

**SERVICES PROGRAMME AREA
COORDINATION GROUP
FOURTH SESSION**

Geneva, Switzerland, 11-13 March 2009

FINAL REPORT

JCOMM Meeting Report No. 65

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NOTES

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GENERAL SUMMARY OF THE WORK OF THE SESSION

1. OPENING OF THE SESSION

1.1 Opening

1.1.1 The fourth session of the Services Programme Area (SPA) Coordination Group (SCG) of the Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM) was opened by the SPA coordinator, Dr Craig Donlon, at 1400 hrs on Wednesday, 11 March 2009, in the WMO Headquarters, in Geneva, Switzerland. Dr Donlon welcomed participants to the session, and introduced Professor Hong Yan, the Deputy Secretary-General, to address the session.

1.1.2 On behalf of the Secretary-General of the WMO, Mr Michel Jarraud, and of the Executive Secretary of the IOC, Mr Patricio Bernal, Professor Hong Yan welcomed the participants to the session, to Geneva in general and to the WMO in particular. Professor Hong Yan recalled that for those working at sea or simply living near the coast, forecasts of maritime weather and ocean conditions are extremely important. He noted that understanding, monitoring, mapping and predicting maritime weather and ocean conditions offer the opportunity for adequate management of the coastal zone and effective planning of marine activities, and provide important information for early detection and warning of marine-related hazards.

1.1.3 Professor Yan indicated that the National Meteorological Services (NMSs) of a large number of maritime countries, for many years had been engaged in the provision of marine meteorological forecast and hindcast services in support of the requirements of users in a whole range of maritime activities (shipping, fisheries, offshore mining, commerce, coastal engineering, construction, recreation, etc). In recognition of this, to address both the requirements of National Meteorological Services for met-ocean services and the rapid developments that were occurring in measuring, analysing and forecasting techniques of the ocean, the WMO established in 1951 the Commission for Marine Meteorology (CMM), a services focused application commission, which preceded the Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM), created in 1999. In particular, Professor Yan stressed that the Services Programme Area plays a key role in providing assistance and technical guidance to NMSs on the implementation of met-ocean services to meet the users' requirements.

1.1.4 Professor Yan recalled that the UN Secretary-General had affirmed that the climate change challenge and what we do about it would define us, our era and, ultimately, our global legacy. In this context, he indicated that the IPCC Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC), which WMO co-sponsors, states with increased confidence that some weather events and extremes would become even more frequent, more widespread and/or more intense during the 21st century. While important uncertainties still remain, Professor Hong Yan emphasized that the overwhelming global scientific consensus was that the Earth's atmosphere was warming at an increasing rate and that most of this warming was very likely due to human activities, particularly burning of fossil fuels and agricultural practices. While these changes were just beginning, their impacts will intensify in the coming decades and their effects would include, in particular, the increased frequency and intensity of a number of extreme weather events. Additionally, Professor Hong Yan indicated that there was growing awareness by policymakers on the key socioeconomic value of weather, climate and water information and services, so to support policy formulation and decision-making, as well as to underpin capacity building in climate risk management, WMO would hold a third World Climate Conference (WCC-3) in Geneva from 31 August to 4 September 2009, under the theme "Climate Prediction and Information for Decision-making", in which JCOMM would play a vital role.

1.1.5 Professor Hong Yan concluded by expressing his sincere appreciation for the work undertaken by the JCOMM Services Coordination Group in assisting WMO and the UNESCO/IOC

to provide coordinated guidance to their Members/Member States in order to face the challenges of improving weather forecasting, adaptation to climate change, disaster risk reduction, and the many weather and marine oceanography related application areas, or “societal benefit areas”. Lastly, Professor Yan assured participants of the full support of his staff and concluded by wishing everyone a successful meeting and an enjoyable stay in Geneva.

1.1.6 The list of participants in the session is provided in Annex I to this report.

1.2 Adoption of the agenda

1.2.1 The Group adopted its agenda for the session based on the provisional agenda that had been prepared by the Secretariat. This agenda is provided in Annex II to this report.

1.3 Working arrangements

1.3.1 The Group agreed its hours of work and other practical arrangements for the session. The Secretariat introduced the documentation, and the participants briefly introduced themselves, to facilitate future interactions.

2. GUIDANCE AND REQUIREMENTS FROM WMO AND IOC EXECUTIVE BODY SESSIONS – IMPACTS ON SERVICES PROGRAMME AREA PRIORITIES AND WORK PLAN

2.1 The Group was informed of issues relevant to the SPA raised during the last sessions of the WMO Congress and Executive Council, UNESCO/IOC Assembly and Executive Council, among others. The Group noted that some issues had already been undertaken by the SPA; however, there were a few requests still not addressed and/or requiring attention by the Group. In particular, the Group identified four major activity areas aligned with the Expected Results’ process within both WMO and IOC, which needed to be initiated or kept going under the SPA, as follows:

- (a) Technology transfer – the Group noted that a number of advanced centres, including, for example ECMWF, Bureau of Meteorology (Australia), the Meteorological Service of Canada, met.no (Norway), NOAA/NCEP (USA), etc., had maintained and upgraded their wave forecasting systems, and made freely available on their Websites a broad range of global and regional wave products and datasets. It stressed on the need to persuade other centres to provide such kind of products and assist Members/Member States in making maximum use of these products. The Group therefore decided to include specific capacity building activities in its work programme for the coming intersessional period to ensure that these technologies and tools are available in and appropriately used by the developing and the least developing countries, including the Small Islands Developing States (SIDSs);
- (b) Marine-related hazards forecasting and warning system (in a multi-hazard framework) – the Group noted that a number of activities had been initiated on wave and storm surge forecasting and warning that contribute towards the development and implementation of a comprehensive and integrated marine multi-hazards warning system for improved coastal risk management. It fully supported that these activities should be continued and expanded in the next intersessional period. Nevertheless, the Group noted the unclear definition of the role of JCOMM, and in particular of the Expert Teams under the Services Programme Area (ETMSS and ETWS), with regards to tsunami-related issues. In particular, the Group requested the Secretariats to clarify with the relevant programme within UNESCO/IOC the role of ETMSS and the Issuing Services in the provision of tsunami-related Maritime Safety Services (MSI) and, if appropriate, to define mechanisms for the Issuing Services being able to access warnings issued by UNESCO/IOC centres (**Action: Clarify with UNESCO/IOC the role of ETMSS and the Issuing Services in the provision of tsunami related MSI / If appropriate, define**

mechanisms for the Issuing Services being able to access warnings issued by UNESCO/IOC centres; Secretariats; End March 2009);

- (c) Operational met-ocean forecasting system – the Group reviewed the ongoing activities such as the wave forecast verification project and the emerging partnership with ESA to expand this project. The Group also discussed ways to interact with the Commission for Atmospheric Sciences (CAS) and its Working Group on Numerical Experimentation (WGNE) for the atmospheric-ocean coupling in support of enhancing the accuracy in weather and climate predictions;
- (d) Service Delivery – the Group noted the progress made in the expansion of the Global Maritime Distress and Safety System (GMDSS) into the Arctic waters. It agreed that the ETMSS and the ETSI should work together for the full implementation of the weather-related Maritime Safety Information (MSI) by 2010/11.

3. OUTCOMES OF AND ACTIONS ARISING FROM THE SEVENTH SESSION OF THE JCOMM MANAGEMENT COMMITTEE (MELBOURNE, AUSTRALIA, DECEMBER 2008)

3.1 The Group reviewed the actions arising from the seventh session of the JCOMM Management Committee (MAN-7, Melbourne, Australia, December 2008) related or relevant to the SPA. The Group noted that MAN-7 decided to establish three task teams to address priority activities within both, the WMO and the UNESCO/IOC and that these are related to the work of SPA: (1) Task Team on Quality Management Framework (led by Dr Philippe Dandin); (2) Task Team on Coastal Inundation (led by Dr Regina Folorunsho); and (3) Task Team on Methods for Transmission of Graphical Products to Marine Users (led by Mr Robert Keeley). The Group was informed that roadmaps for developing these activities should be prepared by the Task Team Leaders by 31 May 2009. Taking into account that activities (1) and (3) were clearly related to the work of the ETMSS, and activity (2) to the ETWS, the Group agreed that the chairpersons of the ETMSS and ETWS should liaise with the respective activity leaders in order to be involved in the preparation of the roadmaps and take follow-up actions based on these documents (**Action: Liaise with the respective activity leaders in order to be involved in the preparation of the roadmaps and take follow-up actions based on these documents; ETMSS and ETWS chairpersons; Continuing**).

3.2 The Group noted that MAN-7 extensively discussed the JCOMM's role in climate services, and generally agreed that the primary role of JCOMM in climate and climate services is to monitor ECVs in a coordinated and a consistent manner, and to help further understand/analyze the obtained information. In terms of the future direction, MAN-7 agreed that the JCOMM should clearly recognize the requirements of the user community on JCOMM's role in supporting climate services, in particular, the coordination of underpinning datasets and mechanisms for product delivery. In this context, the Group noted that ETWS and ETSI had been working closely with ETMC and ETCCDI in developing wave and sea ice climatologies and indices. The Group agreed that ETOOFS would have an important role to play in climate services, including in seasonal to inter-annual forecasting, verifying climate predictions, and in predicting extremes. Taking into account these aspects, the Group recognized that collaboration with other programmes, such as GCOS and WCRP, would be critical to address these issues, and agreed to consider climate aspects in the SPA work programme for the next intersessional period.

3.3 The Group discussed the possibility of holding the International Met-ocean Safety Conference (IMSC). It agreed that the IMSC would provide a great opportunity for JCOMM to interact with marine users and would contribute to JCOMM to better understand and address the user requirements. However, taking into account the limited resources currently available and the limited time prior to JCOMM-III, the Group agreed that the IMSC should be postponed to the next intersessional period. In the context of addressing the user requirements, the Group agreed on the need to raise the profile of the METAREA Issuing Services. The Group therefore decided to propose to JCOMM-III Terms of Reference for a METAREA Coordinator, which would consist of an

expanded role for the METAREA Issuing Service.

