

Data Access and Archive Requirements Working Group - NOAA Priorities 2017 - 2022



Presented on Behalf of DAARWG
W. Christopher Lenhardt, Chair

Charge

Working Group activities in the context of the three NOAA priorities; both work in progress and possible future work topics

NOAA Goals

1. Lead the world in earth system observation and weather prediction
2. Minimize impacts from severe weather
3. Increase the sustainable economic contributions of our fisheries and oceans

Software and Model Archiving Practices and Requirements

Relates to Goal 1, 2, & 3

Activities

- Briefings from:
 - Nancy Ritchey, NCEI (April 2015)
 - Walter Wolf, NESDIS/STAR (June 2017)
- Looking to nominate a new DAARWG member with significant expertise in this area

Issues

- Should science software, models, algorithms be considered a first class object in terms of archiving and access
- Convergence of data and software
- Policy changes, e.g. consideration of adoption of open source approach

Software and Model Archiving Practices and Requirements (cont.)

Additional background:

- NASA has asked the Nat. Acad. of Sciences to report on best practices for open code (across all 4 divisions of NASA),
http://sites.nationalacademies.org/SSB/CurrentProjects/SSB_178892;
the report will be finished ~May
- NASA already has some requirements for open software (see recent ACCESS call)
- NSF is working on a study of open software
- Many journals have implemented open software policies for publication

Updates and Discussions on the NOAA Big Data Partnership

Relates to Goal 1, 2, & 3

Activities

- Briefings from various key leads of the Big Data Project, most recent from Ed Kearns, NOAA Chief Data Officer (June 2017)

Issues discussed:

- Identifying hidden costs
- Challenges of potential multiple copies of data
- Tracking usage and receiving credit
- Storing data in the cloud versus curation of data in the cloud
- Privatizing a public good

Specialized Archiving and Access Requirements for Social Science Data

Relates to goals 2, 3

Activities:

- Initiated conversations with NOAA Chief Economist related to specialized archiving and access requirements related to social science data, Monica Grasso, NOAA Chief Economist (November 2016)

Issues:

- Potential need for confidentiality and privacy issues to be addressed in curation
- How to measure impact of something like archival data
- Communication of science findings as potentially driving specialized curation or access needs

Preliminary Discussions Related to Specialized Requirements of Information Products

Activities

- Internal discussions only *a propos* the SAB memo on proposed future topics

Potential Issues:

- Requirements related to consistency of information products across the agency
- Identification of specialized metadata or archiving requirements

Curation of Physical Samples and Objects

Relates to goal 3

Activities:

- Dr Michael Vecchione, NMFS National Systematics Laboratory and Smithsonian Institution (November 2016)

Issues:

- Where does NOAA stand in relation to curation policies and procedures for physical samples and objects
- Disposition of physical samples and objects for such things as re-use and for validation
- Update: A draft NOAA Administrative Order related to this topic is currently moving through the review and clearance process.

Recent updates from NMFS, R2R, OMAR

Relates to goal 3

Activities:

- DAARWG on NMFS, R2R, and OMAR, Mark Brady, LCDR Mark Van Waes, and Sharon Mesick at various DAARWG meetings
- Held an offsite meeting in NMFS/OMAO, Pascagoula Mississippi and toured R/V Pisces

Issues

- Fisheries data discussions were part of early DAARWG deliberations, these briefings were an opportunity to get an update

Cross-cutting Topics of Relevance to Goals and DAARWG Terms of Reference

- Data synthesis/fusion
- Data assimilation
- Measuring and communicating uncertainty
- Reproducibility
- Near-term access
- Long-term preservation and accessibility
- Cloud technology
- NOAA's CDO Kearns came and talked to the group.