

DEPARTMENT OF DEFENSE

MEETING OF THE COMMISSION ON OCEAN POLICY

NOVEMBER 14, 2001

The Oceans Act of 2000 established the Commission on Ocean Policy with a mandate to make recommendations to the President and Congress for a coordinated and comprehensive national ocean policy covering a broad range of functions and ocean activities. To help the Commission better understand how the activities specified in the Act impact the Department of Defense's mission, the following discussion on four issues of critical importance to DoD is provided. These issues are: navigational freedom, stewardship, encroachment and ocean observation.

NAVIGATIONAL FREEDOM

The United States has long recognized the strategic importance of the oceans to the nation's security. Critical to the ability of U.S. forces to protect U.S. national security interests anywhere, anytime, are the high seas freedoms of navigation and overflight. These internationally recognized freedoms allow U.S. forces to provide a forward presence to protect our own and allied interests around the globe. They also ensure that commercial and military cargoes move freely in support of the nation's economic and military interests and that the United States always has access to important natural resources. With trading partners and markets existing worldwide, the United States has a vested interest in maintaining secure, stable lines of communication at sea throughout the world.

Like freedom of navigation, freedom of overflight permits U.S. military forces to respond in times of crisis. No country can legally deny U.S. military aircraft the right to fly over the oceans in international airspace or over international airspace. Similarly, no landing rights are required for military flight operations at sea. Thus U.S. forces can project U.S. and allied power to stabilize areas of international tension, help friends and allies, and preserve international peace and security. Nowhere is this more clearly demonstrated than with the ongoing U.S. and coalition military operations in Afghanistan in support of the international campaign against terrorism.

The United States routinely exercises the freedoms of navigation and overflight to deploy forces in furtherance of U.S. foreign policy interests. On any given day, over 100 Navy ships and submarines are underway away from their homeport, forward deployed on extended deployments or conducting local training exercises and operations. Forward-deployed DoD assets provide the President with an "on-call" military presence covering over two-thirds of the world's surface at any time and without the need for advance basing rights or prior permission from coastal states. This capability allows the President to project U.S. military power, conduct necessary surveillance, and show credible resolve without provoking war.

Our military survey fleet conducts many of the freedom of navigation challenges exercised by the U.S. Navy. Permanently deployed overseas, our 8 oceanographic survey ships collect a variety of high-resolution ocean data in direct support of military operations – while asserting our freedom to navigate the high seas.

Maritime forces are one of America’s best assets for effectively meeting emergent and changing military situations. To preserve the value of those assets, U.S. forces must be assured continued access to training and operating areas. Failure to do so will erode training and readiness to unacceptable levels and degrade our ability to respond effectively to threats as they arise. More important, it also puts U.S. soldiers, sailors, airmen and marines at risk. In weighing the balance of ocean issues to formulate an effective U.S. ocean policy, the freedoms of navigation and overflight and the training and readiness of our forces cannot be compromised.

OCEAN OBSERVATIONS

Before the United States can fully realize the strategic value – and how to be good stewards of the oceans, a comprehensive understanding of the ocean environment is required. To achieve this, the Department of Defense collects high resolution ocean data and continues to explore the ocean environment, allowing us to better understand the environment. Accordingly, the Department has invested heavily in the national environmental infrastructure, including recapitalization of the national academic oceanographic research vessel fleet (5 new or converted ships in the last decade) and enhancing the unique facilities available at the Cold Regions Research and Engineering Laboratory. The Ocean Acoustic Observatory Federation involves government and private research organizations to use data from active and retired Navy Sound Surveillance (SOSUS) stations. A significant amount of previously classified ocean data collected on the high seas has been made public and the multi-agency MEDEA group will continue to bridge the national security and civil communities for access to classified environmental data. Releasable unclassified data and products are routinely made available to the civil sector.

Data from the open ocean through coastal waters, the surf zone, and over the beach are all needed to support modern DoD operations. Some of these data are gathered remotely by satellite systems such as the National Polar-Orbiting Operational Environmental Satellite System, a cooperative program between the Departments of Defense and Commerce and NASA. This program merges DoD and Department of Commerce meteorological systems into a single national asset. The Navy’s military survey fleet collects high resolution ocean data with state of the art sensors. These vessels are critical to DoD’s capabilities to collect and analyze data. DoD operates oceanography and meteorology centers world-wide to process, model, disseminate, and archive data and products. These advanced facilities include production centers such as the Naval Oceanographic Office and the Fleet Numerical Meteorology and Oceanography Center in Monterey. The Fleet Numerical Meteorology and Oceanography Center is the primary backup to NOAA’s National Centers for Environmental Prediction, and the Air Force Weather Agency backs-up operations at NOAA’s severe storm and aviation forecast centers. The Army Corps of Engineers

