

IMO SUB-COMMITTEE ON NAVIGATION, COMMUNICATIONS AND SEARCH AND RESCUE, 9TH SESSION 21 – 30 JUNE 2022

The IMO Sub-Committee on Navigation, Communications and Search and Rescue held its 9th Session, remotely, from Monday 21 through Friday 30 June 2022 under the chairmanship of Mr Nigel Clifford (New Zealand), assisted by Vice-Chair, Mr Alexander Schwarz (Germany), both of whom were re-elected for 2023. The meeting was attended by representatives from Member States, Associate Members, Intergovernmental organisations and Non-Governmental organisations. The virtual meeting was conducted in a different format than those hitherto in order to maximise the many technical skills available. Thus, the first three sessions were spent in Plenary discussing all agenda items followed by a further four working sessions for the various Expert and Working Groups to convene, culminating in a final Plenary session examining recommendations and finally, approve the Sub-Committee's report of the meeting. The specialists comprised one Expert Group (EG) and three Working Groups (WGs) which were formed and chaired as follows:

EG1: Ships' Routing, Mr G. Detweiler (United States).

WG1: Communications, Mr A. Schwarz (Germany).

WG2: Navigation, Mr J. Brouwers (Netherlands).

WG3: Search and Rescue and other technical matters, Mr S. Shepherd (Australia)

ADDRESS BY THE IMO SECRETARY-GENERAL. Welcoming delegates to the meeting, the Secretary-General spoke of the sorrow and hardship brought to the world by the pandemic, although it had reminded all mankind how crucial seafarers and shipping are for the continuity of the global supply chain. In this respect, NCSR's work is essential for the safe movement of such trade, making it not only more secure, but also more environmentally friendly than ever.

Mr Lim took the opportunity to say a few words about this year's World Maritime Day, "New technologies for greener shipping" following which he described another important day in the calendar, that of 25 June celebrating the "Day of the Seafarer", coinciding with the current NCSR session; this year's campaign continues to encourage Governments to support seafarers amid the pandemic, calling for a fair future for seafarers. To date, the campaign has reached a staggering 51 million people on social media platforms.

Highlighting some key issues on the meeting agenda, he congratulated the Sub-Committee for its active role in the adoption of amendments to the SOLAS Convention with regard to modernisation of the GMDSS. Although this part of the work is complete, there are still some matters to consider including the technical and operational assessment of the BeiDou Message Service System,

a revision of the Assembly resolution concerning criteria for the provision of mobile satellite communication services in the GMDSS, and the dissemination of information through multiple recognised services.

The first ever amendments to the Polar Code, together with associated amendments to SOLAS, incorporating new requirements for non-SOLAS ships concerning the safety of navigation and voyage planning are expected to be finalised.

Another important agenda item is the revision of the Assembly resolution concerning Guidelines on places for ships in need of assistance, thus providing an even clearer framework to deal with ships in need of assistance and seeking a place of refuge and which can be applied in a consistent and harmonised manner globally. Whilst emphasising the importance of this and other preventative measures before accidents happen, search and rescue is the last safeguard to ensure that lives are not lost at sea, achieved by the efficient provision of maritime SAR services and clear SAR procedures for ships needing assistance.

The upcoming ITU World Radio Conference 2023 will have a direct impact on maritime radiocommunications and in this regard, NCSR is expected to finalise the draft IMO position on relevant agenda items of the Conference, in order to protect the existing maritime radio spectrum and support new communication and navigation systems in the maritime service.

He highlighted a few of the many important issues to be dealt with during this session as follows:

- Proposed ships' routing measures;
- Navigational equipment issues, including ECDIS and electronic inclinometers;
- Consideration of descriptions of Maritime Services in the context of e-navigation; and,
- Revision of the NAVTEX Manual.

Finally, he wished all delegates every success in their deliberations.

DECISIONS OF OTHER IMO BODIES.

Unlawful practices associated with fraudulent registration and registries of ships.

The Sub-Committee noted that LEG 109 had invited MSC 105 to consider whether to investigate the manner in which ships without proper registration were able to obtain Maritime Mobile Service Identity (MMSI) numbers, in particular to manipulate Automatic Information System (AIS) data transmissions. Taking into account the technical nature of the issue, NCSR was instructed to consider and advise the Committee. Noting that MSC 105 was held after the deadline for submission of documents to NCSR 9, the matter was referred to WG1 for preliminary consideration. INTERTANKO highlighted the urgent need for work on the issuance of MMSI numbers to fraudulently registered ships.

In pursuance of this objective, the Working Group on Communications was established with terms of reference instructing it to consider the matter concerning ships with no proper registration obtaining MMSI and an ability to manipulate AIS data transmissions.

Following due consideration, the Group noted the following views:

- Some ships were deliberately using fraudulent MMSIs to handle cargoes from sanctioned countries;
- Those ships change their MMSI entry in their AIS equipment very frequently, making it difficult to detect them; and,
- Port and flag State inspections, active coordination among various ship databases (e.g. ITU's MARS database) and the information provided by the LRIT system could help to identify cases of fraudulent use of MMSI.

