WORLD METEOROLOGICAL ORGANIZATION

INTERGOVERNMENTAL OCEANOGRAPHIC COMMISSION (OF UNESCO)

DATA BUOY COOPERATION PANEL

DBCP-28/ Doc. 5 rev. 2
(6-Oct-12)

TWENTY-EIGHTH SESSION

ITEM: 5

FREMANTLE, AUSTRALIA
2-6 OCTOBER 2012

ENGLISH ONLY

REPORT BY THE TECHNICAL CO-ORDINATOR

(Submitted by the Technical Coordinator, Kelly Stroker, JCOMMOPS)

Summary and purpose of the document

This document provides information on the work undertaken by the Technical Coordinator of the DBCP during the last intersessional period.

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 the details of recommended actions.

Appendices:
- A. Monthly Maps for July 2012
- B. Graph of Parameters Reporting on the GTS
- C. Quality of Buoy Data
- D. Technical Coordinator non-routine Tasks

-A- DRAFT TEXT FOR INCLUSION IN THE FINAL REPORT

5.1 During the period 1 September 2011 to 31 August 2012, Ms. Kelly Stroker worked as Technical Coordinator (TC) of the Data Buoy Cooperation Panel (DBCP). Ms. Stroker worked in Toulouse, France, at CLS, and was employed by the United Nations Educational, Scientific, and Cultural Organization (UNESCO). On average, the TC spends 70% of her time on DBCP-related matters and 30% of her time as OceanSITES Project Office.

5.2 During the previous year, Ms. Stroker's time was spent on the following:

- Familiarizing herself with the JCOMMOPS Database and tools;
- Familiarizing herself with DBCP community, platforms, operators, and networks;
- Travelling to meet with various DBCP Members, Action Groups, and Teams;
- User assistance as needed;
- Assisting Panel members with technical and programmatic issues;
- Maintaining metadata in the JCOMMOPS database;
- Updating and maintaining DBCP and OceanSITES websites;
- Maintaining mailing lists, contact details and user groups on DBCP, JCOMMOPS, and OceanSITES website (including coordination with JCOMM site);
- Monitoring the Quality-Control Relay traffic;
- Investigating deployment opportunities;
- Producing monthly maps;
- Tracking all buoy deployments, and mooring maintenance/installations;
- JCOMMOPS – reviewing database design, metadata loading and reporting;
- Preparing for and attending meetings;
- Monitoring Global Telecommunication System (GTS) data flow and timeliness;
- Working with JCOMMOPS student on updates to the DBCP and OceanSITES Google Earth layer.

5.3 The TC outlined the current status of the data buoy network. During the past 12 months, the number of drifting buoys reporting onto the GTS has decreased over 20%. While we have seen the number of operational drifters go up in the past couple of months, this statistic is of great concern to the community. The current number of operational drifters on the GTS for July, 2012 was 1186, with about ½ of those reporting atmospheric pressure. The cause for the decrease is due to a number of factors that will be discussed during the session of DBCP and manufacturers are aware and taking action. The GDP has investigated this and determined it was due to

(1) leaking battery packs for drifters from two manufacturers,
(2) unconventional design changes in drifters from one manufacturer, and
(3) higher energy consumption by the new Argos transmitter designed for Argos 3 (PMT) when used in Argos 2 mode.

The GDP has responded to these issues by

(1) issuing a recommendation to the manufacturers to use only high quality batteries and
(2) requiring higher standardization across the manufacturers to address water infiltration.

Solutions to address problem (3), which was discovered more recently, are now being addressed.

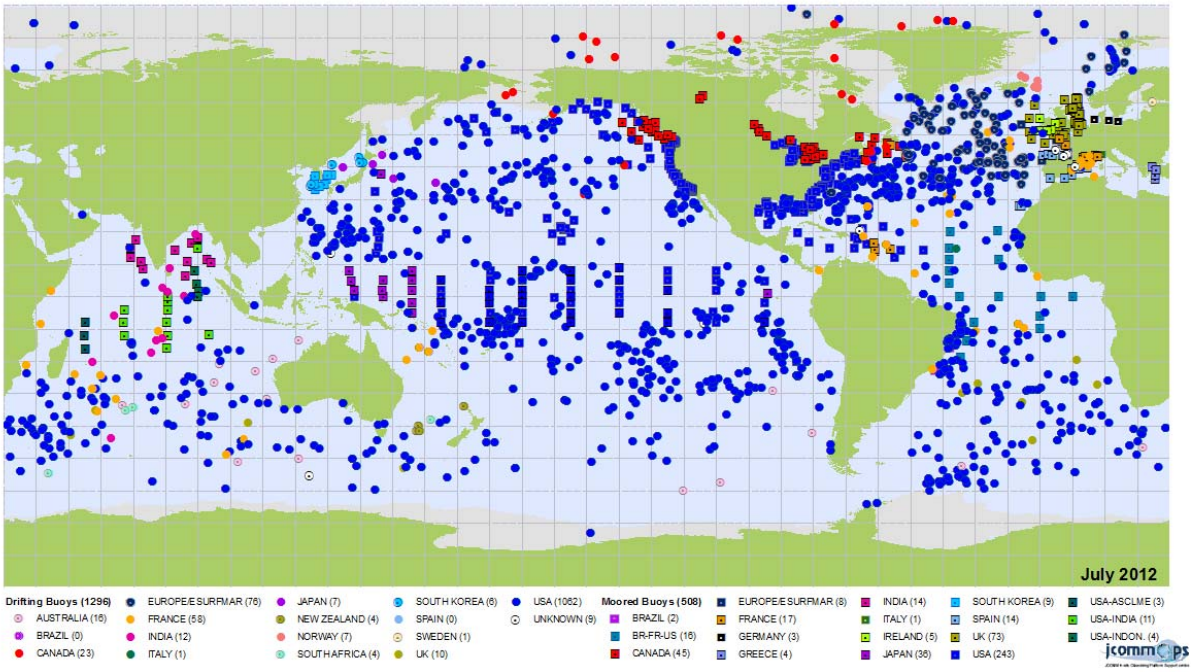
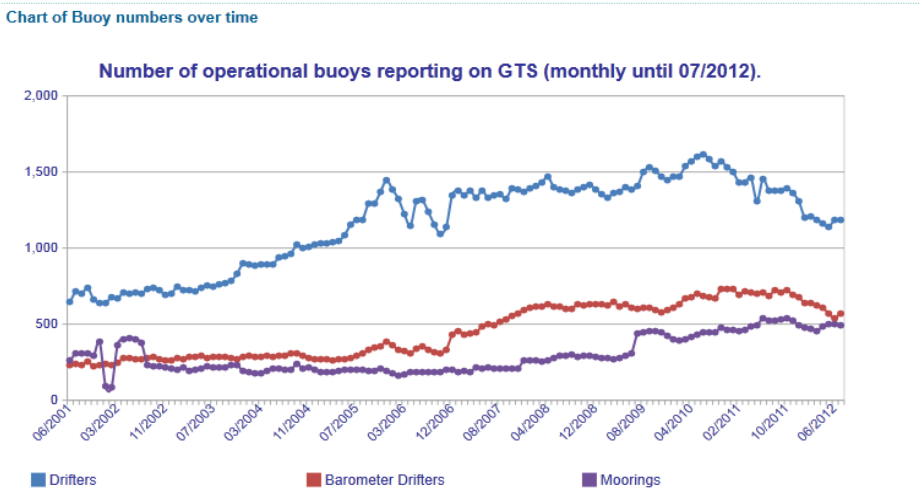


Figure 1- Drifting and Moored buoy monthly status map for July 2012. (GTS information received from Météo-France)



1186

568

489

Figure 2 - Number of operational buoys reporting on the GTS since 2001.

5.4 The Technical Coordinator reported that among the drifting and moored buoys reporting on the GTS in BUOY (or BUFR) format, the following variables were measured in July 2012.

Variable	Any	Air P	P Tend	SST	Air T	Hum	Wind	Waves	Sub/T
Drifting Buoys	1186	568	519	1085	18	2	4	10	38
Moorings	489	347	265	375	400	214	387	343	118

Table 1 - Drifting and Moored buoy variables being reported on the GTS during July 2012.

5.5 She also reported that during the last intersessional period the Deep-Ocean Assessment and Reporting of Tsunami (DART) Buoys had been added to the JCOMMOPS database. The locations of these buoys will be included in future monthly maps and reporting. The data for these buoys does not come through the normal GTS chains and is not collected by Météo-France nor the Integrated Science Data Management (ISDM, Canada).

5.6 A comparison of GTS Data was done between ISDM and Météo-France in both April and July, 2012. The comparison proved generally good. For most of the "TTAAii CCCC" GTS bulletin headers, the magnitude of the number of available messages is the same. One critical issue that needs to be addressed concerns the TAO Refresh buoys. At present 24 TAO Buoys in the Pacific have been refreshed to use Iridium communication and these buoys are reporting under the GTS Header of "SXPA01 KWNB". This format does not follow the WMO specifications for bulletin headers and thus the data are not processed at Météo-France. The GTS header should be modified to follow WMO specifications as the entire TAO array has plans to be refreshed by 2014. (***action; NDBC; asap***).

5.7 The Southern Ocean Buoy Programme, as part of the DBCP Implementation Strategy, aims to have 300 operational drifting buoys with barometers distributed across the Seas south of 40^{o}S. During July 2012, the number was 169, which means this number has not yet been achieved.

5.8 The Technical Coordinator discussed the DBCP Label (to stick on drifters) that has been discussed for a number of years. This label would not only assist in recovering beached instruments, but also could help to combat the vandalism issue that is so prominent in certain parts of the worlds oceans.

5.9 The TC then discussed her work during the intersessional period, highlighting certain key tasks completed during the intersessional period. Updates to the website, Google Earth layer, brochure and technical documents were all undertaken in the intersessional period. She then highlighted some of the issues that required action by the Panel which were to be discussed further in agenda item 12.3. Some future plans were presented and the Panel was invited to comment on priority tasks for the TC Workplan.

