

**INTERGOVERNMENTAL OCEANOGRAPHIC
COMMISSION (OF UNESCO)**

DATA BUOY COOPERATION PANEL

TWENTY-FOURTH SESSION

CAPE TOWN, SOUTH AFRICA

13-16 OCTOBER 2008

WORLD METEOROLOGICAL ORGANIZATION

DBCP-XXIV/Doc. 5
(3.IX.2008)

ITEM: 5

ENGLISH ONLY

REPORT BY THE TECHNICAL CO-ORDINATOR

(Submitted by Ms Hester Viola, Technical Co-ordinator, DBCP)

Summary and Purpose of the Document

This document provides information on the work undertaken by the Technical Co-ordinator of the DBCP.

ACTION PROPOSED

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

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- Appendices:**
- A. DBCP Logo updates;
 - B. Mock-up of Website Layout and Structure; and
 - C. Example Layout of Webpage.

- A - DRAFT TEXT FOR INCLUSION IN THE FINAL REPORT

5.1 During the period from 1 September 2007 to 31 August 2008, Ms Hester Viola was working as the Technical Co-ordinator of the Data Buoy Cooperation Panel (DBCP). Ms Viola was stationed in Toulouse, France, at CLS, and was employed by the United Nations Educational, Scientific, and Cultural Organisation (UNESCO).

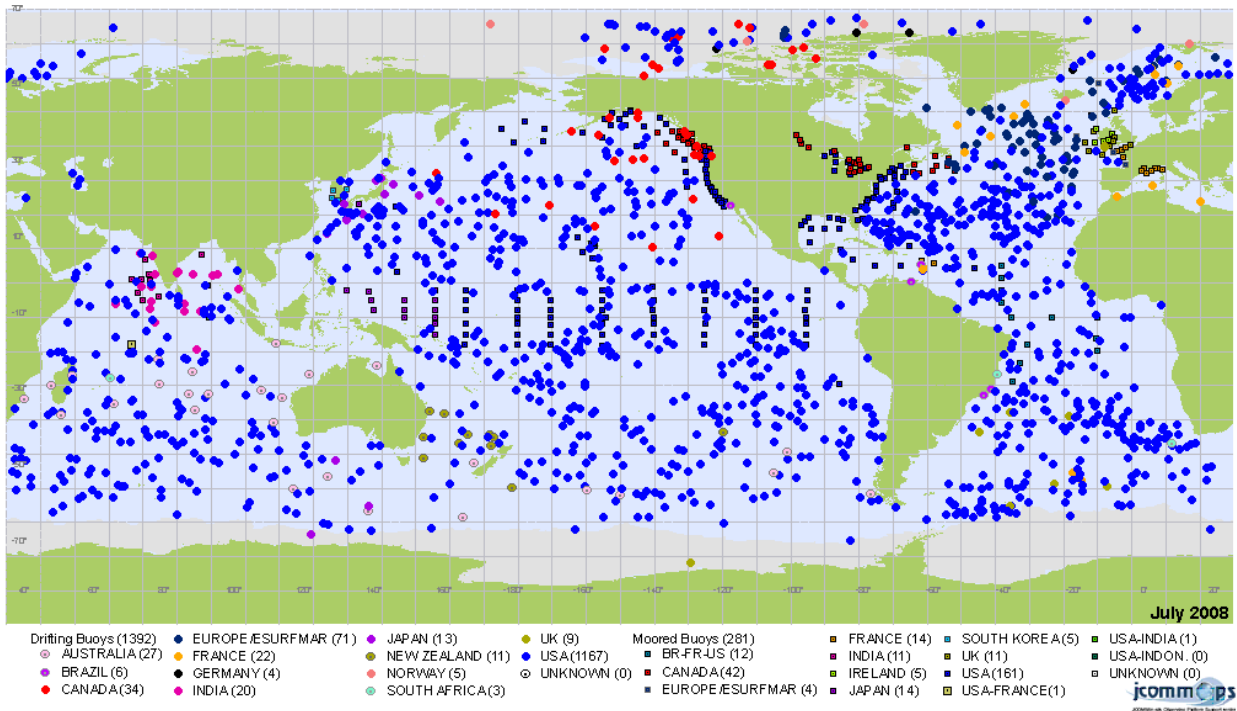
5.2 This year, changes have occurred within the JCOMMOPS, which will mean that in the following year, nominally one third of her time will be allocated to the OceanSITES Project Office support instead of SOT. There will be a period of several months when a significant amount of time will be spent working with the Argo Technical Co-ordinator on transitioning SOT activities and knowledge. This year, JCOMMOPS will be joined by a half-time technical person – Laurent Cros from CLS.

5.3 During the previous year, Ms Viola's time (relating to DBCP) was spent in the following ways:

- User assistance;
- JCOMMOPS - information system operations and maintenance (database, new web server, metadata uploads and reporting);
- Producing monthly maps;
- DBCP Iridium Pilot Project Technical Coordination;
- Working on Metadata within JCOMMOPS database;
- Looking at GTS (new data and delays) and Quality-Control Relay traffic;
- Loading monthly Buoy Monitoring statistics into the JCOMMOPS database;
- Maintaining mailing lists, contact details and user groups on DBCP, JCOMMOPS and JCOMM websites;
- Seeking new deployment opportunities and communicating them to buoy operators;
- Maintaining and updating websites (DBCP, JCOMMOPS and SOT / SOOP sites);
- Producing reports and maps, as required, as well as a quarterly report on work undertaken;
- Attending monthly meetings with CLS and IOC;
- Preparing for and attending meetings; and
- Preparing for the DBCP Session.

5.4 The Technical Co-ordinator outlined the status of the global buoy network and mentioned some of the tasks completed during the intersessional period. She then highlighted some of the issues that required action by the Panel.

5.5 The total number of buoys globally was stable in the last year (more than in the past). The Panel seems to be well prepared to maintain its network above 1250 buoys, and recently, the spread across the globe has been fairly even, clearly showing that the efforts of Panel (the Global Drifter Program in particular) have paid off. Efforts can still be made in sharing deployment opportunities (within DBCP and with other programmes), assessment of buoy lifetimes and where buoys need to be placed, to ensure an even coverage across the globe.



Map 1: DBCP monthly status by country for July 2008. (Data Buoys reporting on the GTS via Météo-France)

5.6 There has been a steady growth in the number of buoys reporting Air Pressure in the last year, but it was not as marked as during the previous year.

Variable	Any	Air P	P Tend.	SST	Air T	Hum.	Wind	Waves	Sub/T
Drifting Buoys	1377	603	546	1233	39	1	7	12	4
Moorings	292	200	161	256	254	151	251	186	83

Table 1: Drifting and Moored buoys – variables being reported on the GTS

5.7 The broader plan, as part of the JCOMM Observations Coordination Group's phased-in implementation plan, is to eventually equip at least 700 drifting buoys with barometers outside of the tropics (as of July 2008 there were ~550 = 78%, compared to ~440 last year). The Panel is invited to discuss how this can be best achieved and to formulate an achievable goal in the interim, e.g., could we have a percentage in mind to aim for by 2012.

5.8 Points for the Panel to discuss were highlighted, such as deployment planning and provision of metadata for moored buoys on the JCOMMOPS website. The draft DBCP logo (Appendix A) and brochure updates were presented for comment. The Technical Co-ordinator demonstrated the proposed DBCP website structure and invited the panel to comment on the Web site structure and layout proposed in Appendix B. The extension of the DBCP, to include all Moored buoys, should also be considered by the Panel, as there is a significant amount of GTS data from non-DBCP moorings / ocean platforms. Some future plans were presented and the Panel was invited to comment on priority tasks for the TC Workplan.

- B - BACKGROUND INFORMATION

DBCP Technical Co-ordinator Report 2007- 2008

5.9 This report covers the activities of the Technical Co-ordinator of the DBCP (TC) for the period from 1 September 2007 to 31 August 2008. A status of the DBCP network and TC tasks completed is given, followed by a detailed report on TC tasks undertaken each month.

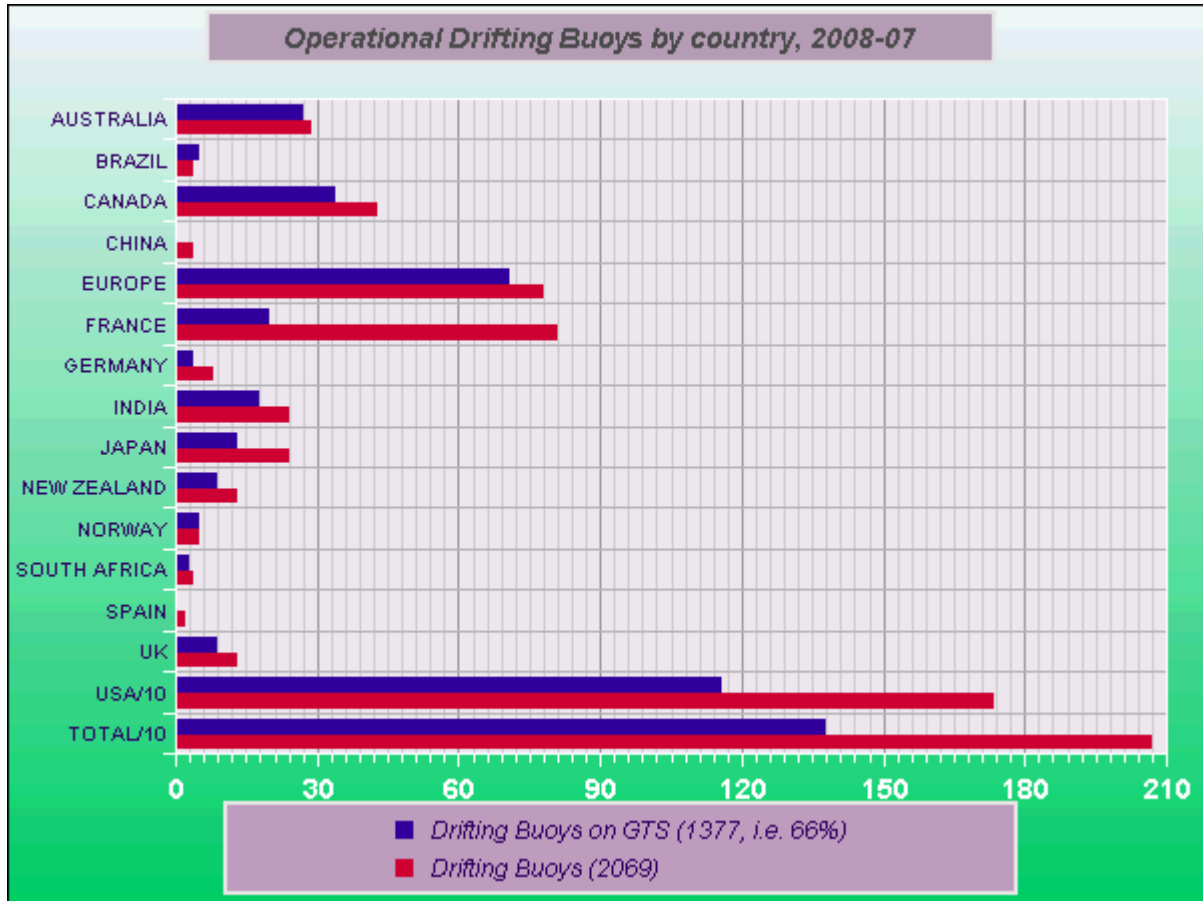
5.10 On average, the TC spends about one third of the time on SOT matters, about 5% on JCOMM and JCOMMOPS issues, and about 5% working with the Argo TC. The remainder of time is spent on DBCP-related matters.

