# Operations Handbook for METAREA Coordinators

This is a working document for the functions of a METAREA Coordinator in the operation of the Worldwide Met-Ocean Information and Warning Service.

This document will also serve as a good orientation toolkit for new coordinators.

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## Chapter 1 - Roles of the METAREA Coordinator

To coordinate the WWMIWS, a coordinator role exists for each METAREA to coordinate the issuance of products and broadcast of these products. The following has been extracted from the [IMO Resolution A.1051 for the WWMIWS](http://www.jcomm.info/index.php?option=com_content&view=article&id=105&Itemid=37). The METAREA Coordinator has to be registered with WMO, and contact information is maintained in the WMO No.9, Vol D. Information for Shipping.

**A METAREA Coordinator** means the authority charged with coordinating Marine Meteorological Information broadcasts by one or more National Meteorological Services acting as Preparation or Issuing Services within the METAREA;

The following description of the role and responsibilities of a METAREA Coordinator is prescribed in the [IMO Assembly Resolution A.1051(27) – IMO/WMO Worldwide Met-Ocean Information and Warning Service - Guidance Document](http://www.jcomm.info/index.php?option=com_content&view=article&id=105).

**METAREA Coordinator resources**

The METAREA coordinator must have:

.1the expertise and information sources of National Meteorological Services; and

.2effective means of communication such as telephone, e-mail, facsimile and internet, with National Meteorological Services in the METAREA, with other METAREA Coordinators, and with other data providers.

**7.2 METAREA Coordinator responsibilities**

7.2.1The METAREA Coordinator must:

.1act as the central point of contact on matters relating to meteorological information and warnings within the METAREA;

.2promote and oversee the use of established international standards and practices in the dissemination of meteorological information and warnings throughout the METAREA;

.3coordinate 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 SafetyNET and MSI messages on the WWMIWS website hosted by Météo-France;

.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 (WMO No‑9), Volume D -* *Information for Shipping, UKHO Admiralty List of Radio Signals, IMO GMDSS Master Plan*;

.8 contribute to the development of international standards and practices through attendance and participation in the IMO/WMO Worldwide Met-Ocean Information and Warning Service Committee meetings, and also attend and participate in relevant IMO, IHO and WMO meetings as appropriate and required;

7.2.2The METAREA Coordinator has to also ensure that within their METAREA, National Meteorological Services that act as Issuing Services have the capability to:

.1select meteorological information and warnings for broadcast in accordance with the guidance given in in the *Manual on Marine Meteorological Services (WMO No. 558)*;

.2 Provide insights and monitor changes in customer requirements for updates to the *Guide on Marine Meteorological Services (WMO No.471)*; and

.3 monitor the SafetyNET transmission of the bulletins, that are broadcast by the Issuing Service within its METAREA.

7.2.3 The METAREA Coordinator has to further ensure that within their METAREA, National Meteorological Services that act as Preparation Services have the capability to:

.1be informed of/to gather information on all meteorological events that could significantly affect the safety of navigation within their area of responsibility;

.2assess all meteorological information immediately upon receipt in the light of expert knowledge for relevance to navigation within their area of responsibility;

.3forward marine meteorological information that may require wider dissemination directly to adjacent METAREA Coordinators and/or others as appropriate, using the quickest possible means;

.4ensure 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 National Meteorological Services and METAREA Coordinators affected by the meteorological event;

.5 Provide insights and monitor changes in customer requirements for updates to the Guide on Marine Meteorological Services (WMO No. 471); and

