

# **Operations handbook for METAREA Coordinators**

Edition - October 2023

## SUMMARY RECORD OF REVISIONS/CHANGES/AMMENDMENTS

<b>Date</b>	<b>Part/chapter /section</b>	<b>Purpose of amendment</b>	<b>Approved by</b>
Oct 2023	Entire contents	Thorough revision after the WMO reform, replacing JCOMM TD 98 (2019)	AG-WWMIWS-SubC

## TABLE OF CONTENTS

Operations handbook for METAREA Coordinators	1
1. Introduction	6
2. Overview of the IMO/WMO Worldwide Met-Ocean Information and Warning Service	7
2.1 Role of a METAREA Coordinator	7
2.1.1 <i>METAREA Coordinator resources</i>	8
2.1.2 <i>METAREA Coordinator responsibilities</i>	9
2.2 Framework to support promulgation of Maritime Safety Information	10
2.2.1 <i>Overview of the WMO support framework</i>	10
2.2.2 <i>Overview of the organization of maritime safety information services of the Global Maritime Distress and Safety System</i>	11
2.3 Worldwide Met-Ocean Information and Warning Service delivery system and supporting activities	11
2.4 Key documents for Maritime Safety Information and the Worldwide Met-Ocean Information and Warning Service	13
2.5 Partnerships that support the Worldwide Met-Ocean Information and Warning Service	13
2.5.1 <i>Importance of partnerships</i>	14
2.5.2 <i>Setting up partnerships</i>	14
2.6 Principles of the Worldwide Met-Ocean Information and Warning Service	15
2.6.1 <i>High level objectives</i>	16
2.6.2 <i>Services for the high seas</i>	16
2.6.3 <i>Services for the coastal, offshore and local waters areas</i>	16
3. Ensuring the effective Operation of the Worldwide Met-Ocean Information and Warning Service	16
3.1 Designation of Issuing Services or Preparation Services	16
3.2 Role of METAREA Coordinators in administering and promoting the user survey of the Worldwide Met-Ocean Information and Warning Service	17
3.2.1 <i>Importance of the survey</i>	17
3.2.2 <i>Survey administration</i>	17
3.3 Key activities for quality management of the Worldwide Met-Ocean Information and Warning Service	18

3.4	Guidelines on backup arrangements	18
3.4.1	<i>Creation of high seas forecasts and warning products</i>	19
3.4.2	<i>Broadcast of products onto EGC</i>	19
3.4.3	<i>Broadcast of products onto NAVTEX</i>	20
4.	Tasks and Procedures for METAREA Coordinators	21
4.1	Updating details in <i>Weather Reporting, Volume D: Information for Shipping</i>	21
4.1.1	<i>Importance of updating details</i>	21
4.1.2	<i>Procedure for updating details</i>	21
4.2	Asking WMO to change details for a METAREA Coordinator	21
4.2.1	<i>Importance of changing details</i>	22
4.2.2	<i>Procedure for changing details</i>	22
4.3	Checking product headers for the WMO Information System	22
4.3.1	<i>Importance of checking product headers</i>	22
4.3.2	<i>Procedure for checking product headers</i>	22
4.4	Using the Worldwide Met-Ocean Information and Warning Service website	23
4.4.1	<i>Importance of the website</i>	23
4.4.2	<i>Procedure for solving issues with the website</i>	23
4.4.3	<i>Procedure for requesting changes to the website</i>	23
4.5	Accessing Regional Specialized Meteorological Centre products from the WMO Information System	23
4.5.1	<i>Importance of accessing products</i>	23
4.5.2	<i>Procedure for accessing products</i>	24
4.6	Maintaining communication with NAVAREA Coordinators	24
4.6.1	<i>Importance of communicating</i>	24
4.6.2	<i>Procedure for maintaining communication</i>	24
4.7	Reporting interference or changes to NAVTEX transmitters	25
4.7.1	<i>Importance of reporting</i>	25
4.7.2	<i>Procedure for reporting</i>	25
4.8	Updating the International Maritime Organization Global Maritime Distress and Safety System Master Plan	25
4.8.1	<i>Importance of updating</i>	25
4.8.2	<i>Procedure for updating</i>	25

Appendix 1 List of Acronyms and Definitions	25
Appendix 2 References and Key Documents	27
Primary Category	27
Secondary Category	28
Third Category	29
Appendix 3 Gisis Guidance	32
System Structure	33
Appendix 4 Key Activities and Programmes	35
Appendix 5 Useful Links	36
Appendix 6 Figure 3	1

# 1. INTRODUCTION

Dear METAREA Coordinator,

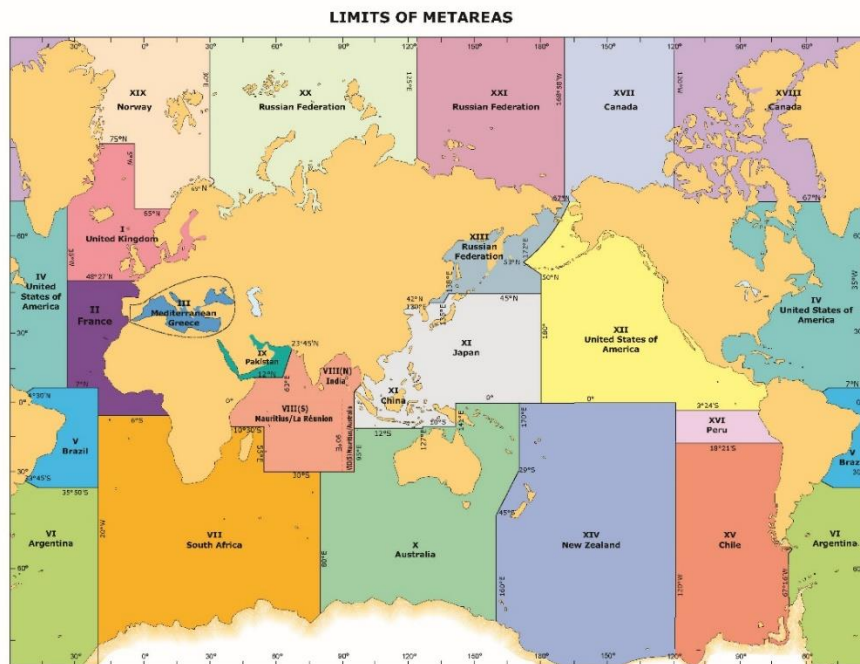
The Operations Handbook for METAREA Coordinators was developed by all METAREA Coordinators in 2016 and updated in 2023. This document will allow you to learn and guide you into your new role as a METAREA Coordinator and will serve as a good orientation toolkit. For those who have already been a Coordinator for a while, this handbook will support your work and activities, and act as a reminder and basic reference for the role.

At the beginning of your journey as a coordinator, it is natural that you may feel lost in all the documents, abbreviations and organizations. It is the objective that you will find all the most important information and explanations in the Operations Handbook, along with references to the more detailed documents with which you should become familiar.

The Handbook collates requirements and procedures from a number of official documents maintained by the International Maritime Organization (IMO), World Meteorological Organization (WMO), and other relevant bodies. The intention of the Handbook is to supplement the procedures outlined in the official documents and to provide additional context to assist METAREA Coordinators in performing their duties.

The worlds' oceans have been divided into 21 areas, called METAREAs (**Figure 1**) for the provision of maritime safety information (MSI) to ships (includes all watercrafts).

METAREA Coordinators are assigned to coordinate the provision of these maritime safety services for each area. This is a working document specifying the functions of which a METAREA Coordinator needs to be aware or undertakes in the operation of the Worldwide Met-Ocean Information and Warning Service (WWMIWS). The Worldwide Met-Ocean Information and Warning Service (WWMIWS) Sub-Committee is an Advisory Group within the Standing Committee on Marine Meteorological and Oceanographic Services (SC-MMO).



**Figure 1:** METAREA limits and designated national responsibility for the issuance of meteorological maritime safety information for the Worldwide Met-Ocean Information and Warning Service.

The delimitation of these METAREAs is not related to and should not prejudice the delimitations of any boundaries between States.

## 2. OVERVIEW OF THE IMO/WMO WORLDWIDE MET-OCEAN INFORMATION AND WARNING SERVICE

The IMO/WMO Worldwide Met-Ocean Information and Warning Service (WWMIWS) provides MSI to mariners in the form of marine warning and forecast products. The WWMIWS is coordinated across the world's oceans through the METAREAs. Ships receive the MSI products via international Enhanced Group Call (EGC) and NAVTEX communication systems, which form part of the Global Maritime Distress and Safety System (GMDSS).

### 2.1 Role of a METAREA Coordinator

To coordinate WWMIWS, each METAREA should coordinate the issuance and broadcast of marine warning and forecast products. A METAREA Coordinator is the authority charged with coordinating meteorological MSI broadcasts by one or more National Meteorological and Hydrological Services (NMHSs) and/or National Authorities acting as Preparation or Issuing Services within the METAREA. A METAREA Coordinator has to be registered with WMO by the national Permanent Representative.

The publication *Weather Reporting, Volume D: Information for Shipping* (WMO-No.9, 2014b, as amended) provides contact information for METAREA Coordinators.

The following description of the role and responsibilities of a METAREA Coordinator is prescribed in *IMO/WMO Worldwide Met-Ocean Information and Warning Service-Guidance Document* (IMO resolution A.1051(27), as amended by MSC.470(101), 2019).

Once you have been confirmed in your role as a METAREA Coordinator, you should request your IMO Online Meeting Registration System (OMRS) delegation coordinator, who is normally the nominated national IMO Account administrator, to create an account for you to access IMODOCS, making sure that the necessary IMO Global Integrated Shipping Information System (GISIS) modules and correct IMODOCS boxes are selected under the User Roles list.

Once you have received the email from the IMO giving you your username and password, you can change your password and then setup your user profile.

In Profile (dropdown under name in top right corner) check correct language and email address is selected in Profile tab.

