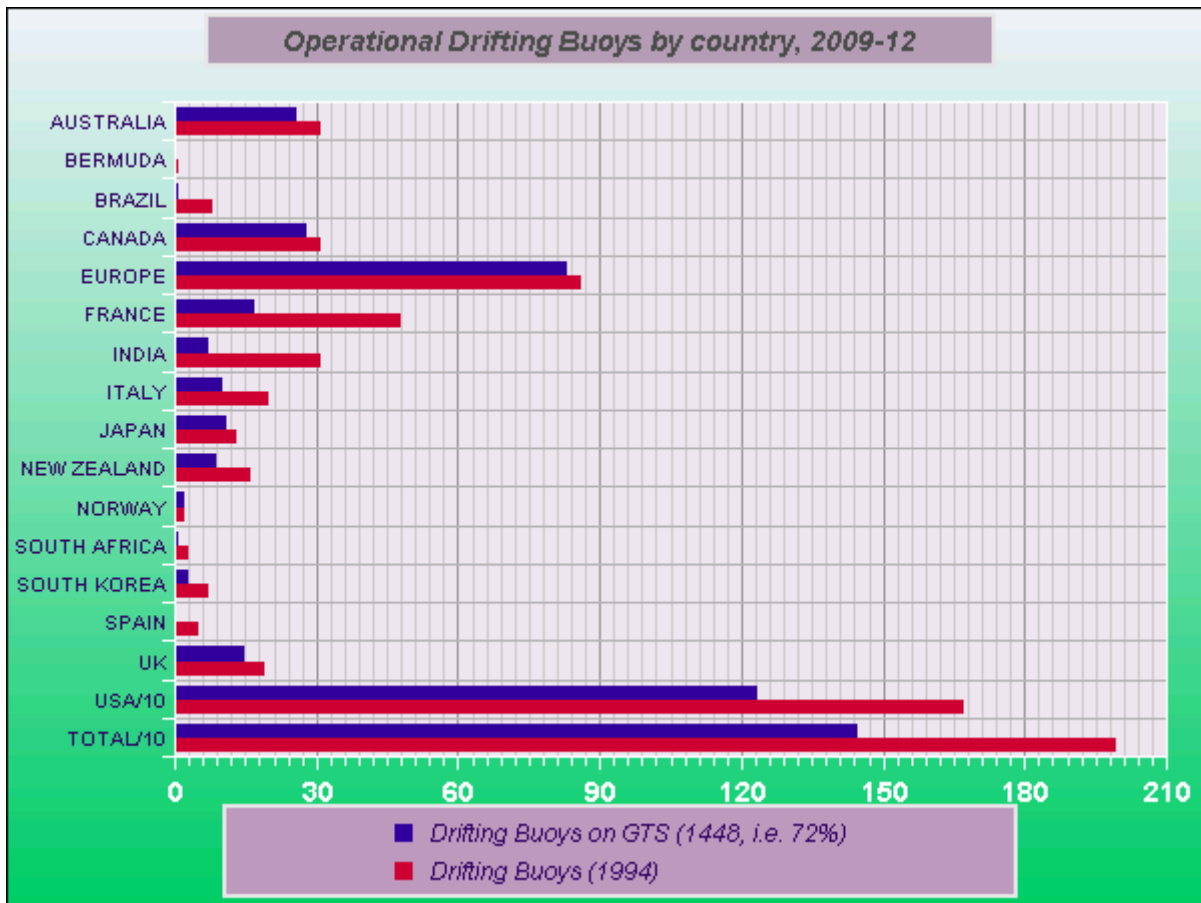
