

115TH CONGRESS  
2D SESSION

# S. 1425

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IN THE HOUSE OF REPRESENTATIVES

JANUARY 9, 2018

Referred to the Committee on Science, Space, and Technology, and in addition to the Committee on Natural Resources, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

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## AN ACT

To reauthorize the Integrated Coastal and Ocean Observation System Act of 2009, 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,*

1 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

2 (a) SHORT TITLE.—This Act may be cited as the  
3 “Coordinated Ocean Monitoring and Research Act”.

4 (b) TABLE OF CONTENTS.—The table of contents for  
5 this Act is as follows:

- Sec. 1. Short title; table of contents.
- Sec. 2. Purposes.
- Sec. 3. Definitions.
- Sec. 4. Integrated Coastal and Ocean Observation System.
- Sec. 5. Financing and agreements.
- Sec. 6. Reports to Congress.
- Sec. 7. Public-private use policy.
- Sec. 8. Repeal of independent cost estimate.
- Sec. 9. Authorization of appropriations.
- Sec. 10. Reports and research plans.
- Sec. 11. Strategic research plan.
- Sec. 12. Stakeholder input on monitoring.
- Sec. 13. Research activities.

6 **SEC. 2. PURPOSES.**

7 Section 12302 of the Integrated Coastal and Ocean  
8 Observation System Act of 2009 (33 U.S.C. 3601) is  
9 amended to read as follows:

10 **“SEC. 12302. PURPOSES.**

11 “The purposes of this subtitle are—

12 “(1) to establish and sustain a national inte-  
13 grated System of ocean, coastal, and Great Lakes  
14 observing systems, comprised of Federal and non-  
15 Federal components coordinated at the national level  
16 by the Council and at the regional level by a network  
17 of regional coastal observing systems, and that in-  
18 cludes in situ, remote, and other coastal and ocean  
19 observation and modeling capabilities, technologies,

1 data management systems, communication systems,  
2 and product development systems, and is designed to  
3 address regional and national needs for ocean and  
4 coastal information, to gather specific data on key  
5 coastal, ocean, and Great Lakes variables, and to en-  
6 sure timely and sustained dissemination and avail-  
7 ability of these data—

8 “(A) to the public;

9 “(B) to support national defense, search  
10 and rescue operations, marine commerce, navi-  
11 gation safety, weather, climate, and marine  
12 forecasting, energy siting and production, eco-  
13 nomic development, ecosystem-based marine,  
14 coastal, and Great Lakes resource management,  
15 public safety, and public outreach and edu-  
16 cation;

17 “(C) to promote greater public awareness  
18 and stewardship of the Nation’s ocean, coastal,  
19 and Great Lakes resources and the general  
20 public welfare;

21 “(D) to provide easy access to ocean,  
22 coastal, and Great Lakes data and promote  
23 data sharing between Federal and non-Federal  
24 sources and promote public data sharing;

1           “(E) to enable advances in scientific un-  
2           derstanding to support the sustainable use, con-  
3           servation, management, and understanding of  
4           healthy ocean, coastal, and Great Lakes re-  
5           sources; and

6           “(F) to monitor and model changes in  
7           ocean chemistry;

8           “(2) to improve the Nation’s capability to meas-  
9           ure, track, observe, understand, and predict events  
10          related directly and indirectly to weather and climate  
11          change, natural climate variability, and interactions  
12          between the oceanic and atmospheric environments,  
13          including the Great Lakes; and

14          “(3) to authorize activities—

15                 “(A) to promote basic and applied research  
16                 to develop, test, and deploy innovations and im-  
17                 provements in coastal and ocean observation  
18                 technologies, including advanced observing tech-  
19                 nologies needed to address critical data gaps,  
20                 modeling systems, other scientific and techno-  
21                 logical capabilities to improve the under-  
22                 standing of weather and climate, ocean-atmos-  
23                 phere dynamics, global climate change, and the  
24                 physical, chemical, and biological dynamics of

1 the ocean, coastal and Great Lakes environ-  
2 ments; and

3 “(B) to conserve healthy and restore de-  
4 graded coastal ecosystems.”.

