

WORLD METEOROLOGICAL ORGANIZATION

**INTERGOVERNMENTAL OCEANOGRAPHIC
COMMISSION (OF UNESCO)**

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

SOT-V/Doc. I-2.5
(27.03.2009)

SHIP OBSERVATIONS TEAM

ITEM I-2.5

FIFTH SESSION

GENEVA, SWITZERLAND, 18-22 MAY 2009

Original: ENGLISH

REPORT BY THE SOT TECHNICAL COORDINATOR

(Submitted by Hester Viola (former Technical Coordinator), and Mathieu Belbéoch (new Technical Coordinator))

Summary and purpose of the document

This document contains the reports of the former Technical Coordinator and of the new Technical Coordinator for the SOT, covering her and his activities on behalf of the Team during the periods 1 April 2007 to 1 January 2009 and February 2009 to 31 March 2009 respectively.

ACTION PROPOSED

The Team will review the information contained in this report, and comment and make decisions or recommendations as appropriate. See part A for the details of recommended actions.

Appendices: A. Additional Task undertaken by the SOT Technical Coordinator, H Viola.
B. Draft Position Descriptions for JCOMMOPS Technical Coordinators

References: A. SOT-V document IV-3.1
B. SOT-V document I-6

- A - DRAFT TEXT FOR INCLUSION IN THE FINAL REPORT

I-2.5.1 The former SOT Technical Coordinator, Hester Viola presented her activities for the period May 2007 – January 2009, including key tasks undertaken, meetings and visits, monitoring products, information exchange and additional tasks completed.

I-2.5.2 She noted that the priority tasks during the intersessional period continued, as before, to be:

- (i.) SOOP Annual Surveys
 - o finalised up to December 2007
<http://www.jcommops.org/FTPRoot/SOT/SOOP/Survey/>
 - o some (unchecked) data for 2008 available on
<http://wo.jcommops.org/cgi-bin/WebObjects/SOOPIndicators>
- (ii.) User consultation and meetings (e.g. OSMC, JCOMM)
- (iii.) Monthly Maps (updates and additions) and reports on activities
- (iv.) JCOMMOPS information system – metadata loading, reporting,
- (v.) Argos related issues, user assistance
- (vi.) Metadata - ODAS, Meta-T (SOOP and VOS streams)
- (vii.) VOS Quality monitoring mechanisms
- (viii.) BUFR templates and Codes
- (ix.) Training and knowledge transfer between Technical Coordinators.

She noted that the Callsign Masking Scheme and Publication 47 metadata management had become a priority and that there had been a lot of effort made on BUFR templates in the last intersessional period as the deadline for transitioning to BUFR for GTS data is 2012.

I-2.5.3 The Team noted that JCOMMOPS has produced and enhanced static monthly maps standardized across all JCOMMOPS maps. Dynamic maps are available for SOOIP, SOT and JCOMM as a whole. Web Map Services and Web Feature Services are available from these. Ms Viola showed some maps of other in-situ observing networks to demonstrate areas where deployment opportunities are needed from Ships of Opportunity. She mentioned that the SOOP Annual Line Sampling report had been streamlined somewhat. Also some additional maps were now included in the SOOP Annual Line Sampling report to colour code the relative success of sampling on all SOOP lines. The metadata from the report is now provided in text files for all previous years of SOOIP metadata from the JCOMMOPS database (based on the Metadata reported annually in March by SOOP operators) valid up until 31/12/2007.

I-2.5.4 Ms Viola expressed her thanks to the Team for working with her in the last two years and trusted that Mathieu Belbeoch would serve the Team very well in future. She also wished Mathieu Belbeoch luck in the new role.

I-2.5.5 The New Technical Coordinator, Mathieu Belbeoch introduced himself and presented his activities for the period February-April 2009 including key tasks undertaken, monitoring products, information exchange and additional tasks completed. He expressed that he looked forward to working with the Team in future.

I-2.5.6 **The Team agreed on the following:**

- (i) The Team invited its members to suggest information for the news section of JCOMMOPS website and provide feedback on re-developments of JCOMMOPS websites, particularly the Quality Information Relay Tool (**action, SOT members, ongoing**)
- (ii) The Team reviewed the draft, which updated the Responsibilities and Duty statements for the Argo, and DBCP Technical Coordinators so that in now includes support to the SOT and OceanSITES. The agreed upon document is provided in Appendix B.

- (iii) The Team agreed that the new JCOMMOPS website should include new SOT and SOOPIP sites with better usability and consistency, plus an integrated Quality Information Relay tool (with up-to-date Publication 47 data) and an application to browse Callsign Masking information (both password protected). It requested JCOMMOPS to make necessary developments (**action, JCOMMOPS, SOT-VI**)
- (iv) The Team was asked to routinely review the maps showing data sparse areas (drifting buoys, Argo floats) in order to assess if any deployment opportunities can be identified (**action, SOT members, ongoing**).
- (v) The Team was asked to provide any deployment opportunities to the Technical Coordinators at JCOMMOPS using support@jcommops.org (**action, SOT members, next meeting**).

- B - BACKGROUND INFORMATION

This report covers the last SOT intersessional period i.e. from 1 May 2007 – January 2009.

1. Period 1 May 2007 to 30th January 2009

1.1 During this period Hester Viola was the Technical Coordinator of the Data Buoy Cooperation Panel (DBCP) and SOT, was based in Toulouse at JCOMMOPS. Hester Viola also began work on OceanSITES as a Project Office Coordinator during the second half of 2008, which she will continue 30% of her time from 2009 onwards. (see Appendix B for Draft Position Description)

For SOT Technical Coordination in future, she will be replaced by the Argo Technical Coordinator, Mathieu Belbeoch, and at JCOMMOPS.

1.2 The priority tasks during the intersessional period continued, as before, to be:

- (x.) SOOP Annual Surveys
 - i. finalised up to December 2007
 - ii. some (unchecked) data for 2008 available on <http://wo.jcommops.org/cgi-bin/WebObjects/SOOPIndicators>
- (xi.) User consultation and meetings (e.g. OSMC, JCOMM)
- (xii.) Monthly Maps (updates and additions) and reports on activities
- (xiii.) JCOMMOPS information system – metadata loading, reporting,
- (xiv.) Argos related issues, user assistance
- (xv.) Metadata - ODAS, Meta-T (SOOP and VOS streams)
- (xvi.) VOS Quality monitoring mechanisms
- (xvii.) BUFR templates and Codes
- (xviii.) Training and knowledge transfer between TCs.

