

STATEMENT OF
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BEFORE THE
HOUSE RESOURCES COMMITTEE
FISHERIES AND OCEANS SUBCOMMITTEE
ON

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Mr. Chairman, members of the subcommittee and distinguished colleagues, I want to thank you for the opportunity to address you today regarding Coastal Ocean Observation System Integration and Implementation Act of 2005. My name is Robert Winokur and I am the Technical Director for the Oceanographer of the Navy. As part of my duties I serve as the Chair for the Interagency Federal Oceanographic Facilities Committee and the Navy representative to the interagency Ocean. US Executive Committee. The Oceanographer of the Navy also serves as the Naval Deputy to the National Oceanic and Atmospheric Administration (NOAA).

The U.S. Navy has traditionally focused on understanding the ocean environment and continues to do so to provide oceanographic support to meet the Navy's war fighting needs. Today, technology has increased our ability to observe the oceans through the use of satellites, moored and drifting buoys and platforms, sea floor cables, tidal gauges, coastal radar, unmanned vehicles, directed ship surveys and shipboard observations.

As I stressed in my testimony before this subcommittee at the July 13, 2004 hearing on the status of U.S. ocean observation systems, accurate and timely ocean data are critical for national security. Advancements in ocean science and technology have enabled great progress in understanding the ocean environment; nonetheless, it is evident that more understanding is required to ensure the security of our nation. As you may know, less than ten percent of the ocean bottom has been surveyed in a sufficiently high resolution to ensure safe navigation. Effective, efficient, safe operation in the dynamic littoral/coastal zone environment is pivotal for ensuring national security. Ocean observations are a crucial component of the Navy's present strategic focus on the littoral and coastal environment.

The U.S. Navy maintains a global presence and is frequently called upon to serve as America's first response to international crises. As a result, we must be prepared to immediately respond to an emergency anywhere in the world. For speed of transit and response, as well as safety of forces, environmental knowledge is critical. The response to the tsunami that devastated Southeast Asia on December 26, 2004 demonstrated the Navy's ability to respond rapidly to humanitarian missions. A carrier task group, an expeditionary task force and a hospital relief ship were sent to the area to provide food, water and transportation to inaccessible regions as well as medical assistance. A naval oceanographic vessel and Fleet Survey Teams conducted bottom survey operations to locate potential debris obstructions that would endanger navigational safety in and out of harbors.

To support our mission the information used by the Navy relies on fusion of in-situ measurements from both tactical and dedicated environmental sensors, synoptic products, archived databases, and forecast information. In the most basic sense, tactical exploitation of the environment is an information management problem, applying technology to process, visualize, and apply the available data to make informed tactical decisions.

A thorough understanding of the marine environment is crucial to any sea-based operation. Ocean observation systems will be an essential element of accurate environmental characterization. The Navy utilizes cutting-edge ocean science and technology to fulfill its national security mission. Collaboration with other ocean agencies ensures our ability to implement an effective and coordinated system of ocean observations.

The Navy has invested heavily in the development of most of the observing tools now in use in the ocean. Many of the databases about regions of the world oceans other than U.S. waters have come from Navy-funded programs or investigators. The Navy's ocean science and technology niches in the federal funding system are in marine meteorology, small-scale ocean physics, optical oceanography, bioacoustics, coastal geosciences, and instrumentation development.

Observations from space are an essential component of the Integrated Ocean Observing System. The Navy contributes to national planning through its own satellite remote sensing systems and its involvement in the next generation National Polar-orbiting Operational Environmental Satellite System (NPOESS). The Navy currently operates two oceanographic satellite systems; GEOSAT Follow On (GFO) which is a radar altimeter that measures sea surface height, and Coriolis/Windsat, which is used to also measure sea surface wind speed and direction and is an important risk reduction program for

the future NPOESS. While both systems are designed to support Navy needs, data are being made available to civil agencies and the research community to further understanding of the ocean on global scales. In addition, the Navy also participates in collaborative international efforts, such as the Global Earth Observation System of Systems (GEOSS) and the Global Ocean Observing System (GOOS).

The Integrated Ocean Observing System, which will provide ocean data in support of both operational and research requirements, is being advanced by a number of U.S. government agencies under the auspices of the National Oceanographic Partnership Program (NOPP). Navy has been closely aligned with NOPP since the program's inception. In fact, the authorizing legislation called for the Secretary of the Navy to establish the National Oceanographic Partnership Program (NOPP) and the Secretary of the Navy served as Chairman of NOPP's National Ocean Research Leadership Council (NORLC) for the first four years and currently serves as Vice Chair. The long-term and sustained ocean observing system is being implemented and coordinated through an interagency office, Ocean.US. The U. S. Navy strongly supports Ocean.US, and, in fact, provided its first director. Ocean.US's efforts to develop an observing system of regional associations based on a national backbone ranks among the most important national ocean initiatives currently underway.

