WMO Liaison Report

Submitted by the WMO Secretariat and the chairperson of JCOMM/ETMSS

SUMMARY

Executive Summary: This document provides a short summary report on WMO activities related to the provision of MSI since the second session of IHO/WWNWS. WMO confirms the full operational service provided by the ad-hoc Issuing Services on the 5 Arctic METAREAs. The report also includes information on the Worldwide Met-ocean Information and Warning Service (WWMIWS) and on the JCOMM Marine Meteorological Monitoring Survey. WMO strongly encourages agencies involved in the provision of MSI or more generally the safety at sea, including IHO and National Hydrographic Services, to attend the fourth session of JCOMM (JCOMM-IV) scheduled in Yeosu, Republic of Korea, from 23 to 31 May 2012.

Action to be taken: Paragraph 6

Related documents: None

1. Major outcomes of the WMO Cg-XVI

The sixteenth WMO Congress took place in Geneva in June 2011. The full report will be available online (http://www.wmo.int/pages/governance/congress/congress_reports_en.html) in due course. The major outcomes in connection with the provision of MSI are:

1.1. Objectives

Congress reaffirmed the principle objectives of the WMO Marine Meteorology and Oceanography Programme (MMOP), that include enhancing the provision of marine meteorological and oceanographic services by Members in support of the safety of life and property at sea and in coastal areas. Congress noted that the Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM) provides technical guidance and governance for WMO MMOP. Congress Urged its Members to strengthen their marine meteorological and oceanographic services, with priority given to basic services in support of the safety of life and property at sea as required under the International Convention for the Safety of Life at Sea (SOLAS), and the adoption of a quality management approach to the delivery of marine weather and ocean services.

1.2. Expanded GMDSS Marine Weather Information services in the Arctic Ocean

Congress congratulated the Commission on the successful expansion of the Global Maritime Distress and Safety System (GMDSS) to include five new Arctic Ocean METAREAs, thus enabling provision of weather and sea ice safety information service - see § 2. Congress recognized that WMO has worked in very close collaboration with the International Maritime Organization (IMO) and the International Hydrographic Organization (IHO) to expand the

GMDSS into Arctic waters, with Canada, the Russian Federation and Norway acting as meteorological Issuing Services for the five new METAREAs.

1.3. IMO/WMO Worldwide Met-ocean Information and Warning Service

Congress noted with appreciation the 2010 Edition of the revised IMO/IHO/WMO Manual on Maritime Safety, in line with the review of the GMDSS. Congress further noted the ongoing development of an IMO/WMO Worldwide Met-ocean Information and Warning Service (WWMIWS) to complement the existing IMO/IHO Worldwide Navigational Warning Services (WWNWS) – see § 3. Congress reaffirmed the importance of the promulgation of internationally coordinated met-ocean information, forecasts and warning services and requested the Secretary-General to continue his efforts in establishing the WWMIWS with the GMDSS Marine Broadcast System as an integral part thereof.

1.4. JCOMM-IV

The fourth session of JCOMM (JCOMM-IV) is scheduled to be held in Yeosu, Republic of Korea, from 23 to 31 May 2012, in conjunction with the Living Ocean and Coast Expo 2012. The major achievements, ongoing activities, challenges and issues regarding the future work plans for marine meteorological and oceanographic services will be discussed at this session. Detailed information will be available on:

http://www.jcomm.info/JCOMM4 (general information)
ftp://ftp.wmo.int/Documents/SESSIONS/JCOMM-IV/ (session documents, when available)

Agencies involved in the provision of MSI or more generally the safety at sea, including IHO and National Hydrographic Services, are strongly encouraged to attend the JCOMM-IV.

2. GMDSS in the Arctic Ocean

The remaining common issues across the Arctic METAREAs, noted during the JCOMM Maritime Safety Services Enhancement Workshop (MSSE Workshop, Melbourne, Australia, May 2010) and requiring wider discussion within the JCOMM Expert Team on Maritime Safety Services (ETMSS), were considered during the third session of ETMSS (ETMSS-III) that took place from 4th to 8th October 2010 in St Petersburg, Russian Federation. In addition, the JCOMM Expert Team on Sea Ice (ETSI) made also a significant progress towards interoperability of the ice services and development of the GMDSS polar component, by preparing a list of recommendations and specifications, including a common definition of ice edge and a draft protocol to harmonize and coordinate the provision of sea ice information in GMDSS MSI (SafetyNET and NAVTEX). When formally adopted, the joint IMO/IHO/WMO documentation will be updated as appropriate.

