IHO Commission on the Promulgation of Radio Navigational Warnings (CPRNW)

CPRNW9-3.3.3-1

International Hydrographic Bureau, Monaco

Origin: WMO

11 – 14 Sep 2007

TITLE : WMO Activities on Met-Ocean Services Delivery

Submitted by WMO Secretariat

1. ACTION REQUIRED:

1.1 This document provides a general outline on the main recent or planned activities of the WMO on Met-Ocean Services Delivery, through the Joint WMO/IOC Commission for Oceanography and Marine Meteorology (JCOMM). The IHO/CPRNW is invited to note the information provided, and to comment on topics of interest for the promulgation of Maritime Safety Information (MSI) as appropriate. The IHO/CPRNW is also invited to determine other possible opportunities for collaboration between the IHO/CPRNW and the JCOMM/ETMSS.

2. BACKGROUND:

2.1 The WMO Marine Meteorology and Oceanography Programme's (MMOP) implementation is coordinated through the Joint WMO/IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM). JCOMM is an intergovernmental body of experts that provides the mechanism for international coordination, regulation and management of oceanographic and marine meteorological observing, data management and services systems, with a mandate to prepare both regulatory (what Member States shall do) and guidance (what Member States should do) materials. The creation of this Joint Technical Commission results from a general recognition that worldwide improvement in coordination and efficiency may be achieved by combining the expertise and technological capabilities of WMO and IOC. Since its second plenary session, that took place in Halifax, Canada, in September 2005, JCOMM's work is accomplished through a Management Committee and three Programme Areas (Observations, Data Management and Services), and their subsidiary expert and task teams, as well as, two crosscutting activities for capacity building and satellite data requirements – the current JCOMM structure is provided in Appendix A. The Management Committee and the Programme Area Coordination Groups function at a strategic level, while at the same time ensuring the implementation of the work plan through the subsidiary expert teams, pilot projects, and collaboration with other Programmes. Within the Services Programme Area (SPA), there are the ETs of major interest for the IHO/CPRNW: (1) Expert Team on Maritime Safety Services (ETMSS), (2) Expert Team on Marine Accident Emergency Support (ETMAES), (3) Expert Team on Sea Ice (ETSI), and (4) Expert Team on wind Waves and storm Surges (ETWS). The ETMSS is responsible for the coordination of the provision of met-ocean MSI, as IHO/CPRNW is responsible for the coordination of the provision of navigational warnings. The Terms of Reference for each ET of SPA are available in the JCOMM-II final report (http://www.wmo.int/pages/prog/amp/mmop/publications.html) and on the JCOMM SPA website (http://www.jcomm-services.org).

2.2 The second session of ETMSS took place in Brazil in January 2007. The final report is available in http://www.wmo.int/pages/prog/amp/mmop/publications.html#JCOMM_MR. Among the main results and/or actions planned, can be highlighted the following:

- ✓ Responsibilities for new Arctic Metareas: offer from Norway (METAREA XIX) and the Russian Federation (METAREAs XX and XXI) and potential interest from Canada (METAREAs XVII and XVIII, Issuing Service), USA (METAREA XVII and possible METAREA XVIII, Preparation Service) and Denmark (METAREA XIX) were presented, but boundaries were not fixed at that stage, with especially still discussions between Norway and the Russian Federation. As Norway was not represented in the session, the next opportunity for reaching an agreement between those Members was expected

during the IMO COMSAR in February 2007.

- ✓ Provision of MSI related to sea ice: the Team agreed to define the Terms of Reference and Membership for a cross-Task Team on provision of MSI for Polar Regions (PMSI), provided in Annex VIII to the ETMSS-II final report and in Appendix B of this document.

- ✓ Delivery of tsunami warnings to mariners: the Team agreed to set up a Task Team on Tsunami Products for Transmission as MSI, to work urgently on these matters. The Terms of Reference and General Membership of the Task Team and are available in Annex IX to the ETMSS-II final report and in Appendix C of this document. This Task Team will consider only the *pre-tsunami message* (where the mariner is being warned of a potential or imminent tsunami) and not t*he post-tsunami message* (information on damage to navigational aids, seafloor and shoreline changes, etc.). The major issues focused on the need to clarify the responsibilities amongst the various centres or agencies potentially involved, and enhance and adapt existing or proposed tsunami advisories/bulletins (e.g., PTWC, JMA) into the appropriate maritime dissemination channels, in accordance with the WMO Publications Nos. 471 and 558. This is especially important for the GMDSS (SafetyNET and NAVTEX) and the final service must be reconciled with marine users needs.

- ✓ The Team urged the WMO Secretariat to consider proposing a Resolution to IMO on Met-ocean services similar to A.706(17) for navigational warnings, and to discuss these issues during the High Level Dialogue Meeting with the IMO to be held in February 2007.