5.11 In these months, her time (relating to DBCP) was spent in the following ways:

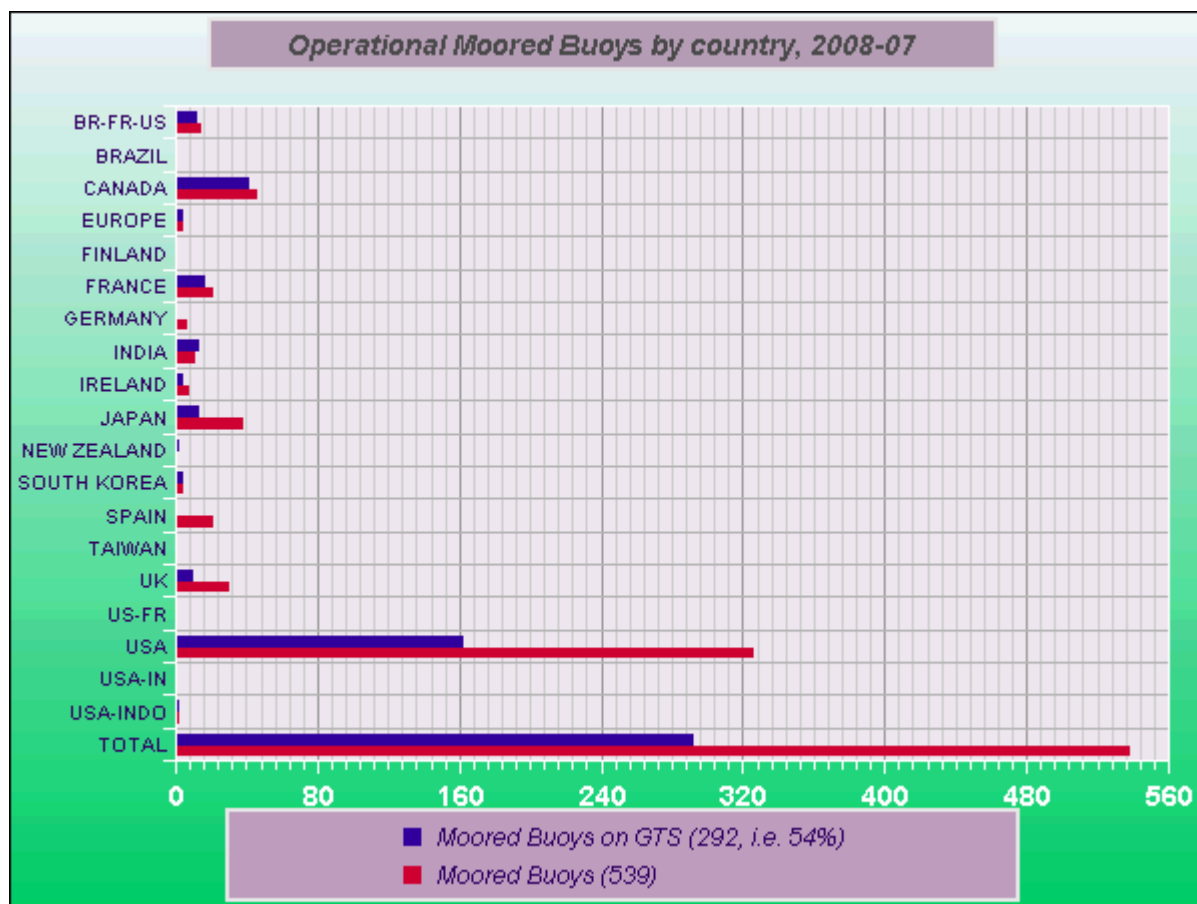
1. User assistance;
2. JCOMMOPS - information system operations and maintenance (database, new web server, metadata uploads and reporting);
3. Producing monthly maps;
4. DBCP Iridium Pilot Project Technical Coordination;
5. Working on Metadata within JCOMMOPS database;
6. Looking at GTS (new data and delays) and Quality-Control Relay traffic;
7. Loading monthly Buoy Monitoring statistics into the JCOMMOPS database;
8. Maintaining mailing lists, contact details and user groups on DBCP, JCOMMOPS and JCOMM websites;
9. Seeking new deployment opportunities and communicating them to buoy operators;
10. Maintaining and updating websites (DBCP, JCOMMOPS and SOT / SOOP sites);
11. Producing reports and maps, as required, as well as a quarterly report on work undertaken;
12. Attending monthly meetings with CLS and IOC;
13. Preparing for and attending meetings; and
14. Preparing for the DBCP Session.

DBCP Status and highlights (as of August 2008)

5.12 Present status of buoy platforms:



Graph 1: Drifting Buoys (mostly reporting via Argos) and those on the GTS by country for July 2008.



Graph 2: Moored Buoys reporting via Argos and those on the GTS by Country for July 2008.

N.B New Zealand 'Mooring' is a stationary drifting buoy.

5.12.1 Amongst the drifting and moored buoys reporting on the GTS in BUOY (and SHIP) message formats; the following variables were measured in July 2008. There has been a steady growth in the number of buoys reporting Air Pressure in the last year.

Variable	Any	Air P	P Tend.	SST	Air T	Hum.	Wind	Waves	Sub/T
Drifting Buoys	1377	603	546	1233	39	1	7	12	4
Moorings	292	200	161	256	254	151	251	186	83

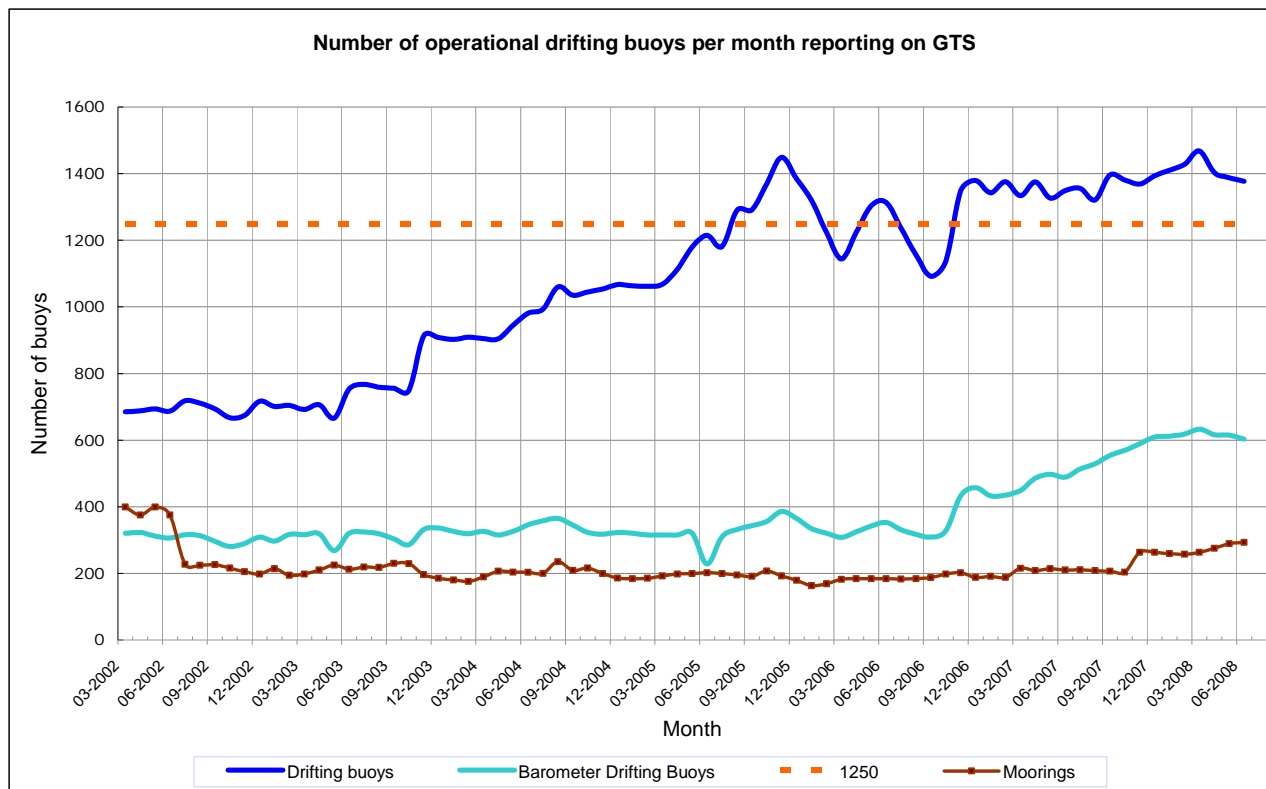
Table 1: Drifting and Moored buoys – variables being reported on the GTS

Year	Operational drifting buoys at JCOMMOPS	On GTS	% on GTS
July 1991	718	264	36.8%
July 1992	1162	474	40.8%
August 1993	1269	548	43.2%
September 1994	1246	587	47.1%
September 1995	1429	631	44.2 %
September 1996	1180	638	54.1%
September 1997	1159	581	50.1%
August 1998	1230	543	44.1%
July 1999	1270	728	57.3%
July 2000	1385	807	58.3%
July 2001	1338	763	57%
July 2002	919	459	49.9%
August 2003	1436	752	52.3%
July 2004	1727	950	55%
June 2005	2396	1157	48%
August 2006	2218	1237	55%
August 2007	2026	1295	64%
July 2008	2069	1377	66%

Table 2: Evolution of GTS Buoy data percentage

5.12.2 Météo-France provided the Data Availability Index Maps on a monthly basis. The maps were useful to identify the data sparse ocean area for each kind of geo-physical variable and therefore to assist the various data buoy programmes in adjusting deployment strategies.

