

WORLD METEOROLOGICAL ORGANIZATION

INTERGOVERNMENTAL OCEANOGRAPHIC  
COMMISSION (OF UNESCO)

JOINT WMO/IOC TECHNICAL COMMISSION FOR  
OCEANOGRAPHY AND MARINE METEOROLOGY  
(JCOMM)  
SHIP OBSERVATIONS TEAM

SOT-IV/Doc. I-1.2(2)  
(26.I.2007)

FOURTH SESSION

ITEM I-1.2

Original: ENGLISH

GENEVA, SWITZERLAND, 16 TO 21 APRIL 2007

### ANNOTATED PROVISIONAL AGENDA

=====  
**Session I – SOT-IV Common Session 1**  
=====

**I. SOT-IV**

**1. ORGANIZATION OF THE SESSION**

1.1 Opening of the Session

The Fourth Session of the JCOMM Ship Observations Team (SOT-IV) will begin at 09h30 on Monday, 16 April 2007, at WMO Headquarters, Room C, Geneva, Switzerland. The Session will be chaired by the Chairperson of the Team, Mr. Graeme Ball.

1.2 Adoption of the Agenda

The Meeting will be invited to adopt an agenda based on the provisional agenda provided.

1.3 Working Arrangements

The documentation for this presentation as well as the session will be held in English only. The Secretariat will review the documentation for the session, and should also agree to a timetable and other necessary arrangements.

=====  
**Session II – Scientific and Technical Workshop**  
=====

**II. Scientific and Technical Workshop, New Developments**

Immediately after discussing organizational matters, the Scientific and Technical Workshop will be opened by Mr Frits Koek, Chairperson of the Scientific and Technical Workshop and will take place in English only; the workshop is expected to conclude around lunchtime.

The Workshop will introduce and review new initiatives and/or new developments in shipboard meteorological or oceanographic instrumentation, observing practices, data management procedures, quality control and ocean products.

Members of the Team will be invited to report on systems and related technical developments relevant to the SOT, either within their own services and operations or with which they have otherwise been directly involved.

The Workshop may propose a number of recommendations to the SOT meeting.

=====  
**Session III – National Reports**  
=====

**III. National Reports**

The Session, which will commence on Monday afternoon and conclude by lunchtime on Tuesday, will be chaired by Mrs Yvonne Cook.

Each country will be invited to present a consolidated national report, based on their national submission to the 2006 SOT Annual Report, that summarizes their national objectives, planned activities, mechanisms for coordination between participating national agencies, instrumentation, new developments, data management, associated R&D and capacity building. Countries operating a SOOP will also provide details about the sampling status on each XBT line.

=====  
**Session I – SOT-IV Common Session 2**  
=====

**I. SOT-IV (Common Session 2)**

The Session will be chaired by the SOT Chairperson, Mr Graeme Ball.

**2. REPORTS BY THE SECRETARIAT, OPA COORDINATOR, CHAIRPERSON OF SOT AND THE SOT TECHNICAL COORDINATOR**

**2.1 Report by the Secretariat**

Recent developments relevant to ship observations within the WMO and the IOC, particularly in the context of the JCOMM, will be briefly presented by the Secretariat.

**2.2 Report by the Observations Programme Area Coordinator**

The Meeting will be presented with a report by the OPA Coordinator on the intersessional activities of the OPA.

**2.3 Report by the Chairperson of SOT**

The meeting will be presented with a report by the Chairperson of SOT on the intersessional activities of the Chairperson and the major activities of the three panels.

**2.4 Review of Action Items from the SOT-III**

The Meeting will review action items raised at the SOT-III, other than those directly relating to the VOSP, SOOPIP and ASAPP.

2.5 Report by the SOT Technical Coordinator

The meeting will be presented with a report by the Technical Coordinator of the SOT on the support provided to the SOT and its component Panels during the last intersessional period.

**3. REPORTS ON ASSOCIATED PROGRAMMES AND REQUIREMENTS FOR SHIP-BASED OBSERVATIONS**

The Meeting will be presented with reports on requirements for ship-based observations. The Meeting will be invited to review the requirements of the Ocean Observation Panel for Climate (OOPC), as well as the use of, and requirements for, VOS reports in climate data.

The Meeting will be presented with reports from associated programmes or projects, including a report of the International Ocean Carbon Coordination Project (IOCCP) and its relationship with the SOT, a report of the Shipboard Automated Meteorological and Oceanographic System (SAMOS), a report on GODAE High Resolution SST Pilot Project (GHRSSST), a report on the Ferrybox Project, a report on the SeaKeepers Society and a report on the Alliance for Coastal Technologies (ACT), a report on a proposed Scientific Committee on Oceanic Research (SCOR) Panel on the use of merchant marine vessels for instrumented oceanographic surveys and its potential relationship with the SOT.

The Meeting will be invited to comment on these reports and then make recommendations during the plenary sessions of the VOSP and SOOPIP to enhance the cooperation with these programmes or projects.

