



IOC/UNESCO  
1 rue Miollis  
F-75732 Paris Cedex 15, France  
Telephone: + 33 (0) 1 45 68 39 89  
Telefax: + 33 (0) 1 45 68 58 13  
Web: [www.jcomm.info](http://www.jcomm.info)  
E-mail: [a.fischer@unesco.org](mailto:a.fischer@unesco.org)



7 bis, avenue de la Paix  
Case postale 2300  
CH-1211 Genève 2, Suisse  
Telephone: + 41 (0) 22 730 82 37  
Telefax: + 41 (0) 22 730 81 28  
Web: [www.jcomm.info](http://www.jcomm.info)  
E-mail: [mno@wmo.int](mailto:mno@wmo.int)

**Joint WMO-IOC Circular Letter JCOMM No. 1/2012**

PARIS and GENEVA, 28 February 2012

Annex: 1

**Subject:** Fourth session of the Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM-4); Nomination of candidates as experts to undertake the work of JCOMM as members of a group, or an expert team

**Action required:** To submit electronically the completed Nomination Form of the experts from your country before **20 April 2012**

Dear Sir/Madam,

We wish to refer to WMO letter WMO-1360 dated 21 October 2011 by which you were informed of the convening of the fourth session of the Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM-4) scheduled to be held in Yeosu, Republic of Korea from 23 to 31 May 2012.

The vast range of activities that JCOMM oversees requires the establishment of working groups, expert teams as well as individuals to act as chairs during the sessional and intersessional periods. The overall effectiveness of the Commission depends on the knowledge, commitment and expertise of those who volunteer and are then selected to work in these teams.

Experience has shown that the selection of individuals is significantly improved if relevant information about the national experts available for these tasks is known well in advance of the establishment of the groups and appointment of individuals. Information to be provided includes the experts' professional background, experience and involvement in the proposed field of activity for which the nomination is being made.

**To:** Permanent Representatives of Members of WMO (PR-6625)  
IOC Member States (Action Addressees)

**cc:** Co-president of JCOMM ) (for information)  
Members of JCOMM )

The JCOMM Management Committee through its Ninth session (Geneva, Switzerland, 13-16 September 2011) has agreed on a preliminary list of potential groups and expert teams, as well as their potential duties and responsibilities, for consideration by the Commission (see Annex). It is strongly recommended that the Commission consider giving current incumbents continuity in their positions to continue work plans from the previous short intersessional period, and that emphasis be given on ensuring succession plans for each team/group through the balanced selection of experienced and new mid-career members, in view of long-term and sustainable activities of the Commission.

Careful selection of individuals for these positions is the key to the success of the work during the intersessional period. WMO Members and IOC Member States nominating candidates should realize that the nomination implies a commitment that the nominee will be fully supported by the national agency(ies) concerned in carrying out his or her duties, which will be set out in the terms of reference at JCOMM-4. As a guide to the effort generally involved, it is estimated that an expert needs to be able to spend up to two months of work per year during the four-year period. We wish to emphasize that, in order to ensure successful conduct of the Commission's intersessional work, the following conditions should be considered in the procedure:

- (a) The candidate is an expert in the field where he or she is nominated, preferably with some international experience, and has a good knowledge of a WMO-IOC working language;
- (b) The candidate is ready and willing to carry out the duties of the position;
- (c) The employer of the candidate must ensure his/her availability for the time needed to accomplish the work assigned to the position;
- (d) There is some degree of alignment between the experts' day-to-day work and their voluntary work for the Commission.

It would be appreciated if, in consultation with your National Meteorological or Hydrometeorological Services and Oceanographic Institutions in your country, you would submit nominations of experts by filling out, printing and submitting the approved form, available electronically through the following web address (available in English only) <http://www.wmo.int/jcomm4nomination> to ensure that the background of the experts is available in a uniform manner.