5.10 The Panel agreed on the following:

(i.) The DBCP community should adopt an international sticker, similar to that developed for the Argo Program; and requested the Technical Coordinator to make a proposal through the Executive Board (***action; TC; DBCP-29***);

(ii.) The DBCP community is encouraged to provide any information on planned deployments to JCOMMOPS as soon as it is available (***recommendation***);

(iii.) Manufacturers are encouraged to provide information to JCOMMOPS on models,

formats, and shipments (***recommendation***);

(i.) The Panel requested the Technical Coordinator to work with Iridium VARs to obtain drifting and moored buoy data (***action; TC; DBCP-29***);

(ii.) The GTS header should be modified to follow WMO specifications as the entire TAO array has plans to be refreshed by 2014. (***action, NDBC, asap***).

-B- BACKGROUND INFORMATION

1 This report covers the activities of the Technical Coordinator of the DBPC for the period of 1 September 2011 to 31 August 2012. Ms. Stroker was hired in September of 2011, so this period is completes her first year as TC.

2 As this was Ms. Stroker's first year as DBCP TC, she spent a lot of time becoming familiar with the tools and background necessary to perform her job and support the community. During the 11 month gaps of DBCP coordination, a number of automated processes were stopped, the database was migrated and tools were changed. The TC thanks the Panel for their patience while she tries to get up to speed. Main tasks during the last intersessional period were:

- Familiarizing herself with the JCOMMOPS Database and tools,
- Familiarizing herself with DBCP community, platforms, operators, and networks,
- Travelling to meet with various DBCP Members, Action Groups, and Teams,
- User assistance as needed,
- Assisting Panel members with technical and programmatic issues,
- Maintaining metadata in the JCOMMOPS database,
- Updating and maintaining DBCP and OceanSITES websites,
- Maintaining mailing lists, contact details and user groups on DBCP, JCOMMOPS, and OceanSITES website (including coordination with JCOMM site),
- Monitoring the Quality-Control Relay traffic,
- Investigating deployment opportunities,
- Producing monthly maps,
- Tracking all buoy deployments, and mooring maintenance/installations,
- JCOMMOPS – reviewing database design, metadata loading and reporting,
- Preparing for and attending meetings,
- Monitoring GTS data flow and timeliness ,
- Working with JCOMMOPS student on updates to the DBCP and OceanSITES Google Earth layer.

Current status of the data buoy network

3 During the past 12 months, the number of drifting buoys reporting onto the GTS has decreased over 20%. While we have seen the number of operational drifters go up slightly in the

past couple of months with summer deployments in the Northern Hemisphere, this statistic is of great concern to the community. The current number of operational drifters on the GTS for July, 2012 was 1186, with about ½ of those reporting atmospheric pressure. The cause for the decrease is due to a number of factors that will be discussed during this session and manufacturers are aware and taking action. The GDP has investigated this and determined it was due to (1) leaking battery packs for drifters from two manufacturers, (2) unconventional design changes in drifters from one manufacturer, and (3) higher energy consumption by the new Argos transmitter designed for Argos 3 (PMT) when used in Argos 2 mode. The GDP has responded to these issues by (1) issuing a recommendation to the manufacturers to use only high quality batteries and (2) requiring higher standardization across the manufacturers to address water infiltration. Solutions to address problem (3), which was discovered more recently, are now being addressed.

A detailed analysis of this issue was presented at the Science and Technology Session by the Global Drifter Program.

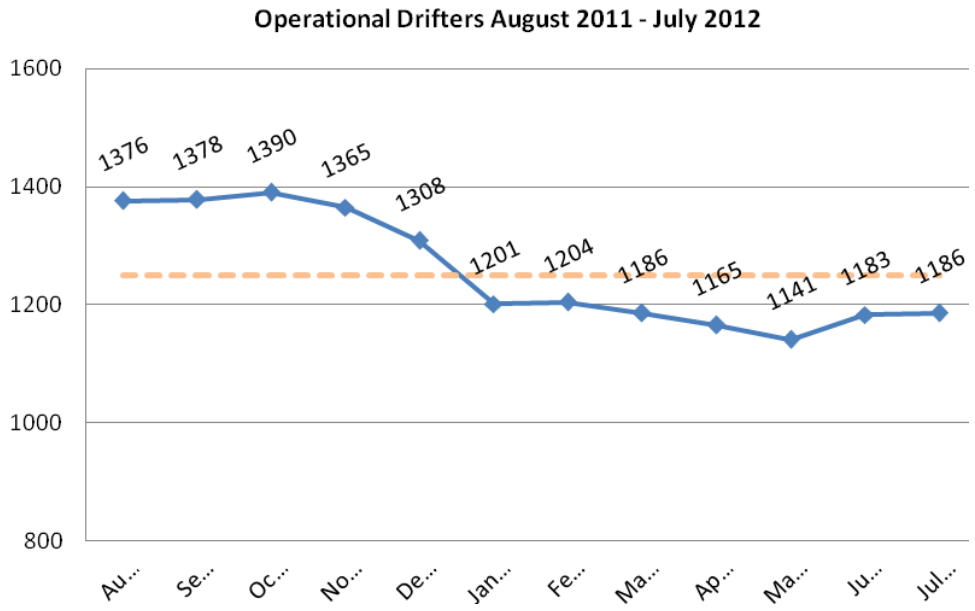


Figure 3 - Operational drifters on the GTS during the period August 2011-July 2012. Number of drifters verified and confirmed through Météo-France GTS. Target line of 1250 shown for reference.

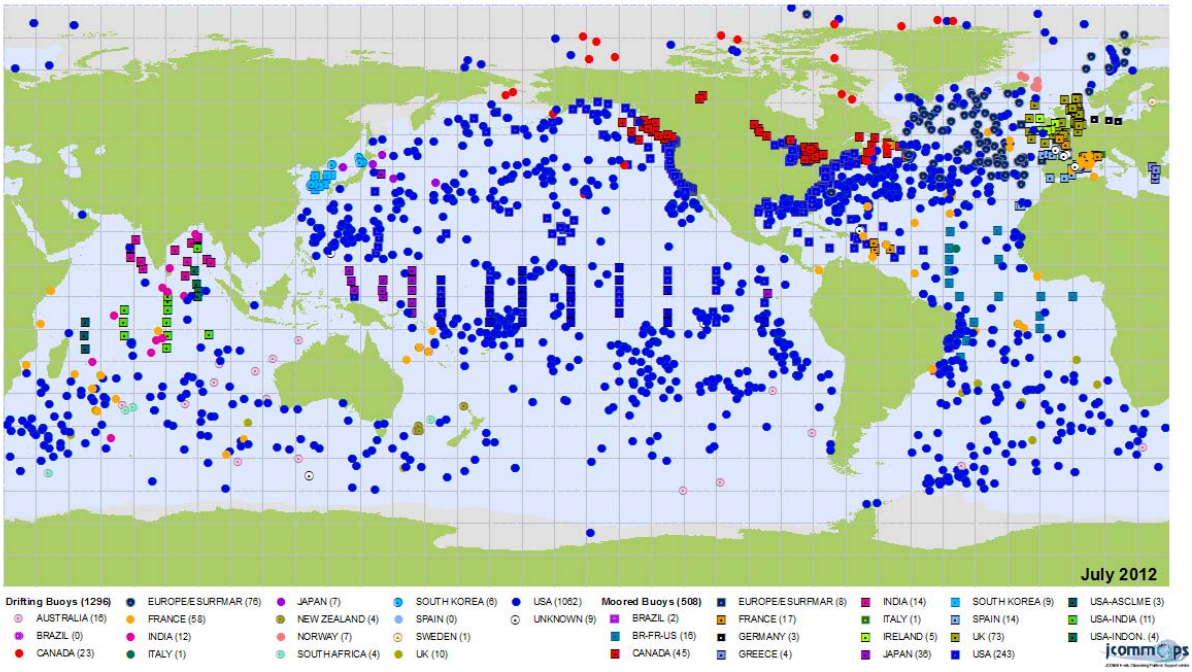


Figure 4- Drifting and Moored buoy monthly status map for July 2012. (GTS information received from Météo-France)

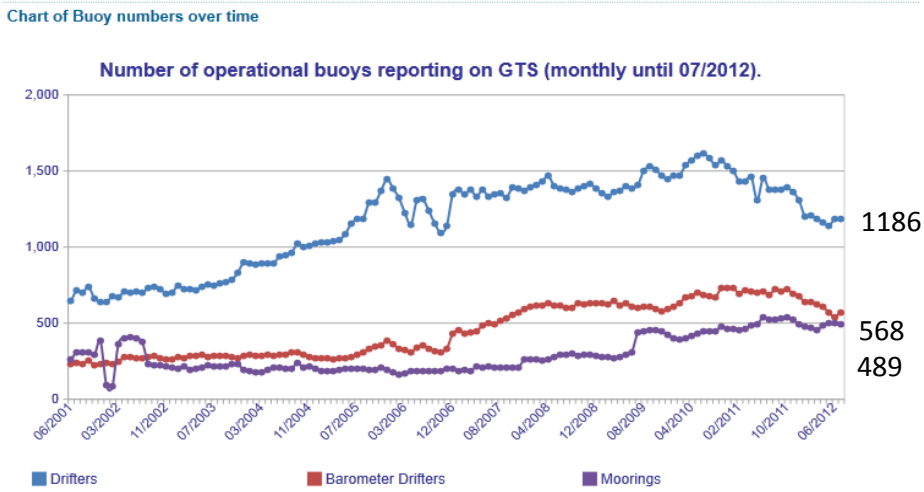


Figure 5 - Number of operational buoys reporting on the GTS since 2001. A rapid decrease in the number of operational drifters has occurred during the past 12 months.