Under Document Notifications tab select frequency of notifications and then select the document topics to be received; it is suggested a minimum for a METAREA Coordinator is:

Circular Letters; Circulars – COMSAR, INMARSAT/IMSO, MEPC, MSC, MSC-MEPC, SAR, SN, STCW; Meeting Documents – Assembly Resolutions, MSC Documents, MSC/ISWG/MASS, SOLAS/CONF Documents, HTW Documents, III Casualty Analyses, NCSR all categories except ICAO/IMO JWG, Lessons Learned, PROG of meetings.

You will receive regular emails listing all the documents recently published in your selected categories, which have links to take you to your IMODOCS account for download. Any missed documents can be downloaded directly from IMODOCS from the category tab along the top of the Home page. Note that documents are published in all the official UN languages. At the end of this introduction, the most important thing to remember is that if you need more clarification on something or have further unanswered questions, you can always ask us about it. We are a group in which maritime safety plays a significant role, and this is a place to ask questions, consult each other and benefit from each other's experience.

**A summary of the expected activities of METAREA Coordinators are listed in [Appendix IV](#).**

#### **2.1.1 METAREA Coordinator resources**

The METAREA coordinator should have:

- .1 the expertise and information resources of NMHSs or equivalent National Authority;
- .2 effective communications, e.g. telephone, email, facsimile, and Internet, with NMHS and National Authorities in the METAREA, with other METAREA Coordinators, and with other data providers, and
- .3 access to broadcast systems for transmission to the navigable waters of the METAREA. Reception of EGC messages should normally be possible at least 300 nautical miles beyond the limit of the METAREA.



### 2.1.2 METAREA Coordinator responsibilities

#### **The METAREA Coordinator should:**

1. act as the central point of contact on matters relating to meteorological information and warnings within the METAREA;
2. promote and oversee the use of established international standards and practices in the dissemination of meteorological information and warnings throughout the METAREA;
3. coordinate preliminary discussions between neighbouring Members, seeking to establish and operate NAVTEX services, prior to formal application;
4. coordinate the dissemination of meteorological bulletins on the WMO Information System (WIS), and ensure the correct display of MSI bulletins on the WWMIWS website;
5. liaise with entities that have responsibility for maritime safety, marine communications, port authorities, and other relevant maritime responsibilities on the effective use of meteorological information and warning services;
6. act as a coordination point for implementation of WMO strategic initiatives under the WMO Services Delivery Framework, including verification, quality management, Marine Forecaster Competency framework, and resilience activities;
7. be responsible for maintaining details of marine weather services and marine communications relevant for international service documentation such as *Weather Reporting, Volume D: Information for Shipping, GMDSS Master Plan* GISIS module (see [Annex 3](#)), *International Telecommunication Union (ITU) List IV – List of Coast Stations and Special Service Stations*, or other relevant nautical publications of national Administrations;
8. contribute to the development of international standards and practices through attendance and participation in the meetings of the Advisory Group on the Worldwide Met-Ocean Information and Warning Service (WWMIWS) Sub Committee (AG-WWMIWS-SubC), and also attend and participate in relevant IMO, International Hydrographic Organization (IHO) and WMO meetings as appropriate and required;
9. monitor the broadcasts which they originate, to ensure that the information has been correctly broadcast; and
10. take into account the need for contingency planning.

#### **The METAREA Coordinator has to also ensure that within their METAREA, NMHS and National Authorities that act as Issuing Services have the capability to:**

1. select meteorological information and warnings for broadcast in accordance with the guidance given in the *WMO Manual on Marine Meteorological Services* (WMO-No. 558, 2018);
2. provide insights and monitor changes in customer requirements for updates to the *WMO Guide on Marine Meteorological Services* (WMO-No. 471, 2018);
3. ensure meteorological information is drafted in accordance with the *Joint IMO/IHO/WMO Manual on Maritime Safety Information* (hereafter referred as 'Joint MSI Manual') (IMO-MS.C.1/Circ.1310, 2014, to be replaced by MSC.1/Circ.1310/Rev.1, 2024); and

4. monitor the MSI transmission of the bulletins, that are broadcast by the Issuing Service within the respective METAREA.

**The METAREA Coordinator has to further ensure that within their METAREA, NMHS and National Authorities that act as Preparation Services have the capability to:**

1. be informed of/gather information on all meteorological events that could significantly affect the safety of navigation within their area of responsibility;
2. assess all meteorological information immediately upon receipt in the light of expert knowledge for relevance to navigation within their area of responsibility;
3. forward marine meteorological information that may require wider dissemination directly to adjacent METAREA Coordinators and/or others as appropriate, using the quickest possible means;
4. ensure that information concerning all meteorological warning subject areas listed in the *Manual on Marine Meteorological Services* (WMO-No. 558), that may require a METAREA warning within their own area of responsibility is forwarded immediately to the appropriate NMHSs and METAREA Coordinators affected by the meteorological event;
5. provide insights and monitor changes in customer requirements for updates to the *WMO Guide to Marine Meteorological Services* (WMO-No. 471); and
6. maintain records of source data relating to METAREA warnings and forecasts in accordance with the requirement of the national Administration of the METAREA Coordinator.

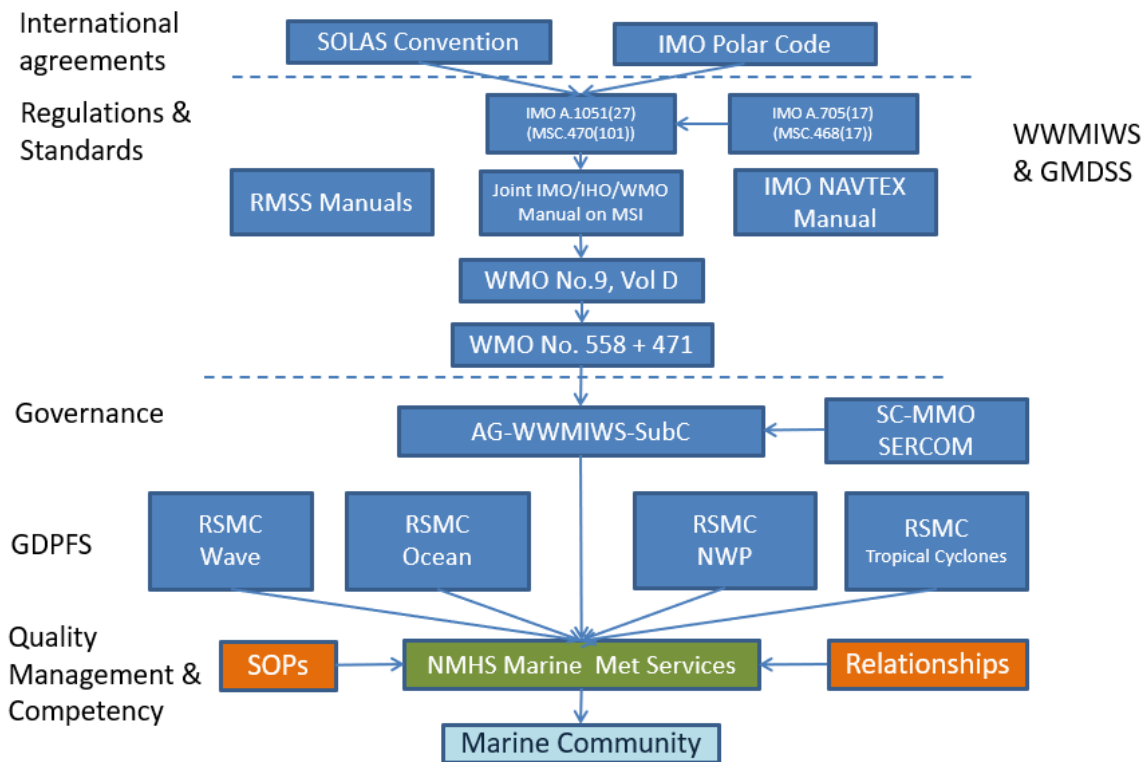
## **2.2 Framework to support promulgation of Maritime Safety Information**

### **2.2.1 Overview of the WMO support framework**

WMO has systems and frameworks that support NMHSs in fulfilling their METAREA responsibilities.

**Figure 2** illustrates how services to the marine community are supported, from training of forecasting staff and developing Standard Operating Procedures (SOPs), the Global Data-processing and Forecasting System (GDPFS), through to international agreements such as the *International Convention for the Safety of Life at Sea* (SOLAS Convention, 1974). The AG-WWMIWS-SubC is the key group that coordinates the delivery of services for each METAREA. This AG should also be used as a source of information to solve local problems.

## Supporting and enhancing National Marine Weather Services (METAREAs)



**Figure 2.** Overview of the international agreements, regulations and standards, coordination and governance, and forecasting systems that support and enhance the provision of services for the WWMIWS. (Source: AG-WWMIWS-SubC)

Acronyms not previously defined: NWP = numerical weather prediction; RSMC = Regional Specialized Meteorological Centres.

### 2.2.2 Overview of the organization of maritime safety information services of the Global Maritime Distress and Safety System

**Figure 3** (Appendix 6) illustrates the various governance arrangements, information service providers and dissemination systems that facilitate provision of MSI on GMDSS communication methods to ships.

## 2.3 Worldwide Met-Ocean Information and Warning Service delivery system and supporting activities

NMHSs should have a strong focus on the producing and dissemination system of the WWMIWS to ensure effectiveness of services. By taking a systems approach, meteorological services can also understand the components that contribute to the system and the necessary resources to support the activities.