5 **SEC. 3. DEFINITIONS.**

6 Section 12303 of the Integrated Coastal and Ocean  
7 Observation System Act of 2009 (33 U.S.C. 3602) is  
8 amended—

9 (1) in paragraph (5), by striking “integrated  
10 into the System and are managed through States,  
11 regional organizations, universities, nongovernmental  
12 organizations, or the private sector” and inserting  
13 “managed through States, regional organizations,  
14 universities, nongovernmental organizations, or the  
15 private sector and integrated into the system by the  
16 regional coastal ocean observing system, the Na-  
17 tional Oceanic and Atmospheric Administration, or  
18 the agencies on the Interagency Ocean Observation  
19 Committee”;

20 (2) by amending paragraph (6) to read as fol-  
21 lows:

22 “(6) REGIONAL COASTAL OBSERVING SYS-  
23 TEM.—The term ‘regional coastal observing system’  
24 means an organizational body that is certified or es-  
25 tablished by contract or memorandum by the lead

1 Federal agency designated in section 12304(e)(3)  
 2 and coordinates State, Federal, local, tribal, and pri-  
 3 vate interests at a regional level with the responsi-  
 4 bility of engaging the private and public sectors in  
 5 designing, operating, and improving regional coastal  
 6 and ocean observing systems in order to ensure the  
 7 provision of data and information that meet the  
 8 needs of user groups from the respective regions.”;  
 9 and

10 (3) in paragraph (7), by striking “National  
 11 Oceanic and Atmospheric Administration” and in-  
 12 serting “Administrator”.

13 **SEC. 4. INTEGRATED COASTAL AND OCEAN OBSERVATION**  
 14 **SYSTEM.**

15 (a) SYSTEM ELEMENTS.—

16 (1) IN GENERAL.—Section 12304(b) of the In-  
 17 tegrated Coastal and Ocean Observation System Act  
 18 of 2009 (33 U.S.C. 3603(b)) is amended by striking  
 19 paragraph (1) and inserting the following:

20 “(1) IN GENERAL.—In order to fulfill the pur-  
 21 poses of this subtitle, the System shall be national  
 22 in scope and consist of—

23 “(A) Federal assets to fulfill national and  
 24 international observation missions and prior-  
 25 ities;

1           “(B) non-Federal assets, including a net-  
2 work of regional coastal observing systems iden-  
3 tified under subsection (c)(4), to fulfill regional  
4 and national observation missions and prior-  
5 ities;

6           “(C) data management, communication,  
7 and modeling systems for the timely integration  
8 and dissemination of data and information  
9 products from the System;

10           “(D) a product development system to  
11 transform observations into products in a for-  
12 mat that may be readily used and understood;  
13 and

14           “(E) a research and development program  
15 conducted under the guidance of the Council,  
16 consisting of—

17                   “(i) basic and applied research and  
18 technology development—

19                           “(I) to improve understanding of  
20 coastal and ocean systems and their  
21 relationships to human activities; and

22                           “(II) to ensure improvement of  
23 operational assets and products, in-  
24 cluding related infrastructure, observ-  
25 ing technologies, and information and

1 data processing and management  
2 technologies;

3 “(ii) an advanced observing tech-  
4 nology development program to fill gaps in  
5 technology;

6 “(iii) large scale computing resources  
7 and research to advance modeling of coast-  
8 al, ocean, and Great Lakes processes;

9 “(iv) models to improve regional  
10 weather forecasting capabilities and re-  
11 gional weather forecasting products; and

12 “(v) reviews of data collection proce-  
13 dures across regions and programs to  
14 make recommendations for data collection  
15 standards across the System to meet na-  
16 tional ocean, coastal, and Great Lakes ob-  
17 servation, applied research, and weather  
18 forecasting needs.”.

19 (2) AVAILABILITY OF DATA.—Section  
20 12304(b)(3) of such Act (33 U.S.C. 3603(b)(3)) is  
21 amended by inserting “for research and for use in  
22 the development of products to address societal  
23 needs” before the period at the end.