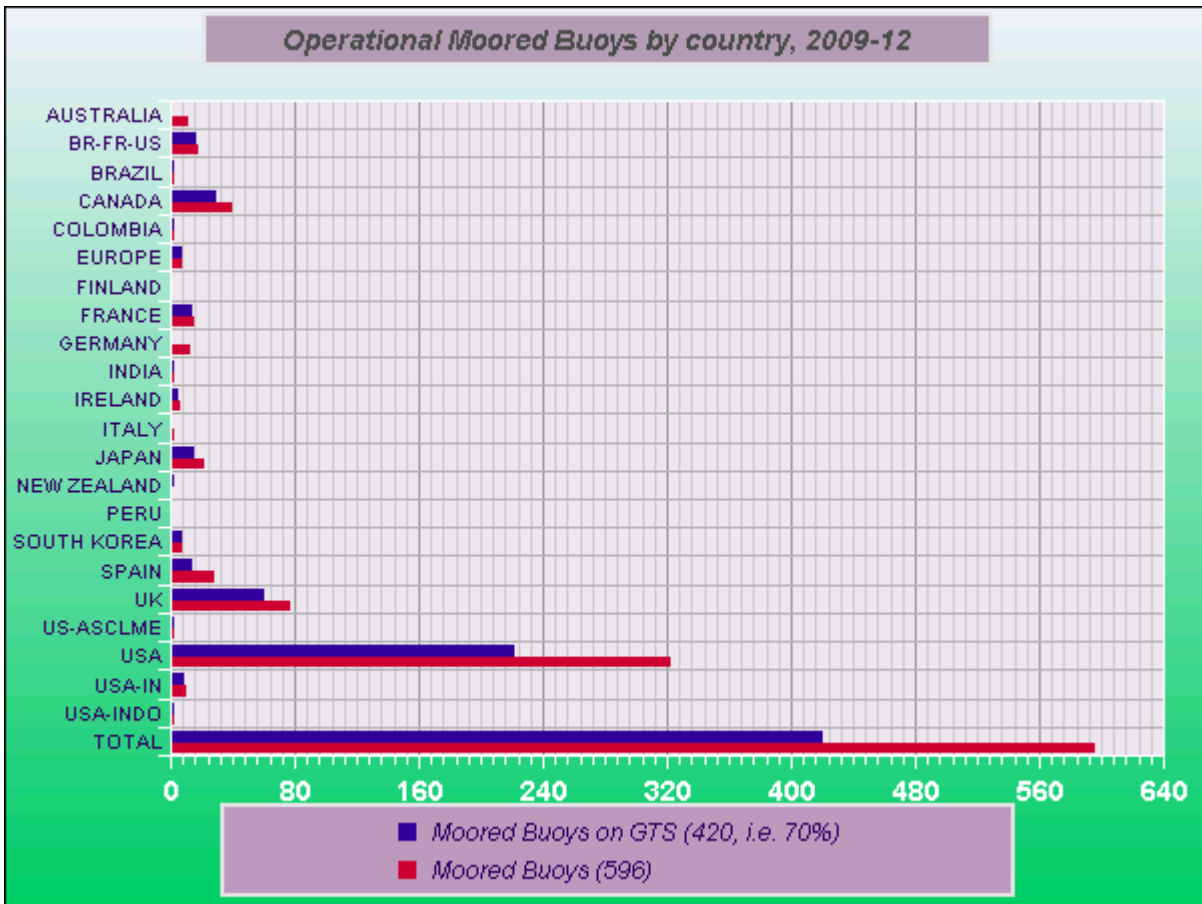