**4. REPORTS AND RECOMMENDATIONS BY TASK TEAMS**

4.1 Task Team on VOS Recruitment and Programme Promotion

The SOT-III re-established the Task Team on VOS Recruitment and Programme Promotion, chaired by Mr Steve Cook, which was tasked to: (i.) further develop the generic pre-installation design standards that will eventually be available to ship builders and classification societies, (ii.) review existing promotional aids (flyer, certificate) and recommend new promotional aids, (iii.) promote the use of, and keep under review, the promotional presentation "The Partnership between the Maritime Industry, Marine Forecasting and Science", (iv.) establish a store of newsworthy articles for use in a SOT or VOSclim Newsletter or in national newsletters, and (v.) review the questionnaire used for the Marine Meteorological Services Monitoring Programme and propose amendments, which should be reflected in the questionnaire survey to be conducted in 2008.

The Meeting will be presented with a report by the Task Team, and follow-up actions from the SOT-III. The Meeting will be invited to consider the proposals by the Task Team and to develop plans and procedures for future cooperation in ship recruitment among the three panels.

4.2 Task Team on Satellite Communication System Costs

The SOT-III re-established its Task Team on Satellite Communications System Costs,

chaired by Ms Sarah North, which was tasked to: (i.) continue to monitor the cost implications of Inmarsat satellite communications sent by Code 41, and (ii.) report to SOT-IV on any relevant issues/proposals.

The Meeting will be presented with a report by the Task Team and will be invited to consider proposals by the Task Team.

#### 4.3 Task Team on Metadata for WMO-No. 47

The SOT-III re-established a Task Team on WMO Publication No. 47, chaired by Mr Graeme Ball, which was tasked to: (i.) prepare a submission to JCOMM-II regarding the proposed changes to WMO-No. 47 (Pub. 47) metadata based on the recommendations from the SOT-III, (ii.) prepare a consolidated list of ship routes in accordance with the submission to JCOMM-II for presentation at SOT-IV, (iii.) regularly review the Pub. 47 metadata requirements and make recommendations as appropriate, and (iv.) monitor the receipt of regular Pub. 47 updates at the WMO from participating VOS members.

The Meeting will be presented with a report by the Task Team and will be invited to consider the proposed consolidated VOS routes.

The introduction of WMO No. 47 metadata, version 3 has implications for: (i.) NMSs that must modify their existing database structure to accommodate the new metadata requirements, and (ii.) WMO that hosts the master database, which must also be modified for the new metadata requirement. The Meeting is expected to be informed during the Scientific and Technical Workshop about two VOS databases that will be offered for use by other countries, and which will be further discussed at IV-3.6. Modifications to the WMO database present some unique challenges and a proposal to host the database elsewhere will be discussed at I-5.1.2.

#### 4.4 Task Team on VOSclim

The SOT-III established a Task Team on VOS Climate Project (VOSclim), chaired by Ms Sarah North, which was tasked to: (i.) coordinate, maintain, promote and enhance the VOS Climate project, monitor its performance, and encourage increased participation, (ii.) revise the VOS Climate project document to reflect the current procedures and to clarify and revise where necessary the responsibilities of the VOSclim data centres, and (iii.) prepare a report to SOT-IV regarding VOSclim continuation as a project or a programme, the quality of VOSclim data, and VOSclim example to improve data quality in the wider VOS.

A report and recommendations by the Task Team will be presented to the Meeting.

#### 4.5 Task Team on Coding

The SOT-III established a Task Team on Coding, chaired by Dr Craig Donlon, to develop a draft new code table for BUFR, which accommodates new types of SST measurements, to submit the draft proposal to the CBS ET/DRC, and to investigate possible future inclusion of bio-chemical data in BUFR through various interactions with other ship-based observation communities.

A report by the Task Team will be presented to the Meeting.

#### 4.6 Task Team on Instrument Standards

The SOT-III established the Task Team on Instrument Standards, chaired by Mr Robert Luke, which was tasked to: (i.) use guidance contained in existing guides including the

WMO Guides on *Instruments and Methods of Observation* (WMO-No.8), communicate with manufactures regarding new technologies and recognized equipment problems; (ii.) prepare a JCOMM Technical Report containing this information, to be made widely available through relevant websites (JCOMM, JCOMMOPS, VOS, DBCP, SOOP and SOT), (iii.) provide guidance on testing and the intercalibration of marine meteorological and oceanographic observing systems, (iv.) liaise closely with the WMO/CIMO, both in the compilation of the information and also in assessing what additional work in this area might be required under the JCOMM, and (v.) liaise closely with the IOC in the preparation of the wider compilation of existing instrumentation and observing practices standards in oceanographic observations in general, with a view to inputting an appropriate contribution from the JCOMM.

The Meeting will be presented with a progress report by the Task Team.