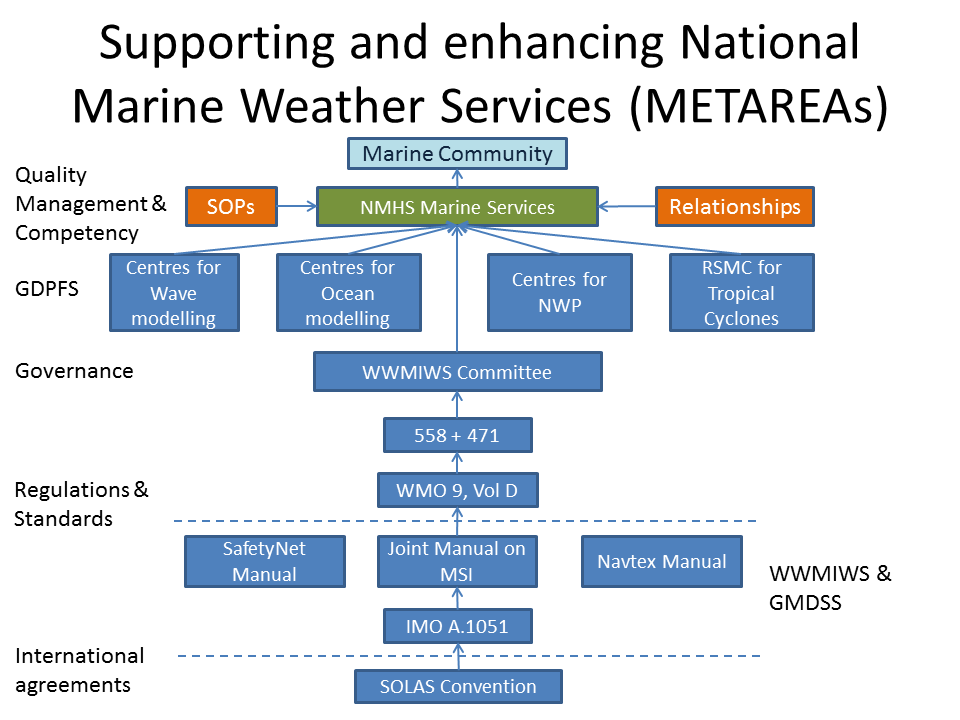
.6 maintain records of source data relating to meteorological information and warning messages within their area of responsibility.

## Chapter 2 - Framework to support promulgation of maritime safety information

### Overview of the WMO support system

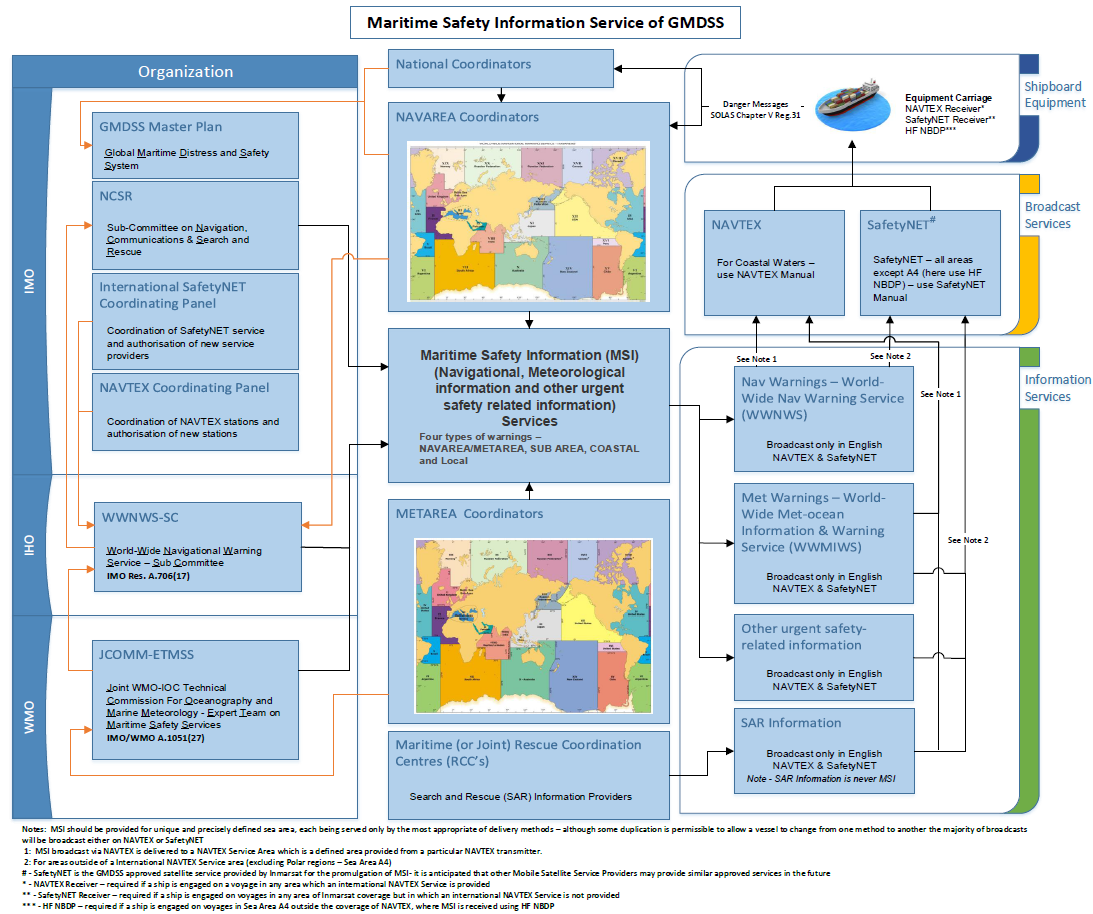
WMO has a number of systems and frameworks that support a National Meteorological Service fulfil its METAREA responsibilities. These include maintenance of documentation outlines service standards and regulations; to infrastructure and arrangements to supply data to a NMHS.