The provision of GMDSS Met-ocean MSI is operational since 1st June 2011 for the 5 Arctic METAREAs. The related MSI are, or will be very soon, available on the JCOMM GMDSS website (http://weather.gmdss.org). Some additional information are provided in the following sub-paragraphs:

2.1. Canada (METAREA XVII & XVIII)

As Issuing Service, Environment Canada has expanded its forecast service capability to provide met MSI to 29 newly defined marine forecast zones within METAREAs XVII and XVIII, in addition to the marine forecast zones within these METAREAs EC currently provides service to. This service expansion was successfully implemented on July 5 2011.

Environment Canada arranged an ongoing Public Service Announcement (PSA) over SafetyNET to coincide with Full Operational Capability of forecast services to METAREAs XVII & XVIII.

SECURITE

NOTIFICATION OF FULL OPERATIONAL CAPABILITY OF METAREA XVII AND XVIII - CANADA.

COMMENCING ON 01 JUNE 2011 MARINE FORECAST SERVICE TO METAREA XVII AND XVIII WILL TRANSITION TO FULL OPERATIONAL CAPABILITY. METEOROLOGICAL WARNINGS AND FORECASTS FOR METAREA XVII AND XVIII WILL BE PROMULGATED BY ENVIRONMENT CANADA IN ACCORDANCE WITH THE JOINT IMO/IHO/WMO MARITIME SAFETY INFORMATION MANUAL.

DURING THE NAVIGATION SEASON METEOROLOGICAL WARNINGS AND FORECASTS FOR SECTIONS OF METAREA XVII AND XVIII SOUTH OF 75 DEGREES LATITUDE WILL BE BROADCAST VIA INMARSAT-C EGC SAFETYNET. SCHEDULED BROADCAST TIMES ARE:

METAREA XVII (POR) AT 0300 UTC AND 1500 UTC DAILY.
METAREA XVIII (AOR-W) AT 0300 UTC AND 1500 UTC DAILY.

MESSAGES WILL BE TRANSMITTED TO A RECTANGULAR ADDRESSED AREA UNTIL INMARSAT-C OR MINI-C TERMINALS OPERATING IN ARCTIC WATERS HAVE BEEN UPDATED. USERS SHOULD ALSO NOTE THAT MET MSI RECEIVED BY THEIR SAT-C TERMINALS MAY BE LABELLED AS NAV MSI.

DURING THE NAVIGATION SEASON METEOROLOGICAL WARNINGS AND FORECASTS FOR SECTIONS OF METAREA XVII AND XVIII NORTH OF 70 DEGREES LATITUDE WILL BE BROADCAST VIA HF NARROW BAND DIRECT PRINTING ON 8416.5 KHZ FROM THE CANADIAN COAST GUARD CENTRE IN IQALUIT NU. SCHEDULED BROADCAST TIMES ARE 0330 UTC AND 1530 UTC DAILY.

MARINERS SHOULD NOTE THAT ACTUAL HF SERVICE PROVISION DATES WILL BE ANNOUNCED BY CANADIAN COAST GUARD NOTICE TO SHIPPING.

CONTACT INFORMATION FOR METAREA XVII AND XVIII IS:

PHONE: +1 709 256 6612
FAX: +1 709 256 6627
EMAIL: METAREAS17.18@EC.GC.CA

END

Environment Canada arranged with the Canadian Coast Guard (CCG) to issue a Notice to Mariners (NOTMAR) regarding the expansion of forecast services for the 2011 shipping season to the 29 newly defined marine zones within METAREAs XVII & XVIII.

CCG will include in their HF telex broadcast from the CCG coast station in Iqaluit NU met MSI for the newly defined marine zones north of 70° N.

Environment Canada will request the Preparation Service for METAREA XVIII (Danish Met Institute) to modify the warning bulletin they are currently providing for broadcast over SafetyNET to include only Greenlandic waters within METAREA XVIII; the current bulletin also includes waters outside METAREA XVIII. Also, some minor formatting changes will be

requested i.e. wind speeds to be stated in knots rather than m/s, and warning criteria changed from 29+ knots to 34+ knots.

Environment Canada is in the process of testing an Arctic wave height product during the current Arctic shipping season. This wave height product is expected to be implemented as part of the METAREAs suite of met MSI products for the 2012 Arctic shipping season.

2.2. Norway (METAREA XIX)

The METAREA Issuing Service has not announced FOC together with the NAVAREA coordinator, but has sent messages on SafetyNET during test period (before June 1) to announce the start of weather forecast bulletins. In addition, the information have been posted on the met.no web site and sent as a press release that was picked up by a considerable number of newspapers, radio stations and Internet news sites.

2.3. Russian Federation (METAREA XX & XXI)

From June 2011 production of the weather and ice MSI is in accordance with the June 2010 IMO/IHO “Full Operational Capability” declaration of an International SafetyNET service to METAREA XX and XXI.