=====  
**Session IV – VOS Panel**  
=====

**IV. VOSP-V**

**1. PROGRAMME REVIEW**

1.1 Report by the Chairperson of the VOSP

The Panel Chairperson, Ms Julie Fletcher, will open the Fifth Session of the VOS Panel. The Panel Chairperson will report on activities undertaken during the intersessional period and preview the structure of the panel session.

1.2 Review of Action Items from the VOSP-IV

VOSP-IV Action Items will be reviewed under this Agenda Item.

**2. PROGRAMME IMPLEMENTATION**

2.1 VOS Automation and Electronic Logbook Software

2.1.1 Status of VOS Automation

The VOSP recognizes the importance of enhancing the automation of all aspects of shipboard procedures, from observation through to message transmission using readily available software and hardware. The VOS-IV noted that there has been a steady increase in the numbers of the VOS using electronic logbook software (e.g., TurboWin, since 2003). The VOSP-IV further noted that whilst fully-automated shipboard weather observing systems are still few in numbers, many countries including Australia, Canada, France, Japan, New Zealand, USA and E-SURFMAR indicated plans to expand their shipboard AWS networks during the next intersessional period. The VOS-IV also noted that challenges with respect to installing automated systems on board the VOS ships continued to include: (i.) problems in finding 'long-term' ships – the length of charter is often insufficient to justify AWS installation: (ii.) difficulties in siting equipment for best exposure, (iii.) volatility of ship routes, and (iv.) lack of warning of withdrawal of ships and potential loss of AWS equipment.

The Panel Chairperson will collect information on Automated Systems from the VOS operators in advance and report on the present status of the VOS Automation and associated problems. The Panel will be invited to comment on any initiatives for the enhancement of automation, compile information on existing activities, procedures and

practices within the JCOMM relating to instrument testing, standardization and intercalibration, as well as the standardization of observation practices and procedures.

#### 2.1.2 VOS E-Logbook Software Development

The Panel will be presented a report describing the current or proposed updates to electronic logbook software, including: (i.) TurboWin, (ii.) SEAS, and (iii.) ObsJMA. Discussion on any existing problems or changes sought by operators will be invited.

#### 2.2 Report on the E-SURFMAR VOS Technical Advisory Group (VOS-TAG)

E-SURFMAR VOS Technical Advisory Group (VOS-TAG) will report on the VOS coordination activities under EUCOS.

#### 2.3 Port Meteorological Officers (PMO)

##### 2.3.1 Review of Port Meteorological Officers Roles and Responsibilities

At its Third Session (Brest, France, 7 to 12 March 2005), the SOT confirmed that the role of the Port Meteorological Officer (PMO) was crucial for voluntary ship observations and to the work of the VOSP. The PMOs play a fundamental and very essential role in the programmes coordinated under the SOT, therefore harmonizing the way in which the PMOs operate is crucial to achieving the aims of the SOT.

The Panel will be invited to review the role and responsibilities of the PMO.

##### 2.3.2 Report and Recommendations from PMO-III

The Third International PMO Workshop was held in Hamburg, Germany, from 23 to 24 March 2006.

The overarching aims of the Workshop were to convey important recent developments (e.g., regarding WMO Publication No. 47, enhanced PMO communications), as well as promoting global standards of service. The Workshop made a number of recommendations that will be presented to the Panel.

The Panel will be invited to consider the recommendations from the Workshop when discussing relevant agenda items.

#### 2.4 Ship Monitoring

The Meeting will review the range of quality monitoring tools currently available to the programme, and may propose improvements or the development of new tools. The Dirkzwager vessel-tracking tool will also be demonstrated.

### 3. MONITORING AND DATA MANAGEMENT

#### 3.1 Regional Specialized Meteorological Centre (RSMC), Exeter, VOS Monitoring Report

The Regional Specialized Meteorological Centre (RSMC), Exeter, is acting as a CBS Lead Centre for monitoring the quality of surface marine observations and is routinely producing a bi-annual report on such quality as well as providing essential feedback to the VOS operators regarding the quality of the data delivered by VOS ships. The Met Office quality monitoring activities for the VOS data are performed on real-time as well as on delayed-mode data. It provides an independent source of quality information regarding ships operated by other countries.

The Panel will be presented with a report by the RSMC on the quality and timeliness of the VOS observations and be invited to comment on the report.

### 3.2 The Real-Time Monitoring Centre (RTMC) for the VOSClm project monitoring report

The Real-Time Monitoring Centre (RTMC) for the VOSClm Project operated by the Met Office, United Kingdom, will report on the present status of its observation monitoring activities.

The Panel will be invited to consider whether the monitoring criteria remain acceptable. Project participants will be invited to confirm the extent to which the monitoring information is used to identify and resolve observing errors.

The RTMC will also report on the transfer of observation datasets and associated model field values to the Data Assembly Centre, in accordance with its Terms of Reference (TOR).

