

**11th MEETING of the IHO SUB-COMMITTEE ON THE WORLD-WIDE
NAVIGATIONAL WARNING SERVICE (WWNWS11)**

Halifax, NS, Canada

26 - 30 August 2019

SUMMARY REPORT

Note: Paragraph numbering corresponds to Agenda Item numbering (Annex A), and not necessarily to the order in which matters were discussed.

1 OPENING REMARKS AND ADMINISTRATIVE ARRANGEMENTS

1.1 Opening Remarks and Introductions

Chair welcomed all to the WWNWS11 meeting.

1.2 Welcome by the host

NAVAREA XVII_XVIII introduced Director General Canadian Coast Guard (CCG) Operations, Julie Gascon, who gave the official welcome address. She highlighted the connection Halifax had with the SS Titanic tragedy and thus with SOLAS and the WWNWS, in particular the initial outcomes of the convention to improve maritime safety, which included the new requirement for ships to provide a continuous radio watch for the reception of distress and safety messages and the need for vessels to report observed navigational and meteorological hazards to coastal authorities. She noted that until the mid-1970's the broadcast of navigational warnings was uniquely a national endeavour, with coastal states broadcasting maritime safety information (MSI) into their coastal waters. This left many gaps in the reception of MSI for vessels plying the global waters. As such, the then newly established IMO Commission on the Promulgation of Radio Navigational Warnings (CPRNW), the beginning of this very committee, became responsible for the development of standards concerning the format and content of navigational warnings. She highlighted that the CCG was proud to be hosting this meeting in Canada for the first time, as this marked the 45th anniversary of the first meeting of the IHO's WWNWS-SC, which was held in December 1974. She also noted that in the late 1990's, the CPNRW added to its responsibilities, the new role of developing the internationally coordinated broadcast service for the two approved Global Maritime Distress and Safety Systems (GMDSS): SafetyNET and NAVTEX. The year 2019 also marks the 20th anniversary of the establishment of the GMDSS, which gained full operational status in 1999. She highlighted some of the main items to be addressed during the meeting, noting that these covered new methods to enhance the provision of navigational warnings given the continued evolution of broadcast systems and services.

The Chair responded and thanked her for the support and interest.

1.3 Working Arrangements

The Secretary introduced the programme for the week, highlighting various aspects which required particular input from all participants. The Chair highlighted a number of topics which he required particular focus and explained that some issues may be taken in the International SafetyNET Coordinating Panel meeting rather than the main plenary.

1.4 Administrative Arrangements

NAVAREA XVII_XVIII provided administrative details and information for the meeting, providing information on the tour of the Maritime Museum of the Atlantic arranged for evening of Tuesday.

All participants introduced themselves, providing details of their background and activities.

1.5 Adoption of the Agenda

The agenda was approved and adopted.

1.6 Review of Action Items from WWNWS10

The List of Actions from WWNWS10 were reviewed. It was noted that a number were agenda items and would be addressed during the meeting. The only outstanding action was to draft a navigational warning to advise users of the change from rectangular addressed warnings to NAVAREA specific addressing for the Arctic. NAVAREA XIX and NAVAREA XVII and XVIII were tasked to draft a submission to NCSR 7 advising of the proposed change, which would come into effect in 2022.

1.7 Report from the 11th meeting of the Inter-Regional Co-ordination Committee (IRCC11)

The Chair provided a brief on the IRCC11 meeting, the WWNWS-SC report was highlighted. The Chair went through his report presentation and noted a number of items, which were discussed and the resultant actions and recommendations. Among these issues, the advantages of SafetyNET II over SafetyNET were highlighted. IMSO provided an update on the progress with BeiDou's submission for recognition as a mobile satellite service provider within the GMDSS. The Chair highlighted a number of concerns and challenges expressed by NAVAREA Coordinators and areas which needed to be addressed. The Chair highlighted the amount of training which had been delivered since the establishment of the MSI CB training course. He noted that there had been 21 courses, 325 students from 119 countries, which demonstrated the success of the course.

2 MATTERS RELATING TO THE GMDSS MASTER PLAN

2.1 IHO Update

The IHO provided a brief on activities within the Secretariat. He highlighted the new logo and the refreshment of the IHO website, he also highlighted the activities of the IHO Council and its role within the organization. He noted a number of significant agenda topics and work items, which needed to be addressed by the Sub-Committee, and the need for NAVAREA Coordinators to be engaged with these activities to ensure their concerns and limitations are acknowledged. He highlighted the importance of focusing on the provision of safety services to the maritime community, which should always be considered personal issues and agenda.

2.2 IMO Update

The IMO provided an update on its activities and areas which required particular effort and focus to progress. He highlighted some personnel changes, which have taken place within the Maritime Safety Division. He also noted the changes in the leadership of the IMO NAVTEX Coordinating Panel. He highlighted a number of IMO resolutions and circulars, which had been adopted or approved and which articulated the changes resulting from the recognition of the Iridium SafetyCast and Fleet Safety services and the SOLAS amendments. He noted that IMO Member States had recognised there was a need to address the additional costs of provision of MSI within a multi-provider environment. He urged NAVAREA Coordinators to be engaged with the decision making process within the IMO. He advised that the final approved texts of IMO resolutions A.705(17), A.706(17) and A.1051(27) and some other circulars were made available on IMODOCS website. It was highlighted that the wording to the ToRs of the IMO EGC Coordinating Panel had been amended, which did not make using of all recognised providers mandatory.

2.3 WMO Update

Vice-Chair WWMIWS-C provided a presentation giving an update on the activities of the Committee in relation to the provision of meteorological warnings and forecasts. He provided details on the reorganization of the WMO and the JCOMM. He highlighted the focus of activities of the Committee with the implementation of new services provided by Inmarsat and Iridium. He highlighted the symposium being organized with the IMO on extreme weather. He noted the challenges which need to be addressed for the Product Specifications under development for weather and ice services, in addition to that for MSI.

2.4 Report of International Mobile Satellite Organization (IMSO)

IMSO provided a presentation on its activities and an update on work with the service providers to ensure compliance within the signed Public Service Agreements. He highlighted the GMDSS oversight activities and the contingency exercises, which are undertaken by IMSO. He particularly noted the challenge of monitoring the Iridium SafetyCast service broadcasts, which could not be conducted in the same manner as that used for Inmarsat SafetyNET Services. He highlighted the outstanding issues, which needed to be completed before the Letter of Compliance could be issued by

IMSO to Iridium. He noted that an update on the BeiDou system would be provided to NSCR 7. He noted issues which were outstanding – service cost, operational and monitoring – as well as the current layout of the Master Plan needed to be amended to include Iridium SafetyCast service. The Chair questioned how the testing of the Iridium SafetyCast service could take place without receivers at sea to undertake the tests. Concern was expressed regarding the integration of data between Inmarsat and Iridium systems, since each provider has an individual manual and there is no provision for data integration. The Chair raised a question to the plenary as to how MSI providers could conduct their tests without terminals at sea. In response, Iridium offered to provide terminals and training to MSI providers for conducting tests, however concerns were raised on the grounds that terminals are still not type-approved by an administration and the plenary did not reach a consensus to the issue. IMSO considered this is technically acceptable for testing proposes, taking into account the terminals have the same firmware, software and hardware versions which are being submitted to the type approval process. It was acknowledged that the formal type-approval should be a condition for the satisfaction of the MSI providers test process.

3 PROMULGATION OF MARITIME SAFETY INFORMATION (MSI)

3.1 Outcomes of International Maritime Organization (IMO) Sub-Committees and Expert Groups

The Secretary provided a brief on the outcomes of MSC 100 and 101, NSCR 6 and IMO-ITU EG 15 which were relevant to the WWNWS-SC. All NAVAREA Coordinators were requested to engage with their administrations prior to attendance at IMO meetings to ensure they are briefed correctly and understand the implications of any proposals on the service and delivery of MSI. **Action 1 - All**

3.2 NAVAREA Assessments of Navigational Warnings Services by Coordinators

The NAVAREA Coordinators provided brief reports on their activities since WWNWS10:

NAVAREA I – nothing in addition to the contents of the self-assessment report, NAVAREA I now operates from the new UKHO building. It was noted that the number of requests for in force warnings via email has increased across almost all NAVAREAs, which has generated significant increased work and is a concern that mariners are receiving the warnings when requested rather than when broadcast, which question their SOLAS compliance or an increase in awareness by non-SOLAS vessels. NAVAREA I highlighted that this was one of only two ways that mariners at sea can obtain warnings that are no longer being broadcast, i.e. those that are more than 42 days old, the other way is to obtain them from the weekly Admiralty Notices to Mariners Bulletin, which is now only available online. He agreed to add a statement to our standard email response, reminding mariners that use of the GMDSS equipment on board was the primary method of obtaining MSI at sea. WMO noted that they had noted an increase in email requests for older information, which appeared to be filling in gaps in their records.

NAVAREA Ib – provided a brief on activities and noted the establishment of the new Baltic Sea MSI Working Group (BSMSIWG), which reports to the Baltic sea Hydrographic Commission (BSHC).

NAVAREA II – provided a brief on activities, she highlighted the challenges for the region and the CB requirement covering both English and French speaking countries. She offered to assist in providing training in French in the future.

NAVAREA III – provided a report on the activities with in the Mediterranean region, he noted that the region was now covered by one satellite footprint, IOR, which has eased the monitoring challenge but did require a retuning from the AOR-E satellite.. He highlighted the increase in the number of warnings being transmitted. He noted the coastal states identified as being in need of MSI training. He confirmed the temporary working arrangements for the promulgation of MSI in the north-western Black Sea area. He confirmed that information from Egypt was now being received by email.

NAVAREA IV_XII – provided a report on developments within the two regions, in particular the improvements in the receipt of information from the Small Island Developing States (SIDS) in the Caribbean Sea, the result of significant CB effort as well as working within the MACHC. He highlighted reporting process developed for the MACHC to indicate the state of activity with respect to messages received in relation to training provided and ongoing support. The Chair displayed a proposed message which should be added to email replies for requests for in force warnings to explain the SOLAS obligations of mariners to use the mandated official communications systems:

“The In-Force Navigational Warnings received via this e-mail and the availability of Navigational Warnings via alternate services does not relieve Masters / Captains of the requirement to receive Navigational Warnings through IMO approved broadcast services in accordance with the provisions of the International Convention for the Safety of Life at Sea (SOLAS). This information is provided as a supplement to those approved services.”

The IMO suggested bringing this issue to the attention of the NCSR for appropriate action to stop this practice.

NAVAREA V – provided a brief update on activities, she highlighted the MSI course hosted by Brazil and the potential increased costs with additional providers. She noted the contingency agreement with NAVAREA VI, which is exercised annually. Inmarsat noted that changing to use SafetyNET II will reduce costs and will minimise the overall increase experienced from the use of multiple providers. The Chair noted that there would be some fixed associated costs (personnel, training, equipment, etc.) which would need to be resourced by individual NAVAREAs.

NAVAREA VI – provided a brief report on activities, he noted the coordination with Uruguay and the efforts to bring the La Paloma NAVTEX station back into operation. He noted the successful contingency exercise with NAVAREA V.

NAVAREA VII – the Chair provided a brief summary of the report, he highlighted the need for both English and French training courses. It was noted that each message was retransmitted on each broadcast as a new message, rather than using the facilities within the SafetyNET system to retransmit automatically all inforce warnings. IMO NAVTEX Coordinating Panel Chair was requested to contact the NAVAREA VII Coordinator to clarify the statement on hourly broadcasts in their report, paragraph 4.

Action 2 - NAVTEX Chair

NAVAREA VIII – provided a brief update on activities.