The Group noted also the view that an SN or MSC Circular could be prepared to raise awareness on this matter and to identify the step-by-step measures that could help to address these kind of unlawful practices.

It occurs to the author that someone needs to really grip this matter otherwise it will continue to fall between many stools.

Ongoing military conflict between the Russian Federation and Ukraine and its effect on international shipping and seafarers.

The Sub-Committee considered document NCSR 9/2/2 (Ukraine), late in submission but legally so under IMO Rules) proposing consideration of SAR-related measures concerning, in particular, SAR operations during times of war, seizure of SAR vessels in war Zone areas, the need to introduce a verification system of SAR regions established by Member States, recommending the establishment of a correspondence group to develop concrete proposals for MSC 106. Ukraine also made a statement pointing out other issues, such as interference with global navigational systems, misuse of NAVTEX transmissions, capture and detention of crew of SAR vessels and seizure of a SAR sub-centre and NAVTEX coastal station.

A total of 25 delegations made statements supporting consideration of the matters raised in Ukraine's submission. However, for procedural reasons, it was decided that the MSC should consider the matter and Ukraine was invited to provide further information on concrete situations affecting SAR operations in the area.

The delegation of the Russian Federation made a statement commenting on Ukraine's document and other matters raised during Plenary discussion, and, in particular that:

- The accusations were not supported by any facts from the Ukrainian side;
- The wording and definitions used in the document, in particular references to conventions that were entirely beyond the mandate of the Sub-Committee and the Organisation as a whole, as well as the misuse of terms such as "piracy" and "terrorism", were of concern; and,
- The introduction of any further stringent requirements into the reliable mechanism well established by the SAR Convention could have undesirable consequences and undermine the entire system of ensuring the safety of navigation and search and rescue.

Commenting on the intervention by the Russian Federation, the Ukraine delegation indicated that in, particular, through many circular letters, clear evidence of the Russian Federation's actions had indeed been provided.

Having noted the comments on procedural aspects regarding the submission of document NCSR 9/2/2, but also the strong support for consideration of the matters raised by Ukraine, in particular concerning search and rescue, the Sub-Committee requested MSC to note the document and associated support from delegations to address these matters, as well as the intention of Ukraine to work with interested parties on a submission to MSC 106.

ROUTEING MEASURES AND MANDATORY SHIP REPORTING SYSTEMS.

General. NCSR 8 requested MSC to endorse holding a meeting of the Experts Group on Ships' Routeing in advance of NCSR 9, which was duly approved and took place from 13 to 17 June 2022.

Following discussion of the findings of the Experts Group on Ships' Routeing and the preliminary assessment of proposals on ships' routeing and reporting systems, the Sub-Committee established the Working Group on Navigation (WG 2) and having considered the relevant part of WG 2's report, took action as follows:

"Noted the Experts' Group consideration on documents NCSR 9/3/1 (Brazil), NCSR 9/3/7 (UK) and NCSR 9/3/8 (UK), and that, in particular, the Group could not conclude on any of their proposals due mainly to time constraints but concurred with the Experts Group on Ships' Routeing on the three proposals."

With regard to the Actions requested of the Sub-Committee by EG 1, here follows the briefest of summaries as to the geographic areas affected, although full details are available should they be required: The Sub-Committee noted:

- Traffic separation schemes in the "Approaches to Chomomorsk, Odessa and Pivdennyli ports;
- Draft recommended route "Off the coast of Shio-no-Misaki" (Japan);
- Draft amendments to the existing areas to be avoided "Off the California coast";
- A no anchoring area "in the southern portion of Pulley Ridge" (United States);
- No need for rectification to the Ushant TSS as regards new French nautical charts;
- Approved the draft recommendation on navigation for containerships in TSSs *Off Vrieland, Terschelling-German Bight, Off Friesland and German Bight western approach*;
- Noted the discussion on the considerations of workload on ships' routeing and ship reporting systems, challenges of remote meetings, environment protection and involvement of MEPC, etc. In particular, the possibility of continuing to hold an intersessional meeting of experts six months before NCSR; and,
- Invited 25 named Contracting Governments to review their respective mandatory reporting systems and report the outcome to a near future session of the Sub-Committee.

UPDATES TO THE LRIT SYSTEM.

Developments on LRIT since NCSR 7. The Sub-Committee noted the information in document NCSR 9/4 (Secretariat) related to system developments as follows:

- The incidents that affected the operation of the LRIT Data Distribution Plan (DDP) server and the Information Distribution Facility (IDF);
- The disaster recovery exercises conducted according to the requirements set out in the *Continuity of service plan for the LRIT system*;
- The testing, establishment and operation of LRIT Data Centres (DCs)
- Implementation of the third modification testing phase and the renewal of the Public Key Infrastructure (PKI) certificates in both the production and testing environments of the LRIT system; and,
- Access to IDF granted to the United Kingdom Maritime Trade Operations (UKMTO), in accordance with resolution MSC.298(87), as amended.

Status of the international LRIT Data Exchange (IDE) and its disaster recovery site.

The European Commission provided information on the status of the IDE whilst the United States provided a description of the steps being taken with the IDE disaster recovery site with further information to follow on the result of the investigation to NCSR 10.