- ✓ GMDSS website (http://weather.gmdss.org): this item is detailed in working paper 3-3-3-2.

- ✓ Weather information in graphical form: the Team noted the extensive work plan and experience of the ETSI on graphical sea ice information and agreed on the Terms of Reference for an appointed expert, that could be funded by Swiss Government, and the list of ET Experts to conduct this work (provided in Annex XIII to the ETMSS-II report and in Appendix D of this document).

- ✓ Review of first common abbreviation list for NAVTEX bulletins: the ETSI Chairperson suggested that the ETSI Experts should review the list of abbreviations regarding sea ice and icebergs used by Canada, and prepare a draft common list in consistency with *WMO Sea-Ice Nomenclature* and *Sea Object Catalogue*, to be provided to the focal point (Mr Myrsilidis, Greece). As the largest met-ocean messages promulgated via SafetyNET could tie up the terminal for 45 minutes at one time (and then may not allow the transceiver to receive an immediate distress alert), the Team agreed to propose the update of the WMO-No. 558 to allow and promote the use of the common abbreviations prepared for the NAVTEX also for scheduled forecasts by SafetyNET, for endorsement by JCOMM-III (late 2009).

- ✓ User feedback: review of the last 4-yearly survey, update the existing questionnaire (include questions on abbreviations, GMDSS website, translation in all WMO languages, etc.) and provide an online questionnaire (either in a web-based form or in "filling" pdf format).

- ✓ Cooperation with ETWS (for an improvement of the sea state information and warning in MSI, especially for complex or dangerous seas) and the WMO Tropical Cyclone Program (for a tentative harmonization of the wind averaging period for MSI related to tropical cyclone).

2.3 The first session of ETMAES took place in Brazil in January 2007, back to back with ETMSS-II. The final report is available in http://www.wmo.int/pages/prog/amp/mmop/publications.html#JCOMM_MR. Among the main results and/or actions planned, can be highlighted the following:

- ✓ JCOMM website for the WMO Maritime Pollution Emergency Response Support System (MPERSS) http://www.maes-mperss.org: the first version of this web site, in operation for more than 2 years, includes basic information, such as what is MPERSS, what is available under MPERSS, description of the Marine Pollution Incident (MPI), Area Meteorological and Oceanographic Coordinator (AMOC) contact points, together with specific examples of MPERSS operations and specifications of available models. The Team agreed on the TOR and General Membership of a Task Team to review this web site

both in content and in its structure, and periodic updates. It was also agreed that all AMOCs would have direct access to the website in order to keep updated the relevant information for their own areas.

- ✓ Definition of boundaries and responsibilities for MPI areas: when the boundaries for the existing MPI areas were decided upon, marine pollution support and facilities were not envisioned for the Arctic region. In 2005, JCOMM-II agreed that :
  - Canada would be responsible for Arctic waters north of 67°N over MPI Areas IV, XII and XVI
  - Norway would be responsible for Arctic waters north of 71°N over MPI Area I

  Noting the work undertaken by IMO/IHO/WMO, the Team recommended that MPI areas should be the same as NAV/METAREAs and agreed that ETMAES should wait for a final proposal and definition of boundaries and responsibilities for the new potential Arctic NAV/METAREAs.

- ✓ Cooperation with IHO: Mr Steve Godsiff informed the Team about the IHO technical resolution 'IHO Response to Disasters' that has been put in place since the Indian Ocean tsunami of 2004 with a view to ensuring an immediate and appropriate response by IHO members to any future disasters affecting coastal areas of the world. With respect to the principal activities to be addressed by ETMAES, i.e. the provision of Met-Ocean data for pollution, SAR and HAB incidents, Mr Godsiff noted that IHO input is probably likely to be limited to informing vessels in the area about the incidents through the WWNWS with a view to ensuring that vessels on passage in the vicinity keep out of the way of those directly involved with the incident.

- ✓ Cooperation with IMO: IMO instruments for preparedness, response and cooperation to oil and chemical pollution incidents, is the International Convention on Oil Pollution Preparedness, Response and Cooperation (OPRC Convention, 1990) and its HNS Protocol of 2000. The IMO, through its Marine Environment Protection Committee, has established the OPRC-HNS Technical Group. This technical group is composed of marine oil and chemical spill experts from IMO member states, the shipping, oil and chemical industries, and regional and intergovernmental organizations. The primary objective of the group is to develop expert resources, tools and guidelines to assist countries in implementing OPRC 90 and the HNS Protocol 2000, and to develop capacity to prepare for and respond to oil and chemical spills in the marine environment. The team agreed on the need to strengthen links and to synergize the work of the OPRC-HNS and ETMAES. As a starting point, it was suggested that IMO and WMO exchange the work programmes of the OPRC-HNS Technical Group and the ETMAES, with a view of determining possible opportunities for collaboration.