The present status of the buoy platforms per country is:

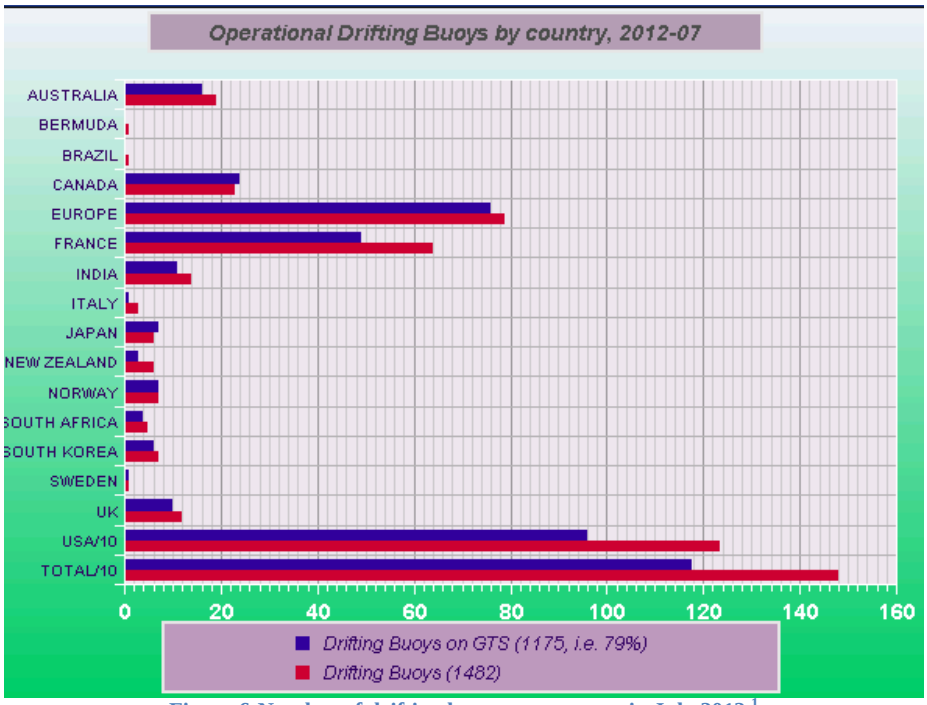


Figure 6-Number of drifting buoys per country in July 2012.[1]

COUNTRY	Drifting Buoys	Drifting Buoys on GTS	Iridium
AUSTRALIA	19	16	9
BERMUDA	1		
BRAZIL	1		
CANADA	23	24	17
EUROPEAN UNION	79	76	76
FRANCE	64	49	13
INDIA	14	11	
ITALY	3	1	
JAPAN	6	7	
KOREA (REPUBLIC OF)	7	6	
NEW ZEALAND	6	3	2
NORWAY	7	7	
SOUTH AFRICA	5	4	4
SWEDEN	1	1	
UNITED KINGDOM	12	10	9
UNITED STATES	1234	960	50
Total	**1482**	**1175**	**180**

Table 2 - Drifting Buoys reporting through Argos and others on the GTS during July 2012. The number of Iridium drifters is included in the total drifting buoys, but separated out for reference.

[1] http://wo.jcommops.org/cgi-bin/WebObjects/JCOMMOPS.woa/wa/ptfCountry

COUNTRY	Moored Buoys	Drifting Buoys on GTS
AUSTRALIA	6	
BRAZIL	2	5
BRAZIL/FRANCE/USA	24	16
CANADA	53	45
EUROPEAN UNION	8	8
FINLAND	1	
FRANCE	16	16
GERMANY	12	
GREECE	4	4
INDIA	14	14
IRELAND	7	5
ITALY	1	1
JAPAN	23	13
KOREA (REPUBLIC OF)	9	9
NEW ZEALAND		1
SPAIN	18	14
UNITED KINGDOM	77	73
UNITED STATES	294	249
USA/ASCLME	3	3
USA/INDIA	13	11
USA/INDONESIA	4	4
Total	**589**	**491**

Table 3 - Moored Buoys reporting via Argos and those on the GTS by Country for July 2012. The New Zealand 'Mooring' = stationary drifting buoy.

Variable measured from boys and reporting on GTS

4 Amongst the drifting and moored buoys reporting on the GTS in BUOY (or BUFR) format, the following variables were measured in July 2012. The number of drifters reporting Air Pressure continues to be around 50% despite the lower number of operational drifters.

Variable	Any	Air P	P Tend	SST	Air T	Hum	Wind	Waves	Sub/T
Drifting Buoys	1186	568	519	1085	18	2	4	10	38
Moorings	489	347	265	375	400	214	387	343	118

Table 4 - Drifting and Moored buoy variables being reported on the GTS during July 2012.

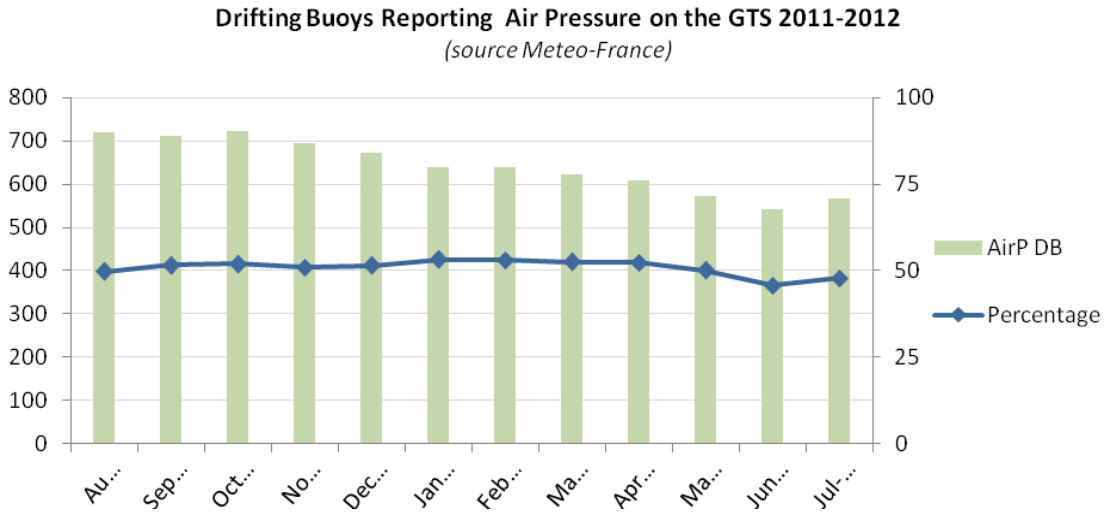


Figure 7 - Number of drifting buoys reporting Air Pressure on the GTS during August 2011-July 2012. While the total number of drifting buoys has decreased, the percentage of drifting buoys remains between 48%-51% of the network.

Tsunameters

5 During the last intersessional period the Technical Coordinator had added Tsunami Buoys to the JCOMMOPS database. The locations of these buoys will be included in monthly maps and reporting. They will be held separately as they are not at this time reporting any meteorological parameters onto the GTS. The Tsunami Buoys report water level data only and these data are not received through Météo-France as the rest of the array.

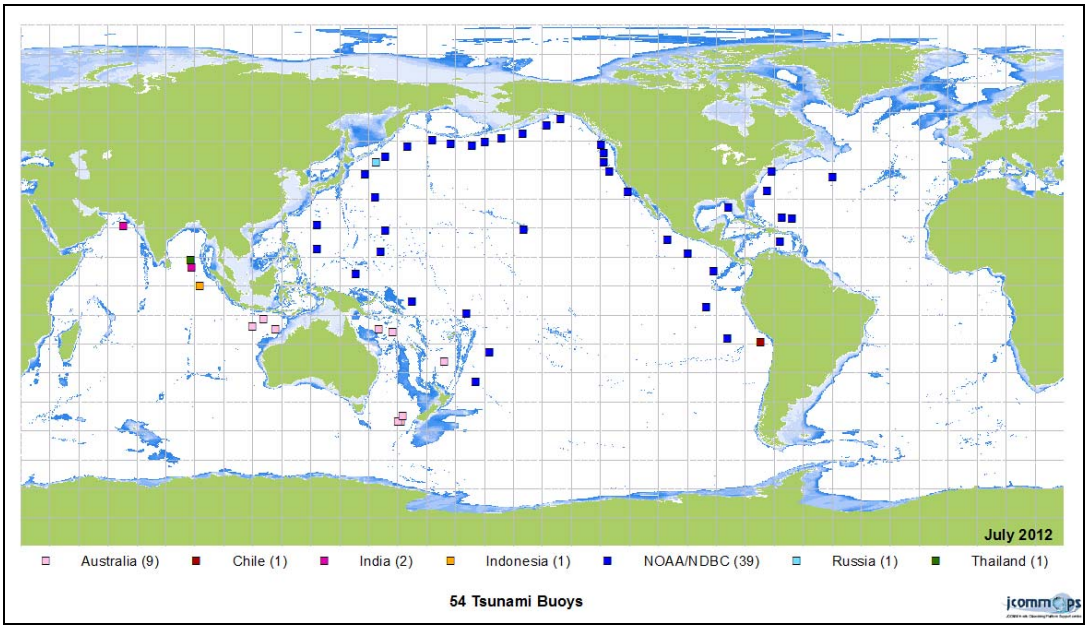


Figure 8- Tsunami (DART) Buoys are now included in the JCOMMOPS database. Location information received from NOAA/NDBC.

Comparison of GTS data

6 A comparison of GTS Data was done between ISDM and Météo-France in both April and July, 2012. The comparison proved generally good. For most of the TTAAii CCCC header, the magnitude of the number of available messages is the same (more information in DBCP Doc 10.2). One critical issue that needs to be addressed concerns the TAO Refresh buoys. At present 24 TAO Buoys in the Pacific have been refreshed to use Iridium communication and these buoys are reporting under the GTS Header of SXPA01 KWNB (Fig. 9). This format does not follow the WMO specifications for bulletin headers and thus the data are not processed at Météo-France, however they are received and processed at ISDM. The GTS header should be modified to follow WMO specifications as the entire TAO array has plans to be refreshed by 2014.