NAVAREA IX – provided a brief report on the activities, he highlighted the coastal states with which he had no or minimal communications. The Chair confirmed he would provide the most up to date documentation to support the proposed training. The proposed NAVTEX stations in Saudi Arabia on the Red Sea coast were highlighted and the need to coordinate the proposed service areas with the already established stations in Egypt. **Action 3 - NAVTEX Chair/NAVAREA IX**

NAVAREA X – provided a report in which he highlighted the impact of the I3 to I4 migration. He noted the monitoring challenge on the edge of the area, which was on the limits of the satellite footprint coverage. He noted the development of services provided by adjacent coastal states. He highlighted the proposed phases for further developing and improving the capabilities of these adjacent coastal states. He noted the significant increase in requests to download information from the website. The Chair noted that messages were not being cancelled in accordance with the procedures described in the Joint IMO/IHO/WMO Manual on Maritime Safety Information. NAVAREA X noted that this could require a software change to bring the automated process into alignment. The Chair requested NAVAREA X to investigate. **Action 4 - NAVAREA X**

NAVAREA XI – provided a report on activities, he highlighted the state of NAVTEX stations Manila and Guam. He noted that individual country visits were taking place to improve the communications within the NAVAREA. He also highlighted the MSI training course taking place in Indonesia and that MSI would now be a permanent agenda item on the EAHC meetings. The Chair highlighted the continuation of the unannounced missile firings by the DPRK, in contravention of MSC.1/Circ.1551 dated 25 November 2016, he noted the receipt of reports of six unannounced missile launches in 2019 without any proper navigational warnings provided by the DPRK and expressed his grave concern over these operations, which pose a serious threat to maritime safety. He noted that NAVAREA XI had not received any prior notification and no navigational warning had been broadcast prior to these launches. He reminded all of the significance and continued validity of resolution A.706(17), as amended, on *World-Wide Navigational Warning Service*, as well as MSC/Circ.893 and MSC.1/Circ.1225 on *Navigational Warnings concerning operations endangering the Safety of Navigation*. IMO suggested investigating whether national civil aviation authorities (CAO) were receiving warnings as a NOTAM prior to the firings and if so, requesting these are shared with maritime counterpart, particularly MSI providers. NAVAREA XIX noted that often maritime warnings are forgotten, while air warnings were normally issued. Therefore, he recommended trying to gain access to the information via the national CAO. It was agreed that the Sub-Committee's concerns

should be included in the report to NCSR 7 as well as a specific action be requested of the NCSR. **Action 5 - Chair**

NAVAREA XIII – the Chair proved a summary of the report, he highlighted the area in the southwest where he felt the broadcasts were not being received, Inmarsat was requested to investigate. **Action 6 - Inmarsat**

NAVAREA XIV – provided a report, he noted that the report and the associated statistics were the first which covered a full 12 months under their responsibility. He highlighted the technical software solution which had been achieved to allow remote monitoring of broadcasts. He highlighted the six monthly communications check with national coordinators within the NAVAREA, which had significantly improved the information flow and highlighted personnel changes, which had taken place without notification. He highlighted the improved information messages received from SIDS and the direct communication with NAVAREA XI where appropriate.

NAVAREA XV – provided a report on activities, he noted the improved monitoring and knowledge of the extensive coastal area of Chile due to improved system coverage, particularly with respect to the tsunami threat. The Chair noted the comments regarding the proposed tsunami warning message, which would be considered later under agenda item 3.3.3.

NAVAREA XVI – provided a brief report on activities. The Chair encouraged NAVAREA XVI and XV to progress the establishment of a contingency plan. He noted that the ISO 9001:2008 quality management certification for NAVAREA XVI Coordination Centre was in progress.

NAVAREA XVII_XVIII – provided an update, including highlighting the key activities for her area, namely the issues with NAVTEX and HF-NBDP. She advised that the analysis of the Joint MET/NAVAREA SafetyNET Services 2017 Survey were available. She also advised that Canada would submit to IMO .INF papers at IMO NCSR 7 in January 2020, one to describe the new domestic navigational warning system and updated services, the other to highlight the newly established NAVTEX Service Areas within the Canadian NAVTEX Coverage Areas.

NAVAREA XIX – provided a brief report on activities, he noted that there were no significant changes since the last meeting. He highlighted that the currently held Iridium test certificate needed to be changed for an operational certificate, the Chair noted that this also applied to NAVAREA XIV.

NAVAREA XX_XXI – the Chair provided a summary of the report, he noted there were no significant changes since WNWWS10.

China - National Authority – provided an update on activities within their national waters. The Chair noted that most of the NAVTEX messages broadcast would be appropriate for broadcast by the NAVAREA XI, he requested that processes were established to ensure the information was passed to NAVAREA XI for their consideration and broadcast.

3.2.1 Quality Management Analysis of Self Assessments

The Secretary provided a brief on the Quality Management Analysis of the NAVAREA Self Assessment reports. He noted that a number of reports had been submitted on the previous template, as some requested information had not been included. Various sections of the IHO website were displayed to highlight where information is readily available, such as the latest version of the relevant IMO circulars and resolutions. The Chair requested all NAVAREA Coordinators to review the analysis document and consider what changes were required within their processes to address the items raised and to provide feedback where required or appropriate. **Action 7 - All** The Chair requested all NAVAREA Coordinators to register on IMO Webaccounts with Member States access rights to gain access to relevant IMO documents and viewing rights and editing rights, where appropriate, to the Global Integrated Shipping Information System (GISIS). **Action 8 - All** The Chair encouraged all NAVAREA Coordinators to establish regular communications with all national Coordinators within their NAVAREA, particularly through relevant RHC meetings. The Chair demonstrated the RHC websites and where to find details on the next meetings, in particular the MACHC site and its recently established website. The Chair requested all to report attendance at RHC meetings in WWNWS12 Self Assessment reports. **Action 9 - All**

NAVAREA XVII_XVIII provided a brief and demonstration on the Navigational Warning Issuing System (NIS). That generated a wide-ranging discussion and numerous questions. A number of Coordinators requested the ability to test and evaluate in their own NAVAREAs.

The IMO provided a demonstration of GISIS new GMDSS Master Plan module, with a focus on the areas relevant to the NAVAREA Coordinators. Problems with access by the Chair and Secretary to the GMDSS section were identified. IMO was requested to investigate and seek resolution. **Action 10 - IMO** It was agreed that there remained a need for access to the contact list for NAV and MET Area Coordinators via the open access IHO and WMO websites, therefore it was agreed that revised lists would be downloaded and provided to the IHO and WMO Secretariats for uploading. **Action 11 - IMO**

3.3 Broadcast Systems and Services

3.3.1.1 Report of the IMO NAVTEX Co-ordinating Panel

The Secretary of the IMO NAVTEX Coordinating Panel provided an update brief on the operational state of NAVTEX service provision. He highlighted a number of changes in operational capability with new stations in operation, stations being recommissioned and stations non-operational.

3.3.1.2 The Secretary of the IMO NAVTEX Coordinating Panel provided a brief on NAVTEX service issues which needed to be considered by the WWNWS-SC. In particular he highlighted the issue of overruns of the 10 minute time slots.

3.3.2 Report of the IMO SafetyNET Coordinating Panel

The report of the Chair of the International SafetyNET Coordinating Panel was taken in the International SafetyNET Coordinating Panel meeting.

3.3.3 IOC Tsunami early Warning System and TOWS-WG Update

The Secretary provided an update on the TOWS-WG activities and progress towards operational activities with the WWNWS and using the WWNWS for the promulgation of tsunami warning information. The Chair displayed the proposed draft warning messages, he noted that NAVAREA Coordinators were entitled to adapt the messages and contents to meet their particular requirements. It is intended that the tsunami warning message examples would be included in the next update of the Joint IMO/IHO/WMO manual on MSI. The Chair requested that the full Appendix 4 with examples be included in the meeting report as an annex. **Action 12 - IHO** NAVAREA Coordinators covering the Indian Ocean basin were encouraged to consider participation in the workshop in Jakarta in 4th quarter 2019 in relation to the 4th edition of World Tsunami Awareness Day to engage with the regional Tsunami Service Provider and develop awareness and capabilities to support the provision and promulgation of warning information. **Action 13 - NAVAREAs VII/VIII/IX/X/XI** The Chair requested the IHO to provide details to IOC of MSI training courses in relevant regions for their consideration. **Action 14 - IHO**

3.3.4 Contingency Planning

The Chair provided comment and advice on Contingency Planning and the importance of developing arrangements with adjacent NAVAREAs as well as internal arrangements. He also noted the importance of regularly exercising contingency plans to ensure their viability. **Action 15 - All NAVAREAs XV and XVI** were requested to expedite the conclusion of their planned contingency agreement by the next meeting and report the outcome of exercise of the plan. **Action 16 - NAVAREAs XV/XVI**

3.4 Developments in the WWNWS

3.4.1 Inmarsat SafetyNET Services Report

Inmarsat provided a presentation on the SafetyNET, SafetyNET II and Fleet Safety services and coverage developments. He highlighted the future proposed developments of the Inmarsat services. He described the benefits of SafetyNET II. He suggested potential process to overcome the issues of duplication and dual costs in a multi provider environment. He also provided a potential solution to achieve the desired monitoring requirement for Low Earth Orbiting (LEO) and geo-stationary satellite systems.

3.4.2 Iridium SafetyCast service Report

Iridium provided a presentation on the SafetyCast service developments and progress towards achieving full operational capability. He outlined the anticipated timeline to achieving full operational capability, noting SOLAS carriage compliance would be from 1 January 2020. He agreed to investigate an extension to the current 30 September deadline for contract signing to obtain two years transmission free of charge, although the suggested end of 2019 was considered doubtful. The presentation generated numerous questions. The Chair described the proposed monitoring methods for the SafetyCast service to achieve an acceptable level of

monitoring. NAVAREA XIV noted that the current methods, since the I3 to I4 migration, has changed from the initial concept and therefore there is a case for reviewing what is to be achieved and the entire concept of monitoring in the future. The Chair noted that certificates of authorisation would be issued to all NAVAREA Coordinators, regardless of whether contracts had been signed; it would then be upon individual NAVAREA Coordinators to progress work with Iridium.

