**16th MEETING OF THE IHO INTER-REGIONAL COORDINATING COMMITTEE**
**IHO-IRCC16**

**Santa Cruz Island – Galapagos, Ecuador, 10-12 June 2024**

**Report of the Word-Wide Navigational Warning Service Sub-Committee (WWNWS-SC)**

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| ***Submitted by:*** | Chair, World-Wide Navigational Warning Service |
| ***Related Documents:*** | Joint IMO/IHO/WMO Manual on Maritime Safety Information (IHO Publication S-53) |
| ***Related Projects:*** | S-124 development Project Team, Enhanced Group Call API Correspondence Group |

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| ***Chair:*** | Mr. Christopher Janus, USA |
| ***Vice-Chair:*** | Mr. Trond Ski, Norway |
| ***Secretary:*** | Mr. Sam Harper, IHO |
| ***Member States:*** | Argentina, Australia, Brazil, Canada, Chile, China, Colombia, Cyprus, Ecuador, Egypt, France, Germany, Greece, India, IR of Iran, Italy, Japan, Malta, New Zealand, Norway, Oman, Pakistan, Peru, Russian Federation, South Africa, Spain, Sweden, Turkey, UK, USA |
| ***Members:*** | IMO, WMO, IOC, IMSO |
| ***Expert Contributors:*** | Inmarsat, SONSAT, CIRM, Iridium |

## 1. Meetings Held During Reporting Period

The 15th World-Wide Navigational Warning Service (WWNWS) meeting was held on 4 - 8 September 2023 at the IHO Secretariat, Monaco. Representatives from the International Maritime Organization (IMO), International Mobile Satellite Organization (IMSO), World Meteorological Organization and Satellite Communication companies attended as well. The meeting was led by Mr. Christopher JANUS (Chair WWNWS, United States) and Mr Trond SKI (Vice-Chair WWNWS, Norway). The IHO Secretariat was represented by Assistant Director Sam Harper.

## Key Activities and Reports

The Sub-Committee received Maritime Safety Information (MSI) self-assessment reports from 19 NAVAREAs, the Baltic Sea Sub-Area and a national report from China. Significant progress has been made with the implementation of the Iridium SafteyCast System, with only 5 NAVAREAs yet to have started the process. It was noted that a key outcome of MSC105 was that the use of all Recognised Mobile Satellite Services (RMSS) is now mandatory. The IMO representative to WWNWS15 made it clear that if any member state was experiencing issues with the implementation of Iridium's SafetyCast, regardless of the nature of the issue, they should contact the IMO to discuss what support could be provided.

The IMO provided a brief overview of the IMO Global Integrated Shipping Information System (GISIS) GMDSS Master Plan, focusing on Annexes 7 & 8 and reported on the key outcomes from MSC106 and MSC107, the 18th Meeting of the IMO/ITU Experts Group on Maritime Radio Communication Matters and NCSR10. Key items discussed included recognition of the BeiDou Message Service System (BDMSS) for use in the GMDSS, developments in GMDSS services including guidelines on maritime safety information and amendments to the revised ECDIS performance standards (resolution MSC.232(82)) to facilitate a standardized digital exchange of ships′ route plans. The issue of the completeness of information in the IMO Global Integrated Shipping Information System (GISIS) as a key

component of the GMDSS Master Plan was discussed. Delegates were reminded that it was an IMO Member State (MS) decision to consolidate information digitally, and the GISIS was the implementation of this decision. IMO updated the group on the modifications to GISIS, specifically the EGC annex where information will be consolidated to provide an easy view of what services are operational in a particular area. It was agreed that the EGC panel will discuss broadcast times for EGC services and report back at WWWNS 16.

The IMO EGC Coordinating Panel Chair provided a comprehensive presentation report on the activities of the Panel, including details of the report to NCSR 10. Key items included authorization and registration of contingency arrangements between METAREA and/or NAVAREA Coordinators, revocation of SafetyNET Certificates, implementation of the Iridium SafetyCast Service, EGC coastal warning areas authorization and registration, and contractual agreements with RMSS providers.

