DATA MANAGEMENT PLAN

Data types and availability: Data generated during the course of this research will comply with published data policies of the NSF, following the 2011 NSF Division of Ocean Sciences Data and Sample Policy (http://www.nsf.gov/pubs/2011/nsf11060/nsf11060.pdf).

Discrete sample observations: The project will produce data and metadata arising from calibration casts during Ocean Observing Initiative (OOI) Irminger Sea Array cruises that are specific to this project and in addition to samples collected by the OOI Program directly. Properties sampled include dissolved oxygen concentration using the Winkler titration method. Field sampling notebooks and other intermediate data material generated in this research will be retained within the PIs' laboratories either in physical or electronic form.

Glider data: Beyond standard OOI procedures, raw and processed data will be collected by one additional project specific glider equipped with oxygen air calibration system and one core OOI glider equipped with an air calibration system. For these two gliders we will produce QC'd processed datasets. Processed glider data will be archived both in MATLAB format, as well as IOOS-compliant netCDF format for submission and distribution via the IOOS National Glider Data Assembly Center (NGDAC). NGDAC provides a centralize storage location and public access to glider data sets via existing web services and standards in well-documented formats. The NGDAC facilitates distribution of glider data sets on the Global Telecommunication System, and is working with the National Ocean Data Center to create a permanent archive. All raw glider data will also be distributed and archived through standard OOI channels.

Model data: The proposal will produce a range of 1D numerical simulations of ocean biogeochemistry. Model output will be archived for the short term on WHOI servers and will be made available upon request. We will distribute model code using GitHub and subsequently archive to enable model simulations to be reproduced.

OOI data: This project will involve extensive use of data from the autonomous platforms and sensors of the OOI Program. These data all are publicly available and are under the stewardship of the OOI program.

Data archiving: The PI will retain data for a minimum of three years beyond the award period as required. Data will be archived on network attached storage backed up nightly by institutional services.

For archiving purposes the PIs will take advantage of available resources at the Biological and Chemical Oceanography Data Management Office (BCO-DMO). This office was created in late 2006 to serve PIs funded by the NSF Geosciences Directorate (GEO) Division of Ocean Sciences (OCE) Biological and Chemical Oceanography Sections and (with augmented funding in 2010) Office of Polar Programs (OPP) Antarctic Sciences (ANT). BCO-DMO manages and serves oceanographic biogeochemical, ecological, and companion physical data and information developed in the course of scientific research and contributed by the originating investigators. The BCO-DMO data system facilitates data stewardship, dissemination, and storage on short and intermediate time-frames. Long term archiving will be at the NOAA National Oceanographic Data Center (NODC).