1           (3) COORDINATION OF NON-FEDERAL AS-  
2           SETS.—Section 12304(b)(4) of such Act (33 U.S.C.  
3           3603(b)) is amended—

4                   (A) in the paragraph heading, by striking  
5                   “NON-FEDERAL” and inserting “COORDINA-  
6                   TION OF NON-FEDERAL”; and

7                   (B) by striking “or by” and inserting “,  
8                   the regional coastal observing system, or”.

9           (b) POLICY OVERSIGHT, ADMINISTRATION, AND RE-  
10          GIONAL COORDINATION.—Section 12304(c) of the Inte-  
11          grated Coastal and Ocean Observation System Act of  
12          2009 (33 U.S.C. 3603(c)) is amended by striking para-  
13          graphs (2), (3), and (4), and inserting the following:

14                   “(2) INTERAGENCY OCEAN OBSERVATION COM-  
15          MITTEE.—

16                           “(A) ESTABLISHMENT.—The Council shall  
17                           establish or designate a committee, which shall  
18                           be known as the Interagency Ocean Observation  
19                           Committee.

20                           “(B) DUTIES.—The Interagency Ocean  
21                           Observation Committee shall—

22                                   “(i) prepare annual and long-term  
23                                   plans for consideration and approval by the  
24                                   Council for the integrated design, oper-  
25                                   ation, maintenance, enhancement, and ex-

1           pansion of the System to meet the objec-  
2           tives of this chapter and the System Plan;

3           “(ii) develop and transmit to Con-  
4           gress, along with the budget submitted by  
5           the President to Congress pursuant to sec-  
6           tion 1105(a) of title 31, United States  
7           Code, an annual coordinated, comprehen-  
8           sive budget—

9                   “(I) to operate all elements of  
10                   the System identified in subsection  
11                   (b); and

12                   “(II) to ensure continuity of data  
13                   streams from Federal and non-Fed-  
14                   eral assets;

15           “(iii) establish requirements for obser-  
16           vation data variables to be gathered by  
17           both Federal and non-Federal assets and  
18           identify, in consultation with regional in-  
19           formation coordination entities, priorities  
20           for System observations;

21           “(iv) establish and define protocols  
22           and standards for System data processing,  
23           management, collection, configuration  
24           standards, formats, and communication for

1 new and existing assets throughout the In-  
2 tegrated Ocean Observing System network;

3 “(v) develop contract requirements for  
4 each regional coastal observing system—

5 “(I) to establish eligibility for in-  
6 tegration into the System;

7 “(II) to ensure compliance with  
8 all applicable standards and protocols  
9 established by the Council; and

10 “(III) to ensure that regional ob-  
11 servations are integrated into the Sys-  
12 tem on a sustained basis;

13 “(vi) identify gaps in observation cov-  
14 erage or needs for capital improvements of  
15 both Federal assets and non-Federal as-  
16 sets;

17 “(vii) subject to the availability of ap-  
18 propriations, establish through 1 or more  
19 participating Federal agencies, in consulta-  
20 tion with the System advisory committee  
21 established under subsection (d), a com-  
22 petitive matching grant or other pro-  
23 grams—

24 “(I) to promote intramural and  
25 extramural research and development

1 of new, innovative, and emerging ob-  
2 servation technologies including test-  
3 ing and field trials; and

4 “(II) to facilitate the migration  
5 of new, innovative, and emerging sci-  
6 entific and technological advances  
7 from research and development to  
8 operational deployment;

9 “(viii) periodically—

10 “(I) review the System Plan; and

11 “(II) submit to the Council such  
12 recommendations as the Interagency  
13 Ocean Observation Committee may  
14 have for improvements to the System  
15 Plan;

16 “(ix) ensure collaboration among Fed-  
17 eral agencies participating in the activities  
18 of the Interagency Ocean Observation  
19 Committee; and

20 “(x) perform such additional duties as  
21 the Council may delegate.

22 “(3) LEAD FEDERAL AGENCY.—

23 “(A) IN GENERAL.—The National Oceanic  
24 and Atmospheric Administration shall function

1 as the lead Federal agency for the implementa-  
2 tion and administration of the System.

