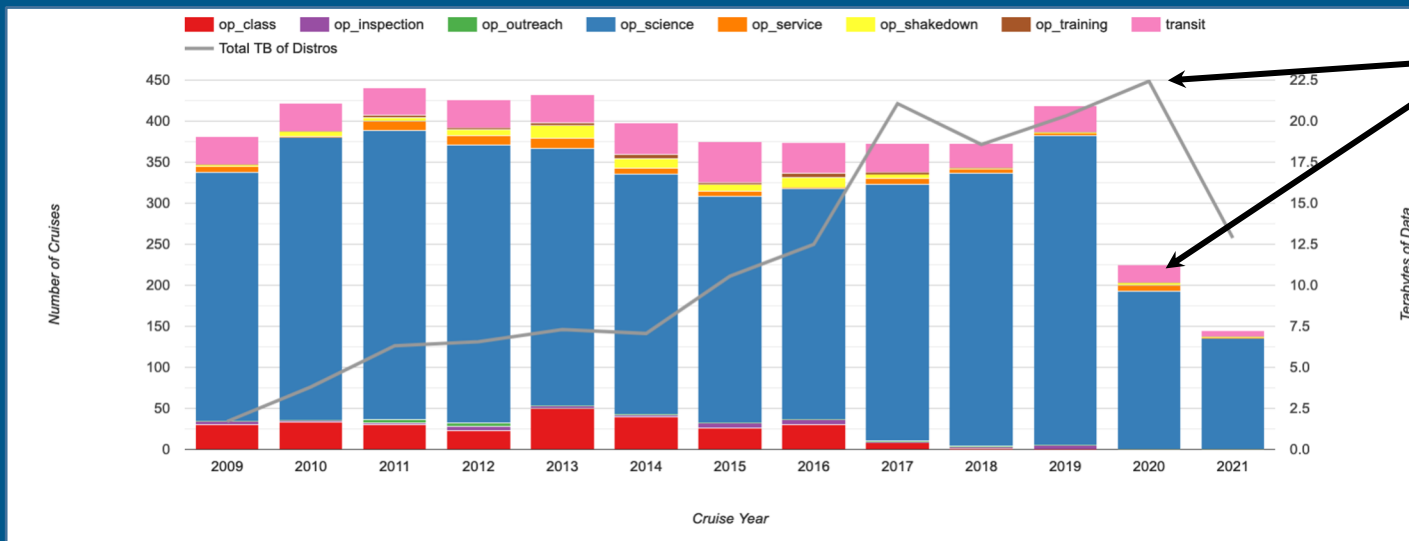# Rolling Deck to Repository (R2R)

2021 Update

S. Carbotte, S. O'Hara, D. Clark, R. Hudak, E. Miller, C. Olson, N. Shane, S. Smith, K. Stocks, L. Stolp, R. Uribe
LDEO, FSU, SIO, WHOI
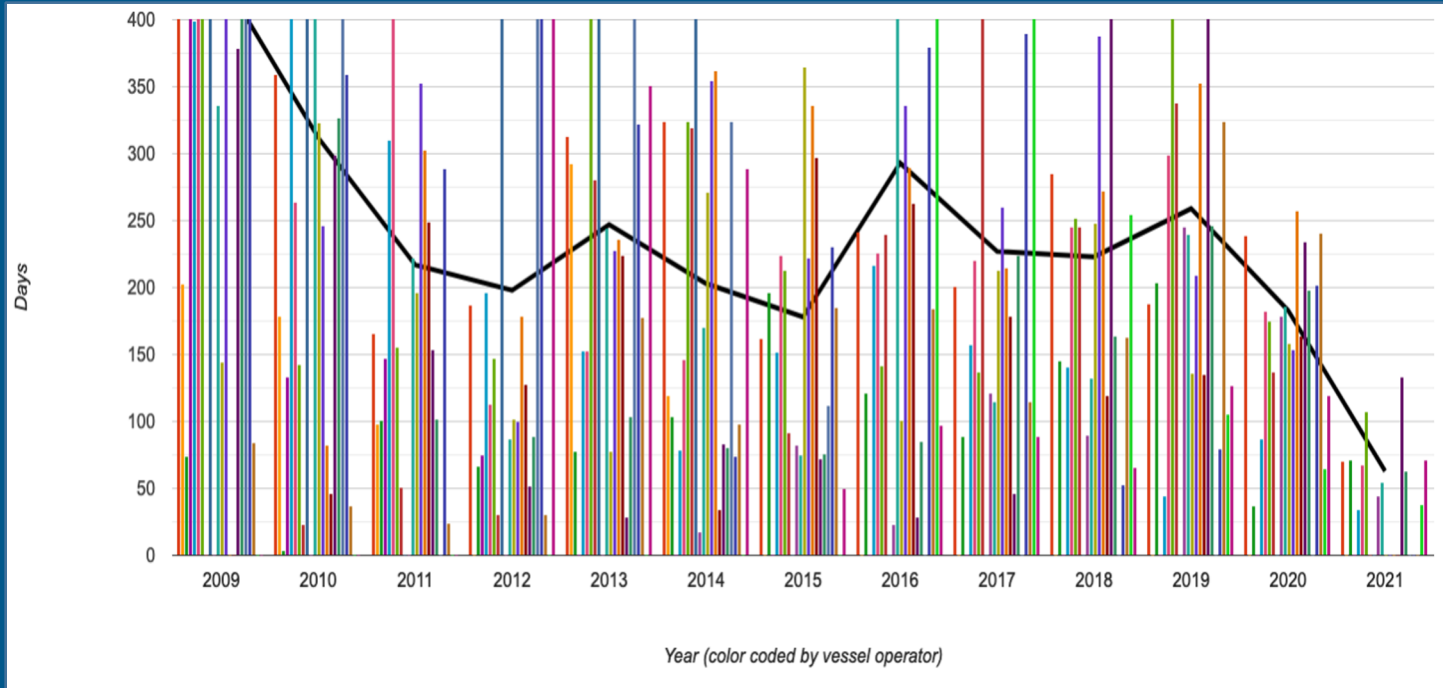
Cruises & Data Volumes at R2R

