# **OKEANOS EXPLORER**

EX-11-03: EXPLORATION AND MAPPING, GALAPAGOS SPREADING CENTER DATA MANAGEMENT PLAN



#### **Document Purpose**

This document is an addendum to the overarching Okeanos Explorer FY11 Data Management Plan (EX\_FY11\_DMP.doc) and is specific to the EX-11-03 mission entitled "Exploration and Mapping, Galapagos Spreading Center" For more detailed information on the data management effort for the Okeanos Explorer in FY11, please refer to that document.

## **Data Management Overview**

The third *Okeanos Explorer* (*EX*) mission of the FY11 field season will involve two legs and will take the ship from San Diego, CA to Balboa, Panama. During leg one, mapping will be performed during the transit from San Diego to the area of operations in the Galapagos Spreading Center. There, multibeam, CTD, and tow-yo operations will be conducted. A port call and science party change will be made in Puntarenas, Costa Rica. Leg two will focus on daytime ROV operations to explore targets identified in the first leg of the cruise, and nighttime operations including vertical CTD casts and multibeam data collection. Cruise EX-11- 03 will include data collection in U.S. and International waters, as well as territorial waters of France, Ecuador, Costa Rica and Panama. OER is obligated to provide a copy of all data collected in territorial waters to the corresponding country. Post-mission procedures will ensure that the territorial data are segmented and bundled appropriately with ISO metadata, the International standard.

## **Assumptions**

All data from the entire mission will be publicly releasable. No protected sites have been identified.

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- \* Leg 1: Mapping, CTD and Tow-yo (June 8 July 2, 2011)
- **❖** *Leg 2: ROV, Mapping and CTD (July 7 July 28, 2011)*

## **Data Management Objectives**

The DMT's objectives for this mission are:

- Mapping, CTD and Tow-yo (June 6 July 2, 2011)
  - Train Data Management Team member, Brendan Reser, on multibeam survey operations, CTD operations, and other procedures as deemed necessary by the Mapping Team Lead.
  - O Gather metadata for new altimeter/sensor package including a Light Scattering Sensor (LSS), Oxidation-Reduction Potential (ORP) and Dissolved Oxygen (DO) sensor.
  - o Refine ISO metadata templates for collection-level and dataset-level records (multibeam, CTD, SCS) for NOAA and for delivery with foreign data sets.
  - o Review Standard Operating Procedures (SOP) documentation filed onboard and refine as necessary for Data Management efforts.
  - o Ensure the near real-time update of the Okeanos Atlas with
    - Ship track and hourly observations received via email.

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- CTD launch sites and profiles received via URI SRS. DMT will post-process and thin the profiles for quicker display on the site.
- Daily logs pulled from URI through RSS feeds and links to related images on oceanexplorer.noaa.gov website.
- Daily cumulative bathymetric image overlays received via URI SRS.
- Test new ship track KML received via URI SRS, if applicable.
- Cross train backup personnel in SOPs.
- *ROV*, *Mapping and CTD* (*July 7 July 28, 2011*)
  - o During the mission:
    - Generate metadata for video clips as soon as possible after the clip is transmitted to the URI SRS and upload to the URI SRS to be available for download with the clip.
    - Ensure the near real-time update of the *Okeanos Atlas* with
      - Ship track and hourly observations received via email.
      - ROV dive tracks from new kml format
      - ROV and Camera Sled images linked to dive tracks
      - CTD launch sites and profiles received via URI SRS. DMT will post-process and thin the profiles for quicker display on the site.
      - Daily logs pulled from URI through RSS feeds and links to related images on oceanexplorer.noaa.gov website.
      - Daily cumulative bathymetric image overlays received via URI SRS.
      - Test new ship track KML received via URI SRS, if applicable.
  - o Post-Mission:
    - Execute multibeam data, METOC data, and video/image data pipelines.

## **Expedition Principals for Data Management**

Elizabeth Lobecker, OER Expedition Coordinator, Leg 1

Jeremy Potter, OER Expedition Coordinator, Leg 2

Lt. Megan Nadeau, OMAO, Okeanos Explorer Operations Officer

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