1.3 Meetings and Visits

1.3.1 Ms Hester Viola attended the following meetings during 2007-2009.

- Oil and Gas Producers. London., UK. 28th March 2007
 - Attended the meeting of SIMORC (SIMORC is a service to exchange ocean data and products
- with Oil and Gas Producers) and discussed deployment opportunities with Oil Company Representatives."
- EUMETSAT, Darmstadt, April 2007
 - Attended the Expert Team on Data Representation and Codes on behalf of JCOMM., presented a single document for the meeting following Consultation

- with Meta-T and DMCG about input to the meeting and BUFR templates.
- WMO, Geneva, April 2007
 - Attended the SOT IV, ESURFMAR VOS Technical Action group meeting and JCOMM OCG meetings
- IODE, Ostend, Belgium 11-15 June 2007
 - DBCP Training Course on Buoy Programme Implementation and Data Management. Prepared for and attended the course, presenting content on Quality Control and the Argos Web.
- IOC, Paris, France. 20-21st June 2007.
 - Attended the IOC Assembly meeting
- Jeju, South Korea, 11-24 October 2007
 - Attended and presented at DBCP 23 and related action group meetings
- IOC, Paris, France, 2-5 December 2007
 - Attended the sixth Session of the JCOMM Management Committee (MAN-VI)
- Washington DC and Miami, USA, 3-14 of March 2008
 - Discussions with OCO, NOAA staff about the observing system and future plans. - Attended the XBT Fall rate equation meeting at AOML. Presented on SOOP sampling status and success and SOOP metadata held at JCOMMOPS. Participation in the breakout group about data management. Attended a meeting about metadata required for a new BUFR template of XBT data
- Met Office, Exeter, UK, 17-21 March 2008
 - Attendance at the Argo Steering Team meeting. -Presentation about the DBCP and SOT, status and reports available. Discussions in context of the relationships being built between JCOMMOPS programmes. Discussions with Metoffice representatives about the VOS programme, Quality Control and callsign masking issues.
- Vienna, Austria, 8-13 April 2008
 - Attendance at the OceanSITES Steering Team and Data Management Team meetings and presentation about JCOMMOPS and DBCP Status. Discussion about the future role of JCOMMOPS (i.e. H. VIOLA) in supporting OceanSITES The group expressed support for the proposal and requested that it begin officially as soon as possible.
- Gdynia, Poland, 5-7 May 2008
 - Attended the Third JCOMM Workshop on Advances in Marine Climatology,
 - Presentation on JCOMM Data Flows - entitled The use of Data Buoy, Ship and Argo Float Observations data flows and processing.
 - Participated in discussions about the JCOMM Meta-T pilot project and requirements for updates to BUFR templates."
- Iceland Meteorological Office, Reykjavik, Iceland, 17-21 May 2008
 - Presented to the E-SURFMAR Data Buoy Technical Advisory Group
- Toulouse, France, 16-18 June 2008
 - Attended the 18th Annual meeting of the International Arctic Buoy Programme
- WMO, Geneva, Switzerland, 1-5 September 2008
 - Attended the meeting of the WMO Expert Team on Data Representation & Codes on behalf of JCOMM and presented templates to be revised (XBT) and other additions for the community. Presented an update to definitions of the BUFR Master Table 10 Oceanographic Data on behalf of the JCOMM Data Management Programme Area.
- South African Weather Service, 12-18 October 2008, Cape Town, South Africa
 - Participated in the 24th Session of the Data Buoy Cooperation Panel (DBCP), and back-to-back meetings of DBCP Action Groups
- Scripps Inst. Oceanography, 3-9th November
 - Attended the Changing Times Workshop and visited Scripps to discuss with Uwe Send (OceanSITES) and Steve Diggs (deployment opportunities and ship data management).

- Meteo France, Toulouse, February 2009
 - Attended the Tropical Atlantic and PIRATA meetings
- NGDC, Boulder Colorado, 24th-27th February, 2009
 - Attendance and presentation at the annual meeting of the NOAA Observing System Monitoring System, to discuss data management and metadata. Discussions with Derrick Snowden, chair of the Meta-T pilot project and staff at NGDC about Metadata management for JCOMMOPS.

1.3.2 Key tasks undertaken by Ms Viola in this period were:

May 2007 – December 2007

- Maintained mailing lists – updating erroneous addresses and added new recipients. Resolved issues with mailing lists due to new spam filter being installed at CLS.
- Updated Monthly Maps for SOOPIP, VOS, ASAP and JCOMM (GTS message type and sub-surface profiles). <http://www.jcommops.org/FTPRoot/SOT/SOOP/Maps/2007/>
- Incorporated actions from SOT IV into the list of TC actions to be undertaken (i.e. to-do list)
- Updated the new interactive web map for SOT - <http://w4.jcommops.org/WebSite/SOTM>
- Uploaded SOT IV meeting report onto the SOT webpage and into the JCOMMOPS database
- Replaced SOOP logo with new one provided by the Chair of SOT, changed ASAPP webpage to be ASAP
- SOOP Annual Sampling Report 2006. Finished loading and cleaning metadata and verifying the contents, in order to assess the sampling success along each SOOP Line. Followed up with operators who still had not provided all metadata. Compiled a draft of the report. Requested feedback. Some feedback was received, so continued to update metadata and analysis of lines based on feedback
- Reminded others to provide feedback. Made appropriate updates and finalised the report with maps and tables. <http://www.jcommops.org/FTPRoot/SOOP/Survey/2006-Jan-Dec.zip>
- Worked on enabling Web Map Services and Web Feature Services from ArcIMS mapping applications on JCOMMOPS website (with Mathieu Belbeoch,). e.g. Dynamic Maps of SOT [monthly status for the western Pacific and Indian Oceans](http://www.jcommops.org/Maps/images/wms-outputs-daily/). Also created processes to generate static images of the whole globe using these Web Map Services (for embedding in web pages) see: <http://www.jcommops.org/Maps/images/wms-outputs-daily/> for global files updated daily.
- Included a live map of 'Observing Platforms reporting in the last three days' on the JCOMM network monitoring page of the JCOMMOPS website http://www.jcommops.org/network_status/, also added the JCOMM Web map service from JCOMMOPS with Floats, Buoys, XBTs and GLOSS station
- Metadata
 - Discussed sources of Ocean Platform Metadata with project coordinator (NDBC) of the NOAA Observing System Monitoring Centre (OSMC)
 - Reviewed Meta-T documents and provided feedback, requesting the requirements or suggestions to changes to BUFR templates be put forward before April 2007
 - Uploaded updates to Publication 47 into the JCOMMOPS database

- WMO Rolling Review of Requirements Input on behalf of JCOMM –
 - An assessment was completed for each ocean area, variable, and instrument within the Global Ocean Observing System. This included an assessment for all Ocean areas :
 - √ Horizontal Resolution,
 - √ Vertical Resolution,
 - √ Accuracy,
 - √ Typical Observing Cycle (calculated by computing the average observing cycle for all platforms of the same type and reporting from the same area),
 - √ GTS/Data Delays and complementary information for the status of the observing system.
 - This was a very lengthy process completed for all platform types i.e. drifting buoys (including surface currents), moored buoys (separately for TAO moorings), VOS Ship data, ASAP Radiosondes, SOOP XBTs, Argo Floats, TSG, OceanSITES, GLOSS Tide Gauges using different sources of information e.g. GTS data for previous month, SOOP survey for 2005, OceanSITES metadata listings for estimates.

