ORRAP
Ocean Research & Resources Advisory Panel
A United States Federal Advisory Committee

ORRAP Ocean Observing Sub-panel
and
Joint meeting with the Interagency Working Group on Ocean Observations

NOAA IOOS Offices
1100 Wayne Avenue
Silver Spring, MD 20910

February 18, 2009

Minutes

Call to order by Co-chairs Molly McCammon and Paul Gaffney

The meeting was called to order at 9:30 am. Introductions were made around the room. M. McCammon explained the goals of the meeting:

- Review the Sub-panel's recommendations from its August 2008 meeting (recommendations are available at http://www.nopp.org/Dev2Go.web?id=326282&rand=10360) and the response from the full ORRAP;
- Receive more detailed briefings on the status of the NOAA and NASA satellite coverage of the oceans;
- Update the panel on land-sea interface activities, especially the proposed National Water Quality Monitoring Network;
- Meet jointly with the IWGOO to discuss the status of the IOOS program; and
- Develop plans for additional follow-up.

The group heard very brief status reports on:

- NOAA IOOS: Currently, the office hosts a full-time detailee from USGS and a 60-day detailee from Navy. The goal is for other agencies to contribute detailees in order to leverage other agency ocean observing activities.
- Ocean Observatories Initiative (OOI): the program office is providing follow-up information requested by NSF after the OOI Final Design Review with the expectation of project start-up with FY09 funds.

- The MEDEA program, which ran during the 1990s, will be briefed at the April 6-7 ORRAP meeting. The program made available previously classified or unavailable intelligence/defense data to scientists in order to better understand civil and environmental problems, including climate change. There is a push to reinvigorate this – or a similar – program.

Briefing from various perspectives on the status of the nation's remote sensing capabilities (briefing slides are available on the Sub-panel web page: http://www.nopp.org/Dev2Go.web?id=326282&rand=10360):

- Jim Baker (non-agency perspective)
Dr. Baker described the current satellite situation of mostly research satellites, with very few at the operational stage. He noted that the coastal remote sensing report has too many recommendations, and the coastal community needs to focus on 1 or 2 topics (e.g., ocean color, ocean surface ocean topography, surface vector winds) and push for traction with them. He also mentioned that a NOAA modeler is on detail to Google. Google employees are given 20% of their time to work on issues of personal interest. It would be good to educate them about IOOS (a workshop?) and need for more Google Ocean applications. It might be a good idea to acquire a Google rep for the Ocean Observing Sub-panel and/or the Industry Sub-panel.

- Lucia Tsaoussi (NASA perspective)
Dr. Tsaoussi spoke about NASA's decadal plan for geophysical data collection and its efforts to transition science to operations. Its plan for decadal survey missions has received concern from the oceanographic community because of its lack of a plan to significantly meet ocean requirements. The plan is being implemented over a decade using a 3-tiered approach of near term recommendations, medium term, and longer term, but funding is only sufficient to address the near-term recommendations. NASA collaborates with NOAA on a congressionally mandated joint working group on research to operations.

- Eric Bayler (NOAA perspective)
Dr. Bayler spoke about NOAA efforts to operationalize data streams. There is typically a lack of transition funding in research mission agency budgets and then sustained funding for a long-term program. Within NESDIS, a concept was developed to establish a "transition manager" for each NASA mission relevant to NOAA's needs.

Establishing agreed-upon ocean models to improve forecasts and observing system designs would improve our ability to transition research to operations. This is a fundable endeavor and sounds like a project suitable for NOPP.

In the realm of data assimilation, we need to bring NAVOCEANO, NRL Stennis, and NOS to the table to add near-real-time forecasting and sea ice monitoring. Eric saw three areas needing the community's focus: 1) continuity of ocean vector wind data, 2) altimetry data, and 3) geostationary hi-res hyperspectral imagery.

The USCOP Report has made clear its recommendation on the respective roles of NASA and NOAA in basic mission research and operationalization of data. Recommendation 26-8 states: *"NOAA and NASA should work together to identify research satellite missions that have operational applications and to ensure the smooth transition of each Earth environmental observing satellite after its launch and testing."*

Briefing from various agency representatives on the topic of the land-sea interface. (briefing slides are available on the Sub-panel web page: http://www.nopp.org/Dev2Go.web?id=326282&rand=10360):

The list of presenters:

- Tracy Hancock (USGS)
- Eric Vowinkel (USGS)
- Pixie Hamilton (USGS)
- Chuck Spooner (EPA)
- Jawed Hameedi (NOAA)

Specifically, each presenter was asked to address the following issues:

- Status of the National Water Quality Monitoring Network (NWQMN)
- State of each agency's programs
- Coverage changes in the past 20 years
- Program plans for the future
- Program requests for Stimulus money
- Availability in real time of data to an archive for IOOS and the public

Highlights from the presentations and ensuing discussion include:

- The NWQMN is currently past the pilot study phase and into the demonstration phase.
- Network design has been based in part on the pilot studies in San Francisco Bay, Delaware Bay and Lake Michigan. These regional studies, as well as the network

design, relied on close working relationships with the IOOS Regional Associations in those regions.