5.12.3 The graph below shows the number of operational drifting buoys over the last 6 years.



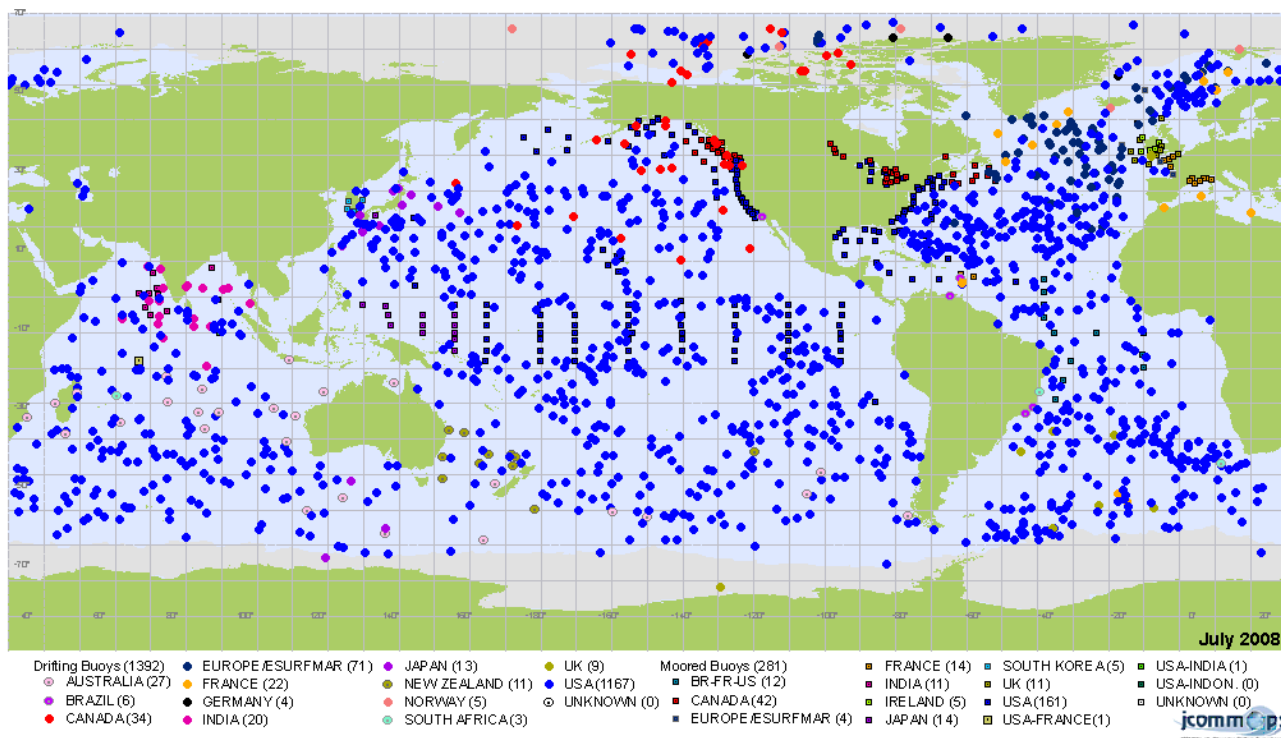
Graph 3: Monthly evolution of the number of operational drifting buoys reporting on GTS from March 2002 to July 2008 and those reporting air pressures. Operational Moored buoys are also included. (Data derived by statistics computed from GTS in situ marine data provided by Météo-France).

5.12.4 This graph shows the continued growth in the number operationally reporting air pressure measurements, though in the last three months that has levelled off a little. A significant growth occurred in the first half of the intersessional period, then a drop in April – May 2008. The inclusion of barometers on buoys has been well supported. The total number of buoys globally has become more stable in the last year than previously, presumably as buoy operators become more used to how many buoys need to be deployed to stay in ‘maintenance mode’ for the network.

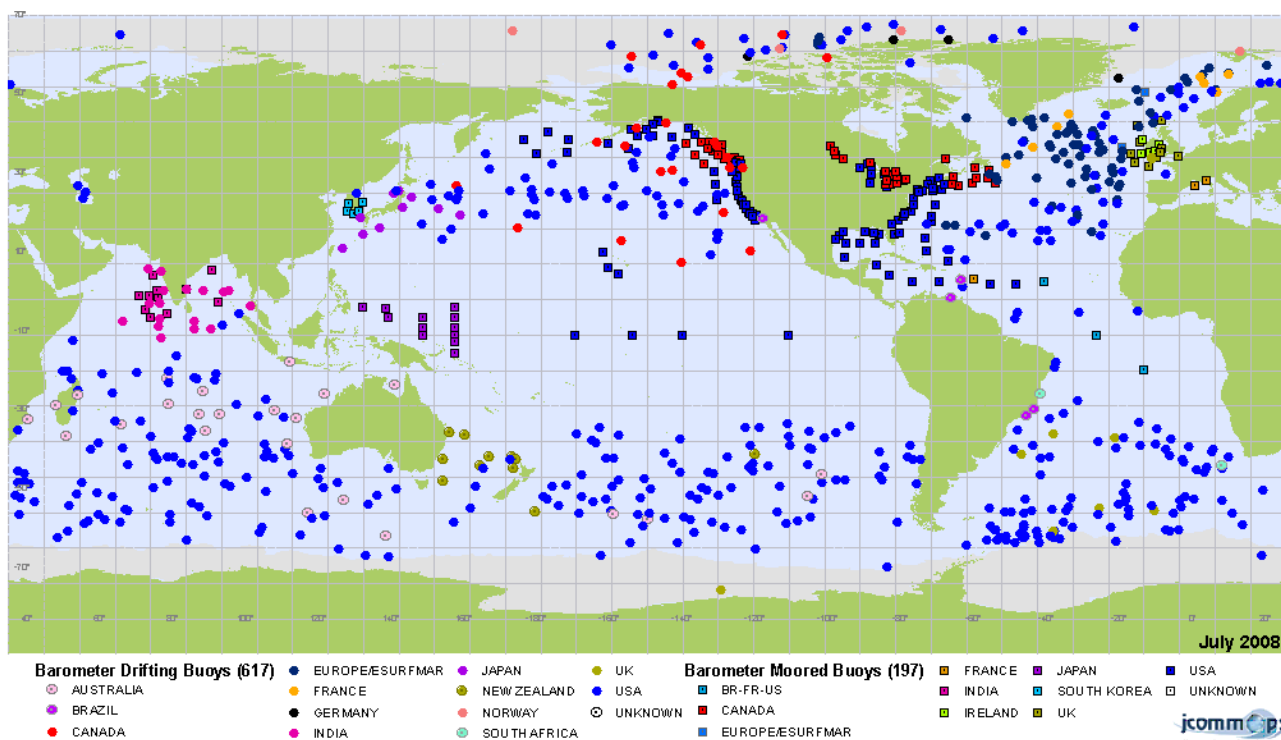
5.12.5 The Panel seems to be well prepared to maintain its network above 1250 buoys, but still, efforts are needed in sharing deployment opportunities (within DBCP and with other programmes), as well as assessment of buoy lifetimes and where buoys need to be placed, to ensure an even coverage across the globe.

5.12.6 The Global Drifter Center, supported by NOAA, continues to offer the Barometer upgrade opportunity for standard SVP drifters for ~\$1000 per unit (see the following URL for details: http://www.jcommops.org/dbcp/svpb_upgrade.html). The goal of having a barometer on all buoys should be critically assessed by the Panel to see if that is achievable.

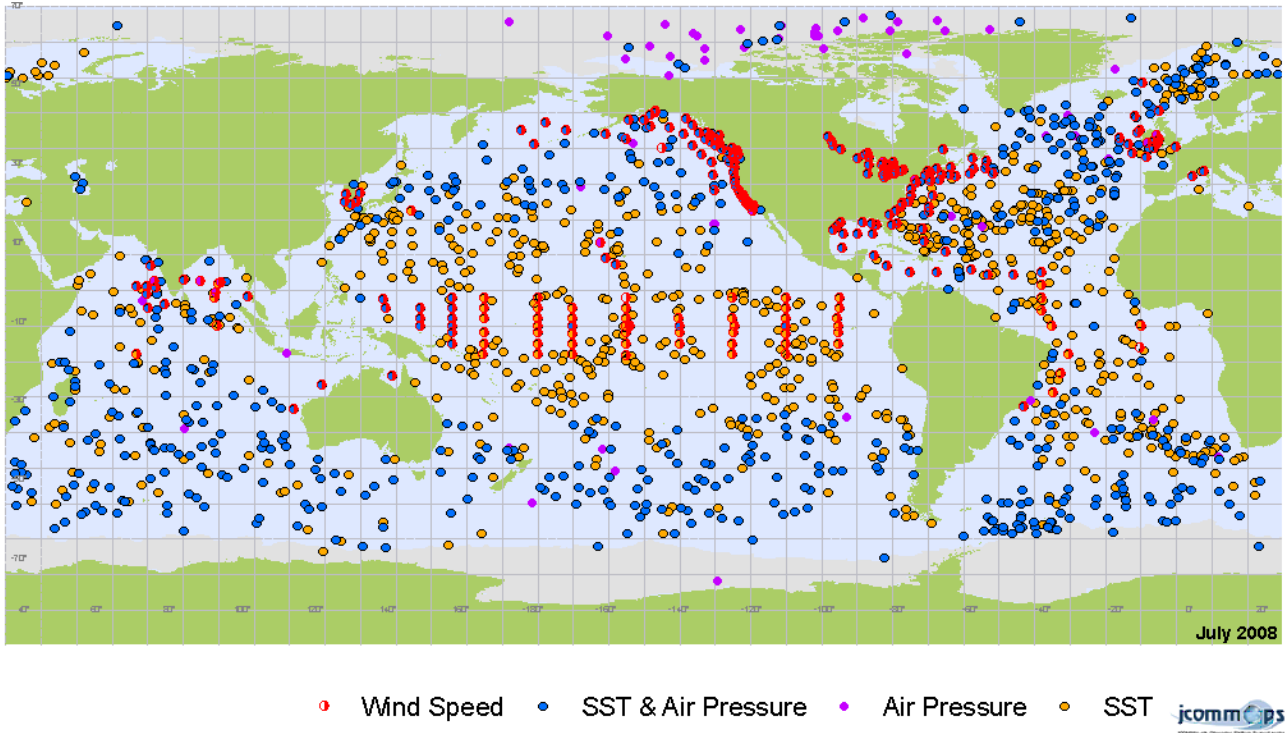
5.12.7 The map below shows that now the spread across the globe is fairly even and that the efforts of the Panel (the Global Drifter Program in particular) have paid off.



Map 1: DBCP monthly status by country for July 2008. (Data Buoys reporting on the GTS via Météo-France)



Map 2: DBCP Barometer Buoy monthly status by country for July 2008. (Data Buoys reporting Pressure measurements on the GTS via Météo-France)



Map 3: Drifting and moored buoys reporting SST, Air Pressure and Wind in July 2008. (Data Buoy reporting on the GTS via Météo-France)

5.13 Maps

The Technical Co-ordinator produced monthly maps, to include:

Dynamic maps:

- Maintained monthly dynamic map:
<http://w4.jcommops.org/WebSite/DBCP> ;
- Maintained daily dynamic map (drifter trajectories):
http://w4.jcommops.org/WebSite/DBCP_RT ; and
- Maintained dynamic map of all JCOMM observing systems
<http://w4.jcommops.org/WebSite/JCOMM> .