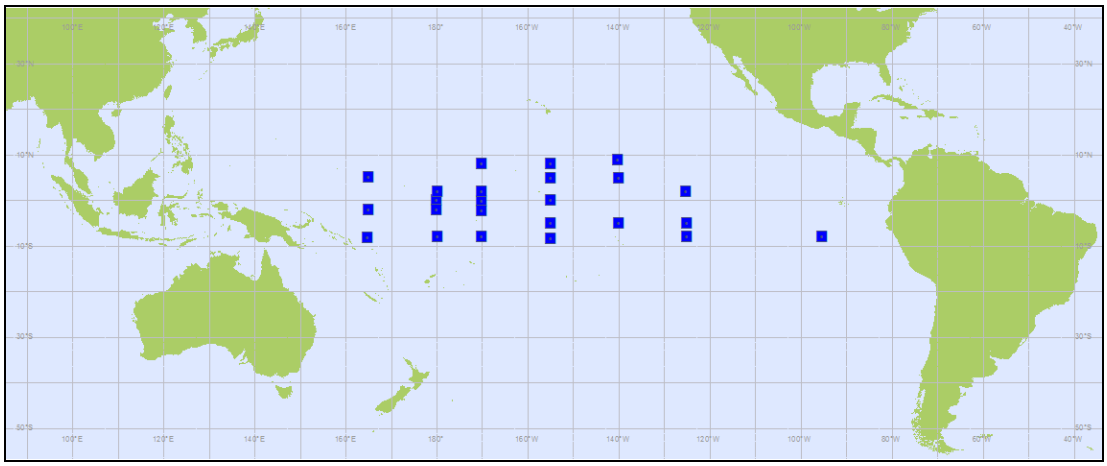


Figure 9 - TAO Refresh Buoys currently not transmitting data onto the GTS with WMO specified headers.

Southern Ocean Buoy Programme (SOBP)

7 The Southern Ocean Buoy Programme, as part of the DBCP Implementation Strategy, aims to have 300 operational drifting buoys with barometers distributed across the Seas south of 40^{o}S. During July 2012, the number was 169, which means this number has not yet been achieved.

During the Intersessional period the number went up to a peak of 250 in February 2012, which was approaching the goal of 300. This seasonal variability will always occur in Polar Regions

Month	Number of Barometer Drifting Buoys
July-12	169
June-12	170
May-12	187
April-12	212
March-12	224
February-12	**250**
January-12	215
December-11	218
November-11	222
October-11	228
September-11	195
August-11	208

Table 5 - Number of Operational barometer drifting buoys in the Southern Oceans per month during the last year.

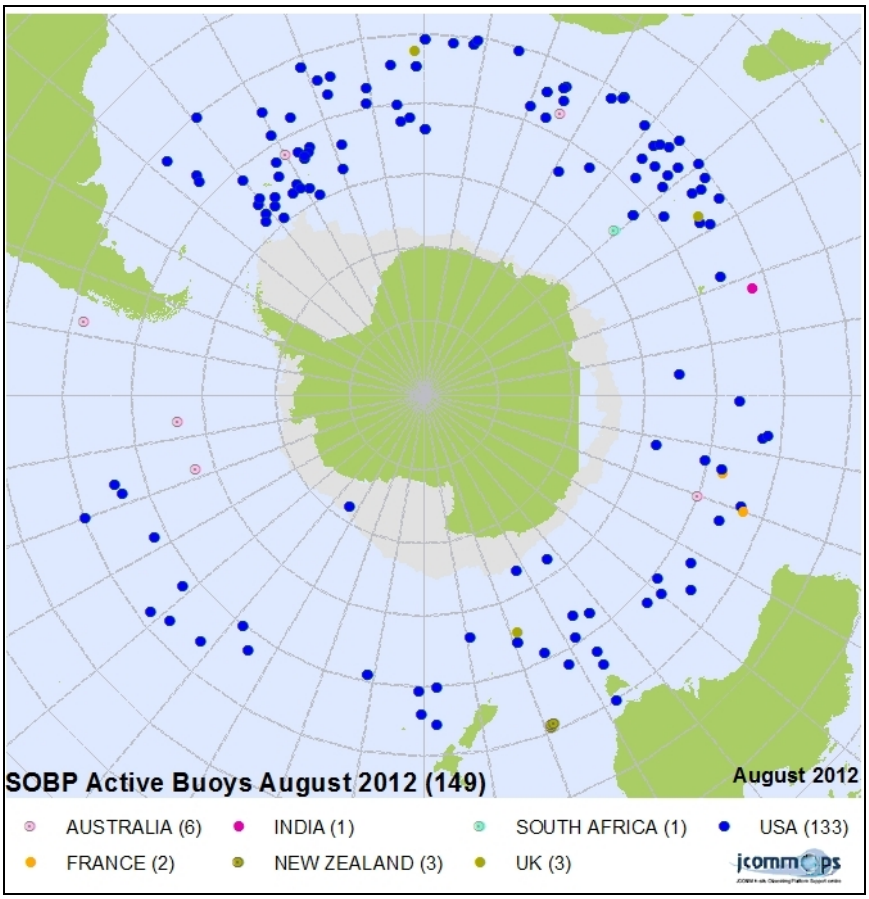


Figure 10 - Snap shot of the active barometer buoys on August 24, 2012 in the Southern Ocean below 40°S.

The deployment plans last year were for 273 buoys with Barometers (including 56 upgrades) to be deployed south of 40°S. As it is very difficult to predict deployment opportunities, firm commitments are difficult and this exact numbers of SVPB buoys versus SVPs are also difficult to predict.

Country	Planned	Additional Upgrades	Total
Australia	5	6	11
France	0	25	25
Germany	0	0	0
New Zealand	0	15	15
South Africa	55	0	55
UK	7	0	7
USA	150	10	160
Total	**217**	**56**	**273**

Table 6- Barometer Drifter deployment plans for August 2011 to July 2012 as agreed at DBCP-27.

The actual deployments totalled 179. The reasons for the difference between planned and actual are shown in the table below (Table 7).

Country	Buoys purchased & deployed	Additional Upgrades	Total	Comment
Australia	9	2	**11**	
France	0	12	**12**	The difference is due to late delivery of the buoys at La Reunion Island, so a rotation from RV Marion Dufresne to the South was missed. As of August there are 10 buoys on board the Marion Dufresne who just left La Reunion towards the South and 6 buoys remaining on the island.
Germany	0	0	**0**	
New Zealand	0	7	**7**	The difference is due to the collapse of 1 buoy manufacturer and 15 Upgraded buoys, which were ordered, were never received.
South Africa	13	0	**13**	The majority of the planned deployments for last year of 55 buoys were GDP buoys deployed by SAWS and are included in the US total.
UK	0	0	**0**	
USA	136		**136**	Because of the recent recalls, many of the annual deployment ops did not occur.
Total	**158**	**21**	**179**	

Table 7 - Actual barometer drifter deployments during the period August 2011 to July 2012.

The plans for August 2012 – July 2013 are shown in Table 8 below. As mentioned above, the southern ocean is the trickiest basin to predict deployment numbers. According to the GDP, there are normally few opportunities, limited lead times, and shipping difficulties, which makes it difficult

to seed these areas.

Country	Buoys purchased or planned	Additional Upgrades	Total	Comment
Australia	3	4	7	
France	0	46	46	Total includes 16 which were planned for 2011-2012 rolled over.
Germany	0	0	0	
New Zealand	6	10	16	
South Africa	0	0	0	70 deployments for the GDP.
UK	6	0	6	
USA	190		190	US/IPAB (10) GDP: • South Indian (60) • South Pacific (40) • South Atlantic (80) • All deployments will be conducted in cooperation with global partnerships
Total	**221**	**44**	**265**	

Table 8 - Barometer Drifter deployment plans for the period August 2012 to July 2013 as proposed to be agreed at DBCP-28.

TC priorities

8 The priorities as outlined at the previous DBCP Session were addressed as following.

8.1 Working with JCOMMOPS colleagues to improve the design and functionality of the JCOMMOPS website and other web products such as:

- the QIR tool, to integrate all of JCOMMOPS Quality Control (QC) feedback into one web page;

The Quality Control relay tool is used widely throughout the community. No specific action has been taken to improve this tool. However, there have been discussions over the year with the VOS community. Perhaps this can be better addressed when the Ship Coordinator starts in the coming months.

- Adapting the Google Earth products created for the Argo program to present Buoy metadata and trajectories.

During the last intersessional period, we have made progress on creating a new Google Earth layer for the DBCP and OceanSITES community. The JCOMMOPS student employee, Damien Bourarach, has produced a prototype that is shown below.

The balloon features the following tabs:

- *About:* includes information on WMO, PTT Number, Deploy Date, Photo, and model information. If the drifter is Argos, you can also 'zoom to trajectory' and can find the complete path of the drifter since deployment.
- *Data*: includes links to real-time and delayed mode data. This will include actual graphs from Météo-France Data plots and the NOAA/OSMC Portal. Also, includes links to the Global Drifter Program for data products and processed data files and ISDM for archived data.
- *Quality Control*: includes links to Quality Control Statistics as received by the U.K. Met Office, NCEP, Météo-France, Australian BOM, ECMWF and Canada. Links also to the Météo-France QC Tools.
- *Operator*: information about the operator of the buoy and contact.
- *Photos*: Photos of the drifter
- *More*: Other links and information on credits, etc are included in this tab

