

**Calendar No. 466**110TH CONGRESS  
1ST SESSION**S. 950****[Report No. 110-217]**

To develop and maintain an integrated system of coastal and ocean observations for the Nation's coasts, oceans, and Great Lakes, to improve warnings of tsunami, hurricanes, El Niño events, and other natural hazards, to enhance homeland security, to support maritime operations, to improve management of coastal and marine resources, and for other purposes.

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**IN THE SENATE OF THE UNITED STATES**

MARCH 21, 2007

Ms. SNOWE (for herself, Ms. CANTWELL, Mr. INOUE, Mr. STEVENS, Mrs. BOXER, Mr. CARDIN, Mr. KERRY, Mr. MENENDEZ, Ms. COLLINS, Mr. LAUTENBERG, Mr. LOTT, Mrs. FEINSTEIN, Mr. NELSON of Florida, Ms. MURKOWSKI, and Mr. WYDEN) introduced the following bill; which was read twice and referred to the Committee on Commerce, Science, and Transportation

NOVEMBER 2, 2007

Reported by Mr. INOUE, with an amendment

[Strike out all after the enacting clause and insert the part printed in *italie*]

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**A BILL**

To develop and maintain an integrated system of coastal and ocean observations for the Nation's coasts, oceans, and Great Lakes, to improve warnings of tsunami, hurricanes, El Niño events, and other natural hazards, to enhance homeland security, to support maritime oper-

ations, to improve management of coastal and marine resources, and for other purposes.

1        *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4        This Act may be cited as the “Coastal and Ocean  
5 Observation System Act of 2007”.

6 **SEC. 2. FINDINGS AND PURPOSES.**

7        (a) FINDINGS.—Congress finds the following:

8            (1) The United States Commission on Ocean  
9 Policy recommends a national commitment to a sus-  
10 tained and integrated coastal and ocean observing  
11 system and to coordinated research programs which  
12 would provide vital information to assist the Nation  
13 and the world in understanding, monitoring, and  
14 predicting changes to the ocean and coastal re-  
15 sources and the global climate system; enhancing  
16 homeland security; improving weather and climate  
17 forecasts; strengthening management and sustain-  
18 able use of coastal and ocean resources; improving  
19 the safety and efficiency of maritime operations; and  
20 mitigating the impacts of marine hazards.

21            (2) The continuing and potentially devastating  
22 threat posed by tsunami, hurricanes, storm surges,  
23 and other marine hazards requires immediate imple-  
24 mentation of strengthened observation and commu-

1       nications, and data management systems to provide  
2       timely detection, assessment, and warnings and to  
3       support response strategies for the millions of people  
4       living in coastal regions of the United States and  
5       throughout the world.

6               (3) Safeguarding homeland security, conducting  
7       search and rescue operations, responding to natural  
8       and manmade coastal hazards (such as oil spills and  
9       harmful algal blooms), and managing fisheries and  
10      other coastal activities each require improved under-  
11      standing and monitoring of the Nation's waters,  
12      coastlines, ecosystems, and resources, including the  
13      ability to provide rapid response teams with real-  
14      time environmental conditions necessary for their  
15      work.

16              (4) The 95,000-mile coastline of the United  
17      States, including the Great Lakes, is vital to the Na-  
18      tion's prosperity, contributing over \$117 billion to  
19      the national economy in 2000, supporting jobs for  
20      more than 200 million Americans, handling \$700  
21      billion in waterborne commerce, and supporting com-  
22      mercial and sport fisheries valued at more than \$50  
23      billion annually.

24              (5) Ensuring the effective implementation of  
25      National and State programs to protect unique

1 coastal and ocean habitats, such as wetlands and  
2 coral reefs, and living marine resources requires a  
3 sustained program of research and monitoring to  
4 understand these natural systems and detect  
5 changes that could jeopardize their long term viabil-  
6 ity.

7 (6) Many elements of a coastal and ocean ob-  
8 serving system are in place, but require national in-  
9 vestment, consolidation, completion, and integration  
10 among international, Federal, regional, State, and  
11 local elements.

12 (7) In 2003, the United States led more than  
13 50 nations in affirming the vital importance of time-  
14 ly, reliable, long-term global observations as a basis  
15 for sound decision-making, recognizing the contribu-  
16 tion of observation systems to meet national, re-  
17 gional, and global needs, and calling for strength-  
18 ened cooperation and coordination in establishing a  
19 Global Earth Observation System of Systems, of  
20 which an integrated coastal and ocean observing sys-  
21 tem is an essential part.

22 (8) Protocols and reporting for observations,  
23 measurements, and other data collection for a coast-  
24 al and ocean observing system should be standard-  
25 ized to facilitate data use and dissemination.

1           (9) Key variables, including temperature, salin-  
2           ity, sea level, surface currents, and ocean color,  
3           should be collected to address a variety of informa-  
4           tional needs.

5           (b) PURPOSES.—The purposes of this Act are to es-  
6           tablish an integrated national system of ocean, coastal,  
7           and Great Lakes observing systems to address regional  
8           and national needs for ocean information and to provide  
9           for—

10           (1) the planning, development, implementation,  
11           and maintenance of an integrated coastal and ocean  
12           observing system that provides data and information  
13           to sustain and restore healthy marine, coastal, and  
14           Great Lakes ecosystems and manage the resources  
15           they support, aid marine navigation safety and na-  
16           tional security, support economic development, en-  
17           able advances in scientific understanding of the  
18           oceans and the Great Lakes, and strengthen science  
19           education and communication;

20           (2) implementation of research, development,  
21           education, and outreach programs to improve under-  
22           standing of the marine environment and achieve the  
23           full national benefits of an integrated coastal and  
24           ocean observing system;

1           (3) implementation of a data, information man-  
2           agement, and modeling system required by all com-  
3           ponents of an integrated coastal and ocean observing  
4           system and related research to develop early warning  
5           systems to more effectively predict and mitigate im-  
6           pacts of natural hazards; improve weather and eli-  
7           mate forecasts; conserve healthy and restore de-  
8           graded coastal ecosystems; and ensure usefulness of  
9           data and information for users; and

10           (4) establishment of a network of regional asso-  
11           ciations to operate and maintain regional coastal  
12           and ocean observing systems to ensure fulfillment of  
13           national objectives at regional scales and to address  
14           state and local needs for ocean information and data  
15           products.