The following diagram illustrates how services to the marine community are supported all the way back from training of forecasting staff and Standard Operating Procedures to international agreements such as the SOLAS convention. The WWMIWS Committee is the key group that coordinates the delivery of services for each METAREA. This Committee should also be used as a source of information to solve local problems.



### Overview of the organisation of MSI Services on the GMDSS

The following diagram illustrates the various governance arrangements, information service providers and dissemination systems that facilitate the WWMIWS to ships.



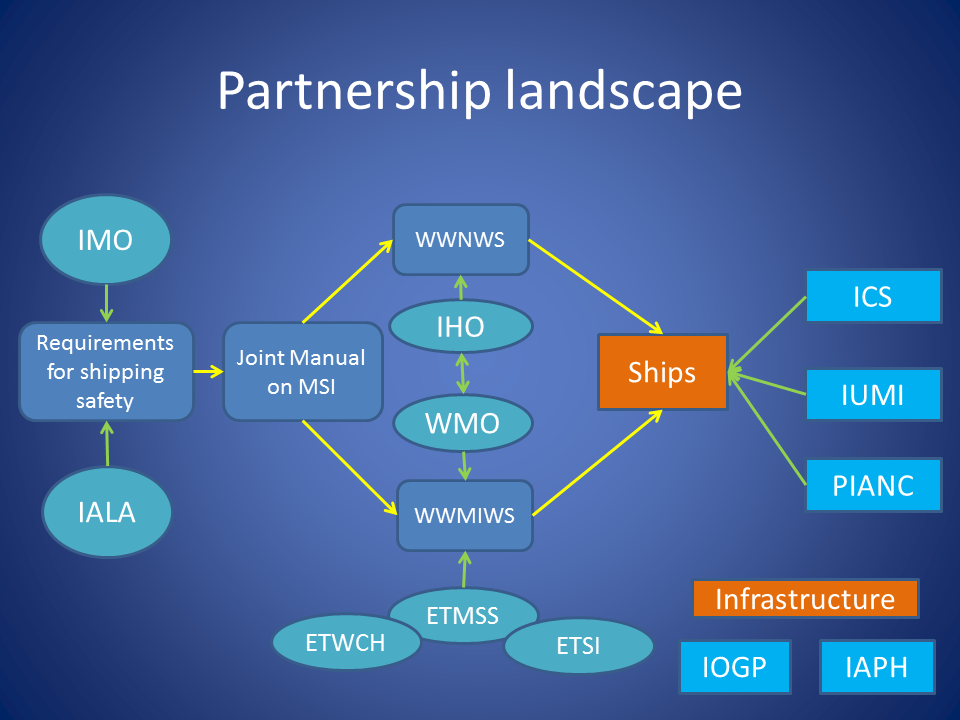
### Partnerships that support WWMIWS

The provision of Maritime Safety Information (MSI) stems from the SOLAS Convention, and IMO, IHO and WMO maintain a Joint Manual governing the services provided under the WWMIWS and its sister service WWNWS for Navigational Warnings.

The Joint Manual is based on user requirements updated through IMO and IALA governance processes.

Seeking feedback on services and insights into changing user requirements, 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).

Expert Teams under JCOMM are in place to provide technical and scientific expertise in support of the WWMIWS.