3.4.3 Iridium Implementation Plan and Programme Update

IMSO provided a presentation on their proposed operational implementation plan and programme progress for the Iridium SafetyCast service. He highlighted the remaining items which still needed to be demonstrated and confirmed to satisfy the IMO mandated requirements. He detailed the IEC standard 61097-16:2019, which was the test standard for national administration authorities to apply and issue the certificates of type approval. This initiated a wide ranging discussion on the process which was being followed for installation of equipment for testing purposes and for operational use on board ships and in national operational offices ashore. It was noted that, as acknowledged at MSC 101, the earliest in force date for the Iridium SafetyCast service manual was 1 January 2023. The Chair requested IMSO to provide a critical path timeline for the anticipated completion of outstanding requirements for the implementation of the Iridium SafetyCast service. **Action 17 - IMSO**

3.4.4 S-124 Correspondence Group Report

Chair of the S-124CG provided an update brief on the CG activities. He highlighted the developments progressed and where the next stages were anticipated. He noted that the development had reach the stage where input from the NAVAREA Coordinators was critical to make further progress. He provided details of tests and reviews of the Product Specification (PS) which had been completed. He urged all to read through the PS and provide feedback and comments. It was agreed that the WWNWS-SC would consider the list warning type codes with the aim of reducing the number and grouping into common sub-lists. The presentation generated a wide ranging discussion and numerous questions. The Chair requested all NAVAREAs to engage with the S-124CG and provide the requested input and feedback. **Action 18 - All** The Chair requested all to review the S-124 warning Hazard Type list and provide feedback and input to him. **Action 19 - All**

The Chair provided a report on the outcomes of the S-124WS. He noted that not all comments of Draft 2.0 were addressed. This will be completed by correspondence. He highlighted that a significant amount of time was spent on the portrayal of NW messages with input from WWNWS11 participants who were also master mariners. It was proposed that the S-124 layer could not be suppressed, which may have implications for ECDIS performance standards. The IHO noted that this would be highlighted to NCSR 7 in the IHO submission on ECDIS Reporting. The S-124 Chair would address the issue to the S-100WG and ENCWG for discussion at HSSC and subsequently formal notification to NCSR for necessary action. He displayed example symbols of point, line and area representation for day, dusk and night colour palettes. It was agreed that positions would be default “approximate positions”, such as a drifting hazard location, unless indicated by the information provider to be accurate positions. He displayed a graphic indicating the scope of S-124 as proposed by the

workshop, and the remaining parts of the transmission process which were the responsibility of ITU, IEC and the information providers. There was agreement with the proposal. The Chair proposed that the S-124CG be re-established as a S-124 Project Team (PT) with a target for S-124 publication of Edition 1.0.0 by the end of 2020. The WNWNS-SC approved and requested the Chair of the S-124CG to provide revised ToRs to the Chair WNWNS-SC for approval by correspondence. IHO agreed to provide example PT ToRs. **Action 20 - Chair S-124CG/IHO**

The Chair WNWNS-SC thanked Mr. Yves Le Franc and Mr. Eivind Mong for all the work they had undertaken to progress the development of S-124 over the past few years. Their input and guidance was acknowledged as invaluable.

3.5 Emerging Technologies/Modernization

3.5.1 Interoperability

IMSO provided a brief on their submission to NCSR 6 with respect to monitoring of broadcasts in a multi-satellite service provider environment. He noted that the current methodology used to monitor Inmarsat SafetyNET services was not appropriate or feasible for the Iridium SafetyCast service and a new approach needed to be considered and developed to best achieve the desired confidence that the information and message transmitted by the NAVAREA Coordinator was received in full by the maritime customer. It was noted that part of the monitoring process was to check the message content against the source information. This initiated a wider ranging discussion and generated numerous questions. IMSO noted that RCCs were also required to monitor their broadcasts, therefore the decisions agreed by the WNWNS-SC and the WWMIWS-C would impact on their operations. It was agreed to establish a correspondence group (CG) to explore the feasibility, creation and implementation of an API in order to allow NAVAREA and METAREA Coordinators to use only one interface for the broadcast and monitoring of their warnings; NAVAREA X agreed to lead the CG with assistance from NAVAREA XVII_XVIII.

3.5.2 None present.

3.5.3 Maritime Services in the context of e-Navigation

NAVAREA XIV provided an update on the delivery of MS5 – *Maritime Safety Information Services* – development. The Secretary provided details on the process followed once it had been endorsed by WNWNS10. MS5 was endorsed by NIPWG and submitted by the IHO to NCSR 6. All MSs were approved by NCSR 6 and MSC 101. Subsequently, all MSs were passed back to the domain coordinating bodies for maintenance and update. It was suggested that MS5 was added to the documents under regular review by the WNWNS-SC, inviting WWMIWS-C to do the same.

4 REVIEW OF GUIDANCE DOCUMENTS

4.1 Document Review Status Report

The Chair provided a brief on the current document status for all MSI related documents. He highlighted the in force dates of the recently revised documents. He then provided a brief on the outcomes of the DRWG17.

4.2 IMO Resolutions

The Chair provided a brief and commentary on the revised IMO resolutions A.705(17), as amended, A.706(17), as amended, and A.1051(27), as amended at MSC 101. It was noted that these amended documents were now published as MSC resolutions:

- MSC.468(101) on Amendments to *Promulgation of Maritime Safety Information* (resolution A.705(17), as amended);
- MSC.469(101) on Amendments to *World-Wide Navigational Warning Service* (resolution A.706(17), as amended); and
- MSC.470(101) on Amendments to *IMO/WMO Worldwide Met-Ocean Information and Warning Service – Guidance Document* (resolution 1051(27))

He highlighted that there was a need to revise the MSI graphic in light of the discussions at NCSR 6, MSC 101 and IMO-ITU EG 15 to clarify the operational use of NAVTEX in relation to supporting SAR operations. He highlighted the other significant changes which resulted from the recognition of new satellite service providers and the SOLAS amendments. He highlighted the close harmonization which had been achieved between all three resolutions. IMO noted that an extended modification of the Area graphic to cover both polar regions could be considered to reflect the new coverage other than SafetyNET.

4.3 See 4.2 above.

4.4 Recently revised at IMO, no further revision considered necessary at present.

4.5 MSC.305(87)

SONSAT provided an update brief on the background of the IMO resolution MSC.305(87) and identified that there was currently no requirement to make any amendments as it was still considered fit for purpose. He noted that post-BREXIT and with the continuing requirement for Anti-Piracy operations, there may be a requirement to update the document in the future to reflect any changes.

4.6 Joint IMO/IHO/WMO Manual on MSI

The Chair noted that this publication had been revised recently. The next amendments would be prepared to take into account the changes resulting from the recognition of Iridium SafetyCast service and the developments in the Inmarsat SafetyNET Services, the IMO approved revisions to the overarching resolutions, as well as adding Tsunami warning message examples provided by the IOC.

4.7 Inmarsat SafetyNET Services Manual

The Chair provided the background on development of the current amendments through the DRWG16 and WWNWS10 to reflect the development of the Inmarsat SafetyNET Services (SafetyNET, SafetyNET II and Fleet Safety). The IMO suggested the change in title was not required, however the Chair noted that the IMO Member States had approved the new services and the DRWG realised that there was, therefore, a need to create a generic term covering all the Inmarsat services. The WWNWS-SC went through the document to review and approve the amendments. The Chair identified a number of items that needed to be reviewed and completed by WMO, UKHO and Inmarsat to meet the mid-October IMO NCSR 7 deadline.

4.8 IMO NAVTEX Manual

The Chair IMO NAVTEX Coordinating Panel was requested to consider revised text to reflect the current operational use of NAVTEX with regards to supporting SAR operations. This would be included in the next revision expected at DRWG19.

Action 21 - NAVTEX Chair

4.9 No amendments or revisions identified at present.

4.10 It was agreed that this would be reviewed at DRWG18.

4.11 No revisions considered necessary at present.

4.12 This information and cross-checking were to be progressed through coordination with the Chairs of RHCs.

4.13 Interim Iridium SafetyCast service Manual

The Chair provided background and details of the current state of the Interim Iridium SafetyCast service manual. The Chair described editorial process and timeline, which it was anticipated would be followed to achieve full IHO and WMO approval through the DRWG18, WWNWS12 and WWMIWS2 before submission to NCSR 8 and MSC 104 in 2021. Final adoption of the manual, and an earliest in force date, would be 1 January 2023. It was noted that major review would be undertaken at DRWG18 after NCSR 7, which would take into account experience gained during IOC and any subsequent amendments resulting. NAVAREA II raised concerns over the recognition of other providers in addition to Iridium, for instance, Beidou. She noted that if the number of providers continues to grow, there will be concerns over the cost of having to transmit warnings via all recognized providers in the GMDSS.

4.14 No amendments to the ToRs were identified or deemed required.

The Chair confirmed that the 18th meeting of the DRWG would be held the week after NCSR 7 at IMO in London, 28-30 January 2020. He noted that a meeting of the IMO EGC Coordinating Panel may also be held during this period.

5 WNWWS REPRESENTATION AT REGIONAL HYDROGRAPHIC COMMISSIONS (RHCs) AND OTHER CONFERENCES

5.1 WNWWS Members' Attendance to RHCs

The Chair noted that there had been discussion on the RHCs and participation by Coordinators at their meetings to support the regional development of MSI provision. He noted that the list of future meetings is available from the IHO website. The Chair demonstrated the MACHC website and the MSI section, particularly the colour coded country list, its impact and use to inform the RHC Chair the true state within her regional commission. The IHO explained the importance of the Annex A spreadsheet attached to some of the Self Assessment reports.

5.2 Capacity Building Training Course Development

The Chair briefed on the MSI CB training effort and its development. He detailed the general content of the course and how the various topics are delivered through the period of the course and the practical aspects of the training. The Chair highlighted the lack of qualified experienced trainers and the proposed actions to generate regional trainers (Americas, Europe/Africa and Asia/Pacific) to assist in the delivery of the course. He had identified a number of individuals (Ms Lucia Bakker (CAN), Mr Trond Ski (NOR) and Mr Dave Wilson (NZL)) initially and he asked for those who wished to be considered to let him know, so that they could be included in appropriate MSI CB courses to gain the necessary experience to become a qualified trainer. The IHO highlighted the remaining MSI courses in 2019 and those approved by the CBSC for 2020. The Chair requested those identified or volunteering to approach their administrations to gain support to become an identified trainer. The Chair noted that he and NAVAREA IV_XII would ensure the training material was updated and current. **Action 22 - Chair/NAVAREA IV_XII** NAVAREA XIV noted that the draft syllabus developed for the proposed IMO submission could be used as a guide syllabus for the training course.

The Chair highlighted resource limitations and student background focus for the MSI CB course, which did not harmonize with the inclusion of participants from other administrations and authorities. He felt that combined WMO-IHO courses had potential but needed to be further investigated in the future for the benefits for all those involved.

5.3 WNWWS CD-ROM

The Chair demonstrated the MSI CD-ROM contents, which was provided to all participants. IHO agreed to provide the new logo. **Action 23 - IHO**

6 NEXT MEETING

6.1 Dates and Venue for WNWWS12

The Chair noted that China had offered to host a meeting. The WMO noted that there was potential for a Joint meeting to be hosted by the WMO. The Chair noted that he,

in coordination with the IHO and potential hosts, would confirm the venue and dates for WWNWS12. **Action 24 - Chair/IHO**

6.2 Draft Agenda for WWNWS12

The draft agenda for WWNWS12 was noted and input of additional items was requested. The Chair noted it would be of benefit to have a demonstration and a progress update on the development of S-124. It was noted that the draft agenda would be developed further at the DRWG18. The provisional agenda for WWNWS12 is at in Annex H.

7 REVIEW OF ACTION ITEMS FROM WWNWS11

The list of Actions generated from the meeting were displayed and agreed. These are set out in Annex D. It was noted that the draft List of Actions would be circulated with the draft meeting report to allow participants to correct errors of fact. The Secretary highlighted that he would generate the final meeting report with supporting annexes, taking into account the comments and input received from the participants.

8 There were no items.

9. CLOSURE OF THE MEETING

The Chair closed the meeting, he thanked the CCG for the excellent facilities and hosting the meeting. He thanked all participants for their inputs and contributions to the success of the meeting. He noted that it is with great satisfaction, appreciation and admiration that the WWNWS-SC reports that the Chairman of the IMO NAVTEX Coordinating Panel, Mr. Bill Van-Den-Bergh, United Kingdom, retired in January of 2019. The WWNWS-SC expresses its sincere gratitude for his outstanding service, support and dedication to the safety of navigation, which started when he joined the Royal Navy as a Seaman on 18 August 1969. In August 1986 he entered the officer ranks. He subsequently served in HM Ships MANCHESTER, ILLUSTRIOUS and INVINCIBLE, where his duties included Officer of the Watch (OOW) and Operations Room Officer. Mr. Van-Den-Bergh was involved in maritime communications throughout his career in the Royal Navy. He was appointed by Her Majesty The Queen as a Member of the Most Excellent Order of the British Empire (MBE) in May 2004.