- ✓ Cooperation with EMSA: the European Maritime Safety Agency (EMSA) is tasked to contribute to the enhancement of the overall maritime safety system in the European Community. One of its goals is to reduce the risk of marine pollution and to assist its Member States in tracing illegal discharges at sea using satellite monitoring. In accordance with the European Directive 2005/35/EC on shipsourced pollution, the EMSA will provide a sustainable high-performance monitoring system for marine oil spill detection and surveillance in European waters. The EMSA was then still in the stage of implementing the primary service, providing to its Members States oil spill alert information and analysed satellite radar images for the monitoring of illegal discharges and accidental spills of oil from ships. The EMSA products will be delivered to national marine pollution emergency response authorities for the affected waters. These contact points include authorities identified for Marine Pollution Incident areas I, II, III(a) and III(b) in the MPERSS system. It is envisaged that the primary service will be coupled with new information products emerging from the "Fast Track Marine Core Service" (MCS) of the Global Monitoring for Environment and Security (GMES) programme, that is jointly led by the European Commission and the European Space Agency. These 'advanced products' are intended to support the decision making process for oil spill response operations, to identify the polluters and to support prosecution by collection of evidence. Therefore, techniques such as oil spill drift modelling in combination with ship traffic data (e.g., AIS and LRIT) will be used to produce this value added products. It was agreed to convene a meeting between WMO, ETMAES chairperson, SPA coordinator and EMSA representatives, for a better mutual understanding of both parties' aims and objectives in the field of marine accident emergency support; and, in addition, to discuss possible links and to explore commonalities.

- ✓ Training courses

2.4 The third session of ETSI took place in Geneva, Switzerland, in March 2007. The final report is available in http://www.wmo.int/pages/prog/amp/mmop/publications.html#JCOMM_MR. Among the main results and/or actions planned, the major outcomes are:

- ✓ The Team expressed some concerns regarding the provision of ice information by SafetyNET, in particular for the NAVAREAs/METAREAs in the South Hemisphere, in order to no duplicate the provision of such information for mariners; and urged the Team to careful review what is already established under the Antarctic Treaty.

- ✓ The Team was informed about the GMDSS website (http://weather.gmdss.org) and recommended that the appropriate links to ice services in each NAVAREA/METAREA would be included in this website based on the information provided in the WMO-No. 574.

- ✓ In order to establish the appropriate link with IHO, the Team agreed that the Ice Objects Register Manager should be the WMO Secretariat; and approved the creation of an Electronic Navigational Chart Ice Objects Task Group with specific Terms of Reference.

- ✓ The Team adopted Version 4.0 of the Ice Objects Catalogue for subsequent submission to the IHO Registry of Marine Information Objects.

- ✓ The Team urged the Electronic Navigational Chart Ice Objects Task Group to make the necessary harmonization between this publication and the Ice Objects Catalogue.

- ✓ The Team recalled that a major Data Management activity of the WMO is the development of the WMO Information System (WIS). The WIS is an overreaching approach based on widely accepted standards, such as those promoted by the ISO to meet information exchange requirements of all WMO Programmes. In this regard, the Team recommended that ETSI standards should (i) fit the WMO Information System; and (ii) be compatible with the requirements of JCOMM Data Management Programme Area (DMPA) strategy.

- ✓ The Team reviewed the observational and sea ice information requirements for its applications. The Team agreed that maintenance of complete and up to date requirements is essential for the provision of relevant and high-quality marine services.

- ✓ The Team discussed the inconsistency between sea ice charts due to the slightly different analysis methods and procedures at different ice centres. In order to address this issue, a workshop was proposed to be held to compare sea ice analysis charts, methods and techniques in order to establish a common approach to sea ice charts to maintain consistency of operational sea ice charts from different centres. The Team agreed with the proposed Ice Data Analysis and Assimilation Workshop and urged the Secretariat to make the necessary arrangements to make it happen.

- ✓ A related development was JCOMM's partnership initiated in 2006 on the Joint CCl/CLIVAR/JCOMM Expert Team on Climate Change Detection and Indices (ETCCDI) to better link marine meteorology and oceanography together with previous (mainly terrestrial) work. Working together with ETMC, the SPA Expert Teams would provide new synergies for climate indices, including already well-developed proposals from ETSI for these indices:

    - Ice extent on global scale; regional ice extents for shelf seas which are regarded are more variable than the basins. Trends and differences for sea ice total concentration (e.g. last decade vs. last 50 years).
    - Ice thickness/stages of development.
    - Distribution of old ice for the Arctic region.
    - Iceberg propagation.