The completed online Nomination Form should be, printed, signed and sent as soon as possible, by fax or e-mail to one of the following contact points, but no later than **20 April 2012** in order to ensure that this information will be available for consideration during JCOMM-4:

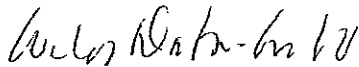
- WMO E-mail: [mno@wmo.int](mailto:mno@wmo.int)  
Fax: +41 22 730 8128
- IOC E-mail: [f.collins@unesco.org](mailto:f.collins@unesco.org)  
Fax: +33 1 45 68 58 10

It is recognized that the experts nominated may come from a number of Services or Institutions in your country working in a relevant field. The advanced nomination of experts received from Permanent Representatives of WMO and/or IOC Action Addressees would meet the requirement for the Permanent Representative's prior concurrence as prescribed under WMO General Regulation 35(a).

You will recall the decision of the Thirteenth World Meteorological Congress regarding the appointment of the two co-presidents of JCOMM, one from the oceanic and the other from meteorological sciences, a principle endorsed by the Twentieth session of the IOC Assembly. Both co-presidents will be elected at JCOMM-4.

In the event that you do not envisage at this time that your country will be represented at JCOMM-4, it is particularly important that you consider favourably this invitation to nominate experts and candidates for positions as members of a group or expert team. Such a nomination will ensure that experts from your country are considered when selections are made at the session. We hope you appreciate that the ultimate decision regarding the establishment and composition of the groups or expert teams rests with the Commission.

Yours faithfully,



(W. Watson-Wright)  
Executive Secretary, IOC  
Assistant Director-General, UNESCO



(J. Lengoasa)  
for the Secretary-General  
World Meteorological Organization

# WORLD METEOROLOGICAL ORGANIZATION

=====

JCOMM No. 1/2012, ANNEX

## LIST OF POTENTIAL MEMBERS/POSITIONS AND CORRESPONDING ACTIVITIES FOR THE COMMISSION GROUPS, EXPERT TEAMS PROPOSED TO JCOMM-4

### MANAGEMENT COMMITTEE

Potential Members to be nominated	Provisional List of Activities
<p>Co-president for Meteorology</p> <p>Co-president for Oceanography</p> <p>Members of the Management Committee, for priority activities identified by WMO and IOC</p> <p>Notes:</p> <ol style="list-style-type: none"> <li>Two Co-presidents will be elected at the session.</li> <li>Members of the Management Committee, who will be selected from among the nominees, will include: <ul style="list-style-type: none"> <li>Observations Programme Area coordinator;</li> <li>Data Management Programme Area coordinator;</li> <li>Services and Forecasting Systems Programme Area coordinator;</li> <li>Experts in the priority areas identified by WMO and IOC, such as Quality Management Systems and satellite data requirements;</li> <li>Immediate past co-president.</li> </ul> </li> </ol>	<ol style="list-style-type: none"> <li>Review and prioritize the short- and long-term planning of the work programme of JCOMM and advise on its implementation;</li> <li>Take all necessary actions to ensure that the JCOMM strategy, work programme and operating plan are aligned with and contribute directly to the WMO Strategic Plan and the UNESCO/IOC Medium-Term Strategy and their Expected Results, as well as with the respective Operating Plans;</li> <li>Assess the resources required for the implementation of the work programme, as well as approaches to identifying and mobilizing these resources;</li> <li>Coordinate and integrate the work of JCOMM, as implemented through the various subsidiary groups, expert teams and rapporteurs;</li> <li>Coordinate and provide oversight for the capacity building and quality management activities undertaken within the three Programme Areas, as appropriate;</li> <li>Ensure that the JCOMM requirements for satellite and other remotely sensed ocean data are properly documented and communicated to the appropriate mechanisms of WMO and UNESCO/IOC, and to the satellite system operators, as required;</li> <li>Coordinate and integrate the work of JCOMM, as appropriate, with that of the other WMO technical commissions, UNESCO/IOC major subsidiary bodies and other programmes of WMO and UNESCO/IOC, and in particular initiate, coordinate and provide oversight for joint projects and activities with these bodies and programmes;</li> <li>Review the internal structure and working methods of the Commission, including its relationship to other bodies, both internal and external to WMO and UNESCO/IOC, and in the light of lessons learnt and available resources develop proposals for modifications as required;</li> <li>Assess the implementation of activities and projects referred to JCOMM for action by WWW, WCP, GOOS, GCOS, IODE, DRR and other programmes.</li> </ol>

