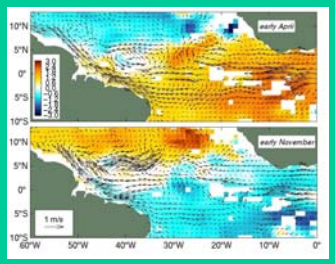
Who is Using Drifter Data?

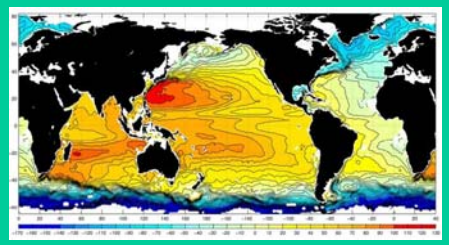
RESEARCHERS

(a few examples…)



A climatology of near-surface currents and SST for the tropical Atlantic Ocean, at one degree resolution, derived from drifter observations.

Lumpkin, T. and S.L. Garzoli, 2005: Near-surface Circulation in the Tropical Atlantic Ocean. *Deep-Sea Res.* I 52(3), 495-518



1992-2002 mean absolute sea level calculated from drifter observations, winds, and satellite altimetry.

Niller, P., N. Maximenko and J. McWilliams, 2003:Dynamically balanced absolute sea of the global ocean derived from near surface velocity observations GRL 30 (22), 2164

OPERATIONAL CENTERS

Country	Center	Type	Region of Interest	Parameters Measured
Australia	BoM	Ocean Forecast	Australian waters	SST & P
Brazil	Instituto Nacional de Meteorology	Climate & Forecast	S. Atl	SST & P
Brazil	Fundacao Universidade Federal do Rio Grand	Ocean Analysis, Forecast, Polar Oceanography& Climate Studies	S. Atl	SST & P
Brazil	Centro de Hydrografia de Marinha	Climate, Forecast, Ocean Studies, & Marine Meteorology	S. Atl	SST & P
Brazil	INPE (National Space Institute)	Ocean Analysis, Forecast, Polar Oceanography& Climate Studies	S. Atl	SST & P
Brazil	Brazilian Navy	Research & Operational Activities	S. Atl	SST & P
Canada	Environment Canada	Climate & Forecast	N. Pac	SST
France	Meteo-France	Climate & Forecast	Indian & N. Atl	SST, P, W, & Sal
India	Naval Physical and Oceanographic Laboratory (NPOL)	Heat and Salt Divergence of Tropical Indian Ocean	Indian Ocean	SST & P
New Zealand	New Zealand Met. Service	Climate & Forecast	Tasman Sea & S. Pac	SST & P
South Africa	South African Weather Service	Climate & Forecast	S. Atl	SST, P, & W
UK	UKMET	Ocean Forecast	N. Atl	SST, P, &W
US	Coast Guard International Ice Patrol	Ocean Currents & Prediction of Iceberg Drift & Deterioration	Labrador Sea & N. Atl	SST & P
US	Navoceano	Ocean Forecast	Global	SST, P, & W
US	TPC/NCEP/NWS	Wind Forecasting in Tropical Cyclones	Global	SST, P, & W
US	EMC/NCEP/NWS	Surface Analyses & Model Initializations	Global	SST, P, & W

TEACHERS

"The kids are now plotting their buoys on the world map and have some questions for you about why their buoys are doing what they are doing…the kids are possessed with this project. They live, eat, and sleep buoys!"

- James Boyd Intermediate School, Huntington, NY

Teacher At Sea

Students can "adopt" one or more buoys and monitor the observations. The data can be used to track and understand local weather and to solve "real" meteorological and oceanographic problems.

AOML scientists aboard selected *Explorer* cruise transects will deploy drifters as well as provide lectures about basic oceanography concepts and the rationale and research goals of NOAA's Global Ocean Observing System.

- Semester at Sea

The Explorer --

OTHERS

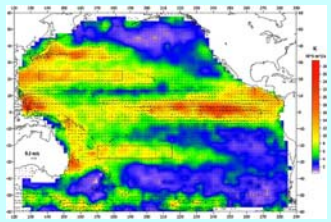
"We are using historical weather data to assist in routing sailboats in the 2005-2006 Volvo Around the World Ocean Race…I have done some investigating into possible sources for current data and believe your drifter buoy program is the best for our use."

-Ken Davies, Cornell University

"I use your drifter information (over the course of a month) to predict/find favorable ocean currents for our biannual sailing trip in May from Pensacola, FL to the Yucatan Peninsula of Mexico."

- Capt. L. Scott Harrell, Charlotte, NC

Diffusivity is calculated using surface drifter data. It is useful in predicting larval dispersion and oil spills.



"One of our clients is having an argument about how much the current affected the speed of his ship. They have been looking at admiralty current charts but I think these are not based on up to date information and are unlikely to be as accurate as your drift data."

- John Warman, The London Steam-Ship Owners' Mutual Insurance Association Ltd.

"International Ice Patrol (IIP), which is part of the United States Coast Guard, uses drifter data to determine the ocean and sea surface temperature in its operations area in the western north Atlantic Ocean. The data are used to predict the drift and deterioration of icebergs that threaten the transatlantic shipping lanes."

- Donald Murphy, International Ice Patrol, United States Coast Guard

Zhurbas, V. and I.S. Oh, 2004: Drifter-derived maps of lateral diffusity in the Pacific and Atlantic Oceans in relation to surface circulation patters. *J. Geophys. Res.* 109 (C05015)