After leaving the Royal Navy he joined the United Kingdom Hydrographic Office in 2007 as a Sailing Directions Editor until August 2011. From that point until his retirement he worked within the Radio Navigation Warnings (RNW) department and was appointed Head of Department in March 2014. That promotion also earned him the distinct title of NAVAREA I Coordinator and Chairman of the International Maritime Organization NAVTEX Coordinating Panel.

Mr. Van-Den-Bergh tirelessly served the UKHO, IMO, and IHO. His dedication, knowledge, and experience won't easily be replaced. What we will all miss most is his friendship. We wish him only the best and always fair winds and following seas.

Comments from the group in closing noted that the week's session was very interesting, helpful and productive. They supported comments that the Sub-Committee is a real team and genuinely strives for results while working for the benefit of all mariners in terms of maritime safety. They also reflected the Chair's praise for the hosts.

The Chair indicated that WWNWS11 would be his final meeting as Chair and that he would formally step-down from the Chair role after the 2nd session of the IHO Assembly in Monaco in April 2020.

He finally wished all safe travels back to your home countries.

Annexes:

Annex A	Agenda for the 11 th Meeting of WWNWS-SC
Annex B	Participants at WWNWS11
Annex C	List of Documents submitted to WWNWS11
Annex D	List of Action Items as of 27 September 2019
Annex E	Tsunami Service Provider Messages for the Maritime Community
Annex F	Provisional Agenda for the 12 th Session of the IHO WWNWS Sub-Committee
Annex G	MSI Quality Management Survey Summary
Annex H	ToRs
Annex I	List of key IMO and IMSO meetings
Annex J	Justifications for broadcasting MSI

**AGENDA OF THE ELEVENTH MEETING
OF THE WWNWS SUB COMMITTEE (WWNWS11)**

**To be held Halifax, Canada
26 – 30 August 2019**

1 OPENING REMARKS AND ADMINISTRATIVE ARRANGEMENTS

- .1 Opening Remarks and Introductions (**Chair**)
- .2 Welcome by the host (**CAN**)
- .3 Working Arrangements (**Secretary**)
- .4 Administrative Arrangements (**Host**)
- .5 Adoption of the Agenda (**Chair**)
- .6 Review of Action Items from WWNWS10 (**Secretary**)
- .7 Report from IRCC11 (**Chair**)

2 MATTERS RELATING TO THE GMDSS MASTER PLAN

- .1 IHO Update
- .2 IMO Update
- .3 WMO Update
- .4 IMSO Update
- .5 Review content of GMDSS Master Plan Annexes 7 & 8_(**Chair**)

3 PROMULGATION OF MARITIME SAFETY INFORMATION (MSI)

- .1 Related IMO meetings:
 - .1 Outcome of the 100th and 101st Sessions of the International Maritime Organization's Committee on Maritime Safety (MSC100 & MSC101) 3 – 7 December 2018 and 5 – 14 June 2019 (**Secretary**)
 - .2 Outcome of the 6th Session of the International Maritime Organization's Sub-Committee on Navigation, Communications and Search and Rescue (NCSR6) 16 – 25 January 2019 (**Secretary**)
 - .3 Outcomes of the 15th meeting of the IMO/ITU Experts Group IMO/ITU EG15) 8 – 12 July 2019 (**Secretary**)
- .2 Self Assessments by NAVAREA Coordinators (*Brief reports highlighting only significant events in previous period, identified deliverables/outputs and matters requiring WWNWS-SC action, full reports can be downloaded from the WWNWS-SC website*)
 - .1 Quality Management Analyses of Self Assessments (**Secretary**)
- .3 Broadcast Systems and Services
 - .1 NAVTEX issues
 - .1 Report of the IMO NAVTEX Coordinating Panel
 - .2 NAVTEX Service issues
 - .2 Report of the International SafetyNET Coordinating Panel
 - .3 IOC Tsunami Early Warning Systems up-date, including TOWS-WG issues (**IOC**)

- .4 Contingency Planning (**Chair**)
- .4 Developments in the WWNWS
 - .1 Inmarsat-C EGC SafetyNET Services Report (**Inmarsat**)
 - .2 Iridium SafetyCast Service Report (**Iridium**)
 - .3 Iridium operational implementation plan and programme progress report (**IMSO**)
 - .4 S-124 progress report (**Chair S-124CG**)
- .5 Emerging Technologies/Modernisation
 - .1 Interoperability between recognized GMDSS mobile satellite service providers (**Chair/Secretary**)
 - .2 Manufacturers' presentations (if any)
 - .3 Maritime Services in the context of e-Navigation update (**AUS/NZL**)

4 REVIEW OF GUIDANCE DOCUMENTS AND OTHER RELATED DOCUMENTATION

- .1 Document Review Status Report (**Chair/Secretary DRWG**)
- .2 IMO Resolutions A.705(17) as amended and A.706(17) as amended (MSC.1/Circ.1287 and MSC.1/Circ.1288 respectively) (**Chair/Secretary DRWG**)
- .3 WMO - IMO resolution on Met-ocean services Assembly resolution A.1051(27)
- .4 IMO resolutions MSC.306(87) and A.664(16) "Performance Standards for Enhanced Group Call Equipment". (**Chair/Secretary DRWG**)
- .5 IMO "Guideline on operational procedures for the broadcast of maritime safety information concerning acts of piracy and piracy counter-measure operations." (IMO resolution MSC.305(87) (**Chair/Secretary DRWG**)
- .6 Joint IMO/IHO/WMO Manual on MSI (MSC.1/Circ.1310) and IHO Publication S-53 (**Chair/Secretary DRWG**)
- .7 International SafetyNET Services Manual (MSC.1/Circ.1364) (**Chair/Secretary DRWG/Inmarsat**)
- .8 IMO NAVTEX Manual (MSC/Circ.1403) (**Chair/Secretary DRWG**)
- .9 Relations between NAVAREA Coordinators and Rescue Coordination Centres (COMSAR/Circ.3) (**Chair/IMO**)
- .10 Inmarsat SafetyNET Users' Handbook (**Inmarsat**)
- .11 IAM SAR Manual Volume 2 (**IMO**)
- .12 MSI element of IHO Publication C-55 – "Status of Hydrography and Nautical Cartography World-Wide". (**Chair/Secretary**)
- .13 Iridium SafetyCast Service Manual – draft (**Chair/Secretary DRWG/Iridium**)
- .14 Terms of Reference for the WWNWS Sub Committee (IHO Circular Letter 46/2009) (**Chair/Secretary**)

5 WWNWS REPRESENTATION AT REGIONAL HYDROGRAPHIC COMMISSIONS AND OTHER CONFERENCES

- .1 WWNWS member attendance at RHCs and reports (**Chair**)
- .2 Capacity Building MSI Training Course Developments (**Chair**)
 - .1 Discussion of on-line MSI Training Course
 - .2 Discussion of attendance criteria and student selection;
 - .3 Discussion on input from partner Organizations involved in the provision of MSI (**IMO, WMO, IOC**)
- .3 WWNWS CD-ROM/USB (**Chair**)

6 NEXT MEETING

- .1 Dates and venue for WWNWS12 – ??, ??-?? August/September 2020 (tbc)
(Chair/Secretary)
- .2 Draft Agenda for WWNWS12 (Chair/Secretary)

7 Review of Action Items from WWNWS11 (Secretary)

8 ANY OTHER BUSINESS (Chair)

- .1

9 CLOSURE OF THE MEETING (Chair)

**WWNWS11
LIST OF PARTICIPANTS**

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Canada – XVII & XVIII	Lucia Bakker (NAVAREA XVII-XVIII Coordinator) John Parker (METAREA XVII-XVIII Coordinator) Marie-Helene Roy (Manager, Navigation Safety and Radio Communications, Transport Canada) Jean Guèvremont (National Manager, Marine Communications and Traffic Services) Bridget Gagné (Quality Assurance Officer, NOTMAR) Natasha McMahon (Aids to Navigation, Operational Support) Cheryl Marshall (AtoN, e-Navigation) Eivind Mong [^] (CCG)	Lucia.Bakker@dfo-mpo.gc.ca john.parker2@canada.ca marie-helene.roy@tc.gc.ca jean.guevremont@dfo-mpo.gov.ca bridget.gagne@dfo-mpo.gov.ca cheryl.marshall@dfo-mpo.gc.ca Eivind.Mong@dfo-mpo.gc.ca
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<i>Russia – XX & XXI</i>		
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^ S-124 meeting

Documents Submitted to WWNWS11

Document No	Document Title	Date Uploaded
WWNWS11 Self Assessment Template	Template to be used for the submission of NAVAREA Self Assessments - amended 8 February 2019	8 February 2019
WWNWS11 Self Assessment Template Annex	NAVAREA Self Assessment Annex A Template - Blank.zip	8 February 2019
WWNWS11 Document Template	Template to be used for the submission of documents, other than Self Assessments	28 September 2018
WWNWS11 PowerPoint Template	Template to be used for PowerPoint Presentations at WWNWS11	19 July 2019
WWNWS11-01/2019	Invitation Letter	26 March 2019
WWNWS11-01/2019	Enclosure 1 - Logistics Information	26 March 2019
WWNWS11-01/2019	Enclosure 2 - Hotel Booking Form (Word version)	
WWNWS11-01/2019	Enclosure 3 - Registration Form (Word version)	26 March 2019
WWNWS11-01/2019	Enclosure 3 - Registration Form (pdf version)	26 March 2019
WWNWS11-List of Participants	List of Participants v9.1	26 September 2019
WWNWS-SC	Provisional agenda for International SafetyNET Coordinating Panel v1.0	16 July 2019
WWNWS11-1-3	Programme for WWNWS11-SC meeting v3.0	22 August 2019
WWNWS11-1.5	Provisional Agenda for WWNWS11 v3.0	18 July 2019
WWNWS11-1-6	WWNWS10 ACTION ITEMS - Corrected to 8 August 2019	8 August 2019
WWNWS11-1-7.1	Report to IRCC11	17 July 2019
WWNWS11-1-7.2	Report to IRCC11 Presentation	17 July 2019
WWNWS11-1-7.3	Relevant IRCC11 Recommendations and Actions	17 July 2019
WWNWS11-2-1	IHO Update Report	
WWNWS11-2-2	IMO Update Report	
WWNWS11-2-3	WMO Update Report	2 August 2019
WWNWS11-2-4	IMSO Update Report	24 August 2019
WWNWS11-3-1-1	Outcomes of MSC 100 and MSC 101	17 July 2019
WWNWS11-3-1-2	Outcomes of NCSR 6	17 July 2019
WWNWS11-3-1-3	Outcomes of IMO-ITU EG15	17 July 2019
WWNWS11-3-2-I	Self Assessment NAVAREA I	25 July 2019
WWNWS11-3-2-I-Annex B	Self Assessment NAVAREA I Annex B	25 July 2019
WWNWS11-3-2-Ib	Self Assessment NAVAREA Ib	7 July 2019