Three components relevant to transmitting the WWMIWS MSI bulletins from a meteorological service to vessels are outlined below:

1. Production of MSI bulletins;
2. Transmission of MSI bulletins to land earth stations (LESS) (instantaneously by email or file transfer protocol; as per section 11 of the *International SafetyNET Services*

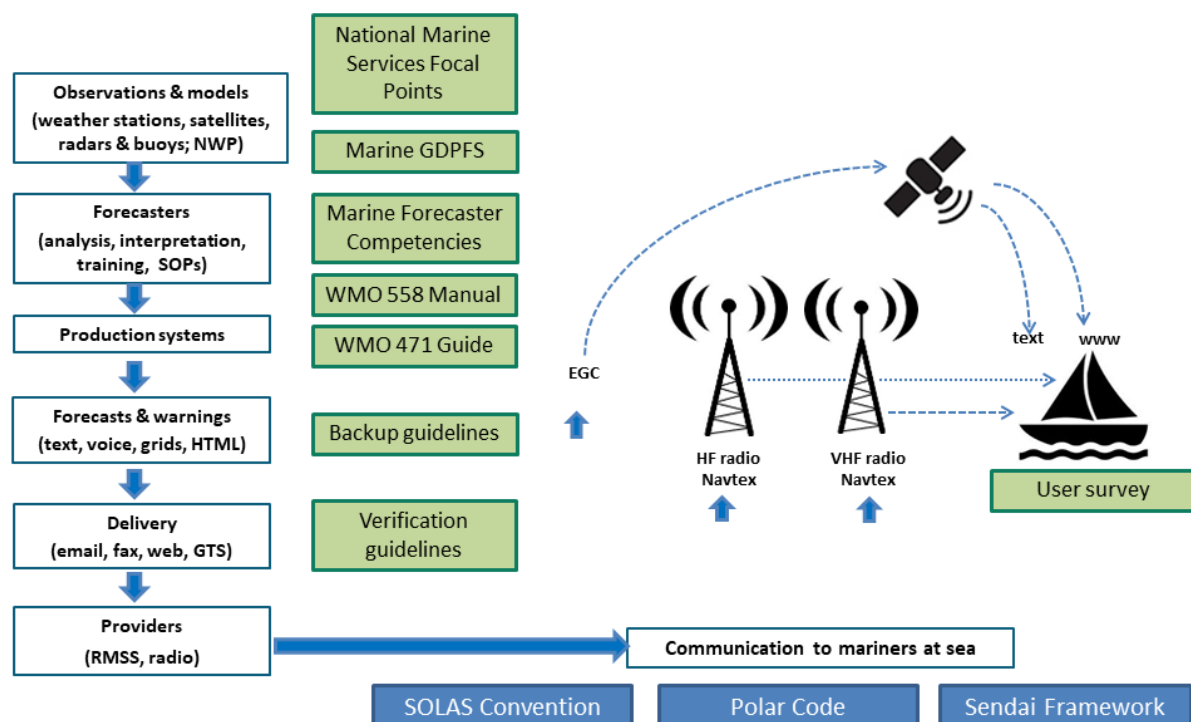
Manual (IMO-MSC.1/Circ.1364/Rev.2, 2020) and the *Iridium SafetyCast service manual* (IMO-MSC.1/Circ.1613/Rev.2, 2023);

3. Broadcast of the MSI bulletin from the LES to the ships using the GMDSS satellites (costs per byte, set by provider and satellite coverages). Only SafetyNET uses separately contracted LES, both SafetyNET II and SafetyCast use a web interface to connect directly with either the Inmarsat LES or Iridium gateway, from where messages are uploaded automatically to all relevant satellites for transmission, thus for these systems there are no additional LES costs nor charges for separate satellite use.

WWMIWS involves coordination of a range of functions that cascade to deliver a reliable service to mariners. **Figure 4** includes an overlay (refer to green outlined boxes) of the governance activities undertaken by the AG-WWMIWS-SubC and WMO to support each meteorological service in delivering on their service responsibilities for each METAREA. METAREA Coordinators will be involved in a number of these activities as part of their role in the AG-WWMIWS-SubC.

METAREA Coordinators are also responsible for delivery of bulletins onto WIS (formerly known as the Global Telecommunication System (GTS)), under the requirements of GDPFS.

## End to end service delivery framework



**Figure 4.** WWMIWS End to End Service Delivery Framework outlining the processes of observations and forecasting models, forecast production, delivery to mariners through dedicated communication channels. (Source: AG-WWMIWS-SubC)

Acronyms not previously defined: HTML = Hypertext Markup Language; VHF = very high frequency; WWW = World Wide Web.

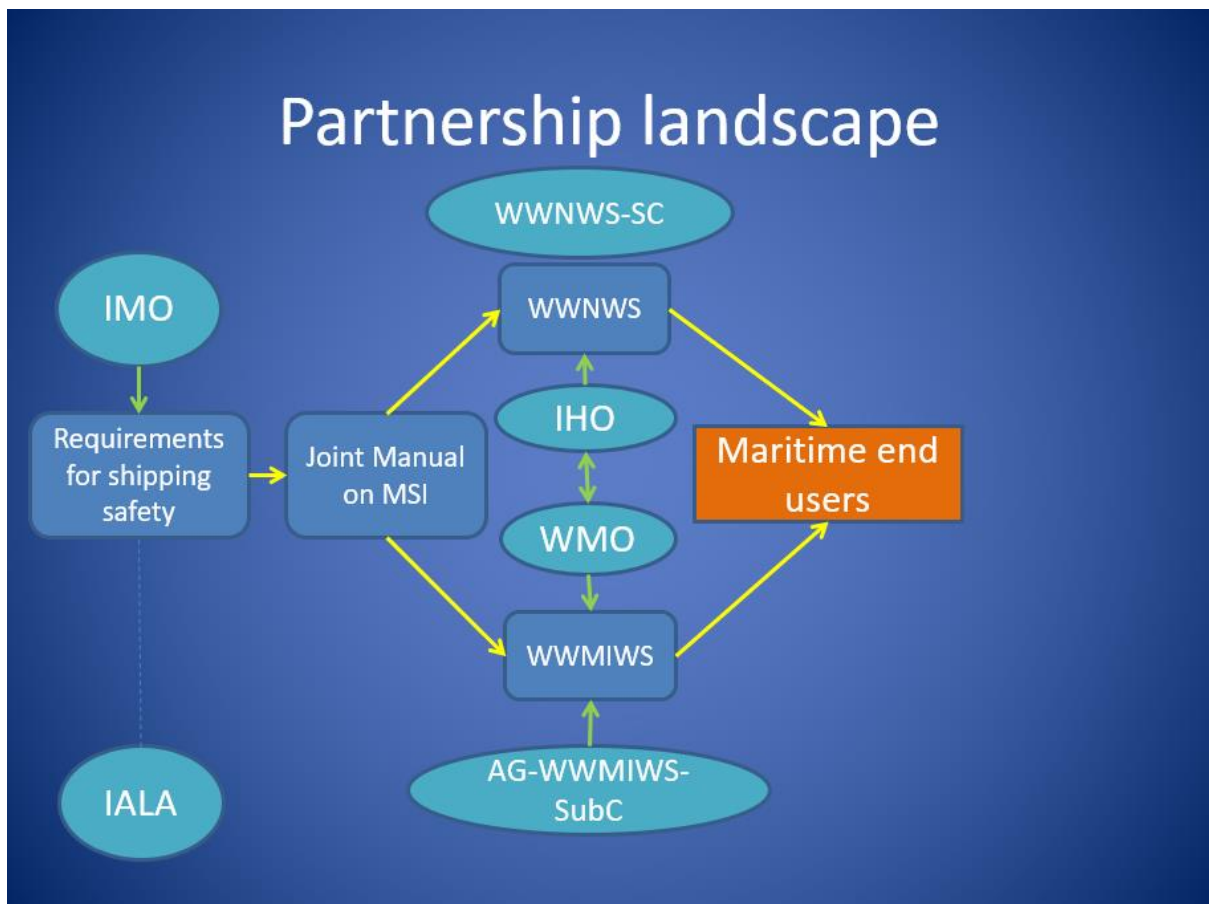
## 2.4 Key documents for Maritime Safety Information and the Worldwide Met-Ocean Information and Warning Service

METAREA Coordinators should be familiar with documentation on the function of GMDSS and WWMIWS. Appendix II lists these documents with a summary of their key aspects. The documents can be downloaded from the WMO Community webpage.

## 2.5 Partnerships that support the Worldwide Met-Ocean Information and Warning Service

Marine meteorological services generally require the formation of partnerships or agreements to support delivery of services or to promote use and understanding of the services. **Figure 5** illustrates the partnerships that support the provision of MSI to ships. The following is referenced from the Guide to Marine Meteorological Services. Furthermore:

- The provision of MSI stems from the SOLAS Convention, and IMO, IHO and WMO maintain the Joint MSI Manual that governs the services provided under WWMIWS and its sister service, IMO/IHO WWNWS. The Joint MSI Manual is based on user requirements updated through IMO governance processes.
- Partnerships are in place with the International Chamber of Shipping (ICS), International Union of Maritime Insurers (IUMI) and Permanent International Association of Navigation Congresses (PIANC) to seek feedback on services and gather insights into changing user requirements.
- The International Association of Ports and Harbors (IAPH) and the International Association of Oil and Gas Producers (IOGP) are two main bodies that oversee the standards of infrastructure entities for ports and oil and gas exploration.
- Expert teams within WMO's technical commissions are in place to provide technical and scientific expertise in support of WWMIWS. The Expert Team on Maritime Safety (ET-MS) maintains the technical standards used for sea-ice information services.



**Figure 5.** WWMIWS Partnership Landscape.

Acronyms not previously defined: [IALA = International Association of Marine Aids to Navigation and Lighthouse Authorities].

### 2.5.1 Importance of partnerships

NMHSs and/or National Authorities should establish consultation forums with relevant groups such as port and harbour authorities, ship masters, pilots, dockyard personnel, port works engineers, container terminal and warehouse operators, shipping companies and insurance companies. Based on these consultations, the NMHS will be able to formulate procedures to provide services of a general nature catering for most user groups, or services of a specialized nature tailored to meet any particular need of an individual user group or both types of services.