Static maps:

DBCP:

Files viewable can be located at: <http://www.jcommops.org/FTPRoot/DBCP/Maps/>.

- *Buoys by Country:*
http://wo.jcommops.org/cgi-bin/WebObjects/JCOMMOPS.woa/wa/map?type=DBM_CNTRY ;
- *Barometer Drifting Buoys by Country:*
http://wo.jcommops.org/cgi-bin/WebObjects/JCOMMOPS.woa/wa/map?type=DBPM_CNTRY ;

- *SST, Barometer and Wind Buoys:*
http://wo.jcommops.org/cgi-bin/WebObjects/JCOMMOPS.woa/wa/map?type=DBM_SPW ;
- *GTS Delays:*
http://www.jcommops.org/FTPRoot/DBCP/Maps/delay_analysis/DBCP_delays.pdf ;
[and](#)
- *Iridium Buoys (52 Active Buoys):*
- http://wo.jcommops.org/cgi-bin/WebObjects/JCOMMOPS.woa/wa/map?type=DB_IRIDIUM ;
-also see <http://www.jcommops.org/dbcp/iridium-pp/>.

JCOMM:

Files viewable can be located at <http://www.jcommops.org/FTPRoot/JCOMM/Maps/> .

- *All in situ marine observations:*
http://wo.jcommops.org/cgi-bin/WebObjects/JCOMMOPS.woa/wa/map?type=GTSM_FMT ;
- *Sub-surface salinity and temperature profiles (now included in a single map):*
http://wo.jcommops.org/cgi-bin/WebObjects/JCOMMOPS.woa/wa/map?type=GTSM_SZ ;
- *All Floats, Drifting and Moored Buoys:*
<http://wo.jcommops.org/cgi-bin/WebObjects/JCOMMOPS.woa/wa/map?type=BUOYS> ; [and](#)
- *All Floats, Drifting and Moored Buoys - Polar areas:*
http://wo.jcommops.org/cgi-bin/WebObjects/JCOMMOPS.woa/wa/map?type=BUOYS_POLES .

5.14 Twenty-third Session of the DBCP, Jeju, South Korea, 17-21 October 2007

- The TC attended and presented to the twenty-third session of the DBCP and Science and Technology workshop.

5.15 Argo Steering Team

- The TC attended the Argo Steering Team meeting for the first time; and
- The AST invited the DBCP to present a report each year to the meeting, particularly in relation to shared deployment opportunities and findings of the Iridium Pilot Project.

5.16 GTS Delays

- The TC has been monitoring global delays and produced summaries. The situation has improved over the intersessional period.

5.17 New Argos processing System

- Monitored GTS data from the new Argos Processing system and highlighted some issues with locations on data;

- Modified all procedures and scripts to accept metadata from the new Argos processing system. This has enhanced the metadata loading into the JCOMMOPS database;
- The Argos Web interface now contains full functionality for buoy operators <http://www.argos-system.org>; and
- Reviewed the real-time tools put in place by CLS for monitoring GTS data flows and data timeliness in order to improve its responsiveness to possible problems. Now well placed to provide analysis of the long-term trends in delays through the system at each stage. Provided a specification document for additional functions.

5.18 DBCP Brochure update

- Draft four-page document is ready to be presented to the session.

5.19 Updates to the DBCP logo

- More scalable;
- Created a small (16pixel) icon for use on websites; and
- See Appendix A.

5.20 DBCP Iridium pilot project

- The Pilot Project is evaluating and demonstrating the operational use of Iridium Satellite data telecommunication technology for the real-time collection of drifter data under various conditions. The project website contains further information, and can be located at: <http://www.jcommops.org/DBCP/iridium-pp>.
 - Full metadata is available for the platforms in a text file updated each day; and
 - The raw messages from the participating platforms can be viewed in Google Mail (contact the TC for details).
- There were 52 platforms active in August 2008 (24 additional ones had been retired, failed or faded). Redesigned website and ensured that map and status files automatically update each day. Ensured that participants notify new deployments; and
- CLS / CLS America are now able to offer a fully operational telecommunications service using Iridium with data inserted onto the GTS.

5.21 Deployment Opportunities

- Sought information for and sent out deployment opportunities in the monthly DBCP email. Updated parts of the JCOMMOPS website concerning new deployment opportunities.

5.22 Documents

- Updated DBCP Publication No. 3. and supported the Chairperson of the DBCP, David Meldrum in updating Document 8.4.2 "Review of Satellite data telecommunications systems"; and

- Prepared documents for the WMO Expert Team on Data Representation and Codes (ET/DR&C) on BUFR templates, as well as the updates to manual on codes and Master Table 10.

5.23 OPSC / JCOMMOPS and OceanSITES Project Office

- Worked with the Argo TC on input to the OPSC letter of intent responses and technical questionnaire;
- Presented to the OceanSITES Science Team about support for the program at JCOMMOPS and received widespread support for the proposal;
- Worked with the Co-chairpersons to compile a list of tasks; and
- Began to transition the work on SOT to the Argo TC and communicated the plans to stakeholders.

5.24 Websites

- Monitored usage of websites using Google Analytics tracking system.

5.25 DBCP Action Groups

- The DBCP has nine action groups - ESURFMAR, IABP, WCRP / SCAR IPAB, DBCP / PICES NPDBAP, TIP, GDP, ISABP, IBPIO and OceanSITES;
- This year, the DBCP action groups map was updated to adjust colours used to be web-safe;
- See http://www.jcommops.org/dbcp/dbcp_ag.html ;
- The TC liaised with DBCP Action Group coordinators and replied to questions from them, prepared DBCP reports for AG meetings (to be presented by the DBCP representative at the meeting) and attended meetings on behalf of the DBCP;
- Attended Action Group meetings, i.e., OceanSITES, IABP, E-SURFMAR DB TAG, IBPIO and NPDBAP.

5.26 Q.C. Guidelines

- The TC monitored the list buoy-qjr@vedur.is and forwarded messages appropriately, as well as facilitating new subscriptions and maintaining contact details in the JCOMMOPS database to ensure that the correct people are contacted with this Quality Feedback;
- Updated the web interface for the Quality Information Relay tool and added some functionality;
- Created new users in the web application for entry of Quality feedback, at <http://wo.jcommops.org/cgi-bin/WebObjects/QCRelay>.

5.27 Buoy Monitoring Statistics

- These statistics, provided by the U.K. Met Office, NCEP, Météo-France, Australian BOM, ECMWF and Canada (locations) were uploaded when received into the

JCOMMOPS database. These are queried using the tools provided on the following websites:

- <http://wo.jcommops.org/cgi-bin/WebObjects/JCOMMOPS.woa/wa/statsSeries?prog=DBCP> ; and/or
- <http://wo.jcommops.org/cgi-bin/WebObjects/JCOMMOPS.woa/wa/histogram?prog=DBCP> .

5.28 WMO / Argos number cross-reference list

- Monthly list of active buoy WMO numbers is available via JCOMMOPS through
 - a dynamic web page which permits to query the JCOMMOPS database (<http://wo.jcommops.org/cgi-bin/WebObjects/JCOMMOPS.woa/wa/wmo>); and
 - a file updated daily which can be downloaded from the JCOMMOPS ftp site. (ftp://ftp.jcommops.org/JCOMMOPS/GTS/wmo/wmo_list.txt) and/or (http://www.jcommops.org/FTPRoot/JCOMMOPS/GTS/wmo/wmo_list.txt).

5.29 GTS data from non-DBCP moorings/ocean platforms:

- There is a potential issue highlighted when looking at GTS data http://wo.jcommops.org/cgi-bin/WebObjects/JCOMMOPS.woa/wa/map?type=GTSM_FMT, as there are many coastal platforms reporting in a SHIP message format, which do not have a WMO number like a mooring. They are however, similar to or actually a moored buoy; and
- Examples are Oil Platforms off United Kingdom, Coastal Buoys off Germany and many coastal moorings run by NDBC and partners. A decision should be reached by the Panel as to whether these should form part of the DBCP and therefore be reported in the statistics and shown on the monthly maps.

5.30 Platforms in the Southern Ocean – Air Pressure

- The Southern Ocean Buoy Programme, as part of the DBCP Implementation Strategy, aims to have 80 operational drifting buoys with barometers distributed across the Seas south of 40°S. Currently, the number of barometer operational buoys is around 174, which means this target is achieved and is successfully continuing to exceed expectations as in the last year; the deployment goals for this area were achieved comfortably. It is clear from Map 3 (above) that a vast majority (80%) of buoys south of 40°S are recording air pressure.
- The main participants were:
 - NOAA / AOML, United States of America;
 - Alfred Wegener Institute, Germany;
 - Bureau of Meteorology (BOM), Australia;
 - Dunstaffnage Marine Laboratory, UK & Met Office, United Kingdom;
 - Météo-France;
 - New Zealand Meteorological Service; and

- South African Weather Service.

Country	Buoys purchased	Additional upgrades	Total
Australia	5	4	9
France	1	18	19
Germany		-	-
New Zealand	7	10	17
South Africa	0	10	10
UK		-	-
USA*	135	-	135
Total	148	42	190

Table 3: SOBP Proposed Commitments for the period September 2007 to August 2008

- The Global Drifter Center commented on the fact that deployment opportunities are very unpredictable in this region, so whilst commitments are made for a total of 135 SVP / SVPB drifters, the actual implementation is not assured. Ships to be used are Marion Dufresne; and
- The following ships will be used by operators to deploy this year:
 - R.V. Marion Dufresne;
 - R.V. Shirase;
 - S.A. Agulhas;
 - Kaharoa; and
 - Nathaniel B. Palmer.

5.31 Future Tasks

In addition to the workplan that already exists, routine tasks, and support for Action Groups and Task Teams, plus working on OceanSITES, the TC plans to:

- Ensure that platform operators using Argos are aware of the benefits of sharing their data on the GTS;
- Design a deployment notification tool for Iridium Buoys;
- Design new products to track deployment plans and assist with creating new deployment opportunities within JCOMM;

- Work with JCOMMOPS colleagues to improve the design and functionality of the QIR tool to integrate all of JCOMMOPS QC feedback into one webpage
- Redesign and rewrite the DBCP website;
- Coordinate updates to DBCP publications;
- Lead discussions about incorporating more Buoy Metadata into the BUFR Template for Drifting and Moored buoys; and
- Enhance the ODAS metadata export tool (XML) for all JCOMMOPS platforms.

