DATA MANAGEMENT PLAN

All data generated by this project will be made available to the scientific community in a timely and efficient manner.

Types of data: New versions of existing data sets will be produced as part of this project. As described in the main text, band ratios of remote sensing reflectance will be used to quantify the surface concentration of POC and the water column POC integrated from the sea surface to 100 m depth based on Allison et al. (2010a). Ocean vector winds will be used to compute time series of surface Ekman transport around the Antarctic Peninsula. Sea level anomalies derived from simultaneously operating altimeters will be used to identify and track nonlinear mesoscale eddies. Altimetry observations will be combined with *in situ* data to characterize the vertical structure of the eddies and to quantify the transport by nonlinear eddies as they propagate.

Model output from the ROMS simulations: Model fields are 4-dimensional (X, Y, Z, and t) and include physical variables (e.g., velocity, temperature, salinity) and the values of simulated passive tracers. Model output is in NetCDF format and is compliant with the NetCDF Climate and Forecast (CF) 1.0 metadata conventions.

POC/Physical data and release: All data, except the full model 4d fields, will be made available at the project website. An undergraduate student in computer sciences will be hired to build a user-friendly web interface for data sharing. The existence of the website will be advertised to several oceanography groups. We will also contact the Biological and Chemical Oceanography Data Management Office (BCO-DMO) to arrange for archiving any data of interest. The project website will include a link to BCO-DMO (see below) for circulation model output. It will also include a request form, so that model outputs can be requested by interested users.

We will also contact BCO-DMO regarding storing circulation model output. This repository started as a data site for biological and chemical observations. They have expanded their storage activities to include numerical model results. The web site (www.bco-dmo.org) provides additional details on their activities.

We will also archive for five years at ODU all numerical simulation data (in NetCDF) produced by this project and used in publications. After the first five years only the software configurations used to generate the numerical integrations (to insure their reproducibility), video and figures will be maintained for at least another five years. ROMS code is open-source and freely available from the model developer.

In addition, all publications resulting from this proposal will have links to the project website, so that interested readers will be able to readily access the data. Data will be made available at the time of the first publication that uses the dataset or within 18 months of the proposal

starting date (whatever comes first). Data and model outputs (final, quality-checked versions used in publications) uploaded to BCO-DMO will have no restrictions on access other than those imposed by BCO-DMO.