

USA National Report DBCP-29

Rick Lumpkin (AOML) and Shannon McArthur (NDBC)

National Oceanic and Atmospheric Administration

Additional input from Linda Stratton (PMEL) and Kyle Rushing
(NAVOCEANO)

29th Data Buoy Cooperation Panel session

23-27 September 2013

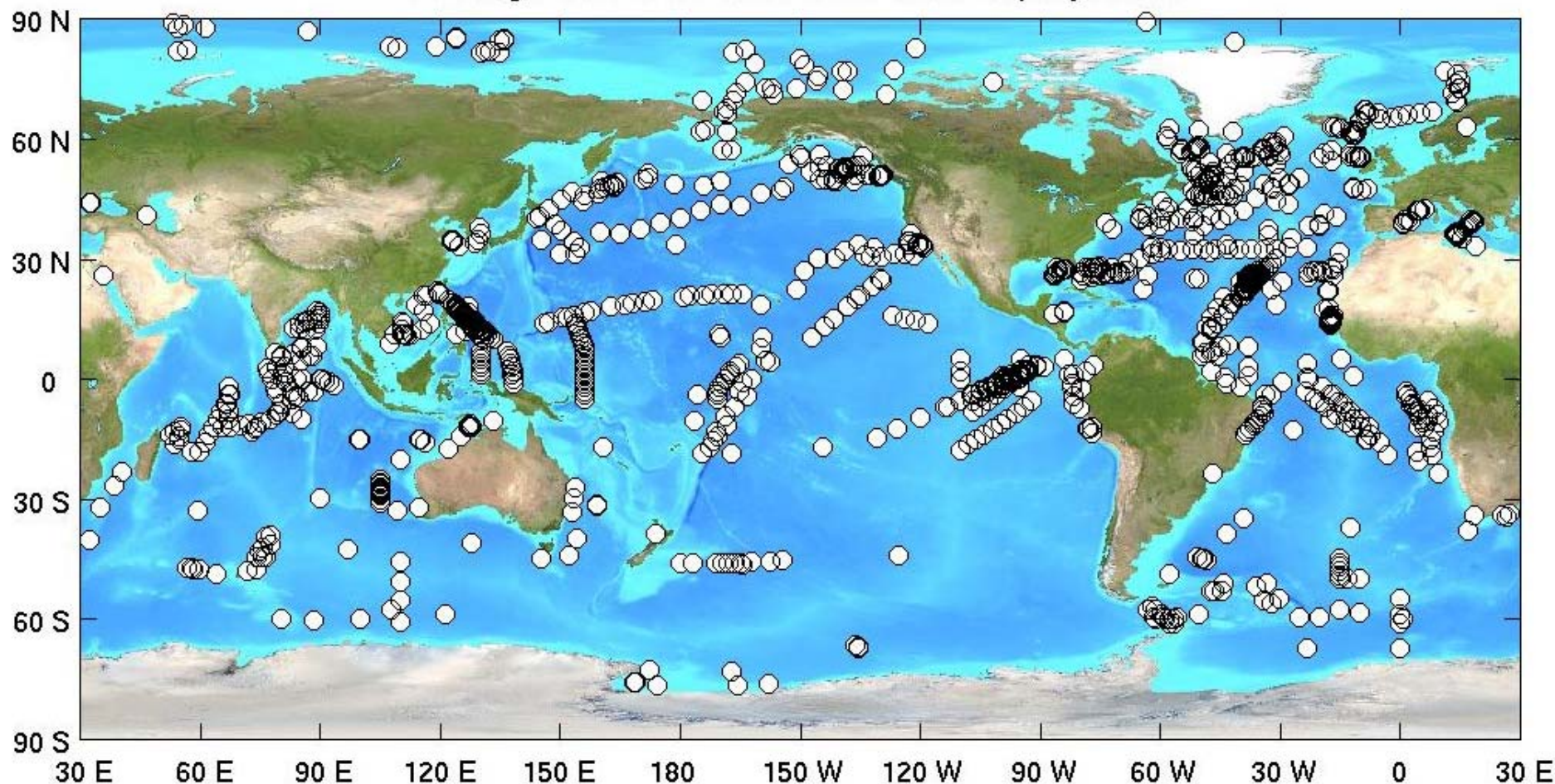
Paris, France

Outline