METAREA Coordinators are encouraged to engage with the national authorities, such as UK Maritime and Coastguard Agency (MCA), Maritime New Zealand, Direction Générale des Affaires Maritimes, de la Pêche et de l'Aquaculture DGAMPA (France) and Australian Maritime Safety Authority (AMSA) etc. These partnerships with National Authorities are critical as they may have close engagement with the industry. For example, in the UK, the National Authorities host a number of 'stakeholder' meetings with industry partners, where METAREA Coordinators could engage.

### 2.5.2 Setting up partnerships

The following are recommended steps for setting up partnerships:

1. Develop trust and understanding of each organization's role, and then deliver on

commitments. These are key to developing effective partnerships.

2. Maintain regular discussion and coordination with the NAVAREA Coordinator (details in [GISIS module GMDSS master plan](#)). Topics to cover should include GMDSS service delivery and sharing of information about shipping matters.

3. Develop formal consultative liaison meetings with relevant government agencies. Consider at least annually for the meetings. It has been noted that the most productive partnerships between MET and NAV Area Coordinators have been based on monthly virtual meetings with quarterly physical meetings at which other stakeholders participate as necessary.

4. Develop regular consultation and information sharing with marine radio service organizations to keep them updated on service and education developments, and to ensure weather information is broadcast correctly.

5. Ensure adequate representation of the NMHS in national and international organizations, in efforts to improve marine services.

6. Engage with users and stakeholders and identify needs and requirements in consultation with them. Users include, but not limited to:

- (a) Government department for fisheries;
- (b) Recreational boating organizations;
- (c) Fishing organizations;
- (d) Authorities responsible for safety of life at sea, including coastal waters;
- (e) Authorities responsible for combating marine pollution;
- (f) Operators of ferry, hydrofoil, hovercraft or similar services;
- (g) Oil drilling and shipping companies;
- (h) Authorities responsible for protection of the coastal populations from storm surges, high waves, tsunamis and so forth;
- (i) Harbour control authorities;
- (j) Border security, maritime police and customs, and defence forces

Port Meteorological Officers (PMOs) fulfil an important role in the liaison between NMHSs and the shipping community. Their functions are truly international in nature – wherever a ship may find itself in the world, it must be able to obtain the assistance it needs to serve as a meteorological observing station, and must also be able to obtain information about the marine meteorological services available in the country, region and abroad. Developing an effective information-sharing mechanism with PMOs will ensure that they have the most up-to-date information about the marine meteorological services in the country.

## **2.6 Principles of the Worldwide Met-Ocean Information and Warning Service**

The WWMIWS Guidance Document, outlines the principles for the user and service

requirements that govern WWMIWS. These principles are summarised, for the convenience of METAREA Coordinators, in the following text which is taken from Chapter 4 of WWMIWS Guidance Document. The WMO standard regulations described in the Manual on Marine Meteorological Services, are derived from these principles, and the requirements outlined in the Joint MSI Manual.

### **2.6.1 High level objectives**

Marine meteorological services are provided to satisfy the requirements for information on marine environmental conditions and phenomena, established by national practices and international conventions in relation to marine operations.

Marine meteorological services are designed for the safety of marine operations and to promote, where possible, the efficiency and economy of marine activities.

The WWMIWS guidance and coordination for marine meteorological MSI messages issued on EGC, NAVTEX and HF NBDP communication systems covers the following areas:

- warnings and forecasts for the high seas;
- warnings and forecasts for coastal, offshore and local waters (including ports, lakes and harbour areas).

Operational guidance for formatting meteorological information is given in detail in the *WMO Manual on Marine Meteorological Services* and the *Joint MSI Manual*.

### **2.6.2 Services for the high seas**

Marine meteorological services for the high seas include provision of:

- (a) Meteorological warnings;
- (b) Marine forecasts;
- (c) Sea-ice information services.

### **2.6.3 Services for the coastal, offshore and local waters areas**

Marine meteorological services for coastal, offshore and local waters areas are similar to those for the high seas but modified according to local requirements.

## **3. ENSURING THE EFFECTIVE OPERATION OF THE WORLDWIDE MET-OCEAN INFORMATION AND WARNING SERVICE**

### **3.1 Designation of Issuing Services or Preparation Services**

Appendix I.3 of the volume I of *Manual on Marine Meteorological Services* clearly describes the framework to determine applications by NMHSs for inclusion in WWMIWS as an Issuing Service or Preparation Service for broadcasts on EGC satellite systems. It also defines the ocean and sea areas of responsibility for the issue of weather and sea bulletins for the high seas. Appendix I.1 of the same document covers the areas of responsibility and designated national meteorological services for the issue of warnings and weather and sea bulletins for the global maritime distress and safety system



Furthermore, Appendix I.2 of the same document describes the roles and responsibilities of METAREA Coordinators.

## **3.2 Role of METAREA Coordinators in administering and promoting the user survey of the Worldwide Met-Ocean Information and Warning Service**

A periodic survey is conducted as part of the WMO Quality Management framework underpinning continual improvement of Marine Meteorological Services.

The AG-WWMIWS-SubC uses the survey to monitor 3 main areas of WWMIWS:

- Content as specified in Manual on Marine Meteorological Services,
- Product availability as specified in Weather Reporting, Volume D: Information for Shipping, and
- User requirements as specified in Guide to Marine Meteorological Services.

### **3.2.1 Importance of the survey**

The survey's purpose is to monitor the effectiveness of the weather and sea bulletins produced and transmitted by meteorological services. The results assist the AG-WWMIWS-SubC in understanding the perception of mariners regarding whether MSI services provided as part of WWMIWS are meeting user requirements.

### **3.2.2 Survey administration**

The survey should be administered on a 2-year cycle by the AG-WWMIWS-SubC. The survey period of each cycle should be open for 4 months. The timing of the survey period should ideally be conducted between March and June.

The WMO Marine Services Division) is responsible for initiating the survey period through the following processes:

- Finalize the online version of the survey and advise of the web link
- Prepare a PDF version of the survey for hard-copy submission
- Send a letter to national Voluntary Observing Ship (VOS) Programme managers with the web link and PDF
- Advise METAREA Coordinators by email that the survey period has commenced.
- Send a letter to IHO inviting NAVAREA Coordinators to assist with administering the survey
- Request Chairs AG-WWMIWS-SubC and WWNWS-SC to promulgate an EGC information message advising details of the survey, including a link, and for how long

To maintain momentum, the WMO Marine Services Division is responsible for initiating a reminder halfway through the survey period. The reminder should include an update on the number of responses received, an indication of the target expected and a suggestion to utilize NAVAREA Coordinators to reach domestic vessels.

**With regard to the survey, METAREA Coordinators are responsible for:**

- Working with their respective NAVAREA Coordinator to identify additional contacts for domestic vessels in their region
- Administering the survey to any additional vessel contacts in their region
- Responding to and solving any issues raised by the national VOS managers or NAVAREA Coordinators

National VOS managers are responsible for administering the survey through the following processes:

- Provide the survey web link and PDF version to the list of VOS ships that they manage
- Advise their METAREA Coordinator of any issues raised by ships
- Email all PDF versions of the survey to WMO

### **3.3 Key activities for quality management of the Worldwide Met-Ocean Information and Warning Service**

Taking a systems approach to the function of WWMIWS requires that ongoing maintenance programmes are established to maintain and improve the quality of services. The programmes outlined in Appendix 4 contribute to the quality management system for WWMIWS.

The Chair of the AG-WWMIWS-SubC is responsible for coordinating the programmes. METAREA Coordinators, in their role as members of the AG-WWMIWS-SubC, can help coordinate these activities.

### **3.4 Guidelines on backup arrangements**

Backup arrangements are an important part of the WMO Quality Management Framework for WWMIWS and are recommended in the Joint MSI Manual. Backup arrangements may involve either an in-house/national alternate system for the collection and dissemination of information, or the deployment of necessary infrastructure so that the collection and dissemination of information can be taken up by another member, under mutual agreement, in case of an incapacitating system failure.

To ensure uninterrupted provision of broadcasts to any particular Area, it is vital that all RMSS providers are informed formally by email from all relevant parties of the contingency arrangements agreed; without this formal pre-notification, broadcasts into a METAREA by a NAVAREA Coordinator or into an adjacent METAREA by another METAREA Coordinator will not be released by the RMSS providers. The pre-notification email should indicate exactly with which authority the agreement has been made, for what services and over what period, i.e. for how long the contingency plan is agreed. As soon as a particular METAREA Coordinator identifies the need to enact its contingency plan, it is important that this requirement is notified to the relevant external organization (NAVAREA Coordinator or adjacent METAREA Coordinator) as well as the Chairs of the AG-WWMIWS-SubC and IMO EGC Coordinating Panel, the WMO Secretariat and all RMSS providers, with as many details as available on reason, expected duration, services to be covered and any additional assistance required. It is also important to maintain communication with the aforementioned organizations throughout the period the contingency arrangements are enacted and until normal services are restored. It is recommended that contingency plans

are exercised at least once per year in both configurations and commented upon in the Self-Assessment report.

There are two components of the WWMIWS service provision that require backup arrangements:

- Creation of high seas forecasts and warning products
- Broadcast of products onto EGC satellites and NAVTEX

Best practice examples are summarized below to assist METAREA Coordinators to assess and review their current arrangements.

### ***3.4.1 Creation of high seas forecasts and warning products***

1. In the event that your office location needs to be vacated before you have produced the high seas forecasts and warnings, what alternative arrangements do you have to produce the forecasts and warnings?

Best examples

- Our Marine production software is hosted on 2 separate servers with possible switch from one server to the other. Our Marine production tool (forecaster's interface), used for issuing high seas forecasts and warnings, can be accessed remotely from 3 other office locations (Web interface on authorized IP).
- Backup/duplicate systems should be deployed in different locations.
- Another office location is available to setup the forecasting centre and produce the products.
- Recommended to build mutual backup arrangements between METAREA or NAVAREA for access to the RMSS providers for transmission of messages whilst contingency plan is activated.

2. In the event that your normal system to produce the high seas forecasts and warnings is not able to be used, what alternative arrangements do you have to produce the forecasts and warnings?

