Rolling Deck to Repository (R2R) Program

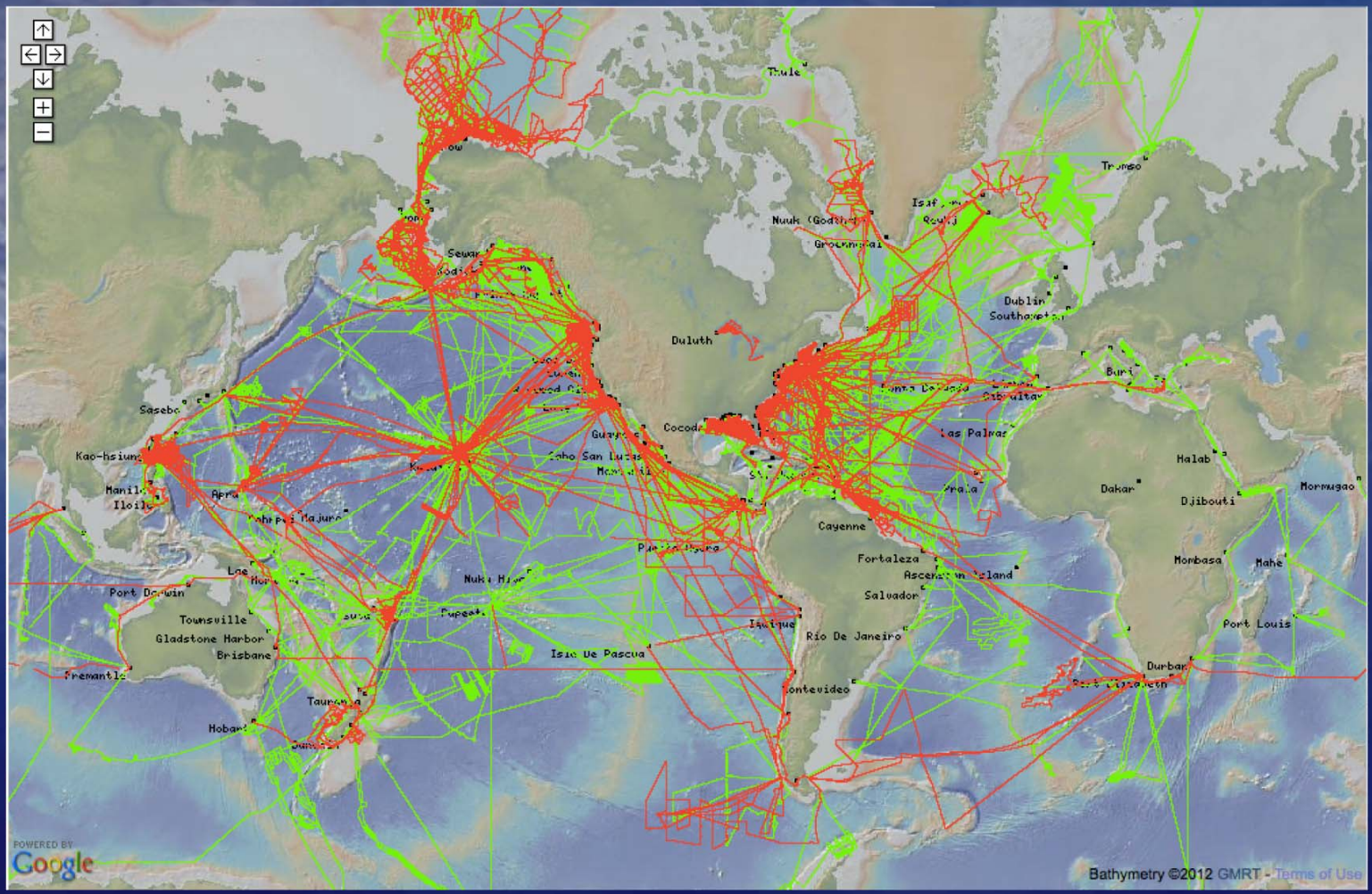
UNOLS Annual Meeting 2012

R2R Mission

For the U.S. Academic Fleet:

- Migrate all routine “underway” data to long-term repositories
- Create catalog of cruises and standard products
- Assess data quality and provide timely feedback to operators

Cruise Catalog



As of October 2012:

- 25 Vessels (active service)
- 410 Sensors/Systems
- 2,771 Cruises
- 12M+ Files (data/docs)

1,346 New cruises since Jan. 2009 (R2R Pilot)

1,425 Additional/older cruises submitted by operators or cross-decked from other databases (LDEO, SIO, WHOI)

2,771 Total

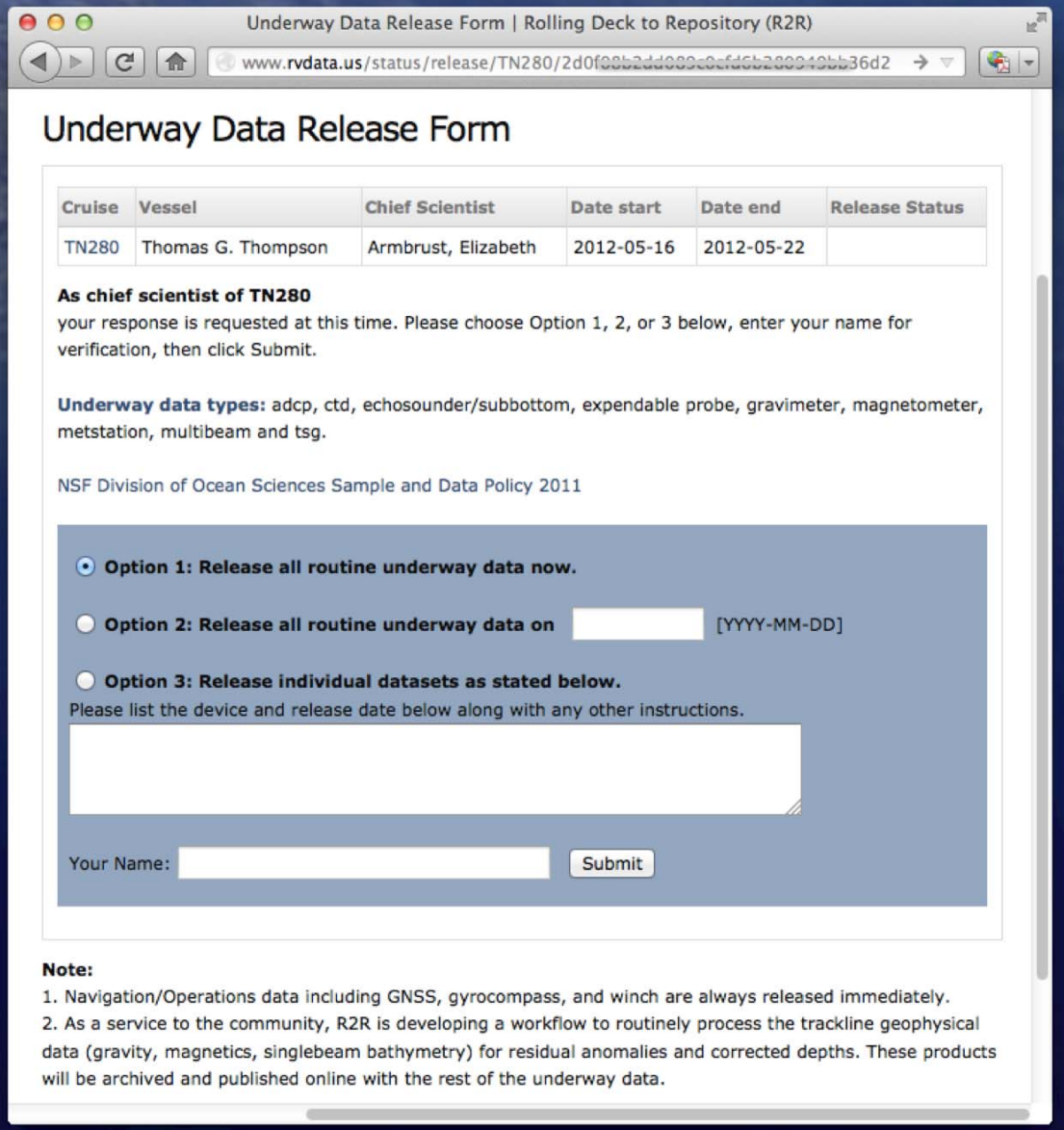
Long-Term Archiving

Example: Multibeam

Data Releases

As of October 2012:

- 597 Cruises released
- 97%+ respond "release everything immediately"



Web Site Traffic

# of Monthly Visits
with robots, crawlers, etc (and R2R team users) removed

http://www.rvdata.us/

Standard Products

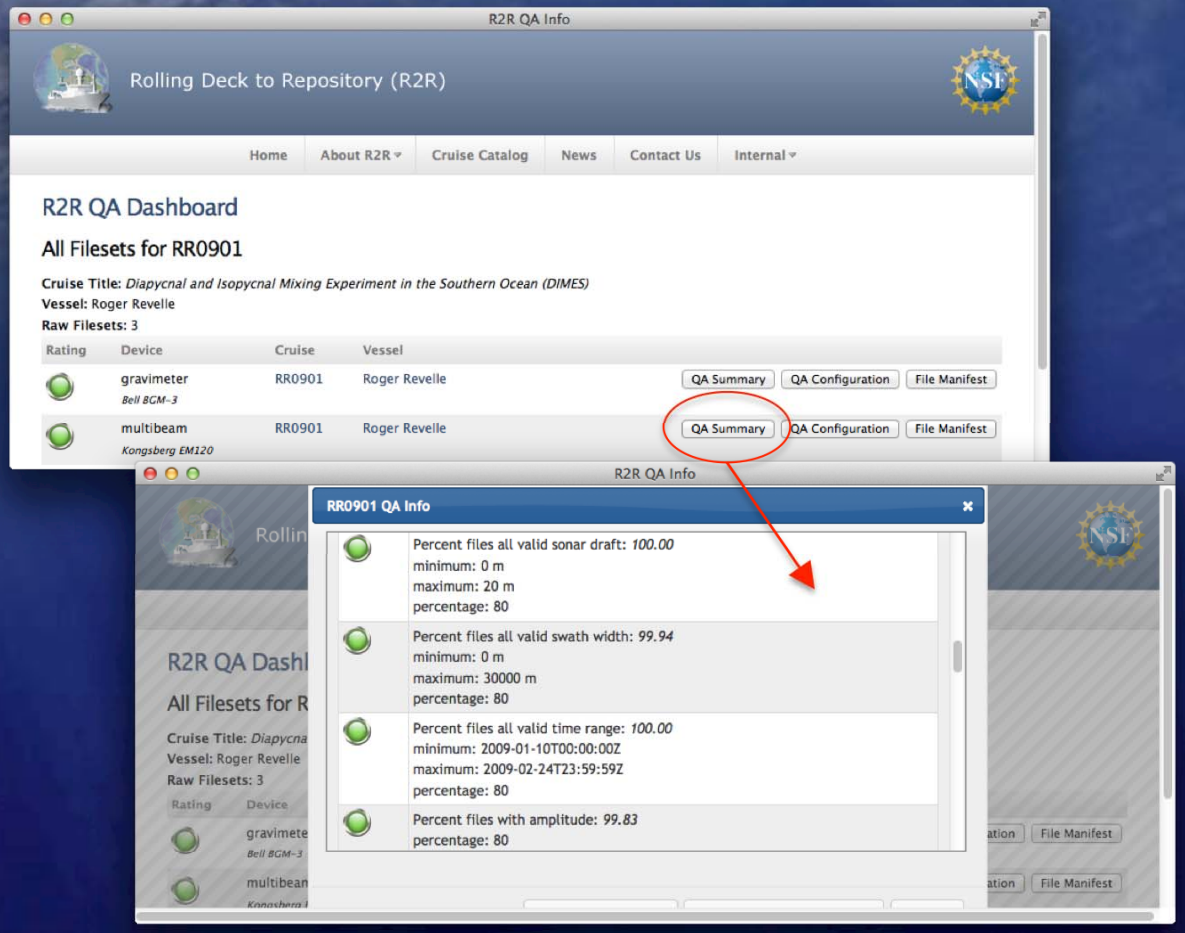
As of October 2012:

- Clean track Navigation (full-resolution, 1-minute, control points) published for 832 Cruises.
- 1.8+ million MET/TSG data reports transmitted to SAMOS from 9 academic vessels in FY12. Now serving QA products for 430 Cruises.
- R2R Event Logs now arriving with standard end-of-Cruise data packages eg.

AT18-06	EN494	KN200-02	OC467	TN283
AT18-12		KN203-04	OC468-02	
AT18-13		KN205	OC471-04	
AT18-14		KN207-01	OC473	
AT18-18		KN207-02	OC475	
AT19		KN207-03	OC476-01	

Data Quality Assessment

- In production for navigation, multibeam (550+ Cruises), gravity, magnetics, real-time met/tsg.
- In development for singlebeam, ctd, adcp.
- Web “QA Dashboard” will be reviewed at RVTEC 2012.



(Dashboard example.)

Data Citation

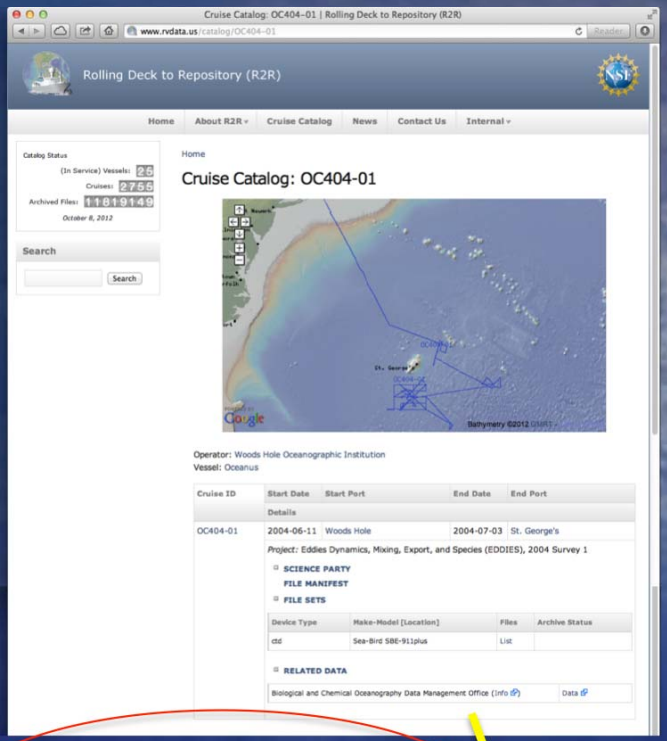
- Oct. 2012 contract with California Digital Library (CDL) "EZID" system, to publish permanent data/set identifiers.

- R2R will publish
  1. Digital Object Identifier (DOI) for each dataset submitted to a long-term archive.
  2. Archival Resource Key (ARK) for each data file, per science community demand for selected types.