## OBSERVATIONS PROGRAMME AREA

Potential Members to be nominated	Provisional List of Activities
<p>Observations Programme Area Coordinator</p> <p>Members of the Observations Coordination Group, for the priority areas of metocean observations, identified by WMO and IOC</p> <p>Notes:</p> <p>The membership of the Observations Coordination Group will include:</p> <ul style="list-style-type: none"> <li>• Observations Programme Area Coordinator;</li> <li>• Chairpersons of the SOT, DBCP, TIP, and GLOSS Group of Experts;</li> <li>• Representatives of the Argo Steering Team, International Ocean Carbon Coordination Project, and OceanSITES;</li> <li>• Up to four experts nominated and selected by JCOMM, on the priority areas of metocean observations and associated activities.</li> </ul>	<p>(a) Keep under review and advise on the effectiveness, coordination and operation of the Observations work programme, including performance measured against scientific requirements, delivery of raw data, marine telecommunications, measurement standards, logistics and resources;</p> <p>(b) Provide advice to JCOMM and to Observations Teams on possible solutions for newly-identified requirements, consulting, as appropriate, with relevant scientific groups, CBS, and CIMO;</p> <p>(c) Coordinate with appropriate bodies to ensure JCOMM's contribution towards the development of the WMO Integrated Global Observing System;</p> <p>(d) Review in situ data requirements and recommend changes, as appropriate, taking into account the continuing development of satellite observations and their capabilities;</p> <p>(e) Coordinate the development of standardized, high quality observing practices and instrumentation and prepare recommendations for JCOMM;</p> <p>(f) With concurrence of the co-presidents of JCOMM, establish and create expert teams, task teams, pilot projects and appoint rapporteurs, as appropriate, to undertake the work of the Observations Programme Area;</p> <p>(g) Examine trade-offs and use of new and improved observation techniques/developments against: (i) relevant requirements for variables within GCOS, GOOS and the WMO/CBS rolling review requirements and GOS; and (ii) available resources;</p> <p>(h) Liaise with, and input to, CBS activities regarding the consolidated requirements database and operational satellites;</p> <p>(i) Liaise with, and input to, CIMO activities regarding instruments and methods of observation;</p> <p>(j) Identify capacity-building requirements related to the Programme Area;</p> <p>(k) Identify satellite remote sensing requirements in the meteorological and ocean domains related to the Programme Area.</p>
<p>Chairperson of the Ship Observations Team (SOT)</p> <p>Notes:</p> <p>The membership of the full team is open, to include VOS operators and existing SOOP Panel.</p>	<p><i>Generic description of the Team:</i></p> <p>(a) Respond to requirements for ship-based observational data expressed by relevant existing international programmes and/or systems in support of marine services, and coordinate actions to implement and maintain the networks to satisfy these requirements;</p> <p>(b) Provide continuing assessment of the extent to which those requirements are being met;</p>

Potential Members to be nominated	Provisional List of Activities
	<ul style="list-style-type: none"> <li>(c) Develop methodology for constantly controlling and improving the quality of data;</li> <li>(d) Review marine telecommunication facilities and procedures for observational data collection, as well as technology and techniques for data processing and transmission, and propose actions as necessary for improvements and enhanced application;</li> <li>(e) Coordinate PMO/ship greeting operations globally, propose actions to enhance PMO standards and operations, and contribute as required to PMO and observers training;</li> <li>(f) Review, maintain and update as necessary technical guidance material relating to ship observations and PMOs;</li> <li>(g) Liaise and coordinate as necessary with other JCOMM Programme Areas and expert teams, as well as with other interested parties;</li> <li>(h) Participate in the planning activities of the appropriate observing system experiments and major international research programmes as the specialist group on observations based onboard ships, including Voluntary Observing Ships (VOS), Ships-Of-Opportunity (SOO), ships from the Automated Shipboard Aerological Programme (ASAP), and research ships;</li> <li>(i) Seek new opportunities for deploying various kinds of measuring devices as recommended by the relevant panels and widely publicise those opportunities;</li> <li>(j) Develop as necessary new pilot projects and/or operational activities and establish new specialized panels as required;</li> <li>(k) Carry out other activities as agreed by participating Members/Member States to implement and operate the SOT programme and to promote and expand it internationally.</li> </ul>