Report of the LRIT Operational governance body. Document NCSR 9/4/1 (Secretariat) provided a report of the LRIT Operational governance body on matters related to the role of the IDE Business continuity facility, connectivity issues with the IDE disaster recovery site, validation of PKI certificates and removal of functionality from the system for remote reprogramming of the LRIT shipborne equipment. The document was sent to WG1 as also was NCSR 9/4/2 (IMSO) on the audits of DCs and IDE concluded between 13 November 2019 and 31 December 2021 for consideration. A further document NCSR 9/4/3, again by IMSO, was also referred to WG 1 on the overall performance of the system over the above dates, including recommendations to improve the efficiency, effectiveness and security of the system, for consideration and advice, as appropriate.

Scale of charges to be levied by the LRIT Coordinator during 2022. The Sub-Committee noted the information in document NCSR 9/INF.4 (IMSO) on the scale of charges to be levied by the LRIT Coordinator during 2022.

WG 1 report on this item. In considering the “Actions Requested” by WG1, the Sub-Committee took action, summarised as follows:

- Noted consideration by the Group concerning unlawful practices used by ships, in particular, to manipulate AIS data transmissions
- Agreed draft amendments to the Revised Performance standards for the long-range identification of ships; agreed LRIT-Technical documentation; agreed Guidance on the survey and certification of compliance of ships with the requirement to transmit LRIT information; and, continuity of service plan for the LRIT system.

- Invited the LRIT Operational governance body (OGB) to continue monitoring the connectivity issues with the IDE disaster recovery site including the development of new measures and new connectivity tests to be conducted in due course.
- Endorsed the view of the Group that interested DCs could continue to implement the so-called option A on a voluntary and permanent basis and that the related draft amendments prepared by the OGB could be revisited at a future session, once there is an indication from a substantial number of DCs willing to utilise this option; and,
- Noted considerations of the Group concerning audit and performance of the LRIT system and agreed to the recommended actions as follows:
 - Urged all auditees, particularly Dominica NDC and the Yemen NDC to fulfil their financial obligations;
 - Noted new anniversary dates for Gabon, Mongolia, Qatar and Venezuela NDPs;
 - Urged all SOLAS Contracting Governments to keep their contact details in the LRIT Data Distribution Plan (DDP) suitably updated;
 - Invite all SOLAS CGs to ensure that their polygons in the DDP are technically valid and compliant with the constraints set out in MSC.1 1259/Rev.8, annex 4;
 - Encouraged SOLAS Contracting Governments to upload their polygons (i.e. internal waters, territorial seas or 1,000 nm) to the LRIT DDP module of GISIS;
 - Noted the information regarding the major non-conformity notes issued to the Democratic Peoples Republic of Korea (DPRK) and Morocco NDCs;
 - Noted that the Morocco NDC has completed the 2021 Audit;
 - Noted IMSOs conclusion that the overall performance of the LRIT system has been found successful during the current reporting period; and,
- LRIT Coordinators were invited to feed-back their experiences to IMSO at Irit@imso.org or by any other means.

SAFETY MEASURES FOR NON-SOLAS SHIPS OPERATING IN POLAR WATERS.

The Sub-Committee considered document NCSR 9/6 (Norway) containing the report of the Correspondence Group on Safety Measures for Non-SOLAS Operating in Polar Waters, presenting draft amendments to SOLAS chapter XIV and parts I-A and 1-B concerning safety of navigation and voyage planning, applicable to: fishing vessels of 24 metres of length overall and above, pleasure yachts of 300 gross tonnage and upwards not engaged in trade, and cargo ships of 300 gross tonnage and upwards but below 500 gross tonnage. Following discussion and consideration by WG 2, the Sub-Committee took action as follows:

- Agreed the draft amendments to SOLAS chapter XIV and the Polar Code parts I-A and I-B, and invited MSC to approve them for subsequent adoption with a view to entry into force on 1 January 2026;
- Endorsed the check monitoring sheet for the process of amendments to SOLAS chapter XIV and the Polar Code, for forwarding to the Committee; and
- Agreed with the view of the Group that the certificate showing compliance with the newly introduced requirements of the Polar Code part I-A, chapters 9-1 and 11 should be left to the discretion of the flag Administration.

CONSIDERATION OF DESCRIPTIONS OF MARITIME SERVICES IN THE CONTEXT OF E-NAVIGATION.

Having recalled the decisions taken regarding consideration of documents by correspondence, the Sub-Committee took action as outlined below.

Maritime Services in the context of the IMO Compendium and the Just-In-Time (JIT) concept. The Sub-Committee noted the information in document NCSR 9/7 (Secretariat) on aspects concerning Maritime services and the need to keep the FAL Committee informed of any relevant developments in connection with the IMO Compendium. Note was also taken of the information in document NCSR 9/7/1 (ISO) on the development of a new international standard to support implementation of the JIT concept by ISO TC8 (Traffic Organisation service) into a new Maritime Service description for vessel traffic service (VTS) in accordance with the revised Guidelines for VTSs (resolution A.1158(32)), and the development of a new Maritime Service description for aids to navigation.