The Panel will be invited to advise the RTMC of any further project requirements, as appropriate or necessary.

### 3.3 Global Collecting Centres (GCC) Report on the VOS and VOSClm

Under the revised Marine Climatological Summaries Scheme (MCSS), adopted by the Eleventh Session of the Commission for Marine Climatology (CMM) (Lisbon, April 1993), through Recommendation 11 (CMM-XI), the two Global Collecting Centres (GCCs) were established in Germany and the United Kingdom, to: (i.) collect all marine climatological data observed worldwide, (ii.) ensure that minimum quality control procedures are applied, (iii.) generate complete and duplicate global data sets, and (iv.) provide these data sets to the Responsible Members under the MCSS. The Panel will be presented with a consolidated report from the two GCCs. The report will include a status on the volume and frequency of delayed-mode data being forwarded to the VOSClm Project Data Assembly Centre.

The Panel will be invited to consider the role of the GCCs in processing the delayed-mode IMMT data and the associated quality control standards.

### 3.4 VOSClm Data Assembly Centre (DAC) Report

The National Climatic Data Centre, acting as the DAC for the project, will report on the present status of the DAC activities in accordance with its Terms of Reference (TOR).

The DAC will report on the status of the project website, including the collection and provision of real-time and delayed-mode observation data, metadata, ship listings and other project information.

The Panel will be invited to consider the display and availability of project data on the website and to advise the DAC of any further requirements, as necessary.

### 3.5 Review of the Marine Climatological Summaries Scheme (MCSS)

The JCOMM-II (Halifax, Canada, September 2005), adopted the proposed IMMT-III format as well as the proposed MQCS-V guidelines, mainly to deal with VOSClm requirements.

The Panel will be presented with a report by the Chairperson of the Expert Team on Marine Climatology (ETMC), including codes and formats. The Panel will be invited to:

(i.) comment on the report, and (ii.) consider any proposals regarding the MCSS and GCC.

### 3.6 Implementing a VOS Database for Tracking Ship and Equipment Metadata

Version 3 of the WMO Publication No. 47 is planned for implementation on 01 July 2007. Members will be invited to report on the progress of modifications to their national VOS metadata database to meet this implementation date.

The Meeting is expected to be informed during the Scientific and Technical Workshop regarding the two VOS databases that will be offered for use by other countries. The Members making these offers will be invited to provide further details about availability and implementation of their databases by other countries.

## 4. ISSUES FOR THE VOS

### 4.1 Industry Concerns Regarding the Transmission of Meteorological Data from Ships

Ships participating in the VOS Scheme, do so on the understanding that the meteorological data they transmit are exchanged between NMSs for real-time meteorological forecasting activities and for climatological research. In recent years, however, there has been a proliferation of publicly accessible websites displaying these data. This has raised questions about how these data were obtained, but of greater concern are: (i.) the identification of ships by their name or call-signs on these websites, and (ii.) the mapping of ships from the positional data in their BBXX reports. These situations expose ships to increased security risks, and may also have commercial implications. Some ship owners, most notably in Japan, have already withdrawn ships from national VOS programmes, whilst other companies have threatened to withdraw ships from national VOS programmes if the leak of these data to the web continues. Panel members are reminded that SHIP data are confidential, and are therefore encouraged to prevent the leak of SHIP data wherever possible.

Following the SOT-III and the Third International PMO Workshop (PMO-III), recommendations were made to the WMO Executive Council for its Fifty-Eighth Session, June 2006. The Council discussed the issues and adopted Resolution 3.4.4/2 (EC-LVIII).

The WMO Secretariat will explain the resolution, and report on the high-level discussion that followed. The Panel will be invited to discuss the issue and make recommendation for the Fifty-Ninth WMO Executive Council.

The SOT Chairperson will report on the technical implications of the WMO Resolution 3.4.4/2 (EC-LVIII) and the implementation of known ship masking schemes by Members. The Panel will be invited to discuss the issue and make recommendations, as appropriate.

### 4.2 Impact of National Regulations on VOS Operations

Since the introduction of the ISPS Code, some national Customs agencies have required increased documentation for the installation or removal of meteorological and oceanographic equipment on ships. These same regulations will often also apply to drifting buoys and profiling floats delivered to a ship for subsequent deployment. The impact of this and other national regulations affecting the VOS programme will be discussed.



4.3 Multiple-Ship Recruitment

The Panel will be presented with a report that exams the extent and implications of multiple recruitment of VOS ships.

The Panel will be invited to comment on the report and make recommendations to address the problem.

4.4 European Union's Restriction on the Use and Transportation of Mercury

The Panel will be presented with a report discussing the implications of the European Union's restrictions on the use and transportation of Mercury.

The Panel will be invited to discuss this issue and recommend options to replace Mercury-in-glass thermometers.

4.5 VOS Communication Problems and Errors

The Panel will be presented with a report discussing telecommunications problems associated with the delivery of VOS data.

