

**Calendar No. 161**

109TH CONGRESS }  
*1st Session* }

SENATE

{ REPORT  
109-102

OCEAN AND COASTAL MAPPING  
INTEGRATION ACT

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R E P O R T

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND  
TRANSPORTATION

ON

S. 364



JULY 13, 2005.—Ordered to be printed

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SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED NINTH CONGRESS

FIRST SESSION

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### OCEAN AND COASTAL MAPPING INTEGRATION ACT

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Mr. STEVENS, from the Committee on Commerce, Science, and Transportation, submitted the following

### R E P O R T

[To accompany S. 364]

The Committee on Commerce, Science, and Transportation, to which was referred the bill (S. 364), “A Bill to establish a program within the National Oceanic and Atmospheric Administration to integrate Federal ocean and coastal mapping activities,” having considered the same, reports favorably thereon with amendments and recommends that the bill (as amended) do pass.

#### PURPOSE OF THE BILL

S. 364, as reported, would establish within the National Oceanic and Atmospheric Administration (NOAA) a comprehensive Federal ocean and coastal mapping program for the U.S. Exclusive Economic Zone (EEZ) that will support better conservation and management of marine resources, improve decisions in the siting of ocean observing platforms, advance coastal and ocean science and the development of ocean exploration technology, and support vessel safety.

#### BACKGROUND AND NEEDS

The jurisdiction of the U.S. extends 200 miles beyond its coastline and includes the U.S. Territorial Sea and EEZ. Nearly ninety percent of this area remains unmapped by modern technologies. Improved mapping technology is necessary for a number of reasons. The U.S. marine transportation system is expected to grow exponentially over the next twenty years and a backlog of required surveys is developing. According to NOAA’s Office of Coast Survey, approximately 35,000 square nautical miles of navigationally significant U.S. waters have been designated as critical areas requiring

updated information on depth and obstructions. Improved mapping of these waters will help to minimize maritime accidents, as well as help support the national security missions of the U.S. Navy and U.S. Coast Guard. The U.S. Commission on Ocean Policy estimates that there are potentially \$1.3 trillion in resources in the form of oil, minerals, and sedentary species which could be available under United Nations Convention on the Law of the Sea provisions concerning extensions of the continental shelf. Improved data and maps of the resources available on the continental shelf could support the United States in asserting jurisdictional claims to this submarine area upon its accession to the United Nations Convention on the Law of the Sea.

Currently at least ten Federal agencies (including NOAA, the Environmental Protection Agency, the Minerals Management Service, the U.S. Army Corps of Engineers, the U.S. Coast Guard, the U.S. Fish and Wildlife Service, the National Science Foundation, the U.S. Navy, the Federal Emergency Management Agency, and the U.S. Geological Survey), in addition to coastal State and local agencies, academic institutions, and private companies, share the expensive and time-consuming responsibility of mapping, charting, and assessing living and non-living resources in U.S. waters. This creates a significant amount of overlap where different parties perform repeated surveys of the same area for different purposes. It also prevents the integration of these surveys since they differ from each other in terms of scale, resolution, projection, and reference frames. To complicate matters further, the coastal zone has the unique issue of the land-sea interface, or shoreline position, which requires seamless joining of onshore topographic maps with offshore bathymetric maps.

The U.S. Commission on Ocean Policy recommends that many of the existing Federal mapping activities be consolidated and coordinated to increase efficiency and help ensure that all necessary surveys are conducted. The Commission recommends that NOAA, which already has the responsibility of collecting hydrographic and bathymetric data and creating navigational charts for safe and efficient maritime commerce, be the lead agency in U.S. ocean and coastal mapping and charting efforts. In addition to the U.S. Commission on Ocean Policy, the National Research Council (NRC) released a study in 2004 entitled *A Geospatial Framework for the Coastal Zone* which details the national needs for coastal mapping and charting. The report was requested by NOAA, the U.S. Geological Survey, and the Environmental Protection Agency. The NRC identified the same problems with the nation's ocean and coastal mapping efforts as did the U.S. Commission on Ocean Policy, and it stated that coordination and communication among Federal agencies and integration of mapping efforts is needed.

#### SUMMARY OF PROVISIONS

S. 364, the Ocean and Coastal Mapping Integration Act, would direct NOAA to coordinate a comprehensive Federal ocean and coastal mapping program that enhances conservation and management of ocean and coastal resources, and to conduct the following activities: identify and coordinate Federal shoreline, ocean, and coastal mapping activities; build expertise in mapping technologies; set standards and protocols for testing and transferring new tech-

nologies to the private sector; and archive and distribute data and specific data products for the benefit of multiple users. Ocean and coastal mapping activities covered under the bill would include the suite of existing Federal activities: mapping, data processing, management, and archiving. Mapping activities are intended to include the areas and resources of the outer continental shelf and inshore areas—extending from coastal State waters to the territorial sea and the EEZ, as well as to areas of the outer continental shelf beyond the EEZ.