- ▣ 2013 Deployments and 2014 Plans
 - Atlantic Oceanographic and Meteorological Laboratory
 - National Data Buoy Center
 - Pacific Marine Environmental Laboratory
 - Naval Oceanographic Office
- ▣ Technical Developments

Global Drifter Program

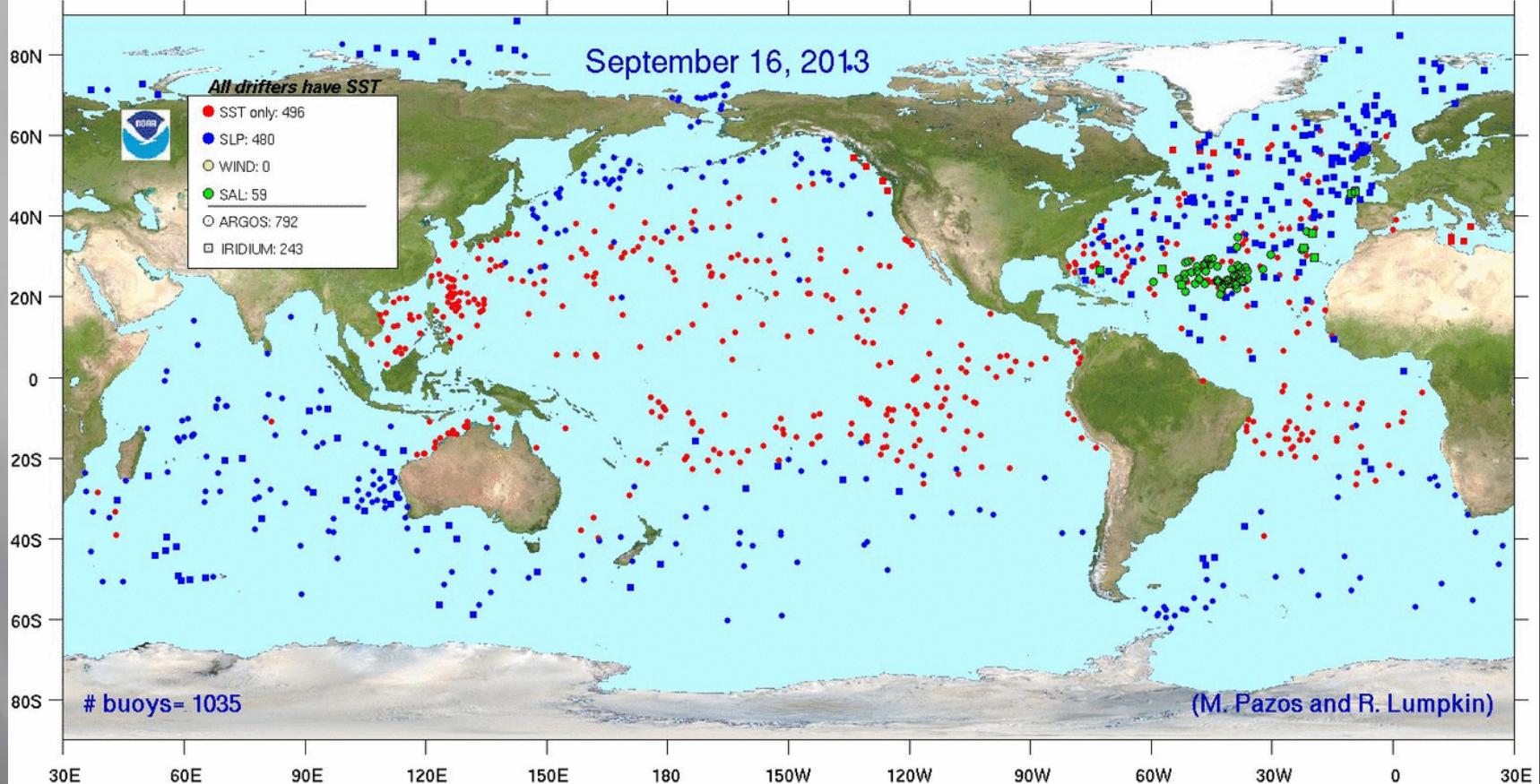
01-Aug-2012 to 31-Jul-2013: 1513 deployments