The Panel will be invited to discuss the issue and recommend solutions to address the identified problems.

**5. FUTURE WORK PROGRAMME AND IMPLEMENTATION ISSUES**

5.1 Partnerships and the Integration of other Programmes within the VOS

The Panel will be presented with reports from numerous associated ship-based observing programs under Agenda Item. I-3.2.

The Panel will be invited to discuss enhanced partnerships with these programmes and the possible integration with the VOS Scheme.

5.2 Action Items

The Panel will review the Action Items raised in the discussion.

**6. ORGANIZATIONAL MATTERS**

6.1 Review the Terms of Reference (TOR) of the VOSP

The Panel will be invited to review the Terms of Reference (TOR) of the VOSP and recommend changes, as necessary.

=====  
**Session V – SOOP Implementation Panel**  
=====

**V. SOOPIP-VII**

**1. PROGRAMME REVIEW**

1.1 Report by the Chairperson of the SOOPIP

The Panel Chairperson, Mr Steve Cook, will open the Seventh Session of the SOOP Implementation Panel. The Panel Chairperson will report on activities undertaken during the intersessional period and preview the structure of the Panel session.

1.2 Review of Action Items from the SOOPIP-VI

SOOPIP-VI Action Items will be reviewed under this Agenda Item.

**2. PROGRAMME IMPLEMENTATION**

2.1 Status of the Current Sampling Programme

The Panel will review the status of the current sampling programme.

2.2 The JCOMM/SOT Pool of XBT Probes

The JCOMM-II agreed to establish a common fund for ship consumables. This will provide Member States with a mechanism to pool financial resources for international programmes and thereby take advantage of increased purchasing power to deliver: (i.) better prices for consumables, and (ii.) increased quantity of consumables, thus enabling developing programmes to take advantage of any surplus consumables. Whilst the Trust Fund will initially focus on XBT probes, other expendables could be added in the future. The Secretariats will report on the recommendations by the JCOMM Management Committee.

The Panel will be invited to comment on the issue and indicate whether they will contribute to the Trust Fund.

The Panel will be invited to discuss the operation of the Trust Fund under Agenda Item I-8.5.

2.3 Review of the XBT Line Responsibilities

The last SOOPIP meeting reviewed the line responsibilities assigned to participating agencies or countries. The Chairperson reminded the Panel that it was important to show positive progress in implementing XBT sampling lines to secure sustained programme funding. Line responsibility implies investigating ship opportunities on the line, coordinating the logistics, training, and negotiations with shipping companies and ships.

The Panel will again review the line responsibilities and may recommend changes to the list that was adopted at the last Panel session.

2.4 Operational XBT Systems and Development

The Panel will be invited to discuss the results of the XBT recorder inter-comparison, which is expected to be introduced during the Scientific and Technical Workshop.

The Panel will also be invited to discuss other equipment-related matters including the use, and further development of XBT auto-launchers.

2.5 Report on the IOGOOS/JCOMM Western Indian Ocean XBT Training Workshop

The Panel will be presented with a report on the purpose, outcome and recommendations

arising from the IGOOS/JCOMM Western Indian Ocean XBT Training Workshop (Goa, India, 5 to 7 October 2005).

## 2.6 Report on the Argo Pilot Project

The representative of the Argo Pilot Project will present the status of the Argo Pilot Project and the challenges it faces.

The Panel is invited to note and comment on the report.

The Panel will be invited to re-examine the SOOP at Agenda Item V-4.1, on: (i.) the basis of the global implementation of Argo, and (ii.) the recommendations from the Upper Ocean Thermal Review of 1999.

The Panel, because of the complementary nature of the XBT SOOP and Argo, will be invited to discuss an enhanced partnership with Argo, including assisting wherever possible with deployment opportunities, at Agenda Item V-5.1.

## 3. MONITORING AND DATA MANAGEMENT

### 3.1 The JCOMM *In-Situ* Observing Platform Support Centre (JCOMMOPS) Report

The Technical Coordinator of the SOT will report on the operations and development of the JCOMMOPS in general, and will highlight items of interest to the Panel and the Team, including details on integrated database and monitoring tools, deployment opportunities for buoys, floats and other oceanographic devices, as well as on the JCOMMOPS integrated database. The Technical Coordinator will report on the results of the SOOP Semestrial Survey for 2006 and on the timely submission of data by SOOP participants for the survey.

The Panel will be invited to consider how the provision of data and metadata to the JCOMMOPS could be improved or facilitated.

### 3.2 SOOP Database of Ship and Equipment Metadata

The Technical Coordinator of the SOT will report on the development and operations of the SOOP metadata (ship and equipment) database.

The Panel will be invited to: (i.) review the SOOP metadata database and its relationship with the WMO Publication No. 47, and (ii.) review any recommendations from the Technical Coordinator for the SOT to improve the database.