WWNWS11-3-2-Ib-Annex A	Self Assessment NAVAREA Ib Annex A	7 July 2019
WWNWS11-3-2-II	Self Assessment NAVAREA II	7 July 2019
WWNWS11-3-2-II	Self Assessment NAVAREA II Rev.1	31 July 2019
WWNWS11-3-2-II-Annex A	Self Assessment NAVAREA II Annex A	30 July 2019
WWNWS11-3-2-III	Self Assessment NAVAREA III	6 August 2019
WWNWS11-3-2-III-Annex A	Self Assessment NAVAREA III Annex A	6 August 2019
WWNWS11-3-2-IV_XII	Self Assessment NAVAREA IV_XII	31 July 2019
WWNWS11-3-2-IV-Annex A	Self Assessment NAVAREA IV Annex A	23 August 2019
WWNWS11-3-2-XII-Annex A	Self Assessment NAVAREA XII Annex A	23 August 2019
WWNWS11-3-2-V	Self Assessment NAVAREA V	1 August 2019
WWNWS11-3-2-V	Self Assessment NAVAREA V Rev.1	6 August 2019
WWNWS11-3-2-V	Self Assessment NAVAREA V Rev.2	29 August 2019
WWNWS11-3-2-VI	Self Assessment NAVAREA VI	30 July 2019
WWNWS11-3-2-VI-Annex A	Self Assessment NAVAREA VI Annex A	
WWNWS11-3-2-VII	Self Assessment NAVAREA VII	2 August 2019
WWNWS11-3-2-VII-Annex A	Self Assessment NAVAREA VII Annex A	2 August 2019
WWNWS11-3-2-VIII	Self Assessment NAVAREA VIII	12 August 2019
WWNWS11-3-2-VIII-Annex A	Self Assessment NAVAREA VIII Annex	12 August 2019
WWNWS11-3-2-IX	Self Assessment NAVAREA IX	19 August 2019
WWNWS11-3-2-IX	Self Assessment NAVAREA IX Rev.1	19 August 2019
WWNWS11-3-2-IX-Annex A	Self Assessment NAVAREA IX Annex A	
WWNWS11-3-2-X	Self Assessment NAVAREA X	14 August 2019
WWNWS11-3-2-X-Annex A	Self Assessment NAVAREA X Annex A	14 August 2019
WWNWS11-3-2-XI	Self Assessment NAVAREA XI	2 August 2019
WWNWS11-3-2-XI	Self Assessment NAVAREA XI Rev.1	21 August 2019
WWNWS11-3-2-XI-Annex A	Self Assessment NAVAREA XI Annex A	21 August 2019
WWNWS11-3-2-XIII	Self Assessment NAVAREA XIII	1 August 2019
WWNWS11-3-2-XIV	Self Assessment NAVAREA XIV	30 July 2019
WWNWS11-3-2-XIV-Annex A	Self Assessment NAVAREA XIV Annex A	30 July 2019
WWNWS11-3-2-XV	Self Assessment NAVAREA XV	6 August 2019
WWNWS11-3-2-XVI	Self Assessment NAVAREA XVI	21 August 2019
WWNWS11-3-2-XVII_XVIII	Self Assessment NAVAREA XVII XVIII	2 August 2019
WWNWS11-3-2-XIX	Self Assessment NAVAREA XIX	6 August 2019

WWNWS11-3-2-XIX-Annex A	Self Assessment NAVAREA XIX Annex A	6 August 2019
WWNWS11-3-2-XX_XXI	Self Assessment NAVAREA XX XXI	22 August 2019
WWNWS11-3-2-N_C_R	National Coordinator Report - CHN	21 August 2019
WWNWS11-3-2-1	Quality Management Survey	22 August 2019
WWNWS11-3-3-1-1	IMO NAVTEX Coordinating Panel Report	2 August 2019
WWNWS11-3-3-1-1	IMO NAVTEX Coordinating Panel Report Rev.1	7 August 2019
WWNWS11-3-3-2	SafetyNET Panel Report	21 August 2019
WWNWS11-3-3-3.1	IOC TOWS-WG Tsunami Warning Message alerts for maritime community	23 July 2019
WWNWS11-3-3-3.2	IOC TOWS-WG-XII Report	23 July 2019
WWNWS11-3-3-3.3	IOC TOWS-WG Update	27 August 2019
WWNW11-3-4-1.1	Inmarsat Performance Report - IMSO	
WWNWS11-3-4-1.2	Inmarsat EGC SafetyNET Report	
WWNWS11-3-4-2	Iridium EGC SafetyCast Report	
WWNWS11-3-4-3	Iridium operational implementation progress report - IMSO	27 August 2019
WWNW11-3-4-4	S-124 CG Progress Report	12 August 2019
WWNWS11-3-4-4	S-124 CG Progress Report Rev.1	31 August 2019
WWNWS11-3-4-4	S-124 Workshop outcomes	30 August 2019
WWNWS11-3-4-4	S-124 Workshop outcomes Rev.1	5 September 2019
WWNW11-3-4-4.1	Draft S-124 Training manual for NAVAREA Coordinators	27 August 2019
WWNW11-3-4-4.2	Draft S-124 Training manual for NAVAREA Coordinators Annex B	27 August 2019
WWNWS11-3-5-1	Considerations on monitoring MSI broadcasts over satellite systems - IMSO	17 July 2019
WWNWS11-4-1.1	Actions from DocRev WG17 Meeting	8 February 2019
WWNWS11-4-1.2	Document Review Status Report	18 July 2019
WWNW11-4-14	WWNWS-SC ToRs	17 July 2019
WWNWS11-5-1	Regional Hydrographic Commission Meetings	18 July 2019
WWNW1-5-1-1.1	National Reports to Regional Hydrographic Commissions - Australia	
WWNWS11-5-1-1.2	Annex-A-RHC National Report MSI Template - Australia	
WWNW11-5-2	CB MSI Training 2019-2020	12 August 2019
WWNWS11-INF.1	Analysis and assessment of the GMDSS performance of Inmarsat Global Limited	17 July 2019
WWNWS11-INF.2	Status and plans of BDMSS for recognition and use in GMDSS	17 July 2019

WWNWS11-INF.3	Considerations on current practice and the history of charging exemptions for certain classes of maritime radio traffic	17 July 2019
WWNWS11-INF.4	Fleet Safety addition to the International SafetyNET Manual (MSC.1/Circ.1364/Rev.1)	17 July 2019
WWNWS11-INF.5	Development of an interim preliminary draft Iridium SafetyCast service manual	17 July 2019
WWNWS11-INF.6	MS5 - Maritime Safety Information service	18 July 2019
WWNWS11-INF.7	IMO Enhanced Group Call Coordinating Panel (MSC.1/Circ.1364/Rev.1/Corr.1)	24 August 2019
WWNWS11-6-2	Provisional Agenda WWNWS12	18 July 2019
WWNWS11 Presentations	Presentations zip	28 August 2019

WWNWS11
Halifax, Canada - 26 to 30 August 2019

List of Actions (updated: 27 September 2019)

Action Number	Agenda Item	Subject	Status / Due Date	Comments	Action By
WWNWS8 List of Actions					
	WWNWS8 4.8	SafetyNET Users' Handbook	DRWG15 WWNWS9 DRWG17 DRWG18	Provided an update on the revision of the Inmarsat SafetyNET Users' Handbook and the intended procedure to be followed. Revised version to be provided at WWNWS9 DRWG18	Inmarsat
WWNWS9 List of Actions					
	WWNWS9 2.4	GMDSS Master Plan	On going	Encourage national coordinators to cross-check C-55 and GMDSS Master Plan information	All
	WWNWS9 3.1	Outcomes of IMO Meetings	On going	Engage with IMO meetings and relevant Correspondence Groups	All
	WWNWS9 3.2	Self Assessment reports	DRWG1617 DRWG18	Develop generic letter for use by NAVAREA Coordinators to encourage provision of MSI	Chair
Joint WWNWS-SC & WWMIWS-C List of Actions					
1	2.3	IMO Report	14 December	Add generic email addresses and websites to METAREA Contact list included in COMSAR.1/Circ.51	WMO
6	3.3.5	Interoperability	14 December	Provide details of methods and interfaces used and pass to IMSO (gmdss@imso.org)	All NAVAREAs/ METAREAs

WWNWS11 Report
Annex D

9	7.1	Tsunami Warning Messages	27 September	Provide contact details of TSPs	IOC
WWNWS10 List of Actions					
13	1.2	List of Actions from WWNWS9	5 October WWNWS11	Draft message to advise the change from rectangular area to NAVAREA specific addressing for the Arctic NAVAREAs and report to NCSR6 Submission to NCSR 7 to be developed and prepared at WWNWS11	Chair/NAV XVII_XVIII/ XIX/ XX_XXI/ IHO
15	2.1	NAVAREA IX	DRWG17 DRWG18	Develop generic letter for use by Coordinators to explain to National Coordinators their roles and responsibilities	Chair
18	2.1	NAVAREA XVI	30 November DRWG19	Review contents of Joint IMO/IHO/WMO Manual on MSI and provide message examples for inclusion	All
WWNWS11 List of Actions					
1	3.1	Related IMO meetings	On going	Engage with maritime administration delegations attending IMO meetings to ensure all are briefed correctly and the implications of any proposals are understood fully	All NAVAREAs/ Sub-Area
2	3.2	Self Assessments	27 September	Contact NAVAREA VII to clarify statement in paragraph 4 of Self Assessment report	NAVTEX Chair
3	3.2	Self Assessment	27 September	Contact Saudi Arabia for clarification on proposed locations and service areas for new NAVTEX stations in the Red Sea	NAVTEX Chair/ NAV IX
4	3.2	Self Assessment	WWNWS12	Investigate the feasibility of establishing correct procedure for cancelling messages	NAV X
5	3.2	Self Assessment	NCSR 7	Include concerns in WWNWS-SC report	Chair
6	3.2	Self Assessment	WWNWS12	Confirm whether broadcasts were being received in southwestern section of NAVAREA XIII	Inmarsat
7	3.2.1	Quality Management Analysis	1 November	Review processes and provide feedback on identified issues as appropriate	All NAVAREAs/ Sub-Area

WWNWS11 Report
Annex D

8	3.2.1	Quality Management Analysis	WWNWS12	NAVAREA Coordinators to register on IMO Docs to gain access to relevant IMO documents and to gain viewing rights and GMDSS manager authority to GISIS and report in Self Assessment	All NAVAREAs/ Sub-Area
9	3.2.1	Quality Management Analysis	WWNWS12	NAVAREA Coordinators to report attendance at RHCs in Self Assessment reports	All NAVAREAs/ Sub-Area
10	-	IMO GISIS brief	1 November	IMO to investigate IHO GISIS access issues and seek resolution	IMO
11	-	IMO GISIS brief	On going	Provide pdf download from GISIS of current list of contact details for NAV and MET Area Coordinators for upload onto IHO and WMO websites	IMO
12	3.3.3	TOWS-WG Report	27 September Complete	Include full Appendix 4 with message examples as annex to final meeting report	IHO
13	3.3.3	TOWS-WG Report	1 November	Investigate participation in IOC workshop for Tsunami warnings in Indian Ocean basin in Jakarta	NAVAREAs VII/VIII/IX/ X/XI
14	3.3.3	TOWS-WG Report	27 September Complete	Provide details of MSI training courses in 2020 to IOC for consideration of participation by TSP	IHO
15	3.3.4	Contingency Planning	On going	Develop appropriate arrangements and include details of annual contingency exercises in reports	All NAVAREAs
16	3.3.4	Contingency Planning	WWNWS12	Expedite conclusion of planned contingency agreement and conduct annual exercise of plan	NAVAREAs XV/XVI
17	3.4.3	Iridium implementation plan	27 September	Provide critical path timeline for completion of outstanding items	IMSO
18	3.4.4	S-124CG Report	On going	Engage with S-124 CG to provide input and feedback on developments	All NAVAREAs/ Sub-Area
19	3.4.4	S-124CG Report	25 October	Review S-124 warning Hazard Type list and provide feedback and input to Chair S-124CG	All NAVAREAs/ Sub-Area
20	3.4.4	S-124CG Report	27 September	Provide revised draft ToRs for establishment of S-124PT following example ToRs provided	Chair S-124CG/IHO