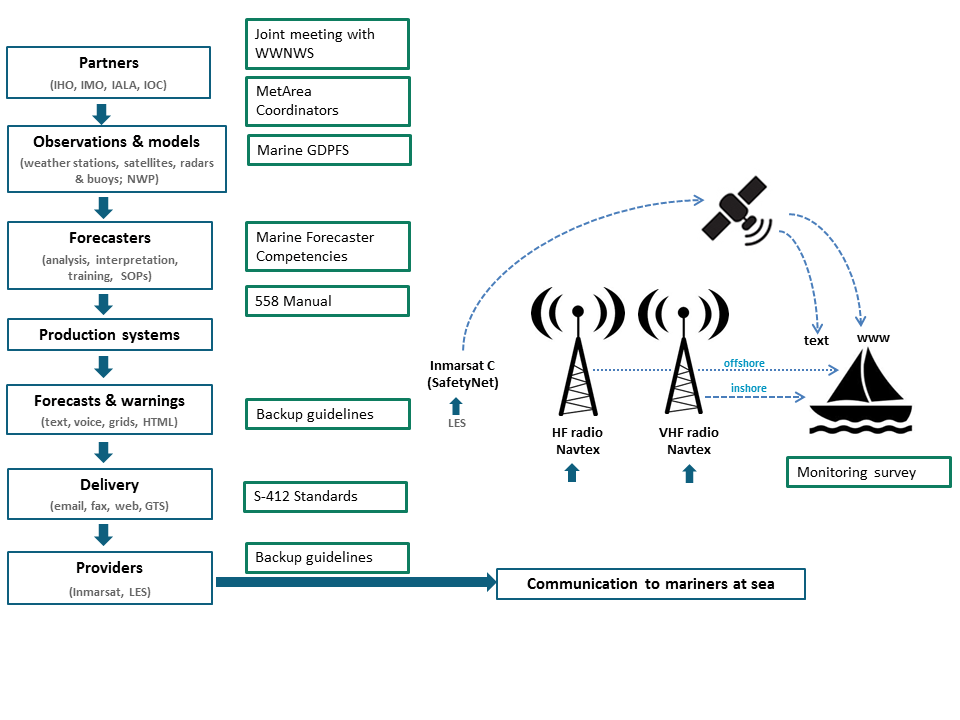


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## Chapter 3 - Overview of the end to end delivery system and activities that support this

The WWMIWS involves the coordination of a range of functions that cascade to deliver a reliable service to mariners. The following diagram includes an overlay (refer to green outlined boxes) of the governance activities undertaken by the WWMIWS Committee and WMO to support each NMHS 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 WWMIWS Committee.

METAREA Coordinators are also responsible for delivery of bulletins onto the WMO Information System (WIS, formerly known as the GTS), under the requirements of the Global Data Processing and Forecasting System (GDPFS).



## Chapter 4 - Key documents for MSI

METAREA Coordinators should be familiar with key documentation on the function of the GMDSS and WWMIWS. The following table is a list of these key documents with a summary of the key aspects contained within these documents. These documents can be downloaded from the [JCOMM WWMIWS webpage](http://www.jcomm.info/index.php?option=com_content&view=article&id=105).