1513 drifters deployed in the period 1 Aug 2012 to 1 Aug 2013.

Global Drifter Program, cont.

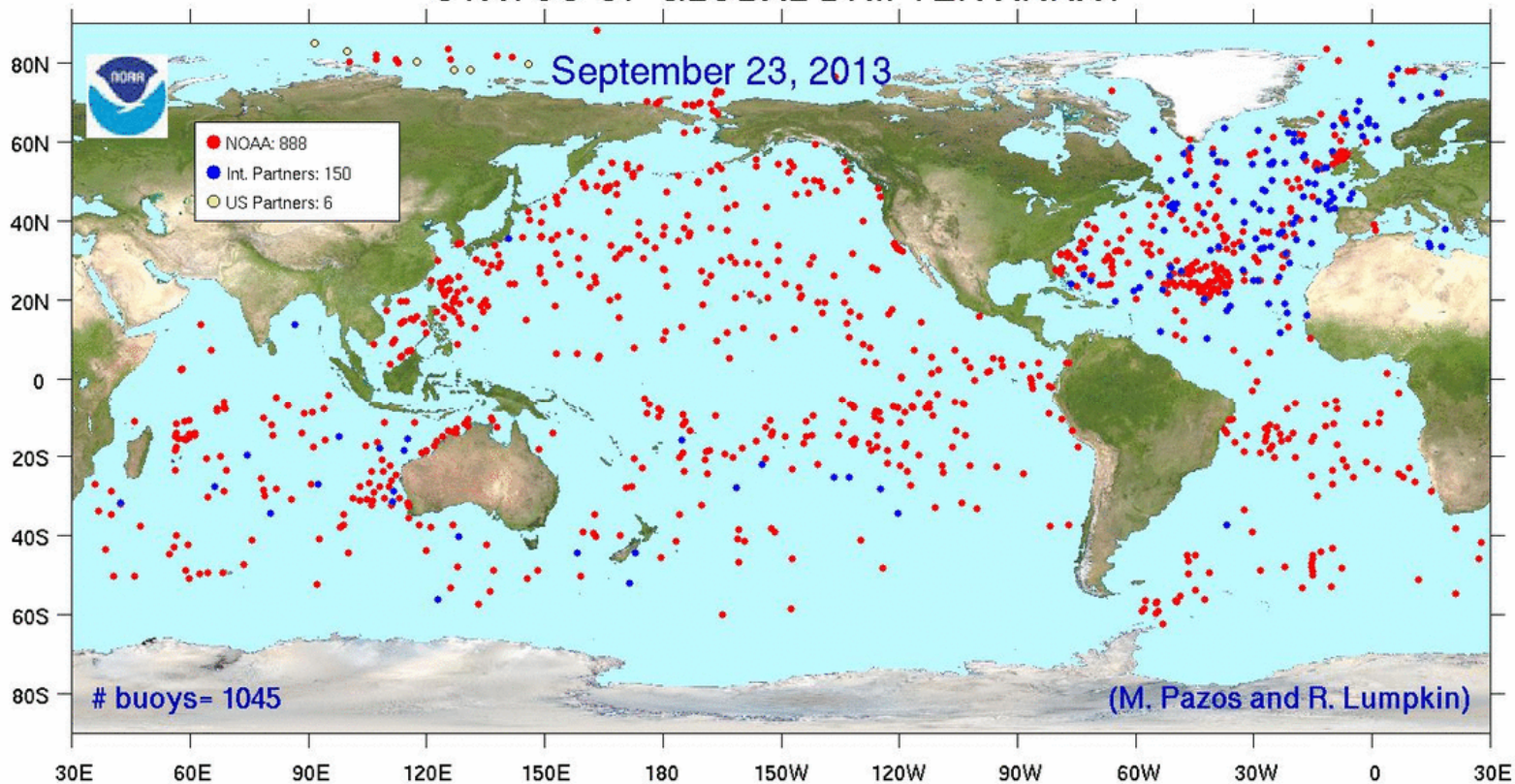
STATUS OF GLOBAL DRIFTER ARRAY



Current status: 1035 buoys, all reporting on GTS

Number and type of buoys planned for deployment in the next 12 months: 1000 drifters, 800 funded by NOAA's Climate Program Office and 200 by Consortium Research partners.

