IOOS Regional Coordination Workshop
Shedd Aquarium, Chicago IL
November 7 – 9, 2006

Workshop Summary

The Integrated Ocean Observing System (IOOS) Regional Coordination Workshop was held at Chicago's Shedd Aquarium, November 7 to 9, 2006. The workshop brought together approximately 80 people representing the regional associations, regional ocean observing systems, and federal agencies to advance the development of the regional component of IOOS.

The workshop provided a timely opportunity for individuals involved in regional IOOS efforts to share information and discuss regional IOOS issues with representatives from other regions and with federal agency staff members who are planning and implementing at the national level. This summary provides a synopsis of the workshop proceedings. The workshop agenda (link) also contains links to each of the presentations and breakout group summaries.

Several themes or issues were repeatedly raised throughout the workshop, both in the plenary presentations and in breakout group discussions. These themes are listed here and may be thought of as informal recommendations from the workshop.

- Develop a consistent vision, vocabulary, and message for IOOS ("a common song sheet").
- Improve communication across regional associations (e.g., share lessons learned) and among regional associations and federal agencies in the Interagency Working Group on Ocean Observations.
- More clearly define roles and responsibilities and identify points of contact, both federal and regional.
- Document case studies to demonstrate the value of IOOS.
- Document the value of regional associations in helping federal agencies meet mission requirements.
- Implement pilot projects within the regions to develop products and services that clearly demonstrate the value of IOOS.
- Develop thematic conceptual design "templates" that illustrate the build-out of the regional component in terms of infrastructure, models, and information products.
- Set priorities by identifying common issues and focus areas.
- Build legitimacy and improve recognition of RAs as partners with federal agencies in development of IOOS.
- Partnerships among regions and between regions and federal agencies will be critical to the success of IOOS.
- Sustain equitable funding to the regional associations.

Tuesday morning: Session 1 – Building the Regional/Federal Partnership
The first of the morning's plenary sessions featured Dr. Rick Spinrad, Assistant Administrator of the National Oceanic and Atmospheric Administration (NOAA) Office of Oceanic and Atmospheric Research, discussing the federal/regional partnership. Spinrad presented a model for how IOOS might be funded at the regional level and explained the governance structure being set up at the national level to oversee IOOS planning and implementation. The discussion after the presentation focused on concerns over funding (amounts, mechanism for distribution, competition between regions and within regions), the future of Ocean.US (how to fund, evolving to a program office, potential conflicts with a NOAA program office), the need for a consistent message and clearly defined roles and responsibilities, and how the regions can help (securing additional funding from states and private industry, getting buy-in on user requirements).

Tuesday morning: Session 2 – Conceptual Designs for IOOS System Architecture
Session 2 was a review of the recently released conceptual designs developed by Raytheon and Lockheed Martin from the perspectives of NOAA (Kurt Schnebele), Ocean.US (Mary Altalo), and regional associations (Harvey Seim). One of the questions raised during this session was "how to proceed?" particularly given the dollar amounts presented in each design. During the discussion, it was mentioned that similar efforts to develop conceptual designs are needed at the regional scale. Other topics discussed included developing products and services, particularly setting priorities for development of new models and having the regions identify what they want (nested models, concept of operations for regional scale, ocean circulation models).

Tuesday afternoon: Session 3 – Relationship between RAs and Federal Agencies
The agenda for Tuesday afternoon featured a breakout session to discuss the relationship between the regional associations (RAs) and federal agencies. Workshop participants were placed in one of four groups, each with a mix of individuals representing the regional associations, regional observing systems, and federal agencies. Groups A and B were tasked with discussing how to strengthen the regional/federal relationship at the regional level and Groups C and D were given the same task but at the national level.

Although the groups discussed the regional/federal relationship at different levels, there were considerable similarities in the identification of important issues. These issues included the need to clearly define the roles and responsibilities of all involved in IOOS (who has authority, identifying points of contact, maintaining consistency in federal leadership, identifying the role of the RAs). Another key issue mentioned was resolving the uncertainty about federal agency and staff participation in the regional associations (with federal agency membership in the RAs being highly desirable). Improving communication (closely related to both roles and responsibilities and federal participation) was another widely discussed topic, with the need for developing a consistent "song sheet" to build a shared vision for IOOS. Clear and consistent communication, both vertically (top-down, bottom-up) and horizontally (within and across regions) is needed to build the regional/federal partnership. Other topics, including funding, partnerships, RA recognition, and outreach were also discussed by several of the groups.

The Session 3 report-out focused on four main topics: setting priorities, communicating the value of IOOS, getting federal agency buy-in for the concept of IOOS and the role of RAs in its implementation, and the need for a consistent message and vision related to IOOS. Setting

priorities to focus on one or two issues of national importance was identified as an important step toward developing some successful products and services. These successes could then be used to communicate the value of IOOS to the public, coastal managers, federal agencies, etc. The discussion identified the lack of an IOOS mandate as a key problem, along with the need for outreach to agencies other than NOAA, the desire to provide input on the NOAA-led strategic plan, and the need to convince the federal agencies that it is in their interests to work with the RAs. To improve their communications, the RAs must develop a "song sheet" that outlines a consistent vision and message for IOOS generally and outlines the value of the RAs to federal agencies in accomplishing their missions.