16 **SEC. 3. DEFINITIONS.**

17           In this Act:

18           (1) **ADMINISTRATOR.**—The term “Adminis-  
19           trator” means Administrator of the National Oce-  
20           anic and Atmospheric Administration.

21           (2) **COUNCIL.**—The term “Council” means the  
22           National Ocean Research Leadership Council estab-  
23           lished by section 7902 of title 10, United States  
24           Code.

1           (3) INTEGRATED OCEAN OBSERVING PROGRAM  
 2 OFFICE.—The term “Integrated Ocean Observing  
 3 Program Office” means a program office within the  
 4 National Oceanic and Atmospheric Administration  
 5 to integrate its ocean observing assets and imple-  
 6 ment the requirements under section 4(d).

7           (4) INTERAGENCY PROGRAM OFFICE.—The  
 8 term “Interagency Program Office” means the office  
 9 established under section 4(e).

10           (5) NATIONAL OCEANOGRAPHIC PARTNERSHIP  
 11 PROGRAM.—The term “National Oceanographic  
 12 Partnership Program” means the program estab-  
 13 lished under section 7901 of title 10, United States  
 14 Code.

15           (6) OBSERVING SYSTEM.—The term “observing  
 16 system” means the integrated coastal, ocean, and  
 17 Great Lakes observing system to be established by  
 18 the Council under section 4(a).

19           (7) SECRETARY.—The term “Secretary” means  
 20 the Secretary of Commerce, acting through the Na-  
 21 tional Oceanic and Atmospheric Administration.

22 **SEC. 4. INTEGRATED COASTAL AND OCEAN OBSERVING**  
 23 **SYSTEM.**

24           (a) ESTABLISHMENT.—The President, acting  
 25 through the Council, shall establish and maintain an inte-

1 grated system of coastal and ocean observations, data  
2 communication and management, analysis, modeling, re-  
3 search, education, and outreach designed to understand  
4 current conditions and provide data and information for  
5 the timely detection and prediction of changes occurring  
6 in the ocean, coastal and Great Lakes environment that  
7 impact the Nation's social, economic, and ecological sys-  
8 tems. The observing system shall provide for long-term,  
9 continuous and quality-controlled observations of the Na-  
10 tion's coasts, oceans, and Great Lakes in order to—

11           (1) understand the effects of human activities  
12           and natural variability on and improve the health of  
13           the Nation's coasts, oceans, and Great Lakes;

14           (2) measure, track, explain, and predict climatic  
15           and environmental changes and protect human lives  
16           and livelihoods from hazards such as tsunami, hurri-  
17           canes, storm surges, coastal erosion, levy breaches,  
18           and fluctuating water levels;

19           (3) supply critical information to marine-related  
20           businesses such as marine transportation, aqua-  
21           culture, fisheries, and offshore energy production  
22           and aid marine navigation and safety;

23           (4) support national defense and homeland se-  
24           curity efforts;

1           (5) support the sustainable use, conservation,  
2           management, and enjoyment of healthy ocean, coast-  
3           al, and Great Lakes resources, better understand the  
4           interactions of ocean processes within the coastal  
5           zone, and support implementation and refinement of  
6           ecosystem-based management and restoration;

7           (6) support the protection of critical coastal  
8           habitats, such as coral reefs and wetlands, and  
9           unique ecosystems and resources;

10          (7) educate the public about the role and im-  
11          portance of the oceans, coasts, and Great Lakes in  
12          daily life; and

13          (8) support research and development to ensure  
14          improvement to ocean, coastal, and Great Lakes ob-  
15          servation measurements and to enhance under-  
16          standing of the Nation's ocean, coastal, and Great  
17          Lakes resources.

18          (b) SYSTEM ELEMENTS.—In order to fulfill the pur-  
19          poses of this Act, the observing system shall consist of the  
20          following program elements:

21                 (1) A national program to fulfill national and  
22                 international observation priorities.

23                 (2) A network of regional associations to man-  
24                 age the regional coastal and ocean observing and in-

1 formation programs that collect, measure, and dis-  
2 seminate data and information products.

3 (3) Data management, communication, and  
4 modeling systems for the timely integration and dis-  
5 semination of data and information products from  
6 the national and regional systems.

7 (4) A research and development program con-  
8 ducted under the guidance of the Council, including  
9 projects under the National Oceanographic Partner-  
10 ship Program, consisting of the following:

11 (A) Basic research to advance knowledge  
12 of coastal and ocean systems and ensure im-  
13 provement of operational products, including re-  
14 lated infrastructure, observing technology, and  
15 information technology.

16 (B) Focused research and technology de-  
17 velopment projects to improve understanding of  
18 the relationship between the coasts and oceans  
19 and human activities.

20 (C) Large scale computing resources and  
21 research to advance modeling of coastal and  
22 ocean processes.

23 (5) A coordinated outreach, education, and  
24 training program that integrates and augments ex-  
25 isting programs (such as the National Sea Grant

1 College Program, the Centers for Ocean Sciences  
2 Education Excellence program, and the National Es-  
3 tuarine Research Reserve System), to ensure the use  
4 of data and information for improving public edu-  
5 cation and awareness of the Nation's coastal and  
6 ocean environment and building the technical exper-  
7 tise required to operate and improve the observing  
8 system.