STATUS OF GLOBAL DRIFTER ARRAY



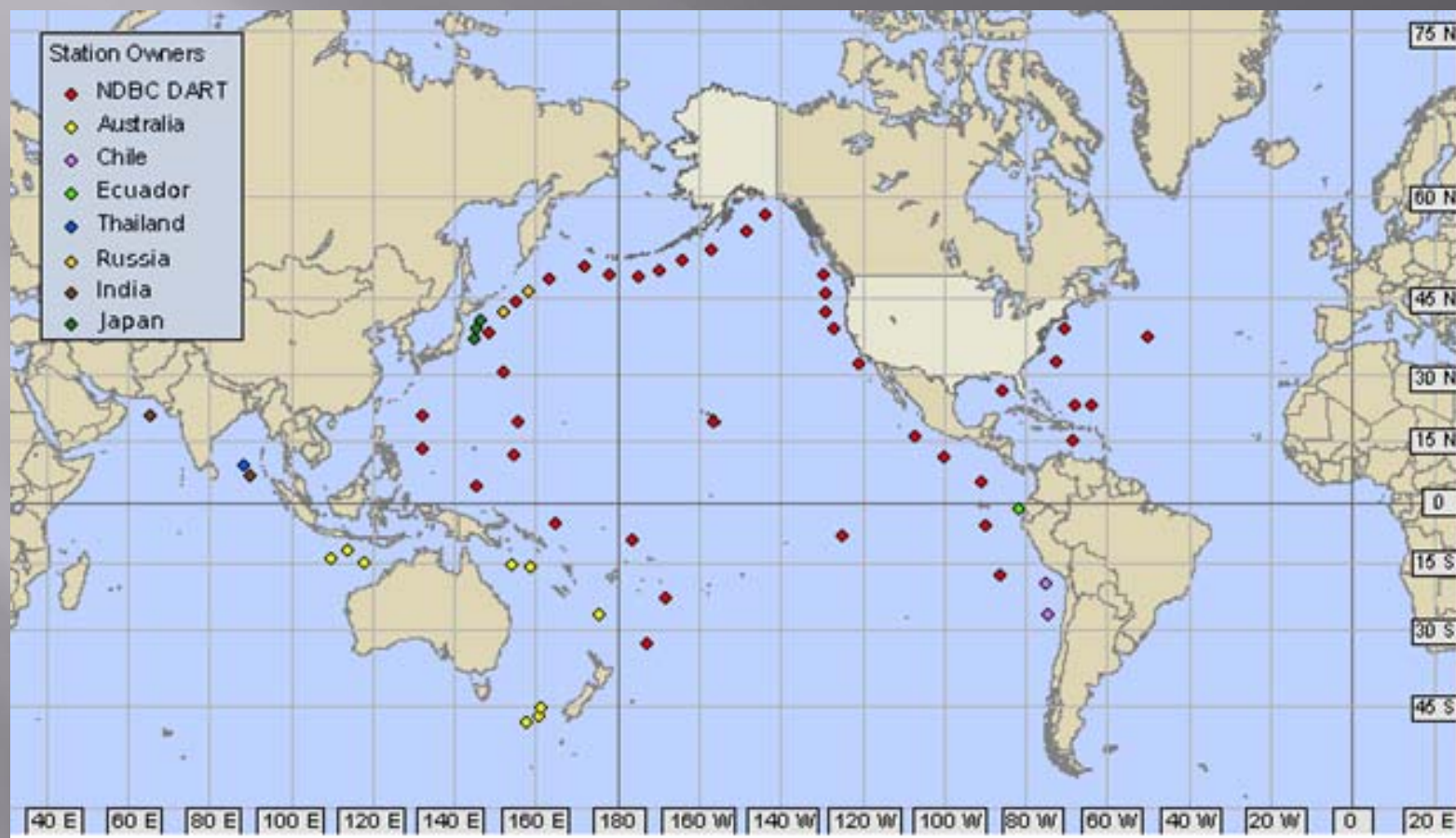
NDBC moored buoys



deployed during 1 August 2012 – 25 Jul 2013:	90
<u>operational</u> as of 1 August 2013:	85