2.5 The second session of ETWS took place in Geneva, Switzerland, in March 2007. The final report is available in http://www.wmo.int/pages/prog/amp/mmop/publications.html#JCOMM_MR. Among the main results and/or actions planned, the major outcomes are:

- ✓ The Team recalled that the routine intercomparison of wave model forecast verification data has been in place since 1995 and now includes 10 participants contributing data on a routine basis (ECMWF, Met Office, FNMOC, NCEP, Meteorological Service of Canada, Meteo-France, DWD, BOM, SHOM and JMA). The Team noted that Republic of Korea is ready to participate in this project. The Team also noted the interest expressed by China to participate in this project. . Following the initial discussion, a Working Group was established for further expand this exchange, most notably using additional data types, data formats, and data policy issues. The main areas of expansion of the exchange, based on the outcomes of the discussion and further investigation, are as follows:

    - Description and expansion of existing work;
    - Validation against altimeter wave height data;
    - Validation against spectral buoy data;
    - Validation of spatial data.

- ✓ The Team agreed with the establishment of a JCOMM Extreme Wave Database for use in model validation and validation of remotely sensed waves, where such models and algorithms suffer from lack of sufficient data, including in situ and altimeter data.

- ✓ The Team suggested a continuation of ongoing work including in the areas of completing analyses of existing questionnaires, and updating inventories of climatological products. Products from the US Corps of Engineers in this area were emphasized as an important potential resource and recommended to establish a liaison with them on these matters.

- ✓ The Team recalled that the Guide to Wave Analysis and Forecasting (WMO-No. 702) was first published in 1988 and its second edition was published in 1998. The Team agreed on the necessity of update this Guide and agreed to adopt the following approach: (1) to use the existing content of the Guide as the backbone framework for constructing the dynamic part of the Guide. For the latter, the recommended that a set of website pages with this information should be created and urged the Secretariat to produce them. The content of these web pages would be regularly reviewed by a Task Team; (2) to develop a more dynamic part covering matters relating to new technologies and emerging issues, which could be made available in digital form on the web, such links to operational systems, models outputs, and training modules.

- ✓ The Team reviewed in detail the first draft of the Guide to Storm Surge Forecasting, and a list of suggestions and comments was prepared to be transmitted to Dr Tad Murty that would be editing the Guide. The Team noted that by the end of June 2007 the Guide will be edited linguistically, and the final layout and format will be prepared and reviewed by Mr Val Swail, Dr Tad Murty and the Secretariat.

- ✓ A Task Team was established to produce an updated Surface Wave Observation Requirement document.

- ✓ The Team endorsed the First JCOMM Scientific/Technical Symposium on Storm Surges (2 to 6 October 2007 in Seoul, Korea). The Team also noted the importance of the Storm Surge Symposium to the WMO DPM Programme and to the JEWL Pilot Project, and requested the Secretariat to further enhance the coordination with DPM and other relevant programmes for appropriate scientific/technical input to the Symposium.

- ✓ The Team noted that several training materials produced by some of the Team members are already available and recommended that during the current intersessional period the Team should focus its work producing of e-learning modules to support training workshops.

2.6 The Joint IMO/WMO Consultative Meeting, held in Geneva, Switzerland, inFebruary 2007, was informed of the potential areas of collaboration with the IMO, ICS and other relevant organizations, and the

WMO activities such as: Graphical Weather Services, Tsunami Maritime Safety Information for Mariners, new potential Arctic NAV/METAREAs, the GMDSS website, Marine Pollution Emergency Support System (MPERSS), support to SAR operations, services for HABs and other bio-chemical events, Operational Ocean Forecasting Systems, and users' feedback. The Meeting was also informed of the ETMSS and ETMAES recommendations to consider proposing a Resolution to the IMO on Met-ocean services similar to A.706(17) for navigational warnings. The IMO representative, Mr Hartmut Hesse, noted that MPERSS and operational ocean forecasting systems are of interest to the IMO in a number of projects. He also noted with appreciation the GMDSS website and expressed IMO's interest to collaborate on the improvement of this website. Mr Hesse thoroughly acknowledged the WMO suggestion to consider proposing a Resolution to the IMO on Metocean services similar to A.706(17) for navigational warnings and suggested the steps to move toward the approval process. The Meeting recommended that WMO and IMO focus their common activities in specific topics to be considered as Pilot Projects (e.g., GMDSS website).

2.7 The major outcomes of the fifteenth session of the WMO Congress (Geneva, Switzerland, May 2007) are:

- ✓ Congress drew attention of Members on the risk of disruption in essential observational data sets and urged Members to develop efforts aimed at ensuring continuity of measurements and timely transfer of research-based systems into operational status.

- ✓ Congress endorsed the major events being planned under JCOMM over the coming two years, especially the First Scientific and Technical Symposium on Storm Surge (Seoul, Republic of Korea, October 2007), the Third International Workshop on Advances in Marine Climatology (Poland, May 2008), and the International Maritime Met-ocean Services Conference (Exeter, United Kingdom, October 2008).

- ✓ Morocco offered to host the upcoming third session of the JCOMM.