Best examples

- Backup systems should be deployed in different places, in case one doesn't work, another can replace it.
- It is strongly recommended to produce the high seas forecasts by multiple methods including "the old fashion way", as editing by Microsoft Word or other text editors and sending out manually.
- It is necessary to build mutual backup arrangements between neighbouring Meteorological Services.
- It is recommended to establish arrangement with NAVAREA Coordinator who could transcribe product information by phone into a product/email that could be forwarded to the RMSS providers or LES, if SafetyNET is the system in use.

### ***3.4.2 Broadcast of products onto EGC***

3. In the event that your organisation is unable to send the warning and forecast and

warning products for broadcast on EGC services by Recognized Mobile Satellite Services, what alternative arrangements does your organisation have to ensure the sending of warning and forecast products to the Land Earth Station or RMSS provider for broadcast on EGC services?

#### Best examples

- It is strongly recommended to have duplicate servers for the transmission of this information, but in the unlikely event of a failure of these, the information would be sent to the NAVAREA Coordinator who would then forward to the LES or RMSS provider.
- It is recommended to have contact details (email and phone) offline for high priority contacts such as the LES, RMSS provider or NAVAREA Coordinator. In this way, it is possible to send the product by email with appropriate EGC headers to Maritime Operations Centre and they load the product onto EGC.
- Some Met offices have two different ways to convey the warnings and forecasts to the EGC link; directly from their production system or via internet as email message with EGC headers.
- Consider using the web interface provided by RMSS provider.
- An escalation process may be used, in situations that are clearly a technical issue with the RMSS, to advise the International Mobile Satellite Organization (IMSO) of problems related to provision of MSI through the satellite providers. Email [gmdss@imso.org](mailto:gmdss@imso.org) and [maritime.safety@inmarsat.com](mailto:maritime.safety@inmarsat.com). For all other operational issues, contact should be made with the RMSS provider and/or guidance/assistance sought from the Chairs AG-WWMIWS-SubC or the IMO EGC Coordinating Panel.

#### **3.4.3 Broadcast of products onto NAVTEX**

4. In the event that your normal communication link between your office and the NAVTEX Station is down/broken, what alternative arrangements do you have to send the warning and forecast products for broadcast on NAVTEX?

#### Best examples

- Despite the fact that it is important to maintain modern systems for MSI dissemination, if problems arise in NAVTEX, the communication should be done through direct telephone line.
- If you experience a failure of one or more of your NAVTEX stations, you should try to transfer transmissions to the adjacent stations that cover all or part of the failed station service area. It is recommended that agreements are established with adjacent stations and/or adjacent national authorities to cover such a situation. In addition, you or your equivalent NAVAREA Coordinator should promulgate a message via the EGC service to inform shipping of the NAVTEX problem and the temporary substitute service(s), this should also include information on the anticipated return to normal service, if known. Useful guidance can be extracted from the IMO NAVTEX Manual (IMO-MSC.1/Circ.1403/Rev.2, 2022) section 4.2 on 'Withdrawing existing NAVTEX stations and/or services', as some of the actions are the same for a temporary failure to those for a permanent withdrawal. In addition, the Chair of the IMO NAVTEX Coordinating Panel should be advised with full details, including the contingency actions taken and the anticipated time/date for repair and return to availability.

## 4. TASKS AND PROCEDURES FOR METAREA COORDINATORS

### 4.1 Updating details in *Weather Reporting, Volume D: Information for Shipping*

*Weather Reporting, Volume D: Information for Shipping* contains details about the marine meteorological information services available from each country to assist shipping operations, as well as for fishing and other marine activities. The provision of this information is coordinated by WMO. The publication also contains information on meteorological broadcasts by radiotelegraphy and radiotelephony, meteorological broadcasts by radio-facsimile, GMDSS, coastal radio stations and RMSS providers accepting ships' weather and oceanographic reports, marine meteorological services available for main ports, ship weather routing services and visual storm warning signals. Ensuring that mariners are aware of how to access such marine met-ocean information at sea is critical for the reputation of WMO as a quality and reliable provider.

The *Weather Reporting, Volume D* is published as [an online version](#).

#### 4.1.1 Importance of updating details

It is important to inform the WMO Secretariat of any amendments so that the accuracy of the information in *Weather Reporting, Volume D* can be maintained and improved.

#### 4.1.2 Procedure for updating details

Updating details should be conducted through the following process:

METAREA Coordinators should inform the WMO Secretariat and the Chair AG-WWMIWS-SubC of any personnel changes by emailing [mmo@wmo.int](mailto:mmo@wmo.int), using the [feedback forms](#);

For operational changes, including changes in status for newly recognised RMSS, the Chair AG-WWMIWS-SubC should be informed by email with all relevant details, the WMO Secretariat should be copied. For Iridium SafetyCast service, the Chair AG-WWMIWS-SubC will inform the IHO Secretariat to initiate updating of the graphic on their website. At the same time, the relevant Coordinator should contact their own Maritime Administration to initiate updating of the relevant section in GISIS.

Specific links to key forms for new or updated material in *Weather Reporting, Volume D* include:

- [Forms – Marine radio \(VHF, HF, NAVTEX, HF Narrow Band Direct Printing \(NBDP\)\)](#)
- [Form – Radio-Facsimile](#)
- [Form – Inmarsat-C LESs accepting Special Access Code \(SAC\) 41 messages](#)

### 4.2 Asking WMO to change details for a METAREA Coordinator

Occasionally, the METAREA Coordinator will change within an organization. Once official approval has been provided to WMO via a letter from the relevant METAREA PR, Members should advise WMO within 6 months of the new person that has been designated to take over the METAREA Coordinator role.

#### **4.2.1 Importance of changing details**

The list of METAREA Coordinator contact details is used for coordination with IHO for WWNWS. IHO maintains a similar contact list for NAVAREA Coordinators. It is important that WMO can keep in contact with countries responsible for METAREA Issuing Services to ensure effective coordination of WWMIWS. Once WMO has been notified of a change of details, it will organize an update of details in *Weather Reporting, Volume D: Information for Shipping Chapter 4 Part A – METAREA Coordinators*.

As a SERCOM Advisory Group, the AG-WWMIWS-SubC is composed of all METAREA Coordinators.

#### **4.2.2 Procedure for changing details**

To change details for a METAREA Coordinator:

1. Arrange for a letter from the Permanent Representative to notify the WMO Secretariat about the change of METAREA Coordinator;
2. Send the PR's notification letter by email to the WMO Secretariat ([mmo@wmo.int](mailto:mmo@wmo.int)).
3. Ask the Agency Approver to endorse at least 5 days in the WMO Country Profile Database (CPDB) for the compliance as a SERCOM expert.

### **4.3 Checking product headers for the WMO Information System**

Note: WIS 2.0 is in development, and this section will be rewritten once operational. The information below is correct at the present time of issuing this updated handbook.

#### **4.3.1 Importance of checking product headers**

It is mandatory to send and share marine meteorological MSI products on WIS. This requirement is stated in the *Manual on the Global Data-processing and Forecasting System* (WMO-No. 485, 2021). The network of Regional Telecommunication Hub (RTH) Centres subscribes to various products from Issuing Services, and redistributes them to other NMHSs.

The list of product headers is maintained in *Weather Reporting (WMO-No. 9) Volume C1: Catalogue of Meteorological Bulletins*.

The WWMIWS website displays EGC and NAVTEX products that are distributed on WIS. Therefore, a product will not be displayed on the website without being available in the WIS catalogue.

#### **4.3.2 Procedure for checking product headers**

1. Check product headers by country or product type using the following search web page:

<https://community.wmo.int/en/activity-areas/operational-information-service/volume-c1>

2. Identify with which RTH the NMHS is connected, based on the following web page:

<https://community.wmo.int/en/governance/commission-membership/focal-points-regional-telecommunication-hubs-rth>

## **4.4 Using the Worldwide Met-Ocean Information and Warning Service website**

### **4.4.1 Importance of the website**

The WWMIWS web portal is hosted by Météo-France. It displays the EGC and NAVTEX messages that are produced by Issuing Services.

WWMIWS web portal uses the products that are shared on WIS, which operates using a catalogue of bulletins to which GDPFS Centres can subscribe and redistribute to other NMHSs.

METAREA Coordinators should remember that warnings and forecasts are broadcast via EGC and NAVTEX, as the officially recognised platforms within the GMDSS under SOLAS, WIS and the website are WMO platforms for distributing information in an easily accessible unofficial manner, however they are not part of the GMDSS and therefore should not be seen or used as the primary promulgation method and therefore have no legal status for an incident investigation.

Notwithstanding the above, as required by WMO technical regulations, METAREA Coordinators are responsible for ensuring the timely uploading of current bulletins onto WIS and ensuring the product headers are correct.

### **4.4.2 Procedure for solving issues with the website**

To assist Météo-France to diagnose a problem in the display of bulletins on the website, METAREA Coordinators should undertake the following actions to identify the possible cause before contacting Météo-France, as per the procedure in 4.4.3.

Cause 1: The first cause might be that the product header is not available on WIS. Check the WMO catalogue search tool to confirm that the bulletin is correctly included so that Météo-France can subscribe to the bulletin.

<https://community.wmo.int/activity-areas/operational-information-service/volume-c1>.

Cause 2: The second cause may be that the product is not available on WIS due to a communication failure.

If the bulletin is correctly listed on the catalogue, then the cause could be related to sending the bulletin onto the WIS. Contact Météo-France to confirm whether they can see the bulletin or not. If they cannot see the bulletin, then the connection problem may be located at the METAREA Coordinator's organization.

### **4.4.3 Procedure for requesting changes to the website**

Send an email to the management of the web portal, (located in France) [wwmiws\\_website\\_mf@meteo.fr](mailto:wwmiws_website_mf@meteo.fr), and include appropriate details that will assist in diagnosing the problem.

