



AG - WORLDWIDE MET-OCEAN INFORMATION AND WARNING SERVICE SUB COMMITTEE (AG-WWMIWS-SUBC) and WORLD-WIDE NAVIGATIONAL WARNING SERVICE SUB-COMMITTEE (WWNWS-SC)

Joint Meeting

Hybrid (Geneva and Online), 12, 13 and 16 Sept. 2022

REPORT OF THE JOINT MEETING OF THE ADVISORY GROUP ON THE WORLDWIDE MET-OCEAN INFORMATION AND WARNING SERVICE (WWMIWS) SUB-COMMITTEE (AG-WWMIWS-SUBC) AND THE WORLD-WIDE NAVIGATIONAL WARNING SERVICE SUB-COMMITTEE (WWNWS)

Geneva, Switzerland

12, 13 and 16 September 2022

EXECUTIVE SUMMARY

The Joint meeting between the World Meteorological Organization (WMO) Advisory Group on the Worldwide Met-Ocean Information and Warning Service (WWMIWS) Sub-Committee (AG-WWMIWS-SubC) and the International Hydrographic Organization (IHO) World-Wide Navigational Warning Service Sub-Committee (WWNWS) was held on 12, 13 and 16 September 2022 at WMO Headquarters, Geneva, Switzerland. This meeting brought together the METAREA and NAVAREA communities with 80 participants, mostly in person. Representatives from the International Maritime Organization (IMO), International Mobile Satellite Organization (IMSO) and Satellite Communication companies attended as well. The joint session was chaired by Ms. Justyna Wodziczko (Vice-Chair AG-WWMIWS-SubC, Norway) and Mr. Christopher Janus (Chair WWNWS, United States).

The key outcomes in this meeting included:

- Improved understanding of roles and responsibilities, particularly towards providing services and assistance to coastal states within their own MET/NAV Area,
- Consideration of the need to have contingency plans and awareness of METAREA and NAVAREA working together in country, and as well, working with neighbouring ones,
- Progress the revision of the *Joint IMO/IHO/WMO Manual on Maritime Safety Information*,
- Focus on emergency response responsibilities (e.g. in response to volcanic hazards) is very welcome especially given the multiple hazards that ships at sea can face on a voyage,
- Identified gaps and need for establishing the framework for the recognition and operational implementation of future services in the Global Maritime Distress and Safety System (GMDSS) for the provision of maritime safety information (MSI).

1 OPENING REMARKS AND ADMINISTRATIVE ARRANGEMENTS

1.1 Opening Remarks and Introductions

The meeting was opened with a warm welcome by the Co-Chairs of the meeting.

1.2 Welcome by the host

The WMO Deputy Secretary-General (DSG) officially welcomed all participants, both physical and remote. She offered condolences on behalf of the WMO to those impacted by the passing of the Queen Elizabeth II, who was Monarch and Head of State to the United Kingdom of Great Britain and Northern Ireland, Australia, Canada, New Zealand, as well as a number of other states, and Head of the Commonwealth Family of Nations. She also noted the importance of maritime safety as a reason for the origin of WMO, linked directly to maritime safety and international meteorological cooperation, which is celebrating its 150th Anniversary in 2023. She also acknowledged that, despite the close working relationship between the WMO and the International Maritime Organization (IMO), meteorological input to shipping safety is not as regulated as the aviation industry, where the WMO and International Civil Aviation Organization (ICAO) work closely together. She encouraged learning from the experience of WMO and ICAO to help strengthen the safety of life at sea.

1.3 Working and Administrative Arrangements

WMO Secretariat outlined administrative and working arrangements, and practical matters for the smooth running of the meeting, in hybrid form at WMO HQ. Several refreshment breaks throughout the week have been generously donated by Members/Member States and individuals.

1.4 Adoption of the Joint Agenda

The Joint Meeting Agenda ([Annex A](#)) was adopted without amendments.

2 UPDATE ON GMDSS ISSUES MATTERS RELATING TO THE GMDSS MASTER PLAN

2.1 Overview and brief on content of GISIS GMDSS Master Plan Annexes 7 & 8

The IMO provided a brief overview of the IMO Global Integrated Shipping Information System (GISIS) GMDSS Master Plan, focusing on Annexes 7 & 8. He noted it was an IMO Member State (MS) decision to consolidate information digitally, and the GISIS was the implementation of this decision. He reminded all on the obligations resulting from signing the International Convention for the Safety of Life at Sea (SOLAS convention) and the obligation to share the information on the structures and systems established to fulfil these obligations, which included keeping the information up to date.

The IMO gave an orientation of the system and demonstrated how participants could enter their details to the various sections. He explained that whilst MS can make updates and changes, this wouldn't be visible until the IMO secretariat validated them. He summarized by noting the decision made at the 9th meeting of the IMO Sub-Committee on Navigation, Communications and Search and Rescue (NCSR) where sections 8.1 and 8.2 will be merged into a single section which consolidates all existing and future recognized satellite systems.

WMO Secretariat noted that it is the obligation of MET and NAV Area Coordinators to check the content and ensure that respective Maritime Administrations make the necessary corrections identified to keep the Master Plan current. It was also noted that, as Coordinators, there is a responsibility to check the entries for coastal states within their Area and remind them to update the information. Malta noted that this is an item in the IMO Member States Audit Scheme (IMSAS).

METAREA I proposed that the IMO could submit a comment paper outlining the process which should be followed. METAREA III supported the need for clarification. IMO indicated that there was no limit to the number of national GISIS account administrators with access,

however editorial rights to the GMDSS Master Plan is more limited. IMO demonstrated the public access to GISIS. [IMO-CL2892](#) was highlighted as the articulation of use and access to GISIS. METAREA VI highlighted the importance of this issue. UK Maritime Coastguard Agency (MCA) suggested that GISIS could include the contact details of the national individuals with access and responsibility to update GISIS.

The Chair WWNWS reflected on the discussion and noted that it is not always obvious who is responsible for this task. He pointed out that therefore it is important to clarify responsibilities, that this also requires collaboration, and MET and NAV Areas need to ensure that the information in GISIS is correct and up to date. He proposed that a list of coastal states, for which GISIS GMDSS Master Plan information is out of date, could be included in the report to NCSR 10, so that administrators will be made aware when they attend. The Chair WWNWS summarized that more coordination is needed.