The bill would also establish an Interagency Committee on Ocean and Coastal Mapping composed of high-ranking officials in Federal agencies engaged in ocean and coastal mapping activities, with the NOAA representative acting as chair of the committee. This committee would be required to meet on a quarterly basis, and to submit a report to Congress within 18 months after enactment of this bill, and biannually thereafter, detailing Federal ocean and coastal mapping plans, efforts, and needs. Together with this committee, the Administrator of NOAA would be required to submit a plan to Congress setting forth an Integrated Mapping Initiative. This plan would be due six months from the date of enactment of this bill.

The bill provides authorization levels of \$20 million for FY2006, \$26 million for FY2007, \$32 million for FY2008, \$38 million for FY2009, and \$45 million annually for FY2010 through FY2013 for NOAA to carry out the purposes of this Act. In addition, the heads of Department of Defense, Department of Interior, Department of Homeland Security, the Environmental Protection Agency, and the National Aeronautics and Space Administration may make available up to \$10 million per fiscal year for interagency mapping activities from amounts authorized to be appropriated for such agencies.

#### LEGISLATIVE HISTORY

On February 10, 2005, Senator Inouye introduced S. 364, the Ocean and Coastal Mapping Integration Act of 2004, a bill to establish within NOAA a comprehensive Federal coastal and ocean seafloor mapping program. The bill, cosponsored by Senators Stevens, Lott, Snowe, Cantwell, Kerry, and Lautenberg, was referred to the Senate Committee on Commerce, Science, and Transportation.

On April 14, 2005, the Committee considered this bill, along with an amendment offered by Senator Vitter that makes technical changes to the bill as introduced and adds new language to increase the emphasis on private sector contracting opportunities. At the Executive Session, the Commerce Committee approved the Vitter amendment by voice vote and ordered S. 364 to be reported favorably as amended.

#### ESTIMATED COSTS

In accordance with paragraph 11(a) of rule XXVI of the Standing Rules of the Senate and section 403 of the Congressional Budget Act of 1974, the Committee provides the following cost estimate, prepared by the Congressional Budget Office:

U.S. CONGRESS,  
CONGRESSIONAL BUDGET OFFICE,  
*Washington, DC, April 22, 2005.*

Hon. TED STEVENS,  
*Chairman, Committee on Commerce, Science, and Transportation,  
U.S. Senate, Washington, DC.*

DEAR MR. CHAIRMAN: The Congressional Budget Office has prepared the enclosed cost estimate for S. 364, the Ocean and Coastal Mapping Integration act.

If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contact is Deborah Reis.

Sincerely,

DOUGLAS HOLTZ-EAKIN, *Director.*

Enclosure.

*S. 364—Ocean and Coastal Mapping Integration Act*

Summary: S. 364 would direct the National Oceanic and Atmospheric Administration (NOAA) to establish an integrated mapping program encompassing the Great Lakes, coastal state waters, territorial sea, exclusive economic zone and continental shelf of the United States. The bill also would establish an interagency committee to coordinate federal mapping of ocean and coastal areas, require an integrated mapping plan to identify and describe all mapping programs, and authorize up to three joint centers for ocean and coastal mapping to be located at colleges or universities. For these purposes, the bill would authorize the appropriation of a total of \$296 million over the 2006–2013 period.

Assuming appropriation of the amounts authorized by the bill, CBO estimates that the federal government would spend \$7 million in fiscal year 2006 and \$116 million over the 2006–2010 period to implement the legislation. The remaining \$180 million authorized would be spent after 2010, including \$135 million authorized to be appropriated between 2011 and 2013. Enacting S. 364 would not affect revenues or direct spending.

This legislation contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would impose no costs on state, local, or tribal governments.

Estimated cost to the Federal Government: S. 364 would authorize the appropriation of between \$20 million and \$45 million a year for each of fiscal years 2006 through 2013 for the new ocean and coastal mapping initiative. Of these amounts, between \$10 million and \$15 million a year would be available for research and other mapping programs to be carried out at the new ocean and coastal mapping centers.

The estimated budgetary impact of S. 364 is shown in the following table. The costs of this legislation fall within budget function 300 (natural resources and environment). For this estimate, CBO assumes that the full amounts authorized by the bill will be appropriated for each year and that outlays will follow historical spending patterns for similar NOAA programs.

	By fiscal year, in millions of dollars—				
	2006	2007	2008	2009	2010
CHANGES IN SPENDING SUBJECT TO APPROPRIATION					
Authorization Level <sup>1</sup> .....	20	26	32	38	45
Estimated Outlays .....	7	15	25	32	37

<sup>1</sup> Additional amounts, totaling \$135 million, would be authorized for appropriation over the 2011–2013 period.

Intergovernmental and private-sector impact: S. 364 contains no intergovernmental or private-sector mandates as defined in UMRA and would impose no costs on state, local, or tribal governments.