participates actively in cooperative observation and research activities in our riverine and coastal areas. In addition, the Naval Oceanographic Office, in collaboration with the Marine Corps Intelligence Center provides worldwide riverine support to DoD operations. The National Ice Center, a tri-agency center involving the Departments of Defense, Commerce and Transportation, is responsible for sea and lake ice observations and forecasts for Arctic and Antarctic Oceans and their marginal seas as well as the Great Lakes and Chesapeake and Delaware Bays. The Department also develops and executes agreements with a variety of other organizations, civil agencies, and international militaries to gain access to data not otherwise available.

The Department of Defense also strongly supports the integrated, sustained ocean observation system. The system, which will provide high resolution ocean data, is being advanced by a number of U.S. government agencies under the auspices of the National Oceanographic Partnership Program (NOPP). This long-term and sustained ocean observing system will be implemented and coordinated through the NOPP interagency Ocean.US office, and will support the ocean data needs of a wide variety of users. The Ocean.US office's effort to put an integrated ocean observing system in place is among the most important national ocean initiatives currently underway and warrants the Commission's positive consideration.

STEWARDSHIP

The Department of Defense takes very seriously its responsibility to be a good steward of the ocean environment. In fact, the Navy alone invests several hundred million dollars annually in ocean-related environmental programs. The Department of Defense must, however, seek to achieve a balance in the legal regime designed to regulate interactions with the natural environment. Several examples underscore the Department's commitment to preserving our oceans:

Over the past decade, the Navy has incorporated environmentally friendly processes throughout the full lifecycle of its ships, from design through disposal. Hazardous material components, such as PCBs (polychlorinated biphenyls) and lead in equipment design have been replaced with non-hazardous or less hazardous substances whenever feasible. Pollution prevention processes have been implemented aboard ship that reduce labor, protect our people and the environment from hazardous materials, and significantly reduce the generation of associated wastes. One example is the technology our ships employ to compress and store all plastic trash, ensuring we discharge zero plastics at sea.

DoD's efforts are not limited to ship construction and design. For example, off the coast of the southeastern United States, the Navy coordinates with state and federal agencies to protect the endangered Northern Right Whale. The Navy is also leading research in assessing the effects of mankind's activity on marine mammals and has implemented aggressive marine mammal protection and recovery initiatives at the operational level. And, DoD has made environmental planning a part of exercise planning.

The Army Corps of Engineers plays a similarly significant role. For example, the Corps performs the dual role of operations, including dredging and disposal of dredged material in the ocean, and regulating and permitting all other Federal and private dredging and dredged material disposal actions in the ocean. In conjunction with the Environmental Protection Agency, the Corps has been involved in the development of ocean dumping criteria, and has been on the leading edge of biological assessment technology for a broad list of contaminants. With its navigation mission and its coastal engineering activities, the Corps has undertaken substantial research and investigations in the ocean. The Corps maintains the Coastal Engineering Research Facility at Duck, North Carolina, which has offered scientists from other Federal agencies and institutions throughout the world a permanent research pier and monitoring facility for coastal and ocean research opportunities. The Corps has performed various comprehensive studies and monitoring efforts on marine endangered species, and its engineering scientists have contributed to the knowledge and understanding of waves, tides, and sediment-current interactions in cooperation with other Federal agencies.

ENCROACHMENT

The military's environmental stewardship of its ranges and training activities has, however, come at a price -- restrictions on training, extended time away from home for service members, increased monetary expenditures, and lengthy delays in deploying weapon systems considered essential to national security. Examples of training restrictions abound: night-time training in some locations is limited to not more than one-hour per day; live fire training is curtailed and sometimes completely eliminated; and segments of training ranges are placed off-limits. In addition, numerous lawsuits have been filed against the armed services over the past several years that further negatively impact Department of Defense activities.

These challenges, which encroach on the Services' training areas, ranges and land, confront the military despite a continuing commitment of environmental stewardship – and perhaps even because of it. Many of our training areas and ranges have become sanctuaries for wildlife precisely because of our stewardship, which includes not only a substantial financial investment but also oversight and restriction on public access. Ironically, the more successful the stewardship program is, the less flexibility there is to train. In part, this is due to inconsistent interpretation of several overly broad and ambiguous laws and regulations. Ambiguity in these well-intentioned laws has led to litigation and imposition of excessive restrictions on realistic training. At this critical time in our nation's history, trends towards increasing regulation and litigation put at risk our ability to maintain the readiness our citizens expect from their military. Some litigation is inhibiting our ability to employ tactical sonar systems—critical for the execution of theater operational plans and force protection against challenging submarine threats where active sonar is an essential weapon against quiet targets.

