

WMO Liaison Report

Submitted by WMO

SUMMARY

Executive Summary: This document provides details on the activities of the WMO WWMIWS and METAREA Coordinators, which are relevant to WWNWS-SC

Action to be taken: Paragraph 2.

Related documents: MSS2/Doc. 4.2 dated 13 August 2014

1. See attached document.
2. The Sub-Committee is invited to note the information provided and take action as appropriate.

WMO ACTIVITIES RELATING TO GMDSS IMPLEMENTATION

1. MAIN OUTCOMES OF THE 66TH SESSION OF THE WMO EXECUTIVE COUNCIL

The sixty-sixth session of the WMO Executive Council (EC-66) took place in Geneva from 18 to 27 June 2014. The full report will be available in electronic form at the WMO web site: <http://www.wmo.int> in due course.

The WMO Executive Council (EC) re-emphasized the key role of the Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM), that is, to respond to technical and regional requirements of WMO Members for improved marine meteorological and oceanographic services. In this context, the EC expressed its satisfaction on JCOMM's ongoing efforts to enhance service capabilities of the Members (national Meteorological and Hydrological Services: NMHSs) through workshops, training and technical fora, including the 2nd Maritime Safety Services Enhancement Workshop (2014, New Zealand; <http://www.jcomm.info/MSS2>).

The WMO EC recalled that a World-Wide Met-Ocean Information and Warning Service (WWMIWS) had been implemented through the collaboration of WMO, the International Maritime Organization (IMO) and the International Hydrographic Organization (IHO), through technical advice from the JCOMM Expert Team on Maritime Safety Services (ETMSS). It encouraged Members to actively link with the METAREA Coordinators of the respective region/ area to enhance coordination among met services in the same METAREA to ensure seamless service of the meteorological Maritime Safety Information (MSI).

The WMO EC recognized with satisfaction the ongoing work to develop the WMO Marine Weather Forecaster Competence Framework, and noted that this would be an important milestone for not only a robust regulatory framework but also for developing roadmap for training and education for metocean professionals.

2. REGULATORY FRAMEWORK AND GUIDANCE FOR MARINE METEOROLOGICAL SERVICES

The WMO EC recalled that the regulatory framework for WWMIWS – [Joint IMO/IHO/WMO Manual on Maritime Safety Information](#) (Joint MSI Manual) – is in reference to the [WMO Manual on Marine Meteorological Services](#) (WMO-No. 558), and partly the [WMO Guide to Marine Meteorological Services](#) (WMO-No 471).

The WMO EC reviewed the progress and plans to review and revise the WMO-No.558 and the WMO-No.471, in the context of the WMO-wide review of the Technical Regulations (WMO Resolution 26 (EC-64) – *Amendment to the Technical Regulations*. See also **MSS2/Doc.2.2**). It then advised that the Joint MSI Manual should also be a part of holistic and streamlined inter-agency collaboration among WMO, IMO and IHO, which

should comprise: (1) support for the Global Maritime Distress and Safety System (GMDSS) through WWMIWS; (2) support for Search and Rescue (SAR) and for the International Convention for the Prevention of Pollution from Ships (MARPOL), mainly through the ongoing review of the global coordination mechanism for marine environmental emergency response, and; (3) WMO contribution to the development by IMO for the International Code of safety for ships operating in polar waters (Polar Code) through the ongoing coordination by JCOMM Expert Team on Sea Ice (ETSI) for regulatory framework for sea ice service.

Pursuant to Recommendation 5 (JCOMM-4) – *Quality Management Implementation for JCOMM*, JCOMM experts has been continuously working to define *competency* requirements for their core job-tasks. A draft of [WMO Marine Weather Forecaster \(MWF\) Competence Standards Framework](#) has been under review by key WMO working groups and expert teams, in order to submit the final consolidated draft to the 17th WMO Congress (May 2015, Geneva), for its review and approval (See also *MSS2/Doc.5.3*). It should be noted that the ongoing process has taken into account considerable variation in the legitimate functions of Marine Weather Offices worldwide, therefore, the WMF competencies proposed for adoption for the respective regional/national functions and priorities reflected this variety of functions. The review process continuously conducts a cross-review of other WMO competence frameworks, such as the Aeronautical Meteorology and the Public Weather Service (PWS: under development) to ensure harmonized development and application to the work of NMHSs.

As the next step, continuous collaboration is required for WMO, IMO, IHO and other relevant mechanisms, to define and update a clear set of user requirements for marine meteorological services that would be provided based upon the agreed competence framework.

3. COORDINATION FOR WORLD-WIDE MET-OCEAN INFORMATION AND WARNING SERVICE

The WWMIWS is currently included in the regulatory publications as an IMO resolution 1051(27), which was formally adopted by the 27th IMO Assembly (November 2011). It complements the IMO Resolution A706(17) on the IMO/IHO World-Wide Navigational Warning Service. All those reference documents are available on the JCOMM website (<http://www.jcomm.info/GMDSS>).