REVISION OF THE GUIDELINES ON PLACES OF REFUGE FOR SHIPS IN NEED OF ASSISTANCE (RESOLUTION A.949(23)).

It was recalled that NCSR 8 re-established a Correspondence Group (CG) on the guidelines under the coordination of the United Kingdom. Two documents were submitted and discussed, the CG Report and a commenting document by Argentina proposing some modifications to resolution A.949(23) prepared by the CG.

During discussion, many issues were raised, including the rights of coastal States, application of the guidelines in different regions of the world and their specific circumstances, the situation of ships without insurance, the pre-eminence of international law of the sea, protection and preservation of the marine environment, conduct of risk assessments and the use of maritime RCCs and SAR regions in the context of a non-distress situation.

Both documents were referred to WG 2 with a view to finalising the draft revision of the resolution at this session. The focus should mainly be on technical issues, noting that the draft revision, as a whole, would require concurrent approval by MSC, MEPC, and the LEG Committee.

Report of the Working Group. The delegation of Argentina, reiterated views already expressed in plenary of the need to take due consideration of each circumstance of the case, among other matters, on:

- Recognition of the main purpose which should include preservation of the marine environment;
- A specific reference to part V of UNCLOS on EEZ should be added;
- The clause on duty of the coastal States over financial security should be deleted: and,
- Express recognition that regional cooperation or coordination is subject to regional circumstances.

With the intention of addressing these and other concerns expressed, the Group reviewed the draft text paragraph by paragraph, culminating in finalisation of the draft revised Guidelines on places of refuge for ships in need of assistance. The Sub-Committee agreed the draft and invited the Committee to approve it whilst also noting that there are no identified aspects that might be referred to other committees for detailed consideration.

DEVELOPMENT OF REVISIONS AND AMENDMENTS TO EXISTING INSTRUMENTS RELATING TO THE AMENDMENTS TO THE 1974 SOLAS CONVENTION FOR MODERNISATION OF THE GMDSS.

It was recalled that NCSR 8 had finalised the draft amendments to the 1974 SOLAS Convention whilst noting that consequential amendments to other existing instruments was required. However, due to time constraints, the revisions of COMSAR/Circ.32 and CONSAR/Circ.33 had not been considered and the task had been given to the Joint IMO/ITU Experts Group on Maritime Radiocommunication Matters (EG 17) to consider the draft revisions to these circulars, advising NCSR 9 as appropriate. Following consideration of two Secretariat documents, the Sub-Committee approved *COMSAR/Circ.33Rev.1 on GMDSS Coast Station Operator's Certificate (CSOC) syllabus*, whilst following a proposal for further modifications, COMSAR/Circ.32 was sent to WG 1 for review and finalisation.

Draft MSC circulars. The Sub-Committee agreed to the following draft MSC circulars on:

- GMDSS operating guidance for ships in distress situations, superceding COM/Circ.108;
- Procedure for responding to DSC distress alerts by ships, superceding COMSAR/Circ.25;
- Guidance on distress alerts, superceding COMSAR/Circ.45; and
- Guidance on alerting of search and rescue authorities, for dissemination as MSC.1/Circ.892/Rev.1.

with a view to approval by MSC 106 and in this regard, instructions issued to the ICAO/IMO WG on Harmonisation of Aeronautical and Maritime SAR.

Report of the Working Group. Having considered the relevant part of WG 1's report, the Sub-Committee:

- Approved COMSAR/Circ.32/Rev.1 on *Harmonisation of GMDSS requirements for radio installations on board SOLAS ships*; and,
- Revoked COMSAR circulars 16, 17, 110, 117 as from the date of entry into force (i.e. 1 January 2024) of the SOLAS amendments adopted by the resolution concerning the modernisation of the GMDSS, and invited the MSC to endorse the action taken.

DEVELOPMENTS IN GMDSS SERVICES, INCLUDING GUIDELINES ON MARITIME SAFETY INFORMATION.

It was recalled that MSC 103 had established a Correspondence Group (CG) on Dissemination of MSI and SAR-related information, to consider the mandatory use of recognised mobile satellite services and explore options to address cost implications for MSI and SAR information providers. MSC 105 considered the CG report and concluded that the dissemination of MSI and SAR-related information was an integral service of the GMDSS and critical to preserving the safety of life at sea and, therefore, once a mobile service is recognised by the Organisation (IMO), it must then be used by all information providers covering its service area. This did not call for immediate implementation but would be progressed simultaneously with the consideration of technical solutions, interoperability issues, cost implications and any necessary amendments to SOLAS and other instruments, as appropriate.

As a result of these considerations, MSC 105 instructed NCSR to;

- Continue considering technical solutions for the dissemination and reception of MSI and SAR-related information over multiple services, including interoperability and broadcast monitoring, in order to better address the operational and financial burden of disseminating the information to ships;
- Consider any necessary amendments to existing MSI-related instruments (including SOLAS) in order to better clarify the understanding of information dissemination through all recognised mobile satellite services;
- Start revising resolution A.707(17) to take into account current recognised mobile satellite services, whilst anticipating the recognition of services by further providers; and,
- Further consider the cost options, identify advantages and disadvantages, and advise the Committee, as appropriate.