- ✓ Congress requested the WMO Secretary-General and the Co-presidents of JCOMM to work with the IOC to develop mechanisms for enhanced coordination of JCOMM with the Intergovernmental Coordination Groups (ICG) of the different Tsunami Warning and Mitigation Systems, in order to sustain the systems initiated through the IOC as an integral component of a comprehensive multi-purpose global ocean observing system.

- ✓ Congress requested the Secretary-General to make available on-line publications WMO-No. 558 (*Manual on Marine Meteorological Services*) and WMO-No. 471 (*Guide to Marine Meteorological Services*) that describe guidelines, rules and procedures to prepare and broadcast MSI to ships at sea.

- ✓ Congress stressed the importance of the collaboration between WMO and the International Maritime Organization (IMO) and the International Hydrographic Organization (IHO) in the context of the Global Maritime Distress Safety System (GMDSS).

- ✓ Congress emphasized the continuing importance to mariners of radio-facsimile broadcasts of meteorological and related information, and requested JCOMM to continue its work in developing alternative methods for transmitting graphical information to marine users.

- ✓ Congress commended JCOMM on its pro-active role in assuming responsibility for the ocean components of the Global Climate Observing System (GCOS). Congress noted with appreciation the liaison between JCOMM and CCl in expanding to the maritime domain the diagnostic of the variability and climate change and the development of new climate indices for the maritime environment.

- ✓ Considering that the Marine Meteorology and Oceanography Programme (MMOP) has an important role to play in assessing coastal vulnerability to marine-related hazards, Congress (Resolution 3.4.4/1 (Cg-XV)) decided:

    - That detailed planning and implementation of the MMOP should be in accordance with the WMO Strategic Plan and its Expected Results, and assist Members to arrange for enhanced services provision, including regional tsunami warning systems, in

coordination with Members concerned and within the Intergovernmental framework and structures established by IOC;

- That the MMOP should be strengthened and expanded to address new and urgent challenges and issues, especially on Disaster Risk Reduction and associated marine hazard dimensions of Coastal Management in collaboration with IOC.

✓ Congress (Resolution 3.4.4/1 (Cg-XV)) urged Members concerned to collaborate actively to the implementation of the MMOP and the work of JCOMM through supporting the implementation of regional demonstration projects promoted by the WMO and IOC, in areas such preparedness for marine coastal hazards as part of Integrated Coastal Area Management, in particular, in case of extreme events (e.g., storm surges, and high and/or long waves), as well as the analysis of the impacts of oceanic response to climate variability and change.

✓ Congress (Resolution 3.4.4/1 (Cg-XV)) requested the Secretary-General to arrange for the coordination of activities under the MMOP, with relevant programme activities of the IOC and other international organizations, in particular to coordinate the sustained observing platform and data delivery operations of the international tsunami warning systems, through JCOMM, as integral components of a comprehensive global ocean observing system.

✓ Congress (Resolution 3.4.4/1 (Cg-XV)) requested the Secretary-General to work with Members and space agencies to ensure better continuity and overlap of relevant space-based and in situ ocean observing systems, and to move experimental observing systems into operational status.

2.8 During the fifteenth session of the WMO Congress (Geneva, Switzerland, May 2007) was convened a side meeting on Arctic METAREAs. The major outcomes of this side meeting are:

✓ The Norwegian Meteorological Institute has officially offered to assume the role as Issuing Service for the proposed METAREA XIX. Denmark agreed to be a Preparation Service for this METAREA.

✓ The Environment Canada has officially offered to assume the role as Issuing Service for the proposed METAREAs XVII and XVIII (they got all necessary approvals in Canada). USA agreed to be a Preparation Service for these METAREAs, as well as Denmarc agreed to be Preparation Service for METAREA XVIII.

✓ Russian Federation is already routinely providing meteorological and ice MSI for SavetyNET within the 17 forecast regions of the Northern Sea Route area of the current Arctic Ocean METAREA, and is ready to become an Issuing Service for METAREA XX and XXI.

✓ It was decided that WMO should send a formal letter to above-mentioned Meteorological Services to formalize these agreements

2.9 The Eighth Session of the IOC Intergovernmental Panel on Harmful Algal Blooms (IPHAB-VIII) was held at UNESCO Headquarters, Paris, in April 2007. WMO Secretariat participated in this meeting to discuss potential use of operational ocean forecasting systems, in operation under the JCOMM Expert Team on Marine Accident Emergency Support (ETMAES), to the prediction of nuisance and Harmful Algal Blooms (HABs). Through Recommendation IPHAB-VI.3, the IPHAB acknowledged that the Joint Technical Commission for Oceanography and Marine Meteorology (JCOMM) is the vehicle for the collection, archiving, distribution and utilization of ocean and meteorological data, and that their Terms of Reference allow for the coastal module of GOOS (COOP) to include non-physical variables. An IPHAB Task Team on HAB Observations and Forecasting Systems was established, and a WMO Secretariat representative and the JCOMM Operational Ocean Forecasting System Rapporteur, Dr Adrian Hines, were appointed as members of this Task Team in order (i) to develop the met-ocean input data requirements for preparedness for, and response to HABs; and (ii) to reach an operational system to predict nuisance and HABs.

