

# United States

January 2012

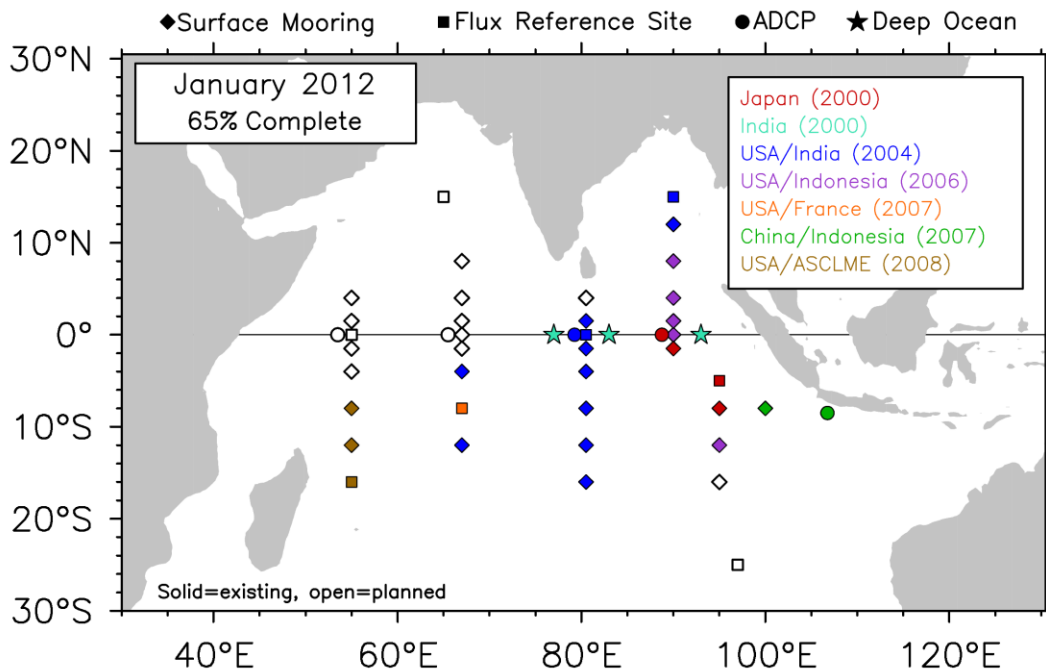
National Contact: Steve Piotrowicz  
[Steve.Piotrowicz@noaa.gov](mailto:Steve.Piotrowicz@noaa.gov)

## Summary of Operational and Planned Oceanographic Observation Programs

### Moorings

NOAA/NDBC: 111 coastal and off-shore moored buoys, 87 of which were operational January 5, 2012. To see present status go to <http://www.ndbc.noaa.gov/wstat.shtml>  
<http://www.ndbc.noaa.gov/rmd.shtml> NDBC Partners:  
[http://www.ndbc.noaa.gov/pstat\\_ocean.shtml](http://www.ndbc.noaa.gov/pstat_ocean.shtml) TAO, PIRATA (plus NTAS mooring)  
<http://www.pmel.noaa.gov/tao/> [http://www.pmel.noaa.gov/pirata/pir\\_implement.html](http://www.pmel.noaa.gov/pirata/pir_implement.html)

RAMA - Indian Ocean Moorings. Full IO array and plans can be seen at:  
<http://www.pmel.noaa.gov/tao/disdeld/disdeld.html>



Fixed off shore drilling units and others: [http://www.ndbc.noaa.gov/to\\_station.shtml](http://www.ndbc.noaa.gov/to_station.shtml)  
See <http://osmc.noaa.gov/Monitor/OSMC/OSMC.html> for present situation

320 USA moorings overall reported operational 17 January 2012. See  
<http://osmc.noaa.gov/Monitor/OSMC/OSMC.html> for present situation.