3.4 The Group noted that MAN-7 endorsed a statement of principles for JCOMM Capacity Building to better represent the requirements and describe the implementation mechanism and activities to be undertaken by JCOMM, including training, transfer of technology, and development of projects. It agreed that specific JCOMM-focused capacity building activities on met-ocean forecasting and services should be implemented by the Services Programme Areas and included in its future workplan. The Group decided to assign to the SPA coordinator a task to annually review the capacity building requirements by collecting the relevant information from the different Expert Teams (**Action: Review the Capacity Building requirements by collecting the relevant information from the different Expert Teams; SPA Coordinator; Annually**) and requested the Expert Team chairpersons to annually report on the capacity building activities implemented under each Expert Team (**Action: Report on the capacity building activities implemented under each Expert Team; Expert Team chairpersons; Annually**). The Group also decided to include in the Terms of Reference for each Expert Team the capacity building reporting mechanism as described above (**Action: Include in the Terms of Reference for each Expert Team the capacity building reporting mechanism; Secretariat; Immediately (letter calling for nominations)/JCOMM-III (include in the ToRs to be endorsed by JCOMM-III)**).

3.5 The Group reviewed the subsidiary structure for JCOMM, with especial focus on the Services Programme Area (SPA) and its Expert Teams. It agreed that the SPA should adopt a project-oriented approach for its future work programme, however it also agreed to keep the Expert Team structure to ensure the continuity of the activities, including the reviewing of technical publications. The Group decided to further address these issues under the agenda item 7.2.

4. REVIEW OF THE SERVICES PROGRAMME AREA WORKPLAN FOR THE CURRENT INTERSESSIONAL PERIOD

4.1 The Group reviewed the SPA workplan 2006-2009, focusing on the current status of the actions and recommendations assigned to SPA. It noted that from the 79 actions and recommendations, 60 were completed and 10 were initiated and in some cases nearly finished. Regarding the remaining 9 actions and recommendations, the Group noted that a significant number were not directed to SPA, and suggested that these should be taken by the OPA and DMPA in accordance with the nature of the issues considered. The Group noted that the recommendation to organize an International Met-ocean Services Conference (IMSC) was postponed due to the lack of resources, and agreed it should be convened in the next intersessional period. Detailed information is presented in the updated SPA workplan 2006-2009 (version 1.7), available at <http://www.jcomm.info/SPA-WP>.

4.2 The Group noted that some issues had already been undertaken by the SPA; however, there were a few actions still to be addressed and/or requiring attention by the Group. It therefore requested:

- (a) The Secretariats to evaluate the status of the proposal of the *Storm Surge Project for Monitoring, Hindcasting and Forecasting in the Gulf of Guinea*, and circulate this proposal within the SCG (**Action: Evaluate the status of the proposal of the Storm Surge Project for Monitoring, Hindcasting and Forecasting in the Gulf of Guinea, and circulate this proposal within the SCG; Secretariats; ASAP**);
- (b) The ETSI chairperson and the Secretariats to make arrangements for establishing a closer link between ETSI and OOPC, in order to ensure sea ice representation in OOPC and that sea ice aspects are properly addressed by this Panel (**Action: Establish a closer link between ETSI and OOPC in order to ensure sea ice representation in OOPC, and that sea ice aspects are properly addressed by OOPC; ETSI chairperson and Secretariats; ASAP**);

- (c) The ETSI chairperson to make arrangements for establishing a closer link with ETMC, particularly on the GDSIDB aspects (**Action: Establish a closer link with ETMC, particularly on the GDSIDB aspects; ETSI chairperson; ASAP**);
- (d) The DMPA coordinator, and the ETSI and ETOOFS chairpersons to evaluate the need for disseminating sea ice parameters on the GTS (including for NWP); and if required, include sea ice in the BUFR code table (**Action: Evaluate the need for disseminating sea ice parameters on the GTS (including for NWP); and if required, include sea ice in the BUFR code table; DMPA coordinator, and ETSI and ETOOFS chairpersons; ASAP**);
- (e) The SPA coordinator and the Secretariats to update the SPA work plan 2006-2009 (status of the actions) and make available to JCOMM-III the document as background material (**Action: Update the SPA work plan 2006-2009 (status of the actions) and make available to JCOMM-III the document as background material; SPA coordinator and Secretariats; End May 2009**);
- (f) The Secretariats to make available existing documentation on Quality Management Framework (QMF), including those documents developed for aeronautic meteorology (**Action: Make available existing documentation on Quality Management Framework (QMF), including those documents developed for aeronautic meteorology; Secretariats; ASAP**);
- (g) The SPA coordinator, the Expert Team chairpersons and the Secretariats to review the format and content of the SPA web site and if required submit a proposal to the UK Met Office (**Action: Review the format and content of the SPA web site and if required submit a proposal to the UK Met Office; SPA coordinator, Expert Team chairpersons and Secretariats; Ongoing (revised version to be available for JCOMM-III)**).