### 3.3 Monitoring Centre Reports

The Chairperson of the JCOMM Data Management Coordination Team will report on the development and activities of the Global Temperature and Salinity Profile Programme (GTSPP) as well as of the Global Ocean Surface Underway Data Pilot Project (GOSUD). The individual reports will also provide a status of the programmes as well as the monitoring reports for the programmes.

## 4. ISSUES FOR THE SOOP

### 4.1 Future Global Requirements

The Panel will be invited to discuss the future global requirements (e.g., OOPC) in light of: (i.) the development of the Argo profiling float Array, and (ii.) the tropical moored buoy array (PIRATA extensions and Indian Ocean extensions), as well as OceanSITES.

4.2 Observing other Ocean Variables

The Panel will be invited to consider opportunities to include other ocean variables within the SOOP, especially salinity (ThermoSalinoGraphs, XCTDs).

**5. FUTURE WORK PROGRAMME AND IMPLEMENTATION ISSUES**

5.1 Partnerships and the Integration of other Programmes with the SOOP

The Panel will be presented with reports from associated ship-based observing programs under Agenda Item I-3.2 as well as a report on the Argo Pilot Project as Agenda Item V-2.5.

The Panel will be invited to consider how other programmes such as the IOCCP and Argo (the latter discussed at V-4.1), could cooperate with the SOOP in terms of: (i.) information exchange on common issues such as satellite data telecommunication, GTS, instrumentation, and best practices, and (ii.) programme implementation such as logistics, ship recruitment and assistance with deployment opportunities.

5.2 Action Items

The Panel will review the action items raised in the discussion.

**6. ORGANIZATIONAL MATTERS**

6.1 Review the Terms of Reference (TOR) of the SOOPIP

The Panel will be invited to propose any revision of the Terms of Reference (TOR) of the Panel, if appropriate.

6.2 Review the Membership of the SOOPIP

The Panel will review its current membership and examine possibilities and procedures for adding new members.

=====  
**Session VI – ASAP Panel**  
=====

**VI. ASAPP-XVI**

**1. PROGRAMME REVIEW**

1.1 Report by the Chairperson of the ASAPP

The Interim Panel Chairperson, Ms Sarah North, will open the Sixteenth Session of the ASAP Panel. The Panel Chairperson will report on activities undertaken during the intersessional period and preview the structure of the Panel session.

1.2 Review of Action Items from the ASAPP-XV

ASAPP-XV Action Items will be reviewed under this Agenda Item.

**2. PROGRAMME IMPLEMENTATION**

2.1 Report on the EUMETNET ASAP (E-ASAP)

The Panel will be presented with a report on the status of the EUMETNET ASAP project.

The Panel will be invited to comment on the report and any recommendations arising from the report.

2.2 Report on the Worldwide Recurring ASAP Project (WRAP)

The WRAP (World Recurring ASAP Project) was officially terminated in April 2005 because of the difficulties in maintaining a viable and cost effective service.

The Panel will be invited to: (i.) consider options for re-instating the programme in the future, or (ii.) make recommendations for establishing a more effective, efficient and sustainable programme.

**3. MONITORING AND DATA MANAGEMENT**

3.1 Monitoring Reports

The ECMWF representative will report on their monitoring activities for ASAP. The representative from Météo-France will report on the status of the ASAP monitoring centre, as well as on future plans.

The Panel will be invited to: (i.) review the monitoring reports, noting in particular the operational performance and data quality of the ASAP, and (ii.) to recommend future action.

**4. ISSUES FOR THE ASAP**

4.1 Ship Recruitment

The Panel will be invited to discuss the promotion of the ASAP with shipping companies.

4.2 Satellite Transmission Difficulties

The Panel will be invited to consider problems being encountered with the timeliness and availability of TEMP messages on the GTS. Consideration will be given to the efficiency of Inmarsat communications systems, which are used by the majority of E-ASAP ships for their data transmissions and to recent developments concerning alternative transmission routes (e.g., Globalstar). The closure of Goonhilly Inmarsat LES, may also have an effect on the future transmission of ASAP data which will also need to be considered.

4.3 Improvement of Data Quality

The Panel will review existing data quality-control activities and explore ways for further

improving data quality.

#### 4.4 ASAP Routes

The Panel will review existing ASAP routes and the requirements for establishing new ones.

#### 4.5 Costs

The ASAPP has attempted to increase the global coverage of the ASAP, but faces ongoing difficulties, due mainly to the high-cost associated with operating such systems.

The Panel will be invited to: (i.) discuss the cost-effectiveness of the programme and, in particular, will consider the impact of the ASAP soundings on Numerical Weather Prediction (NWP), and (ii.) review both the capital and operating cost of ASAP units.

### 5. FUTURE WORK PROGRAMME

#### 5.1 Action Items

The Panel will review the Action Items raised in the discussion.

