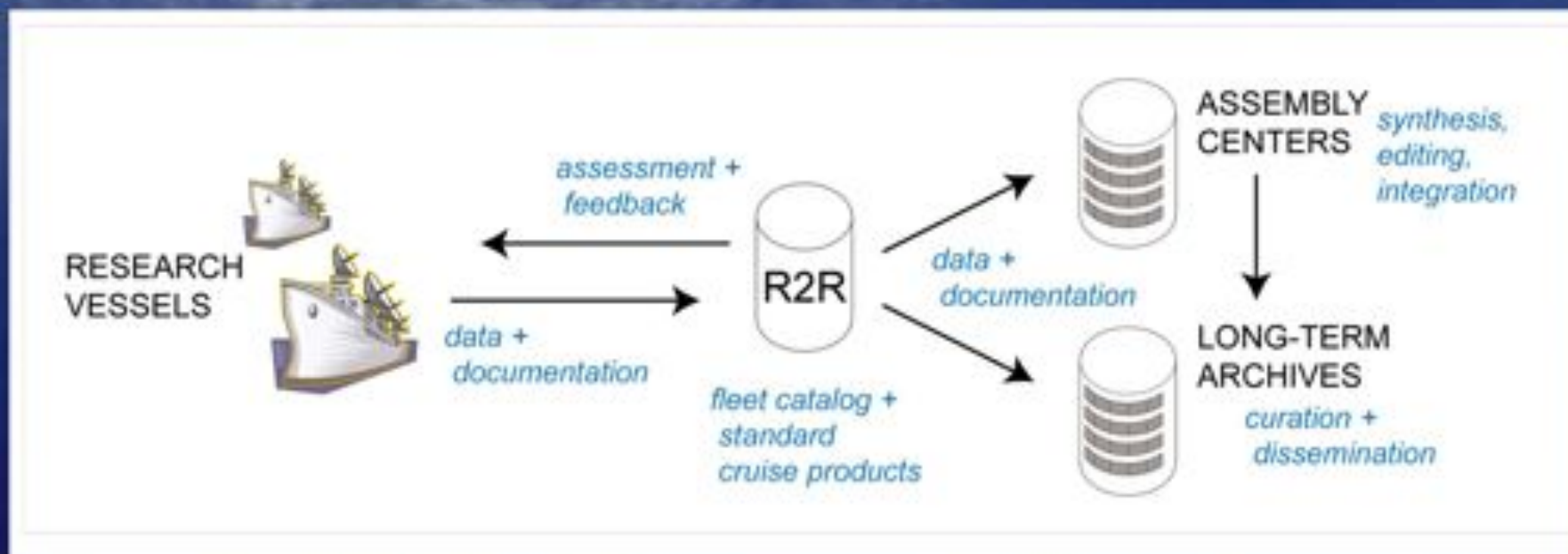# Rolling Deck to Repository (R2R) Program