Tsunami – Network of 52 (40 maintained by the USA) Deep-ocean Assessment and

Reporting of Tsunamis (DART) buoys in place November 2011. 7 buoys have been deployed in the Western Atlantic, 4 in the Indian Ocean (Indonesia, Thailand and Australia), 6 others by Australia (3 of which are in the Southern Ocean), Russia 1 in North Pacific and Chile maintains 1 off it's coast. <http://www.ndbc.noaa.gov/dart.shtml>

Monitoring the Atlantic Meridional Overturning Circulation at 26.5°N participant. See <http://www.soc.soton.ac.uk/rapidmoc/>

### **XBTs**

XBT SOOP Lines supported by USA:

Atlantic – AX-01, 04, 07, 08, 10, 18, 22, 25 & 32

Pacific – PX- 05, 06, 08, 09, 10, 13, 22, 31, 37, 37S, 38, 44, 50, 81 and PX6 Loop .

Indian –IX-15/31, 21 and 6.

AOML HDX Program [http://www.aoml.noaa.gov/phod/hdenxbt/high\\_density\\_home.html](http://www.aoml.noaa.gov/phod/hdenxbt/high_density_home.html)

SIO HDX Program <http://www-hrx.ucsd.edu/index.html>

### **ARGO**

1829 active January 25, 2012. To see latest status of floats and 2012 plans go to

<http://wo.jcommops.org/cgi-bin/WebObjects/Argo.woa/wa/default>

and select Monitoring, Countries and Plans. See also

[http://www.jamstec.go.jp/J-ARGO/index\\_e.html](http://www.jamstec.go.jp/J-ARGO/index_e.html)

### **Sea Level**

FAST data posted at Hawaii December 2012. To see latest status go to

<http://ilikai.soest.hawaii.edu/uhs/c/woce.html>

39 USA FAST stations reporting well. See also <http://www.psmsl.org/data/obtaining/>

for GLOSS data status. 35 US GLOSS stations posted at PSMSL as of 2010.

See also <http://www.ioc-sealevelmonitoring.org/index.php> for recent activity.

NOAA/NOS Water Level Observation Network. 250 stations of this network are relevant to GOOS. These stations are mainly located in coastal States of the lower 48, Alaska and coasts of Hawaii. <http://tidesandcurrents.noaa.gov>

See also GPS positioned stations at <http://www.sonel.org/spip.php?page=cgps>

### **Waves**

All NDBC moored buoys report significant wave height.

<http://www.ndbc.noaa.gov/> see moorings below. Gulf of Maine Ocean Observing System (13 sites) GoMOOs and NOAA reporting waves, SST, and some sub-surface temp, salinity and currents. <http://www.gomoos.org/data/recent.html>

### **Surface Drifters**

853 active January 18, 2012. See <http://osmc.noaa.gov/Monitor/OSMC/OSMC.html> for present situation.

## **TS Hydrography**

Latest and next US Repeat Hydrographic sections (standard WOCE sampling)

A10, 2011  
A16S-5S to 60S, 2005 and 2014.  
A22-66W, 2003 and 2012.  
A16N-Iceland to 5S, 2003 and 2013.  
A20-52W, 2003 and 2012.  
A13.5-Equator, Cape Town to Ghana, 2010.  
P2-30N, 2004 and 2013.  
P16N/S-112-102W, 2005/6 and 2014.  
P6 – 39S, 2009

S4P-Nominal 67S, connects with S41 and SR4, 2011

I41 1996 USA and 2012-13 Japan

Davis Straits, 2009 and 2010 USA/Canada.

