

**WMO Liaison Report**  
Submitted by WMO

**SUMMARY**

**Executive Summary:**

This document provides a brief report on the activities of the World Meteorological Organization (WMO) since WWNWS-6, mainly through work of the Joint WMO/IOC technical Commission for Oceanography and Marine Meteorology in providing marine weather information for GDMSS.

**Action to be taken:**

- 1) Note and comment on the information provided;
- 2) Provide recommendations and suggestions as appropriate.

**Related documents:** None

**1. Major outcomes of the 17<sup>th</sup> Session of the WMO Congress**

The Seventeenth session of the WMO Congress (Cg-17) was convened in Geneva, Switzerland from 25 May to 12 June 2015. The full report will be available in electronic form at the WMO web site: [www.wmo.int](http://www.wmo.int) in due course.

The Congress adopted a new **strategic plan (2016-2019)**, and related budget as well as the appointment Mr Petteri Taalas as new Secretary-General.

The Strategic Priorities are:

- 1) Improve the accuracy and effectiveness of impact-based forecasts and multi-hazard early warnings of high impact meteorological, hydrological and related environmental hazards from the tropics to the poles;
- 2) Implement climate services under the Global Framework for Climate Services (GFCS);
- 3) Strengthen the global observing systems through the implementation of the WMO Integrated Global Observing System (WIGOS) and WMO Information System (WIS);
- 4) Improve the ability of NMHSs to provide sustainable high quality services in support to safety, efficiency and regularity of the air traffic management worldwide;

- 5) Improve operational meteorological and hydrological monitoring, prediction and services in polar, high mountain regions;
- 6) Enhance the capacity of NMHSs to deliver on their mission; and
- 7) Improve efficiency and effectiveness of WMO through adopting continuous improvement measures and recommendations based on a strategic review of WMO structures, operating arrangements and budgeting practices.

Congress reaffirmed **Marine Meteorology and Oceanography Programme (MMOP)** as key operational programme providing assistance to Members in sustained provision of global and regional coverage of marine observational data, products and services to address the continued and expanding requirements of the maritime and coastal user communities for met-ocean services and information, focusing on safety of life and property at sea, integrated coastal management and societal impacts.

Congress noted with approval the JCOMM collaboration with the IHO and IMO to support and enhance the polar components of the **GMDSS** through the development of a “Polar Code” supporting navigation in ice-infested waters for ships operating in the Polar Regions. The Congress encouraged the programme is undertaken through the Joint WMO/IOC technical Commission for Oceanography and Marine Meteorology (JCOMM) to strengthen continued partnership with IHO and IMO, and appreciated the use of Memorandum of Agreements with such agencies to formalize these collaborations.

WMO will sign a MoU with IHO late 2015, and a preliminary joint Secretariat meeting for the three organizations is planned in September 2015 at IMO headquarters, London, UK, with a view of improved coordination and delivery of maritime safety services for the global MetOcean communities.

Congress noted the significant results in developing updated **sea-ice** product standards achieved through the JCOMM Expert Team on Sea Ice and the International Ice Charting Working Group. Congress requested JCOMM to continue to develop and deliver such collaborations to improve marine services and to ensure ice information is available for mariners around the world.

Congress appreciated the JCOMM **capacity development** activities to support Members in the conduct of marine meteorological and oceanographic observations, marine monitoring and the provision of services in support of marine safety. Congress encouraged the continuing training to support improved marine forecasts and services (including the METAREA coordinators). Congress noted the joint IHO/IMO/WMO/IOC/International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA)/International Atomic Energy Agency (IAEA) capacity development discussions within the United Nations system; and the next meeting will take place later 2015.

Congress adopted Resolution 3.1(5)/1 (Cg-17) – **Competency Requirements for Marine Weather Forecasters**. Congress appreciated that JCOMM had developed a set of

qualification and competency requirements for marine weather forecasters (MWF). Congress noted that the harmonization of the competence of MWF at the global level would take into account the considerable variations in the legitimate functions of the Marine Weather offices, including the local conditions (legal, climatological, user-driven), and Members will need practical guidance on the implementation of the competency requirements, including well defined competency assessment procedures. The new competency requirements for MWF will be published in the 2015 edition of the *Technical Regulations*.

## **2. WMO Manual on Marine Meteorological Services (WMO-No.558 & WMO-No.471)**

The WMO Executive Council at its 65th session (2013) endorsed the proposal by JCOMM to review the overall structure of the WMO-No.558 and WMO-No.471, in view of new structures for those mandatory publications avoiding duplication and/or potential conflict in contents.