January – December 2008

- Maintained mailing lists – updating erroneous addresses and added new recipients. Resolved issues with mailing lists due to new spam filter being installed at CLS
- Updated Monthly Maps for SOOPIP, VOS, ASAP and JCOMM (GTS message type and sub-surface profiles). Updated SOOP monthly map to include TRACKOB TSG drops. <http://www.jcommops.org/FTPRoot/SOT/SOOP/Maps/2008/>
- Manually forwarded input to the Quality Information Relay tool, where ships didn't appear in Pub 47
- SOOP Annual Sampling Report 2007. Finished loading and cleaning metadata and verifying the contents, in order to assess the sampling success along each SOOP Line. Followed up with operators who still had not provided all metadata. Compiled a draft of the report. Requested feedback. Some feedback was received, so continued to update metadata and analysis of lines based on feedback and reminded others to provide feedback. Made appropriate updates and finalised the report with maps and tables. <http://www.jcommops.org/FTPRoot/SOOP/Survey/2007-Jan-Dec.zip>. Provided text files for all previous years of SOOPIP metadata from the JCOMMOPS database to NODC (Charles Sun)
- Streamlining the production of the SOOP Annual report: Modified the web application for the SOOP sampling indicators used in the SOOP Annual Sampling Report 2007 so that each line could consist of just a link to the web which would generate the sampling information on the fly, This improves the efficiency of generating and using the report significantly. This involved developing the capability on the SOOP Sampling Webpage (known as a Direct Action) to request the results for any SOOP line from the annual report dynamically e.g. <http://wo.jcommops.org/cgi-bin/WebObjects/SOOPIndicators.woa/wa/summary?line=PX40&year=2007&month=12>. This functionality can be used to simplify the annual report for 2007 onwards.
- Reviewed inputs to the WMO Rolling Review of Requirements for WMO Expert Team on the Evolution of the Global Observing System.

- Worked with M Belbeoch, Candyce Clarke and Uwe Send to prepare a proposal for NOAA, to provide a new OceanSITES budget to be used to hire an extra resource within JCOMMOPS. Discussed CLS' capacity to employ somebody ½ time along with JCOMMOPS - to work on IT and Web related developments. The proposal, along with a rough estimate of the costs, was presented to NOAA in support of OceanSITES. SOT chairs were informed of these developments.
- Sent various emails to stakeholders about the transition of SOT coordination (30% to Argo TC) and support for OceanSITES (30% from DBCP TC) within JCOMMOPS, and the employment of a ½ time IT staff member by CLS with the funding identified for OceanSITES. Worked with the Argo TC on developing a job description for the role and financial implications for the DBCP/Argo trust funds.
- Updated the interface of the QC Relay tool in response to requests from several users. The changes included:
 1. slightly different layout - shifted some elements into separate sections ,
 2. reduction in the number of buttons – now only two buttons on the form: a) 'View History for selected WMO/Callsign' (which is the default button if you press Enter on your keyboard) and b) Send Report' at the bottom of the form.
 3. The LOGOUT option now appears both at the top right and at bottom right of the form.
 4. A new option has been added, which will allow users to send a Carbon Copy (Cc:) of the report to one or more additional email addresses (if multiple email addresses are entered a comma should be used to delimit each one). <http://wo.jcommops.org/cgi-bin/WebObjects/QCRelay>
- Entered updates to Manufacturers list web pages for XBTs and buoys on the JCOMMOPS webpage.
- Updated the contact details for many European VOS contact points based on input by E-SURFMAR (Pierre Blouch)
- Metadata
 - Familiarisation with BUFR and Table driven Code Forms as well as Master Table 10 for Oceanographic Data in BUFR. Reading (Papers and training materials from WMO) about BUFR (Binary Universal Form for the Representation of meteorological data) and Master Table 10. Reviewed the proposed BUFR template for VOS data and Meta-T, observational Metadata requirements.
 - Reviewed documents for Meta-T defining requirements for BUFR template contents for XBT data. Set up a web site for the review of BUFR templates on the JCOMM site:
http://www.jcomm.info/index.php?option=com_oe&task=viewDoclistRecord&doclistID=76
 - Provided text files for all previous years of SOOIP metadata from the JCOMMOPS database to NODC (Charles Sun) (based on the Metadata reported annually in March by SOOP operators) it is up until 31/12/2007. This is to be provided every year, including the following: LineNumber;CallSign;ShipName;Program;Date;Hour, Lat,Lon;Depth;Quality;TranNum;DropNumber
e.g.http://www.jcommops.org/FTPRoot/SOT/SOOP/survey/2007_metadata_soop.txt
 - Reviewed data loading processes for WMO Publication 47 and loaded new ships from 2007
 - Explained data loading for WMO Publication 47 data to M Belbeoch

- Call Sign Masking Scheme - Mask to Real:
 - Worked with the SOT chair on how to implement tracking of the Masked callsigns. Finalised the content of reports about Ship Callsigns for national reporting to JCOMMOPS. i.e. Country-of-recruitment;Report-Date;nmsID;MASK;REAL;IMO-Number;Start-Date;End-Date;
 - Created the mailing list and requested a new address <mask2real@jcommops.org> for reporting. < sot-tt-masking@jcommops.org >
 - Reviewed the 'Callsign Masking instructions' provided by the chair and put a link to them on the SOT website. Worked with M Belbeoch on Ship callsign masking procedures.
 - Set up a secure FTP site for the Ship callsigns Masked by Europe and Australia, with M Belbeoch
 - updated the (password protected) text file held at JCOMMOPS with quarterly submissions. Reminded operators to report when required. More details will be given at the meeting on access restrictions.

January – February 2009

- Maintained mailing lists – updating erroneous addresses and added new recipients. Resolved issues with mailing lists due to new spam filter being installed at CLS.
- Updated Monthly Maps for SOOPIP, VOS, ASAP and JCOMM (GTS message type and sub-surface profiles). Updated SOOP monthly map to include TRACKOB TSG drops. Added new functionality with layers in PDF files
 - a) Within the PDF files there are Layers which can be toggled on and off, for example to view Moored Buoys only.
 - b) Developed some instructions on how to use this Layer function in Adobe Acrobat, which is available at <http://www.jcommops.org/FTPRoot/SOT/SOOP/Maps/2009/>
- Began transferring knowledge about SOT to M Belbeoch
- Manually forwarded input to the Quality Information Relay tool, where ships didn't appear in Pub 47
- Began specification for new JCOMMOPS website, which will include new SOT and SOOPIP sites with better usability and consistency, with M Belbeoch.
- BUFR: contacted NCEP (Jeff Ator) about validation of the BUFR template used by AOML for XBT data to get a progress report to include for the WMO ET-DR&C Meeting. Working with AOML (J Trinanés) about templates in use at AOML and potential updates required. Continued to work on the XBT template with the DMCG Task team on Table Driven Codes.
- Updated documentation on the SOOPIP website relating to Best Practices.
 - 1. Added 3 new links on the front page to direct users to the relevant materials, being prepared within NODC.
 - 2. Updated the Best Practices and Publications page. <http://www.jcommops.org/soopip/publications.html>
- Added information to the SOT and SOOP websites about Quality Monitoring procedures VOS: Several links added to JCOMMOPS website. SOOPIP:
- Information updated on <http://www.jcommops.org/soopip/publications.html> for CSIRO and AOML. See:

<http://wo.jcommops.org/cgi-bin/WebObjects/JCOMMOPS.woa/wa/monitoring> >>

Quality >> Ship Based Observations.

- ASAP website - ASAP monitoring page created. Minor updates to format completed. Created a document (from input by UKMO, Sarah North) to list basic factors that need to be taken into consideration when recruiting a new ASAP ship
<http://www.jcommops.org/sot/asap>,
<http://www.jcommops.org/sot/asap/ASAPsetup.html>,
<http://www.jcommops.org/sot/asap-monitoring.html>
- Reviewed actions from the SOT IV meeting with M Belbeoch
- Prepared documents for the SOT V meeting including the report of the TT on Coding.

Other tasks undertaken in the Period May 2007 – January 2009 are listed in Appendix A.