([Action 1,2](#))

3 PROMULGATION OF MARITIME SAFETY INFORMATION (MSI)

3.1 Relevant IMO meetings

3.1.1-3.1.3 Outcome of the MSC 105, NCSR 9 and Preparation for the IMO/ITU EG 18

The WMO Secretariat provided a short summary report ([slides](#)) covering the outcomes of recent IMO meetings (MSC 105 and NCSR 9) and preparations for the upcoming IMO/International Telecommunication Union (ITU) Expert Group (EG) 18 meeting in December.

The significant outcomes of MSC 105, which are relevant to the MET and NAV Area Coordinators were highlighted:

- Maritime Autonomous Surface Ships (MASS) – non-mandatory goal-based Code to cover cargo ships initially.
- Maritime safety information (MSI) – use of all Recognised Mobile Satellite Services (RMSS) to be mandatory; maritime safety information providers (MSIPs) to explore cost reduction options; if necessary request assistance from IMO Secretariat; participate in relevant NCSR related discussions; agreed to revision of A.707(17); referred MSC 105/12/3 (China) to NCSR; consider timing of adoption of revisions to A.707(17) due to impacts on Public Service Agreement (PSA) with RMSS providers; instructed NCSR 10 to further consider cost options.

The significant outcomes of NCSR 9, which are relevant to the MET and NAV Area Coordinators were highlighted:

- Safety measures for non-SOLAS ships operating in polar waters – agreed to make Polar Code applicable to fishing vessels 24m and above, yachts 300 gross tonnage and above, and cargo ships between 300 and 500 gross tonnage operating in defined area.
- IMO NAVTEX Manual – draft amendments endorsed and referred to MCS 106 for adoption with effective date 1 January 2023.
- BeiDou Message Service System (BDMSS) – support for recognition at MSC 106 subject to satisfactory addressing remaining outstanding items.
- A.1001(25) – Correspondence Group (CG) established to report to NCSR 10 with interim report to IMO/ITU EG 18.

- Maritime Service descriptions – revisions to be submitted to NCSR 10 for consideration.
- A.707(17) and Cost Options – CG established to report to NCSR 10; also to consider technical solutions including interoperability and interconnectivity.
- Enhanced Group Call (EGC) Coordinating Panel – Terms of reference to be amended to reflect mandatory use of all RMSS providers; EGC certificates issued to all MET and NAV Area Coordinators; former SafetyNET certificates to be cancelled; date for cessation of Arctic rectangular areas and transition to area broadcasts to be 31 December 2023.
- EGC Application Programming Interface (API) – to include Search and Rescue (SAR)-related information providers and consider distress communications between RMSS providers and SAR authorities (ship to shore).
- NAVDAT – information document containing draft shipboard equipment performance standard noted and proposal for new output endorsed for submission to MSC 106 to adoption; draft NAVDAT manual to be considered.

In preparation of the IMO/ITU EG 18, it was noted the interim report of the Correspondence Group on A.1001(25) is to be discussed and reflected in final report to NCSR 10.

3.1.4 Relevant Correspondence Groups established at NCSR 9

The Coordinators of the recently established Correspondence Groups (CG), assigned to review A.1001(25), A.707(17), and Cost Options and Technical solutions, provided brief updates on progress achieved and what would be addressed in the coming months, prior to reporting to NCSR 10 in May 2023.

Coordinator of the A.1001(25) CG, Mr. Jean-Charles CORNILLOU (France), introduced himself and encouraged all to engage, and he noted that work had already started.

Coordinator of the A.707(17) CG, Mr. Stuart Shepherd (Australia), provided brief comments on the task to be undertaken and the timeframe prior to submitting the report to NCSR 10.

METAREA I noted that safety information should not be removed from forecasts, however consideration should be given on ways to reduce the length and verbosity of broadcasts to reduce costs.

(Action 3)

3.2 Broadcast Systems and Services

3.2.1 NAVTEX issues (3-2-1)

The IMO NAVTEX Coordinating Panel Chair provided a short report on the NAVTEX related activities. He noted the work on operational aspects and bringing new stations into operation. He highlighted the work being undertaken by the IMO, the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) and the IHO with the development of S-100 based Product Specifications (PS) for the provision safety information. He proposed that the timeline stated in the NAVTEX manual could be reviewed as current communications allow the updating of Electronic Nautical Charts (ENCs) and distribution of Notice to Mariners (NtMs) much more quickly than was possible when NAVTEX was established 40 years ago, which would reduce the amount of repeat broadcasts of older information. METAREA I noted that a review is underway in the UK on the operation of NAVTEX. Baltic Sea Sub-area NAVAREA Ib (NAVAREA Ib) noted that some information is transmitted as 'reported' which does not initiate a chart amendment. NAVAREA IV-XII noted the Electronic Chart Display and Information System (ECDIS) performance standards as revised by NCSR 9. The NAVTEX Coordinating

Panel Chair clarified that some navigational information did not need to be transmitted by NAVTEX as the details would be issued within a few weeks rather than the former 42 days.

3.2.2 *Report of the IMO EGC Coordinating Panel (3-2-2)*

The IMO EGC Coordinating Panel Chair provided a comprehensive presentation report on the activities of the Panel, including details of the report to NCSR 9 and items requested to be addressed by NCSR 8, with details of ongoing activities. METAREA II requested who will monitor that the information broadcast has actually been received by the ship. Inmarsat noted that the requirements are to ensure that the message has been received by the RMSS and correctly broadcast. He noted that it is not possible to ensure correct receipt on board individual ships. He highlighted that it is the RMSS responsibility to ensure the messages are broadcast correctly. The EGC Coordinating Panel Chair noted that the monitoring requirement was to ensure the successful broadcast of messages by the originator. METAREA II noted that NAVTEX has the ability to receive its own broadcasts to confirm correct broadcast. The Chair WWNWS noted that A.1001(25) has the requirement to address the broadcast to the entire METAREA and NAVAREA. Iridium highlighted that its software allowed confirmation of receipt of a message. METAREA I requested clarification on what is required regarding monitoring; the Chair WWNWS noted that information providers should use all appropriate tools available, including software and physical monitoring. Inmarsat noted that there are multiple methods available for monitoring. Malta noted that port State control inspections include checking that messages have been received. NAVAREA I requested that there needs to be clearer guidance on which broadcast monitoring methods are acceptable. The EGC Coordinating Panel Chair noted that technical sections of the individual RMSS manuals includes monitoring methodology.