WWNWS11 Report
Annex D

21	4.8	NAVTEX Manual	DRWG19	Consider revised text to reflect the current operational use of NAVTEX with regards to supporting SAR operations	NAVTEX Chair
22	5.2	MSI CB Training	DRWG19	Check currency of training material and update where necessary	Chair/ NAVAREA IV_XII
23	5.3	MSI CD-ROM	27 September Complete	Provide version of new IHO logo	IHO
24	WWNWS11 6.1	Next meeting	13 December	Confirm details of WWNWS12	Chair/ IHO
25	WWNWS11 7	Action List	WWNWS12	Keep IHO and the Chair informed of progress with allocated actions	All
26	WWNWS11 7	WWNWS11 Draft Report	5 September Complete	Draft to be circulated for comment	IHO
27	WWNWS11 7	WWNWS11 Draft Report	20 September Complete	All to provide comments on draft report	All
28	WWNWS11 7	WWNWS11 Draft Report	27 September Complete	Publish final report	IHO
29	WWNWS11 7	Report to IRCC12	3 April	Draft report for review and amendment.	Chair/vice- Chair/IHO

APPENDIX 4

Intergovernmental Oceanographic Commission of UNESCO

Working Group on Tsunamis and Other Hazards Related to Sea-Level Warning and Mitigation Systems (TOWS-WG)

Tsunami Service Provider Messages for the Maritime Community

A Proposal to the World-Wide Navigational Warning Service Sub-Committee (WWNWS-SC)

29 January 2019

The following is an initial proposal for the format, content, and dissemination of messages with tsunami guidance specifically for ships on the high seas from the Tsunami Service Providers (TSPs) of the four Tsunami Warning Systems operated by the Intergovernmental Oceanographic Commission (IOC) of UNESCO. This proposal was generated in response to discussions between representatives of the International Hydrographic Organization (IHO) and the IOC to improve the accuracy and consistency of messages issued by the NAVAREA coordinators for tsunami events. This proposal incorporates feedback received from the 10th session of the WWNWS-SC held in Monaco during 27-31 August 2018.

1. Messages would be created and disseminated only for potential and confirmed tsunami occurrences when forecast amplitudes at any coast within a TSP's service area exceed pre-defined threat threshold (typically 0.3 meters), the minimum coastal amplitude considered to be a hazard.
2. Messages would be disseminated by each TSP by email to those NAVAREA coordinators who subscribe for receiving tsunami threat information within that TSP's service area, based on the IOC Area of Service Map. (Please refer to Appendix 3 for the Area of Service Map. Note that multiple TSPs cover some NAVAREAs and each TSP covers multiple NAVAREAs. In case of multiple TSPs covering same NAVAREAs, the NAVAREA coordinator may note that threat assessment could differ from one TSP to the other and hence is advised to use the "worst-case" in formulating maritime safety messages).
3. The initial TSP maritime message would be issued to NAVAREA coordinators when the TSP issues its initial quantitative coastal forecast for the Member States within its IOC System. This is usually within 30 minutes of the earthquake that generated the tsunami. Note that a TSP may issue a qualitative advisory product to Member States preceding the initial quantitative coastal forecast products.
4. An additional TSP maritime message would be issued only if the forecast significantly changes.
5. One message would be issued indicating the final handling of the event by the TSP, usually when the threat has passed everywhere in the service area. However, the

hazard may continue along some coasts and that status must be determined by local authorities.

6. NAVAREA coordinators would have the responsibility for turning TSP messages into maritime safety messages issued via SafetyNet to ships at sea.

Message Format and Content

The format and content of the proposed TSP messages generally follows the guidance given in the Manual on Maritime Safety Information – IHO Publication 53 (January 2016 Edition) in order that the conversion by NAVAREA coordinators to a maritime safety message be as simple as possible.

Message Element	Element Description	TSP Content	Queries	Summary of Clarifications by WWNWS-SC and TTTWO
1	NAVAREA name	NAVAREA having coasts with tsunami forecast amplitude exceeding the pre-defined threat threshold (typically 0.3 meter)	Can one message apply to more than one NAVAREA?	There is no need to put the NAVAREA name or number on the message(s) provided. The NAVAREA Coordinator for the area affected by the Tsunami Warning will provide this information. If the Tsunami Warning applies to more than one NAVAREA, the NAVAREA Coordinator understands the need to forward this information to the adjacent NAVAREA(s) that may be affected. While NAVAREA Coordinators are responsible for passing information to other affected NAVAREAs, there should not be a reliance upon this to receive tsunami warnings. All NAVAREA Coordinators should be responsible for subscribing to the warning service appropriate to their AOR, in reference to the IOC AoS map in Appendix 3. For example, the coverage map clearly shows that PTWS is the warning service that provides alerts to NAVAREA XIV, so it should be the responsibility of the NAVAREA XIV Coordinator to subscribed

				to alerts from this service.
2	General Area	Name of the general area forecast to be affected by the tsunami	Need to identify or create a standard area naming scheme for ocean areas.	Not mandatory for TSPs to use a standard naming scheme for General Area. They can describe in general terms which broad area the bulletin applies to (eg. Indian Ocean / Western Indian Ocean/ Eastern Indian Ocean / etc.). The NAVAREA Coordinator will refer to the chart coverage for the affected area(s) by the event and will utilize the naming convention found on those applicable charts, as appropriate.
3	Locality	Not Used		
4	Chart Number	Not Used		
5	Key Subject	Type of Tsunami Message (Confirmed Threat/Cancellation/etc.), issuing centre and issuing time. A likely or confirmed tsunami, with key information about the source - usually an earthquake (lat/lon, region name, origin time).		
6	Geographical Region	Names of countries/Islands (from a standard list) in NAVAREA with coasts forecast to have hazardous tsunami waves.	Need standard list of key harbors and their names.	It would be better to list only the names of Countries/Islands as standard text (not graphical) products. TSPs can provide a geographic region name for the area affected, if desired. Additionally, they can provide key harbor names for the area effected, but it is not necessary to use a standardized list of key harbor names for the area. The NAVAREA Coordinator will refer to the chart coverage for the affected area(s) by the event and will utilize the naming convention found on those applicable charts, as appropriate.
7	Amplifying Remarks	Tsunami impact on ships in shallow waters. Consult		

		local authorities of destination.		
8	Cancellation Details	Indicate if final message and that continuing hazard possible. Must be evaluated locally.		

Example Proposed TSP Maritime Messages

Example 1 – A TSP initial message for a tsunami affecting 3 NAVAREAs

NAVAREA XI, NAVAREA XIII, NAVAREA X

NORTHEAST PACIFIC COASTS

TSUNAMI THREAT MESSAGE [or whatever the correct term will be] ISSUED BY PACIFIC TSUNAMI WARNING CENTRE [fill in name of the issuing TSP] in support of the UNESCO/IOC PACIFIC TSUNAMI WARNING AND MITIGATION SYSTEM [fill in name of the regional system] AT DDHHMM UTC MMM YY. [This clearly identifies that the message has been issued by the recognised expert]

A TSUNAMI HAS BEEN GENERATED BY A MAGNITUDE 8.4 EARTHQUAKE THAT OCCURRED IN VICINITY OF [Position] DD-MM N/S DDD-MM E/W, THE RYUKYU ISLANDS DDHHMM UTC MMM YY [this is the date/time of the earthquake, rather than the originating message]

HAZARDOUS TSUNAMI WAVES ARE FORECAST FOR SOME COASTS OF JAPAN, THE PHILIPPINES, AND INDONESIA [from a list of countries/islands]

TSUNAMI WAVES ARE NOT A HAZARD TO SHIPS IN DEEP WATER BUT CAN CAUSE STRONG CURRENTS AND RAPID SEA LEVEL CHANGES IN SHALLOW WATER, AS WELL AS INUNDATION OF THE COAST. SHIPS APPROACHING THE COAST SHOULD CONSULT LOCAL AUTHORITIES REGARDING LOCAL CONDITIONS AND ADVICES.

Example 2 – A TSP final message for a tsunami affecting 3 NAVAREAs

NAVAREA XI, NAVAREA XIII, NAVAREA X

NORTHEAST PACIFIC COASTS

TSUNAMI CANCELLATION MESSAGE [or whatever the correct term will be] ISSUED BY PACIFIC TSUNAMI WARNING CENTRE [fill in name of the issuing TSP] in support of the UNESCO/IOC PACIFIC TSUNAMI WARNING AND MITIGATION SYSTEM [fill in name of the regional system] AT DDHHMM UTC MMM YY. [This clearly identifies that the message has been issued by the recognised expert]

THE THREAT HAS NOW LARGELY PASSED FOR THE TSUNAMI GENERATED BY A MAGNITUDE 8.4 EARTHQUAKE THAT OCCURRED IN VICINITY OF [Position] DD-MM N/S DDD-MM E/W, THE RYUKYU ISLANDS DDHHMM UTC MMM YY [this is the date/time of the earthquake, rather than the originating message]

HOWEVER, SHIPS APPROACHING THE COAST SHOULD STILL CONSULT LOCAL AUTHORITIES REGARDING LOCAL CONDITIONS AND ADVICES.

**PROVISIONAL AGENDA OF THE TWELFTH MEETING
OF THE WWNWS SUB COMMITTEE (WWNWS12)**

To be held ???, ???
?? – ?? August/September 2020

1 OPENING REMARKS AND ADMINISTRATIVE ARRANGEMENTS

- .1 Opening Remarks and Introductions (Chair)
- .2 Welcome by the host (???)
- .3 Working Arrangements (Secretary)
- .4 Administrative Arrangements (Host)
- .5 Adoption of the Agenda (Chair)
- .6 Review of Action Items from WWNWS11 (Secretary)
- .7 Report from IRCC12 (Chair)

2 MATTERS RELATING TO THE GMDSS MASTER PLAN

- .1 IHO Update
- .2 IMO Update
- .3 WMO Update
- .4 IMSO Update
- .5 Review content of GMDSS Master Plan Annexes 7 & 8_(Chair)

3 PROMULGATION OF MARITIME SAFETY INFORMATION (MSI)

- .1 Related IMO meetings:
 - .1 Outcome of the 102nd Session of the International Maritime Organization's Committee on Maritime Safety (MSC 102) 13 – 22 May 2020 (Secretary)
 - .2 Outcome of the 7th Session of the International Maritime Organization's Sub-Committee on Navigation, Communications and Search and Rescue (NCSR 7) 15 – 24 January 2020 (Secretary)
 - .3 Preparations for the 16th meeting of the IMO/ITU Experts Group IMO/ITU EG 16) 6 – 10 July 2020 (Secretary)
- .2 Self Assessments by NAVAREA Coordinators (*Brief reports highlighting only significant events in previous period, identified deliverables/outputs and matters requiring WWNWS-SC action, full reports can be downloaded from the WWNWS-SC website*)
 - .1 Quality Management Analyses of Self Assessments (Secretary)
- .3 Broadcast Systems and Services
 - .1 NAVTEX issues
 - .1 Report of the IMO NAVTEX Coordinating Panel
 - .2 NAVTEX Service issues
 - .2 Report of the IMO EGC Coordinating Panel
 - .3 IOC Tsunami Early Warning Systems up-date, including TOWS-WG issues (IOC)

- .4 Contingency Planning (**Chair**)
- .4 Developments in the WWNWS
 - .1 Inmarsat-C EGC SafetyNET Services Report (**Inmarsat**)
 - .2 Iridium SafetyCast Service Report (**Iridium**)
 - .3 Iridium operational implementation plan and programme progress report (**IMSO**)
 - .4 S-124 progress report (**Chair S-124CG**)
 - .5 BDMSS development and progress report (**IMSO/CHN**)
- .5 Emerging Technologies/Modernisation
 - .1 Interoperability between recognized GMDSS mobile satellite service providers (**Chair/Secretary**)
 - .2 Manufacturers' presentations (if any)
 - .3 Maritime Services in the context of e-Navigation update (**AUS/NZL**)

