



NATIONAL SCIENCE FOUNDATION

4201 Wilson Boulevard

Arlington, VA 22230

DIVISION OF OCEAN SCIENCES

MEMORANDUM

TO: U.S. Academic Research Fleet

FROM: Bob Houtman
Head, Integrative Programs Section
National Science Foundation

A handwritten signature in black ink, appearing to read "B. Houtman", is written over the typed name and title.

DATE: December 16, 2009

SUBJECT: R2R

The Rolling Deck to Repository (R2R) Program is ready to accept underway data from all vessels in the U.S. Academic Research Fleet. R2R builds upon conclusions and recommendations from the UNOLS Data Management Best Practices Committee, and completion of a successful one-year pilot program. A fundamental goal of R2R is to improve community-wide data stewardship practices. Please visit the R2R website (www.rvdata.us) for detailed information on R2R services and to view progress made to date.

While the number and complexity of shipboard sensors deployed aboard UNOLS vessels has increased steadily over time, the requisite infrastructure to support data management has not. In addition to addressing the need for management of shipboard data, the NSF-funded R2R initiative brings the community one step closer to realizing the potential for the UNOLS fleet to operate as a distributed but integrated network of mobile ocean observing platforms.

Effective immediately, Operators are invited to send a copy of the full cruise data distribution to R2R for cataloging and archival. Once received, the cruise data will be securely archived and a catalog record will be posted online with a file listing and track map. Individual data sets will then be assembled and delivered to the National Geophysical Data Center (NGDC) or National Oceanographic Data Center (NODC) for public dissemination, once proprietary holds are cleared with the Chief Scientist. No data will be released to the National Data Centers prior to the funding agency's allowed proprietary period without the concurrence of the Chief Scientist.

Upon receipt of these data by R2R:

- All Chief Scientist requests for duplicate copies of data distributions can be referred to R2R.
- The PI will no longer be responsible for providing these data distributions to long-term National Data Centers, as this will be done routinely through R2R.

All data collected by any of the ship's permanent equipment (equipment that produces digital data, and is routinely operated by the ship's technicians) should be provided to R2R. In most cases, a copy of the shipboard data supplied to the Chief Scientist after the cruise is sufficient, but if there are routine 'underway' data that were not given to the Chief Scientist, it is important for these data to be provided to R2R as well.

Underway data includes, but are not limited to:

- Navigation (date/time, position, motion. VRU, IMU, etc. as well as GPS)
- Meteorological Data (temperature, pressure, humidity, wind speed/direction, precipitation, etc.)
- Echosounder depth
- Multibeam
- Subbottom
- ADCP
- CTD (digital data only)
- TSG
- Magnetism
- Gravity
- Fluorometer
- SSV
- pCO₂
- Winch/Wire Data (tension, speed, payout, etc)
- Expendable Probe (XBT, XCTD, XSV, etc)

Data distributions may be uploaded to R2R via direct network transfer, or may be submitted on most common digital media including portable hard drive, flash drive, tape cartridge (4mm, 8mm, S/DLT), or optical disc. Please contact Bob Arko (arko@ldeo.columbia.edu) with questions, or to obtain shipping instructions or a network login.

It is essential that the following information, at a minimum, also be provided for each cruise:

- Vessel Name
- Operating Institution Name
- Cruise Identifier (cruise identifiers are unique within the R2R system – typically each vessel uses a unique prefix)

- Start/End Ports and Dates
- Chief Scientist Name and Affiliation
- Project Title (if available)
- Recommended Navigation Source (clearly identified GPS data set to be used by R2R for creating standard navigational products)

Please contact R2R (www.rvdata.us/contact) with any questions. R2R team members look forward to working with you to ensure that shipboard data from UNOLS vessels are permanently archived in our National Data Centers. Thank you for supporting the implementation of these improved data-management practices across the entire U.S. Academic Research Fleet!