(Action 4)

3.2.3 *METAREA and NAVAREA roles and responsibilities in response to natural hazards and emergencies for early warnings at sea*

WMO Secretariat provided an introduction presentation ([slides](#)) which included a short video of a mariner speaking about hazards, and was followed by a comprehensive presentation from NAV and MET Areas XIV. The video indicated that maritime customer did not know where to go or from whom certain types of maritime safety information should be available. WMO Secretariat highlighted the roles and responsibilities of MET and NAV Area Coordinators regarding natural hazards, particularly highlighting responsibilities in relation to volcanic eruptions and tsunamis. It was proposed that a review of activities and actions could be undertaken to improve coordination to ensure the maritime community receives the necessary information in a timely manner. NAVAREA XIV provided a presentation ([3-2-3](#)) on volcanic activity and MSI from the perspective of MET and NAV Areas XIV and highlighted hazards to shipping and sources of information, noting the gaps in information provision. METAREA X provided a number of comments from his other position as the Chair of the Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System (ICG/IOTWMS) Working Group on Tsunami Detection, Warning and Dissemination. He explained how the global tsunami warning service functioned and he noted the Tsunami Service Providers are not authorized to issue warnings but to provide advice, and it is a sovereign right to issue the warnings.

The Chair Standing Committee on Marine Meteorological and Oceanographic Services (SC-MMO) agreed that there was a need for both communities to work together and that the clear roles and responsibilities should be followed; he questioned how surface pumice is forecast. NAVAREA XV noted that they use the same template for both volcanic and earthquake warnings. The Chair WWNWS noted there was a need to progress this topic as well as to take into account the S-100 developments. METAREA XI noted that the information they provide is for land areas. WMO Secretariat noted that, due to the highly regulated environment no lives had been lost in aviation, however a significant number of lives have been lost in the marine environment. The Chair WWMIWS proposed establishing a group to progress this work and to

including external experts – ARG, CHL, NZL, USA, AUS, MUS, JPN, PER and GBR volunteered to participate in the group. It was proposed that the group should report to WWNWS15. Subsequently the Chair WWNWS asked whether there was a volunteer to Chair the CG on Volcanic activity. MET and NAV Areas XIV volunteered to take on the lead on the Task Team/Project Team (TT/PT). The Chair WWNWS proposed that the tasks and output should be clarified. The WMO Secretariat proposed that an information paper should be generated for the next WWNWS meeting, which would articulate the roles and responsibilities for natural hazards.

(Action 5)

3.3 Developments in GMDSS

3.3.1 Inmarsat Services update (slides)

Inmarsat gave an update on the Inmarsat SafetyNET and SafetyNET II Services, including a brief on the system and its history. He provided a view of future developments, especially within the L-Band satellite constellation. He explained how FleetSafety integrates with their other systems such as RescueNET. He explained the operation of both services, highlighting the differences. He explained they have 60 rescue centres around the world which are all entered in GISIS. He noted that the requirements in GMDSS have not changed in a number of years and technology has moved on further, offering new capabilities. As a consequence they view the GMDSS as the basic service and then add extra services on top. He went through some of the limitations with the original SafetyNET system and went on to compare this to SafetyNET II and highlighted the improvements and extra functionality such as the API, access via a web interface, pay as you go bundles, enhanced scheduling, no need to contract with multiple LES and established contingency procedures for NAV, MET and SAR. He highlighted the forthcoming cost increases for Inmarsat services from 1 January 2023. Finally, he went through the Inmarsat safety training hub and noted that it is freely accessible to all.

UK MCA highlighted their experience for transitioning to SafetyNET II and the positive results achieved. METAREA I noted the challenges experienced with transitioning, which were recognised by Inmarsat.

The Chair WWNWS requested clarity on the cost increases to SafetyNET II. It was confirmed that it was a unilateral 15% increase, on top of which the Land Earth Station (LES) will add additional increases; however, those that had commenced using SafetyNET II before the end of 2022 would have their costs frozen for the period of the contract agreement.

3.3.2 Iridium Service update (slides)

Iridium provided a presentation on Iridium SafetyCast service, usage by shipping and the implementation progress. He noted that the service had been fully operational since December 2020. He highlighted the operational state across the NAV and MET Area communities. He lamented that the operational state of implementation is not where it needs to be especially for the METAREAs. He stated that it is the view of Iridium that any accident, incident, injury or loss of life is the liability of the MSI provider or the IMO. He noted all the actions taken to assist with implementation and that there was nothing more that Iridium can do. He highlighted the various training resources that are available on their YouTube site

UK MCA noted the intension to commence SafetyCast use later in 2022. The Chair WWMIWS highlighted that it was a matter of safety and should not be political.

The Chair WWNWS noted that the group has a mandate from the IMO to implement all approved systems. He highlighted the final paragraph of the EGC Coordinating Panel report and the proposal to seek alternative arrangements to ensure MSI is broadcast to all areas on all RMSS.

He stated that we should consider developing an implementation schedule for all remaining NAVAREAs and METAREAs that gave clear visibility to progress. It was proposed that this discussion could be an action for the next EGC Coordinating Panel meeting.

3.3.3 *BDMSS technical assessment and recommendations update (slides)*

IMSO provided a presentation on the progress of the technical assessment of BDMSS. He provided brief overview of IMSO and its activities. He then gave details of the BDMSS system including its regional footprint and broadcasting capability, he included the timeline of the process and what items needed to be completed with details of outstanding items that need to be addressed before recognition by the IMO. He highlighted that the IMSO report to MSC 106 recommended recognition, noting that the outstanding items can only be achieved once the system is recognised.