Wednesday morning: Session 4 – Developing Conceptual Designs for Selected IOOS Topics
The objective of this session was to explore the development of conceptual design "templates" for the three U.S. Global Ocean Observing System (GOOS) Steering Committee priority areas of public health, marine transportation and safety, and coastal resiliency and then to discuss how the templates could guide the development of regional system design. The session featured presentations on Ocean.US's efforts to map the information requirements of each of the seven societal goals, and on two case studies outlining the design of observing systems that address public health issues. The discussions that followed focused on how to develop similar conceptual designs in other regions and to address other issues. Setting priorities was again mentioned as an important first step, as was getting input from user groups. There was concern on the part of the Great Lakes and Caribbean regions that they not be left out of the process. One of the main points discussed was the need to get started with either the conceptual designs or with pilot projects with the acknowledgment that developing one system will serve multiple purposes and reduce the costs for designs addressing other issues. There was also the acknowledgment that pilot projects should be able to show the economic benefits of the project. Despite the problems of limited resources, several individuals expressed the need for continued progress.

Wednesday afternoon: Session 5 – Enhancing Coordination between Neighboring RAs
In session 5, breakout groups were established by region, with the Atlantic/Great Lakes as one, the Gulf of Mexico and Caribbean another, and the Pacific the third. While each group's discussion went in different directions, there were some common threads, in particular the idea of regional associations working as a larger "super region" to develop conceptual designs or pilot projects. The Atlantic/Great Lakes group created an outline for what characteristics a pilot project should contain, discussed how to proceed (work across regional boundaries, involve all RAs, be user-driven, build partnerships, use current and viable data), and outlined three potential pilot projects (HF radar for SAR/HAZMAT, coastal resiliency–storm inundation, and water quality). The discussion in the Gulf of Mexico/Caribbean group focused on how to share lessons learned among the three RAs that make up the larger "super region." This group used the opportunity to discuss outreach and education, ways to identify and share regional expertise, and, with the Gulf of Mexico Coastal Ocean Observing System as lead, development of conceptual designs for the three U.S. GOOS Steering Committee primary issues. The Pacific group identified climate and ecosystems as themes that should be added to this list of three primary issues. Other action items that came out of this groups session included continuing to work as a larger region, examining the elements that make up the national backbone (identifying existing assets, mapping assets to IOOS objectives, identifying gaps, reviewing existing documents), and working together to develop theme templates.

Wednesday afternoon: Special Session – Goals and Objectives for Upcoming Legislative Season

Deb Stirling, from Stirling Strategic Services, was on hand to guide an informal question and answer session and provide her insights into how the 2006 election results may affect IOOS related budgets, committee memberships, and potential legislation. Participants from Regional Associations and observing systems engaged in lively discussion regarding the implications for the future of IOOS.

Thursday morning: Session 6 – Update on Data Management and Modeling Initiatives

Session 6 featured several presentations about existing data management and modeling initiatives. These included efforts by the NOAA Coastal Services Center to develop an inventory of regional observing assets, a review of the NOAA Office of Climate Observation's Observing System Monitoring Center, a discussion about developing national high-frequency (HF) radar capability, a summary of the October 2006 Regional Remote Sensing Workshop, and an update on the Modeling and Analysis Steering Team. The inventory effort and developing HF radar both raised several questions. With different initiatives underway to gather regional asset information, avoiding duplication of effort was encouraged. A major question surrounding the development of HF radar is whether this is a national or regional initiative. The answer to this question is critical to determine who is responsible for paying initial setup costs, and operations and maintenance costs. Currently most HF radar systems are regionally owned. Along with providing funding, NOAA could provide support to regional HF radar systems by working with other federal partners (U.S. Coast Guard, U.S. Forest Service, and National Park Service) to secure site agreements.

Thursday morning: Session 7 – Looking to the Future

The final session featured an overview of the topics discussed during the workshop, followed by a discussion led by the "3M's"—Molly McCammon (AOOS), Mary Altalo (Ocean.US), and Margaret Davidson (NOAA Coastal Services Center). The overview identified a number of action items that need to be undertaken in order to facilitate the development of the RAs as functioning parts of a successful IOOS. The topics and issues covered in both the workshop overview and the 3M's discussion repeated the main themes from the workshop: funding (establishing sufficient base level funding, supporting all regions), recognition of the RAs as legitimate partners in IOOS (getting buy-in from federal agencies, regional input into national planning), developing pilot projects (demonstrating the benefit of IOOS – and the RAs), combining regional resources to work on conceptual design "templates" for focus areas (identifying assets, working as "super regions"), improving communication (creating a "song sheet"), and developing better mechanisms for sharing lessons learned.