

**JOINT WMO-IOC TECHNICAL COMMISSION
FOR OCEANOGRAPHY AND MARINE
METEOROLOGY (JCOMM)****FOURTH SESSION**

Yeosu, Republic of Korea, 23 to 31 May 2012

JCOMM-4/Doc. 2.2(2)
WMO Secretary-General
and UNESCO/IOC
Executive SecretarySubmitted by:
Date: 11.XI.2011
Original Language: English
Agenda Item: 2.2**EXPLANATORY MEMORANDUM RELATING TO THE PROVISIONAL AGENDA****1. OPENING OF THE SESSION**

The fourth session of the Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM) will be held in Yeosu, Republic of Korea, from 23 to 31 May 2012. The opening ceremony will take place at 10.00 hours on Wednesday, 23 May 2012. Information on material arrangements for the session is provided in JCOMM-4/INF.1. The opening ceremony will be followed on 23 May 2012 by a keynote scientific presentation and informational presentations on each JCOMM Programme Area. The Scientific and Technical workshop will take place on 24 and 25 May 2012. Plenary sessions of the Commission, with full language interpretation, will start on Monday 28 May 2012 and are expected to finish by mid-day on Thursday 31 May 2012.

2. ORGANIZATION OF THE SESSION

The fourth session of the Joint Technical Commission falls under the responsibility of IOC and will be conducted according to the WMO Regulations governing sessions of technical commissions in accordance with the Memorandum of Understanding (MoU) between WMO and IOC regarding Secretariat cooperation in servicing JCOMM.

2.1 Consideration of the report on credentials

A list of the representatives attending the session will be made available, as soon as possible after the opening of the session pursuant to General Regulations 20 to 23 of the WMO General Regulations (WMO-No. 15) as well as the Memorandum of Understanding (MoU) between WMO and IOC regarding Regulatory and Procedural Aspects of the Conduct of the Session. This list will be based on the credentials received by the Secretary-General of the WMO and/or the Executive Secretary IOC before the session and those handed to the Secretary-General's (WMO) or the Executive Secretary's (IOC) representative at the session.

To enable the Secretariat to send the documentation relating to the session in advance directly to the representatives of Members and Member States who will attend, it is desirable that the Secretariats of the Organizations be notified as soon as possible before the opening of the session of the name(s) of the person(s) who will constitute the delegation. This communication may be combined with the submission of credentials by sending the latter sufficiently in advance of the session. All the documents required for the JCOMM-4 session will be made available on the web at www.jcomm.info/jcomm-iv. To reduce the carbon footprint of the session, a hard copy of the documents will be mailed to participants only on request. Participants are encouraged to work with electronic documents.

2.2 Adoption of the agenda

Participants will be invited to consider and adopt this provisional agenda, which in accordance with Regulation 190 includes items that are normally included in a provisional agenda, as well as any items submitted by the President of WMO, the Chairperson of IOC, the Executive Councils of WMO and IOC, other commissions, associations, committees, the United Nations and Members/Member States. Additional items for the agenda may be forwarded to the Secretariats before the session, but preferably not later than 30 days before the opening of the session, as per Regulation 189. Explanatory memoranda and working papers should accompany such proposals. The agenda may be amended at any time in the course of the session in accordance with Regulation 192.

2.3 Establishment of committees

The technical work of the session will be carried out in Plenary, chaired by the co-presidents. The Commission may wish to appoint additional experts to support the co-presidents as chairs for specific technical agenda items.

Credentials, Nomination, Drafting and Coordination Committees

The Commission will be invited to establish, for the duration of its session, a Credentials Committee, a Nominations Committee, a Drafting Committee, a Coordination Committee and such other committees as it deems necessary, in accordance with Regulations 22, 24, with the functions of these committees laid out in Regulations 22 and 26 to 31

The Commission will decide when dealing with agenda item 2.1 whether or not a **Credentials Committee** should be established. At previous sessions of the Joint Technical Commission, this was considered unnecessary.

In order to facilitate the election of officers, it is normal practice to set up a **Nomination Committee**, which shall prepare and submit to the Plenary a list of the nominees for each office or place for which an election is to be held.

The drawing up of the final text of the decisions to be adopted can be done either by a **Drafting Committee** or, if the Commission decides not to establish it, by the representatives of the Secretary-General (WMO) and the Executive Secretary (IOC) in consultation with the co-presidents of the Commission. Experience acquired during past sessions shows that the most expedient method has been the second option. The decisions of the constituent bodies are expected to be adopted in their final form during the session in accordance with Regulation 27.