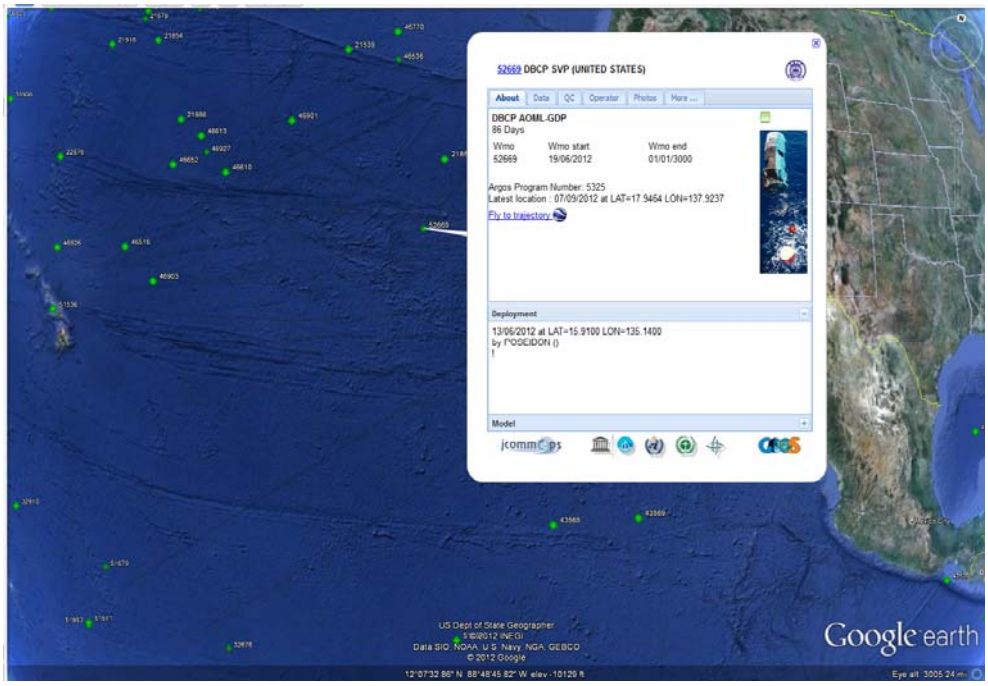


Figure 11 - New Google Earth balloon prototype for DBCP and OceanSITES communities.

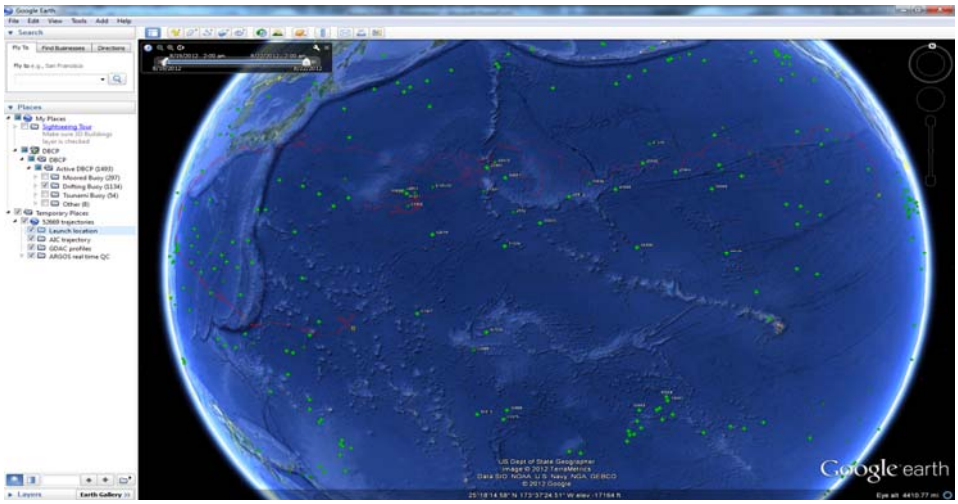


Figure 12 - Zoom to drifter track using Argos QC real-time tracking.

8.2 Adding extra metadata fields to GTS Data Flows.

No progress to report on this topic.

8.3 Continue to assist with JCOMM-wide reviews of BUFR templates along with the JCOMM Task Team on Table Driven Codes. Working with the JCOMM Task Team on Table-Driven Codes and Panel members to incorporate appropriate Buoy Metadata into the BUFR Templates for Drifting and Moored buoys.

There has not been a lot to report on this topic. The TT-TDC has not been very active in the past year due to the departure of both the previous Technical Coordinator and the Chair of the TT-TDC, Dr. Bill Burnett. The TC has asked the members if they wish to continue and received positive feedback. The BUFR templates for Drifting and Moored buoys will be circulated at this session and those drafts will be sent to the TT-TDC for finalization and implementation.

8.4 Designing new products to track deployment plans and assist with creating new deployment opportunities within JCOMM.

The DBCP Technical Coordinator understands the importance of deployment plans and receiving these in as much advance notice as possible. JCOMMOPS would like to assist operators in every aspect from finding an opportunity to allocating a WMO number. We think a central repository for all this information should exist and we are nearly there. With the new position of Ship Coordinator, we hope to make greater progress in this regard.

8.5 Finalizing integration of OceanSITES data/metadata into JCOMMOPS database

For all OceanSITES stations that have WMO numbers and transmit data onto the GTS, this is implemented. The TC has received updated information from many OceanSITES operators and she has started to include those into the database.

8.6 Ensuring that routine network status can be reported in maps (with monthly, quarterly and live Google Earth views) and web products in coordination with the Global data assembly centres (GDACs).

Dynamic maps:

- Maintained daily dynamic map (drifter trajectories): http://www.jcommops.org/WebSite/DBCP_RT

- Google Earth Daily DBCP MAP http://www.jcommops.org/FTPRoot/DBCP/status/dbcp_daily.kmz

Static maps:

- The DBCP maps produced by the Technical Coordinator can be found on teh DBCP website: http://www.jcommops.org/dbcp/dbcpmaps.html
- PDF and PNG Files are also accessible directly from http://www.jcommops.org/FTPRoot/DBCP/Maps/2012/, which includes:
  - Buoys by Country
  - Barometer Drifting Buoys by Country
  - SST, Barometer, Wind and Wave Buoys (All Sensors)
  - GTS Delays
  - Iridium and Argos-3 Buoys by Country

8.7 Assisting in the standardization and documentation of instrument practices.

The TC works with the community to provide updates and information in this area. On the DBCP Website, resources are available: http://www.jcommops.org/dbcp/community/standards.html

8.8 WMO / Argos number cross-reference list

A reminder to the community of the list of active buoy WMO numbers is available

1) Through a dynamic web page which permits querying the JCOMMOPS database (http://wo.jcommops.org/cgi-bin/WebObjects/JCOMMOPS.woa/wa/wmo); and
2) A file updated daily which can be downloaded from the JCOMMOPS ftp site. http://www.jcommops.org/FTPRoot/JCOMMOPS/GTS/wmo/wmo_list.txt.

DBCP Label

9 A sample of the DBCP Label that has been discussed for a number of years is proposed in Figure 13 below. This label would not only assist in recovering beached instruments, but also could help to combat the vandalism issue that is so prominent in certain parts of the worlds oceans.

Figure 13 - Draft of the DBCP label for drifters. A label would also be prepared for Moored Buoys.

Appendices: 4

APPENDIX A

DBCP MONTHLY MAPS – JULY 2012

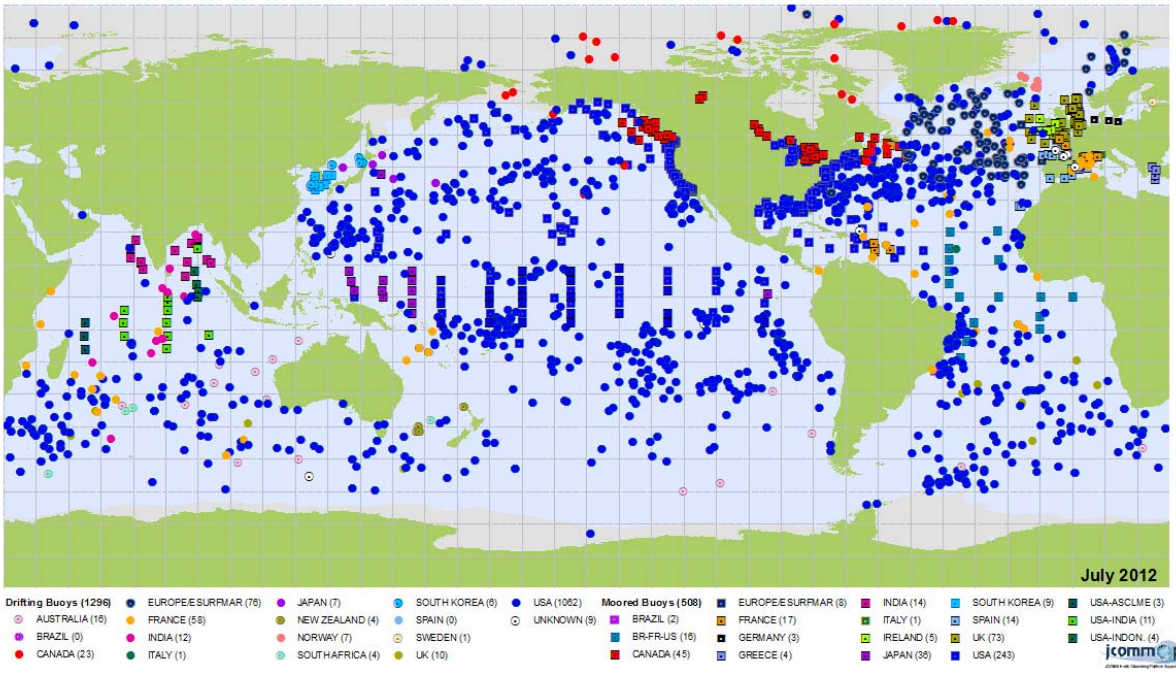


Figure 14 - Drifting and Moored Buoys by Country reporting during July 2012.