Readiness is the foundation of the U.S. military's ability to bring forces to bear against potential adversaries of the United States. Readiness is built on a foundation of thorough, realistic training and adequately tested equipment. The building blocks of this foundation are forged on military training ranges. Testing ranges provide the means to evaluate new equipment and concepts in an environment that closely matches the conditions we anticipate experiencing in actual operations. Training ranges afford soldiers, sailors, airmen and marines the opportunity to train in an environment duplicating combat conditions as closely as possible. Anything short of this standard compromises the readiness of our forces to go into harm's way, conduct sustained operations, minimize collateral damage, and return our sons and daughters home safely.

CONCLUSION

The United States owes much of its security and prosperity to its ability to use, explore and exploit the oceans successfully and responsibly. Key to this success has been the preservation of strong maritime forces and sealift and a recognition of the critical importance of the freedoms of navigation and overflight on the high seas. More than ever, the United States must maintain free and unfettered access to the world's oceans for commercial and military purposes. U.S. national and global security demand that this task remain as a matter of urgent national priority.

DoD is a leader – worldwide – in the oceans. We invest in virtually all facets of ocean sciences: from basic and applied research, through development and transition to operational use of the data. We play a significant role in virtually every ocean system being developed today. For example, we own the Alvin submersible that has been a cornerstone of ocean research for decades; our salvage and recovery capabilities are unmatched in the civilian world. Our super-computing capabilities are second to none - we are leaders in oceanic and atmospheric modeling. Our data holdings are vast, and continue to grow. And we do all of this globally because the security of our nation requires it. Consideration of potential impacts on our national security must be integral to any discussion of the oceans.

The Importance of Ocean Observations to Naval Operations

“Understanding the oceans is fundamental to our national security, as well as to global economic and environmental well-being. A robust competency in oceanography is a core requirement and responsibility of the U.S. Navy. It is so vital to the success of naval operations that the Navy must lead in focusing national attention on ocean policy and programs.”

— Naval Oceanography Policy Statement, Chief of Naval Operations, 1995.

Successful Naval operations require mastery of the complex maritime environment, anytime, anywhere, to maximize operational effectiveness and minimize impact on platforms, weapons, and sensors. To accurately predict the battlespace environment, we rely on observations in the open ocean and littoral zones for all Naval and joint warfare missions. These observations address a variety of properties of the maritime environment, from beneath the seafloor to the top of the atmosphere. We have recognized that as a result of better atmospheric observations from space- and earth-borne sensors, our ability to predict the impact of weather on our tactical sensors and weapons systems has improved dramatically during the past four decades. Likewise, high quality ocean observations, taken more often and in more locations around the world, will yield improvements in mission planning and tactical decision aids, thus enabling the warfighter to make more informed and higher confidence decisions before and during operations.

To ensure a robust understanding of our operating environment, ocean observations must: be integrated, to link all parts of the global observation network; include remotely sensed, *in situ*, and predictive data, from a multitude of sources; be sustained, to ensure observations and forecasts are available anytime, anywhere they are needed; and, be operational, with assured accuracy and robust communications for real-time utility.

The Navy has a long history of developing and implementing complex ocean observation systems and complementary forecasting techniques. These include:

- Fixed and deployable acoustic arrays, known as the Integrated Undersea Surveillance System, deployed during the Cold War.
- Expendable bathythermograph deployment and real-time reporting by Navy warships and aircraft, used in acoustic range predictions, since World War II.
- A fleet dedicated to full-time oceanographic and hydrographic data collection for naval operations.
- Targeted deployment of drifting buoy networks in data sparse regions of the ocean, such as tropical cyclone paths in the Atlantic and Pacific Oceans and the Arctic ice pack.
- Recently declassified sea surface height observations worldwide, determined from the Navy’s GEOSAT satellite mission.
- The Master Oceanographic Observation Data Set, the largest oceanographic database in the world, containing the Navy’s ocean temperature and salinity profiles.
- Numerical ocean and weather prediction data sets, from the Modular Ocean Data Assimilation System, the Navy Operational Global Atmospheric Prediction System, and the Coupled Ocean-Atmosphere Mesoscale Prediction System.

Recognizing the vital importance to military operations, the Navy will continue to be a national leader in developing, deploying, and continually improving an *integrated, sustained, operational, global ocean observing system*.

Enclosure (1)