

**The National Academies, Division on Earth and Life
Studies, Ocean Studies Board**

Project Title:

**An Ocean Infrastructure Strategy
for U.S. Ocean Research in 2030**

Status Report to UNOLS Council

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An Ocean Infrastructure Strategy for U.S. Ocean Research in 2030

STATEMENT OF TASK

To provide advice and a perspective from the worldwide ocean community on the types of U.S. ocean infrastructure that will facilitate research in 2030, including advice as to what criteria may be most appropriate for setting priorities.

Identify major research questions anticipated to be at the forefront of ocean science in 2030 based on national and international assessments, input from the worldwide scientific community, and ongoing research planning activities.

Define categories of infrastructure that should be included in planning for the nation's ocean research infrastructure of 2030 and that will be required to answer the major research questions of the future.

Approximate start date June 22, 2009; project duration ~24 months.

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15 Committee Participants

Dr. Eric J. Barron, National Center for Atmospheric Research, Colorado
Dr. James G. Bellingham, Monterey Bay Aquarium Research Institute, California
Dr. Emmanuel S. Boss, University of Maine
Dr. Edward A. Boyle, Massachusetts Institute of Technology
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12 Committee Sponsors

Arctic Research Commission,
Department of Energy,
Environmental Protection Agency,
Food and Drug Administration,
Joint Chiefs of Staff,
Marine Mammal Commission,
Minerals Management Service,
National Aeronautics and Space Administration,
National Institute of Environmental Health Sciences,
National Oceanic and Atmospheric Administration,
National Science Foundation,
U.S. Geological Survey.

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Take into Consideration

New scientific and technological developments - including adoption of capabilities and discoveries outside of the ocean sciences,

Interdependence of various infrastructure assets and multi-purpose or multi-user assets,

How anticipated changes in the oceans, its interactions with the atmosphere, land, sea ice, marine and terrestrial ecosystems, and humans, and commercial enterprises might affect demand for various assets and operational characteristics,

Potential use of infrastructure assets supported by Federal, State, and Local governments and by industry to collect data for multiple goals,

Potential for emerging technology to increase the substitutability of various infrastructure components, thus providing greater flexibility or surge capacity,

Potential opportunities to phase out programs or facilities in order to develop capabilities in new research areas, and

Institutional or policy barriers, if any, that may hinder the optimal use of facilities and infrastructure. This would include restrictions on the use of facilities and infrastructure by non-traditional users, including private industry, and possible ways to optimize the use of research facilities.

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The Report

Will provide advice on the criteria and processes that could be used to set priorities for the development of new ocean infrastructure or replacement of existing facilities.

It will not recommend specific new infrastructure or facility fabrication / construction investments.

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Committee Schedule / Events - Committee has had 6 meetings.

Meeting 1: 30 October 2009 Conference Call

Meeting 2: 2-4 December 2009, Washington, DC

Meeting Objectives:

Discuss study charge with representatives from the sponsoring agency

Hear from representatives of recent strategic plans, NRC studies, and task forces for future ocean directions and needs

Develop study methodology and approach

Identify information needs for subsequent meetings and workshop

Establish preliminary study outline and writing assignments

Meeting 3: 2-3 February Workshop (Ocean Infrastructure Strategy) , DC

Meeting 4: -21-24 April Tallahassee, Florida

Meeting 5: 7-9 July 2010 SIO, La Jolla, CA

Meeting 6: 27-29 September 2010; Portland, OR

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Ocean Infrastructure Strategy Workshop
February 2-3, 2010

Focus on

- Facilities** - Shore-based laboratories and stations for support of operational activities, offshore vessels such as ships and submersibles, and remote sensing platforms such as airplanes, satellites, buoys, and cabled underwater observatories.
- Hardware** - instruments, sensors, and information technology systems, and
- Technical Support** - Human resources necessary to operate and maintain facilities and hardware, and analyze and interpret the data.

An Ocean Infrastructure Strategy for U.S. Ocean Research in 2030

Report nearing completion - draft (about 85 % completed)
consisting of 5 major chapters that include:

- Introduction,
- Description of major science questions likely to drive ocean science in 2030 and related infrastructure needs,
- Past infrastructure trends,
- Criteria that should be used to set priorities for development of ocean infrastructure,
- Estimates of ways federal investments might be maximized.

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END

CALL FOR INPUT
**Attention: All Scientists Interested in the Future of Ocean
Sciences and the Infrastructure Needed to Support It**

The National Research Council's Committee on "**An Ocean Infrastructure Strategy for U.S. Ocean Research in 2030**" is seeking perspective from the worldwide ocean community on the types of U.S. ocean infrastructure that will facilitate research in 2030, including advice as to what criteria may be most appropriate for setting priorities (full committee charge can be found at dels.nas.edu/osb/infrastructure.shtml). We are especially interested in novel ideas that have not necessarily received proper attention and that are likely to need significant infrastructure to be addressed appropriately, and also seek input on which tools and infrastructure will be needed for those novel oceanographic ideas. Think big!

We request a summary (500 word limit) that includes:

- **A major scientific question**
- **The infrastructure that will be needed to address this question**
- **Pertinent citations supporting your input**

Citations are not included in the word limit, and you are welcome to provide more than one contribution. To contribute a summary, read other abstracts, and receive committee updates go to:

dels.nas.edu/osb/isforum

*Note: By submitting your input, you are providing permission to the NAS to use your summary in full or edited form on the website or in the committee report.
All input will become part of the Public Access File for this study.*

Please visit the Ocean Studies Board at dels.nas.edu/osb for more information regarding this and other National Research Council studies.

DEADLINE – January 31, 2010

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