9 (c) COUNCIL FUNCTIONS.—The Council shall serve  
10 as the oversight body for the design and implementation  
11 of all aspects of the observing system. In carrying out its  
12 responsibilities under this section, the Council shall—

13 (1) adopt plans, budgets, and standards that  
14 are developed and maintained by the Interagency  
15 Program Office in consultation with the regional as-  
16 sociations;

17 (2) coordinate the observing system with other  
18 earth observing activities including the Global Ocean  
19 Observing System and the Global Earth Observing  
20 System of Systems;

21 (3) coordinate and approve programs of intra-  
22 mural and extramural research, technology develop-  
23 ment, education, and outreach to support improve-  
24 ments to and the operation of an integrated coastal

1 and ocean observing system and to advance the un-  
2 derstanding of the oceans;

3 (4) promote development of technology and  
4 methods for improving the observing system;

5 (5) support the development of institutional  
6 mechanisms and financial instruments to further the  
7 goals of the program and provide for the capitaliza-  
8 tion of the required infrastructure;

9 (6) provide, as appropriate, support for and  
10 representation on United States delegations to inter-  
11 national meetings on coastal and ocean observing  
12 programs, including those under the jurisdiction of  
13 the International Joint Commission involving Cana-  
14 dian waters; and

15 (7) in consultation with the Secretary of State,  
16 support coordination of relevant Federal activities  
17 with those of other nations.

18 (d) LEAD FEDERAL AGENCY.—The National Oceanic  
19 and Atmospheric Administration shall be the lead Federal  
20 agency for implementation and administration of the ob-  
21 serving system and to carry out the responsibilities of this  
22 Act, in consultation with the Council, the Interagency Pro-  
23 gram Office, other Federal Agencies that maintain por-  
24 tions of the observing system and the Regional Associa-  
25 tions, shall—

1           (1) establish an Integrated Ocean Observing  
2 Program Office;

3           (2) integrate, improve, and extend existing pro-  
4 grams and research projects, and ensure that re-  
5 gional associations are integrated into the oper-  
6 ational observation system on a sustained basis;

7           (3) integrate the appropriate capabilities of the  
8 National Oceanic and Atmospheric Administration,  
9 and other appropriate centers, into the observing  
10 system for the purpose of assimilating, managing,  
11 disseminating, and archiving data from regional ob-  
12 servation systems and other observation systems;

13           (4) provide for the migration of scientific and  
14 technological advances from research and develop-  
15 ment to operational deployment;

16           (5) provide for opportunities to contract with  
17 private sector companies in designing, developing,  
18 integrating, and deploying ocean observation system  
19 elements;

20           (6) establish efficient and effective administra-  
21 tive procedures for allocation of funds among Fed-  
22 eral agencies, contractors, grantees, and regional as-  
23 sociations in a timely manner, and contingent on ap-  
24 propriations according to the budget adopted by the  
25 Council;

1           (7) develop and implement a process for the  
2           certification and assimilation into the national ocean  
3           observations network of the regional associations  
4           and their periodic review and recertification and cer-  
5           tify regional associations that meet the requirements  
6           of subsection (f); and

7           (8) develop a data management and commu-  
8           nication system, in accordance with the established  
9           standards and protocols, by which all data collected  
10          by the observing system regarding coastal waters of  
11          the United States are integrated and available.

12          (c) INTERAGENCY PROGRAM OFFICE.—

13           (1) ESTABLISHMENT.—The Council shall estab-  
14          lish an Interagency Program Office housed within  
15          the National Oceanic and Atmospheric Administra-  
16          tion.

17           (2) RESPONSIBILITIES.—The Interagency Pro-  
18          gram Office shall be responsible for program plan-  
19          ning and coordination of the implementation of the  
20          observing system.

21           (3) DUTIES.—The Interagency Program Office  
22          shall report to the Council via the Secretary and  
23          shall—

24           (A) prepare annual and long-term plans  
25          for consideration and approval by the Council

1 for the design and implementation of the ob-  
2 serving system that promote collaboration  
3 among Federal agencies and regional associa-  
4 tions in developing global, national, and re-  
5 gional observing systems, including identifica-  
6 tion and refinement of a core set of variables to  
7 be measured by all systems;

8 (B) coordinate the development of agency  
9 and regional associations priorities and budgets  
10 to implement, operate, and maintain the observ-  
11 ing systems;

12 (C) establish and refine standards and pro-  
13 tocols for data collection, management and  
14 communications, including quality control  
15 standards, in consultation with participating  
16 Federal agencies and regional associations; and

17 (D) establish a process for assuring com-  
18 pliance for all participating entities with the  
19 standards and protocols for data management  
20 and communications, including quality control  
21 standards.

22 (f) REGIONAL ASSOCIATIONS OF COASTAL AND  
23 OCEAN OBSERVING SYSTEMS.—

24 (1) The Secretary shall initiate a rulemaking  
25 proceeding to establish a process for the certification

1 of regional associations to be responsible for the de-  
2 velopment and operation of regional coastal and  
3 ocean observing systems to meet the information  
4 needs of user groups in the region while adhering to  
5 national standards. To be certified a regional asso-  
6 ciation shall meet the certification standards devel-  
7 oped by the Interagency Program Office in conjunc-  
8 tion with the regional associations and approved by  
9 the Council and shall—

10 (A) demonstrate an organizational struc-  
11 ture capable of supporting and integrating all  
12 aspects of coastal and ocean observing and in-  
13 formation programs within a region and that  
14 reflects broad representation from state and  
15 local government, commercial interests, and  
16 other users and beneficiaries of marine informa-  
17 tion;

18 (B) operate under a strategic operations  
19 and business plan that details the operation and  
20 support of regional coastal and ocean observing  
21 systems pursuant to the standards approved by  
22 the Council; and

23 (C) work with governmental entities and  
24 programs at all levels to identify and provide in-  
25 formation products of the observing system for

1 multiple users in the region to advance outreach  
2 and education; to improve coastal and fishery  
3 management, safe and efficient marine naviga-  
4 tion, weather and climate prediction; to enhance  
5 preparation for hurricanes, tsunami, and other  
6 natural hazards, and other appropriate activi-  
7 ties.