5.32 Specific, non-routine tasks undertaken during the intersessional period by the TC of DBCP

August 2007:

- Maintained mailing lists – updating erroneous addresses and added new recipients;
- Loaded monthly Buoy Monitoring statistics into the JCOMMOPS database;
- Attended monthly meeting with CLS;
- Worked on Metadata within JCOMMOPS database based on information provided by CLS and buoy operators. Particularly, creating correct allocations for collaborations between USA / Indonesia and USA / India for TIP in the Indian Ocean. Modified some records incorrectly allocated to ESURFMAR back to the Norwegian Programme;
- Produced monthly maps;
- Updated DBCP Iridium Pilot Project website with deployment information and updated details. Reminded buoy operators to provide notification of deployments for tracking on the website and in order to enter metadata in the JCOMMOPS website;
- Sent requests to panel members for input and new photos for the DBCP Brochure. Some replies were forthcoming and information was incorporated accordingly;
- Preparations for DBCP XXIII – status report and documents. Reviewed Action lists and workplans from 2006, and followed up about status of actions. Made predictions of travel requirements for 2008, and provided to IOC, in order to assess travel budget requirements. Created Document records in the JCOMMOPS database for upload of DBCP23 documents;
- Assisted the Kenyan Meteorological Service with accessing data from buoys deployed recently and accessing Argos Web with GDC's username and password;
- Updated the JCOMMOPS website to remove all references on page to Etienne Charpentier as TC and his email address and update sections (e.g., updated and added to map list to reflect new products and modifications, copyright extended to 2007, removed all references to dbcp.noaa.gov and www.wmo.ch, changed appearance and ordering of menu on the DBCP web page, created link on the DBCP homepage to the latest panel session meeting record, etc.);

- Uploaded GDP Drifter deployment instructions onto the DBCP website. <http://www.jcommops.org/DBCP/buoydeployment.html>;
- Provided further information about deployment opportunities to Oil and Gas Producers from the SIMORC meeting in London, BP and Total, especially regarding the process of deploying buoys, based on information from GDP, Shaun Dolk;
- Sought information from selected DBCP panel members about Anti-Vandalism measures and documentation, provided the results to the WMO Secretariat;
- Sought and compiled information from panel members on their contribution to the Southern Ocean Buoy Programme (SOBP) for the period 1 September 2007 to 31 August 2008;
- Reviewed document prepared by the Chairperson and the Secretariat about working arrangements for DBCP in future (DBCP-XXIII, agenda item 4.1); and
- Reviewed the JCOMM document on the expression of interest in Hosting a JCOMM Observing Programme Support Center and provided input as required.

September 2007:

- Worked on Metadata within JCOMMOPS database based on information provided by CLS and buoy operators. The Canadian buoys in particular had some problems as CLS (AOML) and Canada were reporting the same buoys with two different WMO numbers;
- Followed up on query from NWS USA about Canadian Drifting buoys which had incorrect parameters on the GTS. Looked into metadata based on problem and found that Canada should not have put the buoys on the GTS as they were barometer upgrades of GDP;
- Maintained mailing lists – updating erroneous addresses and adding new recipients;
- Loaded monthly Buoy Monitoring statistics into the JCOMMOPS database;
- Attended monthly meeting with CLS;
- Worked on Metadata within JCOMMOPS database based on information provided by CLS and buoy operators;
- Produced monthly maps;
- Enhanced the daily buoy map symbolised by country in the dynamic ArcIMS maps (http://w4.jcommops.org/website/DBCP_RT) daily update of buoys,
- DBCP Iridium Pilot Project - Entered Iridium buoy metadata for new deployments and updated website with new details and redesigned new menus;
- Updated the DBCP website for consistency,

- Created a website for the TC to visualise the JCOMMOPS networks each day; <http://www.jcommops.org/DBCP/MonthlyMap>;
- Made preparations for DBCP 23, documents and presentations;
- Produced list of Arctic buoys and buoy types since 2001 for CLS publication about the IPY;
- Investigated GTS dissemination progress for Italian Moored buoys;
- Finalised information from panel members on their contribution to the Southern Ocean Buoy Programme (SOBP) for the period from 1 September 2007 to 31 August 2008;
- Discussed (in collaboration with Mathieu Belbeoch) OceanSITES Technical support, and within JCOMMOPS (in collaboration with Mike Johnson); and
- Assisted the Chairperson of JTA with updating the dynamic JTA document.

October 2007:

- Preparations for DBCP-XXIII;
- Attended and presented at DBCP-XXIII:
 - a. Presented a report of the Technical Co-ordinator;
 - b. Presented a report about the DBCP Iridium Pilot Project;
 - c. Presented reports on:
 - i. Deployment opportunities;
 - ii. GTS Delays;
 - iii. Codes and Data Formats;
 - iv. Information Exchange;
 - v. Quality control;
 - vi. JCOMMOPS activities; and
 - vii. Argo Information Centre Activities.
 - d. Presented information about Technological developments in support of user requirements;
 - e. Attended DBCP Executive Board meeting about the future structure of DBCP meetings;
 - f. Attended the ad hoc meeting of the DBCP Iridium Pilot Project;
 - g. Demonstrated and discussed the Metadata Collection System with Julie Fletcher (New Zealand). Following these discussions, the following site was developed

for Ms Fletcher's day-to-day work, to easily view maps etc. <http://www.jcommops.org/DBCP/NZMaps> ;

- h. Participated in several discussions about support of OceanSITES within JCOMMOPS; and
 - i. Demonstrated mapping and network monitoring tools to the Global Drifter Center Drifter Operations Manager and Drifter Data Assembly Center Manager.
- Attended the International Buoy program for the Indian Ocean Annual Meeting, and provided input to the final report;
 - Attended the North Pacific Data Buoy Advisory Panel meeting;
 - Attended the Argos Joint Tariff Agreement meeting;
 - Provided advice to the NDBC / OSMC on buoy metadata and updated metadata for all Ice Platforms. Discussed the OSMC's ongoing use of JCOMMOPS metadata with NDBC (Michelle Little);
 - Updated the current text within the DBCP Brochure as a draft, in preparation for editing it down to two pages;
 - Included information about deployment opportunities in the Southern Ocean on the Deployment Opportunities website;
 - Uploaded NOAA EBD map for July – September;
 - Maintained mailing lists – updating erroneous addresses and added new recipients;
 - Loaded monthly Buoy Monitoring statistics into the JCOMMOPS database;
 - Attended monthly meeting with CLS. Met with the IT section of CLS (along with Mathieu Belbeoch) to discuss the future IT support contract developed for JCOMMOPS;
 - Worked with Météo-France to solve technical difficulties with Daily GTS data / statistics files (Christophe Bataille);
 - Provided updates to CLS on the website and letter relating to GTS Distribution of Buoy Data <http://www.jcommops.org/DBCP/1gtsinfo.html#letter> ;
 - Worked on Metadata within JCOMMOPS database based on information provided by CLS and buoy operators;
 - Produced monthly maps;
 - Provided advice to Buoy operators on WMO number allocation procedures (India and Germany);
 - Contacted Argentina (Ariel Triosi) to enquire about the Moored Buoys that they had previously maintained as they had disappeared from the GTS;
 - Updated the Buoy Manufacturer website to add the attendees at DBCP-XXIII;

- Provided contact details, to GDC (Shaun Dolk) for the Shipping representative of Total for the deployment opportunity in the Indian ocean;
- Discussed OceanSITES support within JCOMMOP with Uwe Send and additionally with David Meldrum and Etienne Charpentier;
- Updated JCOMMOPS mailing lists to enter new participants from DBCP-XXIII and remove or modify bouncing addresses from lists;
- Sent an e-mail to Iridium Pilot Project participants about deployments already occurring and the process for new deployments with Notification and E-mail addresses to include in message transfer, also communicated changes to the transmission format;
- Resolved technical issues on JCOMMOPS web servers due to effects of a power cut at CLS;
- Provided information about GTS distribution and data access to IABP Technical Co-ordinator (Ignatius Rigor);
- Updated all references to <http://www.dbcp.noaa.gov/dbcp> in preparation for removing the URL;
- Followed up with Puertos in Spain (Maria Isabel Ruiz Gil de la Serna) about the BUFR template for Moorings; and
- 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 and Charles Paterson);

November 2007

- Prepared minutes from the ad hoc meeting of the DBCP Iridium Pilot project for the October report;
- Entered Iridium buoy deployment information in the JCOMMOPS database;
- Provided advice to the Irish Hydrographic Service about Moored buoys and forwarded query onto experts;
- Compiled the work plan from DBCP-XXIII for the 2008 Intersessional Period, including incorporating tasks from the previous years;
- Maintained mailing lists – updating erroneous addresses, bounces and adding new recipients;
- Loaded monthly Buoy Monitoring statistics into the JCOMMOPS database;
- Attended monthly meeting with CLS;
- Worked on Metadata within JCOMMOPS database based on information provided by CLS and buoy operators. Particularly, updated metadata for NDBC and Canadian Buoys based on information provided by operators;

- Produced monthly maps;
- Reviewed the OceanSITES website and project aims. Looked at the Metadata catalogues already existing for OceanSITES, in order to devise some draft Terms of Reference for International Coordination for OceanSITES (within JCOMMOPS) in conjunction with Uwe Send;
- Worked with Matthieu 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;
- Participated in four training sessions at CLS about the new Argos system. Data processing and User web screens; and
- Sent copies of DBCP Technical Documents to several buoy operators and potential program managers.

December 2007

- Maintained mailing lists – updating erroneous addresses, bounces and adding new recipients;
- Attended monthly meeting with CLS;
- Produced monthly maps;
- Attended the JCOMM Management meeting, participated in the break out meeting on Standards and Best Practices. Discussed future requirements of the Service Programme Area with Craig Donlon;
- Worked on Metadata within JCOMMOPS database based on information provided by CLS and buoy operators;
- Re-wrote data loading scripts for Argos System connection and creation of Buoy and Ship platforms within the JCOMMOPS database that had not been working properly since the new server was added in August 2007. Created a database script to e-mail support@jcommops.org with information about dead JCOMMOPS platform records which are reporting on the GTS and active JCOMMOPS platforms which had not reported for several months;
- Iridium Pilot Project:
 - a. Created a new database processing script to calculate a daily location for all Iridium (and Orbcomm), platforms in order to develop a seven day track for all buoys participating in the Iridium Pilot Project (in the past locations were only created once at the end of the month from GTS observations);
 - b. Created an interactive map of the Iridium Buoys for people to visualise the data http://w4.jcommops.org/website/DBCP_RT/viewer.htm?Layers=000011111&ActiveLayer=4. Created a script to generate an Iridium ESRI Shapefile data layer for the last location (yesterday) and the seven day track for each buoy;
 - c. Entered Iridium buoy deployment information in the JCOMMOPS database and

prepared Excel Spreadsheet at: http://www.jcommops.org/dbcp/iridium-pp/deployments/buoys_iridium.xls;

- d. Updated the DBCP Iridium Pilot project website layout and content;
 - e. Adding analyses by Météo-France <http://www.jcommops.org/dbcp/iridium-pp/findings.html>; and
 - f. Investigated problems occurring with data flow onto the GTS for Iridium Buoys (bulletin header issue).
- Sent a request to the NOAA web administrator to remove all files on the server www.dbcp.noaa.gov and redirect to JCOMMOPS;
 - Compiled and presented travel plans and budgeting to IOC for quarterly planning. Prepared mission reports;
 - Continued work on the DBCP Brochure update;
 - Prepared some mock-ups of new DBCP logos;
 - Compiled a simple breakdown of how the main menus of a new DBCP website might appear on the front page. Requested feedback from DBCP stakeholders on how the website structure could look in the future;
 - Prepared an abstract for CLIMAR III about JCOMM observing systems data flows, entitled, “The use of Data Buoy, Ship and Argo Float Observations data flows and processing”; and
 - Provided further information about deployment opportunities to Oil and Gas Producers from the SIMORC meeting in London, BP and Total, especially regarding the process of deploying buoys (<http://www.jcommops.org/DBCP/buoydeployment.html>) and Buoy deployment checklist.