## DBCP GTS STATUS AND HIGHLIGHTS (2009)

### 1. Present status of buoy platforms:



Graph 1: Drifting Buoys (mostly reporting via Argos) and those on the GTS by country for December 2009.



Graph 2: Moored Buoys reporting via Argos and those on the GTS by Country for December 2009. N.B New Zealand 'Mooring' is a stationary drifting buoy.

1.1 Amongst the drifting and moored buoys reporting on the GTS in BUOY (and SHIP) message formats; the following variables were measured in December 2009. The number of buoys reporting Air Pressure has remained stable in the last year.

Variable	Any	Air P	P Tend.	SST	Air T	Hum.	Wind	Waves	Sub/T
Drifting Buoys	1448	595	554	1322	21	1	5	7	5
Moorings	420	262	206	296	309	193	306	274	91

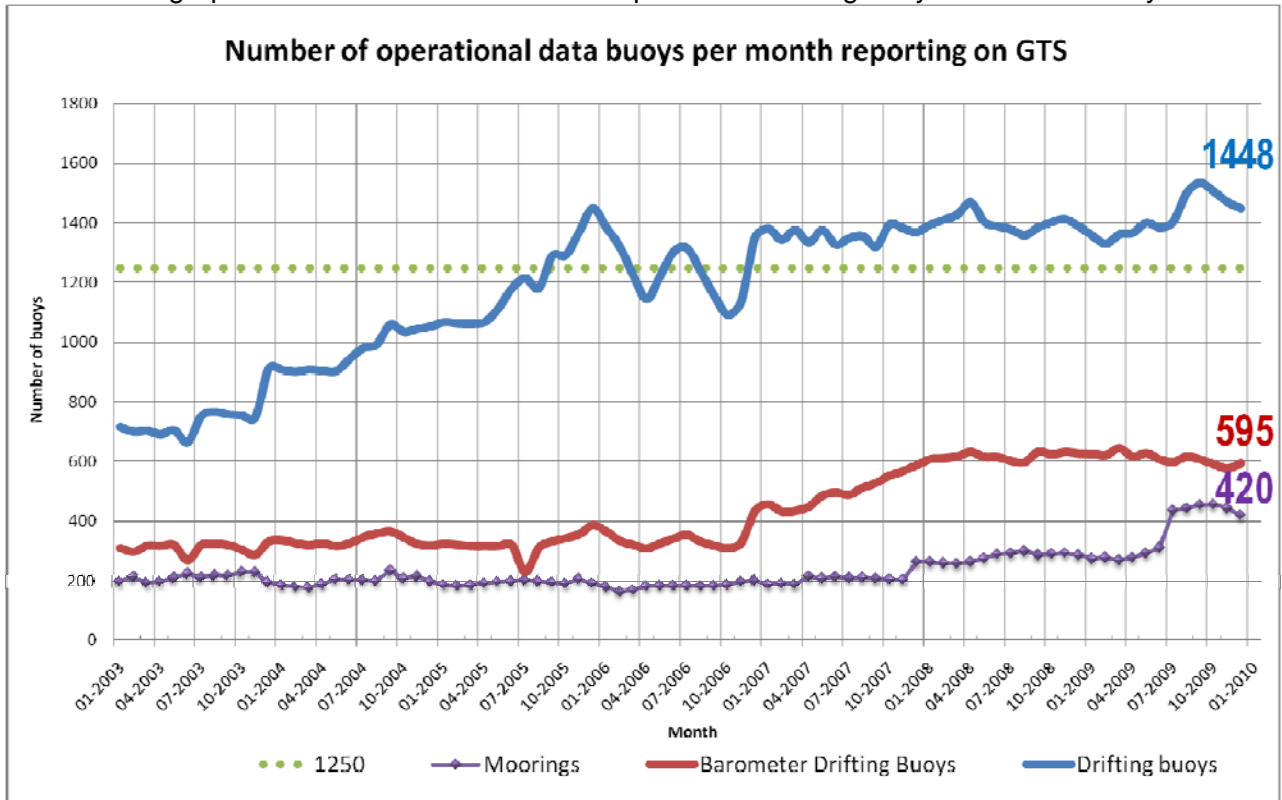
Table 1: Drifting and Moored buoys – variables being reported on the GTS

<b>Year</b>	<b>Operational drifting buoys at JCOMMOPS</b>	<b>On GTS</b>	<b>% on GTS</b>
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%
December 2008	1910	1388	72%
July 2009	2032	1405	69%
December 2009	1994	1448	72%

Table 2: Evolution of GTS Buoy data percentage

1.2 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.