4.3 In reviewing the status of actions and recommendations from the SPA workplan, and taking into account the number of actions completed during the intersessional period, the Group indicated that these achievements should be presented to a broader community and recommended that these be presented in the next JCOMM Newsletter, together with the announcement of the JCOMM-III session.

5. REVIEW OF THE WORK OF THE EXPERT TEAMS, INCLUDING PROGRESS/ACTIVITY REPORTS AND WORK PLANS UNTIL JCOMM-III

5.0.1 The Group reviewed and revised the proposed future workplan for the SPA Expert Teams, including their capacity building activities. The Group requested the SPA coordinator, the Expert Team chairpersons and the Capacity Building Rapporteur, to review Appendix A (deliverables and/or achievements planned for presentation to JCOMM-III) of SCG-IV working documents 5.1 to 5.6 and submit it to the Secretariats (**Action: Review Appendix A (deliverables and/or achievements planned for presentation to JCOMM-III) of SCG-IV working documents 5.1 to 5.6 and submit it to the Secretariats; SPA coordinator, Expert Team chairpersons and Capacity Building Rapporteur; End March 2009**). The Group also requested the SPA coordinator, the Expert Team chairpersons and the Capacity Building Rapporteur, to review Appendix C (workplan for the next intersessional period) of SCG-IV working documents 5.1 to 5.6 and submit it to the Secretariats (**Action: Review Appendix C (workplan for the next intersessional period) of SCG-IV working documents 5.1 to 5.6 and submit it to the Secretariats; SPA coordinator, Expert Team chairpersons and Capacity Building Rapporteur; End April 2009**). The Group indicated that the content of Appendix B (workplan for the remaining intersessional period) should be included in Appendix A or C, as appropriate. The revised version of the proposed workplans is available at <http://www.jcomm.info/JCOMM-WP>. Major decisions and conclusions were included in the general summary under the respective agenda items below.

5.1 Maritime Safety Services (MSS)

5.1.1 The Group reviewed the ETMSS progress/activity report and its proposed future workplan. It noted the difficulties of ETMSS in implementing its work programme during the intersessional period due to the fact that the ETMSS had an open membership. The Group recommended that new Terms of Reference for the ETMSS be presented at JCOMM-III, including the indication of a core membership. The Group also recommended that a list of activities to be assigned to each member of the ETMSS be identified.

5.1.2 Taking into account that the *Manual on Marine Meteorological Services* (WMO-No. 558) provide the regulatory and guidance material for the implementation of the marine broadcast system for the GMDSS, the Group requested the WMO Secretariat to make available to its members the electronic version of the publication WMO-No. 558 in order to facilitate updates and contributions from the different SPA Expert Teams to be proposed to JCOMM-III **(Action: Make available the electronic version of the WMO-No. 558; WMO Secretariat; ASAP).**

5.2 Maritime Accident Emergency Support (MAES)

5.2.1 The Group reviewed the ETMAES progress/activity report and its proposed future workplan. The Group recognized that the core information provided by the Area Meteorological and Oceanographic Coordinators (AMOCs) in support of marine pollution monitoring and response, and maritime search and rescue, was basic meteorological and oceanographic information generated by NWP and ocean forecasting systems, including oil spill model outputs (weathering and fate). It therefore suggested that the ETOOFS consider ocean forecasting systems in support of this application area as part of its ongoing work programme. The Group also proposed that the implementation and operations of the Marine Pollution Emergency Response Support System (MPERSS) be coordinated and monitored by the ETMSS, which should also assist Members/Member States in implementing their services in support of marine accident emergencies, including marine pollution and search and rescue operations.

5.2.2 In this context, the Group requested the ETMAES chairperson to provide information on potential MAES experts to join the ETOOFS and the ETMSS, and on MAES activities in order to include them in the workplan for the next intersessional period **(Action: Provide information on potential MAES experts to join the ETOOFS and the ETMSS, and on MAES activities in order to include them in the workplan for the next intersessional period; ETMAES chairperson (in collaboration with the ETOOFS and ETMSS chairpersons); End April 2009).**

5.3 Wind Waves and Storm Surges (WS)

5.3.1 The Group reviewed the ETWS progress/activity report and its proposed future workplan. It noted that the ETWS had been adopting a project-oriented approach for its work programme, and that a number of activities had been initiated on wave and storm surge forecasting and warning that contribute towards the development and implementation of a comprehensive and integrated marine multi-hazards warning system for improved coastal risk management. In the same context of paragraph 2.1 (b), the Group noted the commonalities between the wave, storm surge and tsunami forecasting and warning systems, in particular in a multi-hazard framework. It therefore stressed on the need to clarify the role of JCOMM with regards to tsunami-related issues and, if appropriate, to define mechanisms for better interaction with the relevant UNESCO/IOC programmes **(Action: Clarify the role of JCOMM with regards to tsunami-related issues and, if appropriate, define mechanisms for better interaction with the relevant UNESCO/IOC programmes; Secretariats; Immediately (prior to JCOMM-III)).**