<u>reporting</u> on GTS as of 1 August 2013:	85

Number and type of buoys planned for deployment in next 12 months: 20

NDBC tsunami network



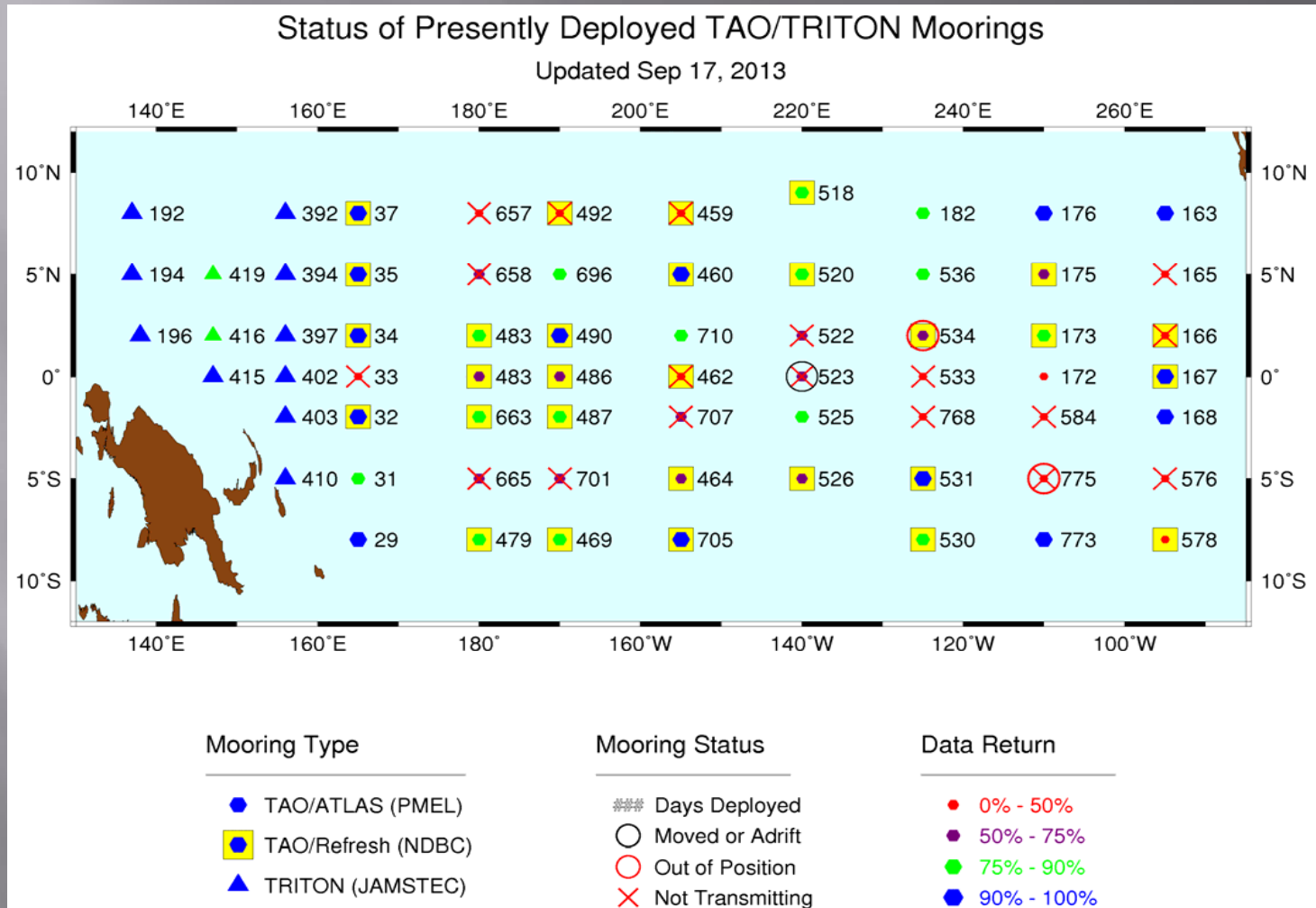
deployed during 1 August 2012 – 25 Jul 2013: 28

