

Data Management Advisory Committee (DMAC) Meeting
November 4, 2015 10:00 AM – 3:00 PM, Axiom Office
 Draft Summary by Carol Janzen

Attending: Phil Mundy (Chair, NMFS, ABL/AFSC), Warren Horowitz (BOEM), Scott Pegau (OSRI/PWSSC), Tom Heinrichs (Director, UAF/GINA), Greg Demer (Representing Shell), Steve Lewis (NMFS, AKRO), Rob Bochenek (Axiom), Carol Janzen (Operations Director, AOOS) for Molly McCammon (Executive Director, AOOS).

By phone: Allison Gaylord (Nuna Technologies), Anne Johnson (ADNR) for Chris Hamilton, Louis Fode (NWS), Jim Potemra (APDRC, IPRC, PacIOOS)

Old Business:

- Comments allowed on previous minutes for discussion.
- Update - External Review of Axiom: Rob - Approaching Tetra Tech for strategic guidance and review of the AOOS DMAC. Would like to get the review done in year 1 (2016-17) of the next 5-year AOOS proposal period. This proposal was submitted end of August 2015.
- Phil asked Carol to note in the minutes that DMAC Committee would like access to the following items:
 - The monthly report
 - The DMAC Terms of Agreement that were determined last time
 - And the Terms of Reference final approved version
 - AOOS staff should send these items out to the DMAC committee.
- Minutes from the February 25, 2015 meeting were unanimously approved.

AOOS programmatic update - Carol Janzen:

- Carol introduced herself and briefly described her role within AOOS. Carol attended the meeting in place of Molly McCammon (AOOS Executive Director), who was absent.
- The AOOS 5-Year proposal - Submitted to the National IOOS office in late August 2015. Three funding scenarios were proposed as requested in the RFP. Award announcement should be by February 2016. At that time, AOOS will scope actual activities that will be funded.
 - AOOS is currently updating website, and the 5-year proposal will be made available on the website during this update.
- IOOS Certification - Carol gave an update on IOOS Certification process. AOOS staff will submit the AOOS certification application in June 2016. Where the DMAC comes in with this process perhaps is with implementing data quality controls. This can be added as an agenda item at the next meeting if deemed reasonable.
- ICOOS Reauthorization Status - Phil mentioned the ICOOS Reauthorization process is underway in DC, and that both Alaska senators are supporting it, including Don Young.
- Phil brought up the Homeland Security (HLS) sponsored ADAC (Arctic Domain Awareness) project currently being run at UAA.
 - He will ask the DMAC Board to chime in on the use of AOOS DMAC backbone for use on the ADAC and HLS project later in the afternoon, after Rob presents ADAC demonstration materials he was contracted to provide for the ribbon cutting ceremony and Homeland Security visit to the ADAC last month.

New and Upcoming Capabilities:

ADAC Ribbon Cutting Ceremony – Rob Bochenek:

- Rob demonstrated a model run using Hycom. Comments centered on the data used to run the model. It was noted that to run this model in real-time in data assimilation mode requires a full staff of people to do this correctly. Rob stressed that this was just a demonstration to show what was possible, and not intended to be served as an operational model at this stage.
- Rob stressed that many these tools developed for ADAC are new products, and that AOOS can take advantage of these tools for developing new capabilities going forward.
- Discussion took place on how AOOS would be a great place to test these trajectory models, but modelers need to be involved to improve them and work on what observations are needed to better run them. AOOS should serve as the testbed for these models, but not necessarily the model managers or organization that runs them operationally.
- It was emphasized by the DMAC members that knowing what data are used to run these types of models is important.
- It was also stressed that the models should be test run where there were observations to evaluation how well they are working and perhaps, use observational data to learn how to improve the models in other areas.
- Observations are required to make these models work, therefore testing models will also help direct where to put observational assets.
- As an example, Phil reminded group that atmospheric-ocean models without data, especially in PWS, failed to provide accurate oil spill trajectories in the absence of without data assimilation due to complexity of topography and importance of wind forcing on surface currents.
- Coordination with ERMA is essential to avoid conflict of interest in ERMA/AOOS, and it needs to be clearly stated that these model outputs do not constitute an official forecast.
- Perhaps, find projects to fund (or AOOS might fund) some observations to test the models. These observations would then be justified in support of modeling.
- Committee stressed that if AOOS is going to feature such models, it has to be clearly printed that these are testbed model runs, and not operational.
- Rob continued to demo work going on with SECOORA: to show what the benefits of AOOS with AXIOM working on SENCOOS and SECOORA will be.

Next generation research workspace – Rob Bochenek

- Current AOOS workspace allows a person to put up research products and metadata. Not much else can be done there. AXIOM is enabling users to create **I-Python** notebooks, so they can work directly in the workspace using the CPU cores at the AOOS data center to do push data in workspace, analyze it, add colleagues to their space, and work together. They can also use any information ingested into the AOOS data catalogues. Rob provided a demonstration using climate models.
- These new capabilities are not fully vetted yet, but AOOS will have these capabilities.
- Proposed launch date for this capability is May 11, 2016.

Review DMAC Workplan:

- The group discussed briefly the implications of Shell withdrawal, mainly in context of data ingestion at an accelerated pace. Tabled discussion for after lunch.