2. Period 1 February 2009 to present

2.1 During this period Mathieu Belbeoch was the Technical Coordinator of Argo and SOT, was based in Toulouse at JCOMMOPS. As previously agreed, about 30% of his time was spent on SOT issues. (see Appendix B for Draft Position Description)

- Updated Monthly Maps for SOOPIP, VOS, ASAP and JCOMM (GTS message type and sub-surface profiles). Updated SOOP monthly map to include XCTD and TRACKOB TSG drops. Added new map for SOT as a whole.
- Continued specification for new JCOMMOPS website which will include new SOT and SOOPIP sites with better usability and consistency
- Call Sign Masking Scheme - Mask 2 Real:
 - Created a database table in the JCOMMOPS database to hold the archive of Mask to Real relationships over time (not fully implemented yet).
 - Updated the (password protected) text file held at JCOMMOPS with quarterly submissions.
 - Reminded operators to report when required.
 - Set up passwords for a secure FTP site for the Ship callsigns Masked by Europe and Australia
 - More details will be given at the meeting on access restrictions.
- Ensured that all members of the SOT (those in any other mailing list) were also included on the SOT mailing list.(MB)
- Familiarisation with SOT and knowledge transfer from H Viola.
- Prepared for SOT V.

3. Monitoring reports

3.1 SOT Monthly Maps

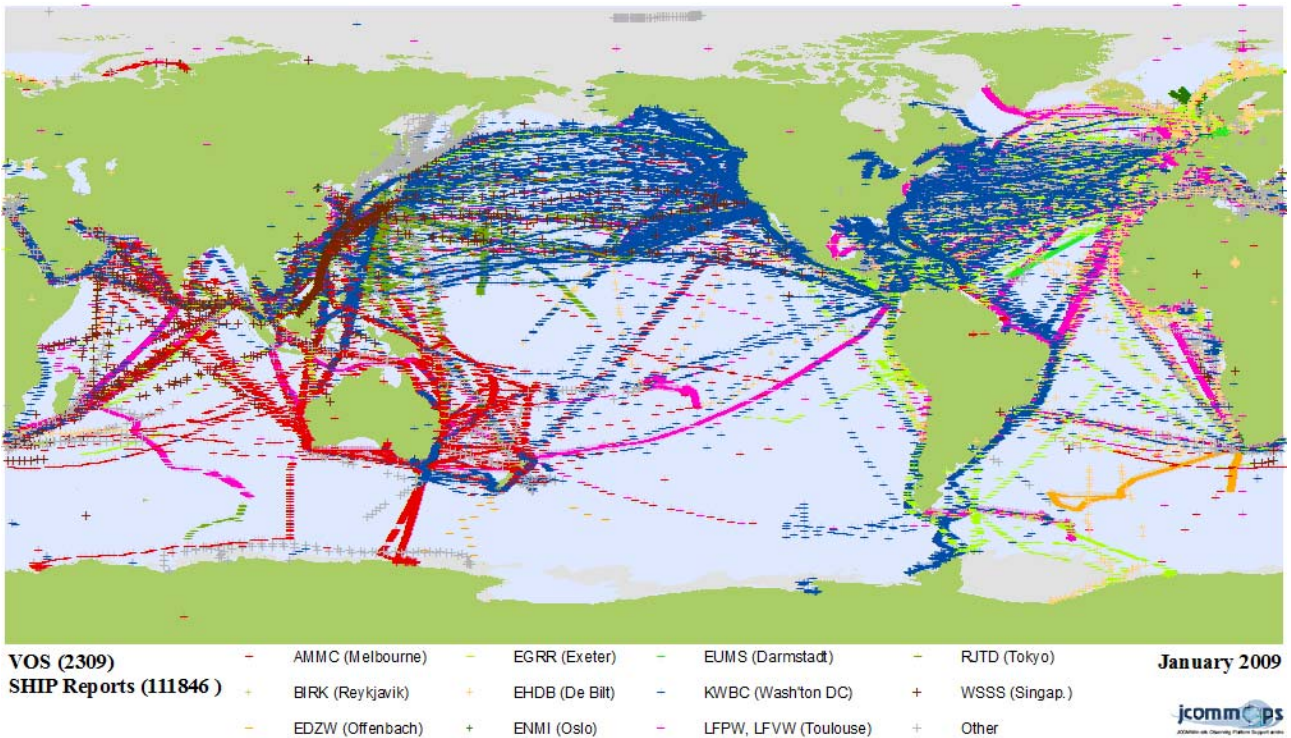


Figure 1 VOS status by GTS Centre

http://wo.jcommops.org/cgi-bin/WebObjects/JCOMMOPS.woa/wa/map?type=GTSM_VOS

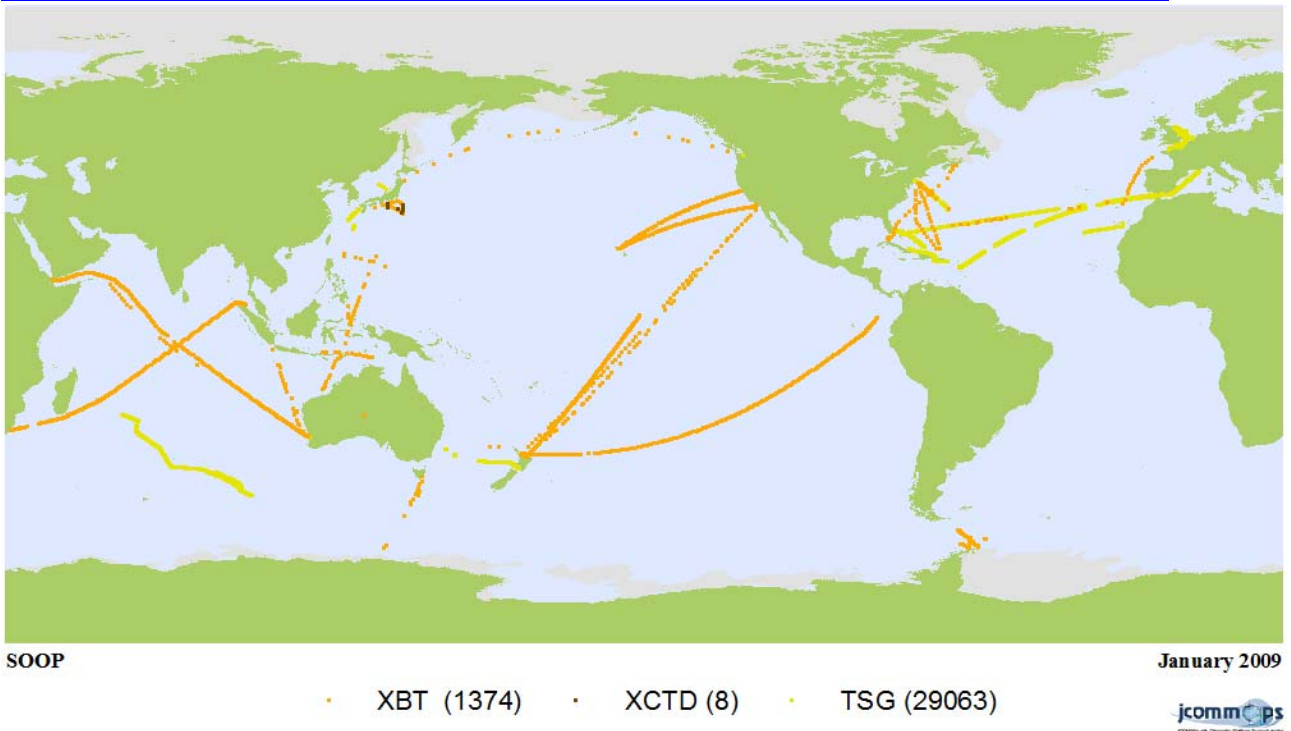


Figure 2 SOOP Monthly Status

http://wo.jcommops.org/cgi-bin/WebObjects/JCOMMOPS.woa/wa/map?type=SOOPM_GTS

3.2 ASAP Observations

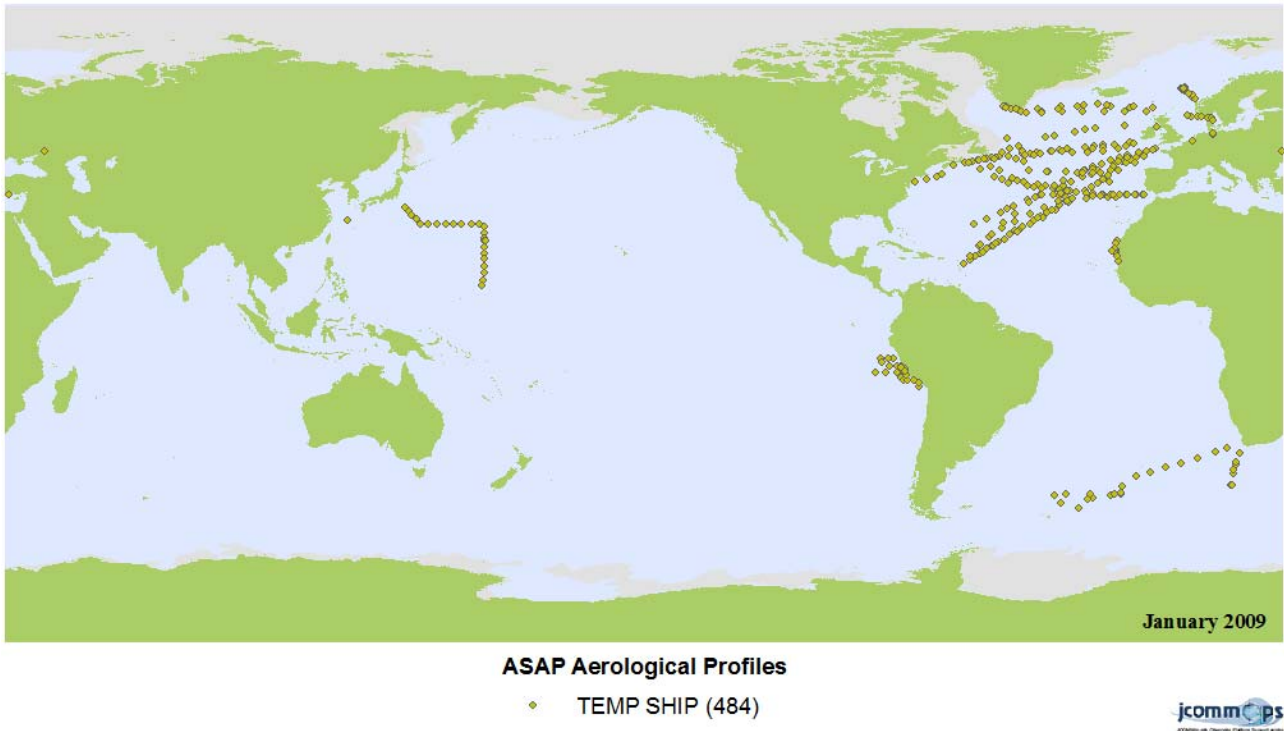


Figure 3 ASAP monthly status map

http://wo.jcommops.org/cgi-bin/WebObjects/JCOMMOPS.woa/wa/map?type=GTSM_ASAP

3.3 SOT as a whole

Example of status map can be obtained from the following URL:

<http://www.jcommops.org/FTPRoot/SOT/Maps/2009/200901-SOT.pdf>

A reminder about the PDF versions of maps:

All of the maps produced each month at JCOMMOPS are in both PNG and PDF file formats. Within the PDF files there are Layers which can be toggled on and off, for example to view Moored Buoys only. Some instructions on how to use this Layer function in Adobe Acrobat are available at

<http://www.jcommops.org/FTPRoot/JCOMMOPSmaps-AdobeReader.doc>

3.4 JCOMM/GOOS maps

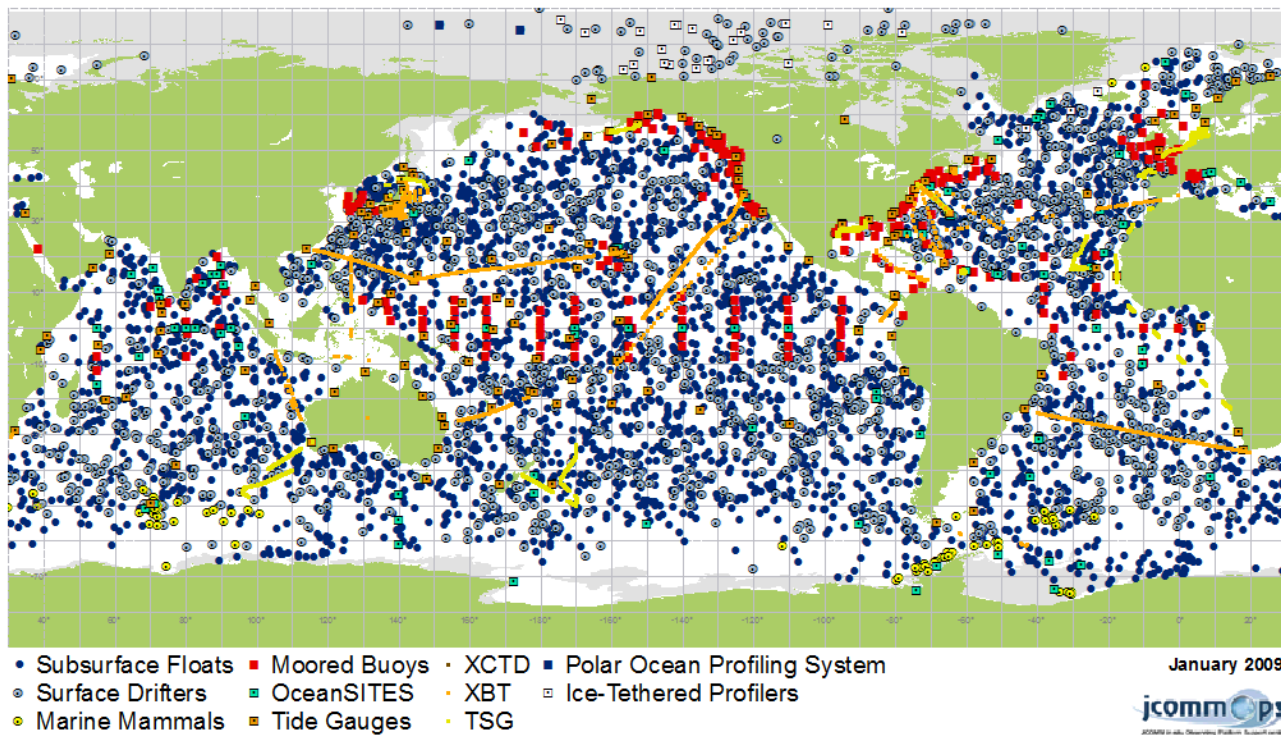


Figure 4 – JCOMM In-situ Observing Network status

<http://wo.jcommops.org/cgi-bin/WebObjects/Argo.woa/wa/map?filename=2009-01-buoys.png>