## **4.5 Accessing Regional Specialized Meteorological Centre products from the WMO Information System**

### **4.5.1 Importance of accessing products**

A network of Regional Specialized Meteorological Centres (RSMCs) for numerical ocean wave prediction and global numerical ocean prediction has been established to support

WWMIWS Issuing and Preparation Services. These RSMCs provide global forecasts. The use of forecast guidance from multiple models provides benefits in terms of greater understanding of possible scenarios, improved accuracy and potential to provide probability-based services and impact-based services for user-defined thresholds.

#### **4.5.2 Procedure for accessing products**

To access RSMC products from WIS:

1. Identify the products used by the RSMCs at the GDPFS/WIPPS web portal <https://community.wmo.int/gdpfs-web-portal>

2. Seek assistance from the WIS focal point in the country, based on the following web page:

<https://community.wmo.int/governance/commission-membership/national-focal-points-wis-matters>

3. Seek assistance from your Information Technology department or national WIS focal point to download and utilize RSMC forecasts.

## **4.6 Maintaining communication with NAVAREA Coordinators**

### **4.6.1 Importance of communicating**

The NAVAREA Coordinator is the authority charged with coordinating, collating and issuing NAVAREA warnings for a designated NAVAREA, as part of the WWNWS. NAVAREA Coordinators generally work within a national maritime safety regulatory organization or national hydrographic organization. They are therefore close to issues and new developments that are discussed by IMO, IHO, and IMSO. It is essential for the METAREA Coordinator to establish a functional working relationship with the relevant NAVAREA Coordinator by establishing regular communications and information sharing. Other benefits include the potential for joint national initiatives and collaboration with other government agencies (such as maritime administrations), which may lead to increased visibility of the role of an NMHS in matters of maritime safety.

### **4.6.2 Procedure for maintaining communication**

The following is a list of potential topics that a METAREA Coordinator should discuss regularly with the NAVAREA Coordinator:

- Developments in GMDSS satellite communications
- National and international NAVTEX station networks
- Maritime safety regulations and issues that relate to met-ocean services
- Feedback on MSI from mariners
- Operations and compliance with *Promulgation of Maritime Safety Information* (IMO-resolution A.705(17), as amended by MSC.468(101), 2019)
- Maintenance of documentation: GISIS module *GMDSS Master Plan*, GMDSS EGC schedule, *Weather Reporting, Volume D* and United Kingdom Hydrographic Office (UKHO) *Admiralty List of Radio Signals* (ALRS)
- Issues being discussed at upcoming IMO, IHO, IALA and IMSO meetings, and



potential joint contributions on these topics

## 4.7 Reporting interference or changes to NAVTEX transmitters

### 4.7.1 Importance of reporting

The IMO NAVTEX Coordinating Panel manages frequency allocations and works to resolve interference issues. The Chair is responsible for reporting new or removed transmitters and interference issues to the IMO Sub-Committee on Navigation, Communication and Search and Rescue (NCSR), and monitoring the accuracy of the relevant sections of GISIS module GMDSS Master Plan. It is important to keep the relevant sections of GISIS up to date because the NAVTEX radio stations and their broadcasting schedules occasionally change, so all mariners depend on reliable information to be able to receive MSI.

### 4.7.2 Procedure for reporting

If any NAVTEX infrastructure has been added or removed, or there are any interference issues, then contact the Chair of the IMO NAVTEX Coordinating Panel at Email: [ncsr@imo.org](mailto:ncsr@imo.org); and [navtex.panel@UKHO.gov.uk](mailto:navtex.panel@UKHO.gov.uk) (in subject line add: for Chair, IMO NAVTEX Coordinating Panel). In addition, and after discussion with the relevant NAVAREA Coordinator, it may be necessary to provide full details of the changes in Notices to Mariners and lists of radio signals, further guidance is contained in the IMO NAVTEX Manual.

## 4.8 Updating the International Maritime Organization Global Maritime Distress and Safety System Master Plan

### 4.8.1 Importance of updating

The GISIS module GMDSS Master Plan details the operating infrastructure that contributes to GMDSS, see [Appendix 3](#) for more details on the IMO GISIS. This infrastructure includes NAVTEX stations, HF NBDP stations, SafetyNET Services, SafetyCast service and Inmarsat LESs. The GISIS module GMDSS Master Plan also includes the EGC schedule of broadcast times for WWMIWS. It is important to keep it up to date because the GISIS module GMDSS Master Plan contains the broadcasting details to which all mariners refer in order to receive MSI, when sailing in or planning to sail to any METAREA in the world.

### 4.8.2 Procedure for updating

Details of any changes or amendments to any GMDSS infrastructure should be submitted, in coordination with the relevant NAVAREA Coordinator, to the nominated national GISIS administrator. The national administrator is responsible for updating the national information in GISIS, after which (for MSI/GMDSS related information) the IMO Secretariat will check prior to completing the update process.

## APPENDIX 1 LIST OF ACRONYMS AND DEFINITIONS

AG-WWMIWS-SubC	Advisory Group on the Worldwide Met-Ocean Information and Warning Service (WWMIWS) Sub-Committee
AIS	Automatic Identification System
ALRS	Admiralty List of Radio Signals

AMSA	Australian Maritime Safety Authority
EGC	Enhanced Group Call
EPIRB	Emergency Position-Indicating Radio Beacon
ET-MS	Expert Team on Maritime Safety
ETSI	Expert Team on Sea Ice
GDPFS	Global Data-processing and Forecasting System
GISIS	Global Integrated Shipping Information System
GMDSS	Global Maritime Distress and Safety System
GTS	Global Telecommunication System
HF	High Frequency
HTML	Hyper Text Markup Language
IALA	International Association of Marine Aids to Navigation and Lighthouse Authorities
IAPH	International Association of Ports and Harbors
ICS	International Chamber of Shipping
IHO	International Hydrographic Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
IMSO	International Mobile Satellite Organization
IOC	Intergovernmental Oceanographic Commission of UNESCO
IOGP	International Oil and Gas Producers
ITU	International Telecommunication Union
IUMI	International Union of Marine Insurance
LES	Land Earth Station
LUT	Local User Terminals
MARPOL	International Convention for the Prevention of Pollution from Ships
MCC	Mission Control Centers
MEPC	Marine Environment Protection Committee
METAREA	a geographical sea area* established for the purpose of coordinating the broadcast of marine meteorological information. (*Which may include inland seas, lakes and waterways navigable by seagoing ships.)
met-ocean	Meteorology and (physical) Oceanography
MMOP	Marine Meteorology and Oceanography Programme
MMSI	Maritime Mobile Service Identity
MSC	Maritime Safety Committee
MSI	Maritime Safety Information
NAVAREA	'a geographical sea area* established for the purpose of coordinating the broadcast of navigational warnings' (* which may include inland seas, lakes and waterways navigable by seagoing ships.)
NAVTEX	Navigational Telex - the system for the broadcast and automatic reception of maritime safety information by means of narrow-band direct-printing telegraphy
NBDP	Narrow Band Direct Printing
NCSR	Sub-Committee on Navigation, Communications and Search and Rescue

NMHS	National Meteorological and Hydrological Services
NWP	Numerical Weather Prediction
OMRS	IMO Online Meeting Registration System
PDF	Portable Document Format
PIANC	Permanent International Association of Navigation Congresses
PMO	Port Meteorological Officer
RCC	Rescue Coordination Centre
RMSS	Recognized Mobile Satellite Service
RSMC	Regional Specialized Meteorological Centre
RTH	Regional Telecommunication Hub
SAC	Special Access Code
SafetyCast	The international service for the broadcast and automatic reception of maritime safety information via the Iridium EGC system
SafetyNET	The international service for the broadcast and automatic reception of maritime safety information via the Inmarsat EGC system
SAR	Search And Rescue
SC-MMO	Standing Committee on Marine Meteorological and Oceanographic Services
SES	Ship Earth Station
SOLAS	International Convention for Safety of Life at Sea
SOP	Standard Operating Procedure
UK MCA	UK Maritime and Coastguard Agency
UKHO	United Kingdom Hydrographic Office
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
VHF	Very High Frequency
VOS	Voluntary Observing Ship
WIS	WMO Information System
WMO	World Meteorological Organization
WWMIWS	the IMO/WMO Worldwide Met-Ocean Information and Warning Service
WWNWS	World-Wide Navigational Warning Service
WWW	World Wide Web

## APPENDIX 2 REFERENCES AND KEY DOCUMENTS

The list of MSI publications of WMO interest is <https://community.wmo.int/activity-areas/Marine/Pubs/MSI> .