Roshydromet prepares met-ocean Marine Safety Information (MSI) in the form of meteorological and ice bulletins to the stated METAREAs, following the new complete schemes of Sub-Areas differentiation for METAREAs XX and XXI. Promulgation of the MSI is carried out by the Hydrographic Enterprise of the Russian Federal Agency of Marine and River Transport which is the designated Preparation Service for associated NAVAREAs XX and XXI and the Issuing service both for METAREAs and NAVAREAs XX and XXI.

Preparation of SafetyNET meteorological bulletins is done twice daily by 0600 and 18UTC and is coordinated by the Arctic and Antarctic Research Institute (AARI) of Roshydromet with supporting services from the northern regional centers of Roshydromet in Murmansk, Arhangel’sk, Tiksi and Pevek. Ice information for the SafetyNET bulletin is prepared at AARI by 1200UTC on daily scale on a basis of dedicated ice analysis included into the broadcast at 1800UTC with repetition next day at 0600UTC. Following discussion within JCOMM ETSI on the content and structure of the ice bulletins, the sea ice information includes the ice edge analysis both for METAREAs XX and XXI and for the adjacent 150-miles wide zones within METAREAs XIX and XVII. NAVTEX meteorological bulletins are prepared twice daily for the coastal areas of Barents, Pechora, White and SW Kara Seas. From August 2011 both SafetyNET and NAVTEX bulletins are retransmitted via WMO GTS.

3. IMO/WMO Worldwide Met-ocean Information and Warning Service

To complete the IMO and WMO reference documentation on GMDSS, the WMO Executive Council, at its 61st session in June 2009, requested WMO to establish and develop, in collaboration with the IMO, terms of reference for an IMO/WMO World-Wide Met-ocean Information and Warning Service (WWMIWS), to complement the existing IMO/IHO World-Wide Navigational Warning Services (WWNWS, IMO resolution A.706(17)). In this context, this document is intended to provide specific guidance for the promulgation of internationally coordinated meteorological information, forecast and warnings services for the GMDSS, which does not apply to purely national services.

In addition, Terms of Reference for METAREA Coordinators have been developed and included in the WWMIWS. Those Coordinators will, in particular, ensure, in collaboration with Issuing & Preparation Services and Members issuing MSI through NAVTEX, the coordination and consistency of the met-ocean MSI prepared for the GMDSS, requested by

IMO. The process to identify the METAREA Coordinators is ongoing. WMO should be able to provide IMO with the ad-hoc full list of operational contacts before the end of 2011.

The WMO Executive Council has adopted the WWMIWS at its 62nd session in June 2010. It has also been submitted to IMO/MSC, at the end of 2010, which requested its COMSAR sub-committee to review it before its adoption by MSC at its 89th Session in May 2011. The official adoption by IMO Assembly is expected before the end of 2011, and the WWMIWS will be included in the regulatory publications as an IMO resolution, expected to come into force in 2012. Proposed amendments shall be evaluated by the JCOMM Expert Team on Maritime Safety Services (ETMSS), which includes an *ex-officio* representative of the IMO Secretariat, prior to any extensive WMO and IMO consideration.

4. Marine Meteorological Monitoring Survey

WMO will organize the next Marine Meteorological Monitoring Survey (MMMS) to be able to present the results during the 4th plenary session of JCOMM (May 2012). In order to receive feedbacks from ships in due course (no later than December 2011), the questionnaire will have to be sent to Member States in September 2011. It will be disseminated in particular through the national Port Meteorological Offices (PMOs).

The questionnaire shall then be finalized as soon as possible. It will largely be based on the questionnaire used for the previous survey in 2009, with minor changes to clarify the input needed from ship masters (see Appendix).

The Sub-Committee is invited to review the draft questionnaire and to provide suggestions as appropriate, for the forthcoming survey, and also with a view to establish, if feasible, common IHO/WMO questionnaire(s) for future surveys.

5. Other activities

As a result of the regular cooperation between WMO, IHO, IMO & IMSO, a revised version of the NAVTEX manual was approved at IMO's Maritime Safety Committee (MSC), at its eighty-ninth session (11 to 20 May 2011); this has been published as MSC.1/Circ.1403, with the revised text coming into force on 1 January 2013.

In the "margins" of the IMO NAV57 session, the issue of liaison between WMO & IHO was discussed. As we already cooperate on a number of issues, particularly in the areas of Maritime Safety Information and Capacity Building, there was general agreement that it would be beneficial to have some more formal agreement, such as an MoU, in place between the organizations. This initiative is being taken forward by the secretariats of both organizations.