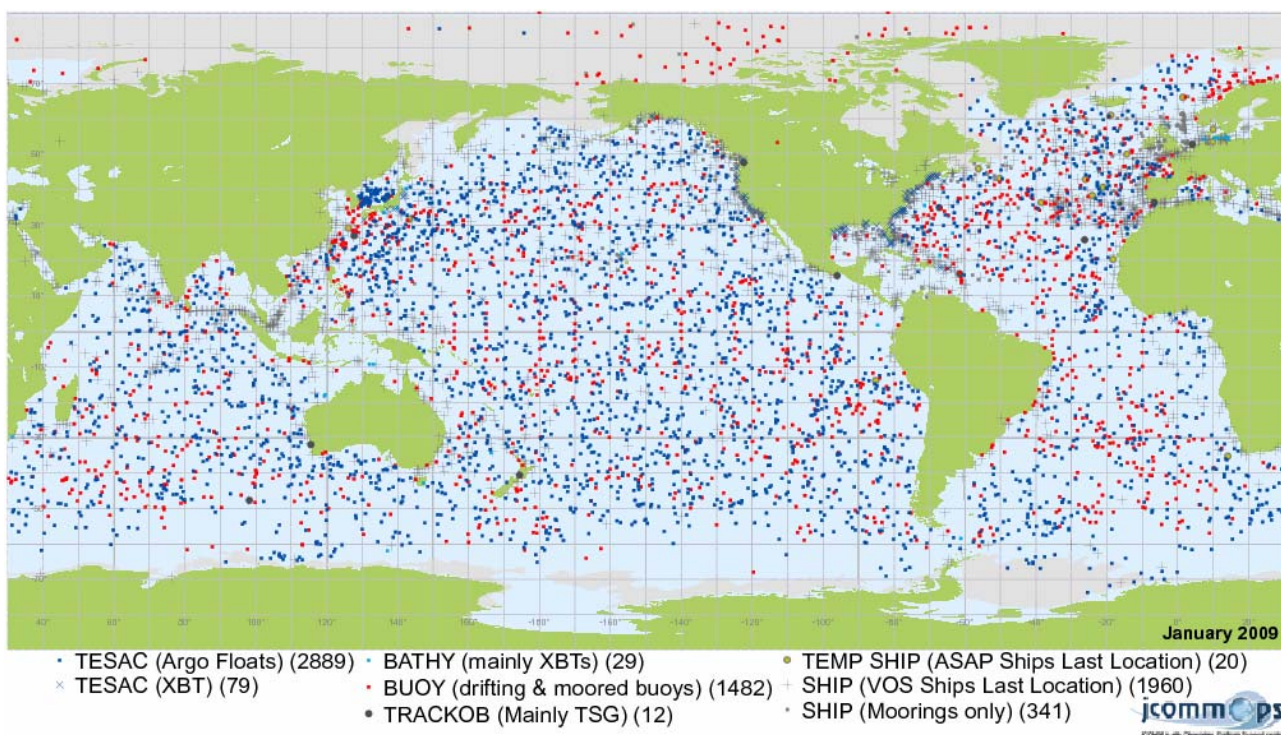


Figure 5 – All In-situ Marine observations platforms monthly status

http://wo.jcommops.org/cgi-bin/WebObjects/JCOMMOPS.woa/wa/map?type=GTSM_FMT

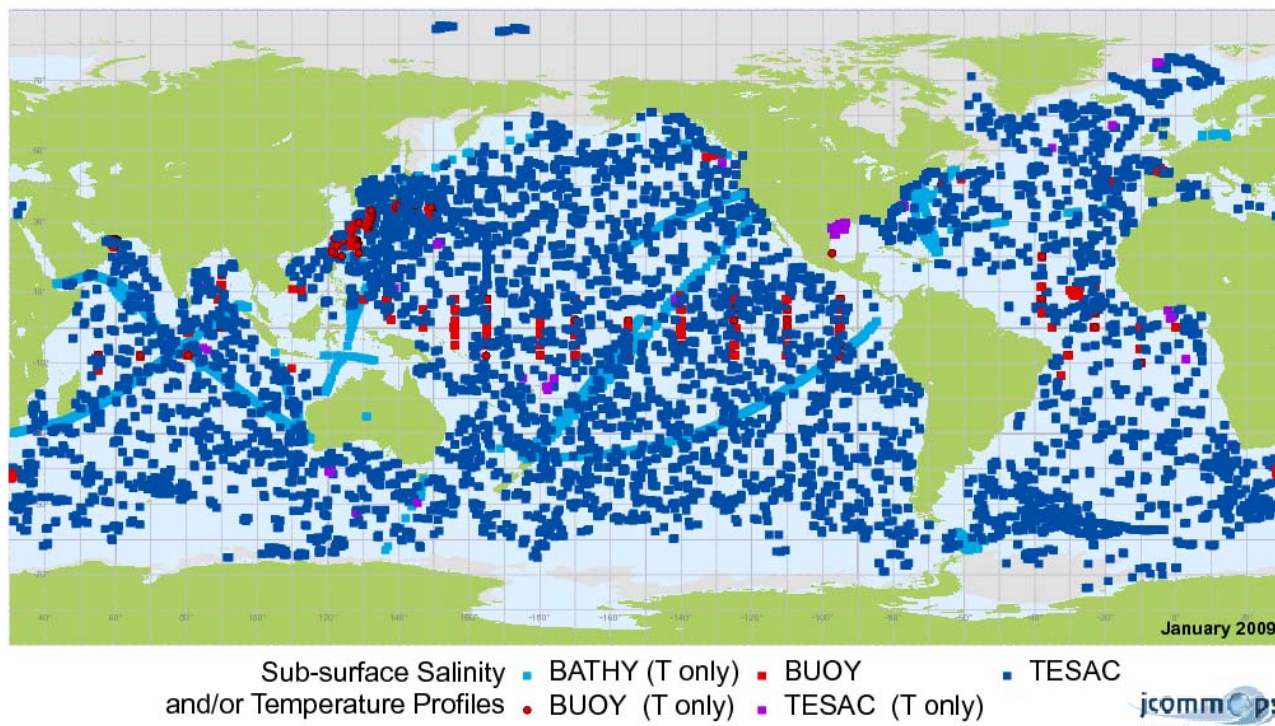


Figure 6 – Sub surface profiles (Temperature and Salinity)

http://wo.jcommops.org/cgi-bin/WebObjects/JCOMMOPS.woa/wa/map?type=GTSM_SZ

3.5 SOOP Annual Line Sampling Report

- This report was finalised up to December 2007
<http://www.jcommops.org/FTPRoot/SOT/SOOP/Survey/>
- There is some (unchecked) data available for 2008 <http://wo.jcommops.org/cgi-bin/WebObjects/SOOPIndicators>.
- The SOOP Annual Line Sampling report had been streamlined somewhat in the intersessional period.
- Also some additional maps were now included in the SOOP Annual Line Sampling report to colour code the relative success of sampling on all SOOP lines. (the colours for the lines have been modified since the last meeting to fit with NOAA reports)
- Metadata from the report is now provided in text files for all previous years of SOOPIP metadata from the JCOMMOPS database (based on the Metadata reported annually in March by SOOP operators) valid up until 31/12/2007.
- Further details are in the SOT-V Document IV-3.1.