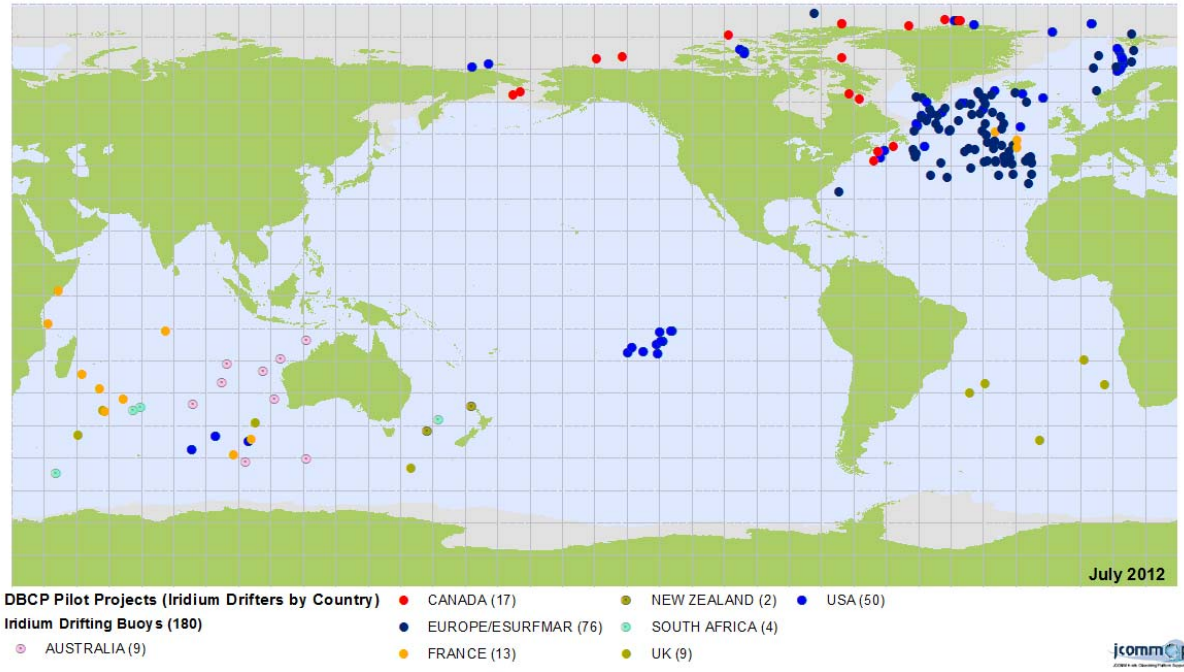


Figure 15 - Iridium Drifting Buoy by Country reporting during July 2012.

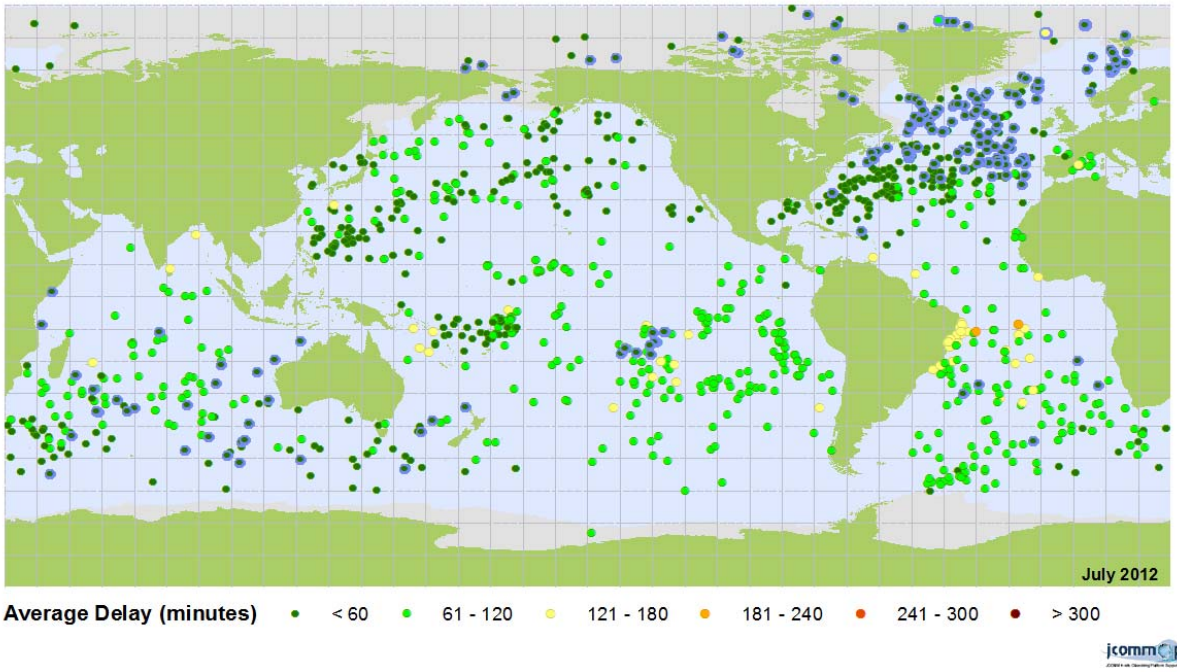


Figure 16 - GTS delays for drifting buoys reporting during July 2012.

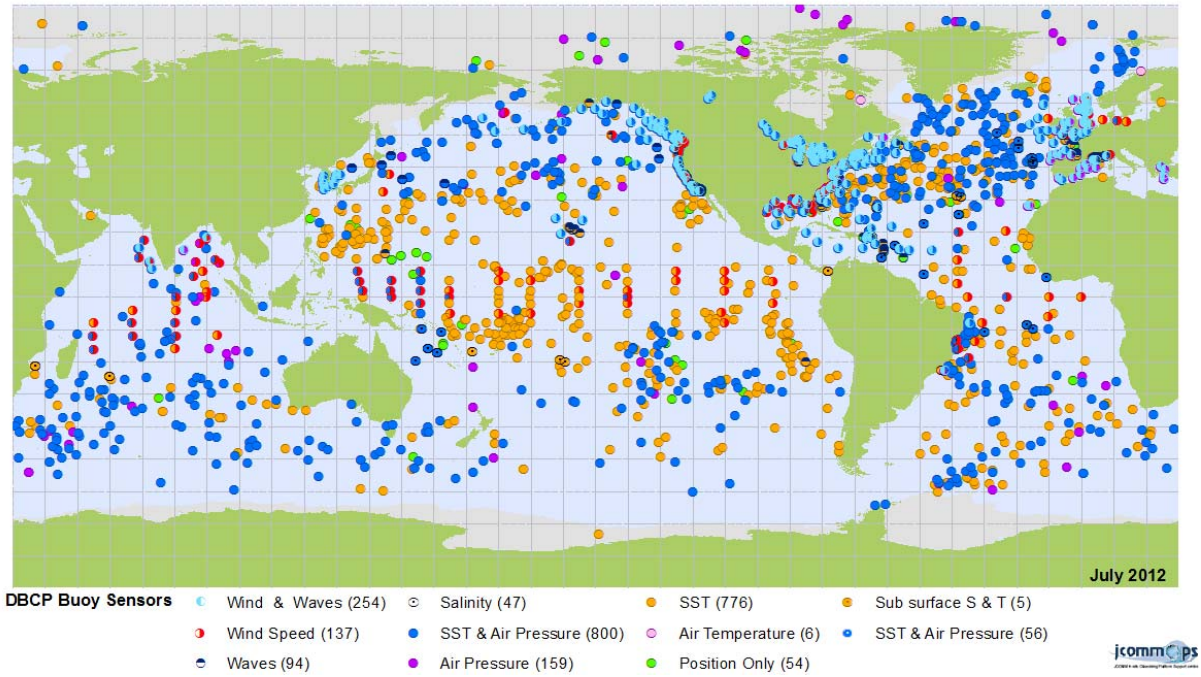


Figure 17 – Parameters reporting to the GTS for drifting and moored buoys during July 2012.

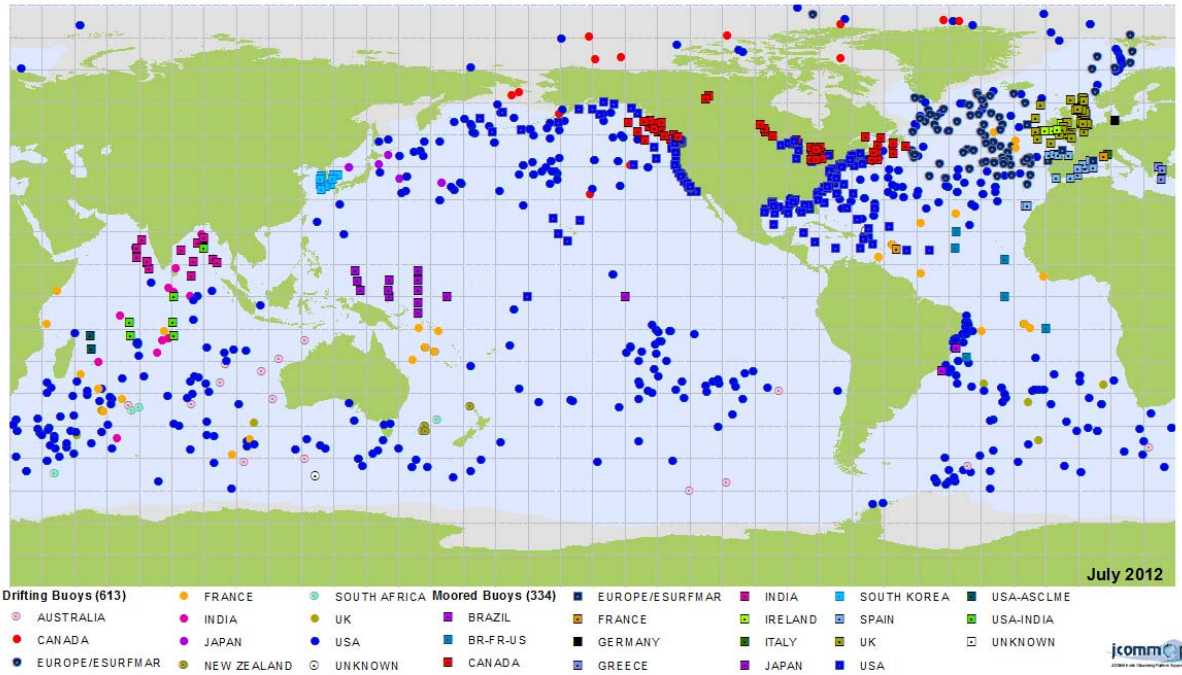


Figure 18 - Drifting and Moored buoys reporting Atmospheric Pressure during July 2012.