|  |  |
| --- | --- |
| **Document Name** | **Summary of key aspects and purpose** |
| Joint IMO/IHO/WMO Manual on Maritime Safety Information (MSI) | Governs the MSI services provided for the WWMIWS and WWNWS.  Includes:   * Definitions of key terms * Roles and Responsibilities of METAREA Coordinators |
| WMO 558, Manual on Marine Meteorological Services | Sets service standards for WWMIWS (High Seas), Coastal Waters, based on the requirements described in the Joint IMO/IHO/WMO Manual on Maritime Safety Information (MSI).  Includes:   * Product element and format requirements * Service levels for timeliness, accuracy * Graphics standards for charts |
| WMO 471, Guide on Marine Meteorological Services | Outlines user requirements for information elements, user application, delivery channels. |
| WMO 9, Vol D, Information for Shipping | Authoritative resource on meteorological services provided to shipping.   * HF fax services * VHF/HF radio schedules * SafetyNET schedule * METAREA Coordinator contact details * Description of service areas including maps |
| WMO 9, Vol C1, Catalogue of Meteorological Bulletins | Catalogue of bulletins.  List of product headers used by the WMO Information System (WIS). |
| SafetyNET Manual | Describes the aspects of the SafetyNET system.   * Outlines C codes used for EGC addressing on products sent on SafetyNET * Governance of the SafetyNET system |
| NAVTEX Manual | Describes the aspects of the SafetyNET system.   * Governance of the SafetyNET system |
| [IMO Resolution A.1051(27) - IMO/WMO Worldwide Met-Ocean Information and Warning Service (WWMIWS)](http://www.imo.org/en/KnowledgeCentre/IndexofIMOResolutions/Documents/A%20-%20Assembly/1051(27).pdf) | This is the key reference document that constitutes the WWMIWS, and the roles and responsibilities of the METAREA Coordinator.  It also outlines the service requirements for the WWMIWS.  Outlines the distinctions of Issuing Services and Preparation Services. |
| [IMO Resolution A.528(13) - Recommendation on weather routeing](http://www.imo.org/blast/blastDataHelper.asp?data_id=22816&filename=A528(13).pdf) | Recommends that weather routing services and providers should be listed in WMO No 9, Vol D, and that WMO should authorise such providers. |
| [IMO MSC/Circ.1063 – Participation of ships in weather routeing services](http://solasv.mcga.gov.uk/msc/msc1063.pdf) | Provides additional guidelines on the types of service requirements of advisory services to support safe shipping |
| [IMO Resolution A.801(19) - Promulgation of Maritime Safety Information](http://www.imo.org/blast/blastDataHelper.asp?data_id=24430&filename=A801%2819%29.pdf) | Sets out two principal methods for broadcasting MSI messages - SafetyNET and NAVTEX.  Lays out the governance of MSI provision - including the SafetyNET Panel and NAVTEX Panel. |
| [IMO Resolution A.664(16) - Performance requirements for Enhanced Group Call Equipment](http://www.imo.org/blast/blastDataHelper.asp?data_id=22400&filename=A664(16).pdf) | Describes the performance requirements that the Inmarsat SafetyNET receiving terminals have to comply with. |
| [IMO Resolution A.1001(25) – SafetyNET functional requirements](http://www.imo.org/blast/blastDataHelper.asp?data_id=29941&filename=A1001(25).pdf) | Sets out the functional requirements that govern the Mobile Maritime Satellite providers and EGC requirements that Inmarsat and Iridium need to comply with. |
| [IMO Resolution A.707(17) – Charges for distress, urgency and safety messages](http://www.imo.org/blast/blastDataHelper.asp?data_id=22521&filename=A707(17).pdf) | Describes the charging framework for the broadcast of messages on Maritime Satellite providers. Origins of principle that mariners are not directly charged to receive MSI messages. |
| IMO Resolution A.706 |  |

A list of IMO Resolutions are listed on the following IMO webpage.

<http://www.imo.org/en/KnowledgeCentre/IndexofIMOResolutions/Pages/Assembly-(A).aspx>

## Chapter 5 - Partnerships

Marine meteorological services generally require the formation of partnerships or agreements to support the delivery of services or to promote the use and understanding of the services. The following was extracted from WMO 471, Guide to Marine Meteorological Services.

### Why is this important?

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

### How to setup the partnerships?

1. The key to developing effective partnerships is to develop trust and understanding of each organisations role, and then deliver on commitments.
2. Maintain regular discussion and coordination with your respective NAVAREA Coordinator. Topics to cover should include GMDSS service delivery, and sharing of information about shipping matters.
3. Develop formal consultative meetings with relevant government agencies. Consider a yearly frequency for the meetings.
4. Develop regular consultation and information sharing with marine radio service organisations to keep them updated on service and education developments, and to ensure that weather information is broadcast correctly.
5. Ensure adequate representation of the National Meteorological Service in organizations, both national and international, in efforts to improve marine services.
6. Contact users and in consultation with them identify their requirements. Users usually include:

· Government department for fisheries;

· Recreational boating organisations;

· Fishing organisations;

· Authorities responsible for safety of life at sea, including coastal waters;

· Authorities responsible for combatting marine pollution;

· Operators of ferry, hydrofoil, hovercraft or similar services;

· Oil drilling and shipping companies;

· Authorities responsible for protection of the coastal populations from, among others, storm surges, high waves, tsunamis; and,

· Harbour control authorities;

Port Meteorological Officers (PMOs) fulfil a highly important role in the liaison between NMSs 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 also must be able to obtain the 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 your country.

