

Rolling Deck to Repository (R2R)

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Outline

- Summary of key best practices
- Draft RV Data Roles and Responsibilities Document

See the recorded R2R presentation to UNOLS (https://youtu.be/b-DxJ_pORGo) for Status and New Developments



Best Practices for cruise data

- Create an md5sum files for the entire distro
- Organize documentation separately, by device within cruise (further guidance in dev)
- If new data for a cruise is found after R2R publishes, create a new supplemental cruise distro
- Do not change cruise ids after the fact
- Stage or send cruise data soon after the cruise
- Only data from within cruise
- Consistent file naming and directory structure





Nav File Recommendations



- Standalone nav with date, time, location (not receiving standalone navigation for ~15% of UNOLS cruises).
- NMEA 0183 Strings (GGA + ZDA + VTG)
- SOG and COG are recommended but not required.
- Data recorded at 1Hz or better
- Start new files daily



References: www.rvdata.us/community/ship-operators



SEARCH CRUISES DATA TYPES & PRODUCTS QA DASHBOARD COMMUNITY ▼ ABOUT R2R ▼

For Ship Operators

<u>Home</u> / <u>Community</u> / For Ship Operators

Underway Data Profiles

Online Vessel Profiler - requires login

Recommended Best Practices

- Cruise Data Directory Structure
- Navigation Data Collection (PDF)
- Sensor Coordinate Systems
- Underway Transmissometer Best Practices (PDF)

UNOLS/R2R Cruise Personnel Manifest (v4.0 template)



RV Data Roles and Responsibilities Document



Motivation

- Clear understanding with Operators and Chief Scientists: R2R can't complete its work without help from operators/techs and scientists
- Address Core Trust Seal Requirements (a certification for "trustworthy" data repositories)

Roles and Responsibilities Document: bit.ly/2TiFYmF



Review Plans

- Developed by R2R
- Presented to R2R Advisory Committee July 2020 for review from scientist perspective (as well as others)
- Presenting to RVTEC for operator review
- Provide to NSF for comment

Operator R&R

- Collect and provide to R2R complete underway data, and the metadata and documentation needed to analyze the data, soon after the cruise as tractable
- Provide complete cruise metadata in the standard <u>UNOLS Cruise Personnel Manifest</u> or a file containing the information described on the <u>R2R metadata requirements page</u>
- Ensure, along with Chief Scientists, that inappropriate content for long-term preservation is not included in the cruise distribution (e.g. Personally Identifiable Information, copyrighted files.)
- Provide data files in a documented format, and following R2R <u>Recommended Best Practices</u> when possible.

Operator R&R

• Use a consistent cruise directory structure. Participate in regular vessel profile reviews with R2R staff. Alert R2R to change in vessel scientific devices, directory structures for data and documentation, file formats or file naming patterns, either by updating the R2R Vessel Profiler, or contacting info@rvdata.us*.

If data can't be broken out, R2R will not know to look elsewhere or request those data, and they will not be made public.

* XML transfer file approach in development



Chief Scientist R&R

- Respond to R2R data release requests (holds can be requested). Know the data policy of their funding source as it applies to data release. (R2R releases data under Creative Commons Public Domain Mark 1.0.)
- Manage science party data ensure they are are well described and submitted to an appropriate long-term repository.
- Ensure, along with Operators, that only content appropriate for long-term preservation within national archives be included in the cruise distribution
- If possible, submit cruise reports to R2R when available. Cruise reports are served through the R2R Cruise Catalog with publication DOIs to support proper citation by others.

R2R R&R

- Ensure long term archive of cruise data as received from the Operator (w/ NOAA National Centers for Environmental Informatics (NCEI))
- Manage data release requests to chief scientists
- Provide the R2R Cruise catalog, for public data discovery and access, including Cruise DOIs for citation to link information from a cruise across data systems and scientific publications.
- For select underway devices/data types extract the data, create standard documentation, and submit to NCEI for discovery, access, and archive
- QA/QC and/or data product creation for select devices/data types, for serving through the R2R Cruise Catalog and submission to NCEI for discovery, access, and archive



Discussion Questions

- . Are the stated roles and responsibilities reasonable and appropriate? Is anything important missing?
- How should this be communicated to Chief Sci (will be posted on rydata.us)
- Are there areas for further detail/agreement? (Note following OBP session)
 - e.g. calibration expectations
 - Restricted EEZ's should instruments be shut off

We invite continued discussion via the Slack channel

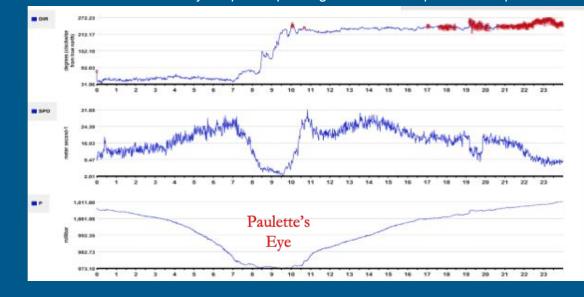


A question for COVID times Please reply in Slack

What are your data practices while at dock:

- Which instruments, if any, do you run?
- Do you submit the data to R2R?
- Do you mark it in some way?

Hurricane Paulette's eye captured passing the Atlantic Explorer 14 Sept. 2020





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