5.4 Sea Ice (SI)

5.4.1 The Group reviewed the ETSI progress/activity report and its proposed future workplan. It noted that the implementation of met-ocean MSI in the Arctic METAREA required a close

collaboration between the ETMSS and ETSI on the definition of sea ice services and its formats, both in text and graphical/numerical forms, to be provided. The Group also noted the importance of the coordination and collaboration between the METAREA Issuing Services and the Sea Ice Services providing met-ocean information for that region. In this context, the Group requested the ETMSS and ETSI chairpersons, and the WMO Secretariat, to evaluate the feasibility of convening a meeting on the implementation of the Arctic METAREAs back-to-back to the fourth session of the ETSI (**Action: Evaluate the feasibility of convening a meeting on the implementation of the Arctic METAREAs back-to-back to the fourth session of the ETSI; ETMSS and ETSI chairpersons, and WMO Secretariat, ASAP**).

5.5 The Group noted that the Global Digital Sea Ice Data Bank (GDSIDB) held 7 or 10-day period mapped ice data for the Arctic starting from March 1950 and for the Antarctic from January 1973, up to near the present for both regions. From the 1970s, GDSIDB ice charts could serve as ground-truth for SSM/I products (based on a comprehensive usage of all available sources of ice information and expert knowledge) or could form a unique source of ice conditions and climate for the pre-1978 period. The Group recommended closer collaboration with the ETMC in order to expand sea ice climatologies and any other aspects related to the GDSIDB (**Action: Establish a closer link with ETMC, particularly on the GDSIDB aspects; ETSI chairperson; ASAP**).

5.5 Operational Ocean Forecasting Systems (OOFs)

5.5.1 The Group reviewed the ETOOFS progress/activity report and its proposed future workplan. It recalled that following the conclusion of the Global Ocean Data Assimilation Experiment (GODAE), and in recognition of the need to continue the legacy of GODAE, the Management Committee, at its sixth session (Paris, December 2007), established an Expert Team on Operational Ocean Forecasting Systems (ETOOFS), within the Services Programme Area, as a means to coordinate the efficient transition of mature ocean forecasting systems, developed and refined under the GODAE, to an operational environment, through facilitating and standardizing their operational implementation. In this context, the Group recommended that collaborating arrangements be established between ETOOFS and the GODAE OceanView (GOV) Steering Team, responsible for activities on research and development, to ensure that the on-going research on ocean modelling and forecasting, and associated data assimilation and model intercomparison, are matured and transitioned into operations. The Group also recommended that these collaborating arrangements be clearly expressed in the Terms of Reference of the ETOOFS, which would be proposed at JCOMM-III.

5.5.2 The Group noted that met-ocean forecasting, as a central component of the end-to-end system for Service Delivery including warning services, depends heavily on outputs of numerical ocean prediction (NOP) systems. It further stressed that the accuracy and usefulness of NOP depends critically on the quality and reliability of all ocean observational data and atmospheric forcing from NWP. In this context, the Group recommended that the ETOOFS work closely with the Commission for Atmospheric Sciences (CAS) and its Working Group on Numerical Experimentation (WGNE) for the atmospheric-ocean coupling in support of enhancing the accuracy in weather and climate predictions. The Group also recommended that the ETOOFS work closely with the DMPA and the OPA, including the JCOMMOPS, on matters related to input/output observations and products to ensure that interoperable standards and best practices are developed, implemented and maintained. The Group strongly recommended that these working arrangements be clearly expressed in the Terms of Reference of the ETOOFS, which would be proposed at JCOMM-III.

5.5.3 The Group noted the growing demand from the user community for integrated sea ice information products and to this end recommended further development of the coupled sea ice – ocean – atmosphere numerical model approach being adopted by a number of Members/Member States. It encouraged the ETOOFS to cooperate closely with ETSI to further develop these numerical models, and sea ice forecasting and data assimilation techniques.

5.6 Capacity Building (CB)

5.6.1 The Group reviewed the Capacity Building progress/activity report and the proposed future workplan. The Group recalled that under agenda item 3 (paragraph 3.4), it had agreed on the way forward regarding the capacity building activities on met-ocean forecasting and services. It also agreed that a "Capacity Building Tree" document for outreach purposes is required and requested the Capacity Building Rapporteur to finalize it **(Action: Finalize the "CB Tree" document; Capacity Building Rapporteur; End April 2009)** based on the experience and knowledge gained from existing projects (e.g. the appropriate communication channel to reach the Pacific Island Countries (PICs) and other countries in RA V) **(Action: Advise on the appropriate communication channel to reach PICs and other countries in RA V; Mr Phillip Parker; May 2009)**.