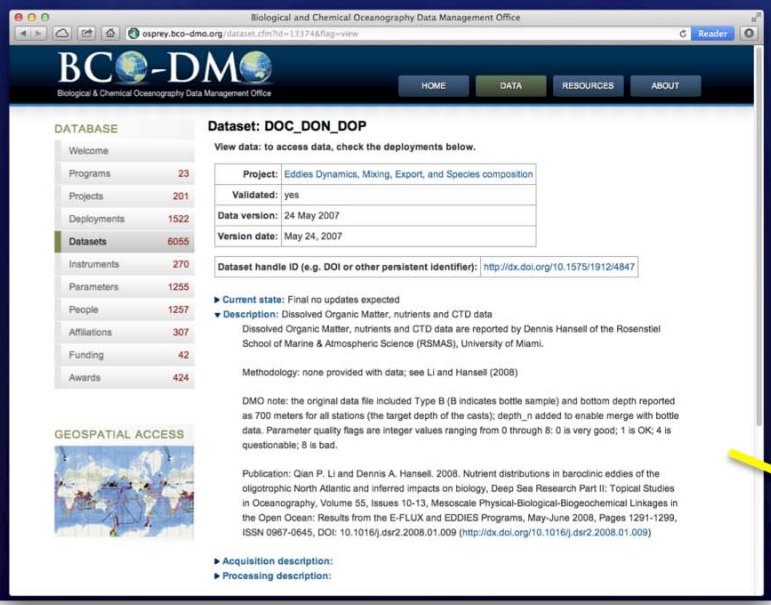
http://wiki.esipfed.org/index.php/Interagency_Data_Stewardship/Principles

Data Citation :Example

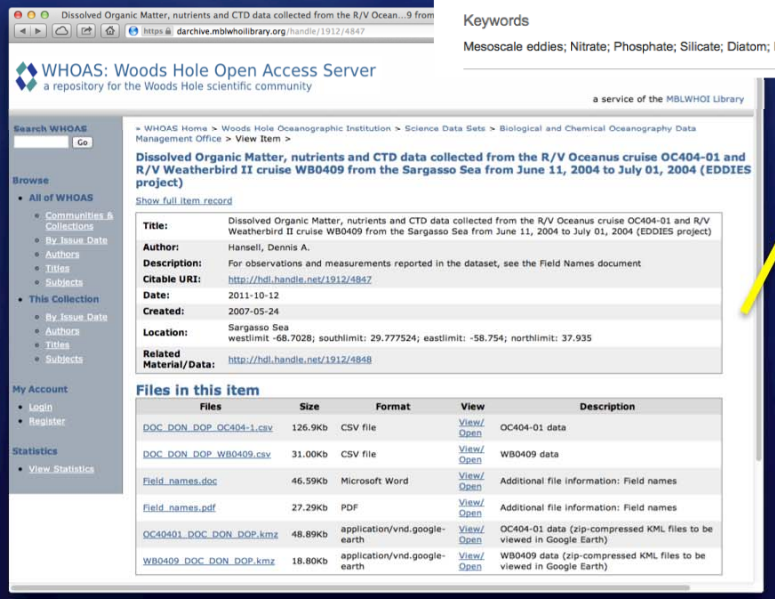
CTD data from Cruise
OC404-01
(EDDIES, 2004 Survey 1)