In addition, MSC 105 referred forward for technical discussion at NCSR 9, a document by China (MSC 105/12/3) proposing a possible way ahead to broadcast MSI and SAR-related information through all recognised mobile satellite services and to address cost implications for MSI and SAR information providers, including interconnectivity issues.

Report of the IMO Enhanced Group Call (EGC) Coordinating Panel. The Sub-Committee referred document NCSR 9/10/6 (Chair of the IMO EGC Coordinating Panel) reporting on the outcome of the Panel's deliberations, to the Working Group on Search and Rescue and other Technical Matters (WG 3) for consideration and advice, as appropriate. Document NCSR 9/10 (Secretariat) was also forwarded to WG 3, containing draft guidance for the dissemination of SAR-related information through the EGC service and proposed modifications to the GMDSS Master Plan and the Global SAR Plan modules of GISIS, again seeking advice, as appropriate.

World-Wide Navigational Warning Service (WWNWS). The information in document NCSR 9/10/7 (IHO) concerning the outcomes of the thirteenth session of the IHO World-Wide Navigational Warning Service Sub-Committee (WWNWS-SC) held remotely in September 2021 was noted.

Report of the ICAO/IMO Joint Working Group (JWG). The Sub-Committee noted the information in document NCSR 9/13 (Secretariat) concerning the establishment, within the JWG, of an ad hoc email group, under the coordination of the United States, to consider possible amendments to the IAMSAR Manual related to the broadcast of SAR-related information through the international EGC service, due to report to JWG 29. In addition, WG 3 was instructed to consider the possible inclusion of SAR-related information as part of the application programming interface (API) standard developed by IHO for MSI dissemination, and to advise the Sub-Committee, as appropriate.

Recognition of the BeiDou Message Service System (BDMSS) for use in GMDSS. It was recalled that NCSR 7 had invited IMSO to conduct the technical and operational assessment of the BDMSS. Document NCSR 9/10/2, duly tabled by IMSO, provided the said report together with a commenting document by China (NCSR 9/10/10) inviting the Sub-Committee to consider alternative actions to progress the recognition of BDMSS. During subsequent discussion, the majority that took the floor supported the outcome of the IMSO report, subject to further on-site verification of the remotely demonstrated functionalities. However, some delegations expressed concerns regarding other outstanding matters such as, frequency coordination issues within ITU with respect to the frequencies used by BMDSS, the implementation of a secondary site, type approval of terminals and the development of an MSI Manual for BMDSS. Other concerns included cost implications for MSI dissemination for information providers, interoperability issues with existing MSS providers and the operational impact for implementation. The delegation of China indicated that the dissemination of MSI over BDMSS would be free of charge until an agreement on the dissemination of MSI and SAR-related information over multiple recognised mobile satellite services was reached and implemented by the Organisation.

Both documents were then sent to WG 3 for further consideration and advice.

BDMSS Technical and Operational Report. Following due consideration of the report on BDMSS by WG 1, the Sub Committee:

- Noted the Group's support to the outcome of the BDMSS assessment conducted by IMSO, including their conclusion that BDMSS could meet the requirements of resolution A.1001(25), noting that further confirmation and verification on-site were still required with respect to the outcome of the remote visit and demonstrations;
- Approved the comprehensive list of outstanding issues identified during the assessment of BDMSS that need to be addressed before CTTIC could be integrated in the GMDSS as a recognised mobile satellite service provider;
- Recommend to MSC 106, the recognition of BDMSS subject to completion of all outstanding technical and operational issues; and,

- Subject to the above, invite IMSO to submit a report on the outcome of the site visit to the BDMSS facilities in China, providing information on the status of each outstanding technical and operational issue.

Annual reports of recognised mobile satellite service providers. In documents NCSR 9/10/3 and 9/10/4, IMSO provided annual reports on Inmarsat and Iridium which demonstrated that both MSS providers had maintained compliance within their contracts. In this regard, MSI providers were urged to consider using the Iridium SafetyCast service and subsequently update the relevant information in the GMDSS Master Plan module of GISIS.

Report of the IMO NAVTEX Coordinating Panel. Document NCSR 9/10/5 (Chair of the IMO NAVTEX Coordinating Panel) provided a summary of the current issues being addressed, and its actions/activities since NCSR 8.

Revision of the NAVTEX Manual. Having recalled the decisions taken under agenda item 1 regarding consideration of documents by correspondence, the Sub-Committee referred the proposed amendments to the revised NAVTEX Manual, as set out in document NCSR 9/10/1 (IHO WWNWS-SC) to WG 3 for review and finalisation.

Status of the Cospas-Sarsat Programme. The Sub-Committee noted the information provided in document NCSR 9/10/8 (Cospas-Sarsat) on the status of its programme and:

- Invited Member States to provide proposals aimed at improving the reliability in communications between MCCs and their supported SAR points of contacts (SPOCS, usually RCCs) both during tests and real distress alerts;
- Encouraged Member States to support the work of the ICAO/IMO JWG in educating SAR authorities on satellite-aided distress tracking;
- Invited Member States to note the changes in the format of the SIT 185 messages providing distress alerts to SAR authorities; and,
- Encouraged Member States to update their information in the GMDSS Master Plan module of GISIS describing the Cospas-Sarsat System and listing EPIRB coding regulations, in particular tab10 (MCCs and LUTs), and 11 (EPIRB Coding Data).