2.10 The Sixth Meeting of the OPRC-HNS Technical Group was held at the UK Maritime and Coastguard Agency (UK MCA), in July 2007. The WMO Marine Pollution Emergency Response Support System

(MPERSS) has been implemented since 1994, under the guidance of the Expert Team on Marine Accident Emergency Support (ETMAES). At the first session of the ETMAES, the Team recognized that the ETMAES plays an important role in the area of preparedness for and response to pollution damage caused by spills of persistent oil from tankers as well as by maritime transport of Hazardous and Noxious Substances (HNS). WMO Secretariat participated in the Sixth Meeting of the OPRC-HNS Technical Group to present a document outlining the work of different programmes of WMO of interest and relevant to the OPRC-HNS Technical Group of the IMO and to strengthen links and synergize the work between the two organizations. The major outcomes of this meeting were: (i) the OPRC-HNS Technical Group recognized that a closer liaison with WMO in the area of marine environment protection is both useful and relevant to its work; (ii) the OPRC-HNS Technical Group encouraged WMO to continue providing information to the Group on its activities related to maritime and environmental emergency response; and (iii) the OPRC-HNS Technical Group requested IMO Secretariat to disseminate the information provided by WMO to its regional centres; (iv) the OPRC-HNS Technical Group recommended WMO to provide assistance to IMO in case of radiological or nuclear emergencies occurring on vessels at sea or in port; and (v) the OPRC-HNS Technical Group suggested that WMO is a potential co-sponsor of the Fourth R&D Forum.

3. COMMENTS:

3.1 Provision of IHO focal points for Task Teams:

3.1.1 Regarding the Task Team on provision of MSI in the polar regions, Peter Doherty welcomed the initiative to have an IHO representative be part of that Team and offered, with the approval of Steve Shipman, to accept this role. He also suggested to make sure that representatives from the countries of the approved (when that happens) Arctic METAREA Issuing Services will be included on board too. They will be invaluable to the success of any implementation of specific guidance and/or policy decisions.

3.1.2 Regarding the Task Team on Tsunami Products for transmission of MSI, Peter Doherty also welcomed the initiative to include an IHO representative and suggested consulting NAVAREA Co-ordinators to find a more appropriate person, with operational expertise and experience with tsunamis, who could better serve and assist this Team. The Commission is requested to discuss this issue.

3.2 Responsibilities for Arctic METAREAs

3.2.1 The WMO Secretariat will send, in the next weeks, the formal letter to the concerned Meteorological Services, with a copy to the Chairperson of the Joint IMO/IHO/WMO Correspondence Group on Arctic MSI Services, to formalize the agreements reached during the side meeting organized during the fifteenth session of the WMO Congress.