4. Information Exchange

- The following mailing lists have been maintained by JCOMMOPS

sot@jcommops.org

vos@jcommops.org

vosclim@jcommops.org

soopip@jcommops.org

pmo@jcommops.org

sot-tt-masking@jcommops.org New list added in 2008 - SOT Task Team on ship callsign masking

All members of the SOOP and VOS lists now appear in the SOT general mailing list.

- For the next six months, requests for assistance from JCOMMOPS should be sent to the email address support@jcommops.org so that both Technical Coordinators can assist.
- News and meetings have been updated as required on the JCOMMOPS website. Only minor changes to websites have been undertaken, but they will be entirely re-designed in the next intersessional period.
- Two maps of the in-situ networks, DBCP and Argo, will be presented to the meeting, in order to demonstrate areas where deployment opportunities could be created using Ships of Opportunity. These opportunities can then be communicated to those networks' operators in order to capitalise on ship time.

Appendices: 2

APPENDIX A

OTHER TASKS UNDERTAKEN BY THE SOT TECHNICAL COORDINATOR

1. 2007

1.1. Reporting and Community Support

- (a) Demonstrated and discussed network status information for VOS with Julie Fletcher (NZ). Following these discussions the following site was developed for Julie's day-to-day work, to easily view maps etc. <http://www.jcommops.org/DBCP/NZMaps>
- (b) Responded to a query from Japan about data from their XBT samples on line PX40, which do not appear to be on the GTS. Problem was found to be at the source, as data was erroneous.
- (c) Provided information about SOOP line sampling for the last 6 years to AOML (B Molinari)
- (d) Provided information to JMA, Takashi Yoshida about SOOP lines in the pacific as part of the Annual SOOP Survey
- (e) Assisted Canada with examples of BUFR (buoy) data from the Argos system provided general information about BUFR and the process of migration to BUFR. (Yvonne Cook, Charles Paterson)
- (f) Managed user accounts for the Quality Information Relay tool. Included several new User logins for the QC Relay tool users, allowing them to enter quality control feedback on Buoys and Ships.
- (g) Provided advice to Canada (B Keeley) about GTS data insertion and Ship Call Signs
- (h) Provided quarterly activity reports to Chairs
- (i) Discussed (along with Mathieu Belbeoch) OceanSITES Technical support, within JCOMMOPS, with Mike Johnson
- (j) Met with IT section of CLS (along with M Belbeoch) to discuss the future of the IT support contract developed for JCOMMOPS. Worked on draft job description
- (k) Participated in four training sessions at CLS about the new Argos system. Data Processing and User web screens.
- (l) Completed IOC Performance Management Biennium appraisal and goal setting

1.2 Metadata

- (a) Provided ship metadata (for June) of ships moving between Buenos Aires and Cape Town for AOML, Derek Snowden to identify a ship to contribute to the high Density SOOP sampling in that area. Also explained how to use the interactive map at <http://w4.jcommops.org/WebSite/SOTM>
- (b) Met with Loic Petit La Villeon at JCOMMOPS about SOOP metadata requirements.
- (c) Discussed file formats for SOOP Metadata submission with SEAS/AOML and F Reseghetti (MOON project). Sent examples of reporting format for SOOP XBTs to the Indian Institute Of Oceanography and explained requirements, also highlighting some errors in the metadata.
- (d) Began testing and reviewing the functionality and aims of the latest beta version of the NOAA Observing System Monitoring Center. <http://osmc.noaa.gov/OSMC/>

1.3 Websites and JCOMMOPS development

- (a) Worked with Meteo France to solve technical difficulties with Daily GTS data/statistics files. (Christophe Bataille)
- (b) New server installed at JCOMMOPS. Install new software and make required changes to scripts for metadata processing and loading and mapping tools (both monthly static map configuration and dynamic web maps). Standardised monthly map templates across JCOMMOPS for consistent look and feel. Rewrote data loading scripts for Argos System connection and creation of Buoy and Ship platforms within the JCOMMOPS database

- (c) Updated the JCOMMOPS and SOT web pages to include links to the SOT Flyer, VOS Brochure and Certificate of Appreciation SOT web. www.jcommops.org go to Implementation->Platforms->Ship Based Observations.
- (d) Updated link to the SOT recruitment presentation on the SOT web. www.jcommops.org go to Implementation->Platforms->Ship Based Observations.
- (e) Worked with SOT chair on proposal for hosting SHIP Masking lookup table in the JCOMMOPS database

2. 2008

2.1 Websites and JCOMMOPS database

- (a) New server installed at JCOMMOPS. Moved all mapping applications to the new server and created some new scripts to produce monthly map files.
- (b) Worked with IRD/IFREMER to discontinue to old URL <http://www.ifremer.fr/IRD/SOOPIP/> that was no longer needed. Old website archived and URL set up to redirect to JCOMMOPS.
- (c) Implemented Website tracking on JCOMMOPS, DBCP and SOOP websites using Google Analytics to monitor audiences
- (d) Created a new database routine to obtain Daily Drifting buoy data and Ship platform status for creating a daily ESRI shape files more simply and for creating Google Earth KML files more directly and efficiently.
- (e) Made minor changes to SOOP website for a more consistent look and feel.

2.2 Reporting and Community Support

- (a) Communicated to DMCG and VOS task teams on codes that the ET/D&RC of WMO had scheduled its meeting for September (1st-5th 2008 at WMO). Reminded the DMCG task team on codes to provide input and any revisions to JCOMM BUFR template/s for ET/DR&C by August 2008. Discussed work on Master Table 10 with WMO and Bob Keeley.
 - (b) Prepared a map of the JCOMMOPS platforms reporting in the Southern Ocean for a submission by Dr Mike Sparrow to the Antarctic Climate Change and the Environment book.
 - (c) XBT- Requested that Lockheed Martin Sippican enhance communication with the XBT community, by an email (to the TC) whenever there are changes to specifications, updates or news) which the TC would forward to the XBT user community.
 - (d) Provided information to Netherlands (F Grooters) about buoy deployment processes in response to a query about deployment opportunities with the Netherlands from VOS ships.
 - (e) Finalised a review of the document 8.4.2 Review of satellite data telecommunication systems, completed with DBCP Chairman. <http://www.jcommops.org/doc/satcom/satcom.pdf> (also in same directory in a word file).
 - (f) Hosted a meeting with Derrick Snowden, NOAA at JCOMMOPS about the OSMC, JCOMM, and SOOP metadata and data flows. JCOMMOPS web services and tools for Quality Control and network monitoring
 - (g) Provided some input to the OOPC (Candyce Clark) about the SOOPIP programme.
 - (h) Noticed and followed up with E-SURFMAR on a situation of GTS messages going out as Buoy and SHIP (from Offenbach) as well on synoptic hours. This was explained by DWD and is not a real problem.
 - (i) Discussed GTS dissemination problems for XBT data with Australia Bureau of Meteorology (Lisa Cowen) and provided statistics on data reaching Meteo France each month, plus information about the data coming in the next month (which consequently does not appear on JCOMMOPS monthly maps).
 - (j) Completed IOC Performance Management Biennium appraisal and goal setting
-

APPENDIX B

**DRAFT DUTIES AND RESPONSIBILITIES FOR THE
ARGO/SOT TECHNICAL COORDINATOR AND
THE DBCP/OCEANSITES TECHNICAL COORDINATOR**



1) Argo and SOT Technical Coordinator position Proposed updated Duties and responsibilities

1.1 Under the general supervision of the Executive Secretary of the IOC of UNESCO, acting in close collaboration with the Secretary General of WMO, and under the guidance from the Co-Chairmen of the Argo Steering Team, and the Chairman of the Ship Observation Team (VOS, SOOPIP), the incumbent is responsible for the international technical coordination of Argo and SOT programmes.