4 REVIEW OF GUIDANCE DOCUMENTS AND OTHER RELATED DOCUMENTATION

- .1 Document Review Status Report (**Chair/Secretary DRWG**)
- .2 IMO Resolutions A.705(17) as amended and A.706(17) as amended (MSC.1/Circ.1287 and MSC.1/Circ.1288 respectively) (**Chair/Secretary DRWG**)
- .3 WMO - IMO resolution on Met-ocean services Assembly resolution A.1051(27)
- .4 IMO resolutions MSC.306(87) and A.664(16) "Performance Standards for Enhanced Group Call Equipment". (**Chair/Secretary DRWG**)
- .5 IMO "Guideline on operational procedures for the broadcast of maritime safety information concerning acts of piracy and piracy counter-measure operations." (IMO resolution MSC.305(87)) (**Chair/Secretary DRWG**)
- .6 Joint IMO/IHO/WMO Manual on MSI (MSC.1/Circ.1310) and IHO Publication S-53 (**Chair/Secretary DRWG**)
- .7 International SafetyNET Services Manual (MSC.1/Circ.1364) (**Chair/Secretary DRWG/Inmarsat**)
- .8 IMO NAVTEX Manual (MSC/Circ.1403) (**Chair/Secretary DRWG**)
- .9 Relations between NAVAREA Coordinators and Rescue Coordination Centres (COMSAR/Circ.3) (**Chair/IMO**)
- .10 Inmarsat SafetyNET Users' Handbook (**Chair/Secretary DRWG**)
- .11 IAM SAR Manual Volume 2 (**IMO**)
- .12 MSI element of IHO Publication C-55 – "Status of Hydrography and Nautical Cartography World-Wide". (**Chair/Secretary**)
- .13 Iridium SafetyCast Service Manual – draft (**Chair/Secretary DRWG/Iridium**)
- .14 Terms of Reference for the WWNWS Sub Committee (IHO Circular Letter 46/2009) (**Chair/Secretary**)

5 WWNWS REPRESENTATION AT REGIONAL HYDROGRAPHIC COMMISSIONS AND OTHER CONFERENCES

- .1 WWNWS member attendance at RHCs and reports (**Chair**)
- .2 Capacity Building MSI Training Course Developments (**Chair**)
 - .1 Discussion of on-line MSI Training Course
 - .2 Discussion of attendance criteria and student selection;
 - .3 Discussion on input from partner Organizations involved in the provision of MSI (**IMO, WMO, IOC**)

.3 WWNWS CD-ROM/USB (Chair)

6 ELECTIONS

.1 Election of chair and vice-chair for triennium 2020 to 2023 (Secretary)

7 NEXT MEETING

.1 Dates and venue for WWNWS13 – ??, ??-?? August/September 2021 (tbc)
(Chair/Secretary)

.2 Draft Agenda for WWNWS13 (Chair/Secretary)

8 Review of Action Items from WWNWS12 (Secretary)

9 ANY OTHER BUSINESS (Chair)

.1

10 CLOSURE OF THE MEETING (Chair)

DRAFT

NAVAREA Coordinators' Self-Assessment Quality Management Analysis

Submitted by IHO Secretariat

SUMMARY

Executive Summary: This document provides details of the analysis of the NAVAREA Coordinators' Self-Assessment Reports to WWNWS11.

Action to be taken: Paragraph 8.

Related documents: NAVAREA Coordinators' Self-Assessment Reports

1. See attached Quality Management analysis table.
2. A notable number of the Self-Assessment reports were received well after the deadline; this caused significant additional work and delayed the publication of the documents on the website. NAVAREA Coordinators are requested to ensure the published deadline for submission of Self-Assessment reports is observed and not treated as a target. It was pleasing to note that all were received in Word format, which greatly assisted in the final preparation of the documents.
3. Some of the quoted average elapsed times are a bit too uniform across the reported years. Not all reports were received on the current template, a number did not submit details or comments regarding their preparations for implementation of the Iridium SafetyCast service nor the additional Annex A Excel spreadsheet provided for each relevant NAVAREA and for use by the CBSC, chairs of RHCs and Regional CB Coordinators. Details of MSI information received from coastal states within individual NAVAREAs and typical topics/subjects; i.e. mainly aids to navigation, military exercises, port construction activities, etc., helps to identify coastal states that are not providing information or the information that is provided is limited to particular topics/subjects and therefore they are likely not to be fulfilling their entire remit. The coastal states listed in each version were harmonized with the standard United Nations names, unless unavailable; the objective is to generate a comprehensive list of coastal states across all IHO activities, hence the need to use harmonized names to ensure all elements are referring to the same state. In addition it is intended to generate a master list for each NAVAREA to ensure the CB Coordinators are approaching the correct NAVAREA Coordinator and RHC Chair.
4. Noting the identified requirement for MSI training within the MBSHC and the lack of on focus on Phase 1 CB in the bids submitted, it is recommended the Chair WWWS-SC communicates his concerns to the Chair of MBSHC, requesting action be taken to address the disconnect between the identified requirement and the training bids submitted. NAVAREA III Coordinator should advise the IHO Secretariat of the top critical coastal states to allow early action to be taken to provide training.

5. NAVAREA Coordinators are strongly encouraged to confirm/check the contents of their Self Assessment reports with the National coordinators within their individual NAVAREAs. It is recommended that draft documents are circulated to National coordinators for their input and checking, this will also ensure communication between the NAVAREA Coordinator and the National coordinators is checked at least once per year.

6. Specific comments on submitted Self Assessment report are contained in the table below:

NAVAREA	Remarks
I	Previous version of template used, not details on Iridium preparations. Contribution to MSI training gratefully acknowledged.
Ib	Noted the successful change for the Tallinn station. Noted the change to make the Baltico a MSI WG under the BSHC, titled BSMSIWG.
II	Previous version of template used. Noted the success with Nigeria and the on-going difficulties with other coastal states. Is 10 minutes a set standard or just quick work? Increasing number of re-runs of 'in-force' warning noted? Any further progress with bringing the non-operational NAVTEXT transmitters back into service? Provision of piracy information and warnings well noted with appreciation. CB assessment details for NAVAREA should be used as the example format in all reports, where appropriate; identified need to continue to highlight situation in all for a (IMO, RHC and Technical visits).
III	Have the provided contact details been confirmed and checked? Increase in number of information received, from whom are faxes received? Increase in requests for 'in-force' warnings noted; Any progress on bringing the non-operational NAVTEX stations in Syria and Tunisia back online? Note the minimal output from Bosnia and Herzegovina, Croatia, Israel, Libya, Morocco, Montenegro and Slovenia, any known reasons? Last MSI course held for MBSHC in 2018, none bid for 2019 or 2020 despite large number of coastal states identified as in need of training? Clarification of Contingency Plan, is there an arrangement with an adjacent NAVAREA? Good to note temporary solution on provision of MSI in Black Sea area.
IV-XII	Most recent GMDSS Master Plan issued as GMDSS.1/Circ.23 on 4 March 2019. Significant increase in requests for 'in-force' warnings noted; Good to note Dominican Republic and Cuba successes; note progress on receipt of MSI from coastal states with NAVAREA and need to monitor the ongoing contact and provision of MSI post course. CB priority list noted and bid for course in 2020.
V	Contingency exercise noted; CB activities noted; additional service provider coasts noted.
VI	Most recent GMDSS Master Plan issued as GMDSS.1/Circ.23 on 4 March 2019. Is 20 minutes a standard? Concern over the lack of progress at bringing La Paloma NAVTEX station back into service; good to note contingency plan with V is exercised periodically; benefit of MSI course noted; concern expressed on out-of-area transmission of MSI is noted.
VII	Operation of Walvis Bay station noted; lack of MSI from Angola and Iles Comores noted; average elapsed time for transmission of immediate priority warnings appear somewhat uniform and suggested some take longer than the maximum target time; position with respect to Iridium SafetyCast service noted; increase in number of requests for 'in-force' warnings noted;

	efforts to improve MSI provision in region noted and appreciated, although lack of impact after MSI course remains a concern; attendance at future WWNWS-SC meetings vital for regional development.
VIII	Has contingency plan been exercised?
IX	Previous version of template used; Equipment details should be provided; concern that immediate priority warnings appear to have an elapsed time of greater than 30 minutes? Concern over MENAS status, is MENAS acting officially on behalf of Bahrain or is there a separate national organization? Iridium preparations not provided; NAVTEX stations operational state not provided and details of any new infrastructure? Are In Force warnings bulletins provided? Good to note progress on development of external contingency plans, may need to consider an alternative NAVAREA to ensure complete coverage; CB requirement noted, has a bid been passed to Regional CB Coordinator (IR of Iran) so application for training course can be submitted to CBSC? More details on website.
X	Previous version of the template used. Are there any indications on the cost impact for METAREA X? Comments on broadcast monitoring noted; increase in numbers of messages received is noted, any particular reason? any consideration for contingency plan with neighbouring NAVAREA? PNG progress encouraging, any indication on the time frame? What impact resulting from significant CB investment, has MSI provision improved? Details on regional technical developments are encouraging.
XI	Most recent GMDSS Master Plan issued as GMDSS.1/Circ.23 on 4 March 2019. Why such long time for 2018 average elapse times? Iridium SafetyCast service comments notes; good news regarding Manila NAVTEX station, continue to monitor progress to bring Guam NAVTEX station back into operation; comments in paragraph 4 not understood; may wish to consider contingency plan with adjacent NAVAREA to cover situation if building out of service; note plan for MSI training in Indonesia and to visit other national coordinators, need to consider multiple national authorities have overlapping responsibilities in some states; note comment on wider distribution of MSI beyond own national authorities; previous concerns no MSI received from some coastal states remain; update on situation with Viet Nam requested;
XIII	No warnings qualified as immediate priority? Increase in number of requests for 'in-force' warnings noted;
XIV	Monitoring procedures and concerns noted; success with communications checks noted; noted that warning transmission time has reduced; increase in number of requests for 'in-force' warnings noted; impact resulting from significant CB investment noted; contribution and participation in DRWG17 appreciated; general Phase 1 CB efforts acknowledged and resultant impacts remain encouraging.
XV	Previous version of template used; no information on average time to transmit 'immediate priority' messages; encouraging to note various contingency initiatives, recommend they are completed and exercised at least annually, NAVAREA XVI requested to reciprocate initiative; CB work with Colombia acknowledged; comments regarding development of Tsunami warning message noted
XVI	Need to identify which version of Master Plan; Good to see all three NAVTEX stations now operational; Noting the vulnerability of the region to natural disasters, contingency agreement with adjacent NAVAREA needs

	to be completed as a matter of priority, progressing discussions with NAVAREAXV should be a priority. Good to see ISO certification has been completed
XVII-XVIII	Details of priority criteria now used? Contingency plan activity noted.
XIX	Comments on change from rectangular to NAVAREA XIX noted; Most recent GMDSS Master Plan issued as GMDSS.1/Circ.23 on 4 March 2019
XX-XXI	Previous version of template used; Which Mater Plan version? What plans/considerations for the implementation of Iridium SafetyCast service? What are contingency plans and have they been exercised?

7. The relationship between NAVAREA Coordinators and National coordinators is the foundation for the successful provision of MSI to the wider maritime community, this is only achievable if there is open and regular communication. NAVAREA Coordinators have a vital role as the link between the information providers and the maritime customers. It is evident that time and effort invested in developing the skills and capabilities of National coordinators, after the concentrated Capacity Building MSI course, consolidates and reinforces the knowledge and confidence of the individuals as well as their organizations.