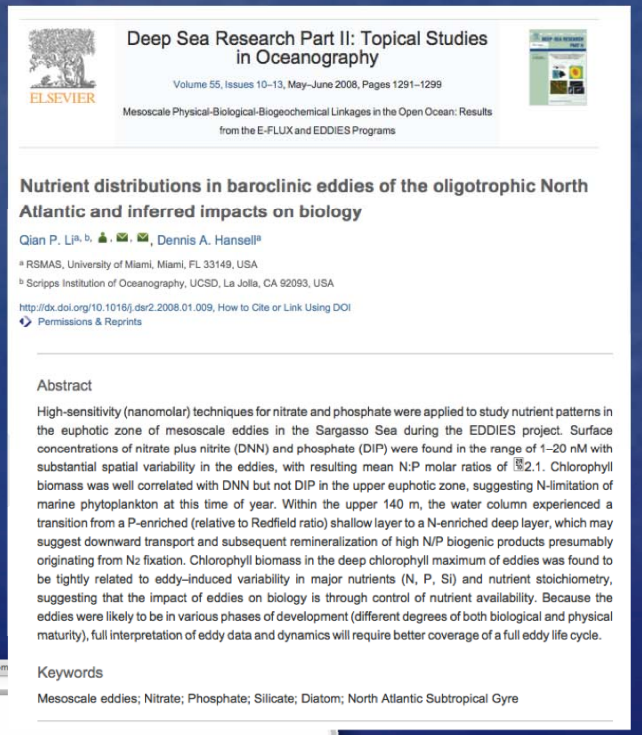
1. Original Data (R2R)
doi:10.7284/X



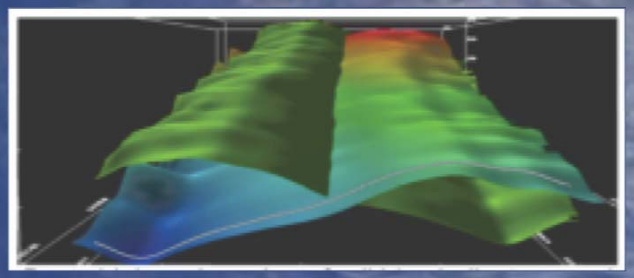
2. Final Data
doi:10.1575/1912/4847



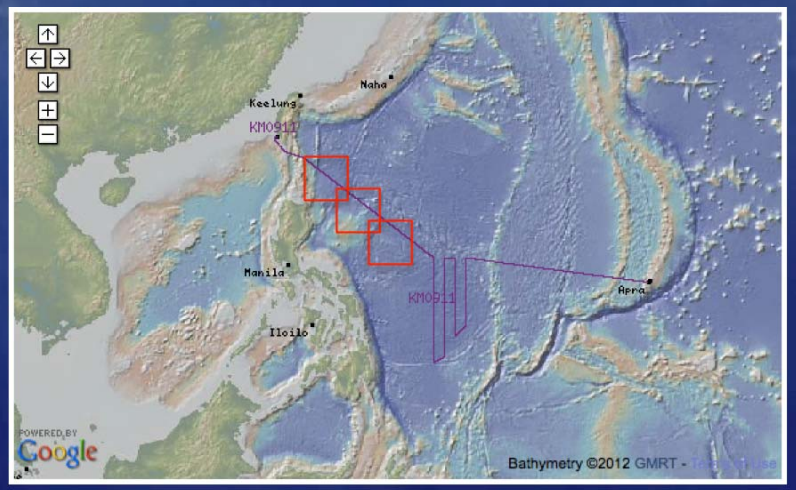
3. Journal article
doi:10.1016/j.dsr2.2008.01.009



Data Citation :Example



Multibeam data from Cruise KM0911 (*Kilo Moana* transit)



1. Original Data (Single Granule)

/km0911_multibeam/em120/jd139/raw/ em120-139-211729-0267.mb56

published by R2R as

ark:/87284/X

3. GMRT Synthesis (Grid Cells)

2. Clean/Final Swath from NSF IEDA Facility

/KiloMoana/KM0911/GMRT/ em120-139-211729-0267.mb56p.mb57

Int'l Collaboration

Ocean Data Interoperability Platform (ODIP)

- EU-US-AU partnership hosted by IODE
- Goal to identify, publish, and compare existing meta/data formats, vocabularies, quality flags, Web services, software tools, and policies
- Series of technical workshops 2012-2014

Advisory Panel

December 17-18, 2012 at LDEO

Goals: Review developments to date and provide guidance on science user priorities and future needs

Members
Jonathan Beaudoin, UNH
Mike Chandler, SOEST
Will Drennan, RSMAS
Helen Glaves, BGS (UK)
Joaquim Goes, LDEO
Matt Howard, TAMU
Gabi Laske, SIO
Gareth Lawson, WHOI
Dave Sandwell, SIO
Daryl Swensen, OSU
Masako Tominaga, MSU
+ NOAA Data Center reps

AGU Session

"Science at Sea: Innovative Results From the Oceanographic Research Fleet"

Friday December 7, 2012
8:00 AM - 12:20 PM Posters (OS51E)
1:40 PM - 3:40 PM Orals (OS53E)

- highlighting RVs as versatile, innovative, productive scientific platforms
- highlighting the preservation, integration, and reuse of research cruise data

(30+ abstracts!)

AGU
2012 Fall Meeting

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