- The ORRAP and NFRA had concerns during the NWQMN's initial design phase and had asked to review the revised design following the pilot studies. That has not happened to date. B. Chicoski will pass the ORRAP's comments on the initial design to Pixie Hamilton so that ORRAP can be informed about the revised design and the current status of network planning and given the opportunity to provide further comments.
- There is no active network on the national level to coordinate issues at the local and regional levels. Integration across those levels is a paramount priority and the IOOS Regional Associations can play an important role in doing so.
- Data management, particularly making the data collected accessible and integrated with other water quality data, is another top priority.
- Sensor data is lacking along the coasts and needs to be connected to inland stream gaging.
- The National Water Quality Monitoring Council is a FACA committee similar to ORRAP. The sub-panel should consider making some connections with them.
- The NWQMN needs a champion at the Council on Environmental Quality (CEQ).

Joint Session with the Interagency Working Group on Ocean Observations (IWGOO) (briefing slides are available on the Sub-panel web page: http://www.nopp.org/Dev2Go.web?id=326282&rand=10360)

The Sub-panel was joined by the IWGOO to hear reports on three topics of interest:

- Status of IOOS Development (Zdenka Willis, NOAA), specifically:
  - Interagency coordination efforts, IOOS in the NOAA budget, support for the regions, and future plans involving climate change and ocean energy.
- Legislative Priorities (Nina Young, Consortium for Ocean Leadership), specifically:
  - Major congressional concerns and supporters
- IOOS and OOI Collaboration (Shelby Walker, NSF), specifically regarding:
  - Data Management and Communications (DMAC)
  - New sensing technologies

Highlights from the presentations and ensuing discussion include:

- Regional partnership is robust and remarkable. The RAs and the Alliance for Coastal Technologies are supporting NOAA's national missions, not just conducting academic studies.

- The use of intergovernmental personnel transfers is lacking. The Sub-panel feels strongly that other agencies (besides NOAA) need to play a stronger role by having a physical presence at the NOAA IOOS Office.
- Offshore energy platforms can contribute greatly to IOOS by making collected data available to the public.
- OOI science is serving IOOS in that science is called out as an IOOS societal need.
- Pending legislation (S. 22), which has since failed passage through Congress, would have converted the IWGOO into the Integrated Ocean Observing Committee (IOOC). There was talk about whether the Sub-panel would or should become the advisory body to the IOOC and whether federal agency reps could sit on the new advisory board (which would be FACA exempt); the Sub-panel agreed that it should report to only one body (i.e., either the ORRAP or the IOOC).
- Three "tiger teams" under the NOAA Science Advisory Board are examining the possible options for developing a National Climate Service (NCS) with a report due out in March. It is unclear whether NOAA IOOS would be part of the NCS.

The agencies were challenged to come up with a multi-agency IOOS funding plan (not relying solely on the NOAA budget) and tell the Sub-panel what is needed to carry out the plan. Then the Sub-panel would help put together a strategy to push for the plan.

The ORRAP or this Sub-panel should reintroduce the August 2008 Sub-panel recommendations, in addition to the ORRAP transition document section on IOOS, to the incoming NOAA Administrator and Secretary of Commerce.

Closing Recommendations

The Sub-panel came up with a number of recommendations to pass on to ORRAP:

- Endorse the direction and success of the NOAA IOOS Office.
- Encourage stronger connections between agencies' ocean observing programs. One way to do this would be for agencies to send detailees to the NOAA IOOS Office.
- Integration within the NWQMN should be improved. It must also seek support from higher levels of government. The Sub-panel feels strongly about the need for NWQMN improvement and will ask the full ORRAP for additional supporters in the effort to help the NWQMN make progress and continue its review of these activities.
- The Sub-panel will try to arrange for a meeting or workshop with Google to explore common opportunities.
- The Sub-panel intends to continue exploring the issue of transition planning for satellite coverage.

The meeting adjourned.