The Chair WWNWS referenced the regional coverage area of the BDMSS and the challenges that this causes. He noted the requirement articulated in A.1001(25) for addressing messages to ships within defined areas, article 4.9.4.. He also noted that IMO is not responsible for the operational implementation of any RMSS, it is the MET and NAV Area Coordinators and he proposed that a submission is made to NCSR to articulate the challenges that operational implementation of the BDMSS and other regional services pose to the MSIPs. He requested clarification on the process to be followed by the IMO when BDMSS expands to be a global system; IMO noted that the MSC will specify the area of operation and that when the area is expanded there will need to be a further recognition process for the new coverage, he noted that the process would be simpler as the technical capability had been demonstrated. It was noted that it would be against the current approved version of A.1001(25) at the time.

NAVAREA XI noted the difference in the coverage area submitted to the IMO and presented to the MET and NAV Area Coordinators meeting. Japan noted that the coverage area in the presentation is different to that in the submission to NCSR 9.

NAVAREA II noted that satellite coverage areas should relate to all GMDSS areas (terrestrial and satellite) and that vessels should have all necessary equipment to receive MSI through the total length of their voyage.

NAVAREA XIX noted that similar challenges were encountered in the establishment of the Arctic areas, however outside this coverage other RMSS provide coverage. He noted that in the future it could be 3 RMSS under the previous A.1001(25) operating together with new ones under the revised version. He also noted that the main challenges will be on the ship operational side rather than the MSIPs, which are simply required to transmit messages.

NAVAREA XIV asked whether the BDMSS satellite footprint covered the entire Areas and the limits were selected or was the true limit as displayed? IMSO indicated that it would discuss with BeiDou and report back. NAVAREA II understood that the beams were focused into the region limits illustrated.

3.3.4 *BeiDou Message Service System (BDMSS) progress update*

China Transport Telecommunication Information Group Co. Ltd (CTTIC), also referred to as Beidou, gave a presentation providing update details on the BDMSS for use in the GMDSS. He provided an overview of the CTTIC operations in the satellite communications environment and how this interfaces with BDMSS. He provided an update on the recognition progress and noted that following NCSR 9 the recommendation for recognition will go to MSC 106. He went through the MSI Broadcast considerations including the SafetyLink Concept and explained the SafetyLink data flow. He went through the various broadcast strategies available including manually assigning prioritization, scheduling and echoing, and gave a demonstration of the BDMSS service platform. He briefly went through the future plan of the service and noted that they have developed an interim SafetyLink manual but is a work in progress. He noted that

the dissemination of MSI over BDMSS will be free of charge until such time as an agreement on the cost issue is resolved.

METAREA I requested clarification on the expansion plans beyond the current proposed coverage area. The answer was yes but no details at this stage as it is at an early stage.

NAVAREA IV-XII requested clarification on access to the gateway and whether there were plans to use the EGC API. NAVAREA Ib questioned whether there would be an issue that the system does not cover entire individual Areas. It was acknowledged as an issue and no solution was provided. The Chair WWNWS asked how users would know the reasons for missed sequential numbered messages.

NAVAREA XIX noted that mariners need to be able to receive MSI for the voyage to be undertaken and it will be really important to make sure the mariner is clear of the coverage area.

NAVAREA I cautioned against splitting areas into sub-areas, also, an operational implementation plan needs to be developed as a matter of urgency. The Chair SC-MMO also cautioned on dividing areas, and consider making the API a mandatory function before recognition.

The Chair WWNWS asked what should be in place before recognition and avoid repeating the mistakes of SafetyCast operational implementation. NAVAREA XIX highlighted that the recognition is against the current version of A.1001(25). CTTIC noted the recognition is under the current A.1001(25) and therefore the API is not mandatory, he confirmed that work would continue to assist the operational implementation process.

The Chair WWNWS noted that there are significant challenges that have been raised and that we need to work as a community to work with BDMSS. He stated the community would do what was required to implement the decisions made by the IMO Member States.

3.3.5 NAVDAT progress update ([slides](#))

NAVDAT (France) provided an in-depth comprehensive presentation on the capabilities and functions of the system. He described how the system transmitted message and graphics in digital format, which was compatible with S-100 formats. He drew comparisons to the limitations of older technologies such as NAVTEX. He discussed a range of elements that would need to be considered within the context of NAVDAT becoming part of the GMDSS. This included the draft NAVDAT manual which broadly followed the format of the existing NAVTEX manual.

METAREA I asked whether new shore-based infrastructure is required. This was confirmed but it will also be able to broadcast NAVTEX so it could form part of a NAVTEX replacement strategy. NAVAREA I proposed a joint Coordinating Panel to oversee both NAVTAX and NAVDAT systems. NAVAREA Ib asked whether there was sufficient bandwidth on transmission of large files in support of S-124 data. It was noted that this was the reason for the 20-minute slots as compared to the current 10-minute slots for NAVTEX.

A question was asked why Member States would invest in another terrestrial system rather than increase use of satellite systems. The answer was that this would provide redundancy in the event of satellite outages.

The Chair WWNWS asked how urgent messages would be prioritised. It was noted that there would need to be coordination between adjacent states. Malta indicated strong support for the introduction of this new system, however he had questions on the capability at the high frequencies and the antenna size.

UK MCA asked what was the recognition process and the overlap use of both systems? IMO noted that only two sessions had been requested of NCSR to complete this work, and the recognition process is expected to start at NCSR 10. He noted that there would be a considerable amount of consequential amendments required. He also noted that there were some concerns on the additional resources that may be required and what changes would be necessary.

METAREA III noted that there was a lack of clarity on the mandate for NAVDAT from IMO Member States and how would the service areas be defined and would the two systems be used in parallel, as indicated at NCSR. The NAVTEX Coordinating Panel Chair indicated his enthusiasm for the introduction of NAVDAT.

4 REVIEW OF GUIDANCE DOCUMENTS AND OTHER RELATED DOCUMENTATION

The Chair WWNWS presented the proposed review and revision cycle for the MSI documents. He introduced the suite of guidance documents and related documentation for which the group is jointly responsible. He indicated that the intent was to spend the majority of time on reviewing the proposed changes to the Joint MSI Manual. He highlighted the placeholders for future guidance documents and noted that IMO resolution MSC.305(87) should be requested for cancellation. He noted that the group should also consider how these docs are reviewed in the future given the amount of duplication that is included across them.