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



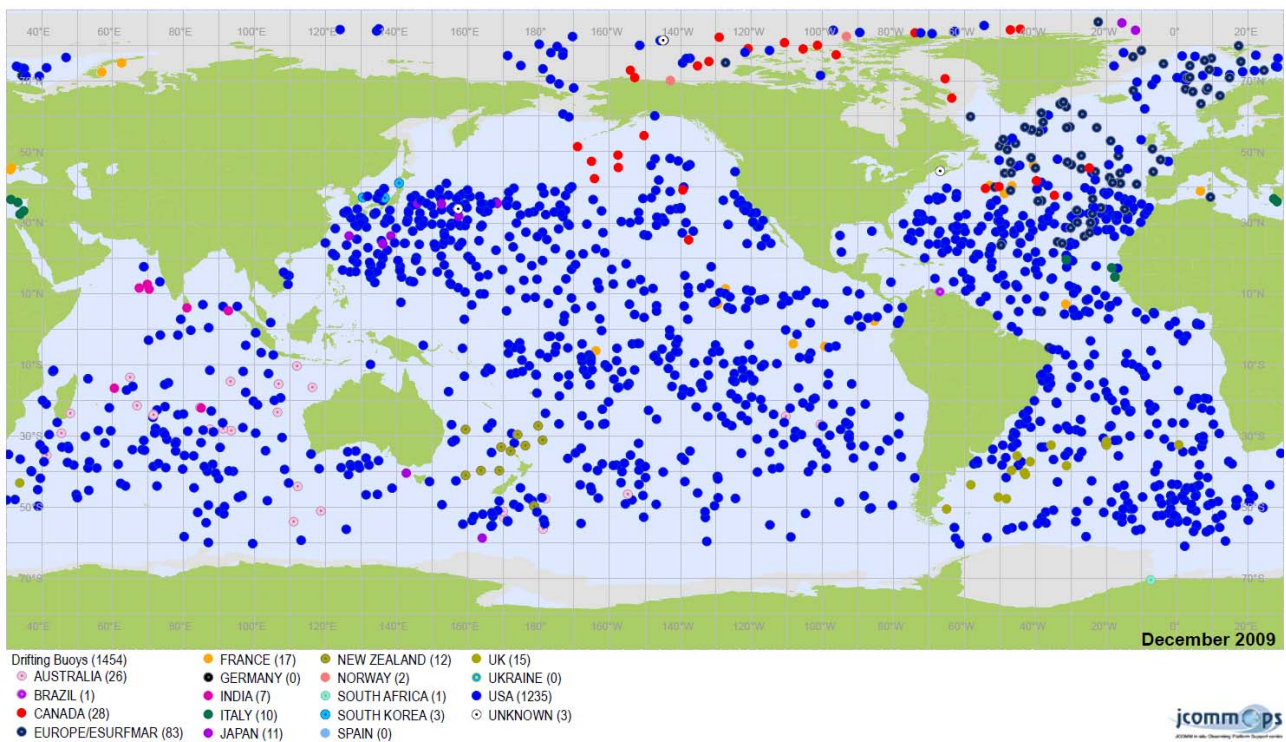
Graph 3: Monthly evolution of the number of operational drifting buoys reporting on GTS from March 2002 to December 2009 and those reporting air pressures. Operational Moored buoys are also included. (Data derived by statistics computed from GTS in situ marine data provided by Météo-France).

1.4 This graph shows the number of drifting buoys operationally reporting air pressure measurements has levelled off a little in the last year. The inclusion of barometers on buoys has been well supported, but the increased number of buoys in the global ocean in the last year meant that the overall proportion of barometer buoys went down for the first time in many years.

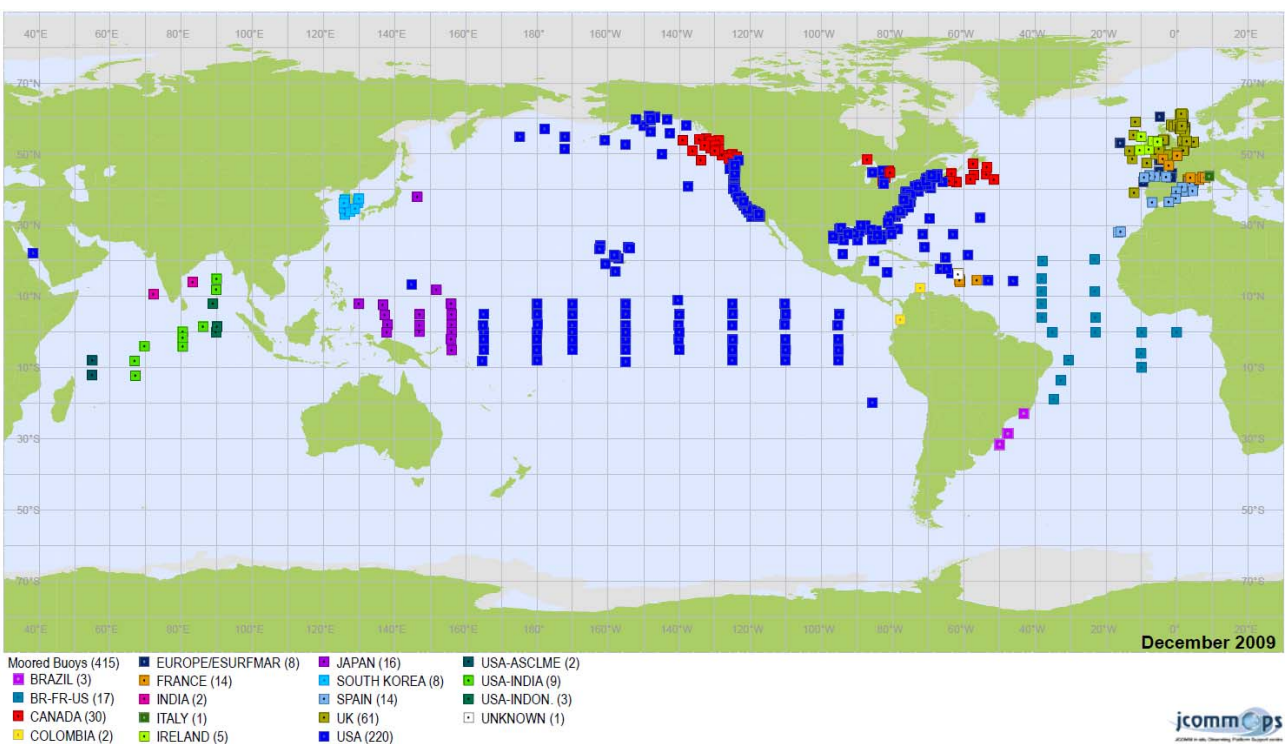
1.5 The Panel seems has maintained its network above 1250 buoys now for many years running, but still, efforts are needed in sharing deployment opportunities (within DBCP and with other programmes), deployments in the southern ocean remain a priority.