RUSALCA, Bering and Chukchi Seas, USA 2009 and USA/USSR 2010

[http://ushydro.ucsd.edu/repeathydro\\_map.html](http://ushydro.ucsd.edu/repeathydro_map.html)

[http://www.go-ship.org/RefSecs/Table&Meas\\_May2010b.pdf](http://www.go-ship.org/RefSecs/Table&Meas_May2010b.pdf)

OceanSITES –See <http://www.oceansites.org/network/index.html>

 BATS - Hydrostation S [www.bios.edu](http://www.bios.edu)

HOT [http://hahana.soest.hawaii.edu/hot/hot\\_jgofs.html](http://hahana.soest.hawaii.edu/hot/hot_jgofs.html)

Calcofi <http://calcofi.net/cruises/sms-cruisestatus.html>

## **Carbon**

Cruises for US global carbon program. [http://ushydro.ucsd.edu/repeathydro\\_map.html](http://ushydro.ucsd.edu/repeathydro_map.html)  
<http://ushydro.ucsd.edu/cruises>

PMEL - Moored pCO<sub>2</sub> network: 5 low latitude mid Pacific (TAO), Hawaii (HOT), Station PAPA, Kuroshiro Extension (with Japan), and Stratus (20S).

Underway pCO<sub>2</sub> measurements along 8 TAO lines during routine redeployment/ recovery cruises. Coastal component with NDBC at sites in Oahu, Seattle, Georgia and New Hampshire. [http://www.pmel.noaa.gov/co2/uwpc2/eq\\_pacific.html](http://www.pmel.noaa.gov/co2/uwpc2/eq_pacific.html)

AOML – Research Ship and VOS underway CO<sub>2</sub> Program.

<http://www.aoml.noaa.gov/ocd/gcc/index.php>

[http://www.aoml.noaa.gov/ocd/gcc/rvbrown\\_introduction.php](http://www.aoml.noaa.gov/ocd/gcc/rvbrown_introduction.php)

See also: Carbon Underway Measurements-Global

<http://ioc3.unesco.org/ioccp/Underway/TablePDFs/UWGlobalNov07.pdf>

PMEL CO<sub>2</sub> moorings [http://www.pmel.noaa.gov/co2/moorings/btm/btm\\_main.htm](http://www.pmel.noaa.gov/co2/moorings/btm/btm_main.htm)

PMEL Underway PCO<sub>2</sub> <http://www.pmel.noaa.gov/co2/uwpc2/>

Lamont-Doherty <http://www.ldeo.columbia.edu/res/pi/CO2/>

### **Sea Ice**

National Ice Center: a multi-agency operational center [www.natice.noaa.gov](http://www.natice.noaa.gov)  
<http://nsidc.org/data/>

### **VOS**

185 VOS ships of which 4 are also VOSCLIM active 27 January 2012.  
Potential of VOSCLIM ships is 17.

<http://osmc.noaa.gov/Monitor/OSMC/OSMC.html>

<http://www.ncdc.noaa.gov/oa/climate/vosclim/vosclim.html>

### **Coastal**

NOAA/NDBC C-MAN stations (51 sites overall September 2011)

Report sea level pressure, wind, air temp, SST (13 sites) and tides (3 sites)

<http://www.ndbc.noaa.gov/wstat.shtml>

Several local networks exist, for example: Caro-COOPS, Carolinas Coastal Ocean Observing and Prediction System, University of South Florida network in the Gulf of Mexico, and the Texas Coastal Ocean Observing Network. See the complete list and further information at: [www.ndbc.noaa.gov/to\\_station.shtml](http://www.ndbc.noaa.gov/to_station.shtml)

Coral Reef Watch Satellite Monitoring

<http://coralreefwatch.noaa.gov/satellite/index.html>

NOAA Tides and Currents: Monitor, access, and distribute tide, current, water level, and other coastal oceanographic products and services. <http://tidesandcurrents.noaa.gov/>

Seagrassnet participant. <http://www.seagrassnet.org>

ANTARES Participant – study of the long-term changes in the marine ecosystems around Latin America.

Hawaii Ocean Time Series. [http://www.soest.hawaii.edu/HOT\\_WOCE/](http://www.soest.hawaii.edu/HOT_WOCE/)

Bermuda Atlantic Time-Series Study provides information to the international climate science community. <http://www.bios.edu/research/bats.html>

### **Status of current and Future Satellites**

<http://www.wmo.int/pages/prog/sat/satellitestatus.php>