January 2008

- Maintained mailing lists – updating erroneous addresses, bounces and adding new recipients;
- Attended monthly meeting with CLS. Discussed status of BUFR coding software and analysis of delays. Reviewed the data and reports being collected within CLS relating to delays in data transmission through the Argos System;
- Worked on Metadata within JCOMMOPS database based on information provided by CLS and buoy operators. Ensured that all NDBC moored buoys had up-to-date metadata, based on monthly files sent via e-mail. Edited New Zealand metadata based on information provided by Julie Fletcher;
- Produced monthly maps and compiled deployment opportunities information;
- Discussions with Candyce Clarke. Participated in guided tour of CLS operational center and a meeting with the CEO Christophe Vassal;
- Corresponded with the OceanSITES Co-chairpersons about future plans;
- Read papers and training materials from WMO about BUFR and Master Table 10;

- Worked with Argo TC to draft updated Terms of Reference for the DBCP / OceanSITES TC and Argo / SOT TC positions in preparation for the Argo Steering Team and our changing roles with taking on OceanSITES support;
- Continued looking at the future structure for the DBCP website;
- Continued updates (draft) of the DBCP Technical Document 3 – *Guide to Data collection and Location services*;
- Loaded MEDS location quality statistics into JCOMMOPS database for the second half of 2007;
- Updated all Monthly Buoy monitoring statistics;
- Prepared graphs for the DBCP Annual Report;
- Compiled mock-ups of new DBCP logos for the Graphic Designers at NDBC to look at and improve. Discussed the requirements with Bill Burnett. Reviewed the results and presented them to the DBCP Chairperson; and
- Completed IOC Performance Management Biennium appraisal with Candyce Clarke. Discussed new approval processes for travel plans within IOC.

February 2008

- Maintained mailing lists – updating erroneous addresses, bounces and adding new recipients;
- Attended monthly meeting with CLS;
- Produced monthly maps, including new content for the Iridium Pilot Project;
- Entered Iridium buoy deployment information in the JCOMMOPS database and prepared Excel Spreadsheet at: http://www.jcommops.org/dbcp/iridium-pp/deployments/buoys_iridium.xls;
- Look at updates to the DBCP Technical Document 3, with assistance from CLS;
- Contacted Shannon McArthur at NOAA to try to track maintenance cruises for DART array;
- Reviewed Argo deployment plans for 2008 and provided some information to GDP for upcoming cruises;
- Provided information to KNMI Netherlands (Frank Grooters) about buoy deployment processes in response to a query about deployment opportunities with Dutch ships;
- Compiled and presented travel plans and budgeting to IOC for quarterly planning;
- Completed performance review for the IOC system with Keith Alverson;
- Entered the document from IMO (provided by Graeme Ball) about dumping of wastes and other materials at Sea on the DBCP website and forwarded the document to

members;

- Resent the request to the NOAA web administrator to remove all files on the server www.dbcp.noaa.gov and redirect to JCOMMOPS;
- Updated the DBCP Iridium Pilot project website layout and content, adding analyses by Météo-France;
- Created a new database routine to obtain Daily Drifting buoy data and Ship platform status for creating a daily ESRI shapefiles more simply and for creating Google Earth KML files more directly and efficiently;
- Implemented Website tracking on JCOMMOPS, DBCP and SOOP websites using Google Analytics;
- Continued 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;
- Contacted Italy (Roberto Bozzano) about nominating a National Focal Point of DBCP and obtaining a WMO number for a moored buoy to be deployed in June in the Mediterranean. ODAS ITALIA 1 buoy (see <http://www.odas.ge.issia.cnr.it>); and
- Began presentation materials for CLIMAR-III presentation.

March 2008

- Maintained mailing lists – updating erroneous addresses, bounces and adding new recipients;
- Attended monthly meeting with CLS;
- Produced monthly maps;
- Finalised a review of document 8.4.2 “Review of satellite data telecommunication systems”, completed with DBCP Chairperson. (See: <http://www.jcommops.org/doc/satcom/satcom.pdf> (also in same directory in a word file)).
- Finalised the redirect to JCOMMOPS from www.dbcp.noaa.gov – NOAA administrator sent a CD of the website which has been archived at JCOMMOPS;
- Entered Iridium buoy deployment information in the JCOMMOPS database and prepared Excel Spreadsheet at: http://www.jcommops.org/dbcp/iridium-pp/deployments/buoys_iridium.xls. Reminded the project participants of the importance of deployment notification;
- Prepared a map of the JCOMMOPS platforms reporting in the Southern Ocean for a submission by Mike Sparrow to the “Antarctic Climate Change and the Environment” book;
- Included several new User logins for the QC Relay tool users, allowing them to enter quality control feedback on Buoys and Ships;

- Updated the interface of the QC Relay tool: <http://wo.jcommops.org/cgi-bin/WebObjects/QCRelay> in response to requests from several users. The changes included:
 - slightly different layout - shifted some elements into separate sections,
 - reduced the number of buttons – now only two buttons on the form: 1. 'View History for selected WMO/Callsign' (which is the default button if you press Enter on your keyboard) and 2. 'Send Report' at the bottom of the form,
 - The LOGOUT option now appears both at the top right and at bottom right of the form; and
 - A new option has been added, which will allow users to send a Carbon Copy (Cc:) of the report to one or more additional e-mail addresses (*if multiple e-mail addresses are entered a comma should be used to delimit each one*).

- Discussed planned DART maintenance routes for 2008-09 (Atlantic and Pacific Oceans) with NDBC and passed information to buoy and float operators as a possible deployment opportunity;

- Reading and familiarisation with the OceanSITES program (Steering Team meeting minutes and Data Management meeting reports);

- Visited NOAA, Washington, D.C. Spoke with OCO staff about the observing system and future plans and discussed:
 - future plans for JCOMM Observations Coordination Group and the NOAA OSMC with Mike Johnson. Also, funding support for OceanSITES; and
 - technical and data issues of the OSMC with Derrick Snowden, as well as SOOP metadata.

- Visit to NOAA Miami. Spoke with Shaun Dolk about buoy deployment opportunities and buoy network density and discussed:
 - plans for drifter deployments in 2008;
 - the tools available at JCOMMOPS to discover deployment opportunities;
 - and shared some upcoming cruise information;
 - potential new contacts for deployment opportunities;
 - upcoming training workshop for the West African region; and
 - logistical requirements to utilise such opportunities.

- Attended the XBT Fall rate equation meeting, Miami, Florida, USA.
 - Attended an ad hoc meeting about Metadata required for XBT data, BUFR template and metadata storage; and
 - Discussed deployment opportunities with Australia CSIRO (Ann Thresher).

- Attended the meeting of the Argo Steering Team, Exeter, UK.
 - Presented on the status of DBCP and SOT, and demonstrated reports available. Focused on areas where DBCP and Argo can work together to capitalise on deployment opportunities;
 - Participated in discussions in context of the relationships being built between JCOMMOPS programmes and relationship between Argo and JCOMM;
 - Participated in discussions about support for OceanSITES within JCOMMOPS with Argo Steering Team and with individual participants; and
 - Discussed deployment opportunities with Argo Steering Team members and Karen Heywood (keynote speaker).
- Provided a paragraph for the Argo Steering Team meeting UK;
- Contacted Karen Heywood about Deployment of Buoys in Southern Ocean; and
- Uploaded NOAA EBD map for quarter into the JCOMMOPS website.

April 2008

- Maintained mailing lists – updating erroneous addresses, bounces and adding new recipients;
- Attended monthly meeting with CLS;
- Produced monthly maps;
- Entered Iridium buoy deployment information in the JCOMMOPS database and prepared Excel Spreadsheet at: http://www.jcommops.org/dbcp/iridium-pp/deployments/buoys_iridium.xls. Maintained the mail archive for the iridium pilot project;
- Entered Buoy metadata into the JCOMMOPS database;
- Continued work on the text for a new DBCP – two page brochure;
- Read and reviewed the Argo Steering Team report;
- Prepared for the OceanSITES meeting, reading documents and correspondence with Co-chairpersons;
- OceanSITES meeting, Vienna, Austria. Attended the OceanSITES Steering Team and Data Management Team meetings:
 - Gave a presentation about JCOMMOPS and DBCP Status. Led a Discussion about the future role of JCOMMOPS (i.e., H. Viola) in supporting OceanSITES and funding mechanisms to do this in a sustainable way in future, participated in discussions about the roles and responsibilities for the coordinator;
 - Received approval from the team for JCOMMOPS support OceanSITES and was generally happy with the initial roles and responsibilities listed. They also

expressed their support for the proposal and requested that it begin officially as soon as possible;

- Discussed financial support issues, and it was agreed that a letter from JCOMM should be distributed to all Organisations currently (or previously) funding JCOMMOPS and that the Co-chairpersons should prepare a letter to appeal to other Organisations as well, with assistance from Hester Viola.
- Sent various e-mails 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;
- Compiled a list of tasks which can be achieved on OceanSITES before August (when the Argo TC would officially take over SOT) and sent this to the OceanSITES Chairpersons for review with High and Medium priority allocations;
- Worked with the OceanSITES Co-chairpersons on financial matters to assist in seeking additional funds for OceanSITES;
- Created user groups on the www.jcomm.info website for (OceanSITES, Science Team and Data Management Team) and added several OceanSITES participants to these groups. E-mailed the Chairpersons about these lists;
- Followed up on Deployment opportunities with Shaun Dolk, providing more details and contacts. Followed up with AOML about deployment opportunities with Australia CSIRO (Ann Thresher). Requested information from Germany on ships being used for float deployments in the southern ocean (Birgit Klein). Polarstern cruise information was forwarded to buoy operators;
- Validated e-mail outputs from the new Argos processing system for reporting changes to GTS distribution on buoys, with CLS. Also looked at the preparation of BUFR messages from the new Argos Processing System, compression and coding of buoys in the Antarctic region (Yann Bernard);
- Identified a problem with Buoy locations being sent to the GTS as Lat=0 and Lon=0. Contacted CLS about this and provided details;
- Hosted a meeting with Derrick Snowden, NOAA at JCOMMOPS about the OSMC, JCOMM, SOOP metadata and data flows. JCOMMOPS web services and tools for Quality Control and network monitoring. Discussed OceanSITES and buoy metadata. Also discussed Iridium services to be provided by CLS (with Christian Ortega) and time frames for completion;
- Reviewed the Letters of Intent for hosting the OPSC in preparation for writing the Technical Questionnaire required for the second round of evaluations;
- Followed up with Puertos in Spain (Maria Isabel Ruiz Gil de la Serna) about the BUFR template for Moorings;
- Made visit to IOC Paris:

- Attended the IOC Ocean Observations Section staff meeting, particularly discussing support for OceanSITES within JCOMMOPS, including hiring of a new part-time staff member, plus the future hosting of the OPSC;
 - Discussed with Maria Hood about the Time Series Workshop (November 2008) planned by IOCCP and OceanSITES; and
 - Participated in discussions with Keith Alverson about the future hosting of OPSC, DBCP Secretariat support, Trust Funds for DBCP and Argo, including contributions made by individual countries, and general support for JCOMMOPS within IOC; and
 - Discussed with Albert Fischer on Project Office support for OceanSITES.
- Became familiarised with BUFR and requirements for VOS developed so far by the Meta-T working group (<http://marinemetadata.org/community/teams/metat>);
 - Reviewed the document created by WMO Secretariat (Etienne Charpentier) on metadata required for BUFR template of XBT data; and
 - Updated the contact details for many European VOS contact points based on input by E-SURFMAR (Pierre Blouch).

May 2008

- Entered Buoy metadata into the JCOMMOPS database;
- Maintained mailing lists – updating erroneous addresses, bounces and adding new recipients;
- Attended monthly meeting with CLS. Participated in discussions between CLS and JCOMMOPS on hiring of a new part-time staff member and the work involved;
- Compiled an e-mail, with the Argo TC Mathieu Belbeoch, concerning the planned changes in JCOMMOPS with SOT and OceanSITES coordination and the hiring of an extra person. Sought feedback from stakeholders on the plans;
- Produced monthly maps, including new content for the Iridium Pilot Project. Entered Buoy metadata into the JCOMMOPS database for Canadian Buoys (from new contact Chris Marshall), Ice Buoys, NDBC and some GDP buoys based on metadata files provided. Also manually entered Metadata for NZ buoys;
- Updated the process which creates the list of active buoys on the JCOMMOPS website (ftp://ftp.jcommops.org/JCOMMOPS/GTS/wmo/wmo_list.txt) to include the numbers of Iridium Buoys which were not exporting properly as they are longer than Argos IDs;
- Provided feedback to the developers of the OSMC on metadata from JCOMMOPS and problems that they had noticed with GTS data via the USA (KARS) by comparing with the JCOMMOPS GTS feed (via Toulouse);
- Entered Iridium buoy deployment information in the JCOMMOPS database and prepared Excel Spreadsheet at: http://www.jcommops.org/dbcp/iridium-pp/deployments/buoys_iridium.xls. Maintained the mail archive for the Iridium Pilot Project;

- Updated contact details for JCOMM representatives on all JCOMMOPS websites;
- Read the report of the JCOMM Data Management Team meeting, third session;
- Compiled a draft list of Technical Questions for the questionnaire of the hosting of the OPSC;
- Analysed results of Website tracking on JCOMMOPS, DBCP and SOOP websites using Google Analytics;
- Further updated the interface of the QC Relay tool <http://wo.jcommops.org/cgi-bin/WebObjects/QCRelay> and fixed a bug;
- E-mailed ESRI (GIS Vendor) about problems encountered at JCOMMOPS with ArcIMS' WMS Queries;
- Reviewed the status of the JCOMMOPS networks in the spreadsheet for the WMO ET-EGOS 3. Found that no changes were required for 2008;
- Reviewed the draft report from the OceanSITES data management meeting. Worked further with the OceanSITES chairs on tasks and priorities. Sent an e-mail on behalf of Val Swail to the OceanSITES participants about the JCOMM Technical Workshop on Wave Measurements from Buoys;
- 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;
- Compiled a presentation for the DB-Tag about DBCP status as well as about the Iridium services to be provided by CLS (based on input by Christian Ortega);
- Prepared a document for the South Atlantic Buoy Programme (ISABP) meeting;
- Attended the E-SURFMAR Data Buoy TAG:
 - Demonstrated some of the Monthly maps and reports produced at the JCOMMOPS. Asked members to add contact details on www.jcomm.info;
 - Presented the global status of the Buoy network;
 - Outlined some new deployment opportunities and asked members to forward new opportunities;
 - Discussed Buoy Metadata, and the TC offered to provide an MS Excel file for operators to use for non-Argos buoy deployments. GTS Delays were demonstrated using a series of monthly maps;
 - Explained the future support for OceanSITES and the subsequent change in role for both Technical Co-ordinators;
 - Presented status of the DBCP Iridium Pilot Project. Also, presented some slides produced by CLS, Christian Ortega, about the provision of Iridium Services in the near future;
 - Assisted the team in developing the action plan for the next intersessional period;

- Entered PDE wave buoy metadata into the JCOMMOPS database in readiness for the GTS distribution.
- Finalised the SOOP 2007 Report and sent an email to the SOOP email list to announce the final report : * PDF format:
<http://www.jcommops.org/FTPRoot/SOT/SOOP/survey/2007-Final-Draft/PDF-2007-SOOP-finaldraft-report.pdf>
* MS Word format: <http://www.jcommops.org/FTPRoot/SOT/SOOP/survey/2007-Final-Draft/DOC-2007-SOOP-final-report.doc>
* Or all in a zip file at: <http://www.jcommops.org/FTPRoot/SOT/SOOP/survey/2007-Jan-Dec.zip>
The report for 2007 is more compact report than before as it refers to a website address for each SOOP line. The sampling information for the SOOP lines is generated in a browser, simply by clicking on the hyperlink(s).
- Attended the Third JCOMM Workshop on Advances in Marine Climatology, Gdansk, Poland, 6-9 May 2008:
 - Provided a presentation on JCOMM Data Flows – entitled, ‘The use of Data Buoy, Ship and Argo Float Observations data flows and processing’;
 - Discussed with Marine Platform Managers and operators;
 - Also discussed about the JCOMM Meta-T pilot project; and
 - E-mailed Rafael Torres about GTS data dissemination of Colombian Moored Buoys and deployment opportunities.

June 2008

Reporting, Meetings, Presentations and Administration

- Produced monthly maps, including new content for the Iridium Pilot Project;
- Updated SOOP monthly map to include TRACKOB TSG drops;
- Attended monthly meeting with CLS. Provided feedback on Argos Location Classes for GDP buoys, namely that GDP data is put onto the GTS with an Argos location class of '0' even if a better location is available before which is not the same for most other programmes. The GDP opted to use the previous 'good' location when the location class given by the Argos System is '0' instead, which CLS America implemented;
- Provided some input to the OOPC meeting (Albert Fischer) about the annual OceanSITES meeting, including reference to the Data Management report which was finalised and available on <http://www.oceansites.org>. Placed the OceanSITES report on www.jcomm.info;
- Provided some input to the OOPC (Candyce Clark) about the SOOPIP Programme;
- Participated in discussions about the Future of OPSC within JCOMMOPS and with JCOMM;
- Assisted the Argo TC with preparation of the technical component of the OPSC questionnaire for short-listed applicants;

- Prepared for and attended the International Arctic Buoy Programme meeting and presented on the global network status, JCOMMOPS products, GTS data distribution, and presented the status and findings of the DBCP Iridium Pilot Project. Gathered several new deployment opportunities (Canadian Coast Guard and Japan, Mirai);
- Worked with DBCP Chairperson on contract renewal;
- Compiled and presented travel plans and budgeting to IOC for quarterly planning; and
- Contacted IPAB (Christian Haas) about potential meeting and offered to prepare a report.

Database and Metadata

- Entered Buoy metadata into the JCOMMOPS database for Ice Buoys, NDBC and some GDP buoys based on metadata files provided;
- Drafted a metadata entry spreadsheet for New Zealand (Julie Fletcher) and E-SURFMAR data buoy operators (testing required);
- 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) up until 31/12/2007(http://www.jcommops.org/FTPRoot/SOT/SOOP/survey/2007_metadata_soop.txt). This is to be provided every year, including the following: LineNumber; CallSign; ShipName; Program; Date; Hour; Lat; Lon; Depth; Quality; TranNum; and DropNumber;
- Worked on data loading for the updated WMO Publication 47 with the Argo TC; and
- Loaded buoy monitoring statistics.

Pilot Projects

- Entered Iridium buoy deployment information in the JCOMMOPS database and updated Excel Spreadsheet at: http://www.jcommops.org/dbcp/iridium-pp/deployments/buoys_iridium.xls. Maintained the mail archive for the Iridium Pilot Project. Contacted buoy operators to try to identify some buoys which were reporting to dbcpiridium@gmail.com but which had not been notified as deployed. Performed audit on non-active buoys and updated spreadsheet. Notified deployments on behalf of Canada.

Data Sharing (Quality control and data timeliness) and GTS

- Included several new User logins for the QC Relay tool users, allowing them to enter quality control feedback on Buoys and Ships;
- Discussed GTS dissemination problems with Australia Bureau of Meteorology (Lisa Cowen) and provided statistics on data reaching Météo-France each month, plus information about the data coming in the next month (which consequently does not appear on JCOMMOPS monthly maps);

- Communicated to DMCG and VOS task teams on codes that the ET/D&RC of WMO scheduled its next meeting for September (Geneva, Switzerland, 15September 2008);
- Sent out a reminder to DMCG task team on codes to provide input and any revisions to JCOMM BUFR template(s) for the ET/DR&C by August. Discussed work on Master Table 10 with WMO Secretariat and Robert Keeley; and
- Met with CLS (J-P Janacek and Nadine Gayrard) about the BUFR system that has been developed.