1.6 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.icommops.org/dbcp/svpb\\_upgrade.html](http://www.icommops.org/dbcp/svpb_upgrade.html)). The DBCP strongly encouraged the use of the barometer upgrade scheme to continue to increase the percentage of barometer buoys.

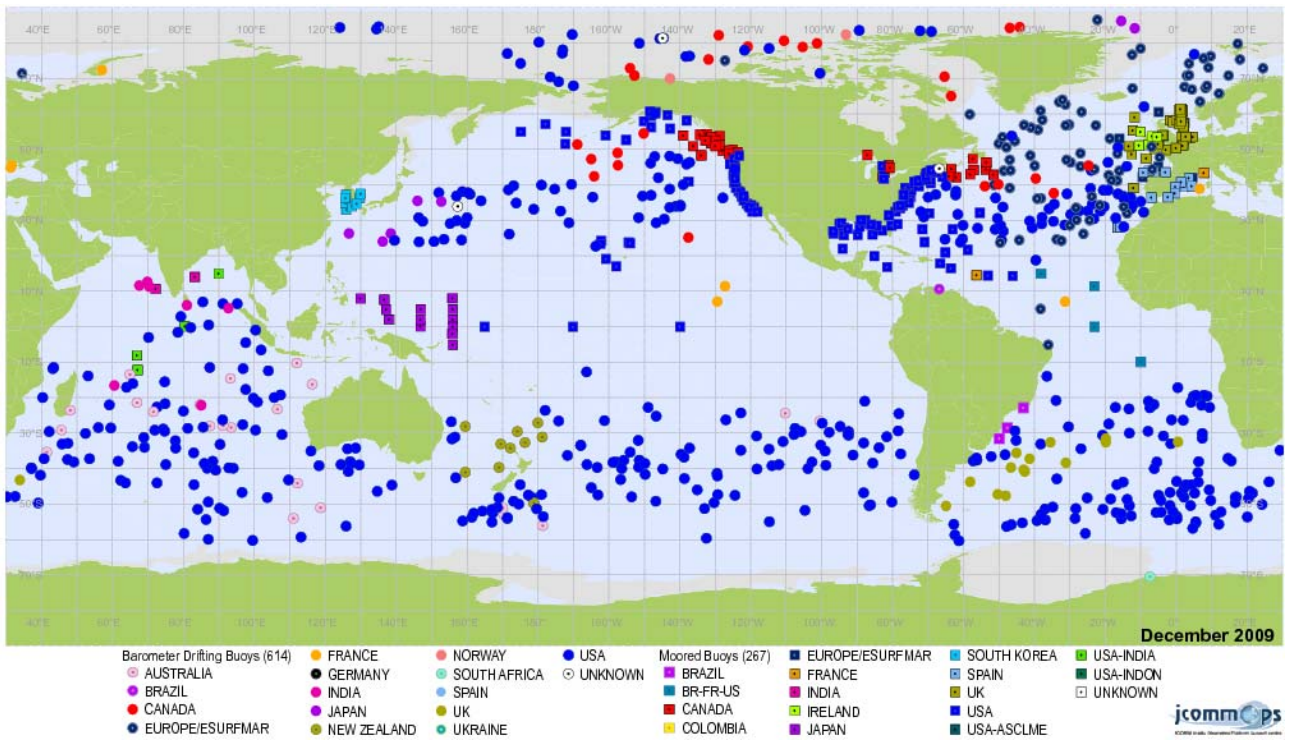
1.7 The maps below shows that now the spread across the globe is fairly even and there are many countries contributing to the network.