3 “(B) CONSULTATION REQUIRED.—In car-  
4 rying out this paragraph, the Administrator  
5 shall consult with the Council, the Interagency  
6 Ocean Observation Committee, other Federal  
7 agencies that maintain portions of the System,  
8 and the regional coastal observing systems.

9 “(C) REQUIREMENTS.—In carrying out  
10 this paragraph, the Administrator shall—

11 “(i) establish and operate an Inte-  
12 grated Ocean Observing System Program  
13 Office within the National Oceanic and At-  
14 mospheric Administration—

15 “(I) that utilizes, to the extent  
16 necessary, personnel from member  
17 agencies participating on the Inter-  
18 agency Ocean Observation Committee;  
19 and

20 “(II) oversees daily operations  
21 and coordination of the System;

22 “(ii) implement policies, protocols,  
23 and standards approved by the Council  
24 and delegated by the Interagency Ocean  
25 Observation Committee;

1           “(iii) promulgate program guide-  
2 lines—

3                   “(I) to certify and integrate re-  
4 gional associations into the System;  
5 and

6                   “(II) to provide regional coastal  
7 and ocean observation data that meet  
8 the needs of user groups from the re-  
9 spective regions;

10           “(iv) have the authority to enter into  
11 and oversee contracts, leases, grants, or co-  
12 operative agreements with non-Federal as-  
13 sets, including regional information coordi-  
14 nation entities, to support the purposes of  
15 this chapter on such terms as the Adminis-  
16 trator deems appropriate;

17           “(v) implement and maintain a merit-  
18 based, competitive funding process to sup-  
19 port non-Federal assets, including the de-  
20 velopment and maintenance of a network  
21 of regional coastal observing systems, and  
22 develop and implement a process for the  
23 periodic review and evaluation of the re-  
24 gional associations;

1           “(vi) provide opportunities for com-  
2 petitive contracts and grants for dem-  
3 onstration projects to design, develop, inte-  
4 grate, deploy, maintain, and support com-  
5 ponents of the System;

6           “(vii) establish and maintain efficient  
7 and effective administrative procedures for  
8 the timely allocation of funds among con-  
9 tractors, grantees, and non-Federal assets,  
10 including regional associations;

11           “(viii) develop and implement a proc-  
12 ess for the periodic review and evaluation  
13 of the regional coastal observing systems;

14           “(ix) formulate an annual process by  
15 which gaps in observation coverage or  
16 needs for capital improvements of Federal  
17 assets and non-Federal assets of the Sys-  
18 tem are—

19           “(I) identified by the regional as-  
20 sociations described in the System  
21 Plan, the Administrator, or other  
22 members of the System; and

23           “(II) submitted to the Inter-  
24 agency Ocean Observation Committee;

1           “(x) develop and be responsible for a  
2           data management and communication sys-  
3           tem, in accordance with standards and  
4           protocols established by the Interagency  
5           Ocean Observation Committee, by which  
6           all data collected by the System regarding  
7           ocean and coastal waters of the United  
8           States including the Great Lakes, are proc-  
9           essed, stored, integrated, and made avail-  
10          able to all end-user communities;

11          “(xi) not less frequently than once  
12          each year, submit to the Interagency  
13          Ocean Observation Committee a report on  
14          the accomplishments, operational needs,  
15          and performance of the System to con-  
16          tribute to the annual and long-term plans  
17          prepared pursuant to paragraph (2)(B)(i);

18          “(xii) develop and periodically update  
19          a plan to efficiently integrate into the Sys-  
20          tem new, innovative, or emerging tech-  
21          nologies that have been demonstrated to be  
22          useful to the System and which will fulfill  
23          the purposes of this chapter and the Sys-  
24          tem Plan; and



1           “(xiii) work with users and Regional  
2           Associations to develop products to enable  
3           real-time data sharing for decision makers,  
4           including with respect to weather fore-  
5           casting and modeling, search and rescue  
6           operations, corrosive seawater forecasts,  
7           water quality monitoring and communica-  
8           tion, and harmful algal bloom forecasting.