6. PROPOSED SPA WORK PLAN FOR THE NEXT INTERSESSIONAL PERIOD

6.1 As described in paragraph 5.0.1, the Group requested the SPA coordinator, the Expert Team chairpersons and the Capacity Building Rapporteur, to review Appendix C (workplan for the next intersessional period) of SCG-IV working documents 5.1 to 5.6 and submit it to the Secretariats by end April 2009. The revised version of the proposed workplans is available at <http://www.jcomm.info/JCOMM-WP>.

7. PREPARATIONS FOR JCOMM-III

7.1 Documentation for the session, including draft recommendations

7.1.1 The Group was informed that documents for JCOMM-III consist of a single Report (REP) on the activities carried out during the preceding intersessional period and various short documents (DOCs) concentrating on decisions expected to be made during JCOMM-III. The Group noted that documents (DOCs) would consist of a draft text for inclusion in the general summary of JCOMM-III (decisions and actions), draft recommendations and/or resolutions, and a background information report containing only relevant topics (when required to understand the context of the draft text for inclusion in the general summary of JCOMM-III). In this context, the Group requested the Secretariats to provide guidelines regarding preparation of documents for JCOMM-III **(Action: Provide guidelines regarding preparation of documents for JCOMM-III; Secretariats; Immediately)**. The Group agreed on the following steps regarding preparations for JCOMM-III:

- (a) The Expert Team chairpersons, to prepare contributions to documents for JCOMM-III (DOC and REP parts) by End April 2009 **(Action: Prepare contributions to documents for JCOMM-III (DOC and REP parts); Expert Team chairpersons; End April 2009)**;
- (b) The SPA coordinator and the Secretariat, to finalize documents related to SPA and circulate them for comments and review **(Action: Finalize documents related to SPA and circulate them for comments and review; Secretariat and SPA coordinator; Mid May 2009)**;
- (c) The SPA coordinator, the Expert Team chairpersons, the Capacity Building rapporteur and the Secretariat, to prepare the first draft of the Recommendations to be presented at JCOMM-III **(Action: Prepare the first draft of the Recommendations to be presented at JCOMM-III; SPA coordinator, Expert Team chairpersons, Capacity Building rapporteur and Secretariat; End April 2009)**;
- (d) The SPA coordinator and the Secretariat, to finalize Recommendations to be presented at JCOMM-III and circulate them for comments and review **(Action: Finalize Recommendations to be presented at JCOMM-III and circulate them for comments and review; SPA coordinator and Secretariat; Mid May 2009)**.

7.1.2 The Group agreed on the formal recommendations to propose to JCOMM-III, as follows:

- (a) Terms of Reference for a METAREA Coordinator;
- (b) Regular updates of publication WMO-No. 9, Volume D;
- (c) Regular updates of publication WMO-No. 558;
- (d) Implementation of QMS by Members/Member States;
- (e) Development of graphical/numerical products;
- (f) Integrated Storm Surge Watch Scheme;
- (g) Observations requirements for improved ocean forecasting systems;
- (h) Outreach and communications.

7.2 Recommendations concerning the future structure of the SPA

7.2.1 The Group decided on its proposed future structure and reviewed the Terms of Reference of the SPA Coordination Group and Expert Teams. It requested the Secretariat to finalize these Terms of Reference and circulate them for comments and review (**Action: Finalize the Terms of Reference of the SPA Coordination Group and Expert Teams and circulate them for comments and review; Secretariat; Immediately**).

8. ANY OTHER BUSINESS (AOB)

8.1 The Group was informed of the outcomes of an ad hoc meeting between the SPA and OPA coordinators and the WMO Secretariat on the possibility of establishing a new JCOMM Expert Team to coordinate ocean variables. The Group expressed the desire that its members be updated on the advances made in the relationship with the WMO Space Programme and the possible establishment of this Expert Team.

9. CLOSURE OF THE SESSION

9.1 Adoption of the report

9.1.1 Under this agenda item, the Team reviewed and approved the final report, including actions and recommendations raised from the meeting.

9.2 Closure

9.2.1 In closing the meeting, the SPA coordinator, Dr Craig Donlon, expressed his appreciation to all participants for their very positive and valuable input to the discussions and for the substantial number of activities completed during the intersessional period. Dr Donlon concluded by thanking, on behalf of all participants, the Secretariat for the ongoing support.

9.2.2 The fourth session of the Services Programme Area Coordination Group (SCG-IV) closed at 16.36 hours on Friday, 13 March 2009.