Documentation and Information Exchange

- Maintained mailing lists – updating erroneous addresses, bounces and adding new recipients;
- Drafted a requirements document for CLS on delays analysis within the Argos system (e.g., need for ongoing analysis of statistics on delays from different groups of platform types globally, for all platforms within each ocean basin, etc.);
- Contacted SOBP contributors about 2008-09 status and planning;
- Began OceanSITES web review for broken links and drafting input for WHOI to do updates;
- Provided information to Maria Hood about the WMO numbering system for OceanSITES;
- Provided input to WMO for its annual review of Observing Network success and plans (under its working group on the Evolution of the Global Observing System). Sought an update on the measurement of distribution of *higher temporal resolution SST* data from GDP. Contacted Indian Buoy manager(s) (Dr Raju Rajendran) about nominating a National Focal Point for DBCP and the moored buoy network status and plans for 2008-2009;
- Followed up on deployment of buoys via the US National Hurricane centre;
- Followed up with Colombia (Rafael Torres) and NDBC (Bill Burnett) about GTS data dissemination of Colombian Moored Buoys and deployment opportunities;
- Contacted Germany (Henry Kleta) about having a National Focal Point for DBCP and putting their two moorings onto the GTS. Followed up about potential deployment opportunities with German ships and research cruises;
- Contacted INCOIS (Ravichandran) about Indian research cruises planned for 2008-2009 and forwarded information to IBPIO and GDP and AIC;
- Provided feedback to the developers of the OSMC on standard colours used on JCOMMOPS maps to represent countries; and
- Uploaded NOAA EBD map for quarter into the JCOMMOPS website.

July 2008

Reporting, Meetings, Presentations and Administration

- Produced monthly maps. Simplified the process for generating the monthly maps by consolidating the (GIS ESRI ArcMap) files used into three files instead of six;
- Attended monthly meeting with CLS. Participated in discussions between CLS and JCOMOPS on hiring of a new part-time staff member and the work involved;
- Reminded SOBP contributors about 2008-2009 status and planning;
- Prepared documents for DBCP;
- Attended (via video) the IOC OOS monthly meeting; and
- Reviewed agenda for DBCP-XXIV.

Database and Metadata

- Entered Buoy metadata into the JCOMMOPS database for several programs;
- Worked with CLS technical staff for JCOMMOPS to easily access the new database table created for recording WMO number allocations for all Argos GTS platforms. Began update to data loading scripts in order to read the new table as well as in JCOMMOPS database, from the new Argos Processing system database where conflicts occurred;
- Contacted UK Met Office (Craig Donlon) about ongoing use of BUFR Master Table 10; and
- Contacted JMA about the Argo BUFR template to see if any updates were required. Also 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. Discussed the proposed updates to the WAVEOB BUFR template proposed by Australian BOM (Weiqing Qu) and proposed changes may affect the BUOY template for wave observations in future. Contacted AOML (J. Trinanes) about templates in use at AOML and potential updates required.

Pilot Projects

- Entered Iridium buoy deployment information in the JCOMMOPS database and prepared Excel Spreadsheet at: http://www.jcommops.org/dbcp/iridium-pp/deployments/buoys_iridium.xls. Maintained the mail archive for the Iridium Pilot Project.

Data Sharing (Quality control and data timeliness) and GTS

- Forwarded VOS and (some) Buoy QC messages to the appropriate operators. Worked on CallSign masking data file and database set up;
- Followed up with Puertos del Estados in Spain (Maria Isabel Ruiz Gil de la Serna) about the BUFR template for Wave buoys; and

- Contacted Météo-France (TOULOUSE) about a problem found with the daily GTS statistics (6 days worth). Once the problem was resolved at their end all missing data was loaded manually.

Documentation and Information Exchange

- Maintained mailing lists – updating erroneous addresses, bounces and adding new recipients;
- DBCP Brochure: Sent draft text and layout for the update DBCP brochure to the Chairperson for review. Modified text based on the comments received;
- Worked on the DBCP logo;
- Worked on the DBCP Technical Document 2 to update the content and presentation;
- Continued OceanSITES web review for broken links. Drafted input for WHOI;
- Sent out (GDAC) metadata form for OceanSITES to Chairpersons for comment. Reviewed and redrafted the form based on comments received; and
- Set up a new mailing list for the OceanSITES Science Team and worked with Chairpersons on whom to include.
- Assisted CLS Japan and JAMSTEC with:
 - documentation and Manufacturer contacts for barometer port on a CO2 buoy they were developing;
 - information about GTS distribution; and
 - a proposal for changes to Argo Processing for TRITON buoys (in line with TAO),
- Provided information about DBCP Action Group meetings in 2007-2008 to WMO.

Task Team and Action Group support

- Provided input to the Task Team reports for QM, Task Team on Data Management and Tech Developers with an outline of issues for discussion and comments on the Terms of Reference.

August 2008

Reporting, Meetings, Presentations and Administration

- Produced monthly maps;
- Worked with Argo TC on ideas for tasks for the new IT resource at JCOMMOPS – (Laurent Cros);
- Provided information about JCOMM standard maps to the GLOSS project (T. Aarup);
- Discussed tasks for SOT with Argo TC;

- Provided link to the new Action Group map for ISDM to use on websites;
 - Followed up with UNESCO administration about contract renewal and travel budget;
- and
- Provided summary of status of Action Items from 2007-2008 Work Plan to the Secretariat.

Database and Metadata

- Performed extensive metadata cleaning and updates to data loading scripts and statistics calculations for Platform by Country. Manually entered buoy metadata into the JCOMMOPS database for several programs;
- Loaded buoy monitoring statistics and location QC from ISDM Canada;
- Finalised data loading scripts to load data from the new Argos processing system database. Identified and raised with CLS some problems with the database (e.g., duplicates and fake (test) WMO allocations); and
- Updated monthly statistics in the JCOMMOPS database based on a query from USA (Bert Thompson). There were several errors in the definitions of programs in the JCOMMOPS database, which meant the buoys in those programs were not considered in the statistics (items rectified).

Data Sharing (Quality control and data timeliness) and GTS

- Provided information to South Korea about distribution of Moored Buoy data on the GTS. Two additional buoys will be added to their network;
- Requested and received information about German platforms reporting with WMO numbers like BSHxx which were appearing to be Ships. These are in fact stationary coastal platforms;
- Replied to a request by the Directorate of Hydrography and Navigation of the Peruvian Navy (L. Carolina) about putting moored buoy data onto the GTS;
- Followed up with AOML on BUFR templates being tested for BATHY and TRACKOB messages;
- Worked with JCOMM DMCG Task Team on codes (Robert Keeley) on proposal for new Master Table 10 definitions; and
- Requested that CLS American and Navoceano look into buoy location problems as erroneous positions were going onto the GTS from Navoceano buoys (0 lat & 0 long).

Pilot Projects

- Iridium PP
 - Updated the website for plans and <http://www.icommops.org/dbcp/iridium-pp/>;
 - Created new Database procedures to process Iridium PP metadata. A csv status file is automatically generated daily with platform details, lifetime, manufacturer, etc.: http://www.icommops.org/dbcp/iridium-pp/deployments/buoys_iridium.csv;

- Placed a link to each programs platforms on the website FrontPage;
 - Added a link to the static monthly map on the website frontpage:http://wo.jcommops.org/cgi-bin/WebObjects/JCOMMOPS.woa/wa/map?type=DB_IRIDIUM;
 - Sent out e-mail about a proposed meeting during DBCP-XXIV; and
 - Reviewed e-mail to be sent by CLS about Iridium Services.
- Discussed with CLS (Yann Bernard) how Iridium buoys could be identified (IMEI) in the Argos system and the metadata on the buoys within the Argos system.

Documentation and Information Exchange

- Prepared documents for DBCP;
- Prepared documents for Expert Team on Data Representation and Codes – one about JCOMM BUFR status and requirements and another about Master Table 10 for Oceanographic Data:
 - Compiled a new proposed BATHY BUFR Template based on meeting in AOML and requested review by AOML (J. Trinanes) and DMCG;
 - Compiled document on status of JCOMM templates and proposed changes to code tables, addition of elements and sequences and one additional code table to support JCOMM data users; and
 - Finalised proposed new Master Table 10 and accompanying changes to code tables.
- Continued with DBCP Technical Document 3 updates;
- Reformatted the DBCP Brochure onto four pages and updated the text based on input on the wording by several external parties;
- Created a list within the JCOMMOPS User Groups for the GHRSSST Science Team participants see: http://wo.jcommops.org/cgi-bin/WebObjects/JCOMMOPS.woa/wa/usergroup?abbrev=GHRSSST_ST or http://wo.jcommops.org/cgi-bin/WebObjects/JCOMMOPS.woa/wa/usergroup?abbrev=GHRSSST_ST&option=Name as requested by GHRSSST (Craig Donlon);
- Continued Oceansites web review for broken links. Drafted input for WHOI;
- Provided additional input on update to (GDAC) metadata form for OceanSITES metadata input with Bill Burnett; and
- Sent reminder to SOBP contributors about 2008-2009 status and planning.

Task Team and Action Group support

- Set up a Google Group for the Quality Management Task Team in order for them to test if that is a good forum for communication.

Appendices: 3

DBCP LOGO UPDATE



MOCK-UP OF WEBSITE LAYOUT AND STRUCTURE

<http://www.icommops.org/dbcp>

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Global Buoy Network

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Web Links

EXAMPLE LAYOUT OF WEBPAGE

DBCP - Data Buoy Cooperation Panel - Mozilla Firefox
_ □ ×

File Edit View History Bookmarks Yahoo! Tools Help
☼

Data Buoy Cooperation Panel

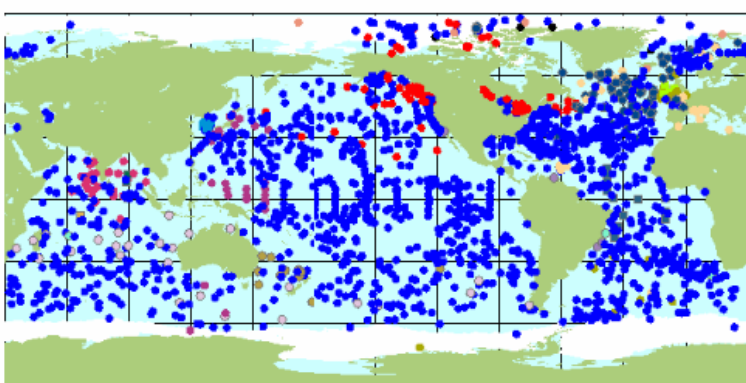


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DBCP Helping meteorologists and oceanographers worldwide

The Data Buoy Cooperation Panel (DBCP) is an official joint body of the World Meteorological Organization (WMO) and the Intergovernmental Oceanographic Commission (IOC). It consists of the data buoy component of the Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM). It undertakes coordination at the international level of the observational networks for which they are responsible. The DBCP coordinates the deployment, maintenance and collection of data from instrumented oceanographic and meteorological drifting buoys and moored buoys on the high seas.



[Map Legend](#) » DBCP Monthly Map (data for November 2007 from JCOMMOPS database)

In 2005, the DBCP achieved its first major milestone of 1250 drifting buoys. This is equivalent to one drifting buoy each 500 kms. Maintaining the number of buoys above this level is an important task for the future, but the next challenge for the DBCP is to ensure that these buoys are evenly dispersed across the world's oceans. Moored buoys also play an important role in the DBCP network.

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