## Annual Update

# Program Overview
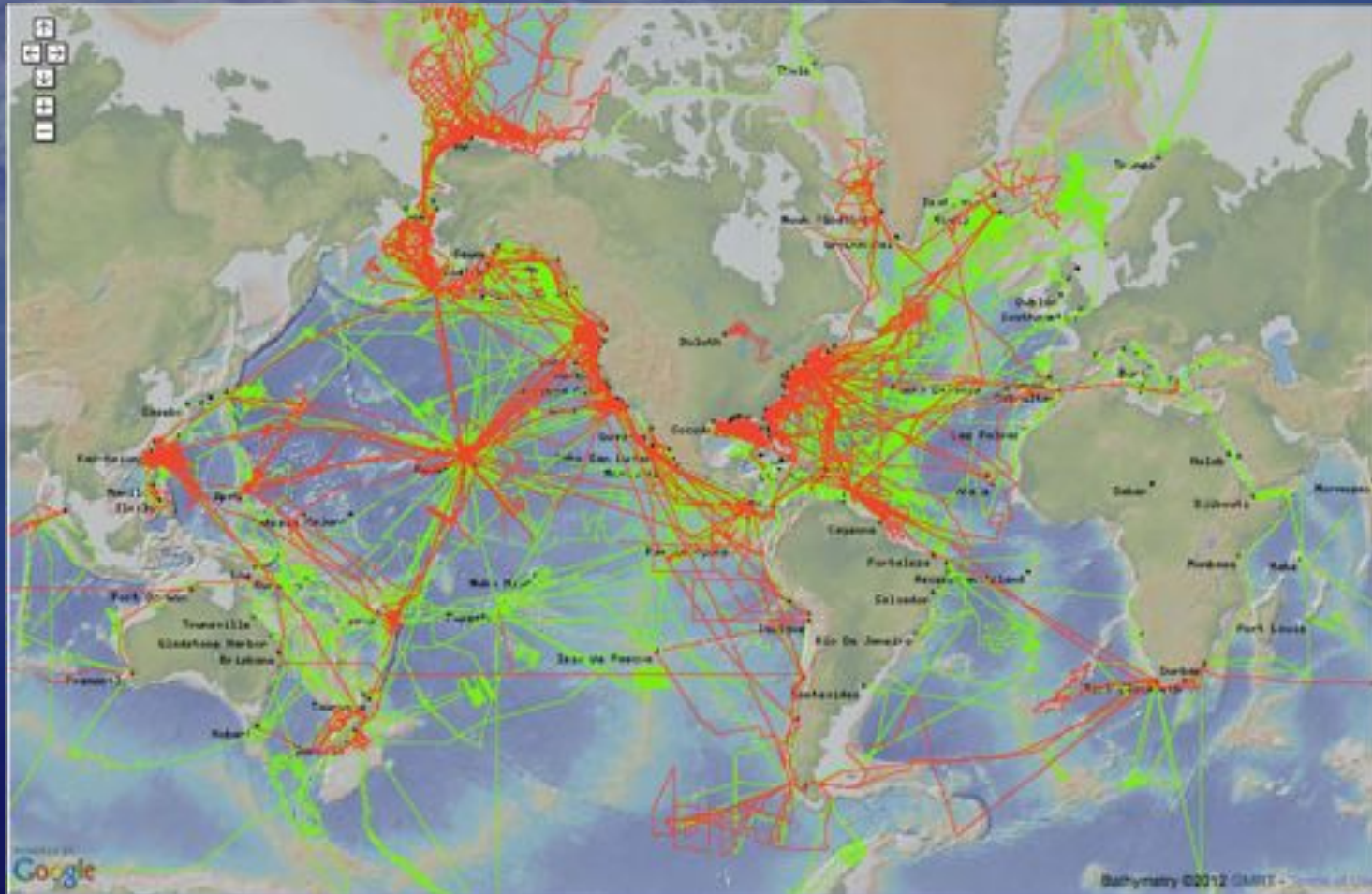
# Cruise Catalog

| | Nov. 2011 | Feb. 2013 |
|---|---|---|
| # Active-Service Vessels | 26 | 24 |
| # Cruises | 2,217 | 3,156 |
| # Files Preserved | 8.7+ million | 13.2+ million |
| # Datasets / Submitted to NOAA Archives | 638 | 8,657 / 2,306 |

# Cruise Catalog



——— 1,677  New cruises since 01/2009 (R2R pilot)

