

**REPORT BY THE TASK TEAM ON  
INSTRUMENT BEST PRACTICES AND  
DRIFTER TECHNOLOGY DEVELOPMENT  
(IPBD-DTD)**

Presented by: Bill Burnett ([bill.burnett@noaa.gov](mailto:bill.burnett@noaa.gov))

Chair

28 September 2010

Oban, Scotland

# Membership

[Data Buoy Cooperation Panel Website](#)

# Overall

As noted during the Science and Technology Workshop – the drifter's deployed during the year worked well but improvements are noted in a few areas.

# Technical Coordinator

- <http://www.jcommops.org/dbcp/community/standards>
- Developed document “Guide to Data Quality Control Tests to Perform by a GTS Processing Center.”
- Updated document “Guide to Data Collection and Location Services Using Argos.”
- Finalized documents for the OceanSITES Quality Control Best Practices
- Added a link on the DBCP website to highlight iQuam  
<http://www.star.nesdis.noaa.gov/sod/sst/iquam/>

# Global Drifter Program

- Improved monitoring of drogue presence.
- Noted the fraction of drifters as “drogue on” fell from 70% to 50% - and determined that the previous periods were misdiagnosed as drogue-on.
- Monitored and reported the practices and developments from Technocean, Clearwater, Pacific Gyre, Metocean and Marlin-Yug.
  - Identified a large series of Clearwater SVP drifters that had an anomalously high “failed on deployment” rate
  - Problems with Technocean drifters was identified where many days to months pass between deployment time and first data transmissions- improved magnet attachment methods were developed

# UK Met Office

- Ordered drifters with lithium batteries to evaluate the potential increase in lifetime of the units.

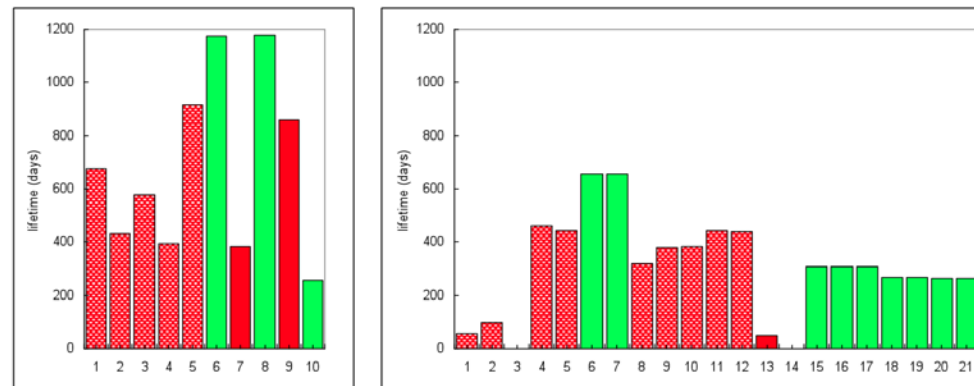


Figure 1. Lifetimes of Argos (left) and Iridium (right) drifters. Active drifters are shown in green, expired drifters in red, units with alkaline batteries are shown by hatched bars and with lithium batteries by solid bars.



# National Data Buoy Center

- Upgraded firmware on all 39 U.S. tsunameter stations – installed diodes on CPU batteries to reduce voltage and make the CPU less susceptible to interrupts.
- Implemented a Ocean Sensor Calibration Laboratory
- Hosted the JCOMM Regional Marine Instrument Center in April 2010

# Météo-France

- Continued evaluation of Iridium Short Burst Data transmission on drifting buoys
- Noted that some of the Iridium SVP-Bs fitted with GPS had problems due to manufacture modifications instead of the addition of GPS
- Worked closely with the Pilot Projects
- Worked to improve SST observations with higher resolution and BUFR transmissions
- Worked to improve drifters that collect salinity obs (SVP-BS) and temperatures with depth (SVP-BTC).



# Environmental Canada

- Will utilize Lithium batteries for all drifting buoy deployments in the Arctic and will examine the impact of Lithium batteries
- Working with MetOcean regarding a new type of SVP-B buoy that utilizes a Gill Sonic Anemometer to estimate wind speed and direction
- Implementing a new system that will improve management of key weather observing assets and status of site maintenance/calibration.
  - The Station Sensor Management System (SSMS) allows for comprehensive and accurate tracking of assets – which includes calibration reports

# Marine Hydrophysical Institute

- New prototypes of Iridium buoys were developed
- All buoys have new controllers and software to remove reported problems
- Real-Time clock introduced – now with GPS synchronization of the drifter's clock
- New prototype of ARGOS3 SVP-B/RTC drifters were developed – large number of laboratory tests were carried out
- New versions of the SVP-B mini drifter with new packaging techniques were developed
- Development of Argos-GPS ice markers with barometers were conducted and deployments made

Thank You!

Bill Burnett

[bill.burnett@noaa.gov](mailto:bill.burnett@noaa.gov)