

Data Management Plan

Primary Investigator: Bruce A. Huber
Institution: Lamont-Doherty Earth Observatory
Project: Weddell Sea Moorings
Funding: NOAA Climate Observation Division
Effective Dates: Initiated 1 July 2012 – no expiration

Overview: Two oceanographic moorings are maintained in the Northwest Weddell Sea, measuring ocean temperature, salinity and currents within 500 m of the bottom. The moorings produce hourly records of currents at two depths, salinity at two depths, and temperatures at 6 to 7 depths.

Data description: The moorings are recovered and redeployed approximately every two years. Raw data for temperature and salinity are sampled every 15 minutes; ocean currents every 30 minutes. The data are later processed to a uniform hourly time base. Moorings are located at 63°S 31.3', 041°W 45.989' (4500 m depth) and 62° 36.925'S, 043° 14.618'W (3031 m depth).

Data analysis summary: Once recovered, data are subjected to quality control to remove outliers. Sensors are returned for maintenance and calibration on a rotating basis, approximately 25% of the sensors are rotated at each recovery/redeployment cycle. Processing includes application of calibration data obtained for that cycle.

Includes field work? Yes

Description of field work: Mooring recovery/ redeployment cruises are undertaken in collaboration with the British Antarctic Survey under a memorandum of agreement between BAS and LDEO. BAS provides the ship time. Whenever possible, full ocean depth profiles of temperature, salinity and depth (CTD) are obtained near the mooring sites. BAS maintains the resulting CTD data in their archives.

Expected data product #1

Data type: Observational

Responsible investigator: Bruce A. Huber

Product description: Ocean current time series (north and east velocities) at 20 m and 400 m off bottom, reported hourly. Preservation plan: Data are made available to the public at the project web site and at the OceanSITES data portal. Metadata are maintained at both sites, and deposited at the Columbia University Academic Commons site (<http://academiccommons.columbia.edu/>). Timeline for data release: Raw data: immediately upon recovery. Processed data: One year after acquisition/analysis

Expected data product #2

Data type: Observational

Responsible investigator: Bruce A. Huber

Product description: Ocean temperature, salinity and pressure time series, reported hourly, at

nominally 10, 100, 200 300 400 and 500 m off the bottom.

Preservation plan: Data are made available to the public at the project web site and at the OceanSITES data portal. Metadata are maintained at both sites, and deposited at the Columbia University Academic Commons site (<http://academiccommons.columbia.edu/>).

Timeline for data release: Raw data: immediately upon recovery. Processed data: One year after acquisition/analysis