) voice communications*, confirming that key analogue GMDSS distress and safety channels would be retained, additional digital VHF channels would be identified within the existing maritime mobile frequency band, and implementation should minimize the financial burden on ships and shore authorities. NCSR 13 also agreed that the output had been completed, while recognizing that further work would be required in conjunction with future ITU developments, including WRC-27 and WRC-31, and approved a draft liaison statement to ITU-R Working Party 5B.

Performance standards for gyrocompass

NCSR 13 considered the report of the Correspondence Group on the revision of the Performance Standards for Gyro-Compasses (resolution A.424(XI)) and the Guidance for Navigation and Communication Equipment Intended for Use on Ships Operating in Polar Waters (MSC.1/Circ.1612). NCSR 13 considered whether the identified gaps relating to fiber optic gyro-compasses should be addressed by revising the existing performance standards or by developing separate performance standards. NCSR 13 subsequently agreed that resolution A.424(XI) should remain as the technology-neutral minimum performance standard and that the preferred approach was to develop a separate set of performance standards for newer gyro-compass technologies. Accordingly, NCSR 13 invited interested Member States to submit a proposal for a new output to the Maritime Safety Committee.

Development of Performance Standards for Ranging Mode (R-mode)

Ranging Mode (R-mode) is a terrestrial radionavigation system that provides Positioning, Navigation and Timing (PNT) information by calculating ranges from fixed shore-based broadcast stations. It is intended to provide a resilient backup or complementary service to Global Navigation Satellite Systems (GNSS), particularly in the event of jamming or spoofing.

NCSR 13 commenced the development of performance standards for shipborne Ranging Mode (R-mode) radionavigation receivers, together with consideration of possible amendments to resolution A.1046(27). NCSR 13 discussed the role of R-mode within the World-wide Radionavigation System (WWRNS), agreeing that it should be regarded as a voluntary backup system supplementary to Global Navigation Satellite Systems (GNSS), rather than an independent radionavigation system, and that formal recognition by IMO was not necessary. NCSR 13 also emphasized the need to maintain technology neutrality and to ensure that any future performance standards appropriately reflect the technical capabilities of R-mode.

NCSR 13 developed the draft performance standards for shipborne Ranging Mode (R-mode) receiver equipment, with a view to adoption by MSC 112. However, NCSR 13 agreed that amendments to resolution A.1046(27), as amended, concerning the World-wide Radionavigation System (WWRNS) would be premature at this stage and invited interested Member States to submit proposals for a new output to further consider the integration of R-mode and other terrestrial radionavigation systems into the WWRNS framework.

Unified Interpretation

NCSR 13 considered the interpretation of the SOLAS compass carriage requirements following a highlighting differing interpretation among SOLAS Contracting Governments as to whether ships of 500 gross tonnage and upwards are required to carry two or three compasses. Following consideration, NCSR 13 concluded that neither a new unified interpretation nor amendments to MSC.1/Circ.1224 were necessary, while recognizing that different practices currently exist among flag Administrations, with some requiring three compasses and others permitting two through equivalencies.

Any other business

Voyage Data Recorders

NCSR 13 considered information arising from the MV Dali casualty, identifying potential improvements to the performance standards for Voyage Data Recorders (VDRs) (resolution MSC.333(90)). Recognizing the need for further assessment, NCSR 13 invited interested Member States and international organizations to consider submitting a proposal for a new output to the Maritime Safety Committee.

Further information

For further information please contact: imo@liscr.com

Annex

Provisional list of draft resolutions and circulars

- Draft amendments to Routeing measures
 - Off Delaware Bay;
 - Off New York;
 - In the approaches to the Cape Fear River; and
 - In the approaches to Chesapeake Bay
- Draft amendments to mandatory ship reporting systems
 - In the Dover Strait/Pas De Calais (CALDOVREP)
 - In the Western European Particularly Sensitive Sea Area (WETREP)
 - In the Strait of Bonifacio (BONIFREP)
- Draft revision to MSC.1/Circ.1659 on Guidance for the dissemination of search and rescue related information through the international enhanced group call service
- Revision to SAR.7/Circ.17 on the List of documents and publications which should be held by a maritime or joint rescue coordination centre
- Draft revision to MSC.471(101) on Performance standards for float-free Emergency Position-Indicating Radio Beacons (EPIRBs) operating on 406 MHz
- Draft MSC circular on Guidance to establish a framework for data distribution and global IP-based connectivity for shore-based facilities and ships supporting ECDIS S-100 products
- Draft MSC circular on Operational guidance for digital route exchange
- Draft MSC circular on the transition scheme for the introduction of digital technology for Very High Frequency (VHF) voice communications