operational as of 1 August 2013: 32

reporting on GTS as of 1 August 2013: 32

Number and type of buoys planned for deployment in the next 12 months: 20

NDBC Tropical Atmosphere Ocean array



deployed during 1 August 2012 - 25 July 2013:
10 toroids and 1 subsurface

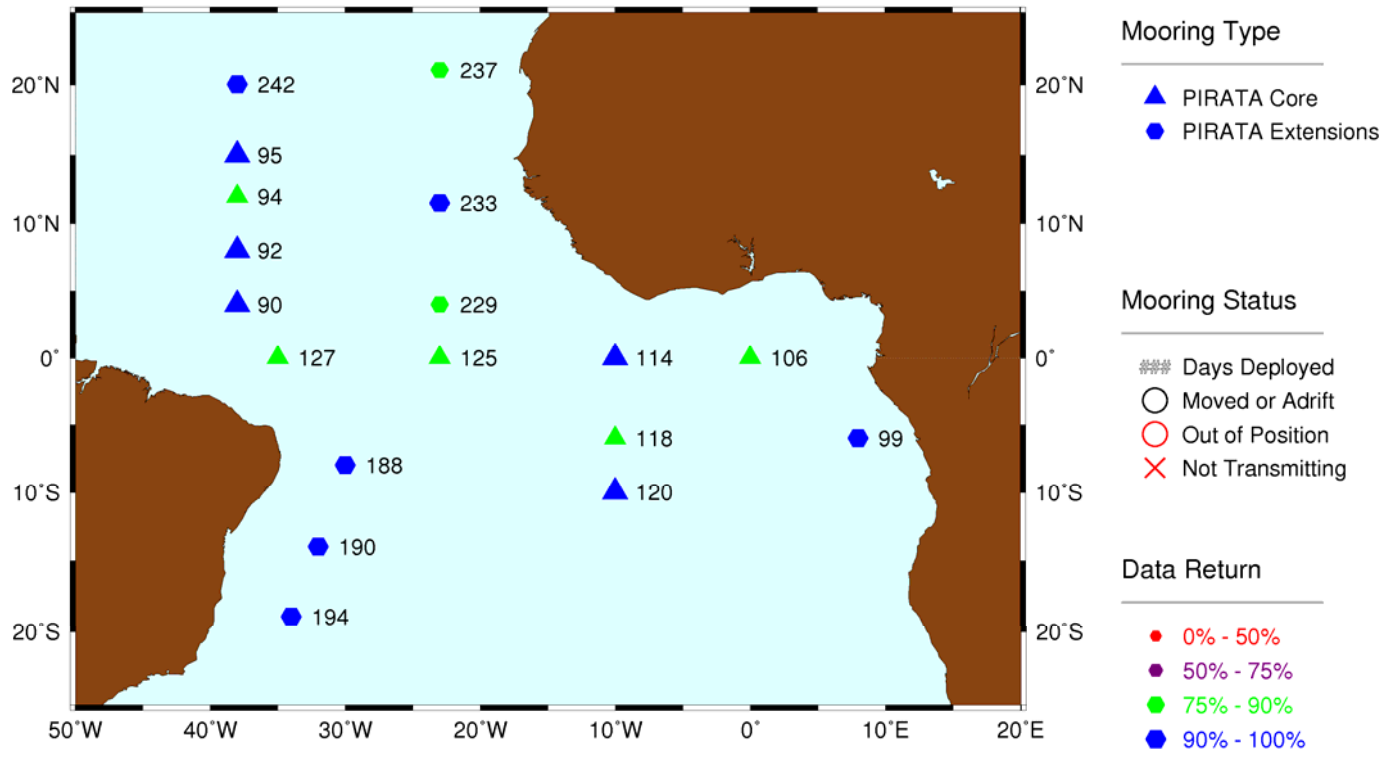
operational as of 1 August 2013: 33

reporting on GTS as of 1 August 2013: 33