——— 1,479  Additional / pre-2009 cruises submitted
by operators or cross-decked from
other databases (LDEO, SIO, WHOI)
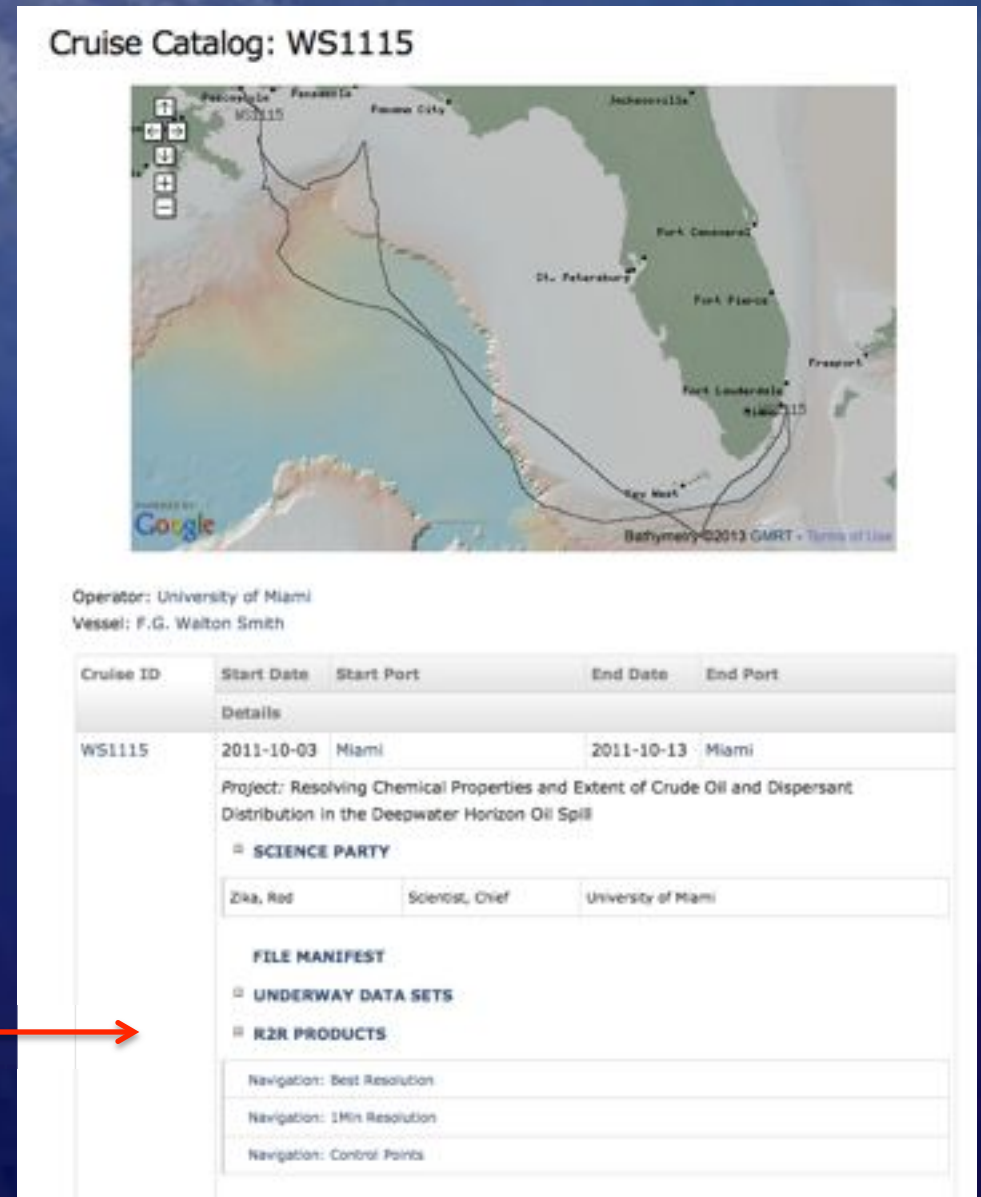
3,156  Total

# Site Traffic

*# Monthly Unique Visits (since 01/2010)*

# Data Products



- Clean shiptrack navigation (*1,171 cruises to date – all vessels*)
  - Best resolution
  - 1min resolution
  - Control point geometry

- Gravity *(74 cruises to date)* and Magnetics *(in final review)* residual anomalies