9           “(4) REGIONAL COASTAL OBSERVING SYS-  
10          TEMS.—

11           “(A) IN GENERAL.—A regional coastal ob-  
12           serving system operated by a Regional Associa-  
13           tion described in the System Plan may not be  
14           certified or established under this subtitle un-  
15           less it—

16           “(i) has been or shall be certified or  
17           established by contract or agreement by  
18           the Administrator;

19           “(ii) meets—

20           “(I) the certification standards  
21           and compliance procedure guidelines  
22           issued by the Administrator; and

23           “(II) the information needs of  
24           user groups in the region while adher-  
25           ing to national standards;

1           “(iii) demonstrates an organizational  
2 structure, that under funding limitations is  
3 capable of—

4           “(I) gathering required System  
5 observation data;

6           “(II) supporting and integrating  
7 all aspects of coastal and ocean ob-  
8 serving and information programs  
9 within a region; and

10          “(III) reflecting the needs of  
11 State, local, and tribal governments,  
12 commercial interests, and other users  
13 and beneficiaries of the System and  
14 other requirements specified under  
15 this subtitle and the System Plan;

16          “(iv) identifies—

17          “(I) gaps in observation coverage  
18 needs for capital improvements of  
19 Federal assets and non-Federal assets  
20 of the System; and

21          “(II) other recommendations to  
22 assist in the development of the an-  
23 nual and long-term plans prepared  
24 pursuant to paragraph (2)(B)(i) and  
25 transmits such information to the

1 Interagency Ocean Observation Com-  
2 mittee via the Program Office estab-  
3 lished under paragraph (3)(C)(i);

4 “(v) develops and operates under a  
5 strategic operational plan that will ensure  
6 the efficient and effective administration of  
7 programs and assets to support daily data  
8 observations for integration into the Sys-  
9 tem, pursuant to the standards approved  
10 by the Council;

11 “(vi) works cooperatively with govern-  
12 mental and nongovernmental entities at all  
13 levels to identify and provide information  
14 products of the System for multiple users  
15 within the service area of the regional  
16 coastal observing system; and

17 “(vii) complies with all financial over-  
18 sight requirements established by the Ad-  
19 ministrator, including requirements relat-  
20 ing to audits.

21 “(B) PARTICIPATION.—For the purposes  
22 of this title, employees of Federal agencies are  
23 permitted to be members of the governing body  
24 for the regional coastal observing systems and

1           may participate in the functions of the regional  
2           information coordination entities.”.

3           (c)   SYSTEM   ADVISORY   COMMITTEE.—Section  
4 12304(d) of the Integrated Coastal and Ocean Observa-  
5 tion System Act of 2009 (33 U.S.C. 3603(d)) is amend-  
6 ed—

7           (1) in paragraph (1), by striking “or the Inter-  
8           agency Ocean Observing Committee.” and inserting  
9           “or the Council under this subtitle”; and

10          (2) in paragraph (2)—

11               (A) in subparagraph (A), by inserting “,  
12               data sharing,” after “data management”;

13               (B) in subparagraph (C), by striking  
14               “and” at the end; and

15               (C) by striking subparagraph (D) and in-  
16               serting the following:

17                       “(D) additional priorities, including—

18                               “(i) a national surface current map-  
19                               ping network designed to improve fine  
20                               scale sea surface mapping using high fre-  
21                               quency radar technology and other emerg-  
22                               ing technologies to address national prior-  
23                               ities, including Coast Guard search and  
24                               rescue operation planning and harmful

1           algal bloom forecasting and detection  
2           that—

3                   “(I) is comprised of existing high  
4                   frequency radar and other sea surface  
5                   current mapping infrastructure oper-  
6                   ated by national programs and re-  
7                   gional associations;

8                   “(II) incorporates new high fre-  
9                   quency radar assets or other fine scale  
10                  sea surface mapping technology as-  
11                  sets, and other assets needed to fill  
12                  gaps in coverage on United States  
13                  coastlines; and

14                  “(III) follows a deployment plan  
15                  that prioritizes closing gaps in high  
16                  frequency radar infrastructure in the  
17                  United States, starting with areas  
18                  demonstrating significant sea surface  
19                  current data needs, especially in areas  
20                  where additional data will improve  
21                  Coast Guard search and rescue mod-  
22                  els;

