



The Global Drifter Program Currents, Sea Surface Temperature, Atmospheric Pressure and Waves in the World's Ocean

Luca Centurioni

United States (lcenturioni@ucsd.edu)

The Global Drifter Program is the principal component of the Global Surface Drifting Buoy Array, a branch of NOAA's Global Ocean Observing System and a scientific project of the Data Buoy Cooperation Panel (DBCP). The DBCP is an international program coordinating the use of autonomous data buoys to observe atmospheric and oceanographic conditions over ocean areas where few other measurements are taken. The Global Drifter Program maintains an array of over 1,250 Lagrangian drifters, reporting in near real-time and designed measure 15 m depth Lagrangian currents, sea surface temperature (SST) and sea level atmospheric pressure (SLP), among others, to fulfill the needs to observe the air-sea interface at temporal and spatial scales adequate to support short to medium-range weather forecasting, ocean state estimates and climate science. This overview talk will discuss the main achievements of the program, the main impacts for satellite SST calibration and validation, for numerical weather prediction, and it will review the main scientific findings based on the use of Lagrangian currents.

Finally, we will present new developments in Lagrangian drifter technology, which include special drifters designed to measure sea surface salinity, wind and directional wave spectra. New opportunities for expanding the scope of the Global Drifter Program will be discussed.