Cruise Catalog: WS1115

Operator: University of Miami
Vessel: F.G. Walton Smith

| Cruise ID | Start Date | Start Port | End Date | End Port |
|---|---|---|---|---|
| | Details | | | |
| WS1115 | 2011-10-03 | Miami | 2011-10-13 | Miami |

Project: Resolving Chemical Properties and Extent of Crude Oil and Dispersant Distribution in the Deepwater Horizon Oil Spill

SCIENCE PARTY

| Zika, Rod | Scientist, Chief | University of Miami |
|---|---|---|

FILE MANIFEST

UNDERWAY DATA SETS

R2R PRODUCTS

Navigation: Best Resolution

Navigation: 1Min Resolution

Navigation: Control Points

# Quality Assessment



*(Web display of QA results and details.)*

**In production:**
- Navigation
- MET/TSG
- Multibeam
- Gravity
- Magnetics

**In development:**
- ADCP
- CTD
- Singlebeam

# Real-time MET/TSG



January 1, 2012 - December 31, 2012

**Ship Key**
- Atlantic Explorer ☑
- Atlantis ☑
- Kilo Moana ☑
- Knorr ☑
- Melville ☑
- New Horizon ☑
- Robert Gordon Sproul ☑
- Roger Revelle ☑
- T G Thompson ☑

**Map Controls**
On / Off ☑

**Orientation**
Landscape ◉
Portrait ○

Imagery ©2013 NASA - Terms of Use

*MET/TSG for 1 January - 31 December 2012*
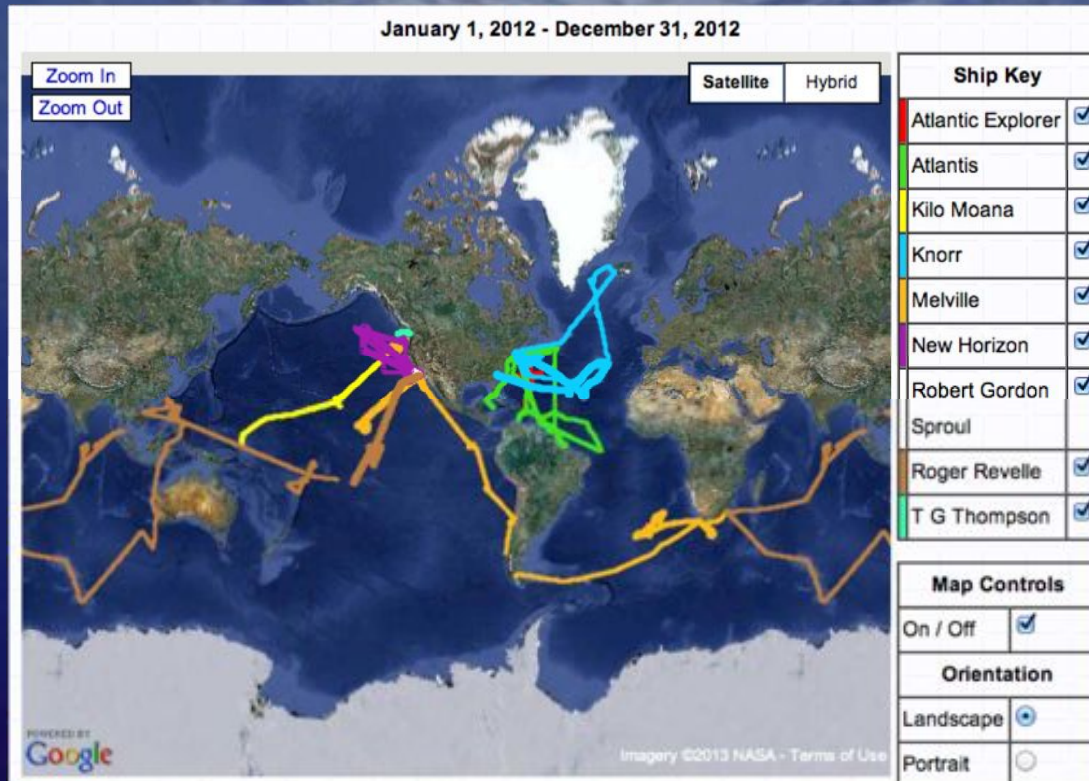
- 10 university vessels recruited to SAMOS
  - Daily automated quality control
  - Data archived monthly at NODC

