

1 Types of data

The project will collect and analyze the following data:

- Conductivity and temperature from moorings and shipboard CTD surveys
- Horizontal currents from Lowered ADCP and moorings.
- Horizontal currents from shipboard sonar
- Fine and micro-scale velocity from the WHOI High Resolution Profiler
- Fine and micro-scale temperature from fast-response thermistors (χ pod)

2 Data and Metadata Standards

Data will be shared in matlab MAT file format and/or as netCDF files. Data quality will be in accord with published uncertainty ranges for each instrument and within error bars for standard processing techniques. These PIs have experience with this mix of data types from previous collaborative efforts. Data responsibilities include:

PI	Responsibility
A. Thurnherr L. St. Laurent and E. Shroyer S. Jachec J. Moum, J. Nash M. Alford, J. Nash, J. MacKinnon	LADCP-CTD analysis. HRP microstructure analysis Ongoing model output prediction χ pod microstructure data Mooring data

3 Data access and sharing

All field data collected under this program will be made available as per NSF guidelines within 2 years of collection via published manuscripts, publicly available final reports to NSF, and data archiving with NODC. Recognizing that any individual PI server may become unavailable over time, data will be made available by PI website locations and also by specific request to any colleague. Models codes to be employed are all public domain. Published peer-reviewed manuscripts will document the simulations and forcing sufficiently.

4 Data archiving and preservation

Aside from the LADCP-shipboard CTD profiles, there are currently no established standards for archiving or data from many of the fine- and micro-scale sensors used in the proposed work. This is a concern of the Climate Process Team on Ocean Mixing, of which many PIs are members. We propose to work with the CPT to evolve formats for data and metadata suitable for archiving both sensor and (critically) model output from the experiment. Field data will be provided to NODC upon project completion. Ultimate archival formats will be determined in consultation with NODC and with the CPT. Adequate archiving is anticipated to be an expensive, time-consuming task. All PIs have included funds for this effort in their budgets.