Lunch

Impacts of Shell Withdrawal-Carol Janzen:

- Ships of opportunities may be reduced with less activity in the region of the Chukchi Sea and Arctic. This will hinder existing programs in the Arctic...no clear answer on how to deal with this in 2016-2017.
- AMBON is done - Shell has exercised its end-contract option, though existing funding that has been dispersed is safe.
- AOOS main goal at moment is to track what assets will be hindered by the departure, and get the data that Shell agreed to provide.
- Question about AOOS plan for Shell data - to get it archived with meta data before Shell personnel are dispersed. Will move forward as time and resources allow.
- Question if Shell is going to release the bathymetry data - This discussion has been underway for many years, but no forward action from Shell has been taken. There is no expectation that AOOS will be able to get Bathymetric data from Shell at this stage.

AOOS Priorities – Phil Mundy:

1. Support cyberstructure:

No small feat to keep the system up and running; ingesting data, infrastructure support, etc.

- a. Data storage - duplicity and safety. Rob described the backups, and how data are stored, the conclusion was things are fine in that department.
- b. Maintain and enhance Ocean Data Explorer...this is AOOS flagship product.
- c. Feedback comments have been provided to AXIOM by DMAC members, but there are still many mismatches on the website, and these should be dealt with.
- d. Other comments recommended improvements, like providing a way to adjust the ends of the times series on the data charts. These types of improvements on existing products should get done to make the tools more useful.
- e. This led to the comment: There are a lot of 90% issues (90% completed that is). The last 10% to completion needs to be made a priority.
- f. The topic of providing some sort of climatology product came up, perhaps better called “monthly climate products.” Such a product should be discoverable on the website.
 - i. Caution about providing climatologies was discussed, as they require a lot of QA/QC.
 - ii. A value added product that a user can create on the fly would be very beneficial, like being able to create a long-term mean or find a climate summary on a station, or have a tool on AOOS website to produce these sort of things.
 - iii. Louise said Peter Olsson, as Alaska State Climatologies, might provide a perspective on what kind of product this would be, perhaps a “historical data calculator.”
 - iv. This is a good example of a real end-user need. Once a product is developed, it will enable a lot of others to do more.

Phil summarized: Advice as a committee with respect to developing “climatology-like” products, is to identify super-users and see if we can develop a product from our existing resources. Super users may be willing to pay or fund development.

2. Provide access to existing and new products and datasets based on objectives and priorities.

- a. Phil noted that the large priorities spreadsheet from AOOS and the DMAC Plan were difficult to read. He suggested that the AOOS THEME cheat sheets worked better, but those were not included in the packet for Board or DMAC meeting. Furthermore, the Data Management section of this spreadsheet was not well populated.
- b. Asked Carol to send the individual AOOS theme priority sheets developed for the Board Meeting out with the minutes.

3. Work with other IOOS RAs to develop cross-regional and national data products

4. Collaborate with state, regional and national and international Data Management programs
5. Provide Data Management services to large, integrated programs and incorporate resulting data into DAC

Phil summarized: Phil would like AOOS and AXIOM to find a better way to communicate this information (workplan and priorities) to the DMAC team, with the goal of making the briefing materials easier to navigate.

Axiom Workplan Overview – Rob Bochenek:

- Question about how AXIOM (Rob) interacts with AOOS. Rob explained Axiom meets weekly with AOOS staff, and that this spreadsheet for this meeting is completed as a quarterly reporting matrix.
- Phil asked to get the workplan link that shows the dollar amount.

Workspaces

- Question about if the research work groups using workspaces would be willing to share data from the workspace, without identifying it to a study or all the background information, to allow others to see what is out there now, and what else is going on.
- This could be problematic as the workspace is not designed to deal with that sort of thing. Perhaps there is a need to develop a new product that does this, but does not expose the project.
- Phil suggested the potential for using DOI tags for reference use right away...this could be a way to achieve this in the future.

Meeting Overview – Phil Mundy:

- Upcoming completion of projects - Carol updated the status on a few projects including the Beluga Whale Portal. A final steering committee for that project is planned to demonstrate the status of that portal as well as to get feedback. Expected completion by March 2016.
- Demonstration of BSSN Traditional Knowledge data heat maps and how to used. These are some of the first Traditional Knowledge data ingested and presented by the AOOS site.
- A question was raised regarding the 1 km afss model – it was discontinued due to funding.
- Rob demonstrated the heat maps for the marine protected areas off off Florida he developed for SECOORA as another way data can be displayed, and provide interactive analytical approaches for using spatial data.

Meeting Wrap Up:

There are a lot of challenges in maintenance of current accomplishments. NAG mail keeping them abreast. Phil requested to receive error logs, so he can keep a pulse on the system.

Remaining Action Items

- Need to scope the dates for the next meeting.
- AOOS staff should put out a Doodle Poll.
 - Select in February. AOOS Staff will do a doodle ... Phil and Rob will be in Hawaii during Feb...so suggest meeting dates for March.
- Carol will provide draft minutes to Phil and Rob for review by November 13, 2015.

Meeting adjourned at 3:00 pm.