4. RECOMMENDATION(S):
None

5. ACTION REQUESTED :
None

Appendices: 4

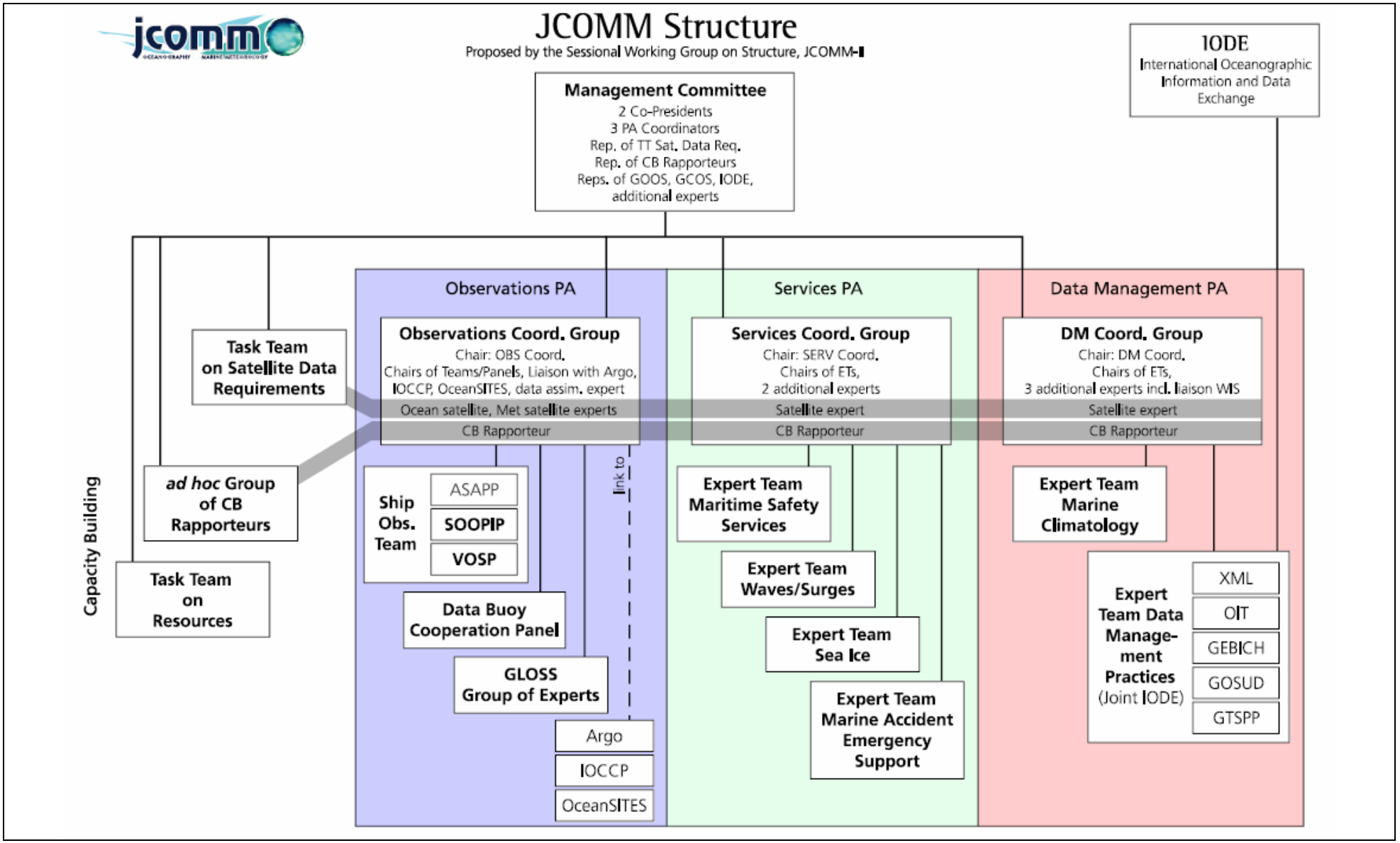
A. JCOMM Structure

B. ToR and membership of the Task Team on provision of MSI in Polar Regions (PMSI)

C. ToR and membership of the Task Team on tsunami products for transmission as MSI

D. ToR for an expert on weather information in graphical form, and list of ET Experts to conduct this work

Appendix A


JCOMM Structure
Proposed by the Sessional Working Group on Structure, JCOMM-I
IODE
International Oceanographic Information and Data Exchange
Management Committee
2 Co-Presidents
3 PA Coordinators
Rep. of TT Sat. Data Req.
Rep. of CB Rapporteurs
Reps. of GOOS, GCOS, IODE, additional experts
Observations PA
Services PA
Data Management PA
Task Team on Satellite Data Requirements
Observations Coord. Group
Chair: OBS Coord.
Chairs of Teams/Panels, Liaison with Argo, IOCCP, OceanSITES, data assim. expert
Ocean satellite, Met satellite experts
CB Rapporteur
Services Coord. Group
Chair: SERV Coord.
Chairs of ETs,
2 additional experts
Satellite expert
CB Rapporteur
DM Coord. Group
Chair: DM Coord.
Chairs of ETs,
3 additional experts incl. liaison WIS
Satellite expert
CB Rapporteur
Capacity Building
ad hoc Group of CB Rapporteurs
Task Team on Resources
Ship Obs. Team
ASAPP
SOOPIP
VOSP
link to
Data Buoy Cooperation Panel
GLOSS Group of Experts
Argo
IOCCP
OceanSITES
Expert Team Maritime Safety Services
Expert Team Waves/Surges
Expert Team Sea Ice
Expert Team Marine Accident Emergency Support
Expert Team Marine Climatology
Expert Team Data Manage-ment Practices (Joint IODE)
XML
OIT
GEBICH
GOSUD
GTSPP

Appendix B

TERMS OF REFERENCE OF THE TASK TEAM ON PROVISION OF MSI IN POLAR REGIONS (PMSI)

The TT will provide additional expertise to the ETSI, ETMSS and ETMAES in the following issues:

- Survey user (e.g., shipmasters, ship-owners) requirements on the PMSI, in particular related to sea ice and emergency situations, extend and update existing the ETMSS questionnaires;
- Review standards for presentation and dissemination of the PMSI (both binary and textual) via ground-based and satellite systems;
- Keep under review, in cooperation with the sat rap, existing and prospective satellite and automatic information systems (AIS) for PMSI dissemination including those coordinated by the IALA;
- Review and propose updates to the WMO-No. 558 and WMO-No. 471 publications;
- Keep under review scientific activities related to modelling scenarios of emergency situations, in particular related to the MPERSS;
- Keep under review existing and planned projects/works on standards for coding and presentation of met-ocean information, in particular for sea ice and surface contaminants, within other WMO bodies, including the WMO CBS, IHO and ISO levels;
- Review existing NMS Capacity Building resources related to the provision of PMSI, and provide recommendations on training, as appropriate;
- Submit progressive reports of the stated activities, initiate appropriate actions within the ETMSS, ETMAES and ETSI and the WMO Secretariat, as appropriate.