WMO Secretariat noted that the IMO desired all consequential amendments should be submitted at the same time and that it was a preference that duplications should be removed and reference links should be used whenever possible. Failure to do this may result in approval being withheld on a technicality until such consequential changes have been made. It was also proposed that definitions should be consolidated in one document only. It was proposed that it could be considered to combine the SafetyNET and SafetyCast manuals into a single EGC manual, however this required the SafetyCast manual to be published as an 1st Edition.

WMO Secretariat noted that an intervention could be made at MSC 106 to ask NCSR 10 to submit the amended SafetyCast Manual to MSC 107 for approval, as it just needed the removal of the Interim from the title and a proposed in force date.

(Action 6)

Joint IMO/IHO/WMO Manual on MSI

The Chair WWNWS introduced the review of the *Joint MSI manual* and the work that had been undertaken to date. He emphasized that the task ahead was to do a final review of the changes made to date, as opposed to reopening discussions and decisions that have already been had.

IMO noted that submissions made to NCSR 10 will not then be able to be submitted to MSC 107 as there is not enough time. Instead, it will have to go to MSC 108 in 2024. Also, possible that proposals to NCSR 11 can go to MSC 109 both with an in-force date of 1 Jan 2025.

IMSO presented an information paper ([WWNWS14-3-4-1](#)) on specific proposals for inclusion and amendment of the text. With regard to suggested paragraphs 2.8.1 and 2.8.3, the Chair WWNWS noted that these passages are already included IMO resolution MSC.468(101), so their inclusion would be duplicative and therefore against the advice provided by IMO referenced earlier in the discussion.

Decision: Do not add passages 2.8.1 and 2.8.2 to text

The meeting reviewed the Joint IMO/IHO/WMO Manual on MSI. A number of additional amendments were proposed and accepted. All decisions and agreed changes are imbedded in the redline version of the document, which will be collated into a final consolidated version for submission to NCSR 10 for consideration.

At the wrapping-up session after separate review meetings, the Chair WWNWS provided a brief overview of the progress achieved during the separate session review process. This was followed by a brief update from the Chair WWMIWS on the work completed by the AG-WWMIWS-SubC, which involved harmonisation and alignment with WMO technical regulations and guidance documents.

It was agreed that the amendments would be forwarded to the Secretary of the Document Review Working Group (DRWG) for collation, after which a consolidated version of the Joint manual would be provided by mid-November to the Chairs, who would circulate to all MET and NAV Area Coordinators for comments and input for return by mid-December and subsequent submission to NCSR 10 end of January 2023.

5 COORDINATION BETWEEN WWNWS AND WWMIWS

5.1 IMO Member State Audit Scheme (IMSAS)

IMO provided an overview brief on the IMSAS, explaining its objective and overall processes. He detailed the IMO Secretariat role in the process and the background to the processes. The UK MCA provided a brief on their experiences from having recently undergone a remote IMSAS. She detailed the actions that were taken in preparation and cross administration/organisation collaboration as well checking the IMO instruments and their implications. She noted that MSI was covered in an hour session and focused on the areas on which the auditors had advised they would focus. METAREA I provided his views and he proposed the WMO should be involved to ensure the meteorological aspects were adequately covered; he noted that collaboration with the maritime authority and the hydrographic office was vital. NAVAREA I agreed with the need for collaboration and to establish a relationship with the audit team. He noted that in-depth preparation was the key to making the process easier and ensuring the documentation was available. WMO Secretariat noted that neither the WMO nor the IHO received any details on the audit or its results. Thus, if assistance is required either before or after, the details need to be exposed to the Secretariats. Malta noted the pre-question completion would make the process smoother and simpler. WMO Secretariat noted that there was a Capacity Development aspect which needed to be considered on how best to fulfil within the restrictions in place. METAREA XV noted their experience of undertaking a number of audits in the past few years.

(Action 7)

5.2 EGC-API Correspondence Group

The coordinator of the EGC API CG, NAVAREA X, provided a brief update on the progress achieved and new task set by NCSR 9 for expansion to include SAR-related information as part of the API. He noted that discussion included distress alert (ship-to-shore) into the API, which was referred to Inmarsat and Iridium for consideration on feasibility of opening up their systems. He noted that further discussions at NCSR 9 covered interconnectivity and interoperability, which were to be addressed by the re-established CG so that a single API could be developed. He noted the need for technical expertise to support the discussions, he noted the need for a user interface to be developed and he encouraged the national developments and experience should be presented at future meetings. He noted that the revision of A.707(17) as well as the technical items that Australia nationally wishes to see

progressed and therefore, with the support of the RMSS, resources were being made available. It was noted by the Chair WWNWS that those in the previous CG would be included and NAVAREAs VIII and XI volunteered to join. A small amendment to the CG ToRs was approved.

(Action 8)

5.3 Source Maritime Automated Processing System (SMAPS)

NAVAREA IV-XII provided a presentation on work to develop a Source Maritime Automated Processing System (SMAPS) microservice for the production of warning messages. He also demonstrated the free Marlin App, which provided access to global maritime and coastal information. In the future it is proposed to make navigational warnings available. It was asked whether meteorological warnings could be included. It was confirmed that any information in the compatible format and with geospatial reference could be included. The Chair WWNWS noted that the Marlin App was presented at the Southern African and Islands Hydrographic Commission (SAIHC), where its potential for use by non-SOLAS vessels was identified.