Establishment of the Working Group on Search and Rescue and other Technical Matters (WG3). Blanket terms of Reference covering a number of items (including this one), were issued to WG 3 following which the Group commenced its work. Having considered the relevant part of WG 3's report, the Sub-Committee took action as follows:

- Noted the Group's discussion on the dissemination and reception of MSI and SAR-related information over multiple RMSSs, and endorsed the provisional definitions for interoperability and interconnectivity;
- Noted the consideration on amendments to existing MSI related instruments, in particular, that the SOLAS Convention did not need to be amended;
- Noted the discussion on the revision of resolution A.707(17);
- Noted the options to address cost implications for information providers;
- Noted consideration on the report of the IMO EGC Coordinating Panel;

- Agreed that the available EGC-API developed by IHO is a cost effective and fully integrated solution for the shore-to-ship dissemination of MSI and SAR information;
- Agreed that the already developed and available technical solutions for broadcast monitoring sufficiently supply information providers with multiple options to comply with current monitoring requirements;
- Agreed to set 31 December 2023 as the date for the cessation of rectangular area addressed broadcasts in the Arctic NAVAREA/METAREAs;
- Agreed to set a revocation date for all SafetyNET certificates issued for SAR-related information as of six months from the concurrent decision by the Sub-Committee;
- Agreed that no additional certification should be required for NAVAREA and/or METAREA Coordinators when arrangements are established with SAR authorities for the purpose of broadcasting information other than navigational warnings and meteorological warnings and forecasts;
- Urged MSI and SAR-related information providers to conclude agreements with all RMSS providers serving their NAVAREA, METAREA or SAR region and progress their implementation of the Iridium SafetyCast service;
- Noted the Group's discussion on the dissemination of SAR-related information through the international EGC service;
- Noted the consideration by the Group on the use of the EGC API standard;
- Noted the discussion of the Group on the EPIRB MMSI encoding for craft associated with a parent ship;
- Endorsed the draft revised NAVTEX Manual, together with associated MSC Circular;

REVISION OF THE CRITERIA FOR THE PROVISION OF MOBILE SATELLITE COMMUNICATION SERVICES IN THE GMDSS (RESOLUTION A.1001(25))

Recognising the need for a thorough consideration of the proposals contained in four submitted documents, the Sub-Committee referred each of them to WG 1 for preliminary consideration, with a view to progressing this work intersessionally. Having considered the relevant part of WG 1's report, the Sub-Committee established a correspondence group (CG) on the revision of resolution A.1001(25), coordinated by France, to progress work intersessionally, having approved the CG's terms of reference.

RESPONSE TO MATTERS RELATED TO THE ITU-R STUDY GROUPS AND ITU WORLD RADIOCOMMUNICATION CONFERENCE.

Report of the Joint IMO/ITU Experts Group. Relevant parts of the report on the seventeenth meeting of the Joint IMO/ITU Experts Group held remotely in November 2021 were considered as follows.

Draft IMO position on relevant WRC-23 agenda items. Having noted the progress made by EG 17 on relevant World Radio Conference 2023 (WRC-23) agenda items, the draft IMO position was referred to WG1 for review and finalisation. In connection with the draft IMO position on WRC-23 agenda item 10, two documents were considered, one on

the introduction of digital voice radiotelephony in the maritime mobile band, and the other on digitalisation of voice communications in the VHF maritime mobile band and VDES R-Mode.

Noting general support for the proposals, the documents (NCSR 9/12/6 and NCSR 9/12/9), were referred to WG 1 for consideration and advice.

EMI effects of LED lighting systems and other sources of EMI on board vessels.

Following a short discussion, the Sub-Committee encouraged administrations to advise shipowners, shipbuilders, maintenance technicians, inspectors and others on the potential risk of unintentional RF interference from LED systems and also of the adoption of RTCM Standard 13700.0, which could also prevent RF interference from such systems.

Instructions for WG 1. The Sub-Committee issued additional terms of reference to WG 1 (already formed) concerning the IMO position on relevant WRC-23 agenda items; consideration of the ITU-R Working Party 5B liaison statement; technical issues relating to AIS using time division multiple access in the VHF maritime mobile frequency band; and, preparation of draft terms of reference for the 18th Joint IMO/ITU Experts Group meeting from 5 - 9 December 2022.

Report of WG 1. Having considered the relevant part of WG 1's report, the Sub-Committee:

- Agreed to the final IMO position on relevant WRC-23 agenda items, with the exception of item10;
- Instructed the IMO/ITU AG 18 to develop the IMO position on WRC-23 agenda item10;
- Invited MSC 106 to authorise NCSR 10 to submit the final IMO position on relevant WRC-23 agenda items concerning matters relating to maritime services;
- Approved the draft liaison statements to ITU-R Working Party 5B;
- Noted considerations of the Group with respect to the revision of Recommendation ITU-R M.1371-5 and established a CG on such revision, coordinated by Germany;
- Noted the view of the Group that the coordinators of the CGs established should have the flexibility to convene virtual meetings, as a complement to the usual emails;
- Approved the draft ToRs for IMO/ITU EG 18 on Maritime Radiocommunication Matters and agreed that five days were required for the meeting; and
- Approved the report in general.