#### DATA MANAGEMENT PROGRAMME AREA

Potential Members to be nominated	Provisional List of Activities
<p>Data Management Programme Area Coordinator</p> <p>Members of the Data Management Coordination Group, for the priority areas of metocean data management, identified by WMO and IOC</p>	<ul style="list-style-type: none"> <li>(a) Maintain a data management plan for JCOMM that identifies, assesses and specifies priorities and actions for the Data Management Programme Area;</li> <li>(b) In concurrence with the co-presidents of JCOMM and the co-chairs of IODE, establish and create expert teams, task teams, pilot projects and appoint rapporteurs, as appropriate, to undertake the work of the Data Management Programme Area;</li> <li>(c) Ensure collaboration, appropriate coordination and liaison with IODE as well as with CBS and other relevant bodies and activities external to WMO and UNESCO/IOC;</li> </ul>

Potential Members to be nominated	Provisional List of Activities
<p>Notes:</p> <p>The membership of the Data Management Coordination Group will include:</p> <ul style="list-style-type: none"> <li>• Data Management Programme Area Coordinator;</li> <li>• Chairpersons of the ETDMP, ETMC, GE-MIM, GE-BICH;</li> <li>• Experts nominated and selected by JCOMM, in the priority areas of metocean data management such as satellite data management, codes, data flow monitoring, data standards, and communications systems.</li> </ul>	<ul style="list-style-type: none"> <li>(d) Keep under review, assess and coordinate the adoption of appropriate new information technology;</li> <li>(e) Establish and maintain cooperation with science programmes and assist with their data management activities, as appropriate;</li> <li>(f) Provide advice and feedback to users of the Data Management Programme Area functions, through the appropriate JCOMM Programme Area, through IODE directly;</li> <li>(g) Identify capacity-building requirements related to the Programme Area and, as appropriate, coordinate activities to address these requirements;</li> <li>(h) Identify satellite remote sensing requirements related to the Programme Area.</li> </ul>
<p>Chairperson of the JCOMM/IODE Expert Team on Data Management Practices</p> <p>Members of the JCOMM/IODE Expert Team on Data Management Practices</p> <p>Notes:</p> <p>The Members of the JCOMM/IODE Expert Team on Data Management Practices may include experts, up to five, nominated and selected by JCOMM, with:</p> <ul style="list-style-type: none"> <li>• Scientific expertise in meteorology and oceanography;</li> <li>• Recent experience in managing data collected by other components of JCOMM/IODE;</li> <li>• Experience in managing meteorological or oceanographic data in support of other WMO or IOC Programmes;</li> <li>• Technical skills in information technology and software tools such as XML, web-technologies for distributed data system/GIS, relational databases, computer programming languages.</li> </ul>	<ul style="list-style-type: none"> <li>(a) Manage the process of adopting and documenting standards and best practices to be used in JCOMM-IODE data management through the Ocean Data Standards Pilot Project (ODS);</li> <li>(b) Review and assess the effectiveness of end-to-end data management practices, including those of WIS/WIGOS and UNESCO/IOC-IODE ODP;</li> <li>(c) In concurrence with the co-presidents of JCOMM, the chairperson of the JCOMM Data Management Coordination Group (DMCG) and UNESCO/IOC-IODE officers, establish Task Teams and Pilot Projects, as necessary, to undertake the work of the Expert Team on Data Management Practices;</li> <li>(d) Direct and coordinate the activities of the Task Teams and Pilot Projects referred to under (c);</li> <li>(e) Provide advice to the IODE of UNESCO/IOC and the Data Management Coordination Group (DMCG) and other groups of JCOMM, as required;</li> <li>(f) Liaise and collaborate with other groups as needed, to ensure access to required expertise, appropriate coordination and to avoid duplication.</li> </ul>
<p>Chairperson of the Expert Team on Marine Climatology</p> <p>Members of the Expert Team on Marine Climatology</p>	<ul style="list-style-type: none"> <li>(a) Determine procedures and principles for the development and management of global and regional oceanographic and marine meteorological climatological datasets;</li> <li>(b) Review and assess the climatological elements of the Commission, including the operation of the MCSS and the</li> </ul>