5.4 Recognition and Implementation Framework for future methods to provide MSI

The Chair WWNWS noted that the developments with NAVDAT raised the issue of what processes and framework should be in place to undertake the recognition of this new system for use in the GMDSS. METAREA I asked if a recognition process was created for NAVDAT, would it be the case for other systems. It was noted that the IMO Secretariat supported the process of having a formal recognition framework for NAVDAT. The NAVTEX Coordinating Panel Chair offered to work with the IMO and France to develop a proposal for submission to NCSR 10. NAVAREA I noted that the NAVDAT process has created a degree of uncertainty on implementation of new NAVTEX stations or transitioning to NAVDAT. The Chair WWNWS noted that the current meeting was the appropriate forum to consider what process should be put in place and that it could be appropriate for a CG to consider the issues and report back. METAREA I suggested that it was important to address this issue at this meeting. NAVAREA II highlighted the reasons had been discussed at IMO. Malta noted that it was important that the correct individuals need to be engaged at the IMO meetings with the correct briefs to ensure appropriate discussions are undertaken and that the national IMO delegations are correctly briefed by the National Meteorological and Hydrological Services (NMHSs) and Hydrographic Offices (HOs) to ensure the views of the MET and NAV Areas are understood and considered. The UK MCA noted that a submission was made to MSC 102, document MSC 102/21/25, which included much of the administrative processes that needed to be completed. The IMO confirmed that there was no process in place but questioned the need for a recognition of NAVDAT. Malta considered that it was inappropriate for the MET and NAV Area Coordinators to create a recognition process in isolation from the IMO processes. WMO Secretariat noted that the advice from the IMO Maritime Safety Division was the question on whether a formal recognition process was required and within what framework could this be undertaken, and this could be submitted to NCSR for consideration. The UK MCA provided additional details on the contents of the MSC 102 submission and the expected process that will likely be followed by the IMO. METAREA I noted that the submission contained considerations for the coordination process. NAVAREA I proposed that a group could be established to consider potential recognition processes, UK MCA, METAREA III, NAVAREA XIX, METAREA I supported the proposal.

(Action 9)

6 ANY OTHER BUSINESS

6.1 WMO-IMO Symposium

This was discussed in AG-WWMIWS-SubC-1 session and not in the Joint meeting.

6.2 World organization on Volcanic Observation –

This was discussed in 3.2.3, together with other natural hazards.

6.3 WMO maritime safety video

WMO launched its video on maritime safety information to the participants, highlighting the importance of marine meteorological services to Safety at Sea, and the collaboration between IMO/IHO/WMO. It is available [here](#).

7 CLOSURE OF MEETING

The joint list of actions ([Annex C](#)) was reviewed and amendments made as identified to clarify the items.

The Chairs thanked all the participants for their support in the joint sessions. WMO DSG offered remarks before the Chairs closed the session.

Annex A Approved joint Agenda

APPROVED AGENDA OF THE THIRD JOINT SESSIONS OF THE WMO WWMIWS METAREA and IHO WWNWS NAVAREA COORDINATORS Geneva, Switzerland

12, 13 & 16 September 2022

- 1 **OPENING REMARKS AND ADMINISTRATIVE ARRANGEMENTS (WMO) (30 minutes)**
 - .1 Opening Remarks and Introductions (Chairs AG-WWMIWS SubC/WWNWS-SC)
 - .2 Welcome by the host (D-SG WMO)
 - .3 Working and Administrative Arrangements (WMO Secretariat)
 - .4 Adoption of the Joint Agenda (Chairs AG-WWMIWS SubC/WWNWS-SC)
- 2 **UPDATE ON GMDSS ISSUES MATTERS RELATING TO THE GMDSS MASTER PLAN**
(brief updates on significant issues) (IHO) (30 minutes)
 - .1 Overview and brief on content of GISIS GMDSS Master Plan Annexes 7 & 8 (IMO Secretariat)
- 3 **PROMULGATION OF MARITIME SAFETY INFORMATION (MSI)**
 - .1 Relevant IMO meetings (WMO) (30 minutes)
 - .1 Outcome of the 105th Session of the International Maritime Organization's Committee on Maritime Safety (MSC 105) 20 – 29 April 2022 (*including significant developments in the GMDSS and issues relevant to WWMIWS and WWNWS*) (WMO/IHO Secretariats)
 - .2 Outcome of the 9th Session of the International Maritime Organization's Sub-Committee on Navigation, Communications and Search and Rescue (NCSR 9) 21 – 30 June 2022 (*including all significant developments in the GMDSS and issues relevant to WWMIWS and WWNWS*) (IHO/WMO Secretariats)
 - .3 Preparations for the 18th meeting of the IMO/ITU Experts Group (IMO/ITU EG 18) 5-9 December 2022 (*including significant developments in the GMDSS and issues relevant to WWMIWS and WWNWS*) (IHO/WMO Secretariats)
 - .4 Relevant Correspondence Groups established at NCSR 9 (Chairs AG-WWMIWS SubC/WWNWS-SC)
 - .2 Broadcast Systems and Services (WMO) (60 minutes – 20 minutes per main topic)
 - .1 NAVTEX issues
 - .1 Report of the IMO NAVTEX Coordinating Panel (GBR)
 - .2 NAVTEX Services (GBR)
 - .2 Report of the IMO EGC Coordinating Panel (NOR)
 - .3 METAREA and NAVAREA roles and responsibilities in response to natural hazards and emergencies for early warnings at sea (*e.g. volcanic eruptions, ash, tsunamis etc.*) (AUS/NZL/WMO Secretariat)

- .3 Developments in GMDSS (IHO) (120 minutes – 30 minutes per topic)
 - .1 Inmarsat Services update – significant items/upgrades of relevance (including Fleet Safety brief) (Inmarsat)
 - .2 Iridium Service update – significant items/upgrades of relevance; operational implementation progress update (Iridium/Chair EGC Panel)
 - .3 BDMSS technical assessment and recommendations update (IMSO)
 - .4 BDMSS progress update (BeiDou)
 - .5 NAVDAT progress update (FRA)

4 REVIEW OF GUIDANCE DOCUMENTS AND OTHER RELATED DOCUMENTATION
(General overview of revision state of all MSI documents followed by focus on Joint manual revisions) (IHO) (360 minutes)

- .1 Document Review Status Report (Chair/Secretary DRWG)
- .2 IMO Resolutions A.705(17) as amended (MSC.468(101)) (Chair/Secretary DRWG)
- .3 IMO Resolutions A.706(17) as amended (MSC.469(101)) (Chair/Secretary DRWG)
- .4 IMO Resolutions A.1051(27) as amended (MSC.470(101)) (Chair/Secretary DRWG)
- .5 IMO resolutions MSC.306(87) and A.664(16) "Performance Standards for Enhanced Group Call Equipment". (Chair/Secretary DRWG)
- .6 Joint IMO/IHO/WMO Manual on MSI (MSC.1/Circ.1310/Rev.1) (Chair/Secretary DRWG)
- .7 International SafetyNET Services Manual (MSC.1/Circ.1364/Rev.2) (Chair/Secretary DRWG)
- .8 IMO NAVTEX Manual (MSC/Circ.1403/Rev.2) (Chair/Secretary DRWG)
- .9 Iridium SafetyCast Service Manual (MSC/Circ.1613/Rev.1) (Chair/Secretary DRWG)