8 (2) For the purposes of this Act, employees of  
9 Federal agencies may participate in the functions of  
10 the Regional Associations.

11 (g) CIVIL LIABILITY.—For purposes of section  
12 1346(b)(1) and chapter 171 of title 28, United States  
13 Code, and chapters 309 and 311 of title 46, United States  
14 Code, any regional coastal and ocean observing system  
15 that is a designated part of a regional association certified  
16 under this section shall, with respect to tort liability aris-  
17 ing from the dissemination and use of the data, in ear-  
18 rying out the purposes of this Act, be deemed to be part  
19 of the National Oceanic and Atmospheric Administration,  
20 and any employee of such system, while operating within  
21 the scope of his or her employment in carrying out such  
22 purposes, shall be deemed to be an employee of the Gov-  
23 ernment.

1 **SEC. 5. PROCESS FOR TRANSITION FROM RESEARCH TO**  
2 **OPERATION.**

3 The National Oceanic and Atmospheric Administra-  
4 tion, in consultation with the Council, shall formulate a  
5 process by which—

6 (1) funding is made available for intramural  
7 and extramural research on new technologies for col-  
8 lecting data regarding coastal and ocean waters of  
9 the United States;

10 (2) such technologies are tested including—

11 (A) accelerated research into biological and  
12 chemical sensing techniques and satellite sen-  
13 sors for collecting such data; and

14 (B) developing technologies to improve all  
15 aspects of the observing system, especially the  
16 timeliness and accuracy of its predictive models  
17 and the usefulness of its information products;  
18 and

19 (3) funding is made available and a plan is de-  
20 veloped and executed to transition technology that  
21 has been demonstrated to be useful for the observing  
22 system is incorporated into use by the observing sys-  
23 tem.

24 **SEC. 6. INTERAGENCY FINANCING.**

25 The departments and agencies represented on the  
26 Council are authorized to participate in interagency fi-

1 nancing and share, transfer, receive, obligate, and expend  
 2 funds appropriated to any member of the Council for the  
 3 purposes of carrying out any administrative or pro-  
 4 grammatic project or activity under this Act or under the  
 5 National Oceanographic Partnership Program, including  
 6 support for the Interagency Program Office, a common  
 7 infrastructure, and system integration for a coastal and  
 8 ocean observing system. Funds may be transferred among  
 9 such departments and agencies through an appropriate in-  
 10 strument that specifies the goods, services, or space being  
 11 acquired from another Council member and the costs of  
 12 the same.

13 **SEC. 7. APPLICATION WITH OUTER CONTINENTAL SHELF**  
 14 **LANDS ACT.**

15 Nothing in this Act supersedes, or limits the author-  
 16 ity of the Secretary of the Interior under, the Outer Conti-  
 17 nental Shelf Lands Act (43 U.S.C. 1331 et seq.).

18 **SEC. 8. AUTHORIZATION OF APPROPRIATIONS.**

19 There are authorized to be appropriated to the Na-  
 20 tional Oceanic and Atmospheric Administration for the  
 21 implementation of this Act, \$150,000,000 for each of the  
 22 fiscal years 2008 through 2012 and such additional sums  
 23 as may be necessary for each of the fiscal years 2008  
 24 through 2012. The Administrator shall provide such sums  
 25 as are necessary to the regional associations certified

1 under section 4(f) for implementation of regional coastal  
2 and ocean observing systems. Sums appropriated pursuant  
3 to this section shall remain available until expended.

4 **SEC. 9. IMPLEMENTATION PLAN.**

5 Not later than 12 months after the date of the enact-  
6 ment of this Act, the Secretary shall submit to the Con-  
7 gress and the Council a plan for implementation of this  
8 Act, including for—

9 (1) coordinating activities of the Secretary  
10 under this Act with other Federal agencies; and

11 (2) distributing, to regional associations, funds  
12 available to carry out this Act.

13 **SEC. 10. REPORT TO CONGRESS.**

14 (a) REQUIREMENT.—Not later than 2 years after the  
15 date of the enactment of this Act and every 2 years there-  
16 after, the Administrator shall prepare and the President  
17 acting through the Council shall approve and transmit to  
18 the Congress a report on progress made in implementing  
19 this Act.

20 (b) CONTENTS.—The report shall include the fol-  
21 lowing:

22 (1) A description of activities carried out under  
23 the implementation plan and this Act.

24 (2) An evaluation of the effectiveness of the ob-  
25 serving system.