In addition, the U.S. Ocean Action Plan recognizes the significance of observing systems and calls for the implementation of a coordinated, sustained, national Integrated Ocean Observing System and Global Earth Observation System.

The Navy has extensive expertise in ocean information management and generation of operational information products, which it can apply to national ocean information management efforts. Likewise, within the context of this program the Navy has extensive expertise in turning basic and applied research to operations and will continue to coordinate with the existing and planned interagency structure on ocean and coastal data and information management issues.

The Navy has invested heavily in a national ocean infrastructure designed to maximize taxpayer investment in ocean research, development and operations. Examples of this investment include recapitalization of the national academic oceanographic research fleet, periodic review and declassification of appropriate naval oceanographic data in accordance with national policies for access by the civilian community, and participation in the international Global Ocean Data Assimilation Experiment (GODAE). The Navy is currently providing a U.S. GODAE data server operated by the Fleet Numerical Meteorology and Oceanography Center (FNMOC) in Monterey, California, which provides an integral node in the GODAE architecture.

The Navy has already partnered with other agencies and made significant funding investments in support of regional observing systems. These systems include the Gulf of Maine Ocean Observing System (GoMOOS), the Gulf of Mexico Coastal Ocean Observing System (GCOOS), the Northern Gulf of Mexico Littoral Initiative (NGLI), the Monterey Bay Innovative Coastal Ocean Observing Network (ICON), The Southeast Atlantic Coastal Ocean Observing System (SEACOOS), the Integrated Littoral Sensor Network (ILSN), Southeastern Universities Research Association Coastal Ocean Observing and Prediction (SURA/SCOOP) and the New York Harbor Observing system (NYHOS). The success of these regional systems is paving the way for a national, and ultimately an international observing system. In America's coastal waters there are many sensors already in use by commercial, academic and government activities, but getting their data into a national shared network will require a federal support structure of data management and information sharing. These regional programs represent an overview of the Navy's extensive role in contributing to coastal ocean observations.

For years the Navy mission was based on deterring the Soviet threat, which required open ocean surveillance. Today, in a different geopolitical framework, the dynamic coastal zone environment is pivotal to naval operations. The technological developments that result from performing coastal ocean observations can be utilized for advancing science and technology that can be applied globally to other systems.

The Navy supports the implementation of a truly integrated U.S. ocean observations "System of Systems" that will integrate and coordinate disparate U.S. ocean observation initiatives to produce a truly global, seamless ocean observation system. The task that lies ahead is that of smoothly incorporating existing programs into an appropriate governance structure. Another challenge lies in coordinating this transition with multiple federal agencies, state, local, academic and non-governmental stakeholders. For the effective management of ocean observation systems, diverse agency missions and requirements coupled with diversified funding sources strengthen and provide a balanced approach and structure to ensure a comprehensive ocean observing system, driven by a national goal.

The Navy's observing system needs are directed at providing the essential data, information and knowledge required to continuously describe the battlespace to support naval operations.

Within this context we are committed to being a partner in the national efforts to build and operate an Integrated Ocean Observing System that will ensure our national security and contribute to the IOOS societal goals of improving climate

change predictions, reducing public health risks, improving maritime operational safety and managing coastal resources effectively. For these reasons we remain committed to maintaining a strong role in the future planning of ocean observation systems, particularly as they relate to national security.

Governance of this system is crucial to its implementation and success. Robust, flexible, and efficient interagency mechanisms that will ensure and strengthen this interagency work are essential. As such, an interagency body should provide high-level oversight for IOOS. An interagency program office should develop plans and requirements for that interagency body's ultimate approval. Each agency that participates in IOOS brings different capabilities and areas of expertise to the program. The roles and responsibilities of each agency need to be clearly defined and explicitly outlined.

The Administration, through the Joint Subcommittee on Ocean Science and Technology (JSOST) of the National Science and Technology Council and the Committee on Ocean Policy, is currently working to address this issue. However, for the purposes of implementation and operation of IOOS, Navy recognizes the desirability of a lead civilian agency and we do not object to NOAA taking on that lead role, so long as Navy maintains clear authority on issues relating to national security.

The Navy has historically participated in interagency organizations. The Navy and the Army Corps of Engineers have been participating in the interagency process started under NOPP to define a governance structure for Ocean.. Currently, working within the framework of JSOST the Navy, representing DoD, is prepared to discuss the details of an appropriate governance structure for management of an Integrated Ocean Observing System. We are prepared to offer examples of interagency organizations that could serve as models for consideration based on our experience, recognizing that other models exist as well.

Navy is prepared to take an active role in this process, and to help formulate and implement common aspects of an integrated, sustained ocean observation system for the benefit of the nation. We look forward to working with this subcommittee and within the interagency process to establish an effective governance structure.

Thank you Mr. Chairman and I look forward to answering any questions the Subcommittee may have.