### Primary Category

<i>Document name</i>	<i>Summary of key aspects and purpose</i>
<i>Promulgation of Maritime Safety Information</i>	Set out the organization, standards and methods which should be used for the promulgation and reception of Maritime Safety Information (MSI).
<i>IMO/WMO Worldwide Met-Ocean Information and Warning Service – Guidance Document</i>	Provides specific guidance for the promulgation of meteorological warnings and forecasts. The guidance does not apply to purely national services which supplement the internationally coordinated services.
<i>Joint IMO/IHO/WMO Manual on maritime safety information (Joint MSI Manual)</i>	<p>Provides a practical guide for anyone who is concerned with drafting navigational warnings or with the issuance of meteorological warnings and forecasts under the Global Maritime Distress and Safety System (GMDSS).</p> <p>In order to achieve the necessary impact on the mariner it is essential to present timely and relevant information in a consistent format that is clear, unambiguous and brief. Within this Manual, it is particularly intended to provide the best form of words for use in all types of navigational warnings and meteorological warnings and forecasts and warnings that are required to be broadcast in the English language.</p>
<i>Manual on Marine Meteorological Services</i>	<p>Sets service standards for WWMIWS (high seas), coastal waters, based on the requirements described in the Joint MSI Manual</p> <p>Includes:</p> <ul style="list-style-type: none"> <li>● Product element and format requirements</li> <li>● Service levels for timeliness and accuracy</li> <li>● Graphics standards for charts</li> </ul>

## Secondary Category

<i>Document name</i>	<i>Summary of key aspects and purpose</i>
<i>NAVTEX Manual</i>	Describes the structure and operation of the NAVTEX service. It is intended primarily for use by national administrations and others concerned with the preparation and broadcasting of MSI. It will also be of interest to seafarers, shipowners and others who need to receive such information in order to go safely

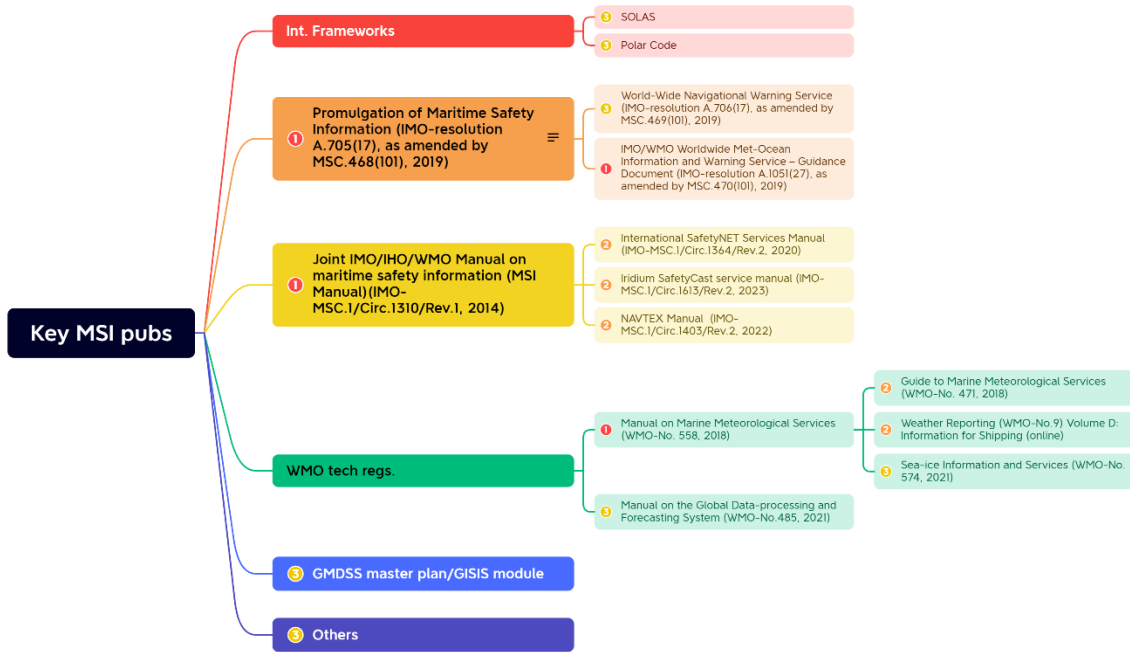
	about their business at sea. It should be used in conjunction with the Joint IMO/IHO/WMO Manual on Maritime Safety Information.
<i>International SafetyNET Services Manual</i>	Describes the structure and operation of the International SafetyNET services. It is intended primarily for national Administrations and registered information providers, but may also be useful to the mariner who requires more operational information than is found in manufacturers' equipment manuals.
<i>Iridium SafetyCast service manual</i>	Describes the structure and operation of the Iridium SafetyCast service. It is intended primarily for national Administrations and registered information providers, but may also be useful to the mariner who requires more operational information than is found in manufacturers' equipment manuals.
<i>Guide to Marine Meteorological Services</i>	Outlines user requirements for information elements, user application and delivery channels
<i>Weather Reporting (WMO-No.9) Volume D: Information for Shipping (online)</i>	<p>Authoritative resource on meteorological services provided to shipping. Includes:</p> <ul style="list-style-type: none"> <li>• High-frequency (HF) fax services</li> <li>• Very high frequency (VHF)/HF radio schedules</li> <li>• SafetyNET schedule</li> <li>• METAREA Coordinator contact details</li> <li>• Description of service areas including maps</li> </ul>

### Third Category

<i>Document name</i>	<i>Summary of key aspects and purpose</i>
<i>International Convention on Safety of Life at Sea (SOLAS,1974)</i>	The SOLAS Convention in its successive forms is generally regarded as the most important of all international treaties concerning the safety of merchant ships. The first version was adopted in 1914, in response to the Titanic disaster, the second in 1929, the third in 1948, and the fourth in 1960. The 1974 version includes the tacit acceptance procedure - which provides that an amendment shall enter into force on a specified date unless, before that date, objections to the amendment are received

	<p>from an agreed number of Parties.</p> <p>As a result, the 1974 Convention has been updated and amended on numerous occasions. The Convention in force today is sometimes referred to as SOLAS, 1974, as amended.</p> <p>The main objective of the SOLAS Convention is to specify minimum standards for the construction, equipment and operation of ships, compatible with their safety.</p>
<p><i>International Code for Ships Operating in Polar Waters (Polar Code) (IMO-MEPC 68/21/Add.1, 2014)</i></p>	<p>IMO's International Code for Ships Operating in Polar Waters (Polar Code) is mandatory under both the International Convention for the Safety of Life at Sea (SOLAS) and the International Convention for the Prevention of Pollution from Ships (MARPOL). The Polar Code covers the full range of design, construction, equipment, operational, training, search and rescue and environmental protection matters relevant to ships operating in the inhospitable waters surrounding the two poles. The Polar Code <a href="#">entered into force</a> on 1 January 2017</p>
<p><i>World-Wide Navigational Warning Service (IMO-resolution A.706(17), as amended by MSC.469(101), 2019)</i></p>	<p>Provides specific guidance for the promulgation of internationally coordinated NAVAREA and coastal warnings. The guidance does not apply to purely national warning services which supplement these internationally coordinated services.</p>
<p>Manual on the Global Data-processing and Forecasting System</p>	<p>Defines roles and responsibilities for each type of centre</p> <p>Defines mandatory and optional products</p> <p>Defines required verification metrics</p>
<p><i>Sea-ice Information and Services (WMO-No. 574, 2021)</i></p>	<p>Description of the various types of sea ice, the ice observing methods currently being used, and the types of ice information services currently being provided.</p>
<p><i>Weather Reporting (WMO-No. 9) Volume C1: Catalogue of Meteorological Bulletins (online)</i></p>	<p>Catalogue of bulletins</p> <p>List of product headers used by WIS</p>
<p><i>Provision of mobile satellite services for the Global Maritime Distress and Safety System (GMDSS) (IMO resolution A.1001(25), as amended)</i></p>	<p>Determines the criteria, procedures and arrangements for the evaluation, recognition, review and oversight of the provision of recognized mobile</p>

	satellite services (RMSS) in the global maritime distress and safety system (GMDSS) pursuant to the provisions of SOLAS chapter IV.
<i>Charges for distress, urgency and safety messages (IMO-resolution A.707(17), as amended)</i>	Describes arrangements in respect of charges to shore services for distress, urgency or safety communications carried over the recognized mobile satellite services in the GMDSS.
<a href="#"><u>Recommendation on weather routing (IMO-resolution A.528(13), 1983)</u></a>	Provides recommendations that weather routing services and providers should be listed in Weather Reporting, Volume D: Information for Shipping (WMO, 2014b), and that WMO should authorize such providers
<a href="#"><u>Participation of ships in weather routing services (IMO- MSC/Circ.1063, 2002)</u></a>	Provides a standard to which weather routing services should adhere in order that the services they provide take account of internationally agreed measures.
<a href="#"><u>Provision of radio services for the Global Maritime Distress and Safety System (IMO-Resolution A.801(19), 1995)</u></a>	Provides recommendations on provision of radio services for the GMDSS, the criteria for use when providing Shore-Based Digital Selective Calling (DSC) facilities for use in the GMDSS, the criteria for establishing GMDSS sea areas, the criteria for use when providing a NAVTEX service and the criteria for use when providing Inmarsat shore-based facilities for use in the GMDSS.
<a href="#"><u>Performance requirements for Enhanced Group Call Equipment (IMO-Resolution A.664(16), 1989)</u></a>	Describes the minimum performance standards to which Inmarsat SafetyNET EGC equipment should comply.
<i>Master Plan of Shore-based Facilities for the Global Maritime Distress and Safety System (GISIS module GMDSS Master Plan)</i>	Provides details of the shore-based infrastructure to support the provision of MSI to the maritime community. Information related to shore-based facilities for the GMDSS communicated by the SOLAS Contracting Governments to the Organization, as required under SOLAS regulation IV/5, which previously was circulated by means of GMDSS circulars, is available in this module.



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**Figure 6:** MSI publications

A list of IMO resolutions is available at

<http://www.imo.org/en/KnowledgeCentre/IndexofIMOResolutions/Pages/Default.aspx>

## APPENDIX 3 GISIS GUIDANCE

GISIS (Global Integrated Shipping Information System) is developed, maintained and headed by the International Maritime Organisation (IMO).

This system (website) is aimed at allowing on-line access to the information and data supplied to the IMO Secretariat by Maritime Administrations, its member states and port authorities, in compliance with IMO's instruments, regulations and guidelines.

It is basically an informational data hub for the global shipping industry and maritime professionals for complying different types of rules and regulations, global and local.

GISIS consists of several subsystems, which include 26 modules that are further divided into sub-modules dedicated to various themes and topics as follows:

- Maritime Security
- Marine Casualties and Accidents
- Port Reception Facilities
- Contact Points
- Pollution Prevention Equipment and Anti Fouling Schemes
- Piracy and Armed Robbery



- Ship Fuel Oil Consumption
- Ballast Water Management and Ballast water Chemicals
- Global SAR (Search and Rescue) Plan
- Status of Treaties
- Simulators
- **Global Maritime Distress and Safety System (GMDSS)**
- Formalities connected with sign-in and sign-off.
- Greenhouse Gas Emissions
- Information on Local Regulations
- IMDG Code Feedback
- MARPOL Annex VI
- Evaluation of Hooks
- Cargoes
- Member state Audits
- Condition assessment scheme
- Test laboratories and Halon Facilities
- National Maritime Legislation
- Non-Mandatory Instruments
- Survey and Certification

## System Structure

GISIS is an in-house information database system where Member States are required to report obligations in the implementation of IMO instruments while the Secretariat gives access to and circulate data, facts on requests.