1           ~~(3) Benefits of the program to users of data~~  
2           ~~products resulting from the observing system (in-~~  
3           ~~cluding the general public, industry, scientists, re-~~  
4           ~~source managers, emergency responders, policy mak-~~  
5           ~~ers, and educators).~~

6           ~~(4) Recommendations concerning—~~

7           ~~(A) modifications to the observing system;~~

8           ~~and~~

9           ~~(B) funding levels for the observing system~~  
10           ~~in subsequent fiscal years.~~

11           ~~(5) The results of a periodic external inde-~~  
12           ~~pendent programmatic audit of the observing sys-~~  
13           ~~tem.~~

14   **SECTION 1. SHORT TITLE.**

15           *This Act may be cited as the “Coastal and Ocean Ob-*  
16           *servaion System Act of 2007”.*

17   **SEC. 2. FINDINGS AND PURPOSES.**

18           *(a) FINDINGS.—Congress finds the following:*

19           *(1) The United States Commission on Ocean*  
20           *Policy recommends a national commitment to a sus-*  
21           *tained and integrated coastal and ocean observing*  
22           *system and to coordinated research programs which*  
23           *would provide vital information to assist the Nation*  
24           *and the world in understanding, monitoring, and*  
25           *predicting changes to the ocean and coastal resources*

1        *and the global climate system, enhancing homeland*  
2        *security, improving weather and climate forecasts,*  
3        *strengthening management and sustainable use of*  
4        *coastal and ocean resources, improving the safety and*  
5        *efficiency of maritime operations, and mitigating the*  
6        *impacts of marine hazards.*

7            (2) *The continuing and potentially devastating*  
8        *threat posed by tsunami, hurricanes, storm surges,*  
9        *and other marine hazards requires immediate imple-*  
10       *mentation of strengthened observation and commu-*  
11       *nications, and data management systems to provide*  
12       *timely detection, assessment, and warnings and to*  
13       *support response strategies for the millions of people*  
14       *living in coastal regions of the United States and*  
15       *throughout the world.*

16           (3) *Safeguarding homeland security, conducting*  
17        *search and rescue operations, responding to natural*  
18        *and manmade coastal hazards (such as oil spills and*  
19        *harmful algal blooms), and managing fisheries and*  
20        *other coastal activities each require improved under-*  
21       *standing and monitoring of the Nation's waters,*  
22       *coastlines, ecosystems, and resources, including the*  
23       *ability to provide rapid response teams with real-time*  
24       *environmental conditions necessary for their work.*

1           (4) *The 95,000-mile coastline of the United*  
2 *States, including the Great Lakes, is vital to the Na-*  
3 *tion's prosperity, contributing over \$117 billion to the*  
4 *national economy in 2000, supporting jobs for more*  
5 *than 200 million Americans, handling \$700 billion in*  
6 *waterborne commerce, and supporting commercial*  
7 *and sport fisheries valued at more than \$50 billion*  
8 *annually.*

9           (5) *Ensuring the effective implementation of Na-*  
10 *tional and State programs to protect unique coastal*  
11 *and ocean habitats, such as wetlands and coral reefs,*  
12 *and living marine resources requires a sustained pro-*  
13 *gram of research and monitoring to understand these*  
14 *natural systems and detect changes that could jeop-*  
15 *ardize their long term viability.*

16           (6) *Many elements of a coastal and ocean observ-*  
17 *ing system are in place, but require national invest-*  
18 *ment, consolidation, completion, and integration*  
19 *among international, Federal, regional, State, and*  
20 *local elements.*

21           (7) *In 2003, the United States led more than 50*  
22 *nations in affirming the vital importance of timely,*  
23 *reliable, long-term global observations as a basis for*  
24 *sound decision-making, recognizing the contribution*  
25 *of observation systems to meet national, regional, and*

1 *global needs, and calling for strengthened cooperation*  
2 *and coordination in establishing a Global Earth Ob-*  
3 *servaion System of Systems, of which an integrated*  
4 *coastal and ocean observing system is an essential*  
5 *part.*

6 (8) *Protocols and reporting for observations,*  
7 *measurements, and other data collection for a coastal*  
8 *and ocean observing system should be standardized to*  
9 *facilitate data use and dissemination.*

10 (9) *Key variables, including temperature, salin-*  
11 *ity, sea level, surface currents, ocean color, nutrients,*  
12 *and variables, such as acidity, that may indicate the*  
13 *occurrence and impacts of ocean acidification, should*  
14 *be collected to address a variety of informational*  
15 *needs.*

16 (b) *PURPOSES.*—*The purposes of this Act are to estab-*  
17 *lish an integrated national system of ocean, coastal, and*  
18 *Great Lakes observing systems to address regional and na-*  
19 *tional needs for ocean information and to provide for—*

20 (1) *the planning, development, implementation,*  
21 *and maintenance of an integrated coastal and ocean*  
22 *observing system that provides data and information*  
23 *to sustain and restore healthy marine, coastal, and*  
24 *Great Lakes ecosystems and manage the resources*  
25 *they support, aid marine navigation safety and na-*

1        *tional security, support economic development, enable*  
2        *advances in scientific understanding of the oceans*  
3        *and the Great Lakes, and strengthen science education*  
4        *and communication;*

5            *(2) implementation of research, development,*  
6        *education, and outreach programs to improve under-*  
7        *standing of the marine environment and achieve the*  
8        *full national benefits of an integrated coastal and*  
9        *ocean observing system;*

10           *(3) implementation of a data, information man-*  
11        *agement, and modeling system required by all compo-*  
12        *nents of an integrated coastal and ocean observing*  
13        *system and related research to develop early warning*  
14        *systems to more effectively predict and mitigate im-*  
15        *pacts of natural hazards, improve weather and cli-*  
16        *mate forecasts, conserve healthy and restore degraded*  
17        *coastal ecosystems, and ensure usefulness of data and*  
18        *information for users; and*

19           *(4) establishment of a network of regional asso-*  
20        *ciations to operate and maintain regional coastal and*  
21        *ocean observing systems to ensure fulfillment of na-*  
22        *tional objectives at regional scales and to address*  
23        *State and local needs for ocean information and data*  
24        *products.*

1 **SEC. 3. DEFINITIONS.**

2 *In this Act:*

3 (1) *ADMINISTRATOR.*—The term “Adminis-  
4 trator” means Administrator of the National Oceanic  
5 and Atmospheric Administration.