The outcomes from the 21st meeting of the Document Review Working Group (DRWG) were discussed with a specific focus on progress with reviewing IMO Resolutions 705(17) & 706(17). The document review schedule was discussed and the new schedule presented which focused on the IMO's requirement to address consequential amendments to affected documents at the time of submission. The WWNWS plans to review the following documents, eliminate any duplicate text, and finalize for submission to the IMO in 2027: Resolution MSC.468(101) – Amendments to Promulgation of Maritime Safety Information (Resolution A.705(17), as amended), Resolution MSC.469(101)–Amendments to World-wide Navigational Warning Service (Resolution A.706(17), as amended), MSC.1/Circ.1310/Rev.1 – Revised Joint IMO/IHO/WMO Manual on Maritime Safety Information, MSC.1/Circ.1403/Rev.1 – Amendments to the Revised NAVTEX Manual, and create a new document—the IMO Enhance Group Call (EGC) Manual, which will comprise MSC.1/Circ.1364/Rev.2 – International SafetyNET Services Manual, MSC.1/Circ.1613 – Iridium Safetycast Service Manual, and MSC.1/Circ.#### – BDMSS Safety Link Service Manual. Once complete, the WWNWS anticipates that these documents will no longer require annual review and the DRWG will be able to focus, instead, on S-124 implementation and the documents required to support that effort.

Briefings on the activities of the IMO NAVTEX and the IMO Enhanced Group Call (EGC) Coordinating panels were provided by their respective chairs as well as developments in the provision of mobile satellite GMDSS services from Inmarsat and Iridium.

The second day of WWNWS15 was dedicated to a workshop on the S-124 Product Specification on Navigational Warnings, led by the Chair of the S-124 Project Team. An update by the PT Chair was provided on the proposed schedule to complete Ed.2.0.0, and provided insight into the various challenges and work items that would need to be completed. A number of task teams were established to move this work forward. The size and complexity of the task was acknowledged by all, including the need to expand the understanding of S-124 in a number of areas, to ensure the broader S-100 Implementation deadlines were not missed. The WWNWS, in general, noted the need to develop a view to address S-124 navigational warning dissemination.

An update was provided on Inmarsat services including their acquisition by Viasat, Inmarsat C, Distress alerts and the API service. Safety Net and Safety Net II implementation were discussed and it was reported that Inmarsat C now has approximately 135K active terminals. It was noted that MSI transmissions had increased from 30k to 40k per month over several years. It was noted that the API is up and running and any assistance that may be required was offered. The meeting was informed that RescueNET is rapidly expanding and now has 71 unique operational member centres. It was speculated that the expansion may in part be to provide redundancy. Finally, it was noted that the Inmarsat Maritime Safety Training Hub will be updated shortly.

Iridium provided an update on their services including the implementation status and the work they are doing with the GMDSS Rescue Coordination Centres (RCC). They noted the existing 14 RCCs and the future 10 United States RCCs. It was reported that NAVAREA V, VI, XIII, XX, and XXI are the remaining NAVAREAs that have not yet completed implementation. Two of the five remaining NAVAREAs, Brazil and Argentina, are in communication with Iridium. It was stressed that the declaration of operational status and the signing of billing agreements are separate to the importance placed on providing maritime safety information to the mariner.

The USA presented the update on the activity of the Space Activity Working Group. WWNWS14 established a group to investigate the operational challenges posed by space activity throughout the WWNWS. The paper discussed the activity of the group since WWNWS14 and proposed that WWNWS15 re-establish the group to continue discussions with space operators worldwide while encouraging NAVAREA coordinators to be proactive in working with space operators within their NAVAREA. This work will be further discussed at WWNWS16.

New Zealand provided a report on the Task Team on Volcanic Activity and Safety of Marine Navigation. The joint session of WWNWS14 and AG-WWMIWS-SubC-1 established a joint task team, to be co-led by the METAREA and NAVAREA XIV Coordinators, to audit existing, readily available, resilient, and robust volcanic hazard information with the objective to provide recommendations and options for inclusion in future MSI products and services. It was noted that in each region they have both good information supply and templates for navigational warnings, but this was not the case for volcanic activity and the need for better cooperation with METAREAS was noted. It was reported that the need to seek input from professional mariners to understand their needs was required.

The International Maritime Bureau Piracy Centre (IMB PRC) gave an update on the work of the centre and the information it promulgates via Inmarsat's SafetyNET service. It was explained that the centre is affiliated to the International Chamber of Commerce and therefore recognises the role the maritime community is playing in supporting international trade. It was reported that any incident reported to the centre is promulgated to the relevant law enforcement agencies. It was asked whether there is a coordination mechanism in place between the IMB PRC and NAVAREA Coordinators; whilst such a mechanism does not currently exist, it was suggested that there is very little overlap given the very specific nature of the information the IMB PRC promulgates. Notwithstanding this, it was agreed that the potential need for closer cooperation would be explored. It was noted that the IMB PRC has yet to implement Iridium's SafetyCast service. The WWNWS will continue to coordinate with the IMO and IMB PRC to progress this matter.

