Data Management Plan

Okeanos Explorer (EX1501): Ship Shakedown and
Patch Test

OER Data Management Objectives

1. Test a new EK80 instrument; 2. Evaluate warehouse rebuild and confirm core shipboard functionality and system stability; 3. Confirm warehouse data processing scripts are intact and functional on new operating system; 4. Confirm reinstallation of data consolidation scripts on replacement data acquisition systems; 5. Install new survey account RSA credentials on data acquisition systems for data push to warehouse; 6. Confirm dashboard functionality; 7. Confirm data transfer/synchronization between warehouse and NOAASRS1 (tethys replacement) has been reestablished and debug, if necessary; 8. Integrate Synology NAS into Science and Public networks to provide failover data storage for warehouse and for mapping team; 9. Install and integrate new netgear switch into public network and evaluate effective data transfer rates.

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 and single beam data will be collected 24 hours a day and XBT casts will be conducted at an interval defined by prevailing oceanographic conditions, but not to exceed 6 hours. Additionally, EK 60 and sub-bottom profile data will be collected 24 hours per day. A new EK80 instrument will be tested. The Okeanos Explorer will continue to host NASA's Maritime Aerosol Network sensors to provide ship-borne aerosol optical depth measurements from sun photometers for NASA.

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

Davisville, expedition, exploration, explorer, mapping survey, marine education, multibeam, multibeam backscatter, multibeam sonar, multi-beam sonar, noaa, noaa fleet, 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, single beam sonar, singlebeam sonar, single-beam sonar, stewardship, sub-bottom profile, systematic exploration, technology, transformational research, undersea, underwater, water column backscatter

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: 2/9/2015   to   2/12/2015

1.6 Planned or actual geographic coverage of the data.

Latitude Boundaries: 41   to   39

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Longitude Boundaries: -72   to   -68

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

Cruise Plan, Cruise Summary, Data Management Plan, EK60 Singlebeam Data, EK80 Echosounder, Floating Point GeoTIF, GSF, HDCS, Highlight Images, Mapping Summary, Multibeam (processed), Multibeam (product), Multibeam (raw), NetCDF, Quick Look Report, SCS Output (compressed), SCS Output (native), Sub-Bottom Profile data, Water Column Backscatter, XBT (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: Multibeam Mapping Expert, Contractor (ERT, Inc.)

Affiliation/Dept: NOAA Office of Ocean Exploration and Research, UNH CCOM/JHC

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3. Point of Contact for Managing the Data

Data POC Name: Susan Gottfried

Title: 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

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

not applicable

6.2 Where will the metadata be hosted?

Organization: OER Web Accessible Folder at NCDDC

URL: http://www.ncddc.noaa.gov/oer-waf/

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 Center for Environmental Information

URL: explore.noaa.gov/digitalatlas

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

Hold Time: immediate release

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 at the NOAA National Center for Environmental Information

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.

approximately 60-90 days

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

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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 Okeanos Explorer Program.