Number and type of buoys planned for deployment in the next 12 months:
34 toroids, 4 subsurface

PIRATA array including PMEL/AOML Northeast Extension

Updated Sep 17, 2013



deployed during 1 Aug 1 2012 – 25 Jul 2013:
18 surface toroids, 1 developmental surface
toroid

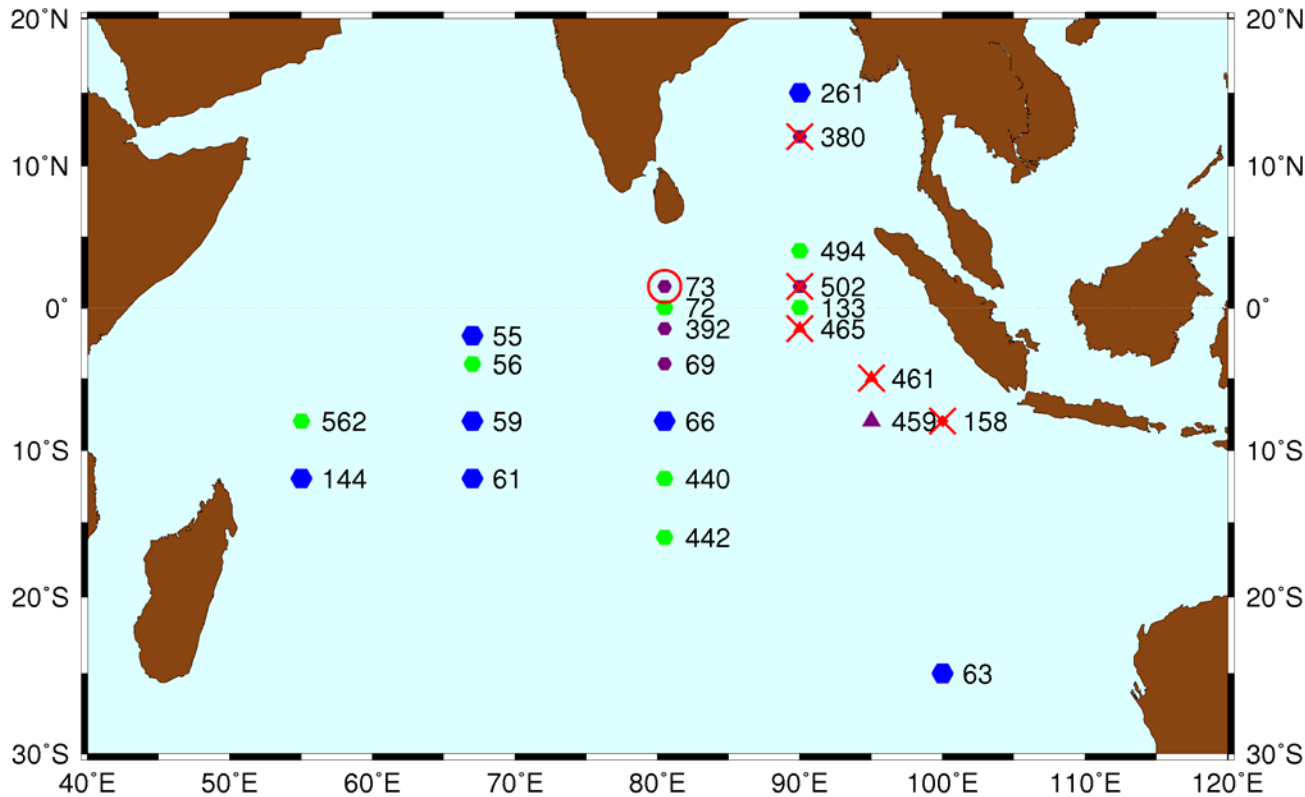
operational as of 1 August 2012: 18 surface
toroids, 1 developmental toroid