23                  “(ii) fleet acquisition for autonomous  
24                  underwater and surface vehicles for deploy-

1           ment and data integration to fulfill the  
2           purposes of this Act;

3           “(iii) an integrative survey program  
4           for application of manned and unmanned  
5           vehicles to the real-time or near real-time  
6           collection and transmission of sea floor,  
7           water column, and sea surface data on bi-  
8           ology, chemistry, geology, physics, and hy-  
9           drography;

10          “(iv) remote sensing and data assimi-  
11          lation to develop new analytical methodolo-  
12          gies to assimilate data from the Integrated  
13          Ocean Observing System into hydro-  
14          dynamic models;

15          “(v) integrated, multi-State moni-  
16          toring to assess sources, movement, and  
17          fate of sediments in coastal regions;

18          “(vi) a multi-region marine sound  
19          monitoring system to be—

20                 “(I) planned in consultation with  
21                 the Interagency Ocean Observation  
22                 Committee, the National Oceanic and  
23                 Atmospheric Administration, the De-  
24                 partment of the Navy, and academic  
25                 research institutions; and

1                   “(II) developed, installed, and op-  
2                   erated in coordination with the Na-  
3                   tional Oceanic and Atmospheric Ad-  
4                   ministration, the Department of the  
5                   Navy, and academic research institu-  
6                   tions; and

7                   “(E) any other purpose identified by the  
8                   Administrator or the Council.”;

9                   (D) in paragraph (3)(B), by inserting  
10                  “The Administrator may stagger the terms of  
11                  the System advisory committee members.” be-  
12                  fore “Members”; and

13                  (E) in paragraph (4)—

14                   (i) in subparagraph (A), by striking  
15                   “and the Interagency Ocean Observing  
16                   Committee”; and

17                   (ii) in subparagraph (C), by striking  
18                   “Observing” and inserting “Observation”.

19                  (d) CIVIL LIABILITY.—Section 12304(e) of the Inte-  
20                  grated Coastal and Ocean Observation System Act of  
21                  2009 (33 U.S.C. 3603(e)) is amended—

22                   (1) by striking “information coordination enti-  
23                   ty” and inserting “coastal observing system”; and

1           (2) by striking “non-Federal asset or regional  
2           information coordination entity,” and inserting “re-  
3           gional coastal observing system,”.

4 **SEC. 5. FINANCING AND AGREEMENTS.**

5           Section 12305(a) of the Integrated Coastal and  
6           Ocean Observation System Act of 2009 (33 U.S.C.  
7           3604(a)) is amended to read as follows:

8           “(a) IN GENERAL.—To carry out activities under this  
9           subtitle, the Secretary of Commerce may execute an agree-  
10          ment, on a reimbursable or nonreimbursable basis, with  
11          any State or subdivision thereof, any Federal agency, any  
12          public or private organization, or any individual to carry  
13          out activities under this subtitle.”.

14 **SEC. 6. REPORTS TO CONGRESS.**

15          Section 12307 of the Integrated Coastal and Ocean  
16          Observation System Act of 2009 (33 U.S.C. 3606) is  
17          amended to read as follows:

18 **“SEC. 12307. REPORT TO CONGRESS.**

19          “(a) REQUIREMENT.—Not later than 2 years after  
20          March 30, 2009, and every 3 years thereafter, the Admin-  
21          istrator shall prepare, and the President acting through  
22          the Council shall approve and transmit to the Congress,  
23          a report on progress made in implementing this subtitle.