**MSI Documentation**

All draft documents under development by the Sub-Committee are available via the WWNWS page of the IHO web site. Member States are encouraged to review the documents and submit comments to the Chair (Mr Christopher Janus, e-mail: IHO_WWNWS_Chair@nga.mil) and the IHO Secretariat (Assistant Director Samuel Harper, e-mail: adso@iho.int).

**MSI Capacity Building**

The session considered progress reports on the delivery of MSI training courses, and discussed the processes for reporting the status of MSI provision at Regional Hydrographic Commission meetings and methods for identifying to the Capacity Building Sub-Committee the regions and coastal States most in need of training and assistance.

The following charts detail WWNWS support from three perspectives: NAVAREA Warnings issued, coastal state support, and an estimate of Inmarsat EGC data usage and its implications.

Figure 1 details the number of individual NAVAREA warnings broadcast annually by the WWNWS.

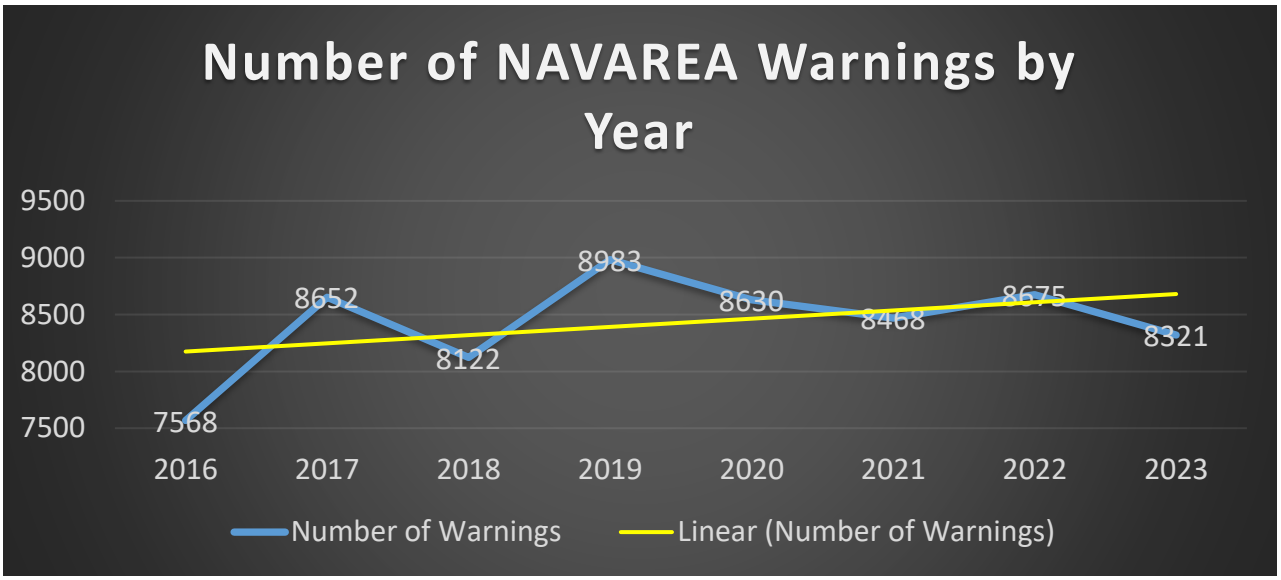


*Figure 1Number of NAVAREA Warnings*

While the total number declined again in 2023, the trend remains on an increasing trajectory

The chart in Figure 2 details the percentage of Coastal States that are capable to provide maritime safety information (MSI). The definition the WWNWS uses to assess Coastal State support includes "confirming regular communication with the designated coastal state point of contact" in addition to providing MSI annually; regular communication is defined as once per year. The data used to compile those metrics came from the NAVAREA self-assessment reports submitted to WWNWS15. Note that Brazil, (NAVAREA V), Chile (NAVAREA XV), Peru (NAVAREA XVI), the Russian Federation (NAVAREAs XIII, XX, and XXI), and Canada (NAVAREAs XVII, XVIII) are the only coastal state in their respective NAVAREA.