WMO has continued to participate in the IMO work on eNavigation, where WMO may be primarily involved in the delivery of services within eNavigation and, potentially, in the distribution of information utilising the WMO Information System (WIS). This engagement has been through both the IMO correspondence group chaired by Norway and also participation in workshops organised in Monaco (November 2010) and Paris (September 2011) which have been considering the distribution of information.

6. Action Requested

(a) Note and comment on the information provided as appropriate; and
(b) Provide additional recommendations and suggestions as appropriate.

MARINE METEOROLOGICAL SERVICES MONITORING PROGRAMME QUESTIONNAIRE

To Masters, Deck Officers, Skippers, Sailors, icebreaking services and other marine users

In order to monitor the effectiveness of the weather and sea bulletins produced and transmitted by Meteorological Services, the World Meteorological Organization would appreciate your cooperation in completing the following questionnaire. **Information should be provided only for Maritime Safety Information broadcast at sea to all vessels and not for the specific forecasts (commercial or not), if any, that could be received or requested onboard, except for sea ice information (polar areas)**

Ship's Name & Call Sign	
Type of ship (SOLAS or non-SOLAS)	
or other marine user activity (specify)	
Type (merchant, ferry, cruising, fishing, recreational, icebreaking), size and length of the vessel	
Country of registry	
Name of master	
Operational area(s)	
Voyage from	to
Date, time, position when the questionnaire completed	

Please complete the questionnaire by placing a cross (x) under the appropriate column heading and providing additional information or comments as appropriate.

			Not used	Good	Average	Poor	Issuing Met Service	Station
1	**Reception of GMDSS info. Please rate the quality of reception:** (should be filled at least by SOLAS vessels)							
A	via INMARSAT SafetyNET							
B	via Navtex (518 kHz)[1]	1st station						
		2nd station						
		3rd station						
Comments								

			Not used	Good	Average	Poor	Issuing Met Service	Station
2	**Reception of other Safety information** (This section should be filled at least by non-SOLAS vessels)							
A	via Navtex (490 or 4209.5 kHz)[1]	1st station						
		2nd station						
		3rd station						
B	via HF Radio							
C	via VHF Radio							
Comments								

		Not used	Good	Average	Poor	Issuing Met Service	Station
3	**Storm and Gale warnings. Please rate the following:**						
A	Comprehension of warnings						
B	Accuracy of warnings						
C	Terminology used						
D	Usefulness (anticipation, parameters, thresholds…)						
Comments							

		Not used	Good	Average	Poor	Issuing Met Service	Station
4	**Sea Ice and Icebergs Information (for mariners in areas with floating ice). Please rate the following:**						
A	Clarity of information						
B	Accuracy of information						
C	Timeliness						
D	Terminology used						
Comments							

		Not used	Good	Average	Poor	Issuing Met Service	Station
5	**Sea State (waves) and Storm Surge Information. Please rate the following:**						
A	Clarity of information						
B	Accuracy of information						
C	Timeliness						
D	Terminology used						
Comments							

		Not used	Good	Average	Poor	Issuing Met Service	Station
6	**General issues in Weather and Sea bulletins. Please rate the following:**						
A	Comprehension of bulletins (including abbreviations)						
B	Accuracy of bulletins						
C	Are bulletins on time?						
D	Terminology used in bulletins?						
E	Usefulness (parameters,…)						
Comments							

Appendix – Questionnaire for Marine Meteorological Monitoring Survey

		Not used	Good	Average	Poor	Issuing Met Service	Station
7	**Graphic/numeric broadcasts (e.g. Facsimile). Please rate the following:**						
A	Are charts received on time?						
B	Accuracy of information on charts						
C	Comprehension of symbols						
D	Quality of reception						
E	Is this a useful service?	**Yes** ☐ **No** ☐			If Yes, please comment on how the service could be improved.		

Comments

		Not used	Good	Average	
8	**Land Earth Stations (LES) Inmarsat**				(This section should be filled only by Voluntary Observing Ships)
A	Rate your success in contacting a LES to send your weather observation messages (OBs)				LES: _____
B	Do you experience delays in sending your OBs?	**Yes** ☐ **No** ☐			
C	Do any LES refuse to accept your OBs?	**Yes** ☐ **No** ☐			LES (if Yes): _____

Comments

9	**Other related problems (if any) – include ship's position, date and time. Any other comments not considered under the previous items and suggested improvements (e.g. met-ocean information in ECDIS, other required met-ocean parameters not mentioned under previous items)**

Use additional sheets if necessary.

For each case, complete one questionnaire

After completion, please return to the following address:

Marine Meteorology and Ocean Affairs Division
Weather and Disaster Risk Reduction Services Department
World Meteorological Organization
7 bis, avenue de la Paix
Case postale No. 2300
CH-1211 Geneva 2
Switzerland
Telefax: +41 22 730 8128
E-mail: mmo@wmo.int