

DATA MANAGEMENT PLAN

Data generated from this award will consist primarily of measurements of the depth profiles of the activities of ^{234}Th (total and particulate; units dpm per liter) and ^{228}Th (dissolved and particulate; units dpm per 100 liter) totaling more than 1800 measurements at more than 35 GEOTRACES stations (see sample table in Budget Justification). In addition, the downward flux of particulate ^{234}Th as well as major flux components (POC, PIC, bSi) and several trace elements (e.g. elemental flux per square meter per day) will be determined via sediment traps at 4 depths and at 5 stations on this cruise. Data will include an uncertainty based upon analytical precision, standards, blanks and in the case of traps, tube to tube variability in trap fluxes.

Both PI Buesseler and subaward PI Lamborg will follow the data policy outlined by the GEOTRACES International Data Assembly Centre (<http://www.bodc.ac.uk/geotraces/data/policy/>) and the PIs of the funded Management Proposal (Casciotti, Cutter and Lam). Therefore, the data management effort will begin with the pre-cruise planning workshop, where both PIs will finalize the sampling strategy and data collection protocols for their groups as well as for those will be collaborating with the PIs on the trap samples. During the cruise, Buesseler and Lamborg will contribute to and coordinate with the sampling event log leader as directed by the GEOTRACES cruise management team. Individual sample processing logs will also be maintained by the group at-sea and on-shore, which will be available on request.

It is our understanding that the original underway data from our cruise will be submitted by the vessel operator to the UNOLS central data repository, which is currently managed by the Rolling Deck to Repository (R2R)¹ project. Per the policy of GEOTRACES and the NSF Division of Ocean Sciences, we will submit all other data and associated metadata no later than two years after they are generated to the BCO-DMO office²; they will in turn make the data available online at <http://bco-dmo.org/data/>, which can in turn be linked to the international GEOTRACES website. We will continue to contribute directly to the GEOTRACES data repository including intermediate data products in a timely manner. Buesseler is a member of the GEOTRACES intercalibration team as an elemental coordinator for ^{234}Th (<http://www.geotraces.org/sic/s-i-committee/elemental-coordinators>). Lastly, portions of trap samples would be shared and archived in a manner appropriate to their use.

¹Rolling Deck to Repository (R2R)

<http://www.rvdata.us>

The R2R Portal is a central shore-side data gateway through which underway data from oceanographic expeditions will be routinely cataloged and securely transmitted to the national long-term digital data archives including the National Geophysical Data Center (NGDC) and National Oceanographic Data Center (NODC). The project is supported by the NSF Oceanographic Instrumentation and Technical Services (OITS) Program.

²Biological and Chemical Oceanography Data Management Office (BCO-DMO)

<http://bco-dmo.org>

The Biological and Chemical Oceanography Data Management Office (BCO-DMO) 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.