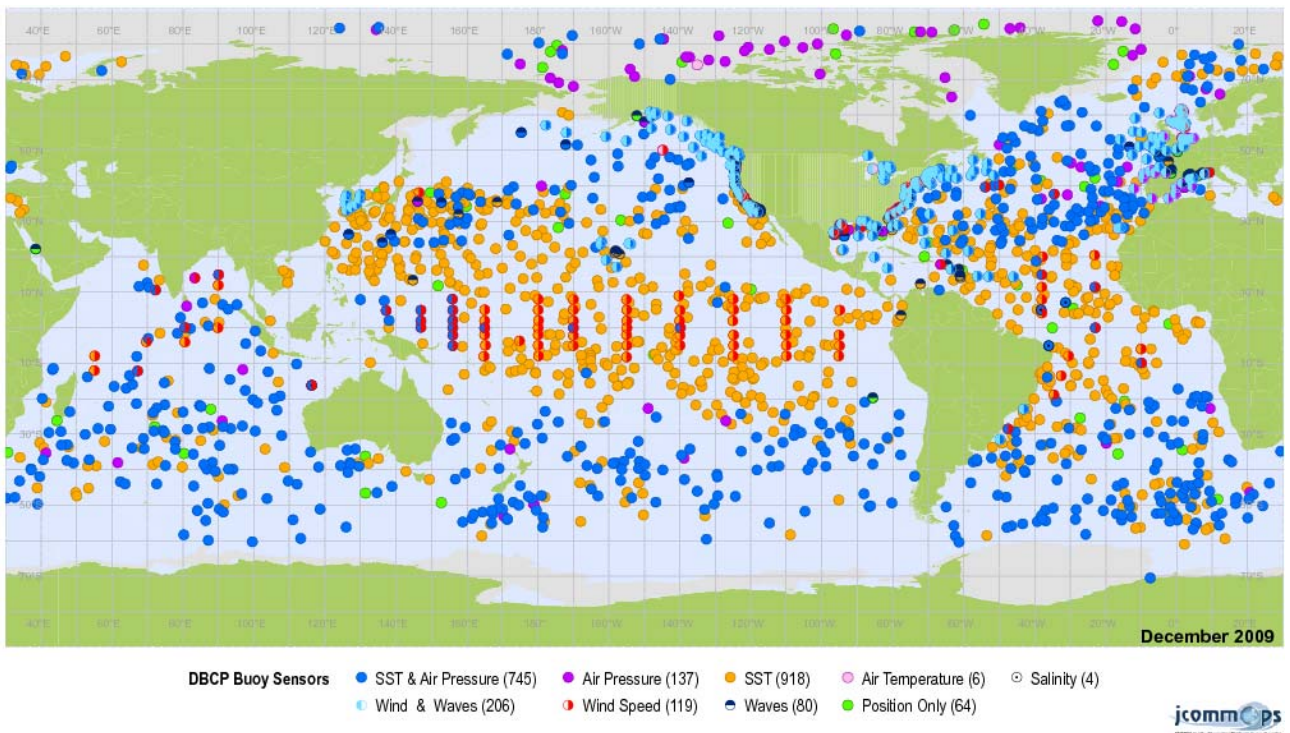
Map 1: DBCP monthly status for Drifting Buoys by country for December 2009. (Data Buoys reporting on the GTS via Météo-France)