General Membership:

- ETSI Chairperson (Dr Vasily Smolyanisky, Russian Federation)
- SPA Coordinator (Dr Craig Donlon, United Kingdom)
- ETMSS Chairperson (Mr Henri Savina, France)
- Three Experts from the ETSI (Captain Manuel Hipólito Picasso (Argentina), Ms Nora Adamson (Denmark), Dr Jürgen Holfort (Germany) and Mr Amund Lindberg (Sweden))
- Three Experts from the ETMSS (Finland (to be appointed), Canada (to be appointed), additional Expert (to be appointed))
- One Expert from the ETMAES (USA – to be appointed)
- IHO Representative (Mr Peter Doherty, Chairperson of CPRNW, USA)

Appendix C

TERMS OF REFERENCE AND GENERAL MEMBERSHIP OF THE TASK TEAM ON TSUNAMI PRODUCTS FOR TRANSMISSION AS MSI

The Task Team shall:

1. Prepare a proposal to develop operational guidelines for Tsunami Warnings for mariners, to be reviewed by the appropriate Expert Teams through the relevant International Organizations;

2. Prepare a proposal for the enhancement of the existing formats and contents of Tsunami Products, and/or propose new products if appropriate, for transmission as MSI to ensure the Safety of Mariners;

3. Cooperate with appropriate Committees and/or Sub-committees of the IHO and IMO to prepare updates to relevant operational documentation, and provide this information to the IOC and other bodies for review;

4. Use the opportunity, when feasible, to present the work developed by the TT in ICGs meetings;

5. Work with the IMO and IHO to determine the appropriate operational transmission codes and priorities through the GMDSS for tsunami warning to mariners;

6. Coordinate with the IMO, appropriate recommendations to ship masters in the case of reception of tsunami warnings messages;

The Members of the ETMSS, as appropriate, will discuss the report by the Task Team. After the review by the ETMSS, proposals will be submitted for endorsement by the SCG and approved by the Management Committee (MAN), as appropriate.

General Membership:

- Representative from Australia (Bureau of Meteorology)
- Representative from France (Mr Henri Savina)
- Representative from India (to be appointed)
- Representative from Japan (JMA – to be appointed)
- Representative from Kenya (Ms Stella Aura)
- Representative from Russian Federation (Mr Valery Martyschenko)
- Representative from USA (Mr Timothy Rulon – Chairperson)
- SPA Coordinator (Dr Craig Donlon)
- IHO Representative (to be appointed by Mr Peter Doherty)

Appendix D

REVISED TERMS OF REFERENCE OF AN EXPERT ON WEATHER INFORMATION IN GRAPHICAL FORM

The Expert, jointly with ET Experts (membership), shall:

- With the ETMSS and SCG, specify the need for a basic set of graphical and digital information for MSI;
- Keep under review existing and planned projects/works on formats for coding and displaying met ocean information on graphical form (especially objects), within the respective WMO bodies, including the CBS, at both the international and regional levels;
- Keep under review existing and planned project(s)/work(s) on navigational system(s) for marine users, including formats, developed or approved by the IMO or IHO (i.e., Marine Information Objects (MIOs)), in particular the work undertaken by the HGMIO and other agencies/companies, especially for meteorology and oceanography aspects;
- Liaise with the WMO Secretariat, IMO, IHO or other agencies/companies to facilitate consistency between the existing or planned WMO standards and WMO Information System (WIS);
- Report the status of the project to the ETMSS Chairperson, SCG and the WMO Secretariat, as appropriate;
- Prepare a first version of a detailed report to the SCG-IV, planned for the beginning of 2009, as well as a final version to the JCOMM-III, including proposals on the formats contents and symbology and dissemination, to be used in future, including within GMDSS

The report by the Expert will be reviewed by the Members of the ETMSS, as appropriate, and be submitted to the SCG-IV. After the review by the SCG, the proposals will be submitted for approval to the JCOMM-III, if appropriate.

General Membership:

- Representative from Argentina (Commander Negri)
- Representative from Australia (to be appointed)
- Representative from France (Mr Henri Savina)
- Representative from the United Kingdom (Mr Nick Ashton)
- Representative from USA (Mr Timothy Rulon)
- Representative from Russian Federation (Mr Valery Martyschenko)
- Two Experts from the ETSI (Mr John Falkingham (Canadia – to be confirmed), additional expert –to be appointed)
- One or more Expert(s) from the ETWS (to be appointed)
- One Expert from the ETMAES (USA – to be appointed)
- OFS Rapporteur (Dr Adrian Hines)