To ensure proper coordination of the work of the session, it is the usual practice to set up a **Coordination Committee**, the composition of which is specified in Regulation 28.

Experience from past sessions has also shown that it is useful to establish a **Selection Committee** for selecting members of the working groups (or similar bodies) established by the session and for nominating individual experts to undertake specific tasks. Such a committee may be composed of several delegates and a representative of the WMO and IOC Secretariats.

2.4 Other organizational matters

The Commission may wish to examine details not dealt with under items 2.1 to 2.3 above, such as the working hours of the meeting. The Commission may wish to consider an approach to the consideration of the primary technical agenda items (items 5 to 10), whereby general activities under these items are reviewed in "information sessions", with proposed specific actions, decisions and recommendations of the Commission being addressed in separate committees or plenary sessions as proposed under agenda item 2.3.

3. REPORT BY THE CO-PRESIDENTS OF THE COMMISSION

This report will provide an overview of activities and achievements of the Commission since its third session, with emphasis on the work of the Management Committee and an introduction to the overall strategy and vision for JCOMM in the future. The report will recall that JCOMM exists to assist national meteorological and oceanographic agencies to deliver on their governmental requirements to provide observations, data and services to users, and helps coordinate the work of IOC and WMO at the international level.

The Commission will be invited to have a general discussion on this report, and refer any points requiring detailed study or subsequent action by the Commission.

4. REVIEW OF DECISIONS OF THE GOVERNING BODIES OF WMO AND IOC RELATED TO THE COMMISSION

The Commission will be informed of decisions of the WMO Sixteenth Congress and twenty-sixth session of the IOC Assembly that are relevant to its work and will be invited to agree on follow-up actions, as required.

5. SCIENTIFIC AND OPERATIONAL REQUIREMENTS

5.1 GOOS-GCOS requirements for climate observations

One important task for JCOMM is the implementation and maintenance of an operational system to provide global physical ocean observations for climate, in the context of the common GOOS-GCOS Ocean Climate Module. In consideration of the scientific design of this module, the Commission will receive and review a report from the GOOS-GCOS-WCRP Ocean Observations Panel for Climate (OOPC), and will be invited to comment and recommend any specific actions that might feed into the development of the JCOMM intersessional workplan.

5.2 Operational requirements and WMO rolling review of requirements

The Commission will be presented with a report on requirements for marine observational data for global/regional Numerical Weather Prediction (NWP), synoptic meteorology, and a range of other non-climate applications arising from the WMO Rolling Review of Requirements including the Statement of Guidance (SoG) for Ocean Applications. The Commission will be invited to review the documented requirements and provide recommendations as appropriate.

5.3 Requirements for integrated data products

Following the success of the Group for High-Resolution Sea Surface Temperature (GHRST) in streamlining the production of and access to sea surface temperature products, the Commission will be presented with ideas for new and better ways to utilise space and in situ data in production of data products for research and operations. New cross-cutting work on surface vector winds will be discussed for inclusion in the intersessional workplan.

5.4 Climate services

The Commission will review the progress in developing a Global Framework for Climate Services (GFCS), following the decisions and recommendations of the 3rd World Climate Conference (WCC-3, Geneva, September 2009), and deliberate on the Commission's role in this process in collaboration with relevant bodies and programmes. In view of setting a future strategy for JCOMM in addressing the framework, the Commission will discuss on a process for JCOMM to determine both technical and user requirements for climate services under GFCS, considering identified challenges in both research and operational terms.

5.5 Others

The Commission will consider and advise on any additional requirements for marine data, products and services not covered under previous sub-items, including those being developed for coastal applications, research activities and hydrology. It will be invited to advise on ways of addressing requirements as they become available.

6. IN-SITU AND SATELLITE OBSERVING SYSTEMS

The overall goal of the Observations Programme Area (OPA) is to coordinate implementation and standards of global in situ ocean and marine meteorological observing networks, promoting coordination amongst networks and with other organizations and programs, including with satellite ocean observation programmes. The OPA is comprised with the Ship Observations Team (SOT) and its component panels, the Data Buoy Cooperation Panel (DBCP) and its Action Groups, the Global Sea Level Observing System (GLOSS) Group of Experts, a link to the Argo Science Team, OceanSITES, the International Ocean Carbon Coordination Project (IOCCP), and the Global Ocean Ship-Based Hydrographic Investigations Program (GO-SHIP). Technical coordination for many of these panels is provided through the JCOMM In Situ Observing Platform Support Centre (JCOMMOPS). The coordination between these Groups/Panels and other relevant programmes are ensured through the Observations Coordination Group (OCG). Under this agenda item, the Commission will review the achievements of these components and discuss on the workplan for the next intersessional period, with particular attention to the key issues as described under the sub-items. Some OPA components related to the Capacity Building and Quality Management will be dealt with under separate agenda items. Under this agenda item, the Commission will also review the status of implementation of the WMO Integrated Global Ocean Observing System (WIGOS), and the JCOMM role in this implementation, with a particular focus on the implementation of the legacy recommendations from the JCOMM Pilot Project for WIGOS.