Potential Members to be nominated	Provisional List of Activities
<p>Notes:</p> <p>The Members of the Expert Team on Marine Climatology should be nominated by the responsible Members/Member States for the MCSS and GCCs, and among the experts associated with the key activities and projects of the ETWS, ETSI, and IODE.</p>	<p>GCCs, and the development of required oceanographic and marine meteorological products;</p> <p>(c) Review the GOOS and GCOS requirements for climatological datasets, taking account of the need for quality and integration;</p> <p>(d) Develop procedures and standards for data assembly and the creation of climatological datasets, including the establishment of dedicated facilities and centres;</p> <p>(e) Collaborate and liaise with other groups as needed to ensure access to expertise and ensure appropriate coordination;</p> <p>(f) Keep under review and update, as necessary, relevant technical publications in the area of oceanographic and marine meteorological climatologies.</p>

### SERVICES AND FORECASTING SYSTEMS (SFS) PROGRAMME AREA

Potential Positions to be nominated	Provisional List of Activities
<p>Services and Forecasting Systems Programme Area Coordinator</p> <p>Members of the Services and Forecasting Systems Coordination Group</p> <p>Notes:</p> <ol style="list-style-type: none"> <li>The membership of the Services and Forecasting Systems Coordination Group will include: <ul style="list-style-type: none"> <li>Services and Forecasting Systems Programme Area Coordinator;</li> <li>Chairpersons of four Expert Teams under the Programme Area;</li> <li>Chairpersons of Task Teams, as required and/or determined by JCOMM, for the Teams' lifetime;</li> <li>Experts nominated and selected by JCOMM, on the priority areas of the metocean services identified by WMO and IOC.</li> </ul> </li> <li>Additional experts representing the range of priority activities of the Programme Area may be invited as members, as appropriate, on a self-funded basis.</li> </ol>	<p>(a) Keep under review and ensure the effectiveness, coordination and operation of the Services work programme, including performance with respect to timeliness, standards, quality and relevance to established user requirements;</p> <p>(b) Through the assembly of requirements identified by specialist service groups, and other PAs of JCOMM, provide advice on Services and Forecasting Systems PA activities that need to be changed, implemented or discontinued;</p> <p>(c) Develop and enhance interfaces to representative user groups to monitor the strength and weaknesses of existing Services and Forecasting Systems PA activities;</p> <p>(d) With the concurrence of the co-presidents of JCOMM, establish and create Expert Teams, Task Teams, Demonstration Projects and appoint Rapporteurs, as appropriate, to undertake the work of the Services and Forecasting Systems PA;</p> <p>(e) Ensure effective coordination and cooperation with groups and bodies in the area of service provision, including other PAs of the Commission;</p> <p>(f) Assess and recommend CB tools/systems in accordance with identified requirements;</p> <p>(g) Identify and maintain in situ and satellite measurement requirements for Services and Forecasting Systems PA and monitor its implementation.</p>