## Chapter 6 - Key concepts in Forecast and Warning Services

The following text is located in section 4 of IMO Resolution A.1051(27) - IMO/WMO Worldwide Met-Ocean Information and Warning Service (WWMIWS). METAREA Coordinators should be familiar with the documentation listed in Chapter 4 of this Operations Manual for specific details on the service requirements and system characteristics of the WWMIWS and GMDSS.

**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 convention 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.

**Met-Ocean information and warning services:**

There are three types of marine meteorological information: forecasts and warnings for High Seas, forecasts and warnings for Coastal and Offshore areas and services for Ports and Harbour areas. The Marine Meteorological Information guidance and coordination are involved with two of them:

**Services for the High Seas, which will comprise:**

Meteorological Warnings;

Marine forecasts; and

Sea-ice information services (where applicable).

Marine forecasts for the High Seas shall include, in the order given hereafter:

Part I- Warnings,

Part II- Synopsis of major features; and

Part III- Forecasts

Warnings shall be given for gales (Beaufort force 8 or 9), storms (Beaufort force 10 or over), and for Hurricane -Force (Beaufort 12 or over) including those generated by tropical cyclones: hurricanes in the North Atlantic and eastern North Pacific; typhoons in the Western Pacific; and cyclones in the Indian Ocean

Operational guidance for handling and formatting meteorological information is given in detail in Chapter 1 of the WMO Technical Regulations (Manual on Marine Meteorological Service WMO No 558.

**Services for Coastal and Offshore Areas, which will comprise warnings, Synopses and Forecasts.**

Operational guidance for handling and formatting meteorological information is given in detail in the Annex IV of the WMO Technical Regulations ( Manual on Marine Meteorological Service WMO N° 558.

## Chapter 7 - Key activities for the quality management of the WWMIWS

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

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

## Ongoing programmes

|  |  |  |
| --- | --- | --- |
| **Programme** | **Frequency** | **Notes for coordination** |
| Self-assessments | Every 2 years (or prior to WWMIWS Committee meeting) |  |
| Survey of users of WWMIWS | Every 2 years (or prior to WWMIWS Committee meeting) | Coordination with IHO required for WWNWS survey |
| Marine Safety Services workshop for METAREA Coordinators | Every 4 years | Assess possibility of joining with IHO WWNWS meetings. |
| Review of 558 and 471 | Annual | Regular review and maintenance of documentation |
| Contribute to updates of documents through IHO DRWG | Annual, rolling rotation | IMO/IHO document review  · SafetyNET, NAVTEX, GMDSS Master Plan, Joint Manual. |
| Updating WWMIWS website portal | Every 6 months | Send updates to Meteo-France |
| Update of WMO 9, Vol D | Every 6 months | Send updates to WMO WIS (Jennifer Best) |
| Update of GMDSS Master Plan | Annually | Coordinated through national marine agencies. |
| Update of ALRS documentation | Annually | Published by UKHO. This doc is a mandatory doc to carry for SOLAS ships. |
| Review NCSR and MSC agenda items | Every year and 6 monthly |  |
| Issue of IMO COMSAR Circular for METAREA/NAVAREA Coordinator details | At least every 12 months | Contact IHO Secretariat. Supply link to METAREA Coordinator details. IHO submits joint details to IMO, who then issue the Circular. |

## Chapter 8 - How to update details in WMO No. 9, Vol D – Information for Shipping.

### The *Information for Shipping* publication 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.

### Why is this important?

Ensuring that mariners are aware of how to access marine met-ocean information at sea, is critical for the reputation of the WMO as a quality and reliable provider.

In order to maintain and improve the accuracy of the information in the publication WMO No.9, Volume D, *Information for Shipping*, it is important to inform the WMO Secretariat of any amendments.

WMO No.9, Volume D contains information on the meteorological broadcasts by radiotelegraphy and radiotelephony, meteorological broadcasts by radio-facsimile, global maritime distress and safety system, coastal radio stations and Inmarsat land earth stations accepting ships’ weather and oceanographic reports, marine meteorological services available for main port, ship weather routeing services and visual storm warning signals.

### How to do it?

To maintain and improve the accuracy of information contained in this Volume it is essential to inform the WMO Secretariat of any changes by emailing Jennifer Best ([jbest@wmo.int](mailto:jbest@wmo.int)), with a cc to [mmo@wmo.int](mailto:mmo@wmo.int).