6.1 JCOMM OPA implementation goals

The Commission will review the OPA Implementation Goals (OPA-IG) and progress in implementing these goals. The OPA-IG have been updated based on the 2010 update of the GCOS Implementation Plan as well as on the recommendations of the Framework for Ocean Observations following the OceanObs'09 conference (Venice, Italy, 21-25 September 2009, www.oceanobs09.net). Considering the role of JCOMM OPA in building the climate component of a sustained Global Ocean Observing System (GOOS) as well as in providing the baseline for non-climate applications and further Global Framework for Climate Services (GFCS), the Commission will provide guidance for updating the Implementation Goals and address its implementation by Members/Member States.

In relation to agenda item 5.3, the Commission will also address integrating space and in situ observing systems and be invited to advise on specific actions which may be taken to facilitate access to these systems and their application by Members/Member States.

6.2 Instruments and methods of observation

The Commission will review the progress in establishing the network of WMO-IOC regional marine instrument centres that deal with instrument testing, standardization, calibration and intercomparison, and the standardization of observation practices and procedures. The Commission will be invited to make the relevant recommendations for addressing instrument issues.

6.3 Coordinated technical support for observing programmes

Based on Resolution 3 (JCOMM-I), Resolution 3 (JCOMM-II), Resolution 2 (JCOMM-III) and Recommendation 2 (JCOMM-III), the JCOMM in-situ Observing Programme Support Centre (JCOMMOPS) has been providing a wide range of tools, facilities and services to support the work

of the DBCP, the SOT, OceanSITES, and Argo programmes. The Commission will review the activities and achievements made by the JCOMMOPS, and will advise on the future development of and support by JCOMMOPS for various sustained observing systems.

6.4 Future priority for the Observation Programme Area (OPA)

Taking into account the discussion under relevant agenda items, the Commission will review, make necessary modifications and endorse the proposed future priority activities for the next intersessional period for the OPA.

7. DATA MANAGEMENT, INCLUDING INFORMATION SYSTEMS AND DATA EXCHANGE

The JCOMM Data Management Programme Area (DMPA) aims to coordinate the enhancement and long-term maintenance of an integrated global marine meteorological and oceanographic observing and data management system, in close collaboration with the IOC International Ocean Data and Information Exchange (IODE) and WMO Information System (WIS). The Commission will review the achievements within the DMPA and discuss on the workplan for the next intersessional period, with particular attention to the key issues as described under the sub-items. Some DMPA components related to the Capacity Building, Quality Management, and requirements for satellite observations/data will be dealt with under separate agenda items.

7.1 Standard setting and documentation

The Commission will review the Data Management Plan and a report on the progress of its implementation, as well as the progress of the IODE-JCOMM Ocean Data Standards Pilot Project that aims to moderate and guide the development and recommendation of standards and best practices following Recommendation 4 (JCOMM-III). It will also review the status of existing / planned documentation including the *JCOMM Cookbook for the submission of ocean data in real time and delayed mode*, *Catalogue of Standard and best Practices*, and other related manuals and guides. The Commission will be invited to decide on specific actions and recommendations required for the implementation of the Data Management Plan.

7.2 Marine Climatology, including New Marine Climate Data System

The Commission will review a report on the progress of marine climatology activities, including the results of the 3rd International Workshop on Advances in the Use of Historical Marine Climate Data (MARCDAT-III, Italy, May 2011); modernization and restructuring of the Marine Climatology Summaries Scheme (MCSS) including the proposed vision of a new Marine Climate Data System, and the establishment of a network of mirrored Climate Marine Meteorological and Oceanographic Centres (CMOCs); and the proposal for streamlining/integration of the existing centers and data systems. It will also review progress in the development of the JCOMM ODAS Metadata centre (ODASMS), following the Recommendation 3(JCOMM-III). The Commission will be invited to decide on specific actions and recommendations required for their implementation.

7.3 Data Management Practices (DMP)

The Commission will review the development of the IODE Ocean Data Portal (ODP), the WMO Information System (WIS) and the JCOMM-IODE standards process related to ocean data management and exchange. The Commission will finally be invited to make recommendations regarding these activities and provide guidance on future actions.

