

Data Management Plan

Okeanos Explorer (EX1502L2): Caribbean Exploration (Mapping)



OER Data Management Objectives

No specific data management objectives other than normal data pipelines and standard operating procedures.

27-Feb-15

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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.

Multibeam data will be collected 24 hours a day. Multibeam data will be gathered over previously unexplored regions. Data will be used to better understand the bathymetry of the Puerto Rican trench and allow reconnaissance of the region prior to the ROV cruise. Multibeam operations within 5 miles of land in priority area 1 will be conducted during daylight hours.

XBT casts will be conducted at an interval defined by prevailing oceanographic conditions, but not to exceed 6 hours. XBT data will be used to correct the sound velocity of the multibeam data. Additionally, EK 60 (single beam) and sub-bottom profile data will be collected 24 hours per day.

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

expedition, exploration, explorer, marine education, noaa, ocean, ocean discovery, ocean education, ocean exploration, ocean exploration and research, ocean literacy, ocean research, OER, science, scientific mission, scientific research, sea, stewardship, systematic exploration, technology, transformational research, undersea, underwater, Davisville, mapping survey, multibeam, multibeam backscatter, multibeam sonar, multi-beam sonar, noaa fleet, okeanos, okeanos explorer, R337, Rhode Island, scientific computing system, SCS, single beam sonar, singlebeam sonar, single-beam sonar, sub-bottom profile, water column backscatter, oceans, hadal zone, Puerto Rico Trench, free vehicles, survey of opportunity, NASA maritime aerosol network, University of Puerto Rico, San Juan

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

Okeanos Mapping Cruises

1.5 Planned or actual temporal coverage of the data.

Dates: 3/16/2015 to 4/3/2015

1.6 Planned or actual geographic coverage of the data.

Latitude Boundaries: 21.85 to 18.45

Longitude Boundaries: -67.5 to -64.95

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

Multibeam (processed), XBT (raw), Water Column Backscatter, SCS Output (native), Sub-Bottom Profile data, SCS

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Output (compressed), NetCDF, Multibeam (product), Multibeam (image), Mapping Summary, Expedition Cruise Report, CTD (raw), CTD (processed), CTD (product), Bottom Backscatter, Cruise Plan, Cruise Summary, Data Management Plan, Highlight Images, Quick Look Report, EK60 Singlebeam Data, Floating Point GeoTIF, GSF, HDCS, Multibeam (raw)

1.8 What platforms will be employed during this mission?

NOAA Ship Okeanos Explorer

2. Point of Contact for this Data Producing Project

Overall POC: Elizabeth Lobecker, Multibeam Mapping Expert, Contractor (ERT, Inc.), NOAA Office of Ocean Ex
 Title: OER Mapping Lead
 Affiliation/Dept: OER, University of New Hampshire, Center for Coastal and Ocean Mapping, Joint Hydrography C
 E-Mail: elizabeth.lobecker@noaa.gov
 Phone: 603.862.1475

3. Point of Contact for Managing the Data

Data POC Name: Susan Gottfried
 Title: OER Data Management Coordinator
 E-Mail: susan.gottfried@noaa.gov

4. Resources

- 4.1 Have resources for management of these data been identified? True
- 4.2 Approximate percentage of the budget devoted to data management. (specify % or "unknown")
 unknown

5. Data Lineage and Quality

5.1 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.

5.2 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.

6. Data Documentation

- 6.1 Does the metadata comply with the Data Documentation Directive? True

6.1.1 If metadata are non-existent or non-compliant, please explain:

not applicable

6.2 Where will the metadata be hosted?

Organization: An ISO format collection-level metadata record will be generated during pre-cruise planning
 URL: www.ncddc.noaa.gov/oer-waf/ISO
 discovery and access. The record will be harvested by data.gov.

Meta Std: 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.

6.3 Process for producing and maintaining metadata:

Metadata will be generated via xml editors or metadata generation tools.

7. Data Access

7.1 Do the data comply with the Data Access Directive?

True

7.1.1 If the data are not to be made available to the public at all, or with limitations, provide a valid reason.

Not Applicable

7.1.2 If there are limitations to public data access, describe how data are 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.

7.2 Name and URL of organization or facility providing data access.

Org: NOAA National Centers for Environmental Information (NCEI)
 URL: various; www.ngdc.noaa.gov, www.nodc.noaa.gov, www.lib.noaa.gov

7.3 Approximate delay between data collection and dissemination. By what authority?

Hold Time: no

Authority: not applicable

7.4 Prepare a Data Access Statement

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

8. Data Preservation and Protection

8.1 Actual or planned long-term data archive location:

Data from this mission will be preserved and stewarded through the NOAA National Data Centers. Refer to the Okeanos Explorer FY15 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.

8.2 If no archive planned, why?

not applicable

8.3 If any delay between data collection and submission to an archive facility, please explain.

30-90 days, as quickly as possible

8.4 How will 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.

8.5 Prepare a Data Use Statement

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