For larger changes, it may be helpful to use the Forms available on the Feedback section on the following website.

<http://www.wmo.int/pages/prog/www/ois/Operational_Information/VolD_en.html>

More specific links to key forms for new or updated material

* [Forms - Marine radio (VHF, HF, DSC, NAVTEX, HF NBDP)](http://www.wmo.int/pages/prog/www/ois/Operational_Information/VolumeD/FeedbackForms/Feedback_Ch4.xls)
* [Form - RADIO-FACSIMILE](http://www.wmo.int/pages/prog/www/ois/Operational_Information/VolumeD/FeedbackForms/Feedback_Ch3.xls)
* [Form - INMARSAT-C Land Earth Stations (LESs) Accepting SAC 41 Messages](http://www.wmo.int/pages/prog/www/ois/Operational_Information/VolumeD/FeedbackForms/Feedback_Ch2.xls)

## Chapter 9 - How to ask WMO to change details for a METAREA Coordinator

From time to time, the person designated as the METAREA Coordinator will change within an organisation. Members should designate a new person to take over the METAREA Coordinator role, and advise WMO as soon as possible.

### Why is this important?

The list of METAREA Coordinator contacts is used for coordination with IHO for the Worldwide Navigation Warning Service (WWNWS). IHO maintain 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 the WWMIWS.

### How to do it?

1. Organise a letter from the PR to announce the change of METAREA Coordinator.
2. Send an email to WMO Marine Secretariat ([mmo@wmo.int](mailto:mmo@wmo.int)).
3. WMO will organise an update of the details in WMO No.9, Vol D.

## Chapter 10 - Guidelines on Backup arrangements for WWMIWS

Backup arrangements are an important part of the WMO Quality Management Framework for the WWMIWS; and are recommended in the Inmarsat SafetyNET Manual.

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

* High Seas forecast and warning product creation
* Broadcast of products onto Inmarsat SafetyNET and NAVTEX

Best practice examples are summarised in these guidelines to assist METAREA Coordinators to assess and review their current arrangements.

**High Seas forecast and warning product creation**

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 neighbouring Met Services.

1. 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 MS Word or other text editors and sending out manually.
* It is necessary to build mutual backup arrangements between neighbouring Met 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 LES.

**Broadcast of products onto Inmarsat SafetyNET**

1. In the event that your MetService is unable to send the forecast and warning products for broadcast on Inmarsat SafetyNET, what alternative arrangements does your Met Service have to send the forecast and warning product to the Land Earth Station for broadcast on Inmarsat SafetyNET? (please specify)

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 Co-ordinator who would then forward to the LES.
* It is recommendable to have contact details (email and phone) offline for high priority contacts such as the LES 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 SafetyNET.
* Some Met offices have two different ways to convey the forecast and warnings to the SafetyNET link; directly from their production system or via internet as email message with EGC headers.

**Broadcast of products onto NAVTEX**

1. 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 forecast and warning product 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.
* It should be recommended that the information shall be repeated by nearest stations within the area and replaced by the next other in case of failure in order to insure the broadcast of weather bulletins and other navigation warnings.
* It should be recommended that the MSI institutes make efforts in order to write agreements with other organizations which are responsible for NAVTEX broadcasts

## Chapter 11 - How to check product headers for the WMO Information System (WIS)

### Why is this important?

It is mandatory to send and share Marine Meteorological MSI products on the WMO Information System (WIS, formerly known as the GTS - Global Telecommunication System). This requirement is stated in the WMO Manual for the Global Data Processing and Forecasting System. The network of Regional Telecommunication Hub (RTH) Centres subscribe to various products from Issuing Services, and re-distribute them to other NMHS.

The list of product headers is maintained in WMO No. 9, Vol C1 - Catalogue of Meteorological Bulletins.

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

### How to do it?

Check product headers by country or product type using the following search webpage.

<http://www.wmo.int/pages/prog/www/ois/Operational_Information/InteractiveAccess/index.html>

Identify which RTH your NMHS is connected with, based on the following webpage.

<http://www.wmo.int/pages/prog/www/ois/RTHFocalPts/Country_en.html>

**Add new header to catalogue**

To add a new product header onto the catalogue,

1. Specify a unique header following the rules outlines in the following link - <http://www.wmo.int/pages/prog/www/ois/Operational_Information/Publications/WMO_386/AHLsymbols/TableB1.html>
2. Identify your RTH focal point using the link, <http://www.wmo.int/pages/prog/www/ois/RTHFocalPts/Country_en.html>
3. Request that the RTH Focal Point updates the WIS routeing catalogues.