6 (2) *COUNCIL.*—The term “Council” means the  
7 National Ocean Research Leadership Council estab-  
8 lished by section 7902 of title 10, United States Code.

9 (3) *INTERAGENCY OCEAN OBSERVATION COM-*  
10 *MITTEE.*—The term “Interagency Ocean Observation  
11 Committee” means the committee established under  
12 section 4(d).

13 (4) *NATIONAL OCEANOGRAPHIC PARTNERSHIP*  
14 *PROGRAM.*—The term “National Oceanographic Part-  
15 nership Program” means the program established  
16 under section 7901 of title 10, United States Code.

17 (5) *OBSERVING SYSTEM.*—The term “observing  
18 system” means the integrated coastal, ocean, and  
19 Great Lakes observing system to be established by the  
20 Council under section 4(a).

21 (6) *SECRETARY.*—The term “Secretary” means  
22 the Secretary of Commerce, acting through the Na-  
23 tional Oceanic and Atmospheric Administration.

1 **SEC. 4. INTEGRATED COASTAL AND OCEAN OBSERVING**  
2 **SYSTEM.**

3 (a) *ESTABLISHMENT.*—*The President, acting through*  
4 *the Council, shall establish and maintain an integrated sys-*  
5 *tem of coastal and ocean observations, data communication*  
6 *and management, analysis, modeling, research, education,*  
7 *and outreach designed to understand current conditions*  
8 *and provide data and information for the timely detection*  
9 *and prediction of changes occurring in the ocean, coastal*  
10 *and Great Lakes environments that impact the Nation’s so-*  
11 *cial, economic, and ecological systems. The observing system*  
12 *shall provide for long-term, continuous and quality-con-*  
13 *trolled observations of the Nation’s coasts, oceans, and Great*  
14 *Lakes in order to—*

15 (1) *understand the effects of human activities*  
16 *and natural variability on and improve the health of*  
17 *the Nation’s coasts, oceans, and Great Lakes;*

18 (2) *monitor key variables including temperature,*  
19 *salinity, sea level, surface currents, ocean color, nutri-*  
20 *ents, and variables, such as acidity, that may indi-*  
21 *cate the occurrence and impacts of ocean acidifica-*  
22 *tion;*

23 (3) *measure, track, explain, and predict climatic*  
24 *and environmental changes and protect human lives*  
25 *and livelihoods from hazards such as tsunami, hurri-*

1        *canes, storm surges, coastal erosion, levy breaches,*  
2        *and fluctuating water levels;*

3            *(4) supply critical information to marine-related*  
4        *businesses such as marine transportation, aqua-*  
5        *culture, fisheries, and offshore energy production and*  
6        *aid marine navigation and safety;*

7            *(5) support national defense and homeland secu-*  
8        *rity efforts;*

9            *(6) support the sustainable use, conservation,*  
10        *management, and enjoyment of healthy ocean, coastal,*  
11        *and Great Lakes resources, better understand the*  
12        *interactions of ocean processes within the coastal*  
13        *zone, and support implementation and refinement of*  
14        *ecosystem-based management and restoration;*

15            *(7) support the protection of critical coastal*  
16        *habitats, such as coral reefs and wetlands, and unique*  
17        *ecosystems and resources;*

18            *(8) educate the public about the role and impor-*  
19        *tance of the oceans, coasts, and Great Lakes in daily*  
20        *life; and*

21            *(9) support research and development to ensure*  
22        *improvement to ocean, coastal, and Great Lakes ob-*  
23        *servations measurements and to enhance under-*  
24        *standing of the Nation's ocean, coastal, and Great*  
25        *Lakes resources.*

1           (b) *SYSTEM ELEMENTS.*—*In order to fulfill the pur-*  
2 *poses of this Act, the observing system shall consist of the*  
3 *following program elements:*

4           (1) *A national program to fulfill national and*  
5 *international observation priorities.*

6           (2) *A network of regional associations to manage*  
7 *the regional coastal and ocean observing and informa-*  
8 *tion programs that collect, measure, and disseminate*  
9 *data and information products.*

10          (3) *Data management, communication, and*  
11 *modeling systems for the timely integration and dis-*  
12 *semination of data and information products from*  
13 *the national and regional systems.*

14          (4) *A research and development program con-*  
15 *ducted under the guidance of the Council, including*  
16 *projects under the National Oceanographic Partner-*  
17 *ship Program, consisting of the following:*

18           (A) *Basic research to advance knowledge of*  
19 *coastal and ocean systems and ensure improve-*  
20 *ment of operational products, including related*  
21 *infrastructure, observing technology, and infor-*  
22 *mation technology.*

23           (B) *Focused research and technology devel-*  
24 *opment projects to improve understanding of the*

1           *relationship between the coasts and oceans and*  
2           *human activities.*

3                   *(C) Large scale computing resources and re-*  
4           *search to advance modeling of coastal and ocean*  
5           *processes.*

6           (5) *A coordinated outreach, education, and*  
7           *training program that integrates and augments exist-*  
8           *ing programs (such as the National Sea Grant College*  
9           *Program, the Centers for Ocean Sciences Education*  
10          *Excellence program, and the National Estuarine Re-*  
11          *search Reserve System), to ensure the use of data and*  
12          *information for improving public education and*  
13          *awareness of the Nation's coastal and ocean environ-*  
14          *ment and building the technical expertise required to*  
15          *operate and improve the observing system.*

16          (c) *COUNCIL FUNCTIONS.*—*The Council shall serve as*  
17          *the oversight body for the design and implementation of all*  
18          *aspects of the observing system. In carrying out its respon-*  
19          *sibilities under this section, the Council shall—*