Annual volume of data continued to increase though number of cruises dropped due to COVID-19 pandemic.

Cruises are identified as science expeditions unless identified otherwise by the operator.

R2R
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Time to delivery of cruise distros from operators

Improving average (~6 months) for delivering cruise data.

Black line = average # days after cruise end.

Colored lines show average # days by operator.

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2020/2021 Developments: USAP Ships

OPP funding for management of USAP ships *Palmer* and *Gould* via R2R going forward
➢ Includes funds for migration of older cruises from the MGDS.

R2R fileset breakout, registration and publication complete for expeditions going back to 2010/2011 for Palmer/Gould.

Full suite of underway device filesets on cruise distros now managed (~ doubles USAP ship collection archived).

Processing for older cruises (back to 1992/1998 for Palmer/Gould) will continue in coming year.

New R2R Vessel Operator Dashboard

Review the status of all cruises for a vessel by year.

Colored lamps allow quick evaluation of status and help identify consistent problems.

Clicking on icons displays more status information

Go to https://www.rvdata.us/operator_dash or access from the 'For Ship Operators' section in the community pulldown menu at https://www.rvdata.us/

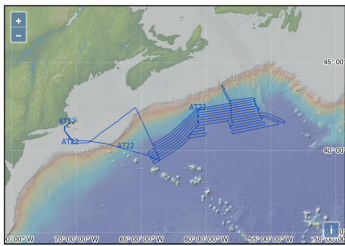R2R
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www.rvdata.us

UNOLS Council, 2021

Near-real-time QA/C of Navigation

Proof of concept:

- R2R tests will be run every hour with quality flags and centroid data produced for every minute of data
- Near real time checks will be developed to run on existing CORIOLIX data services
- Code will be part of R2R public repository for navigation qa hosted on GitHub

Proof of concept was done in collaboration with R-DESC and production code is currently under development

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Development of Best Practice Documentation for Underway Devices

Collaborating with the RCRV team and IODE Ocean Best Practices System
- Focus is on best practices for technicians

Active Working Groups:
- EK-80 Fisheries Sonar Suite, led by Kristin Beem and **Rebecca Hudak**
  - Focus on calibrating an EK80, what features to run for best data
- General Flowthrough System, led by **Shawn Smith**
  - Focus on flowthrough system components (intakes, pipes, pumps, etc.), not connected instruments
- CTD Profiler, led by **Laura Stolp** and **Rebecca Hudak**
  - Organizing the 100s of documents from OBPS and other Institutes, working with oxygen BP group
- SBE-43 Oxygen Sensor, led by Gabe Matthias
- ADCP, led by Jules Hummon

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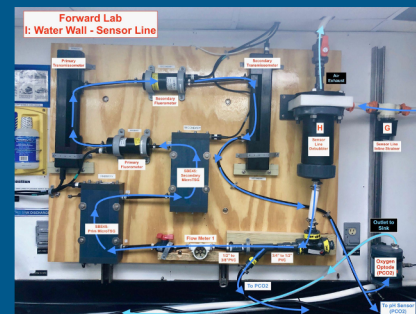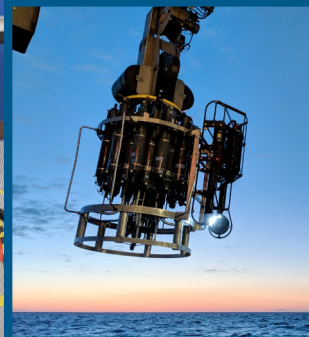
System Security

- *Cybersecurity plan (Trusted CI)*
    - *Information Asset Inventory (software, hardware, workflows, people)*
    - *Enhanced Workflow Documentation*
- *Next generation R2R hardware and software*
    - *Hardware consolidation, software upgrades*
- *Change in offsite deep archiving*
    - *AWS to FSU-RCC same $ but allows for egress without extra charge*

Looking Forward

- Improving cruise and data search functionality on web site
- Working with UNOLS to harvest cruise metadata from MFP
- Improve methods for more automated exchange device metadata
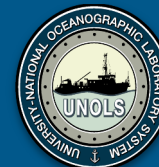- Exploring near-real time data streams

Join R2R team (@LDEO)

Intermediate Systems Analyst (https://opportunities.columbia.edu/en-us/job/517631/intermediate-systems-analyst
Associate Research Scientist https://academic.careers.columbia.edu/#/83445

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Acknowledgements

Funded by:

Providing access to and ensuring the preservation of national oceanographic research data.