The framework of WWMIWS added benefit to the pre-existing operational metocean services and information delivery, by ensuring consistency with other aspects of safety information provided under the Convention, particularly Navigation Warnings, which are provided under the auspices of the IHO and are coordinated by NAVAREA Coordinators. The global coordination, in support of the national implementation of WWMIWS, is undertaken by JCOMM through JCOMM ETMSS (See also *MSS2/Doc.2.3*).

The list of METAREA Coordinators is confirmed and published at http://www.jcomm.info/METAREA_Coordinator, and being continuously monitored and updated by the WMO Secretariat. According to the Terms of Reference (ToR) detailed in the Joint MSI Manual, the METAREA Coordinators will ensure, in collaboration with Issuing & Preparation Services and Members issuing MSI through NAVTEX, the coordination and consistency of the metocean MSI prepared for the GMDSS. Under the guidance of the ETMSS, the METAREA Coordinators have conducted the regular Self Assessment in the 1st quarter of 2014, of which a summary is made available through the *MSS2/Doc.3*. The METAREA Coordinators are expected to provide updates during the MSS2, to share experience and to develop recommendations on the ways to improve metocean MSI services.

The ETMSS has continued to develop a catalogue and product specification on metocean object class for the provision of numerical information for mariners, as a set of IHO S-1xx formats. During the MSS2, the participants will review the status and provide further comments to assist the ETMSS to finalize the documents and proceed with the registration process.

4. MARINE METEOROLOGICAL MONITORING SURVEY

JCOMM Marine Meteorological Monitoring Survey (MMMS) has been regularly conducted in order to monitor the effectiveness of and the degree of user satisfaction on the marine meteorological and oceanographic information produced and transmitted by the National Meteorological and Hydrological Services (NMHSs).

The 2014 Survey was conducted online (<http://www.jcomm.info/MMMS2014>) using the same method as the 2011 survey to ensure wider dissemination and participation, in parallel with the collection of responses through the Issuing Services and the national Port Meteorological Officers (PMOs). Compared with the 2011 Survey, the questions in the 2014 Survey were more targeted to understand the degree of user satisfaction, seeking further comments on points for improvement. A preliminary analysis of the survey results is made available as **MSS2/Doc.5.1.**, for the discussion and consideration by the METAREA Coordinators / Issuing Services.

The next Survey will be conducted in the 4th quarter of 2015 / 1st quarter of 2016.

5. TRANSFER OF SCIENCE TO ENHANCE OPERATIONAL SERVICES

The ETMSS has been continuously working with the JCOMM Expert Team on Waves and Coastal Hazard Forecasting Systems (ETWCH) on the white paper on dangerous sea-state forecasting, to define key parameters and related thresholds to provide more useful information for the safety of vessels and crews in complex and dangerous seas. Once the agreed process is applied to the operational services, it is expected that the metocean MSI would include information on complex sea state (e.g. crossing swells) or unusual sea state (e.g. steep sea, risk of abnormal or freak waves, breaking wave intensity), for ship masters, owners and manufacturers.

The ETMSS is currently reviewing the draft white paper, to be finalized together with the ETWCH in the 3rd quarter of 2014. Once an outline of operating requirements described in the white paper is approved by the WMO Congress, the associated standards, manuals and guidelines (e.g. WMO Manual on Marine Meteorological Services) will accommodate the above-development, and partner Organizations will be advised on the progress following the established procedure.

6. MARINE METEOROLOGICAL AND OCEANOGRAPHIC SUPPORT FOR MARINE ENVIRONMENTAL EMERGENCY RESPONSES

The Marine Pollution Emergency Response Support System for high seas, MPERSS (<http://www.jcomm.info/MPERSS>), was formally established in 2001 at the first session of JCOMM (June 2001, Iceland) after a trial period since January 1994. Its primary objective is to have in place a coordinated, global system for the provision of meteorological and oceanographic information for marine pollution emergency response operations outside

waters under national jurisdiction. The MPERSS is implemented as recommended practise following the guidance within the WMO-No.471, by the Area Meteorological and Oceanographic Coordinators (AMOCs) who are identified among the NMHSs with capabilities of marine modelling and service distribution.

Following the decision made at the 4th session of JCOMM (May 2012, Republic of Korea), an ad hoc task team of JCOMM has been developing an outline future framework for the global coordination of marine environmental emergency responses, based on the review of currently available technologies for modelling, forecasting and operational support, with a view to exploring the feasibility of providing enhanced coordination at basin scale. The Team is requested to complete a draft before the WMO Congress in 2015, for further review and revision that should involve partners in the provision of MSI and other services.

A future framework should in particular include ways to ensure usability of information service / products, through continuous interaction with users to review/update requirements. Primarily responding to operational requirements, it will need to be recognized as part of relevant intergovernmental protocols and contingency plans (e.g. the Joint Radiation Emergency Management Plan for the respective parts of procedure), after rigorous trials/test and review.