The modules can be accessed in three ways:

Public Area: By simple registration through e-mail.

IMO Member's Area: Specific permissions related to uploading data and compliance.

IMO Secretariat's Area: Special access to check registrations, compliance, uploads and regulate maintenance of the site.

The Global Maritime Distress and Safety System (GMDSS) module (<https://gisis.imo.org/Public/GMDSS/Default.aspx>) provides details of the shore-based infrastructure to support the provision of MSI to the maritime community. Information related to shore-based facilities for the GMDSS communicated by the SOLAS Contracting

Governments to the Organization, as required under SOLAS regulation IV/5, which previously was circulated by means of GMDSS circulars, is available in this module. This module, which is accessed via the dropdown menu on the IMODOCs Home page (<https://docs.imo.org/>), is divided into 14 sections covering;

- Status of shore-based facilities for the GMDSS
- Sea Area A1 (within range of shore-based VHF DSC coverage)
- Sea Area A2 (within range of shore-based MF DSC coverage)
- Sea Areas A3 and A4 (outside sea area A2)
- Inmarsat LESs
- Rescue Coordination Centres (RCCs) using INMARSAT Ship Earth Stations (SESS)
- NAVTEX Service
- SafetyNET Services
- SafetyCast Service
- HF Narrow Band Direct Printing (NBDP) MSI Broadcast Service
- Cospas-Sarsat Mission Control Centers (MCC) and Local User Terminals (LUT)
- Emergency Position-Indicating RadioBeacon (EPIRB) Registration Data
- MMSI Contact Points for GMDSS
- NAVAREA/METAREA Coordinators.

Unlike the other modules, which are directly updated by individuals with editorial permissions for each IMO Member State, any updates to the GMDSS module submitted by Member States, are verified by the IMO Secretariat prior to being uploaded. METAREA Coordinators (and NAVAREA Coordinators) not only have an obligation to ensure their own entries are correct, but also to ensure the entries for coastal states within their Area are also maintained by the respective coastal state administrations. METAREA Coordinators should periodically check the information available and confirm their own details as well as reminding their coastal states to check and confirm/update the information relevant to them. It is intended, in the future, to combine the SafetyNET Services and SafetyCast service sections into a single EGC Services section, which will also contain details on the BeiDou SafetyLink Service when operational.

METAREA Coordinators can access the GISIS module using their individual IMODOCs account login, this will allow viewing rights only, it does not allow editorial activities, which can only be undertaken by those designated by respective administrations. Therefore, any amendments need to be communicated to the designated individual for implantation. Note that the WMO for METAREA Coordinators (and the IHO for NAVAREA Coordinators) maintains the list of METAREA Coordinator contact details, thus any amendments to these details should be provided to the respective Secretariat for action.

Access to GISIS is via, on the Home page, the dropdown list, accessible via the bars to the left of the IMO logo, or the 'Focal Points GISIS online module' under the Hot Topics section. Remember to select 'GISIS homepage' (yellow box) to access all the GISIS modules on the GISIS Home page or Google IMO GISIS.

## APPENDIX 4 KEY ACTIVITIES AND PROGRAMMES

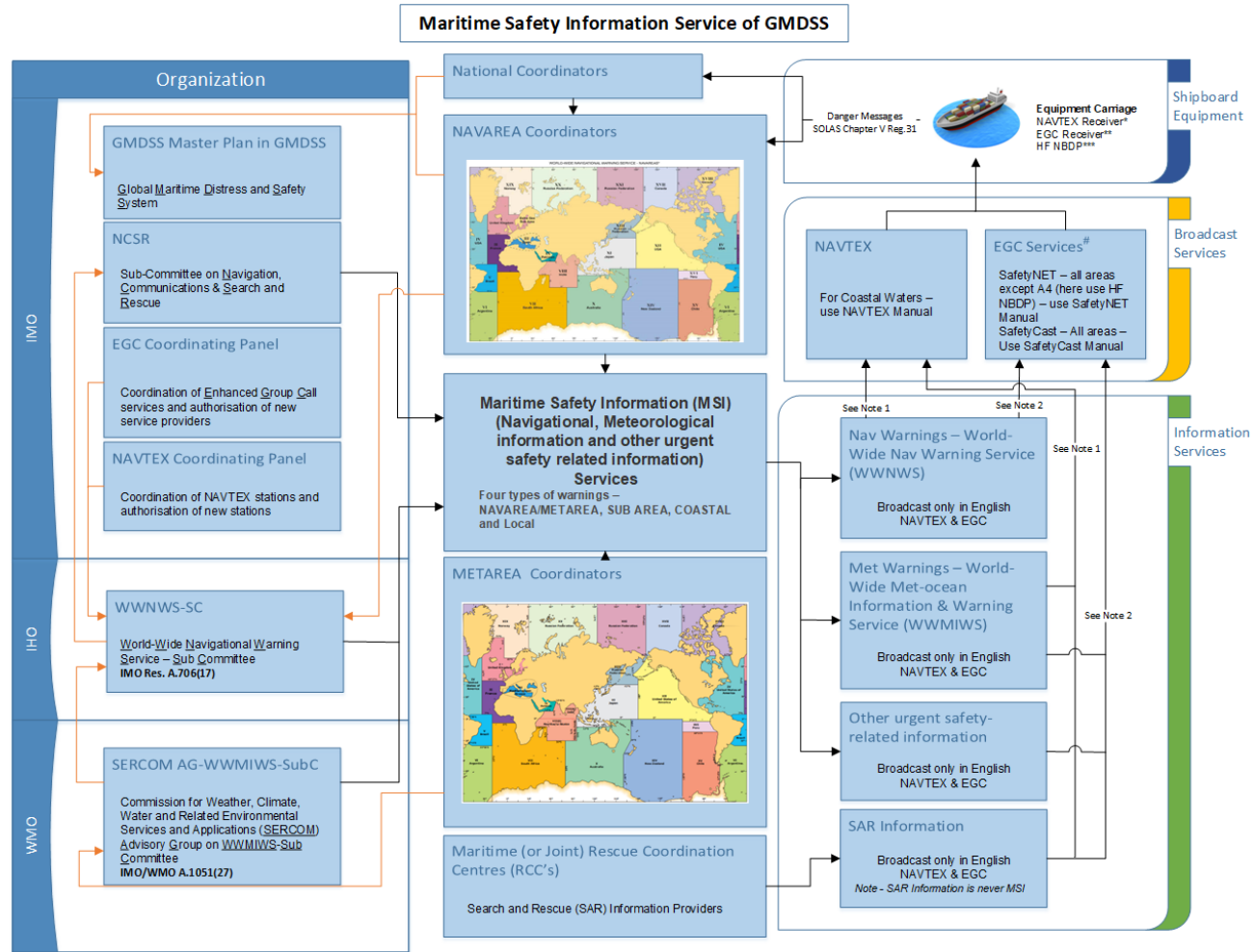
<i>Programme</i>	<i>Frequency</i>	<i>Notes for coordination</i>
Self-assessment	Every 2 years (or prior to the AG-WWMIWS-SubC meeting as requested by the Chair)	
Survey of users of WWMIWS	Every 2 years (or prior to the AG-WWMIWS-SubC meeting)	Coordination with IHO required for WWNWS survey
Physical AG-WWMIWS-SubC meeting	Should be organized only if agreed by its parent body	Assess possibility of joining with IHO WWNWS meetings
Review of the <i>Manual on Marine Meteorological Services and Guide to Marine Meteorological Services</i>	Annual	Regular review and maintenance of documentation, supporting Expert Team on Maritime Safety (ET-MS)/SC-MMO
Contribute to updates of documents through the IHO Document Review Working Group (DRWG)	Annual, rolling rotation	IMO/IHO document review: SafetyNET Manual , NAVTEX Manual , GMDSS Master Plan GISIS module , MSI Manual , WWMIWS Guidance Document and Promulgation of Maritime Safety Information
Update the WWMIWS website portal	Every 6 months	Send updates to Météo-France
Update <i>Weather Reporting, Volume D: Information for Shipping</i>	Every 6 months	Send updates to the WIS Coordinator
Update the GISIS module GMDSS Master Plan	Annual or as required in coordination with relevant NAVAREA Coordinator	Coordinated through national maritime authority administrator

Update Admiralty List of Radio Signals (ALRS) documentation	Annual or as required	Published by the United Kingdom Hydrographic Office (UKHO) Mandatory for SOLAS ships to carry this document
Review IMO Sub-Committee on Navigation, Communications and Search and Rescue (NCSR) and Maritime Safety Committee (MSC) agenda items	As published by IMO Secretariat on IMODOCS	

## APPENDIX 5 USEFUL LINKS

- The AG-WWMIWS-SubC Governance webpage: <https://community.wmo.int/activity-areas/Marine/Governance/AG-WWMIWS-SubC>
- AG-WWMIWS-SubC introduction webpage: <https://community.wmo.int/activity-areas/Marine/Governance/AG-WWMIWS-SubC>
- The WWMIWS web portal: <https://wwmiws.wmo.int/>
- MSI publications: <https://community.wmo.int/activity-areas/Marine/Pubs/MSI>
- AG-WWMIWS-SubC filecloud (members access only): [filecloud](#)

# APPENDIX 6 FIGURE 3



**Figure 3.** Overview of the organisational arrangements, and coordination bodies that support the provision of MSI on GMDSS communication methods to ships. (Source: IHO WNWWS Sub-Committee)

Acronyms not previously defined: HF = high frequency; IHO = International Hydrographic Organization; NBDP = Narrow Band Direct Printing; NCSR = Sub-Committee on Navigation, Communications and Search and Rescue; SAR = Search And Rescue.