Estimate prepared by: Federal Costs: Deborah Reis; Impact on State, Local, and Tribal Governments: Sarah Puro; and Impact on the Private Sector: Craig Cammarata.

Estimate approved by: Peter H. Fontaine, Deputy Assistant Director for Budget Analysis.

#### REGULATORY IMPACT STATEMENT

In accordance with paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee provides the following evaluation of the regulatory impact of the legislation, as reported:

##### *Number of persons covered*

The reported bill would direct NOAA to coordinate a comprehensive Federal ocean and coastal mapping program that enhances conservation and management of ocean and coastal resources. It does not authorize any new regulations and therefore will not subject any individuals or businesses to new regulations.

##### *Economic impact*

The bill provides authorization levels of \$20 million for FY2006, \$26 million for FY2007, \$32 million for FY2008, \$38 million for FY2009, and \$45 million annually for FY2010 through FY2013 for NOAA to carry out the purposes of this Act. These funding levels are not expected to have an inflationary impact on the nation's economy.

##### *Privacy*

This legislation would not have any adverse impact on the personal privacy of the individuals that will be impacted by this legislation.

##### *Paperwork*

The reported bill would not increase paperwork requirements for the private sector. Those non-governmental partners that are interested in working with the Interagency Committee on Ocean and Coastal Mapping established in section 3 would likely increase their communications, data management, and technical expertise capacity related to ocean mapping.

#### SECTION-BY-SECTION ANALYSIS

##### *Section. 1. Short title*

Section 1 names the bill as the “Ocean and Coastal Mapping Integration Act”.

*Section 2. Integrated ocean and coastal mapping program*

Section 2 would require NOAA to establish a program to develop a comprehensive ocean and coastal mapping program, in conjunction with the Interagency Committee described in section 3. The goals of this program are to “enhance conservation and management of marine resources, improve decision-making regarding research priorities and the siting of research and other platforms, and advance coastal and ocean science.” The program would identify existing Federal mapping projects and encourage cooperative operational and training programs among them and with the private sector. The program would also encourage the use and development of new mapping techniques and would create standards for the transfer of new information and technology to the public.

*Section 3. Interagency Committee on Coastal and Ocean Mapping*

Section 3 would establish an Interagency Committee on Coastal and Ocean Mapping (Mapping Committee), consisting of representatives from the following 11 Federal agencies involved in ocean mapping: NOAA (whose representative would serve as chair), Chief of Naval Operations, U.S. Geological Survey, Minerals Management Service, National Science Foundation, National Geospatial-Intelligence Agency, U.S. Army Corps of Engineers, U.S. Coast Guard, EPA, Federal Emergency Management Agency, and NASA. The Mapping Committee would coordinate ocean mapping activities within and between the respective agencies, other government agencies, user groups, and representatives of the private sector.

*Section 4. NOAA integrated mapping initiative*

Section 4 would require NOAA and the Mapping Committee to develop a plan within 6 months for an integrated coastal and ocean mapping initiative, which would identify and describe mapping activities across the Federal Government, establish mapping priorities, encourage new technologies, identify resource needs, and identify a centralized mechanism for storing and processing mapping data. It would also authorize NOAA to establish 3 joint hydrographic centers for researching, developing, processing, and otherwise advancing ocean mapping capabilities. Additionally, it would direct NOAA to prepare a report developing a strategy for expanding contracting with private entities.

*Section 5. Interagency program reporting*

Section 5 would require, within 18 months and bi-annually thereafter, that the Mapping Committee issue regular reports describing the progress made in implementing the provisions of this act. The reports would include: new additions of data, priority areas needing coverage and a plan to map them, various status reports on workings of the mapping program, and a description of efforts to increase private sector contracting.

*Section 6. Authorization of appropriations*

Section 6 would authorize the following appropriations to NOAA, in addition to those appropriations authorized in section 306 of the Hydrographic Services Improvement Act of 1998 (U.S.C. 892d): \$20,000,000 for FY 2006, \$26,000,000 for FY 2007, \$32,000,000 for FY 2008, \$38,000,000 for FY 2009, and \$45,000,000 for each year



of FY 2010–2013. Of the amounts authorized for NOAA, the following amounts would be required for use in maintaining and operating the Joint Ocean and Coastal Mapping Centers outlined in Section 4: \$10,000,000 for FY 2006; \$11,000,000 for FY 2007; \$12,000,000 for FY 2008; \$13,000,000 for FY 2009; and \$15,000,000 for each year of FY 2010–2013. The provision also authorizes the Department of Defense, Department of the Interior, Department of Homeland Security, EPA, and NASA to utilize up to \$10,000,000 of their authorized funds annually for this initiative.

*Section 7. Definitions*

Section 7 provides definitions for terms used in this bill.

CHANGES IN EXISTING LAW

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, the Committee states that the bill as reported would make no change to existing law.