### 6. ORGANIZATIONAL MATTERS

#### 6.1 Future of the ASAPP

The Fourth meeting of the CBS Implementation/Coordination Team for Integrated Observing Systems (Geneva, Switzerland, 11 to 15 September 2006) agreed that the ASAP should be regarded as complementary to the AMDAR programme as it can potentially provide *in-situ* atmospheric soundings from data sparse area where aircrafts are not flying or not providing ascents or descents. The Meeting also agreed that cooperation between the JCOMM and CBS was required in this regard. The meeting invited Member Countries to participate in the ASAP and to provide *in-situ* aerological profiles from ocean data sparse areas.

Taking these recommendations into account, the Panel will be invited to: (i.) review the future of the ASAPP and, in particular, consider whether the requirement of the ASAP, like VOSClim, could be served through a SOT Task Team instead of a dedicated Panel, and (ii.) explore ways to further develop its activities.

#### 6.2 Review the Terms of Reference (TOR) of the ASAPP

Considering the outcome of the discussion under Agenda Item 6.1, the Panel will be invited revise the Terms of Reference (TOR) of the Panel, or to propose Terms of References for the Task Team on ASAP.

#### 6.3 Review the Membership of the ASAPP

The Panel, or depending on the discussion at VI-6.1, the Task Team on ASAP, will review its current membership and examine possibilities and procedures for adding new members.

#### 6.4 ASAP Trust Fund

The Panel will be invited to review and approve a statement of account for the ASAP Trust Fund, managed on its behalf by the WMO. Future contributions to and expenditures from the Trust Fund should be addressed.

=====  
**Session I – SOT-IV Common Session 3**  
=====

**I. SOT-IV (Common Session 3)**

The Session will be chaired by the SOT Chairperson, Mr Graeme Ball.

**5. SUPPORT INFRASTRUCTURE**

5.1 The JCOMM *In-Situ* Observing Platform Support Centre (JCOMMOPS)

The Technical Coordinator of the SOT will present a report on the JCOMMOPS activities. The Chairperson of the JCOMM OCG will present the outcome of the JCOMMOPS informal roundtable. The SOT Chairperson will make a recommendation regarding the JCOMMOPS becoming a portal for WMO Publication No. 47.

The Meeting will be invited to: (i.) discuss and agree on JCOMMOPS activities, and where possible, areas of potential development during the next intersessional period, (ii.) make recommendations to the OCG regarding the future of the JCOMMOPS, and (iii.) review the recommendation to use JCOMMOPS as a portal for WMO Publication No. 47.

5.2 Telecommunication Facilities

The Meeting will be presented with reports by the INMARSAT, Argos and EUMETSAT on the status and operational use of channels allocated for data transmission via meteorological satellites. The Meeting will also be presented with a review document by the DBCP Chairperson on commercial satellite communication systems. The EUMETSAT representative will be invited to report on the status of its monitoring activity and of the geostationary meteorological satellites in general.

The Meeting will be invited to review the reports and to recommend future action, as appropriate.

5.3 The WMO Information System (WIS) and GTS Issues

The Secretariat will present a report on the status of the WMO Information System (WIS), and of the modernization of the Global Telecommunications System (GTS), which forms part of the WIS.

**6. PROGRAMME OPERATIONS AND DEVELOPMENT**

6.1 Data Standards

The Meeting will be presented with a report advising of any revised data standards developed in either the JCOMM Observations Programme Area or the JCOMM Data Management Programme Area.

The Meeting will be invited to comment on these developments.

## 6.2 Data Management

The Meeting will be invited to consider the SOT data management issues and how they impact on: (i.) the JCOMM Data Management Programme Area, (ii.) the International Ocean Data and Information Exchange (IODE), and (iii.) the WMO Commission for Basic Systems (WMO/CBS).

The Meeting will also be informed about the JCOMM/OCG Workshop (Reading, United Kingdom, 28 to 29 March 2006), and the establishment of a pilot project (META-T) for the real-time collection of: (i.) sea surface temperature and water column profile data, and (ii.) its associated metadata. The Chairperson of the META-T Pilot Project will present a report on the status of the Pilot Project developments, the current categorization of the metadata, and the implications for designing BUFR templates for ship data as well as WMO Publication No. 47.

The Meeting will be invited to fully assist the Pilot Project in achieving its aims and, in particular, help in facilitating the distribution of the metadata to the META-T Pilot Project Data Centres.

The Meeting will also be invited to consider the GTS table driven coding requirements expressed by: (i.) the META-T Pilot Project, (ii.) the SOT Task Team on Coding, (iii.) SOOPIP, (iv.) VOS and VOSClim, (v.) the recommendations from the third International PMO Workshop, and (vi.) the further development of the XBT/XCTD BUFR template to better consider the encoding of XCTD data.

All of these requirements will be discussed in the most integrated manner possible. Any subsequent recommendations will be submitted to the newly established JCOMM Data Management Programme Area Table Driven Codes Group for consideration and eventual submission to the CBS.