20                   (1) *adopt plans, budgets, and standards that are*  
21           *developed and maintained by the Interagency Ocean*  
22           *Observation Committee in consultation with the re-*  
23           *gional associations;*

24                   (2) *coordinate the observing system with other*  
25           *earth observing activities including the Global Ocean*

1 *Observing System and the Global Earth Observing*  
2 *System of Systems;*

3 (3) *coordinate and approve programs of intra-*  
4 *mural and extramural research, technology develop-*  
5 *ment, education, and outreach to support improve-*  
6 *ments to and the operation of an integrated coastal*  
7 *and ocean observing system and to advance the un-*  
8 *derstanding of the oceans;*

9 (4) *promote development of technology and meth-*  
10 *ods for improving the observing system;*

11 (5) *support the development of institutional*  
12 *mechanisms and financial instruments to further the*  
13 *goals of the program and provide for the capitaliza-*  
14 *tion of the required infrastructure;*

15 (6) *provide, as appropriate, support for and rep-*  
16 *resentation on United States delegations to inter-*  
17 *national meetings on coastal and ocean observing pro-*  
18 *grams, including those under the jurisdiction of the*  
19 *International Joint Commission involving Canadian*  
20 *waters; and*

21 (7) *in consultation with the Secretary of State,*  
22 *support coordination of relevant Federal activities*  
23 *with those of other nations.*

24 (d) *INTERAGENCY OCEAN OBSERVATION COM-*  
25 *MITTEE.—*

1           (1) *ESTABLISHMENT.*—*The Council shall estab-*  
2           *lish an Interagency Ocean Observation Committee.*

3           (2) *RESPONSIBILITIES.*—*The Interagency Ocean*  
4           *Observing Committee shall be responsible for program*  
5           *planning and coordination of the implementation of*  
6           *the observing system.*

7           (3) *DUTIES.*—*The Interagency Ocean Observing*  
8           *Committee shall report to the Council and shall—*

9                   (A) *prepare annual and long-term plans for*  
10                  *consideration and approval by the Council for*  
11                  *the design and implementation of the observing*  
12                  *system that promote collaboration among Fed-*  
13                  *eral agencies and regional associations in devel-*  
14                  *oping global, national, and regional observing*  
15                  *systems, including identification and refinement*  
16                  *of a core set of variables to be measured by all*  
17                  *systems;*

18                   (B) *coordinate the development of agency*  
19                  *and regional associations priorities and budgets*  
20                  *to implement, operate, and maintain the observ-*  
21                  *ing systems;*

22                   (C) *establish and refine standards and pro-*  
23                  *ocols for data collection, management and com-*  
24                  *munications, including quality control stand-*

1           ards, in consultation with participating Federal  
2           agencies and regional associations;

3           (D) establish a process for assuring compli-  
4           ance for all participating entities with the  
5           standards and protocols for data management  
6           and communications, including quality control  
7           standards;

8           (E) integrate, improve, and extend existing  
9           programs and research projects, and ensure that  
10          regional associations are integrated into the  
11          operational observation system on a sustained  
12          basis;

13          (F) provide for the migration of scientific  
14          and technological advances from research and de-  
15          velopment to operational deployment; and

16          (G) perform such duties as the Council may  
17          delegate.

18          (4) *IMPLEMENTATION.*—There is established an  
19          Interagency Program Coordinating Office. The Office  
20          shall be—

21                (A) located in, but is not an office of, the  
22                Department of Commerce; and

23                (B) staffed by employees of agencies rep-  
24                resented on the Interagency Ocean Observation  
25                Committee, to facilitate the Interagency Ocean

1            *Observation Committee’s responsibilities for sys-*  
2            *tem implementation, budgeting, and administra-*  
3            *tion.*

4            *(e) ROLE OF NOAA.—The National Oceanic and At-*  
5            *mospheric Administration shall provide leadership for the*  
6            *implementation and administration of the observing sys-*  
7            *tem, in consultation with the Council, the Interagency*  
8            *Ocean Observation Committee, other Federal agencies that*  
9            *maintain portions of the observing system and the regional*  
10           *associations, and shall—*

11                    *(1) establish an Integrated Ocean Observing Pro-*  
12                    *gram Office to facilitate action under the Administra-*  
13                    *tion’s leadership;*

14                    *(2) implement a merit-based funding process to*  
15                    *support the activities of regional associations;*

16                    *(3) provide opportunities for competitive con-*  
17                    *tracts and grants to design, develop, integrate, deploy,*  
18                    *and support ocean observation system elements;*

19                    *(4) have the authority to enter into and perform*  
20                    *such contracts, leases, grants, or cooperative agree-*  
21                    *ments as may be necessary to carry out the purposes*  
22                    *of this Act and on such terms as the Administrator*  
23                    *deems appropriate;*

24                    *(5) establish efficient and effective administrative*  
25                    *procedures for allocation of funds among contractors,*

1 *grantees, and regional associations in a timely man-*  
2 *ner, and contingent on appropriations according to*  
3 *the budget adopted by the Council;*

4 *(6) develop and implement a process for the cer-*  
5 *tification and assimilation into the national ocean*  
6 *observations network of the regional associations and*  
7 *their periodic review and recertification and certify*  
8 *regional associations that meet the requirements of*  
9 *subsection (f); and*

10 *(7) develop a data management and communica-*  
11 *tion system, in accordance with the established stand-*  
12 *ards and protocols, by which all data collected by the*  
13 *observing system regarding coastal waters of the*  
14 *United States are integrated and available.*

