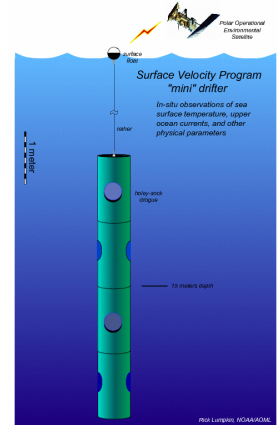




Barometer Upgrade Program

Overview

The modern drifter is a high-tech version of the “message in a bottle.” A drifter consists of a surface buoy and a subsurface drogue (sea anchor), attached by a long, thin tether. The buoy measures temperature and other properties, and has a transmitter to send the data to passing satellites. The drogue dominates the total area of the instrument and is centered at 15 meters beneath the sea surface.



Global Drifter Program (GDP)

The GDP is the principle component of the Global Surface Drifting Buoy Array, a branch of NOAA’s Global Ocean Observing System (GOOS) and a scientific project of the Data Buoy Cooperation Panel (DBCP).

GDP Objectives:

1. Maintain a global 5° x 5° array of about 1300 satellite-tracked surface drifting buoys to meet the need for an accurate and globally dense set of in-situ observations of mixed layer currents, sea surface temperature, atmospheric pressure, winds and salinity and
2. Provide a data processing system for scientific use of these data.

Barometer Upgrade Opportunity

The DBCP facilitates collaboration between oceanographers and meteorologists by encouraging the addition of barometer sensors to standard drifters. Air pressure measurements are vital for weather forecasts, so equipping additional drifting buoys with barometric pressure sensors increases the quality of numerical weather predictions.

Benefits:

1

COST SHARING

Contributions from partners increase the overall value, while reducing costs to each participating agency.

2

ADDITIONAL SENSORS

By sharing costs amongst institutions / agencies, it becomes (financially) feasible to add sensors to more standard drifters.

3

GLOBAL COVERAGE

It is now more affordable to sample greater areas of interest, which benefits the global community by expanding spatial coverage.



Barometer Upgrade Program



STANDARD DRIFTER (SVP) TO SVP + BAROMETER (SVPB)

- [Description of the development of the SVPB](#)
- [SVPB Design Reference Manual](#)



Barometer Upgrade Opportunity Procedures

- For each upgraded drifter, the GDP will pay for the cost of the standard drifter, as well as telecommunications costs associated with its transmissions.
- For each upgraded drifter, the GDP will assign a World Meteorological Organization (WMO) number and distribute the data onto the Global Telecommunications System (GTS).
- Coordination between the upgrading agency and the GDP regarding the deployment area must be done 3 to 6 months prior to deployment to avoid redundancy and reduce/eliminate deployments in low value areas. If the upgrading agency can provide a ship for deployment, they should advise the GDP.
- The GDP will arrange the shipment of upgraded drifters.
- GDP contact for deployment coordination is Mr. Shaun Dolk (shaun.dolk@noaa.gov), within the GDP Drifter Operations Center (DOC).
- Upgrade opportunities are available with commercial manufacturers, from which the GDP purchases standard drifters. Upgrading agencies shall negotiate the price of sensor upgrades directly with these manufacturers. To determine if your desired manufacturer can participate in the Upgrade Program, please contact members of the GDP at [AOML](#) and/or [Scripps](#).
- GDP is not responsible for the performance of upgraded sensors.
- All upgraded drifters must utilize existing data message formats.