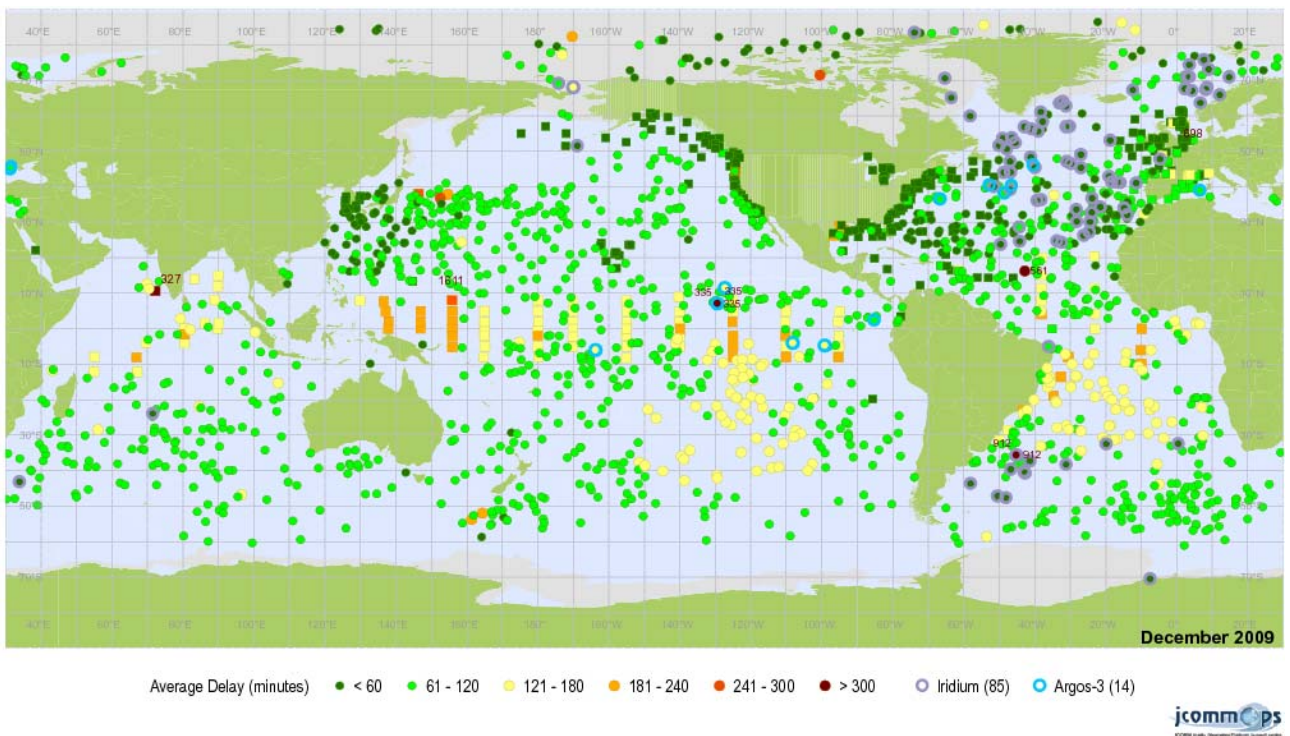
Map 2: DBCP monthly status for Moored Buoys by country for December 2009. (Data Buoys reporting on the GTS via Météo-France)