15 *(f) REGIONAL ASSOCIATIONS OF COASTAL AND OCEAN*  
16 *OBSERVING SYSTEMS.—*

17 *(1) The Secretary shall initiate a rulemaking*  
18 *proceeding to establish a process for the certification*  
19 *of regional associations to be responsible for the devel-*  
20 *opment and operation of regional coastal and ocean*  
21 *observing systems to meet the information needs of*  
22 *user groups in the region while adhering to national*  
23 *standards. To be certified a regional association shall*  
24 *meet the certification standards developed by the*  
25 *Interagency Ocean Observing Committee in conjunc-*

1        *tion with the regional associations and approved by*  
2        *the Council and shall—*

3                *(A) demonstrate an organizational structure*  
4                *capable of supporting and integrating all aspects*  
5                *of coastal and ocean observing and information*  
6                *programs within a region and that reflects broad*  
7                *representation from State and local government,*  
8                *commercial interests, and other users and bene-*  
9                *ficiaries of marine information;*

10               *(B) operate under a strategic operations*  
11               *and business plan that details the operation and*  
12               *support of regional coastal and ocean observing*  
13               *systems pursuant to the standards approved by*  
14               *the Council; and*

15               *(C) work with governmental entities and*  
16               *programs at all levels to identify and provide in-*  
17               *formation products of the observing system for*  
18               *multiple users in the region to advance outreach*  
19               *and education, to improve coastal and fishery*  
20               *management, safe and efficient marine naviga-*  
21               *tion, weather and climate prediction, to enhance*  
22               *preparation for hurricanes, tsunami, and other*  
23               *natural hazards, and other appropriate activi-*  
24               *ties.*



1           (2) *such technologies are tested including—*

2                   (A) *accelerated research into biological and*  
3                   *chemical sensing techniques and satellite sensors*  
4                   *for collecting such data; and*

5                   (B) *developing technologies to improve all*  
6                   *aspects of the observing system, especially the*  
7                   *timeliness and accuracy of its predictive models*  
8                   *and the usefulness of its information products;*  
9                   *and*

10           (3) *funding is made available and a plan is de-*  
11           *veloped and executed to transition technology that has*  
12           *been demonstrated to be useful for the observing sys-*  
13           *tem is incorporated into use by the observing system.*

14 **SEC. 6. INTERAGENCY FINANCING.**

15           *The departments and agencies represented on the*  
16           *Council are authorized to participate in interagency fi-*  
17           *nancing and share, transfer, receive, obligate, and expend*  
18           *funds appropriated to any member of the Council for the*  
19           *purposes of carrying out any administrative or pro-*  
20           *grammatic project or activity under this Act or under the*  
21           *National Oceanographic Partnership Program, including*  
22           *support for the Interagency Oceans Observation Committee,*  
23           *a common infrastructure, and system integration for a*  
24           *coastal and ocean observing system. Funds may be trans-*  
25           *ferred among such departments and agencies through an*

1 *appropriate instrument that specifies the goods, services, or*  
2 *space being acquired from another Council member and the*  
3 *costs of the same.*

4 **SEC. 7. APPLICATION WITH OTHER LAWS.**

5 *Nothing in this Act supersedes or limits the authority*  
6 *of any agency to carry out its responsibilities and missions*  
7 *under other laws.*

8 **SEC. 8. AUTHORIZATION OF APPROPRIATIONS.**

9 *There are authorized to be appropriated to the Na-*  
10 *tional Oceanic and Atmospheric Administration for the im-*  
11 *plementation of this Act, \$150,000,000 for each of fiscal*  
12 *years 2008 through 2010 and \$175,000,000 for each of fiscal*  
13 *years 2011 and 2012. At least 50 percent of these sums shall*  
14 *be allocated to the regional associations certified under sec-*  
15 *tion 4(f) for implementation of regional coastal and ocean*  
16 *observing systems.*

17 **SEC. 9. IMPLEMENTATION PLAN.**

18 *Not later than 12 months after the date of the enact-*  
19 *ment of this Act, the Secretary shall submit to the Congress*  
20 *and the Council a plan for implementation of this Act, in-*  
21 *cluding for—*

22 *(1) coordinating activities of the Secretary under*  
23 *this Act with other Federal agencies; and*

24 *(2) distributing, to regional associations, funds*  
25 *available to carry out this Act.*

1 **SEC. 10. REPORT TO CONGRESS.**

2 (a) *REQUIREMENT.*—Not later than 2 years after the  
3 date of the enactment of this Act and every 2 years there-  
4 after, the Administrator shall prepare and the President  
5 acting through the Council shall approve and transmit to  
6 the Congress a report on progress made in implementing  
7 this Act.

8 (b) *CONTENTS.*—The report shall include the following:

9 (1) A description of activities carried out under  
10 the implementation plan and this Act.

11 (2) An evaluation of the effectiveness of the ob-  
12 serving system.

13 (3) Benefits of the program to users of data  
14 products resulting from the observing system (includ-  
15 ing the general public, industry, scientists, resource  
16 managers, emergency responders, policy makers, and  
17 educators).

18 (4) Recommendations concerning—

19 (A) modifications to the observing system;

20 and

21 (B) funding levels for the observing system  
22 in subsequent fiscal years.

23 (5) The results of a periodic external inde-  
24 pendent programmatic audit of the observing system.



Calendar No. 466

110<sup>TH</sup> CONGRESS  
1<sup>ST</sup> Session

**S. 950**

[Report No. 110-217]

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## **A BILL**

To develop and maintain an integrated system of coastal and ocean observations for the Nation's coasts, oceans, and Great Lakes, to improve warnings of tsunami, hurricanes, El Niño events, and other natural hazards, to enhance homeland security, to support maritime operations, to improve management of coastal and marine resources, and for other purposes.

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NOVEMBER 2, 2007

Reported with an amendment