

OCEAN PRIORITIES FRAMEWORK
NSTC Joint Subcommittee on Ocean Science and Technology
Final: 05 April 2005

By December 2006 the National Science and Technology Council (NSTC) Joint Subcommittee on Ocean Science and Technology (JSOST) will develop an interagency planning document and implementation strategy on priorities for ocean science and technology for the next 5 to 10 years.

The following framework identifies the sections of the planning document and briefly describes the nature of the items to be included in each section. This framework will guide how the JSOST proceeds in developing the full planning document over the next 18 months.

Vision

The document will begin with a vision for U.S. ocean science and technology to meet the goals of the Administration's Ocean Action Plan. The vision will link proposed science and technology development with benefits to the nation for a range of societally-relevant applications impacting quality of life, safety and security, economic growth, environmental sustainability, and education.

Challenges

The document will describe the many challenges to be addressed by ocean science and technology. It will approach these challenges by integrating the ocean-related activities expressed as capabilities, in terms such as observations, modeling, forecasting, data management and infrastructure development of many, diverse government entities into a coherent whole. It shall also emphasize the development of decision support tools.

Principles and Critical Elements

The JSOST has already begun to identify guiding principles that will be important in directing the development of the agency-wide ocean science and technology plan. Examples include:

- Use a systems approach that recognizes the complexity of oceans and human interactions, and associated challenges
- Foster innovation not only in problem-solving, but in science and technology themselves
- Optimize coordination among the agencies to cooperatively identify and address challenges
- Explicitly identify partnerships needed at all levels: among federal agencies; between federal agencies and state/local/tribal entities; between federal

- agencies and the private sector and non-governmental organizations; and between the US and other nations that share concerns and capabilities
- Incorporate socioeconomic science, as well as natural and physical science
- Seek sustainability

In addition to the important principles identified above, which may be augmented during the planning process, certain elements will be critical to the success of a U.S. ocean science and technology plan. The plan will reflect, among other things, the following:

- The oceans that affect the nation’s climate, resources, and capabilities extend beyond U.S. territory. Research, use and management of the oceans will require consideration of international interests and international collaboration.
- The Administration’s ongoing efforts to improve our nation’s math and science education will help address the need for a skilled and professional workforce and an American public well educated about the oceans. Both the U.S. Commission on Ocean Policy Final Report and the U.S. Ocean Action Plan recognize this and call for scientific and technical education and public literacy in math and science, including the oceans.
- Substantial investments in ocean science and technology made previously put us in position to synthesize substantial bodies of information. Such syntheses can serve to guide future development and decision-making.
- Many science and technology priorities directly link to ocean management needs. The JSOST will establish clear science and technology links to the Subcommittee on Integrated Management of Ocean Resources (SIMOR).
- An effective ocean science and technology strategy will utilize relevant scientific accomplishments outside of the oceanographic community to ensure the broadest scientific enterprise.

Themes

The plan will identify key themes for ocean science and technology that will be interdisciplinary to facilitate cooperation among multiple agencies and integration of their activities.

Goals

The plan will specify goals for each theme and a time frame for their achievement. The goals will reflect the specific benefits expected to result from this plan and its implementation.

Resources

The plans that are developed will, in many cases, have implications for the use or prioritization of resources. The plan will consider resources such as:

- Physical infrastructure
- Information infrastructure
- Intellectual capital

Evaluating Performance

The ocean science and technology plan will identify mechanisms to evaluate progress toward meeting the vision, including specific measures of progress toward thematic goals.

Implementation

The ocean science and technology plan will not include details of implementation, including budget, timelines and agency participation. Those details will be provided in our complementary development of an implementation strategy.