24          “(b) CONTENTS.—Each report required under sub-  
25          section (a) shall include—



1           “(1) a description of activities carried out under  
2 this subtitle and the System Plan;

3           “(2) an evaluation of the effectiveness of the  
4 System, including an evaluation of progress made by  
5 the Council to achieve the goals identified under the  
6 System Plan;

7           “(3) the identification of Federal and non-Fed-  
8 eral assets as determined by the Council that have  
9 been integrated into the System, including assets es-  
10 sential to the gathering of required observation data  
11 variables necessary to meet the respective missions  
12 of Council agencies;

13           “(4) a review of procurements, planned or initi-  
14 ated, by each Council agency to enhance, expand, or  
15 modernize the observation capabilities and data  
16 products provided by the System, including data  
17 management and communication subsystems;

18           “(5) a summary of the existing gaps in observa-  
19 tion infrastructure and monitoring data collection,  
20 including—

21           “(A) priorities considered by the System  
22 advisory committee;

23           “(B) the national sea surface current map-  
24 ping network;

25           “(C) coastal buoys;

- 1           “(D) ocean chemistry monitoring;
- 2           “(E) marine sound monitoring; and
- 3           “(F) autonomous underwater and surface
- 4           vehicle technology gaps;
- 5           “(6) an assessment regarding activities to inte-
- 6           grate Federal and non-Federal assets, nationally and
- 7           on the regional level, and discussion of the perform-
- 8           ance and effectiveness of regional information co-
- 9           ordination entities to coordinate regional observation
- 10          operations;
- 11          “(7) a description of benefits of the program to
- 12          users of data products resulting from the System
- 13          (including the general public, industries, scientists,
- 14          resource managers, emergency responders, policy
- 15          makers, and educators);
- 16          “(8) recommendations concerning—
- 17                  “(A) modifications to the System; and
- 18                  “(B) funding levels for the System in sub-
- 19          sequent fiscal years; and
- 20          “(9) the results of a periodic external inde-
- 21          pendent programmatic audit of the System.”.

22 **SEC. 7. PUBLIC-PRIVATE USE POLICY.**

23          Section 12308 of the Integrated Coastal and Ocean

24          Observation System Act of 2009 (33 U.S.C. 3607) is

25          amended to read as follows:

1 **“SEC. 12308. PUBLIC-PRIVATE USE POLICY.**

2       “The Council shall maintain a policy that defines  
3 processes for making decisions about the roles of the Fed-  
4 eral Government, the States, regional information coordi-  
5 nation entities, the academic community, and the private  
6 sector in providing to end-user communities environmental  
7 information, products, technologies, and services related to  
8 the System. The Administrator shall ensure that National  
9 Oceanic and Atmospheric Administration adheres to the  
10 decision making process developed by the Council regard-  
11 ing the roles of the Federal Government, the States, the  
12 regional coastal observing systems, the academic commu-  
13 nities, and the private sector in providing the end-user  
14 communities environmental information, data products,  
15 technologies, and services related to the System.”.

16 **SEC. 8. REPEAL OF INDEPENDENT COST ESTIMATE.**

17       (a) IN GENERAL.—The Integrated Coastal and  
18 Ocean Observation System Act of 2009 (33 U.S.C. 3601  
19 et seq.) is amended by striking section 12309 (33 U.S.C.  
20 3608).

21       (b) TABLE OF CONTENTS AMENDMENT.—The table  
22 of contents in section 1(b) of the Omnibus Public Land  
23 Management Act of 2009 (Public Law 111–11; 123 Stat.  
24 991) is amended by striking the item related to section  
25 12309.

1 **SEC. 9. AUTHORIZATION OF APPROPRIATIONS.**

2 There are authorized to be appropriated to the Sec-  
3 retary of Commerce \$40,200,000, for each of the fiscal  
4 years 2018 through 2021, which shall be used—

5 (1) to fulfill the purposes set forth in section  
6 12302 of the Integrated Coastal and Ocean Observa-  
7 tion System Act of 2009 (33 U.S.C. 3601); and

8 (2) to support activities identified in the annual  
9 coordinated National Integrated Coastal and Ocean  
10 Observation System budget developed by the Inter-  
11 agency Ocean Observation Committee and submitted  
12 to Congress.