Potential Positions to be nominated	Provisional List of Activities
<p>Chairperson of the Expert Team on Maritime Safety Services</p> <p>Members of the Expert Team on Maritime Safety Services</p> <p>Notes:</p> <ol style="list-style-type: none"> <li>1. The Membership will consist of a core membership of up to eight members, including the Chairperson, selected to ensure an appropriate range of expertise in the provision of services for maritime safety and efficiency, SAR operations and marine pollution response.</li> <li>2. Additional experts may be invited as appropriate, representative of a range of activities related to the implementation of services for maritime safety and efficiency, SAR operations and marine pollution response, as well as representatives of international organizations and other entities representing users' interests, such as the IMO, IHO, ICS, IMSO, and other user groups, on a self-funded basis, and in general with no resource implications to JCOMM.</li> </ol>	<ol style="list-style-type: none"> <li>(a) In support of the Maritime Safety, Efficiency, and Search and Rescue (SAR) operations: <ol style="list-style-type: none"> <li>i. Monitor and review the operations of marine broadcast systems, including for the GMDSS and others for vessels not covered by the SOLAS Convention;</li> <li>ii. Monitor and review technical and service quality standards for meteorological and oceanographic maritime safety information, particularly for the GMDSS, and provide assistance and support to Members/Member States as required;</li> <li>iii. Propose actions as appropriate to meet requirements for international coordination of meteorological and related communication services;</li> <li>iv. Develop technical advice and guidance material on Marine Meteorological Services, including keep under review the <i>Manual on Marine Meteorological Services</i> (WMO-No. 558), the <i>Guide on Marine Meteorological Services</i> (WMO No. 471) and <i>Weather Reporting - Information for Shipping</i> (WMO-No. 9, Volume D), and provide assistance and support to Members/Member States as required;</li> </ol> </li> <li>(b) In support of the Marine Pollution Emergency Response Support System (MPERSS): <ol style="list-style-type: none"> <li>i. Monitor implementation and operations of MPERSS; review and suggest, as necessary, improvements to the contents of the overall system plan; (in consistency with MARPOL, and other international conventions);</li> <li>ii. Facilitate coordination and cooperation amongst the Area Meteorological and Oceanographic Coordinators (AMOCs) of MPERSS, in particular, with a view to ensuring full and ongoing operations in all areas, as well as the exchange of relevant advice, information, data and products between AMOCs, as appropriate and required;</li> </ol> </li> <li>(c) Monitor requirements by ensuring feedback from the user communities is obtained through appropriate and organized channels and applied to improve the relevance, effectiveness and quality of services;</li> <li>(d) Liaise with and gather input from ETSI, ETWS and ETOOFS on all aspects of sea ice, sea state, storm surge and ocean circulation relevant to the operation and improvement of maritime safety services and maritime accident emergency support;</li> <li>(e) Ensure effective coordination and cooperation with concerned organizations, bodies and Members/Member States on maritime safety issues and marine accident emergency support needs;</li> <li>(f) Assist Members/Member States in the implementation of services and in the development of standardized methods for the quality assurance related to the provision of MSI, especially for the GMDSS, through capacity building</li> </ol>

Potential Positions to be nominated	Provisional List of Activities
	<p>activities;</p> <p>(g) Develop, in accordance with existing standards (e.g. from IHO), graphical/numerical product specification for marine parameters, foremost wind, sea state, currents and sea ice, in Electronic Navigation Chart Systems (ENCs);</p> <p>(h) Provide advice to the Services and Forecasting Systems Coordination Group and other JCOMM groups, as required, on issues related to maritime safety services and marine accident emergency support;</p> <p>(i) Continue to liaise closely with relevant groups and teams of organizations, such as IMO, IHO, ICS, IMSO, EMSA, etc., to coordinate and improve maritime safety services, SAR and marine accident emergency support.</p>
<p>Chairperson of the Expert Team on Waves and Coastal Hazards Forecast Systems</p> <p>Members of the Expert Team on Waves and Coastal Hazards</p> <p>Notes:</p> <ol style="list-style-type: none"> <li>1. The membership will consist of a core membership of up to eight members, representing the subject areas of waves, storm surges, inundation modelling and coastal hazard response and mitigation, including the chairperson and vice-chair, selected to ensure an appropriate range of expertise in all areas.</li> <li>2. Additional experts may be invited as appropriate, representative of a range of activities related to wind waves, storm surges and coastal marine hazards, including coastal inundation, on a self-funded basis, and in general with no resource implications to JCOMM.</li> </ol>	<p>(a) Provide advice to Members/Member States on the development of real time operational forecast capability for wind waves and storm surge, as part of marine multi-hazard warning systems, to enhance their capacities to issue more accurate, consistent and timely operational forecast products;</p> <p>(b) Develop a component of the Global Framework for Climate Services for coastal inundation forecasting and warning, through relevant demonstration projects as well as through continuous work to establish a storm surge climatology by coordinating relevant activities of Members/Member States;</p> <p>(c) Develop technical advice and guidance material on wind wave and storm surge modelling, forecasting and service provision as part of marine multi-hazard warning systems, including coastal inundation modelling, forecasting and risk assessment, and provide assistance and support to Members/Member States as required;</p> <p>(d) Provide advice to Members/Member States on the development of capability to provide marine multi-hazard warning services, with special attention to least developed countries and small island developing States, through capacity-building activities;</p> <p>(e) Ensure effective coordination and cooperation with other WMO and appropriate Global Ocean Observing System bodies, particularly on requirements for, and implementation of, wind wave and storm surge data, products and services.</p> <p>As a general principle, these terms of reference will be implemented through specific, defined, time-limited projects.</p>
<p>Chairperson of the Expert Team on Sea Ice</p> <p>Members of the Expert Team on Sea Ice</p>	<p>(a) Coordinate and advise Members/Member States on products and services required by user communities in sea ice areas, to support navigation, coastal and off-shore activities, monitoring of the sea ice cover;</p> <p>(b) Provide advice to ETMSS on all aspects of impacts of sea ice relevant to maritime safety, marine pollution response and search and rescue services;</p>