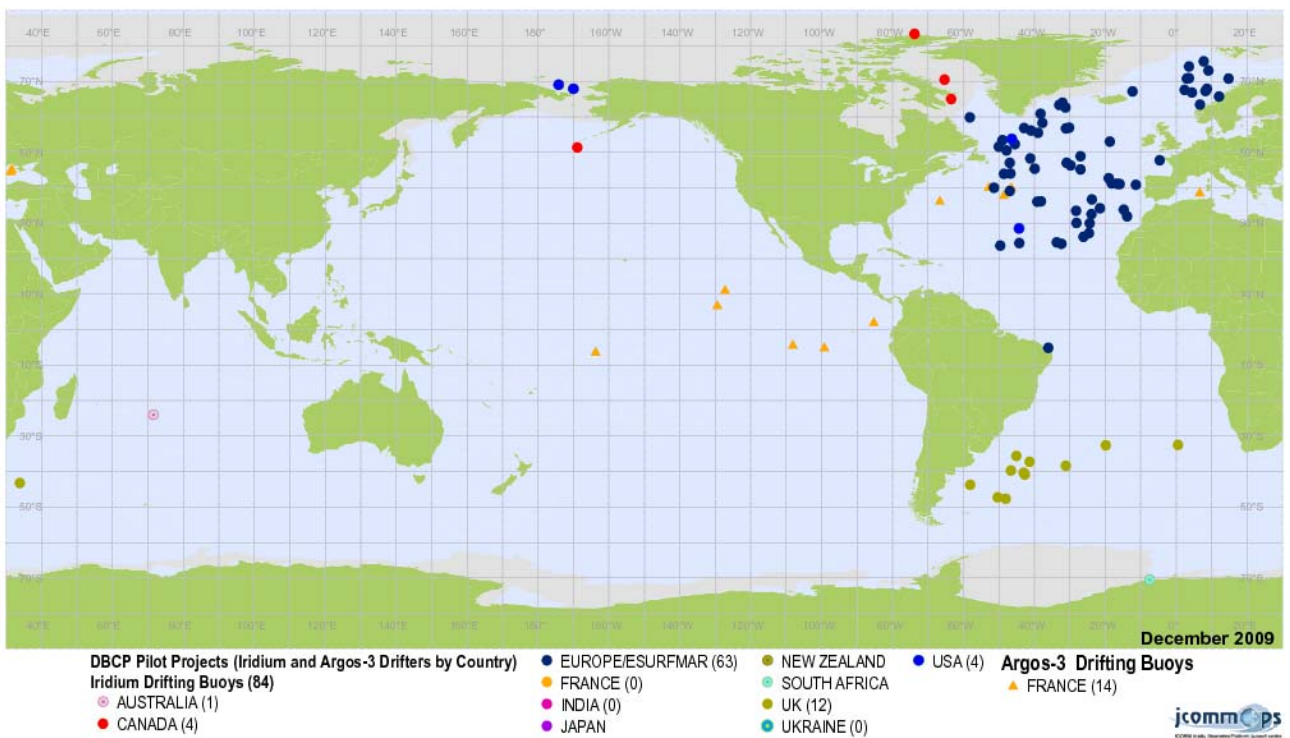
Map 3: Drifting and Moored Barometer Buoy monthly status by country for December 2009. (All Data Buoys reporting Pressure measurements on the GTS via Météo-France)



Map 4: Drifting and moored buoys reporting SST & Air Pressure and Wind & Waves, Air Temperature, Salinity or just Position in December 2009. (Data Buoys reporting on the GTS via Météo-France)



Map 5: Average delays (reception time – observation time in minutes) for drifting and moored buoys reporting on GTS (as well as indication of whether Iridium or Argos-3 satellite telecommunications are being used) (data received at Météo-France, December 2009).



Map 6: Drifting buoys from pilot projects looking at data collected via Iridium and Argos-3, December 2009.

## 2. Maps

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

Dynamic maps:

- Maintained monthly dynamic map:  
<http://w4.jcommops.org/WebSite/DBCP>  
or [Google Earth Version](#) (Updated Monthly);
- Maintained daily dynamic map (drifter trajectories):  
[http://w4.jcommops.org/WebSite/DBCP\\_RT](http://w4.jcommops.org/WebSite/DBCP_RT)  
or [Google Earth Version](#) (Daily Update for buoys reporting and 7 day tracks);
- Maintained dynamic map of all JCOMM observing systems  
<http://w4.jcommops.org/WebSite/JCOMM> .

Static maps:

**DBCP:**

Files viewable at: <http://www.jcommops.org/dbcp/network/dbcpmaps.html>

- *Buoys by Country*
- *Barometer Buoys by Country*
- *SST, Barometer, Wind and Wave Buoys*
- *GTS Delays*
- *Pilot Project Buoys: Argos-3 (14 Active at end of 2009) and Iridium Buoys (84 Active Buoys at end 2009):* 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](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](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> ;
- *All Floats, Drifting and Moored Buoys - Polar areas:*  
[http://wo.jcommops.org/cgi-bin/WebObjects/JCOMMOPS.woa/wa/map?type=BUOYS\\_POLES](http://wo.jcommops.org/cgi-bin/WebObjects/JCOMMOPS.woa/wa/map?type=BUOYS_POLES) .

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