8. It is suggested a short survey/questionnaire could be developed to assess the performance/interaction between NAVAREA and National Coordinators. It would seek to highlight where improvements could be made by NAVAREA Coordinators to better engage and develop the knowledge and skills of National coordinators, as well identify areas on which National coordinators could focus to improve the provision of information back to their respective NAVAREA Coordinators. The information would assist chairs of Regional Hydrographic Commissions and Capacity Building Regional Coordinators to identify states in need of additional training effort as well as those not gaining from training already provided. This would allow RHC chairs' to remind National administrations of their responsibilities under SOLAS as well as to maximize the benefits of any CB training provided.

9. The Sub-Committee is invited to:

- a. **note** the information provided;
- b. **consider** amending the title to 'NAVAREA Assessment' to better reflect the objectives and sources of the information provided;
- c. **contact** the Chair of MBSHC for information of training proposals for failing coastal states;
- d. **request** NAVAREA III Coordinator to identify top priority coastal states for early training provision;
- e. **develop** a short questionnaire/survey to be sent to National coordinators;
- f. **encourage** NAVAREA Coordinators and participants to continue to submit reports in a timely fashion well ahead of the meeting dates; and
- g. **take** any other action as appropriate.

MSI Quality Management Survey

NAVAREA	ISO 9001-2008	Promulgate “In-Force” Bulletins	Promulgate “No-Warning” Messages	Monitor Broadcast in almost real time	Promulgate Immediate Messages within maximum delay period	24/7 contact information provided	Promulgate two scheduled broadcasts	Certificates for all recognised service providers	IMO Master Plan updated
I	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
I Baltic Sub-area	Yes	Yes	Yes	Yes	Yes	Yes	Yes ¹ (Navtex)	N/A	Yes
II	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
III	No ²	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
IV	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
V	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
VI	No ³	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
VII	No ⁴	Yes	Yes	No ⁵	Yes	Yes	Yes	No	Yes
VIII	No ⁶	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
IX	No ⁷	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
X	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
XI	No ⁸	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
XII	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
XIII	No ⁹	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
XIV	No ¹⁰	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
XV	Yes	Yes	Yes	Yes	No ¹¹	Yes	Yes	No	Yes

¹ See paragraphs 4 & 5 of NAVAREA Ib Self Assessment (WWNWS11/3/2/Ib)

² See paragraph 5 of NAVAREA III Self Assessment (WWNWS11/3/2/III)

³ See paragraph 5 of NAVAREA VI Self Assessment (WWNWS11/3/2/VI)

⁴ See paragraph 5 of NAVAREA VII Self Assessment (WWNWS11/3/2/VII)

⁵ See paragraph 5 of NAVAREA VII Self Assessment (WWNWS11/3/2/VII)

⁶ See paragraph 5 of NAVAREA VIII Self Assessment (WWNWS11/3/2/VIII)

⁷ See paragraph 5 of NAVAREA IX Self Assessment (WWNWS11/3/2/IX)

⁸ See paragraph 5 of NAVAREA XI Self Assessment (WWNWS11/3/2/XI)

⁹ See paragraph 5 of NAVAREA XIII Self Assessment (WWNWS11/3/2/XIII)

¹⁰ See paragraph 5 of NAVAREA XIV Self Assessment (WWNWS11/3/2/XIV)

¹¹ See paragraph 2 of NAVAREA XV Self Assessment (WWNWS11/3/2/XV)

XVI	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
XVII	No ¹²	Yes	Yes	Yes	No ¹³	Yes	Yes	No	Yes
XVIII	No ¹⁴	Yes	Yes	Yes	No ¹⁵	Yes	Yes	No	Yes
XIX	No ¹⁶	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No ¹⁷
XX	No ¹⁸	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
XXI	No ¹⁹	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes

¹² See paragraph 2 of NAVAREA XVII Self Assessment (WVNWS11/3/2/XVII)

¹³ See paragraph 5 of NAVAREA XVII Self Assessment (WVNWS11/3/2/XVII)

¹⁴ See paragraph 2 of NAVAREA XVIII Self Assessment (WVNWS11/3/2/XVIII)

¹⁵ See paragraph 5 of NAVAREA XVIII Self Assessment (WVNWS11/3/2/XVIII)

¹⁶ See paragraph 5 of NAVAREA XIX Self Assessment (WVNWS11/3/2/XIX)

¹⁷ See paragraph 2 of NAVAREA XIX Self Assessment (WVNWS11/3/2/XIX)

¹⁸ See paragraph 5 of NAVAREA XX Self Assessment (WVNWS11/3/2/XX)

¹⁹ See paragraph 5 of NAVAREA XXI Self Assessment (WVNWS11/3/2/XXI)

WORLD-WIDE NAVIGATIONAL WARNING SERVICE SUB-COMMITTEE (WWNWS-SC)

References:

Article 6 of the General Regulations
1st IRCC meeting (Monaco, June 2009)

Terms of Reference

1. Monitor and guide the International Hydrographic Organization (IHO) / International Maritime Organization (IMO) World Wide Navigational Warning Service (WWNWS) which includes NAVAREA, Sub-Area and coastal warnings.
2. Study and propose new methods to enhance the provision of Maritime Safety Information (MSI) to mariners at sea.
3. Facilitate the implementation of any necessary changes in procedures for disseminating MSI which are required by the Global Maritime Distress and Safety Systems (GMDSS), or systems that supersede the GMDSS, adopted by the IMO.
4. Provide appropriate guidance to concerned IHO Member State Representatives to further the evolution of the WWNWS with respect to the full implementation of the GMDSS to include attendance at the Conferences of the Regional Hydrographic Commissions and to develop and monitor standards for watch stander training.
5. Encourage the development of bilateral or multi-lateral arrangements between NAVAREA, Sub-Area and National Co-ordinators in the provision of MSI.
6. Prepare and review the various guidance documents for the WWNWS and evaluate any proposed amendments on behalf of the IHO Member States prior to formal World Meteorological Organization (WMO) and IMO consideration and approval. WWNWS-SC should submit proposed revisions directly to the IMO Sub-Committee on Navigation, Communications, and Search and Rescue (NCSR) in accordance with the deadlines set down by the NCSR and IMO Secretariat.
7. Cooperate with other international organizations concerned with improving the global standards for disseminating Maritime Safety Information (MSI), namely IMO, World Meteorological Organization (WMO) and International Mobile Satellite Organization (IMSO).
8. Liaise with the Capacity Building Sub-Committee (CBSC) and the CB Regional Coordinators for the delivery of training courses aimed at improving Navigational Warning Services.
9. The WWNWS-SC should liaise with other IHO bodies, international organizations and industry in the conduct of its work.
10. These Terms of Reference can be amended in accordance with Article 6 of the General Regulations.

Up dated: 30 August 2019

Rules of Procedure

1. The Sub-Committee is composed of the NAVAREA Co-ordinators¹, Sub-Area Coordinators¹ and IHO Member States. In a NAVAREA or Sub-Area Coordinators' absence, they may nominate a representative to attend the meeting on their behalf. Normally this would be one of their National Coordinators¹. Representatives of the IMO, WMO, IMSO and the IHO Secretariat participate in an Ex-Officio capacity without voting rights. The Sub-Committee members, through the Chair, may invite recognized Observers² and other suitably qualified individuals, as Expert Contributors, to participate in specific activities as deemed appropriate, but without voting rights.
2. The Chair and Vice-Chair shall each be a representative of a Member State and shall be determined by vote of the Member States participating in the Sub-Committee at the first meeting after each ordinary session of the Assembly. Article 6 of the General Regulations shall govern the length of tenure. The Sub-Committee shall have a Secretary, nominated by the Secretariat. If the Chair is unable to carry out the duties of the office, the Vice-Chair shall act as the Chair with the same powers and duties.
3. The Chair shall have a seat in the Inter Regional Co-ordination Committee (IRCC) and shall report on the activities of the Sub-Committee to the IRCC Chair for further report to each ordinary session of the Assembly through the Council.
4. The Sub-Committee shall have its permanent secretariat at the Secretariat. The Sub-Committee Secretariat shall provide the secretarial and administrative support needed to gather, hold and disseminate information on behalf of the Sub-Committee. The Secretary shall provide a summary of the Sub-Committee's activities to be included in the IHO Annual Report.
5. The Sub-Committee shall normally hold a meeting every year in early September, whenever possible in conjunction with another related conference or meeting. The venue and date of the meeting shall be decided at the previous meeting, in order to facilitate participants' travel arrangements. The Chair or any appointed member, as considered necessary, with the agreement of the simple majority of all members of the Sub-Committee, can call extraordinary meetings.
6. Confirmation of venue and date shall normally be announced at least six months in advance. All intending participants shall inform the Chair and Secretary ideally no later than one month in advance of their intention to attend meetings of the Sub-Committee.
7. Members are expected to attend every meeting of the Sub-Committee. Members who are not able to attend a meeting should appoint a proxy or send a written contribution on relevant items of the agenda to the Chair and Secretary, prior to the meeting.
8. Between meetings, the Sub-Committee business will be progressed by correspondence. E-mail will be the normal method of communication. Papers and information material will be posted on the Sub-Committee's section of the IHO web-site.

¹ As defined in the IMO/IHO World-Wide Navigational Warning Service Guidance Document - IMO resolution A.706(17) as amended.

² Recognized IHO Observer organizations are listed on the IHO website.

9. Decisions should generally be made by consensus. If votes are required, decisions shall be taken by simple majority of Members of the Sub-Committee present and voting. When dealing with matters by correspondence, a simple majority of all Members of the Sub-Committee shall be required.

10. Recommendations of a Sub-Committee shall be submitted to its Committee for consideration. Due to the requirement for the WNWNS-SC to provide timely input to the IMO Sub-Committee on Navigation, Communications and Search and Rescue (NCSR), the meetings of which are held annually in the period January to March, the Sub-Committee may submit proposals, by International Hydrographic Organization CL, directly to Member States for approval prior to submission to IMO.

11. The draft minutes of meetings shall normally be distributed by the Secretary within six weeks of the end of meetings and member comments should be returned within three weeks. Final minutes should be distributed and posted on the IHO website within three months after a meeting.

12. The working language of the Sub-Committee shall be English.

13. These Rules of Procedure can be amended in accordance with Article 6 of the General Regulations.

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LIST OF KEY MEETINGS – 2019-2020

Organization	Meeting	Location	Dates
IMSO	AC44	London	21-24 October 2019
IMO	NCSR 7	London	15-24 January 2020
IHO	DRWG18	London	28-30 January 2020
IMSO	AC45	London	11-12 May 2020
IMO	MSC 102	London	13-22 May 2020
IMO	IMO-ITU EG 16	London	6-10 July 2020
IMSO	AC46	London	7-9 July 2020
IHO	WWNWS12	??	??-?? August/September 2020
IMO	MSC 103	London	16-20 November 2020

Justifications for broadcasting MSI:

- Free at point of delivery
- Knowing who to get the information from – varied authorities within each NAVAREA
- Automatic reception
- Automatic suppression of messages already received- administrative burden on the ship
- All ships receive the same message at the same time
- Prioritised delivery
- Alarms and notifications
- Shore side web site availability
- Lack of ship internet capability
- Standardised shipboard systems reduce training and error
- Flexible addressing
- Shore side web site design (English?)
- Scheduled broadcast is made at regular intervals (twice a day)
- How do ships know that there is urgent information to go and get using a "pull" system?
- Frequency of updating web sites - to be standardised
- Capacity issues (point to point transmission or web site hits)