APPENDIX B

PARAMETERS REPORTING ONTO THE GTS

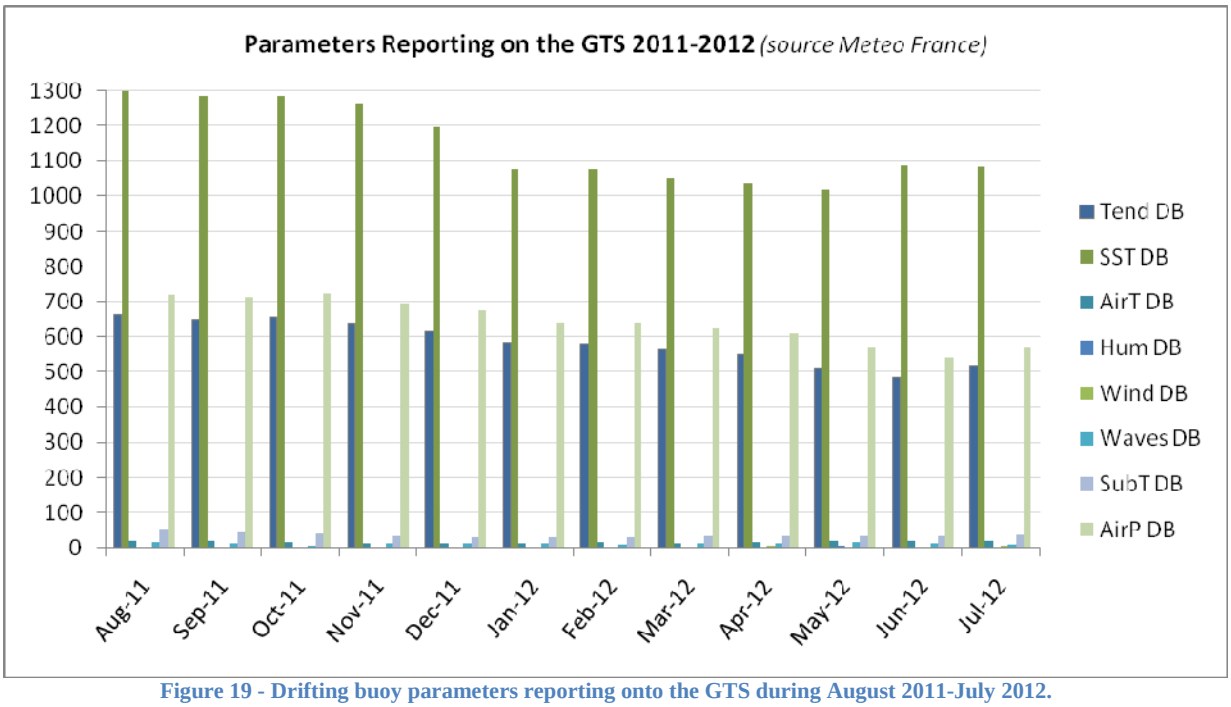


Figure 19 - Drifting buoy parameters reporting onto the GTS during August 2011-July 2012.

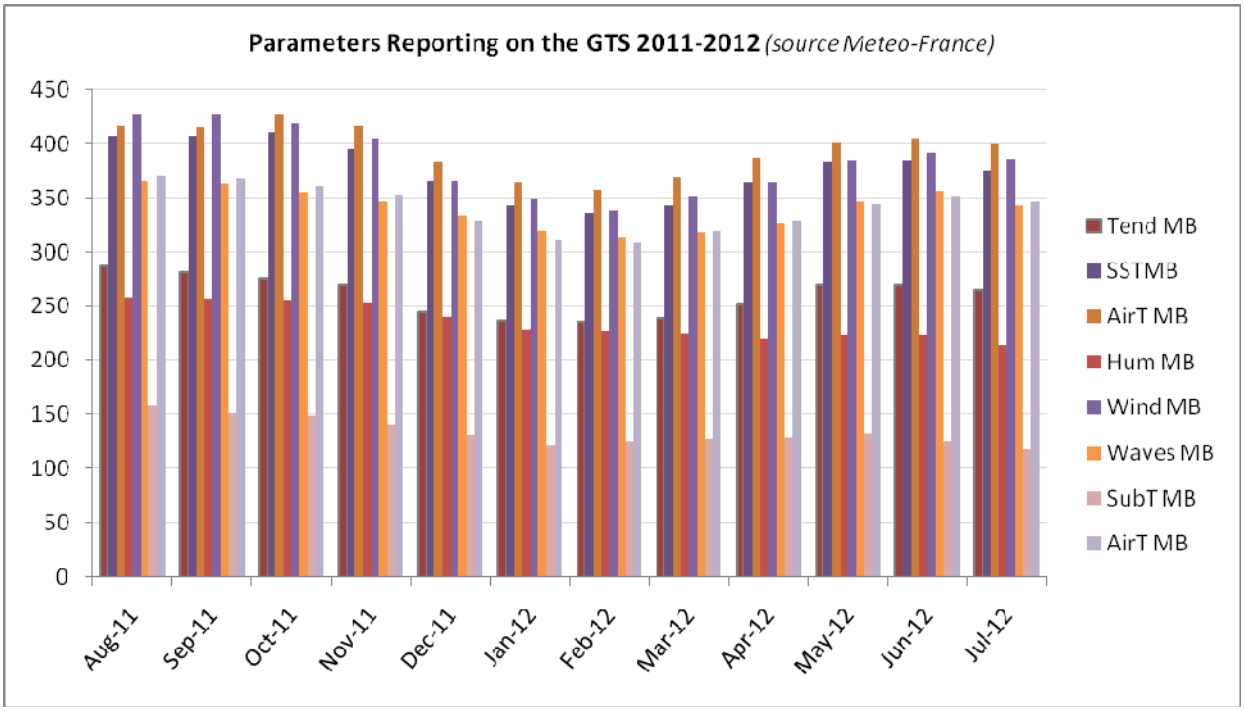


Figure 20 - Moored buoy parameters reporting onto the GTS during August 2011-July 2012.

APPENDIX C

QUALITY OF BUOY DATA

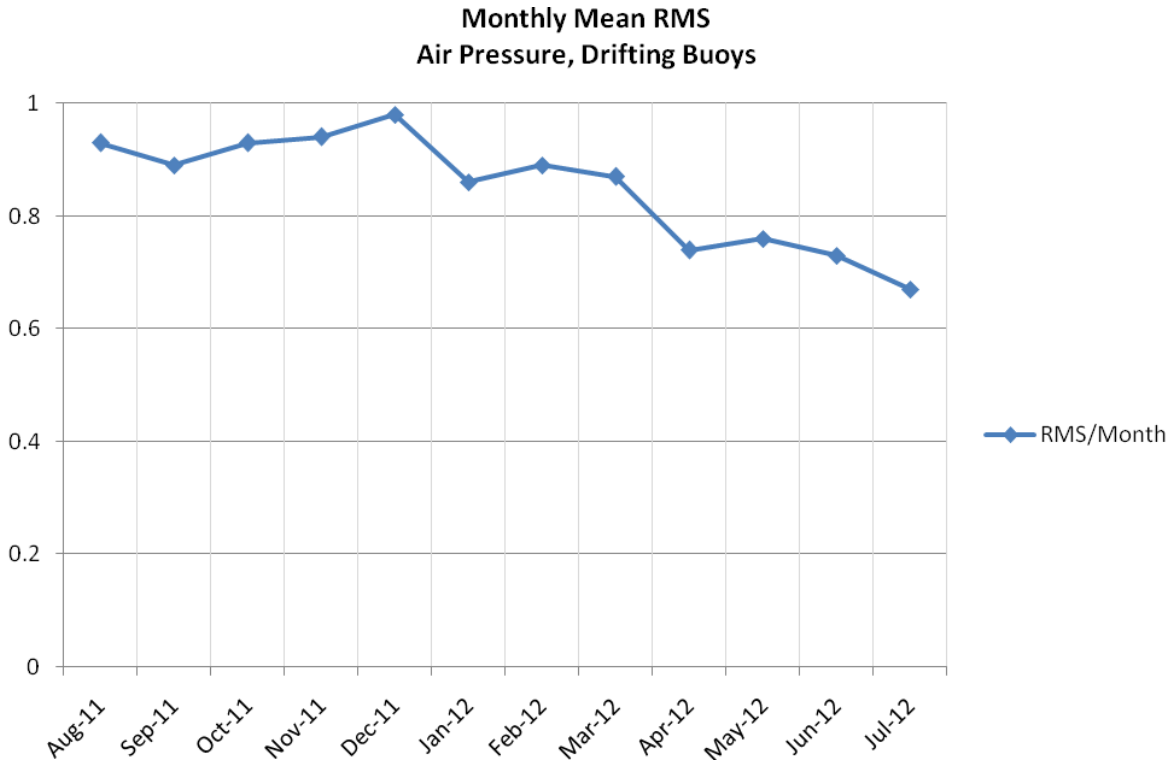


Figure 21 - Drifting buoy Air Pressure Quality Control for the period Aug, 2011-July 2012

The RMS (Obs.-FG) for drifting buoy air pressure data based on ECMWF buoy monitoring statistics for the period August 2011 to July 2012. Values were between 0.73 and 0.98 for the previous year.