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AGENDA

- 1. Opening of the session**
 - 1.1. Opening
 - 1.2. Adoption of the agenda
 - 1.3. Working arrangements
 - 2. Guidance and requirements from WMO and IOC Executive Body sessions – impacts on Services Programme Area priorities and work plan**
 - 3. Outcomes of and actions arising from the seventh session of the JCOMM Management Committee (Melbourne, Australia, December 2008)**
 - 4. Review of the Services Programme Area work plan for the current intersessional period**
 - 5. Review of the work of the Expert Teams, including progress/activity reports and work plans until JCOMM-III**
 - 5.1 Maritime Safety Services (MSS)
 - 5.2 Maritime Accident Emergency Support (MAES)
 - 5.3 Wind Waves and Storm Surges (WS)
 - 5.4 Sea Ice (SI)
 - 5.5 Operational Ocean Forecasting Systems (OOFS)
 - 5.6 Capacity Building (CB)
 - 6. Proposed SPA work plan for the next intersessional period**
 - 7. Preparations for JCOMM-III**
 - 7.1 Documentation for the session, including draft recommendations
 - 7.2 Recommendations concerning the future structure of the SPA
 - 8. Any Other Business (AOB)**
 - 9. Closure of the session**
 - 9.1 Adoption of the report
 - 9.2 Closure
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LIST OF ACTIONS

Item	Action	By whom	When/target
2	Clarify with UNESCO/IOC the role of ETMSS and the Issuing Services in the provision of tsunami related MSI / If appropriate, define mechanisms for the Issuing Services being able to access to warnings issued by UNESCO/IOC centres	Secretariat	End March 2009
3	Liaise with the respective activity leaders in order to be involved in the preparation of the roadmaps and take follow-up actions based on these documents	ETMSS and ETWS chairpersons	Continuing
3 and 5.6	Report on the CB activities implemented every year	ET chairs; SPA coordinator to collect	Annually
3 and 5.6	Include in the ToR of each ET the CB reporting	Secretariat	Immediately (letter for nominations); to present officially to JCOMM-III
4	Evaluate the status of the proposal of the <i>Storm Surge Project for Monitoring, Hindcasting and Forecasting in the Gulf of Guinea</i> , and circulate this proposal within the SCG	Secretariat	ASAP
4	Establish a closer link between ETSI and OOPC in order to ensure sea ice representation (in OOPC) and that sea ice aspects are properly addressed by OOPC	Vasily and Secretariat	ASAP
4 and 5.4	Establish a closer link with ETMC, particularly on the GDSIDB aspects	Vasily	ASAP
4	Evaluate the need for disseminating sea ice parameters on the GTS (including for NWP); and if required, include sea ice in the BUFR code table	Vasily, Bob and Gary	ASAP
4	Update the SPA work plan 2006-2009 (status of the actions) and make the document available to JCOMM-III as a background document	Craig and Secretariat	End May 2009
4	Make available existing documentation on Quality Management Framework (QMF), including those documents developed for aeronautic meteorology	Secretariat	ASAP
4	Review the format and content of the SPA web site and if required submit a proposal to the UK Met Office	ET chairs, SPA coordinator and Secretariat	Ongoing. Revised version to be available for JCOMM-III
5.1	Make available the electronic version of the WMO-No. 558	Secretariat	ASAP
5.2	Provide information on potential MAES experts to join the ETOOFS and ETMSS, and detailed information on MAES activities in order to include them in the work plan for the next intersessional period	Pierre (to work with Gary and Henri)	End April 2009

Item	Action	By whom	When/target
5.3	Clarify the role of JCOMM with regards to tsunami-related issues and, if appropriate, define mechanisms for better interact with the relevant UNESCO/IOC programmes	Secretariats	Immediately (prior to JCOMM-III)
5.4	Evaluate the feasibility of convening a meeting on the implementation of the Arctic METAREAs back-to-back to ETSI	Henri, Vasily and Secretariat	ASAP
5.6	Finalize the "CB Tree" document	Johannes (Phil and Craig to review)	End April 2009
5.6	Advise on the appropriate communication channel to reach PICs and other countries in RA V	Phil	May 2009
5 and 6	Review Appendix A (include Appendix B in A or in C as appropriate) of documents 5.1 to 5.6 and submit it to the Secretariat	ET chairs, SPA coordinator and CB rapporteur	End March 2009
5 and 6	Review Appendix C (include Appendix B in C if appropriate) of documents 5.1 to 5.6 and submit it to the Secretariat. Make sure that: (1) MAES activities are included in MSS and OFS work plans; (2) All ET work plans include QMS and CB; and (3) A link to ETSI is included in MSS and OFS work plans.	ET chairs, SPA coordinator and CB rapporteur	End April 2009
7.1	Provide guidelines regarding preparation of documents for JCOMM-III	Secretariat	Immediately
7.1	Prepare contributions to documents for JCOMM-III (DOC and REP parts)	ET chairs	End of April 2009
7.1	Finalize documents related to SPA and circulate them for comments and review	Secretariat and SPA coordinator	Mid-May 2009
7.1	Prepare first draft of Recommendations for JCOMM-III (see description below)	ET chairs, SPA coordinator, CB rapporteur and Secretariat	End of April 2009
7.1	Finalize Recommendations for JCOMM-III and circulate them for comments and review	Secretariat and SPA coordinator	Mid-May 2009
7.2	Finalize the ToR for SPA and its ETs and circulate them for comments and review	Secretariat	Immediately