7.4 WMO Information System (WIS) and designation of Data Collection or Production Centres (DCPC)

The Commission will review recent developments in the WIS of relevance to JCOMM. This will include in particular the designation, to date, of eight existing or potential centres supporting

the JCOMM work programme, as JCOMM DCPCs. The Commission will be invited to identify additional existing or potential centres, which might also be put forward as candidate DCPCs.

7.5 Future priority for the Data Management Programme Area (DMPA)

Taking into account the discussion under relevant agenda items, the Commission will review, make necessary modifications and endorse the proposed future priority activities for the next intersessional period for the DMPA.

8. MARINE METEOROLOGICAL AND OCEANOGRAPHIC SERVICES AND FORECASTING SYSTEMS

The JCOMM Services and Forecasting Systems Programme Area (SFSPA) aims to provide coordinated support for national services to enhance capabilities for marine meteorological and oceanographic services. The Commission will review the achievements within the SFSPA and discuss on the workplan for the next intersessional period, with particular attention to the key issues as described under the sub-items. Some SFSPA components related to the Capacity Building, Quality Management, and requirements for satellite observations/data will be dealt with under separate agenda items.

8.1 Forecasting Systems and Services

The Commission will review activities regarding met-ocean monitoring, modelling and services, as well as sea ice and polar region activities. It will also be reported on the progress in developing a Guide to Operational Ocean Forecasting, following Recommendation 5 (JCOMM-III). The Commission will then advise on enhancements to this in support of national and international requirements including the forecasting products for marine environmental emergencies.

8.2 Supports for Disaster Risk Reduction, particularly in coastal zones

The Commission will review achievements of JCOMM during the intersessional period, in support of disaster risk reduction and emergency responses, particularly those contributing to a comprehensive marine and coastal multi-hazard forecasting and warning system. The Commission will then discuss and recommend specific actions to address emerging requirements for such services in coastal zones, including the Storm Surge Watch Scheme (SSWS) following Recommendation 6 (JCOMM-III) and pilot initiatives such as the joint JCOMM/CHy project on Coastal Inundation Forecasting Demonstration Project (CIFDP).

8.3 Safety-related Marine Meteorological Services (MMS)

The Commission will be invited to review the status of implementation of user focused marine meteorological and oceanographic services, including those provided within the context of the Global Maritime Distress and Safety System (GMDSS), and to advise on specific actions to improve such services. It should further review expanding and varying requirements for such services, including sea ice and IMO-WMO Worldwide Met-Ocean Information and Warning Service following Recommendation 7 (JCOMM-III). It will also consider JCOMM's support for activities relevant to marine accident emergencies, and will decide on the Commission's future work related to marine environmental pollution including the Marine Pollution Emergency Response Support System (MPERSS), through SPA coordination with relevant Organizations such as IAEA and IMO. The Commission will finally recommend actions to assist in the provision of such services in the most efficient and effective manner.

8.4 Quality Management (QM)

The Commission will be reporting on the progress in developing Quality Management Systems (QMSs) for marine meteorology and oceanography, following Recommendation 8

(JCOMM-III). The Commission will discuss the need for extending an overall Quality Management approach as well as for the implementation and certification of Quality Management Systems by Members delivering marine services, and will advise on the relevant actions to be taken during the next intersessional period.

8.5 Future priority for the Services and Forecasting Systems Programme Area (SFSPA)

Taking into account the discussion under relevant agenda items, the Commission will review, make necessary modifications and endorse the proposed future priority activities for the next intersessional period for the SFSPA.

9. CAPACITY DEVELOPMENT AND TECHNOLOGY TRANSFER

During the intersessional period, activities related to capacity development, specialized education and training in marine meteorology and oceanography have taken place as part of the work programmes of the Programme Areas (PAs). The Commission will review the relevant activities in collaboration with the other WMO and IOC programmes, such as the IODE Ocean Teacher and Ocean Data and Information Networks (ODINs).

The Commission will also be invited to review ongoing technology transfer and implementation support activities of the WMO and the IOC which are of direct relevance to JCOMM, and to propose new initiatives and projects as appropriate.

10. REVIEW OF TECHNICAL REGULATIONS OF INTEREST TO THE COMMISSION, INCLUDING GUIDES AND OTHER TECHNICAL PUBLICATIONS

According to its terms of reference, the Commission should prepare and keep up-to-date relevant parts of the Technical Regulations of WMO. The Commission will therefore review the Technical Regulations concerned, the marine related guides and manuals of WMO, as well as relevant manuals and guides of IOC, and propose any changes, which may be required.

