

# The Answer is Engagement

IN JUNE, the President of the United States issued a presidential memorandum calling for the creation of “National Policy for the Oceans, Our Coasts, and the Great Lakes.” It lays out a timetable and structure for the development of a national ocean policy that will be critical to this country’s ability to manage the vast natural and economic resources provided by our oceans, coasts, and Great Lakes. This presidential memorandum joins with congressional actions to affirm the wise use and conservation of the global ocean, national coasts, coastal watersheds, and Great Lakes as a national priority. (For the full text of the memorandum, go to <http://edocket.access.gpo.gov/2009/E9-14338.htm>.)

The oceanography community should strongly support this presidential initiative, as well as those already provided by recent legislation, and build upon the opportunities they represent. Accomplishment of the oceanography research agenda will advance understanding of society’s impact on the ocean and the ocean’s impact on society. It is only through advances in our knowledge base that our nation can better define its relationship with the ocean. There is a national desire for improved forecasting of ocean-influenced processes with companion decision models to support

informed ecosystem-based management, improved resilience to natural hazards, and better enabled marine operations. There is a national desire for improved stewardship of our ocean resources, leading to conservation of biodiversity and enhanced ocean and human health. There is also a national desire for the United States to direct its research prowess to better understand Earth system processes and the ocean’s role in climate change. With improved understanding of global climate change, the United States will be in a position to act cooperatively in developing and implementing international ocean policy.

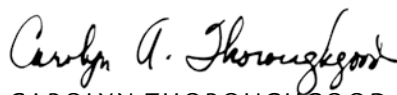
Our shared observations over time form the base for understanding our oceans, coasts, and Great Lakes. The ability to “see” into the ocean and to measure its properties improves with each passing year. Numerous documents have been prepared by the oceanography community that establish sustained ocean observing as a critical need for advancing ocean sciences. Such observations are integral to the accomplishment of the research agenda described in *Charting the Course for Ocean Science in the United States for the Next Decade* prepared by the National Science and Technology Council (NSTC) Joint Subcommittee on Ocean Science and Technology and published in January

2007. (To download a copy of this report, go to [http://ocean.ceq.gov/about/sup\\_jstost\\_prioritiesplan.html](http://ocean.ceq.gov/about/sup_jstost_prioritiesplan.html).) While some progress has been made in establishing this sustained ocean observing capability, modest federal support has not been commensurate with need.

But, let us suppose that ample funding and data are pouring forth—is the oceanographic community positioned to assimilate these data and translate them into products that address societal needs? In today’s world, even though the benefits of science and technology are generally accepted as central to modern life, there are still major conflicts between core human values and certain scientific fields—from stem cell research to—yes—climate change research. What is the best way for the scientific community to fully serve societal needs in view of such tensions? The answer has typically been through “education.” However, in this time when communications enable daily routine, I suggest that the answer is “engagement”—where there is actually a two-way dialogue between the scientist and the end user. Agricultural scientists figured out this feedback loop over a century ago with the creation of agricultural experiment stations and agricultural specialists who facilitate translation of science into practice. The National Institutes of Health is now in

the process of advancing translation of health care from bench to bedside and back with the creation of a national network of 60 clinical and translational health science centers. In both of these examples, there is bi-directional dialogue about science and technology and their products.

This issue of *Oceanography*, devoted to the Global Ocean Data Assimilation Experiment, presents some insight into how ocean research can have a positive and long-lasting impact on operational oceanography. The challenge for the oceanographic community is to determine how it can build on this experience, and examples from other fields, to institutionalize engagement between ocean science and the public. Only in this way will the future envisioned by the NSTC Joint Subcommittee on Ocean Science and Technology “in which our understanding of the world ocean, national coasts, coastal watersheds, and Great Lakes protects lives, enriches livelihoods, and enhances quality of life” be achieved.

  
CAROLYN THOROUGHGOOD  
TOS PRESIDENT

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EN-494-809

## UPCOMING EVENTS

### **From Volcanoes to Vineyards: Living with Dynamic Landscapes**

18–21 October 2009, Portland, Oregon, USA

<http://www.geosociety.org/meetings/2009>

### **Estuaries and Coasts in a Changing World:**

#### **Coastal and Estuarine Research Federation 20th Biennial Conference**

1–5 November 2009, Portland, Oregon, USA

<http://www.sgmeet.com/cerf2009>

### **American Meteorological Society 90th Annual Meeting and Exhibition**

17–21 January 2010, Atlanta, Georgia, USA

<http://www.ametsoc.org/MEET/annual>

### **2010 Ocean Sciences Meeting**

22–26 February 2010, Portland, Oregon, USA

<http://www.agu.org/meetings/os10>