- *Endeavor* first to use new SAMOS 2.0 protocol

- Prototype R2R quality assessment report

- Data quality subscription service available

# Event Logger

Deployed on 40 Cruises (12 Ships/Sites) to date.

2012 Cruises:

| | | |
|---|---|---|
| *AE1211* | David Black (SUNY) | BaRFlux |
| *AT19* | Craig Lee (UW) | LATMIX2 Multi-Ship |
| *EN502* | Cindy Lee (UW) | CTD |
| *EN513* | David Black (SUNY) | BaRFlux |
| *EN520* | David Black (SUNY) | BaRFlux |
| *KN205* | Jody Klymak (UVic) | LATMIX2 Multi-Ship |
| *KN207-01* | Benjamin Van Mooy (WHOI) | CTD, Sed Traps |
| *KN207-02* | Charles Langmuir (Harvard) | MAR Rocks |
| *KN207-03* | Kay Bidle (Rutgers) | CTD |
| *KN208* | John Toole (WHI) | Moorings |
| *KN209-01* | Ray Schmitt (WHOI) | Jason |
| *MGL1211* | Suzanne Carbotte (LDEO) | Cascadia Multi-Ship |
| *MV1206* | Anne Trehu (OSU) | OBS |
| *OC1206A* | Juan Pablo Canales (WHOI) | Cascadia Multi-Ship |
| *OC1209A* | Anne Trehu (OSU) | OBS |
| *RA12003* | Seth Ackerman (USGS) | WHSC |
| *TN274* | Doug Wiens (WUStL) | OBS/OBH |
| *TN286* | *(rescheduled)* | OOI |

Verson 2.0 Timeline

Now – gather shipboard network information from operators to configure DreamPlug (embedded Linux) servers

March 2013 – deliver DreamPlug units to RVTEC "technical advisors" for beta testing

March-April 2013 – beta testing

May-December 2013 – deployment of DreamPlugs and Version 2.0 Event Logger to vessels/operators that request it

# Ship Visits



02/ 2012   *Atlantis, Knorr*

05/ 2012   *Thompson, Barnes*

07/ 2012   *Point Sur*

07/ 2012   (*Falkor*)

08/ 2012   *Walton Smith*

02/ 2013   *Kilo Moana*

# Data Releases



- R2R requests release from Chief Scientist (or Operator, for transits) *asap* after cruise ends.

  *No more default 2-year hold.*

- 95%+ to date respond "release everything".

# Cruise Distros



- Continue work toward fleet-standard cruise data directory structure. *(4 vessels, to date.)*

- Developing Web form to simplify maintenance ie. notify R2R when your vessel's directory structure changes.

# Community/Impact

**AGU** 2012 Fall Meeting

- Hosted "Science at Sea" session at 2012 AGU Fall Meeting with 30+ presentations on innovative results from R/Vs

- Hosted R2R Advisory Panel meeting (Dec 2012) at LDEO, seeking feedback from seagoing scientists

- Joined Ocean Data Interoperability Platform (ODIP) project to increase data sharing/interoperability with Europe and Australia

*www.odip.org*

**ODIP**

# Looking Ahead

- Cont. recruiting vessels to fleet-standard directory structure, and align with new UNOLS Equipment Inventory.

- Try new approach to capture cruise personnel manifests from marine supers.

- Work with *Sikuliaq* as opportunity to update (and document) R2R procedures and best practices.

*info@rvdata.us*