11. RELATIONSHIP WITH OTHER PROGRAMMES AND BODIES

11.1 Programmes and bodies of WMO and IOC

Close coordination and collaboration with other WMO and IOC programmes and bodies is required for the implementation of the JCOMM work programme. The Commission will review the activities of WMO and IOC programmes and bodies relevant to JCOMM, particularly the WMO Integrated Global Observing System (WIGOS), Global Ocean Observing System (GOOS), Global Climate Observing System (GCOS), WMO Information System (WIS), IOC Integrated Ocean Data and Information Exchange (IODE), IOC Integrated Coastal Area Management (ICAM) and IOC Intergovernmental Coordination Groups for the Tsunami Warning and Mitigation System (ICG/TWS). The Commission will be invited to advise on the role, contributions and specific actions which JCOMM might be taking to enhance inter-programme coordination.

11.2 Organizations and bodies

Other matters of interest to the Commission, which involve cooperation between WMO and IOC, other organizations and bodies with major marine interests (e.g., UN system agencies; non-UN system organizations and programmes such as GEO, POGO, CEOS, industry and commerce) will be discussed under this agenda item. The Commission will be invited to advise on additional issues and organizations where coordination and cooperation would be of benefit to the work of JCOMM.

12. JCOMM PROGRAMME AND PLANNING

12.1 WMO and UNESCO/IOC Strategic Planning and the JCOMM Strategy

The Sixteenth WMO Congress approved the WMO Strategic Plan for the period 2012-2015. The IOC is operating under a Medium-Term Strategy that addresses High-level Objectives for 2008-2013, and will develop a revised Medium-Term Strategy for adoption by the 27th IOC Assembly in 2013. The Commission will be invited to review these Plans as far as they concern Marine Meteorology and Oceanography, in view of streamlining the JCOMM Strategy with these Plans.

12.2 Future work programme and operating plan

Based on the discussion and decisions on agenda items 5 to 10, the WMO Strategic Plan and the IOC Medium-Term Strategy, the Commission will be invited to develop and adopt a comprehensive work programme and its operating plan for the coming intersessional period.

12.3 Review of previous resolutions and recommendations of the Commission and of relevant resolutions of the governing bodies of WMO and IOC

The Commission will review the resolutions and recommendations adopted by both CMM, the Joint Committee for IGOS and JCOMM at previous sessions of these bodies, as well as relevant resolutions of the governing bodies of WMO and IOC, with a view to deciding on those to be kept in force and those to be considered out of date, in accordance with Regulation 190 of the WMO General Regulations.

12.4 Establishment of groups and expert teams and nomination of rapporteurs

The Commission will reestablish a substructure of working groups, expert teams and rapporteurs to carry out the activities decided during the session as appropriate to the implementation of the Commission's terms of reference. As suggested under paragraph 2.3 of this explanatory memorandum, a special committee may be established for the purpose of such nominations. It is planned that discussions on specific elements of a proposed subsidiary structure for JCOMM should take place in conjunction with the relevant technical agenda items.

12.5 Date and place of the fifth session

Delegates of Members/Member States attending the session are invited to present an invitation from their governments for the fifth session of the Commission to be held in their countries in accordance with Regulation 187. The Commission may wish to consider any such invitations or suggestions regarding the date and venue of the fifth session.

13. SCIENTIFIC AND TECHNICAL CONFERENCE - IMPROVING MARINE AND OCEAN DATA AND PRODUCTS FOR SCIENCE AND SOCIETY: THE ROLE OF JCOMM

Time will be allocated on 24 and 25 May 2012 for a Scientific and Technical Conference on the theme of "*Improving Marine and Ocean Data and Products for Science and Society: the role of JCOMM*". Adequate time will be allowed for discussion of this activity for JCOMM, and the Commission may wish to propose follow-up action on issues raised during these discussions.

14. ELECTION OF OFFICERS

The Commission shall elect two co-presidents to hold office until the end of the next session of the Commission. Details regarding eligibility and procedures for election are given in Regulations 11, 26, 63, 79 through 82, 84, 86, 89 and 183 of the WMO General Regulations and Resolution 37 (Cg-XI). Further guidance regarding the co-presidency is given in the general summaries of the final reports of the Thirteenth WMO Congress (paragraph 3.4.4.5), of the Twentieth IOC Assembly (paragraph 262) and of WMO EC-LII (paragraph 6.4.5).

15. CLOSURE OF THE SESSION

The fourth session of the Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology is scheduled to close on Thursday 31 May 2012.