## Chapter 12 - How the WWMIWS website works

The WWMIWS website is hosted by Meteo-France. The webpage displays the SafetyNET and NAVTEX messages that are produced by Issuing Services.

The WWMIWS uses the products that are shared on the WMO Information System (WIS, formerly known as the GTS). The WIS operates using a catalogue of bulletins that GDPFS Centres can subscribe to and re-distribute to other NMHS.

METAREA Coordinators are responsible for getting their bulletins onto the WIS, and ensuring the product headers are correct.

### How to problem-solve issues with the WWMIWS website?

The first cause might be that the product header is not available on the WIS.

Check the WMO catalogue search tool first.

<http://www.wmo.int/pages/prog/www/ois/Operational_Information/InteractiveAccess/index.html>

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

### How to request changes to the WWMIWS website?

Send an email to the METAREA Coordinator for METAREA II (located in France).

<http://www.wmo.int/pages/prog/www/ois/Operational_Information/VolumeD/GMDSS/Focal_Points/GMDSS/fp.pdf>

## Chapter 13 - Decision matrix to designate as Issuing Service or Preparation Service

Refer to WMO No.558, Manual on Marine Meteorological Services for the Appendix that describes the framework to determine applications by NMHS for inclusion in Worldwide Met-Ocean Information and Warning Service (WWMIWS) as an Issuing Service or Preparation Service for broadcasts on SafetyNET.

## Chapter 14 - How to access RSMC products from the WIS

### Why is this important?

A network of Regional Specialized Meteorological Centres (RSMC) for Numerical Ocean Wave Prediction, and Global Numerical Ocean Prediction has been established to support WWMIWS Issuing and Preparation Services. These RSMC’s provide global forecasts.

The use of forecast guidance from multiple models provides benefits in terms of greater understanding of possible scenarios, improved accuracy, potential to provide probability based services for user defined thresholds .

### How to do it?

1. Identify the product ID’s used by the RSMC country.

https://www-db.wmo.int/wwwois/aspscripts/search\_country.asp

2.Seek assistance from the WIS Focal Point in your country, based on the following webpage.

<http://www.wmo.int/pages/prog/www/ois/RTHFocalPts/Country_en.html>

3.Seek assistance from your IT department to download and utilise the RSMC forecasts.

**Chapter 15 – METAREA Coordinators role in administering and promoting the user survey of the WWMIWS**

### Why is this important?

The survey purpose is to monitor the effectiveness of the weather and sea bulletins produced and transmitted by Meteorological Services.

The results assist the WWMIWS Committee to understand the perception of mariners regarding whether Maritime Safety Information services provided as part of the WWMIWS is meeting user requirements.

### Survey administration

The survey would be administered on a two-yearly cycle by the WWMIWS Committee.

The survey period of each cycle would be open for four months. The timing of the survey period would ideally be conducted between March and June.

WMO MMO programme are responsible for initiating the survey period through the following process:

* Finalise the online version of the survey and publish onto the JCOMM website.
* Prepare a PDF version of the survey.
* Send a letter to National Volunteer Observing Fleet (VOF) managers with JCOMM link and PDF.
* Advise METAREA coordinators by email that the survey period has commenced.
* Send a letter to IHO to invite NAVAREA coordinators to assist with administering the survey.

WMO MMO is responsible for initiating a reminder half-way through the survey period to maintain momentum. The reminder would include an update on the number of responses received, an indication of the target expected, and a suggestion to utilise NAVAREA coordinators to reach domestic vessels.

METAREA Coordinators are responsible for:

* Working with their respective NAVAREA Coordinator to identify additional contact lists for domestic vessels in their region.
* Administering the survey to any additional vessel contact lists in their region.
* Responding to and problem solving any issues raised by the National VOF managers or NAVAREA Coordinators.

National VOF managers are responsible for administering the survey through the following process:

* Providing the survey link and PDF version to the list of Volunteer Observing Fleet ships that they manage.
* Advising their METAREA Coordinator of any issues raised by ships.
* Sending all PDF versions of the survey to WMO by email.