ACRONYMS AND OTHER ABBREVIATIONS

AMOC	Area Meteorological and Oceanographic Coordinators
ASAP	As Soon As Possible
BILKO	UNESCO Virtual global faculty for remote sensing
BOM	Bureau of Meteorology (Australia)
BUFR	Binary Universal Form for the Representation of meteorological data (FM 94–XI Ext. BUFR)
CAS	Commission for Atmospheric Sciences (WMO)
CB	Capacity Building
CBS	Commission for Basic Systems (WMO)
CCI	Commission for Climatology (WMO)
Cg	Congress (WMO)
CHy	Commission for Hydrology (WMO)
CIFDP	Coastal Inundation Forecasting Demonstration Project (JCOMM, CHy)
CMM	Commission for Marine Meteorology (superseded by JCOMM)
COMSAR	Sub-Committee on Radiocommunications and Search and Rescue (IMO)
CPRNW	Committee for Promulgation of Radio Navigational Warnings (IHO)
DART	Deep-ocean Assessment and Reporting of Tsunami (buoy)
DBCP	Data Buoy Cooperation Panel (WMO-IOC)
DM	Data Management
DMCG	Data Management Coordination Group (JCOMM)
DMPA	Data Management Programme Area (JCOMM)
DRR	Disaster Risk Reduction
EC	Executive Council
ECMWF	European Centre for Medium-Range Weather Forecasts
ECV	Essential Climate Variables
EEZ	Exclusive Economic Zone
EMSA	European Maritime Safety Agency
ENC	Electronic Navigational Charts
EPS	Ensemble Prediction System
ER	Expected Results
ET	Expert Team
ETCCDI	Joint CLIVAR/CCI/JCOMM Expert Team on Climate Detection and Indices
ETMAES	Expert Team on Marine Accident Emergency Support (JCOMM)
ETMC	Expert Team on Marine Climatology (JCOMM)
ETMSS	Expert Team on Maritime Safety Services (JCOMM)
ETOOFS	Expert Team on Operational Ocean Forecast System (JCOMM)
ETSI	Expert Team on Sea Ice (JCOMM)
ETWS	Expert Team on Wind Waves and Storm Surges (JCOMM)
EVC	Essential Climate Variable
EWS	Early Warning System
GCN	GLOSS Core Network
GCOS	Global Climate Observing System
GDPFS	CBS Global Data Processing and Forecasting System (WMO)
GFCS	Global Framework for Climate Services
GLOSS	Global Sea-level Observing System
GMDSS	Global Maritime Distress and Safety System (IMO)
GOOS	Global Ocean Observing System (IOC-WMO-UNEP-ICSU)
GOV	GODAE Ocean View
GOVST	GODAE Ocean View Steering Team
GTS	Global Telecommunication System (WMO/WWW)
HF	High Frequency
ICAM	Integrated Coastal Area Management

IGOSS	WMO-IOC Integrated Global Ocean Services System (superseded by JCOMM)
IHO	International Hydrographic Organization
IICWG	International Ice Charting Working Group
IMO	International Maritime Organization
IMSC	International Met-ocean Safety Conference
IOC	Intergovernmental Oceanographic Commission (of UNESCO)
IODE	International Oceanographic Data and Information Exchange (IOC)
ISO	International Organization for Standardization
JCOMM	Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology
JCOMMOPS	JCOMM <i>in situ</i> Observing Platform Support Centre
MAES	Marine Accident Emergency Support
MAN	Management Committee (JCOMM)
MARPOL	International Convention for the Prevention of Pollution from Ships
MC	Marine Climatology
MIO	Marine Information Objects
MPERSS	Marine Pollution Emergency Response Support System (JCOMM)
MSI	Maritime Safety Information
MSS	Maritime Safety Services
NMHS	National Meteorological (and Hydrological) Service
NMS	National Meteorological Service
NWP	Numerical Weather Prediction
OCG	Observations Coordination Group (JCOMM)
OOFS	Operational Ocean Forecasting Systems (JCOMM)
OPA	Observations Programme Area (JCOMM)
PA	Programme Area (JCOMM)
PIC	Pacific Island Country
QMF	Quality Management Framework (WMO)
QMS	Quality Management Systems
RA	Regional Association (WMO)
RRR	CBS Rolling Review of Requirements (WMO)
RSMC	Regional Specialized Meteorological Centre (WMO)
SAR	Search and Rescue
SCG	Services Coordination Group (JCOMM)
SI	Sea Ice
SI	System of Units
SL	Sea Level
SPA	Services Programme Area (JCOMM)
SWFDDP	Severe Weather Forecasting and Disaster Risk Reduction Demonstration Project
SWFDP	Severe Weather Forecasting Demonstration Project
TCP	Tropical Cyclone Programme (WMO)
TT	Task Team
UNESCO	United Nations Educational, Scientific and Cultural Organization
VOS	Voluntary Observing Ship (JCOMM)
WGNE	Working Group on Numerical Experimentation
WMO	World Meteorological Organization (UN)
WS	Wind Waves and Storm Surges
WWMIWS	World-Wide Met-ocean Information and Warning Service (WMO-IMO)