DEVELOPMENT OF GLOBAL MARITIME SAR SERVICES, INCLUDING HARMONISATION OF MARITIME AND AERONAUTICAL PROCEDURES.

Report of the ICAO/IMO Joint Working Group (JWG). The Sub-Committee noted the report of JWG 28 on Harmonisation of Aeronautical and Maritime Search and Rescue, held from 6 to 10 September 2021 and took action, as indicated below. The next meeting is planned for 17 – 21 October 2022 at the ICAO Regional Office in Dakar, Senegal, although there is still a degree of uncertainty generated by lingering Covid.

Instructions for WG 3. The Sub-Committee instructed WG 3 to:

- Consider the report of JWG 28 and advise as appropriate;
- Review and finalise the list of documents and publications which should be held by a Maritime or Joint Rescue Coordination Centre; and,
- Consider the draft COMSAR circular on procedure for routing distress alerts and advise the Sub-Committee as appropriate.

Report of WG 3. Having considered the relevant part of WG 3's report, the Sub-Committee:

- Noted WG 3's consideration of the report of the twenty-eighth meeting of the ICAO/IMO JWG;
- Approved the draft SAR circular on the list of documents and publications which should be held by a Maritime or Joint Rescue Coordination Centre, with a view to dissemination as SAR.7/Circ.15; and,
- Approved a draft COMSAR circular on procedure for routing distress alerts, with a view to subsequent endorsement by the Committee.

AMENDMENTS TO THE IAMSAR MANUAL.

The consolidated 2022 edition of the IAMSAR Manual was published earlier in 2022 as an ICAO/IMO publication and this is the second year in the three-year cycle for the preparation of the 2025 edition, which will be finalised by the ICAO/IMO JWG in 2023.

Inclusion of guidance on the Muehr Manoeuvre into the IAMSAR Manual. Document NCSR 9/14 (Germany) on the inclusion of guidance on the Muehr Manoeuvre into the IAMSAR Manual was referred to WG 2 for consideration and advice, and having considered the relevant part of the Group's report, the Sub-Committee noted that the Group did not agree on the inclusion of the proposed manoeuvre into the IAMSAR manual. This decision was driven to an extent, by the inability for the Group to have an in-depth appreciation of the proposed manoeuvre in the absence of trial study results reflecting weather conditions, type of ships used for the trial, size of ships, etc. However, the proponent was invited to consider sharing such experience at a future session as one of the best management practices.

GUIDANCE ON THE TRAINING ON AND OPERATION OF EMERGENCY PERSONAL RADIO DEVICES IN MULTIPLE CASUALTY SITUATIONS.

One document, NCSR 9/15 (United Kingdom) only, was submitted on this item, proposing a draft MSC circular on guidance for the training and operation of emergency personal radio devices in multiple casualty situations, which was duly referred to WG 3. The Sub-Committee agreed the Group's draft MSC circular on guidance for ships carrying large numbers of crew or passengers in the event of a multiple casualty evacuation, with a view to approval by MSC 106.

REVISION OF ECDIS GUIDANCE FOR GOOD PRACTICE (MSC.1/CIRC.1503/REV.1) AND AMENDMENTS TO ECDIS PERFORMANCE STANDARDS (RESOLUTION MSC.232(232))

General. It was recalled that MSC 100 agreed to include in its post-biennial agenda and output, “Revision of ECDIS – *Guidance for good practice*” assigning NCSR as the coordinating organ. NCSR 7, having considered a proposal by IHO concerning amendments to the *Revised Performance standards for Electronic chart display and information systems (ECDIS)* to include references to product specifications S-98, S-100 and S-101, with regard to ECDIS equipment installed on or after 1 January 2024, had invited the Committee to expand the scope of the output to include also amendments to ECDIS performance standards. MSC 102, taking into account the recommendation of NCSR 7, as well as that by IHO, agreed to the expansion and renaming of the output as “Revision of ECDIS – Guidance for good practice and amendments to ECDIS performance standards”. MSC 105 agreed a proposal by Austria et.al. to include in its post-biennial agenda an output on “Amendments to the revised ECDIS performance standards to facilitate a standardised digital exchange of ships’ route plans”. Notwithstanding, the Committee had invited NCSR 9 to consider the scope of the output and report back.

Revision of ECDIS Guidance for good practice. The Sub-Committee had for its consideration, 3 documents and following discussion, all 3 were referred to WG 2 which produced a draft MSC circular on *ECDIS Guidance for good practice*, to be disseminated as MSC.1/Circ.1503/Rev.2, for approval by the Committee.

Amendments to the Performance standards for ECDIS. A further 3 documents were submitted and following discussion, they too were referred to WG 2, resulting in the production of a draft resolution on *Performance Standards for electronic chart display and information systems (ECDIS)*, forwarding it to the Committee for adoption.