reporting on GTS as of 1 August 2012: 18
surface toroids

Number and type of buoys planned for deployment in the next 12 months:
18 + 1 developmental

PMEL (and partners) RAMA array

Updated Sep 17, 2013



Mooring Type

- ATLAS (PMEL)
- ▲ TRITON (JAMSTEC)
- ◆ Bai-Long (FIO)

Mooring Status

- ### Days Deployed
- Moved or Adrift
- Out of Position
- ✗ Not Transmitting

Data Return

- 0% - 50%
- 50% - 75%
- 75% - 90%
- 90% - 100%

deployed during 1 Aug 2012 – 25 Jul 2013:
 19 surface toroids, 8 subsurface moorings, 3
 developmental surface toroids

operational as of 1 August: 17 surface toroids,
 10 subsurface, 2 developmental

reporting on GTS as of 1 August: 17

Number and type of buoys planned for deployment in the next 12 months: 24 surface
toroids and 10 subsurface

Naval Oceanographic Office (NAVOCEANO)

- Number and type of buoys:
- (a) deployed 1 August 2012 – 18 July 2013:
62 Argos floats, 4 Iridium floats, 50 Argos drifters, 14 Iridium drifters
 - (b) operational as of 18 July 2012: 90 floats, 7 drifters
 - (c) reporting on GTS as of 18 July 2012 : 90 floats, 7 drifters

- Purpose of programme:
- (a) operational: [x]
 - (b) met / ocean research:
 - (c) developmental:

Main deployment areas: Floats: primarily northern hemisphere.
Drifters: South China Sea, Arabian Gulf, Mediterranean Sea, Caribbean Sea and the East Pacific.

The purpose of NAVOCEANO deployments is to support US Navy operations globally. Deployment plans are dictated by operational needs.

Number and type of buoys planned for deployment in the next 12 months: 60 profiling floats and 100 drifting buoys

Technical Developments

- ▣ Drifting Buoy Design
 - Recommendations
 - ▣ Ruggedized tether
 - ▣ High quality batteries
 - ▣ More accurate SST (0.05C)
 - ▣ Ruggedized drogue design
 - Scripps Institution of Oceanography
 - ▣ Completed design and began production of SVP and SVPB
 - ▣ Evaluating new tether material on SIO units
- ▣ Buoy Deployments
 - PMEL continues to test the Tropical-Flex (T-flex) buoy alongside PMEL legacy moorings. T-Flex moorings communicate via Iridium modem and Seabird electronics replace legacy PMEL temperature thermistors.
 - NDBC has deployed 28 Refresh buoys in the TAO array and will continue deploying them until the array is completely refreshed.

Thank You!

Questions:

Rick.Lumpkin@noaa.gov

Shannon.McArthur@noaa.gov