5 COORDINATION BETWEEN WWNWS AND WWMIWS (WMO) (45 minutes)

- .1 IMO Member State Audit Scheme (IMO A.1070(28)) (IMO Secretariat/recently audited states)

6 ANY OTHER BUSINESS (WMO) (30 minutes – depending on number of items)

- .1 WMO-IMO Symposium (WMO Secretariat)
- .2 World organization on Volcanic Observation (tbc)

5. CLOSURE OF MEETING (WMO) (30 minutes)

Annex B List of participants

Member States/Member	Organization/Company	Role	Name
Argentina	Servicio Meteorológico Nacional (SMN)	METAREA VI	Alicia Guadalupe Cejas
Australia	Australian Maritime Safety Authority (AMSA)	NAVAREA XI	Stuart SHEPARD
Australia	Bureau of Meteorology (BoM)	METAREA XI	Yuelong MIAO
Brazil	Directorate of Hydrography and Navigation (DHN)	NAVAREA V	Rafaela CASTRO*
Brazil	Directorate of Hydrography and Navigation (DHN)	Observer	André BIONDI*
Canada	Canadian Coast Guard (CCG)	NAVAREA XVII-XVIII	Valerie MARQUETTE
Canada	Meteorological Service of Canada (MSC)/ECCC	METAREA XVII-XVIII	Erik de Groot
Canada	Meteorological Service of Canada (MSC)/ECCC	Chair SC-MMO	John Parker
Chile	Servicio Hidrográfico y Oceanográfico de la Armada (SHOA)	NAVAREA XV	Maximiliano VERA
Chile	Servicio Hidrográfico y Oceanográfico de la Armada (SHOA)	NAVAREA XV	Carlos ZUNIGA
Chile	Servicio Meteorológico de la Armada de Chile	METAREA XV	Pedro ROCA Misle*
Chile	Servicio Meteorológico de la Armada de Chile	METAREA XV	Alejandro de la Maza Dorion*
China	China Maritime Safety Administration (CMSA)	Observer	JI XIANG*
China	China Transport Telecommunication Information Group Co. (CTTIC)	Observer	Falong LIU*
China	China Meteorological Administration (CMA)	METAREA XI	Wei Zhao*
Colombia	Ministerio de Defensa Nacional	Observer	Ludis del Carmen CASTRO BUENDIA
Colombia	Ministerio de Defensa Nacional	Observer	Jannuer Andres COTE GARCIA
Cyprus	Joint Rescue Coordination Center (JRCC) Larnaca	Observer	Kyriakos OLYMPIOS
France	Service hydrographique et océanographique de la Marine (Shom)	Observer	Jean-Charles CORNILLOU
France	Service hydrographique et océanographique de la Marine (Shom)	NAVAREA II	Amandine LEFRANCOIS
France	Météo-France	METAREA II	Mireille MAYOKA
Greece	Hellenic Navy Hydrographic Service (HNHS)	Observer	Vasileios PETROPOULOS
Greece	Hellenic Navy Hydrographic Service (HNHS)	Observer	Nikolaos ZISIS
Greece	Hellenic National Meteorological Service (HNMS)	METAREA III	Michail Myrsilidis*
India	National Hydrographic Office	NAVAREA VIII	K Victor Paul*

India	India Meteorological Department (IMD)	METAREA VIII(N)	Neetha K. Gopal*
India	India Meteorological Department (IMD)	METAREA VIII(N)	PLN Murty*
India	India Meteorological Department (IMD)	METAREA VIII(N)	Monica Sharma*
Italy	Italian Coast Guard (ITCG)	Observer	Tommaso PISINO*
Italy	Italian Coast Guard (ITCG)	Observer	Massimo MARRAZZO*
Japan	Japan Coast Guard (JCG)	NAVAREA XI	Makoto TATSUMIYA
Japan	Japan Coast Guard (JCG)	NAVAREA XI	Naohiko NAGASAKA
Japan	Japan Hydrographic Association (JHA)	Observer	Shigeru KASUGA
Japan	Japan Meteorological Agency (JMA)	METAREA XI	Masaya Konishi
Malta	Transport Malta, Ports and Yachting Directorate Hydrographic Office	Observer	MARK ANTHONY CHAPELLE
Malta	Transport Malta, Ports and Yachting Directorate Hydrographic Office	Observer	PAUL ELLUL BONICI
Mauritius	Mauritius Meteorological Service (MMS)	METAREA VIII(S)	Renganaden Virasami
New Zealand	Maritime New Zealand	NAVAREA XIV	David WILSON
New Zealand	Meteorological Service of New Zealand Ltd (MetService)	METAREA XIV	Ramon Oosterkamp
Nigeria	Nigerian Navy Hydrographic Office (NNHO)	Observer	Daniel ATAKPA
Nigeria	Nigerian Navy Hydrographic Office (NNHO)	Observer	Solomon Igbogo
Nigeria	Nigerian Navy Hydrographic Office (NNHO)	Observer	Audu IDU*
Norway	Norwegian Coastal Administration	NAVAREA XIX Chair EGC Panel	Trond SKI
Norway	Norwegian Meteorological Institute (MET Norway)	METAREA XIX Vice-Chair AG-WWMIWS-SubC	Justyna Wodziczko
Norway	Norwegian Meteorological Institute (MET Norway)	METAREA XIX	Gjermund Mamen Haugen
Pakistan	Pakistan Meteorological Department (PMD)	METAREA IX	Sarfaraz Khan
Peru	Dirección de Hidrografía y Navegación	METAREA XVI	Myrian TAMAYO Infantes
Poland	Hydrographic Office of the Polish Navy (HOPN)	Observer	Dariusz TOMCZAK
Russian Federation	Arctic and Antarctic Research Institute (AARI)	METAREA XIII-XX-XXI	Vasily Smolyanitsky*
South Africa	South African Navy Hydrographic Office (SANHO)	NAVAREA VII	Christoff THEUNISSEN
South Africa	South African Weather Service (SAWS)	METAREA VII	Ezekiel Sebego
Spain	Instituto Hidrográfico de la Marina (IHM)	NAVAREA III	SANTIAGO DIAZ PORTILLO