At the 22nd meeting of the IHO WWNWS Document Review Working Group (DRWG) there was again a concern expressed with the current methodology to determine if a coastal state met the IHO's strategic performance indicator for the WWNWS, SPI 3.1.1. The definition that the WWNWS uses to assess coastal state capacity may need to be amended to include both "the capability" and "a measure to determine if they should provide MSI (or in the future, S-124) to the NAVAREA Coordinator".

**Overall, for 2023, the WWNWS assessed that 89.6% of coastal states had the capacity to provide MSI. It was 87% in 2022.**

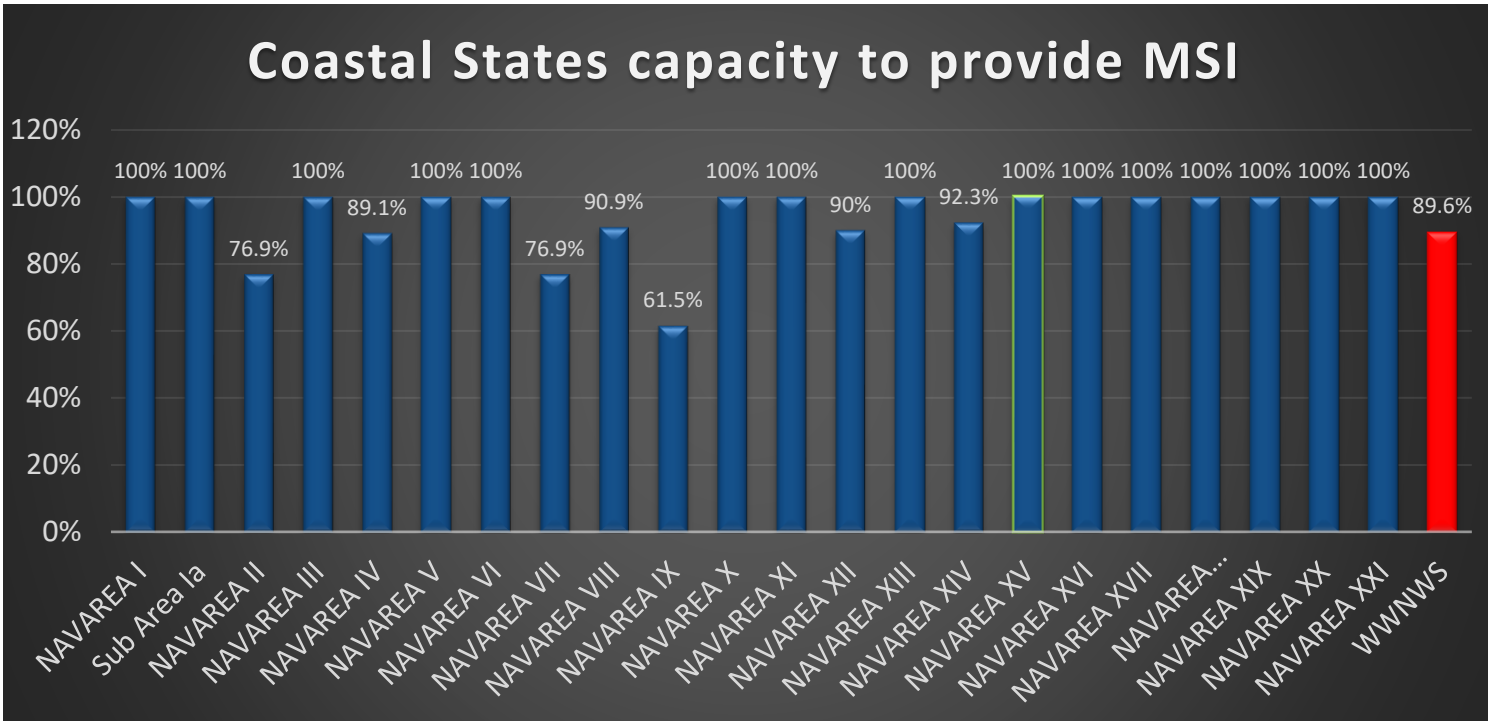


*Figure 2 Percentage of Coastal States that are capable to provide Marine Safety Information (SPI 3.1.1)*

Figure 3 provides a representation of estimated EGC broadcast data for 2024 from 13 NAVAREA Coordinators that use Inmarsat's SafetyNET II service. The data for NAVAREAs XIV (New Zealand) and V (Brazil) includes EGC coastal warnings. All NAVAREA data includes repeated broadcasts. The data on the following chart is an estimate based on actual data from those 13 NAVAREAs.