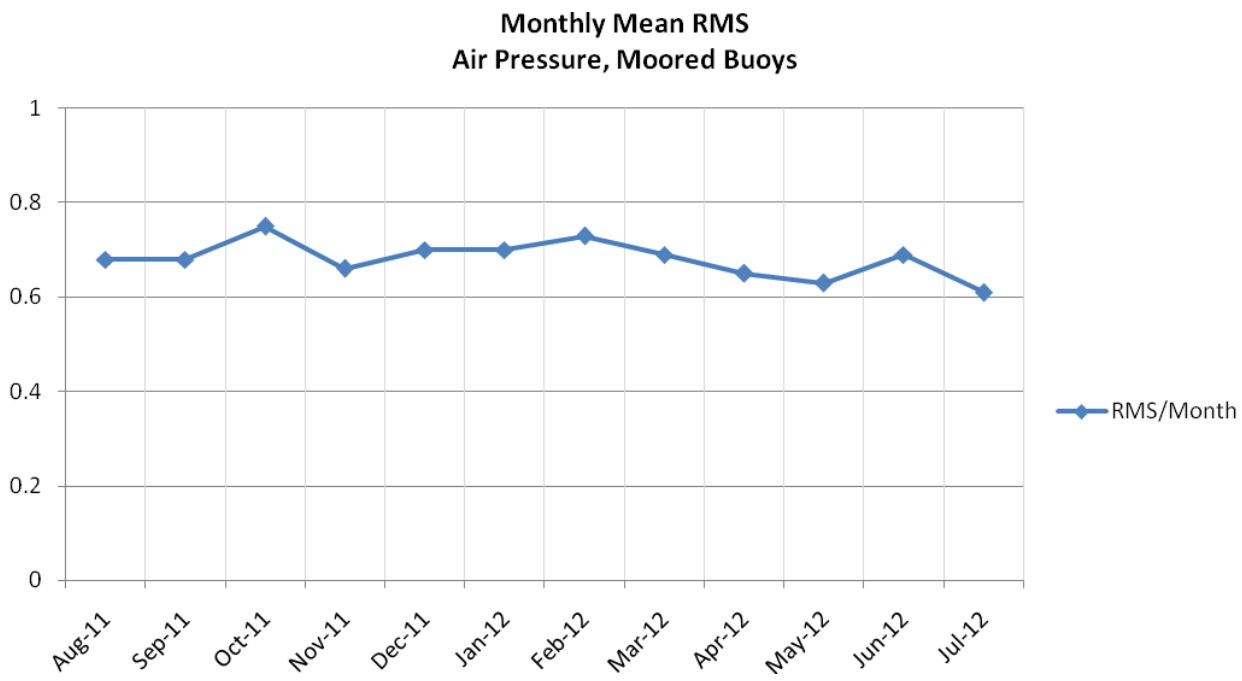


Figure 22 - Moored buoy Air Pressure Quality Control for the period Aug, 2011-July 2012

The RMS (Obs.-FG) for moored buoy air pressure data based on ECMWF buoy monitoring statistics for the period August 2011 to July 2012.Values were between 0.61 and 0.75 for the previous year.

APPENDIX D

TASKS OF THE TECHNICAL COORDINATOR DURING THE INTERSESSIONAL PERIOD (2011-2012)

The following is a short list of highlighted items specific TC DBCP non-regular tasks undertaken during the intersessional period.

1. September 2011

1. Started work as DBCP Technical Coordinator
2. Visited UNESCO/IOC for Human Resource issues and paperwork and receive some training from Mr. David Meldrum, former DBCP Technical Coordinator.
3. Attended the JCOMM Management Committee (Geneva, 13-16 Sept 2011).
4. Attended the 27th Session of the DBCP in Geneva 26-30 Septmber 2011.

2. October 2011

1. Plans for the OceanSITES Meeting in La Jolla.
2. Updated and monitored JCOMMOPS mailing lists, making necessary modifications
3. Worked on OceanSITES and familiarizing herself with community in preparation for upcoming OceanSITES face-to-face
4. Worked with JCOMMOPS colleagues on developing and planning a JCOMMOPS meeting in Toulouse and on a JCOMMOPS Strategy paper.
5. Worked in details with several buoy operators on the metadata contents of the JCOMMOPS database
6. Worked on the proposal for Deployment of Operational Floats and Drifters UNESCO/IOC. (this opportunity did get funded, but then subsequently was canceled due the UNESCO funding issues.
7. Met with Sophie Bonnet (Centre d'Océanologie de Marseille) regarding Voile sans Frontiers and the OceanSITES station that they are setting up as the SPOT program (Southern Pacific Ocean Time Series)

3. November 2011

1. Worked with Woods Hole Oceanographic Institute (WHOI) on migration on OceanSITES website to JCOMMOPS.
2. Planned, prepared and attended the OceanSITES Data Management Team and Steering Committee Meeting in La Jolla, CA USA (29-Dec 2 2011)
3. Worked with Ross Hibbins on the International Tsunameter Partnership and setting up a method of obtaining the contacts and information (Ross has since left the ITP and the leadership of this group is yet undecided)
4. Drafted a document requesting support for OceanSITES. Letter was reviewed and approved by UNESCO /IOC and OceanSITES Chairs.

4. December 2011

1. Travel to the US for the OceanSITES Data Management and Steering Committee Meetings
2. Met with buoy manufacturer, Pacific Gyre in California USA
3. Travel to Silver Spring USA to meet with David Legler and Candyce Clark, NOAA to discuss JCOMMOPS, OSMC, and OceanSITES related issues. Including the recent changes at UNESCO with regards to funding.
4. Travel to NOAA/AOML in Miami, USA to meet with the Global Drifter Program (GDP)
5. OceanSITES monthly Data Management Team meetings resumed.
6. Prepared and compiled meeting reports from OceanSITES face-to-face

7. Meeting with Stephanie Guinehut and Marie Helen-Rio (CLS) to discuss future cooperation of JCOMMOPS and CLS Oceanography division
8. Began using Mantis and Alfresco for OceanSITES action tracking and documents.

5. January 2012

1. Worked with the OceanSITES team on the “call for deep-ocean temperature and salinity sensors”.
2. Preparations for JCOMMOPS trip to Brest
3. Worked on the Vandalism Questionnaire with Dr. Vankatesan
4. Compiled and prepared documents for OceanSITES for POGO Meeting
5. JCOMMOPS Documents for JCOMM-IV
6. Recreated the JCOMMOPS WMO List, cross referencing the WMO Numbers and PTT IDs.
7. Discussions with the Operators of the Italian Buoy Network and maintaining this.
8. Reviewed procedures for tracking down beached instruments and worked with Argo TC on a DBCP “drifter sticker”.
9. Discovered the interesting tale of Iridium drifter WMO 31864 that after nearly a year of going off-line, suddenly appeared again. Worked with the UK Met Office and SHOM on tracking down what has happened.
10. UNESCO Annual Performance Evaluations

6. February 2012

1. Moved the OceanSITES Website to JCOMMOPS including mailing lists and aliases.
2. Recreated DBCP Buoy Evolution list that tracks the number of drifters and moorings since 2001.
3. Mission to Brest to meet with Coriolis/Ifremer, SHOM, Météo-France, and local Brest partners. Mission completed with Argo TC.
4. Worked also on the template designed by Optima Adhesif company in Brest on the DBCP logo.

7. March 2012

1. Worked with the CNES Education division on collaboration for the 7ème continent" project about the Great Pacific Garbage Patch. Teleconference with Shaun Dolk at AOML for drifters that may be deployed on this expedition.
2. Attended the SeaDataNet 2 Steering Committee meeting and Technical Task Group.
3. Recreated data timeliness maps from 2010-2011 with data from Météo-France
4. Seeking community feedback on the DBCP adhesive (e.g. sticker)
5. Compiled information on operators regarding SVPB buoys for the secretariat.
6. Worked with Diane Stanitski on arranging an Adopt a Drifter between France and US schools.
7. Worked with Environment Canada on BUFR buoy template and BUFR example messages including an issue with coding the 15 IMEI characters.
8. Reviewed buoy BUFR templates and contact the TT-TDC to reinvigorate this team.
9. Deployment opportunity meeting Shaun Dolk and Danielle DeStaerke (CNES, France).

8. April 2012

1. Preparations for and attendance at the WIO III Capacity Building Workshop in Mombassa, Kenya (April 16-20, 2012)
2. Prepared vandalism maps for Indian Ocean based on detailed feedback from PMEL.
3. At WIO III, met with various Indian ocean members or potential members on the status of their arrays or setting up an operational system or obtaining data from the GTS

4. Discussed also Tsunameter possibilities in the Indian Ocean and provided contacts to the Kenya Met Department
5. Attending the Preparatory Workshop for an International Forum of users of Satellite Data Telecommunication Systems (SATCOM FORUM). Toulouse, France, 23-24 April 2012.

9. May 2012

1. E-SURFMAR DB-TAG and VOS-TAG Meetings in Gran Canaria, Spain May 2-5.
2. MCDS Teleconference Call – I was unable to attend due to a conflict in meetings, but I was involved in the email exchange and follow up actions.
3. Provided UNESCO/IOC a status update on Data Buoy Vandalism Working Group for IOC Exec Council XXVI
4. Created mailing lists for the DBCP TT-DM and TT-MB
5. Discovered the problem with the TAO refresh buoys and the data not being reported to JCOMMOPS through the Météo-France GTS channels. The problem is with the GTS header.
6. Preparations for the IPAB and IABP Meetings in June.
7. JCOMMOPS posted the new announcement for the Ship-Logistics Coordinator

10. June 2012

1. Attended and presented at the IABP and IPAB Meeting in Geneva, June 4-7. Also presented for Argos/CLS as Yann Bernard was unable to attend.
2. Received contact from Ecuador regarding a tsunami buoy and assisted them in getting the data onto the GTS. (this finally happened in Sept through NDBC)
3. Student working at JCOMMOPS (Kyle Owen) – Kyle assisted with many updates to the database (particularly the moorings) in adding deployment information. (Kyle stayed for 6 weeks at JCOMMOPS assisting in various tasks).
4. Teleconference with JouBeh to discuss receiving data for Iridium drifters and floats
5. With CLS contacted JAMSTEC regarding drifter deployments and providing data onto the GTS.
6. Began preparations for DBCP-28.
7. Added Tsunami Buoys (DART) to the JCOMMOPS database.

11. July 2012

1. Prepare documents for DBCP meeting: GTS delays (Doc 9.3), TC Report (Doc 5), Information Exchange (Doc 9.1), Deployment Opportunities (Doc 9.2), Drogue Loss (Doc 9.7), JCOMMOPS Report (Doc 11.2), and Action Item follow-up (Doc 12.3)

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