## 6.3 Quality-Management and Best-Practices

The Meeting will be invited to discuss quality-management and best-practices issues and make recommendations for improving existing quality-control procedures, and best practices. The Meeting will also consider how existing documents and publications, including those on websites, could be integrated within existing or new JCOMM Technical Documents.

## 7. PROGRAMME PROMOTION, CAPACITY BUILDING AND INFORMATION EXCHANGE

### 7.1 SOT Annual Report

The Meeting will be invited to review the content of the SOT Annual Report for 2005. The WMO Secretariat will also report on the status of preparation of the 2006 SOT Annual Report.

The Meeting will also be invited to make recommendations regarding the format and content of the 2007 and subsequent issues of the SOT Annual Report.

### 7.2 Websites

The Meeting will be invited to comment on the content and status of the SOT, VOS, VOSClim, SOOPIP, ASAP, and JCOMMOPS websites.



### 7.3 Focal Point Mailing Lists

The Meeting will be invited to review, and where necessary, make comments, corrections or suggestions to the existing mailing lists for the SOT, VOS, VOSCLIM, PMO, and SOOPIP.

### 7.4 Certificates to Ships Participating in SOT

The Meeting will be reminded about the SOT and VOSCLIM certificates that are available to ships participating in a SOT sampling program and of the guidelines for issuing the certificates. The Meeting will be encouraged to issue the certificates: (i.) in recognition of the valuable service that participating ships provide, and (ii.) as a means of further encouraging and promoting participation in the VOS Scheme, VOSCLIM, SOOP or ASAP.

The Meeting will be invited to review the existing certificates and their guidelines for issue and make specific recommendation(s), as necessary.

### 7.5 Publications and Brochures

Taking into consideration any proposals from the Task Team on VOS Recruitment and Programme Promotion, the Meeting will be invited to review all current publications and make recommendations regarding future publicity material.

### 7.6 Capacity Building

Experience has clearly shown that Capacity Building initiatives such as training workshops in developing countries such as the IGOOS/JCOMM Western Indian Ocean XBT Training Workshop (Goa, India, 5 to 7 October 2005), and the Training and Capacity Building Workshop for the Eastern Indian Ocean (Bali, Indonesia, 7 to 10 June 2006), are an effective mechanism in encouraging those countries to actively participate in operational observing programmes. Representatives from many developing countries were also invited to attend the Third International Port Meteorological Officers Workshop (PMO-III, Hamburg, Germany, 23 to 24 March 2006).

The Meeting will be invited to consider Capacity Building issues and recommend new initiatives in light of the successful results from past workshops.

## **8. ORGANIZATIONAL MATTERS**

### 8.1 Review of the SOT Management Team

The Chairperson of the SOT will review the composition of the SOT Management Team.

### 8.2 Selection Process of New DBCP/SOT Technical Coordinator

The former Technical Coordinator for the DBCP/SOOP, Mr Etienne Charpentier, resigned from the position on 01 February 2006 to take up an appointment with the WMO. The recruitment of a successor to the Technical Coordinator position commenced early in 2006 and was complete when Ms Hester Jane Viola started as the Technical Coordinator for the DBCP/SOT on 01 July 2006. A report on the selection process, including new arrangements of IOC employment, will be presented by the Chairperson of the Selection Panel.

### 8.3 Review the Role of the SOT Technical Coordinator

Recognising the ongoing discussion on the JCOMMOPS development (Agenda Item I-5.1), the Meeting will be invited to: (i.) review the current working priorities of the Technical Coordinator, and (ii.) review the current arrangements regarding supervision and guidance.

8.4 Review the Funding of the SOT Technical Coordinator

The Meeting will be informed about the funding mechanism that sustains the position of SOT Technical Coordinator.

SOT Members will be invited to contribute to the Trust Fund to support the Technical Coordinator position and thus ensure that current services are maintained while also allowing for future development in support of the VOS, ASAP and SOOP.

8.5 Ship Consumables Trust Fund

The Meeting will be invited to consider how the JCOMM Trust Fund for Ship Consumable, introduced at V-2.2, will be administered.

8.6 Review the Terms of Reference (TOR) of the SOT

In light of the discussions and recommendations arising during the week, the meeting will be invited to review its Terms of Reference (TOR) with a view to submitting any recommended changes to the JCOMM-III for endorsement.

**9. NEXT SESSION OF THE SOT**

The Meeting will be invited to: (i.) decide on the dates and place of its next session, and (ii.) make specific recommendations regarding changes to the organization/format of the next session of the SOT.

**10. REVIEW OF THE SOT-IV SESSION REPORT, ACTION ITEMS AND RECOMMENDATIONS**

Participants will be expected to review, modify as necessary, and approve the final report of the session, including action items and recommendations.

**11. CLOSURE**

The Fourth Session of the Ship Observations Team is expected to close at lunchtime on Saturday, 21 April 2007.

---