Potential Positions to be nominated	Provisional List of Activities
<p>Notes:</p> <ol style="list-style-type: none"> <li>Up to eight Members, including the chairperson, representative of a range of activities related to sea ice and the ice-covered regions within JCOMM, and to maintain an appropriate geographical representation. It is expected that, in general, the ETSI will be self-funding. ETSI representatives will also act as full members of ETMSS and the Expert Team on Marine Climatology.</li> <li>Representatives of regional and international sea ice bodies in particular the Baltic Sea Ice Meeting, European Ice Service, International Ice Charting Working Group and North American Ice Service will also be invited to participate at their own expense.</li> <li>Additional experts may be invited as appropriate, representative of the range of activities related to sea ice, on a self-funded basis, and in general with no resource implications to JCOMM.</li> </ol>	<ol style="list-style-type: none"> <li>Maintain linkages with ETOOFS on the relevant sea ice modelling and forecasting techniques;</li> <li>Maintain linkages with projects and programmes related to the role of sea ice in the global climate system, including through the WCRP and the Global Cryosphere Watch;</li> <li>Develop technical advice and guidance material, software exchange, specialized training and other appropriate capacity building activities with regard to sea ice observations, analysis and services, and provide assistance to Members/Member States as required;</li> <li>Keep under review and provide guidance as appropriate on the operations of the Global Digital Sea Ice Data Bank (GDSIDB), in collaboration with ETMC;</li> <li>Maintain and develop formats, nomenclatures and procedures for sea ice data and information exchange as well as relevant terminology, coding and mapping standards;</li> <li>Maintain linkages with relevant international organizations and programmes, in particular BSIM, CLIC, EIS, IICWG, NAIS, ASPeCt, GCOS and IHO.</li> </ol> <p>As a general principle, these terms of reference will be implemented through specific, defined, time-limited projects.</p>
<p>Chairperson of the Expert Team on Operational Ocean Forecasting Systems</p> <p>Members of the Expert Team on Operational Ocean Forecasting Systems</p> <p>Notes:</p> <ol style="list-style-type: none"> <li>Membership is selected to ensure an appropriate range of expertise and to maintain an appropriate geographical representation. Up to eight members, including the chairperson, representative of a range of activities related to ocean forecasting systems.</li> <li>Additional experts may be invited as appropriate, representative of the range of activities related to ocean forecasting systems, on a self-funded basis, and in general</li> </ol>	<ol style="list-style-type: none"> <li>Manage and maintain the guide, scope and requirement documents, adhering to relevant Quality Management Systems, for Members/Member States providing ocean forecasting services;</li> <li>Guide and initiate actions at an international level that will contribute to the improvement of operational ocean prediction system efficiency, fidelity and service quality;</li> <li>Provide advice on Operational Ocean Forecasting Systems related matters and prepare submissions on the requirements (for example, research, observations and data management) of Operational Ocean Forecasting Systems operated by Members/Member States to other international groups;</li> <li>Manage and promote the adoption of an international standard to support interoperability and the common formatting of ocean forecast products and services;</li> <li>Promote and facilitate the support for and development and adoption of services to the wider community, particularly recognized special interest activity areas (for example, marine accident emergency support, maritime safety services, sea ice, and wind waves and storm surges).</li> </ol>

<b>Potential Positions to be nominated</b>	<b>Provisional List of Activities</b>
with no resource implications to JCOMM.	As a general principle, these terms of reference will be implemented through specific, defined, time-limited projects.

---