Scope of the future amendments to resolution MSC.232(82) to facilitate a standardised digital exchange of ships’ route plans. Noting the above-mentioned instruction from MSC 105, the Sub-Committee referred the matter to WG 2 and agreed with the Group’s recommendation that the scope of the output “Amendments to the revised ECDIS performance standards (resolution MSC.232(82)) to facilitate a standardised digital exchange of ships’ route plans” should only be limited to amendments necessary to facilitate a standardised digital exchange of ships’ route plans and that the work should be based on the new revised standards to be adopted by MSC 106, thus enabling the output to be renamed accordingly.

DEVELOPMENT OF SOLAS AMENDMENTS FOR MANDATORY CARRIAGE OF ELECTRONIC INCLINOMETERS ON CONTAINER SHIPS AND BULK CARRIERS.

The Sub-Committee noted that MSC 105 had considered a recommendation by III 7 to revise the scope of the output agreed by MSC 101 by extending the requirement for the mandatory carriage of electronic inclinometers to all SOLAS ships of more than 3,000 gross tonnage, instructing NCSR 9 to consider the proposal and advise the Committee.

Three documents were tabled for discussion, the majority of those who spoke did not support an expansion as no appropriate justification had been provided for the use of electronic inclinometers in other types of ships, other than for marine casualty investigation purposes.

After consideration, the Sub-Committee agreed to recommend to the Committee that the mandatory carriage of electronic inclinometers should apply to container ships and bulk carriers of 3,000 gross tonnage and upwards, referring the draft amendments to WG 3. Having considered WG 3's findings, the Sub-Committee:

- Noted the Group's consideration on the mandatory carriage of electronic inclinometers on container ships and bulk carriers of 3,000 gross tonnage and upwards and endorsed the relevant draft amendments to the following instruments: 1974 SOLAS Convention; 1978 SOLAS Protocol; and, 1988 SOLAS Protocol, and,
- Endorsed the Group's understanding that the draft requirement for electronic inclinometers should not apply to cargo ships occasionally carrying cargoes in bulk and general cargo ships carting containers on deck, as well as electronic and mechanical back-up systems for inclinometers not being needed, as they are not considered critical for safety of navigation.

UNIFIED INTERPRETATION OF PROVISIONS OF IMO SAFETY, SECURITY, ENVIRONMENT, FACILITATION, LIABILITY AND COMPENSATION-RELATED CONVENTIONS.

Bridge alert management – definition of Category A alerts. During discussion, views were expressed indicating that a unified interpretation (UI) would not be required and, if there is a need to clarify the requirements, this should be done through an amendment to the relevant resolutions or to be treated as a minor correction. For its part, WG 2 did not agree on the UI as proposed by CIRM in document NCSR 9/19.

“The view of the sea surface” in SOLAS regulation V/22. The Sub-Committee considered document NCSR 9/19/1 (IACS) proposing a UI of SOLAS regulation V/22 in respect of “the view of the sea surface”. During discussion, a view was expressed that while there is a certain ambiguity, the matter should be addressed rather as an amendment to the relevant SOLAS regulation and not through a UI. WG 2's view also did not agree with the UI proposed by IACS in NCSR 9/19/1.

VALIDATED MODEL TRAINING COURSES.

The Sub-Committee considered WG 3's report on this item and took action as follows:

- Noted the Group's discussion on updating Model Courses 3.13 on SAR Administration (IAMSAR Manual Volume I) and 3.15 on SAR On-scene Coordinator (IAMSAR Manual Volume III);
- Agreed that the 2022 amendments to IAMSAR Manual be incorporated into draft Model Courses 3.13 and 3.15 for validation by NCSR 10; and,

- Instructed the ICAO/IMO JWG to specify its possible role in reviewing the three SAR model courses associated with the IAMSAR Manual and also provide advice on associated timelines to NCSR 10.

ANY OTHER BUSINESS.

Holistic approach on the human element. The Sub-Committee noted that MSC 105 had invited all relevant bodies to assess their respective involvement in the human element within their remit and report back to the Committee with a view to devising an outline for a holistic approach on the human element, taking into account resources and budgetary implications within the Organisation.

Request from PPR 8. A request was received from PPR 8 for NCSR to review sections 2 (Navigational measures) and 5 (Communications) of the draft guidelines on mitigation measures to reduce risks of use and carriage of heavy oil fuel (HFO) as fuel by ships in Arctic waters, to the Working Group on Navigation (WG 2). Following discussion, the Sub-Committee agreed with the Group's recommendation that PPR should consider limiting the scope of the draft guidelines applicable only to ships using, or carrying for use of, heavy fuel oil (HFO) as fuel, in Arctic waters, which are not currently covered by the Polar Code or other IMO instruments.

Progress on standards development by IEC. The Sub-Committee noted the information in document NCSR 9/23/1 (IEC) on the preparation of standards and other instruments developed by the Organisation.

DATE OF NEXT MEETING.

The next meeting of the Sub-Committee has been tentatively scheduled from Monday, 8 to Wednesday 17 May 2023. Final dates of all next year's meetings are expected to be published shortly after Council meeting C 127 this month.

End

Captain Paddy McKnight