

JSOST Interagency Working Group on Ocean Partnerships

NOPP Roundtable at Oceans '09

28 October 2009

Summary of Major Discussion

- The objective of the roundtable discussion was to reach out to the academic and industry sectors to ensure inclusion of their interests into the program. Participants provided their perspective on critical areas of ocean research. These included:
 - Fisheries, aquaculture and seafood safety
 - Marine security, especially in shallow water, such as diver detection; technologies developed for this purpose could also be applied to marine mammal detection and fish stock assessment; quickly deployed security options are also necessary for municipal ports and renewable energy installations; this also related to maritime domain awareness, monitoring and charting ports, coastlines and the Exclusive Economic Zone (EEZ)
 - Energy, including off-shore renewables and oil/gas
 - Ocean acidification and climate change, including ocean dynamics and the linkage with climate, climate forecasts and models, ocean observing
 - Human dimensions of climate change, such as reaction to sea level rise and coastal retreat, migration of wealth invested at coastlines
 - Arctic research and innovative technologies due to increased interest in this area including cruise ship and fisheries expansion; this could also include the mapping of the Arctic EEZ.
- Because one of the NOPP goals is to promote ocean education, potential partnerships could be formed with various competitions, including the Marine Advanced Technology Education Center's Remotely Operative Vehicles, Autonomous Underwater Vehicles and human powered competitions.
- It was noted during the discussion that small businesses have difficulty engaging in NOPP at a high level, but they are able to participate by executing NOPP funded projects. Suggestions for encouraging a higher level of participation from small businesses included:
 - Partnerships between small businesses and federal agencies through in-kind support, such as supplying a product that can be used by the proposing researchers;
 - Emphasize partnerships with small businesses within the funding solicitation language; and
 - Creation of a registry of small companies and their products along with their contact information.

- In order to create a better product, NOPP could hold roundtable discussions about upcoming funding opportunities at appropriate conferences or technical meetings. Program managers from the participating agencies could answer questions regarding the genesis and history of the research topic in order to better inform the proposers about the agency perspectives. These types of discussions would allow for real-time networking. In order to make the discussion available to researchers not present, the sessions could be video or audio recorded and made available on the NOPP website. If the timing of a funding opportunity did not coincide with an appropriate meeting or conference, the NOPP office could host a webinar to serve the same function.

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Emerging Technologies Roundtable at Oceans '09

28 October 2009

Summary of Major Discussion

- There was recognition that the following are a few possible applications of new technologies:
 - Transfer new technology ideas to education;
 - Assist local governments in fulfilling their management responsibilities through such means as real-time data from monitoring devices; and
 - Maintenance of infrastructure at sea using Autonomous Underwater Vehicles (AUVs) and Remotely Operated Vehicles (ROVs).
- AUVs are acknowledged to be desirable tools because of their ability to make daily transects and their low cost. Participants identified battery life limits and legal challenges to be concerns with the deployment of AUVs.
- It was noted that vandalism of buoys is a problem, stemming both from intentional destruction and the nature of the marine environment. The United Nations Educational, Scientific and Cultural Organization (UNESCO) is currently setting rules regarding vandalism of ocean data buoys. NOAA representatives identified that they have reached out to the fishing industry in the past year to inform them how the buoys are important to the fishing industry because of the data buoys provide.
- Japan passed the *Basic Act on Ocean Policy* last year that requires a comprehensive plan on marine energy and marine resources to be developed within the year. A program was established to incorporate hydrothermal deposits and methane hydrates. An *in situ* experiment on extracting minerals from the deep sea bed must be completed within five years.
- Transition of military technology to civilian applications is a priority but capital investments are needed to adapt the technology to make it more cost effective. Recruiting university partners might be one way to mitigate cost.
- It was recognized that a platform should be created for the technology community to share information on developing technologies as a way to avoid duplication of effort and identify complementary efforts or parallel needs. The Marine Technology Society (MTS) could possibly serve as a host, as such a registry would be a benefit to MTS member companies. A survey of MTS members could be used to inform the development of the registry.
- Federal agencies must leverage their resources and identify existing data holdings rather than repeat effort and expenses.

- There is a national impetus for renewable energy to be developed. Certain areas on the Outer Continental Shelf are not accessible by current technology like AUVs, but relevant and affordable technology is needed now.

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Marine Spatial Planning Roundtable at Oceans '09

28 October 2009

Summary of Major Discussion

- Data driven marine spatial planning needs to be adaptive and can only be successful if it is an iterative and transparent process. Also critical to the success is the involvement of engaged stakeholders from the beginning of the process to ensure a better product.
- The multi-purpose marine cadastre is a data tool for decision making which is designed to provide an understanding of present uses and features, as well as potential future uses. All stakeholders use the same data to reach decisions. Currently, the cadastre links to registries of agency data, but the data needs to be translated into useful information which can be applied to a dynamic ocean environment. Data must also be presented in a visually appealing way and made accessible, perhaps through internet technology.
- Marine industries have concerns, including: marine spatial planning keeping pace with technology development, an additional layer of bureaucracy serving as a moratorium, being restricted from specific areas and slowing of existing planned and permitted economic activities. The concept of adaptive management incorporates uncertainty, which can make operations difficult for industry. One panelist felt that a balance was needed between adaptability and predictability.
- The current comprehensive process employed by the Minerals Management Service (MMS) for development on the Outer Continental Shelf allows for public comments and is reviewed every five years. Marine spatial planning is an extension of this process to address all industries and uses. A holistic view of the lessons learned by MMS could benefit the marine spatial planning discussion, including identification of a lead agency.
- Diverse uses can operate concurrently, but it is critical that agencies work together to identify geographic areas where concurrent use is appropriate. The Flower Gardens National Marine Sanctuary is a good example of stakeholder engagement resulting in a compromise and solution.
- Triggers can be used to identify when a plan should be adapted; examples of triggers are time, technology advancement, and scientific discoveries. The Interim Report of the Interagency Ocean Policy Task Force states that decisions affecting the nation's ocean, coasts and Great Lakes should be informed by the best available science, but guided by a precautionary approach which allows for implementation of cost-effective measures to prevent environmental degradation when there is a lack of full scientific certainty.
- The marine spatial planning discussion is related to US ratification of the UN Convention on the Law of the Sea. Industries support this action because it expands the US Exclusive Economic Zone.