1.2 The Technical Coordinator runs the Argo Information Centre (AIC) as part of the JCOMM in-situ observing Platform Support Centre (JCOMMOPS) and will assist as appropriate in the implementation of the Global Ocean Observing System (GOOS), and will:

- assist in the **planning, implementation** and **operations** of the observing systems
- develop **synergies** between observing systems
- **monitor** and **evaluate** the performance of the networks
- encourage **cooperation** between communities and Member States
- encourage **data sharing**
- assist in **data distribution** on the Internet and the GTS
- relay users **feedback on data quality** to platforms operators
- provide **technical assistance** and **user support worldwide**
- act as a **clearing house** and **focal point** on all programmes aspects

1.3 60% of the time will be spent on Argo related issues, 30% on SOT and 10% on JCOMMOPS.

Duties and responsibilities
a) Provide international technical coordination for Argo and SOT.
b) Inform Member States about deployment of floats, which might drift into their Exclusive Economic Zones (EEZ) according to IOC Resolution XX-6. Cooperate with the IOC/ABE-LOS group in the implementation of the Resolution XX-6. Provide reports to Member States as requested.
c) Develop and maintain as appropriate Argo, SOT websites. Develop and maintain a web based information and real-time monitoring system alert Member States on the status of the status of floats entering their EEZ and inform them how to access float information. Assist with deployment strategies and undertake performance evaluation.
d) Through direct contacts with potential users in Member States, advertise the Argo and SOT programmes, encourage use of float data, and foster participation of new Member States in the programmes.
e) Assist when requested with the development of cooperative arrangements for float deployment, retrieval of beached instruments and operations on ship based observing platforms.
f) Through direct contact with program managers, observing platform operators, data telecommunication providers, data assimilation centres, WMO and IOC, oceanographic

and meteorological institutions, assist as appropriate in the implementation of a global system, including standardization, for the distribution of data for assimilation by oceanographic and coupled oceanographic/meteorological models.
g) Assist in the implementation of real-time and delayed-mode quality control procedures.
h) Promote the flow of Argo and SOT data to their designated archives.
i) Act to resolve any issues arising between observing platforms operators, manufacturers, data telecommunication providers, data assimilation centres, quality control and archiving agencies, WMO and IOC, etc.
j) Act as a clearinghouse for information on all aspects of Argo and SOT observing platform data use.
k) Prepare documents for, participate in and report to the regular meetings of Argo, SOT and JCOMMOPS, and represent these groups at other relevant technical meetings, both inside and outside WMO and IOC, as required.
l) Provide regular status maps and reports to Argo, SOT and JCOMM communities.
m) Administer, develop and maintain the JCOMMOPS Centre. Work in conjunction with the DBCP/OceanSITES TC on JCOMMOPS related issues.
n) Develop and maintain JCOMMOPS Information and Communication System including its database (in particular platforms, metadata), GIS, website(s), mailing lists, etc.
o) Promote an improved international dialogue between oceanographers and meteorologists, and between research and operational communities.



2) Proposed updated DBCP and OceanSITES Technical Coordinator Position Duties and responsibilities

2.1 Under the general supervision of the Executive Secretary, IOC, acting in close collaboration with the Secretary General of WMO, and under the technical guidance from the Chairman of the Data Buoy Cooperation Panel (DBCP, www.dbcp.noaa.gov), and the Co-Chairs of the OceanSITES Program and through direct contact with observing platform operators, data telecommunication providers, and data assimilation centres, the coordinator will assist in the implementation and operations of a global system. The incumbent will therefore have the following duties and responsibilities. Observing platforms below refer to drifting buoys, moored buoys in the high seas.

2.2 As part of the JCOMM in-situ observing Platform Support Centre (JCOMMOPS), the DBCP/OceanSITES Technical Coordinator will assist as appropriate in the implementation of the Global Ocean Observing System and will:

- assist in the **planning, implementation** and **operations** of the observing systems
- develop **synergies** between observing systems
- monitor** and **evaluate** the performance of the networks
- encourage **cooperation** between communities and Member States
- encourage **data sharing**
- assist in **data distribution** on the Internet and the GTS
- relay users' **feedback on data quality** to platform operators
- provide **technical assistance** and **user support internationally**
- act as a **clearing house** and **focal point** on all programme aspects

2.3 70% of the time is spent on DBCP related issues and 30% on OceanSITES coordination.

Duties and responsibilities DBCP and OceanSITES	
a)	Provide technical assistance and support to the DBCP, OceanSITES (Science Team and Data Management Team) and other DBCP Action Groups
b)	Manage contact details for DBCP and OceanSITES participants and user groups and email distribution lists within these contacts.
c)	Assist in collection and distribution in real time of quality observational platform data for operational meteorology and oceanography, as well as for research purposes. Assist in promoting and facilitating the insertion of observing platform data into the Global Telecommunications System (GTS) or into appropriate data distribution systems and permanent archives.
d)	Assist with the development of cooperative arrangements for buoy deployment and maintain information on buoy deployment opportunities and strategies. Liaise with other related programs to increase integration of data access and resources (such as real time data sharing and ship time)
e)	Through direct contact with potential users in member states, advertise the DBCP and OceanSITES programme. Encourage use of observing platform data and active participation by new member states in these, and related programmes. Act as a clearinghouse for information on all aspects of observational platform metadata; maintain DBCP web sites and brochures.
f)	Act to resolve issues arising between observational platform operators, manufacturers, data telecommunication providers, data assimilation centres, quality control and archiving agencies, WMO and IOC.
g)	Assist in the development, implementation, and management of quality control procedures for observing platform data; assist in relaying feed-back quality information from data users to platform operators, and in particular monitor and maintain DBCP "quality control guidelines"
h)	Assist in and develop systems for collection of metadata for data buoys and OceanSITES platforms.
i)	Compile and produce monthly monitoring products to the DBCP, OceanSITES and JCOMMOPS communities. Suggest and produce additional products as requested or needed
j)	In liaison with the OceanSITES community (Science Team, Data Management Team and Member Institutions and platform/site operators) proactively seek and identify new sites; compile, standardise and update documentation (Metadata Catalogue, Whitepapers, Programme web pages and maps); monitor data flow and data formats; and assess network success and requirements
k)	Assist in standardization of instrumentation, data formats, and operational procedures
l)	Work alongside the Argo Technical Coordinator to develop and maintain the JCOMMOPS

database, Geographical Information System and web based monitoring system.
m) Promote an improved international dialogue between oceanographers and meteorologists, and between research and operational communities
n) Prepare documents for, participate in and report to the regular meetings of the DBCP, OceanSITES and JCOMM. Develop meeting reports and documents as required. Assist in arranging OceanSITES meetings as required. Represent these groups at other relevant technical meetings, both inside and outside WMO and IOC, as required.

3) OceanSITES Project Office Terms of Reference:

The Terms of Reference of the OceanSITES Project Office Team are available from the following document:

<http://www.jcommops.org/FTPRoot/OceanSITES/documents/OceanSITES%20Project%20office.doc>