Sweden	Sjöfartsverket	NAVAREA Ib	Johan VON BÜLTZINGSLÖWEN
UK	UK Hydrographic Office (UKHO)	SONSAT	Michael WHITE
UK	UK Hydrographic Office (UKHO)	NAVAREA I	Matthew SHELDON
UK	UK Maritime and Coastguard Agency (MCA)	Observer	Mark LAWSON
UK	UK Hydrographic Office (UKHO)	NAVAREA I	Christopher GILL
UK	UK Maritime and Coastguard Agency (MCA)	Observer	Eleanor CLARKE
UK	UK Maritime and Coastguard Agency (MCA)	Observer	Tammy NEWEY
UK	UK Hydrographic Office (UKHO)	Chair NAVTEX Panel	Neil SALTER
UK	UK Met Office	METAREA I	Nick Ashton
UK	UK Met Office	METAREA I	Caroline Davies*
USA	National Geospatial-Intelligence Agency (NGA)	NAVAREA IV-XII Chair WWNWS-SC	Christopher JANUS
USA	National Geospatial-Intelligence Agency (NGA)	NAVAREA IV-XII	Timothy (Ed) STACY
USA	National Weather Service/NOAA	METAREA IV-XII	Wayne Presnell
USA	National Weather Service/NOAA	Vice Chair SC-MMO	Allison Allen
-	International Mobile Satellite Organization (IMSO)	Observer	Moin Ahmed
-	International Mobile Satellite Organization (IMSO)	Observer	Philip LANE
-	Inmarsat	Observer	John DODD
-	Inmarsat	Observer	Roger Barry
-	Iridium	Observer	Kyle Hurst
-	International Hydrographic Organization (IHO)	Secretariat	Sam HARPER
-	International Maritime Organization (IMO)	Observer	Osamu Marumoto
-	World Meteorological Organization (WMO)	Secretariat	Sarah Grimes
-	World Meteorological Organization (WMO)	Secretariat	David Wyatt
-	World Meteorological Organization (WMO)	Secretariat	Misa Funaki
-	World Meteorological Organization (WMO)	Secretariat	Zhichao Wang

*:remote participation

Annex C List of Action Items

Num.	Agenda item	Subject	Status/Due	Action by
1	2.1	For NAV/MET Area Coordinators to review their national entries in GISIS and correct any inaccuracies	31 Dec 2022	All, IMO
2	2.1	MET/NAV Area Coordinators to check, periodically, GISIS GMDSS Master Plan details for coastal states within their Area and send reminders to update information as necessary, to be part of regular contact details check	Ongoing	All MET/NAV Areas
3	3.1.4	Register and engage Correspondence Groups established at NCSR 9	ASAP	All, Jean-Charles CORNILLOU and Stuart SHEPARD
4	3.2	Discuss the development of an implementation schedule for Iridium SafetyCast at the next EGC Panel meeting	Nov 2022	Chair EGC Panel
5	3.2.3	Established TT/PT to submit proposals to WWNWS15 outlining roles and responsibilities of MET and NAV Area Coordinators in response to natural hazards, including volcanic activity and tsunami events, and guidance on information to be promulgated mariners	Next WWNWS	New Zealand (NAV and MET) (lead); Chile (NAV only), Australia, USA, Mauritius (MET only), Japan, Peru (MET), Argentina (MET), UK
6	4.1	DRWG to consider how to streamline/consolidate documents to the greatest extent possible	Next DRWG meeting	DRWG Chair
7	5.1	IMO Audit – encourages MET and NAV Communities to share their audit responses with WMO and IHO respectively, should they wish for WMO and IHO to be aware of the results (and if it is appropriate within your country)	Ongoing	All MET/NAV Areas in communication with WMO and IHO
8	5.2	Re-establish CG-EGC-API to maintain API standard	ASAP	Stuart SHEPARD and all
9	5.4	Establish a PT/TT to discuss the framework for recognition and operational implementation of future services in the GMDSS for the provision of MSI [consider input to NCSR 10]	Nov 2022	Chair/WWNWS, NAVAREA I, Greece, XIX, CTTIC

Annex D List of Acronyms

AG-WWMIWS-SubC	Advisory Group on Worldwide Met-Ocean Information and Warning Service Sub-Committee
API	Application Programming Interface
BDMSS	BeiDou Message Service System (SafetyLink)
CG	Correspondence Group
CTTIC	China Transport Telecommunication Information Group Co., Ltd
DRWG	Document Review Working Group
ECDIS	Electronic Chart Display and Information System
EG	Expert Group
EGC	Enhanced Group Call
ENC	Electronic Navigational Charts
GISIS	IMO Global Integrated Shipping Information System
GMDSS	Global Maritime Distress and Safety System
HO	Hydrographic Office
IALA	International Association of Marine Aids to Navigation and Lighthouse Authorities
ICAO	International Civil Aviation Organization
ICG/IOTWMS	Intergovernmental Coordination Group for the Indian Ocean Tsunami Warning and Mitigation System
IHO	International Hydrographic Organization
IMO	International Maritime Organization
IMSAS	IMO Member States Audit Scheme
IMSO	International Mobile Satellite Organization
ITU	International Telecommunication Union
LES	Land Earth Station
MASS	Maritime Autonomous Surface Ships
MCA	Maritime and Coastguard Agency
MSC	IMO Maritime Safety Committee
MSI	maritime safety information
MSIP	maritime safety information provider
NCSR	IMO Sub-Committee on Navigation, Communications and Search and Rescue
NMHS	National Meteorological and Hydrological Services
RMSS	Recognized Mobile Satellite Service
SAIHC	Southern African and Islands Hydrographic Commission
SC-MMO	Standing Committee on Marine Meteorological and Oceanographic Services
SMAPS	Source Maritime Automated Processing System
SOLAS	International Convention for the Safety of Life at Sea
TT/PT	Task Team/Project Team
WMO	World Meteorological Organization
WWMIWS	Worldwide Met-Ocean Information and Warning Service
WWNWS	World-Wide Navigational Warning Service
WWNWS-SC	World-Wide Navigational Warning Service Sub-Committee