

Data Management Plan

Okeanos Explorer (EX1404L2): Our Deepwater Backyard: Exploring the Atlantic Canyons and Seamounts



OER Data Management Objectives

1) provide data management support for engineering dives; 2) QA/QC Deep Discoverer and Seirios CTD sensor; 3) Verify relay of environmental and navigation data to SCS system; 4) Capture full-length video of engineering and exploration dives; 5) Maintain data management systems and routines; 6) Provide operational support to video team; 7) Continue transition of data warehouse services to MAC Minis; 8) provide tethys support to shipboard scientists

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1. General Description of Data to be Managed

1.1 Name and Purpose of the Data Collection Project

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1.2 Summary description of the data to be collected.

High resolution mapping data from vessel multibeam and submersible sonar systems; singlebeam and sub-bottom profile data; periodic CTD casts; submersible CTD data; underwater video from two-body submersible systems; underway oceanographic, meteorological, and flow-through sensors from vessel

1.3 Keywords or phrases that could be used to enable users to find the data.

Bear Seamount, benthic ecosystems, benthic habitats, Chesapeake Bay, continental slope, Davisville, expedition, exploration, explorer, mapping survey, marine education, multibeam, multibeam backscatter, multibeam sonar, multi-beam sonar, New England Seamounts, noaa, noaa fleet, Northeast U.S. Canyons, ocean, ocean discovery, ocean education, ocean exploration, ocean exploration and research, ocean literacy, ocean research, OER, okeanos, okeanos explorer, R337, Rhode Island, science, scientific computing system, scientific mission, scientific research, SCS, sea, Sheldrake Seamount, single beam sonar, singlebeam sonar, single-beam sonar, stewardship, sub-bottom profile, systematic exploration, technology, transformational research, undersea, underwater, water column backscatter, Norfolk Canyon, Lydonia Canyon, VIP outreach, gas seeps, Mid-Atlantic, Northeast US Seamount Chain, Washington Canyon, Lindenkohl Canyon, engineering dive, telepresence, New England Seamount Chain, oceans

1.4 If this mission is part of a series of missions, what is the series name?

OKEANOS ROV Cruises

1.5 Planned or actual temporal coverage of the data.

Dates: 9/4/2014 to 9/10/2014

1.6 Planned or actual geographic coverage of the data.

Latitude Boundaries: 40.08 to 36.25

Longitude Boundaries: -75.75 to -66.25

1.7 What data types will you be creating or capturing and submitting for archive?

Bottom Backscatter, Cruise Plan, Cruise Summary, CTD (processed), CTD (product), CTD (raw), Data Management Plan, Dive Summaries, EK60 Singlebeam Data, Highlight Images, Highlight Video, HL Image captions/credits, HL Video captions/credits, Images, Mapping Summary, Multibeam (image), Multibeam (processed), Multibeam (product), Multibeam (raw), Quick Look Report, Raw Video (digital), SCS Output (compressed), SCS Output (native), Sub-Bottom Profile data, Water Column Backscatter, XBT (raw)

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1.8 What platforms will be employed during this mission?

Deep Discoverer ROV, NOAA Ship Okeanos Explorer, SEIRIOS Camera Sled

2. Points of Contact

POC for Data Brian Kennedy, Commissioned Officer, NOAA Office of Ocean Exploration and Research,
Collection Activity: brian.kennedy@noaa.gov

POC for Data Susan Gottfried, Data Management Coordinator, NOAA/NESDIS/NODC/NCDDC (General Dynamics),
Management: susan.gottfried@noaa.gov

3. Resources

3.1 Approximate percentage of the budget set aside for short-term data management.

3.2 Approximate percentage of the budget set aside for long-term data management.

4. Data Lineage and Quality

4.1 What quality control procedures will be employed?

Quality control procedures for the data from the Kongsberg EM302 is handled at UNH CCOM/JHC. Raw (level-0) bathymetry files are cleaned/edited into new data files (level-1) and converted to a variety of products (level-2). Data from sensors monitored through the SCS are archived in their native format and are not quality controlled. Data from CTD casts and XBT firings are archived in their native format and are not quality controlled. CTDs are processed into profiles for display only on the Okeanos Atlas.

4.2 What is the processing workflow from collection to public release?

SCS data shall be delivered in its native format as well as an archive-ready, documented, and compressed NetCDF-4 format to NODC; multibeam data and metadata will be compressed and delivered in a bagit format to NGDC.

4.2.1 Reference to a separate DMP, if applicable.

No

5. Data Documentation

5.1 How will metadata for this data be generated and maintained?

Additional metadata includes: Multibeam metadata to file level; Scientific Computing System (SCS) metadata; MACHine Readable Catalog (MARC) metadata for Library items.

5.2 Where will the metadata be hosted?

Organization: OER Web Accessible Folder
URL: <http://service.ncddc.noaa.gov/rdn/oer-waf>; www.data.gov
Need help: False

5.3 What metadata standards are or will be used?

ISO 19115-2 Geographic Information with Extensions for Imagery and Gridded Data will be the metadata standard employed; a NetCDF-4 standard for oceanographic data will be employed for the SCS data; the Library of Congress standard, MACHine Readable Catalog (MARC), will be employed for NOAA Central Library records.

6. Data Access

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6.1 Where will access to the data collection be provided?

Organization: NOAA National Data Centers (NODC, NGDC, NOAA Central Library, NCDCC)
 URL: <http://service.ncddc.noaa.gov/rdn/oer-waf>; www.data.gov
 Need help: False

6.2 What data access protocols are necessary?

open-standard

6.3 How long is the principal investigators proprietary rights period?

no

6.4 If the data are not to be made publicly available, under what authority are the data restricted?

not applicable

6.5 Access Constraints Statement?

No data access constraints, unless data are protected under the National Historic Preservation Act of 1966.

6.6 Use Constraints Statement?

Data use shall be credited to NOAA Office of Ocean Exploration and Research Okeanos Explorer Program.

7. Data Preservation and Protection**7.1 In what NOAA Data Center(s) will the data be archived and preserved?**

Data from this mission will be preserved and stewarded through the NOAA National Data Centers. Refer to the Okeanos Explorer FY14 Data Management Plan at NOAA's EDMC DMP Repository (EX_FY14_DMP_Final.pdf) for detailed descriptions of the processes, procedures, and partners involved in this collaborative effort.

7.2 Is there an archive submission agreement in place with the Data Center(s)? If not, have you initiated discussions with the Data Center(s)?

Submission Agreement in Place? True Data Center(s) Discussion Begun? True

7.3 What will be the delay between data collection and submission to the archive(s)?

30-60 days

7.4 Where will the data be initially stored prior to be submitted to the archive(s)?

Data are recorded and stored on NOAA shipboard systems compliant with NOAA IT procedures. Data are moved from ship to shore using a variety of standard, documented data custody transfer procedures. Data are transferred to NOAA Data Centers using digital and physical data transfer models depending upon the data volume.

7.5 How will the data be protected from accidental or malicious modification or deletion?

Data management standard operating procedures minimizing accidental or malicious modification or deletion are in place aboard the Okeanos Explorer and will be enforced.

7.6 How will the data be protected from unauthorized access or disclosure?

Account access to mission systems are maintained and controlled by the Program. Data access prior to public accessibility is documented through the use of Data Request forms and standard operating procedures.

