Overview

Mission:
Stewardship of routinely-acquired environmental sensor data from U.S. academic research vessels

Support:
NSF + NOAA, ONR, SOI

Services:
• Publish master cruise catalog
• Organize, archive, and disseminate original field data+documents
• Assess data quality
• Create post-field data products
• Support at-sea event logging
R2R Staff Transitions

LDEO R2R
• Bob Arko - “Mr. R2R” will be missed
• Suzanne O’Hara - New Technical Director

WHOI R2R
• Cyndy Chandler retired 2017, Enjoy Cyndy!
• Carolina Nobre moved on to Graduate School
• Laura Stolp - New WHOI PI
• Cindy Sellers and Laura have taken on CTD QA and DP and continue supporting R2R Science ELOG
Standard Products

- Processed Data
  - Shiptrack Navigation
    - Full Resolution
    - 1 Minute
    - Control Points
  - Underway Met/TSG
  - Underway Geophysics
    - Gravity
    - Magnetics
    - Bathymetry
  - CTD Profiles
- Documentation
  - ISO Cruise Summaries
  - Digital Object Identifiers
  - Dataset QA Reports
  - “Linked Data” Graph
# Access to QA From Cruise Catalog

## UNDERWAY DATA SETS (ORIGINAL FIELD DATA)

NOTE: The data set inventory below may not be complete. Please Contact R2R with questions or requests.

<table>
<thead>
<tr>
<th>Device Type</th>
<th>Make-Model [Location]</th>
<th>Files</th>
<th>DOI</th>
<th>Quality Report</th>
<th>Download</th>
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Click column headings to sort.

- **QA Summary**
- **Multibeam**
  - **RR1002**
  - **Roger**
  - **Revelle**
Data Distro Archiving

Data Distro From Vessel

Sent to NCEI/NOAA Archive

Stored at R2R

Stored at Amazon (Glacier)
Infrastructure

Local Storage (680 TB)

Remote Storage (50TB)

Local Servers (Processing)

Remote Server (Public Web)
# Event Logger

## Deployments June 2016- July 2017

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<td>UW/OSU/UDEL/UAF/USF/UMD_CES</td>
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Quality Assessment: CTD

File-level QA performed on raw data before release to R2R Cruise Catalog
HEX/DAT, XMLCON, HDR files evaluated on a cast-by-cast basis

Tests Include:
- 100% of files in manifest with correct checksum
- All raw files needed for processing are present
- Lat+Lon are within cruise bounds
- Date is within cruise bounds
- Informational
  - Number of stations
  - Number of stations w/ Lat+Lon for every data point
  - Number of stations with bottles fired
Real-time MET/TSG via SAMOS

Status
• Continue routine science QC for 8 university and 2 NSF polar Antarctic vessels via R2R

New in 2017
• Completed recruitment of Sally Ride
• Still seeking additional recruits (Contact Shawn or Jeremy if interested)
• Agreed with R2R Advisory Board to develop QC for fluorometer data (Thanks for input!)
Contributing to Global Synthesis Products

- Multibeam
  - NSF IEDA Global Multi-Resolution Topography (GMRT) synthesis
  - (Coming Soon) NOAA Multibeam Bathymetry Mosaic
- ADCP: NOAA Global Ocean Currents Database
- Real-time MET (SAMOS): International Comprehensive Ocean-Atmosphere Data Set (ICOADS)
- TSG: NOAA Global Thermosalinograph Database:
  - New Portal Coming Soon
  - SAMOS data already contributing, R2R cruise distro TSG in future
- CTD & XBT: NOAA World Ocean Database (R2R contribution coming soon)
RP Flip added to R2R

Research Platform FLIP

BACK TO HORIZONTAL

FLIP VERTICAL
Acknowledgements

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