There were several conclusions drawn from the data. The first was that the number of individual navigational warnings issued does not directly translate into a higher or lower annual cost for a NAVAREA. Likewise, the number of broadcasts, including repetitions, does not directly indicate a higher or lower annual cost. The number of navigational warnings, number of broadcasts and the size of each message in bytes determines to overall cost. Figure 3shows that NAVAREAs IV, XII, and I would likely have had the highest SafetyNET EGC broadcast costs for 2024 based on the amount of data promulgated. Information providers that use SafetyNET II can download usage data and accurately determine and forecast annual cost. The amount of data broadcast, while only an estimate, could potentially prove useful to understand how it will affect the provision of S-124.

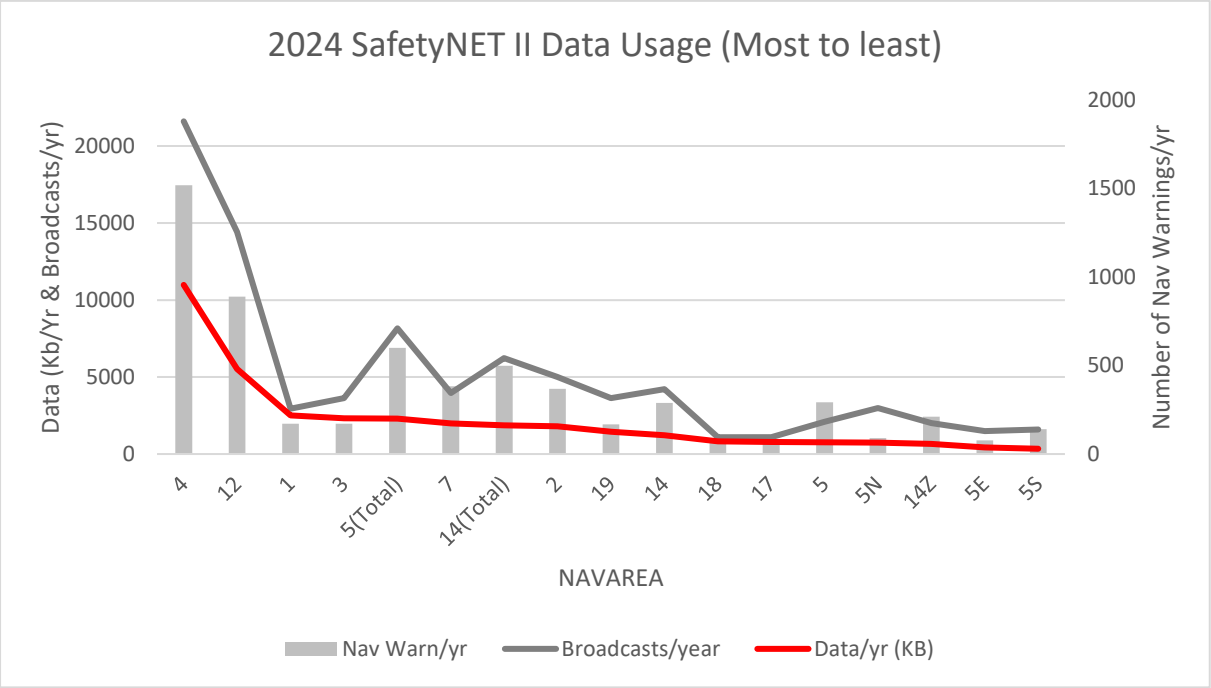


*Figure 3Inmarsat SafetyNET II Usage estimate for 2024*

## 2. Progress on IRCC Action Items

**S-124**

The S-124 PT sought permission from WWNWS15 to submit S-124 Ed.2.0.0 to HSSC16 which was duly granted.

## 3. Problems Encountered

Nil

## 4. Any Other Items of Note

Nil

## 5. Conclusions and Recommended Actions

See paragraph 3.

## 6. Justification and Impacts

N/A.

## 7. Action Required of IRCC

The IRCC is invited to:

a. **Note** the information provided in this report on the outcomes of WWNWS15;

b. **Encourage** relevant Member States to implement all IMO recognized mobile satellite services;

d. **Take** any other action it considers appropriate.