Two meetings took place to facilitate review of WMO-No.558, in Wellington, New Zealand, 25-26 August 2014, and in Tromso, Norway 22-24 June 2015. Experts worked on the revised structure of WMO-No.558 and some of the most substantial issues, based on recent surveys and other feedback of relevance to the work to revise the Manual and Guide. Experts identified three sections requiring coordination with other WMO regulatory material – the material on Port Meteorological Officers (PMO) and Voluntary Observing Ship (VOS) (potential transfer of content to WMO Integrated Global Observing System (WIGOS)), the material on Search and Rescue (potential overlap with aviation regulations,) and the relationship with training regulations regarding the competency framework. They also agreed to include offshore elements within the high seas chapter as it is with this chapter that there will be the greatest commonality in provisions. The revised target for submission of these draft texts for JCOMM approval should be at its Fifth session in 2017.

## **3. Fifth International Workshop for Port Meteorological Officers (PMO-5)**

The Fifth Workshop of International Port Meteorological Officers took place in Vina del Mar, Chile 20-24 July 2015. It provided a way to ensure that standard procedures proposed by WMO are followed throughout the whole Voluntary Observing Ship (VOS) fleet in every country, and that the data produced are homogenous and comply with WMO standards. The workshop will convey important recent developments (e.g. WMO publication No. 47, enhanced PMO communications), as well as address WIGOS developments and needs for harmonization of standards, better interoperability between observing systems, and quality management.

## **4. WMO Regional Coordination and Contributions**

WMO plays an active role in regions, and has 6 Regional Associations (and Regional Offices) to facilitate its engagement and contribution: Region I (Africa), Region II (Asia), Region III (South America), Region IV (North America, Central America and the Caribbean),

Region V (South-West Pacific) and Region VI (Europe). Work of RAs is implemented through thematic Working Groups, including marine services. For example, RA1 has a Working Group on Compliance Issues in Marine and Aeronautical Meteorological Services and Cost Recovery.

As basic system, operation and service, World Weather Watch (WWW) Programme of WMO, play an important role to improve services, including marine services. As associated infrastructure of WMO to support implementation of WWW, the structure of global predictions centres, Regional Specialized Meteorological Centres, and National Specialized Meteorological Centres are well developed. There are six tropical cyclone Regional Specialized Meteorological Centres (RSMCs) together with six Tropical Cyclone Warning Centres (TCWCs). WMO has implemented and maintains a system of 10 Regional Specialized Meteorological Centres (RSMCs) that provide real-time 24/7 specialized atmospheric dispersion model products for environmental emergency response and/or backtracking, located in Beijing (China), Exeter (United Kingdom), Melbourne (Australia), Montreal (Canada), Obninsk (Russian Federation), Offenbach (Germany), Tokyo (Japan), Toulouse (France), Vienna (Austria), Washington (USA).

## **5. Capacity Development**

WMO Education and Training Programme (ETRP) is a Major Programme to assist Members' in obtaining personnel specially educated and trained to internationally agreed standards in order to carry out the activities and operations of NMHSs required at the global, regional and national levels for the effective provision of meteorological and hydrological services in support of sustainable development of Member countries.

There are currently 20 WMO Regional Training Centers (RTCs). Global Campus was introduced in 2013 with a Global Campus Steering Committee to coordinate activities related to capacity development, and to develop courses and share network of RTCs. Global Campus is implemented with different thematic areas, including marine meteorology. Collaboration of WMO with IHO and IMO in this regard will be discussed in the first week of December 2015 in the Joint Capacity Building meeting. Marine Weather Forecaster Competency has been reported in section 1 of this paper.

## **6. International Network on Multi-Hazard Early Warning System (IN-MHEWS)**

WMO appreciated great commitment of Japan in Sendai Conference in Disaster Risk Reduction, particularly in maritime/marine DRR activities. WMO contributes mainly to Target 7 of Sendai Framework on DRR for 2015-2030 through multi-stakeholder partnership in MHEWS.

One outcome of the Conference is International Network on Multi-hazard Early Warning System (IN-MHEWSs). There are currently 18 main contributors to IN-MHEWS. WMO welcomes IMO and IHO to join IN-MHEWS to share best practices, to develop guidance, and to provide demonstration. As consultation with UNISDR, an international conference on MHEWS will take place before end of 2016, and it is open to partner organizations.

Some high relevance activities in DRR by WMO and Members can contribute to WWNWS through work of MMOP/WMO and its coordination with IHO, IMO and other partner Organizations, including Common Alert Protocol (CAP) for all hazard through official early warning dissemination, Coastal Inundation Forecasting Demonstration Project (CIFDP), Severe Weather Forecast Demonstration Project (SWFDP), Emergency Response Activities for air-borne hazards tracking and early warning, and monitoring, prediction and early warning of hazard through Tropical Cyclone Programme.

#### **7. Other Cooperative Matters**

IMO/WMO/IHO Document Review Working Group meeting at London, IMO, 17-19 March 2015 (see Agenda item 4.1a)