13 **SEC. 10. REPORTS AND RESEARCH PLANS.**

14 Section 12404(c) of the Federal Ocean Acidification  
15 Research And Monitoring Act of 2009 (33 U.S.C.  
16 3703(c)) is amended by adding at the end the following:

17 “(4) ECONOMIC VULNERABILITY REPORT.—

18 “(A) IN GENERAL.—Not later than 2 years  
19 after the date of the enactment of the Coordi-  
20 nated Ocean Monitoring and Research Act, and  
21 every 5 years thereafter, the Subcommittee  
22 shall transmit to appropriate committees of  
23 Congress a report that—

24 “(i) is named ‘The Ocean Chemistry  
25 Coastal Community Vulnerability Assess-  
26 ment’;

1           “(ii) identifies gaps in ocean acidifica-  
2           tion monitoring by public, academic, and  
3           private assets in the network of regional  
4           coastal observing systems;

5           “(iii) identifies geographic areas which  
6           have gaps in ocean acidification research;

7           “(iv) identifies United States coastal  
8           communities, including fishing commu-  
9           nities, low-population rural communities,  
10          tribal and subsistence communities, and is-  
11          land communities, that may be impacted  
12          by ocean acidification;

13          “(v) identifies impacts of changing  
14          ocean carbonate chemistry on the commu-  
15          nities described in clause (iv), including  
16          impacts from changes in ocean and coastal  
17          marine resources that are not managed by  
18          the Federal Government;

19          “(vi) identifies gaps in understanding  
20          of the impacts of ocean acidification on  
21          economically or commercially important  
22          species, particularly those which support  
23          United States commercial, recreational,  
24          and tribal fisheries and aquaculture;

1           “(vii) identifies habitats that may be  
2 particularly vulnerable to corrosive sea  
3 water, including areas experiencing mul-  
4 tiple stressors such as hypoxia, sedimenta-  
5 tion, and harmful algal blooms;

6           “(viii) identifies areas in which exist-  
7 ing Integrated Ocean Observing System  
8 assets, including buoys and gliders, may be  
9 leveraged as platforms for the deployment  
10 of new sensors or other applicable observ-  
11 ing technologies; and

12           “(ix) is written in collaboration with  
13 the agencies responsible for carrying out  
14 this Act.

15           “(B) FORM OF REPORT.—

16           “(i) INITIAL REPORT.—The initial re-  
17 port required under subparagraph (A)  
18 shall include the information described in  
19 clauses (i) through (ix) on a national level.

20           “(ii) SUBSEQUENT REPORTS.—Each  
21 report required under subparagraph (A)  
22 after the initial report—

23           “(I) may describe the informa-  
24 tion described in clauses (i) through  
25 (ix) on a national level; or

1                   “(II) may consist of separate re-  
2                   ports for each region of the National  
3                   Oceanic and Atmospheric Administra-  
4                   tion.

5                   “(iii) REGIONAL REPORTS.—If the  
6                   Subcommittee opts to prepare a report re-  
7                   quired under subparagraph (A) as separate  
8                   regional reports under clause (ii)(II), the  
9                   Subcommittee shall submit a report for  
10                  each region of the National Oceanic and  
11                  Atmospheric Administration not less fre-  
12                  quently than once during each 5-year re-  
13                  porting period.

14                  “(C) APPROPRIATE COMMITTEES OF CON-  
15                  GRESS DEFINED.—In this paragraph and in  
16                  paragraph (5), the term ‘appropriate commit-  
17                  tees of Congress’ means the Committee on  
18                  Commerce, Science, and Transportation of the  
19                  Senate, the Committee on Science, Space, and  
20                  Technology of the House of Representatives,  
21                  and the Committee on Natural Resources of the  
22                  House of Representatives.

23                  “(5) MONITORING PRIORITIZATION PLAN.—Not  
24                  later than 180 days after the date of the submission  
25                  of the initial report under paragraph (4)(A), the

1 Subcommittee shall transmit to the appropriate com-  
2 mittees of Congress a report that develops a plan to  
3 deploy new sensors or other applicable observing  
4 technologies—

5 “(A) based on such initial report;

6 “(B) prioritized by—

7 “(i) the threat to coastal economies  
8 and ecosystems;

9 “(ii) gaps in data; and

10 “(iii) research needs; and

11 “(C) that leverage existing platforms,  
12 where possible.”.

13 **SEC. 11. STRATEGIC RESEARCH PLAN.**

14 (a) CONTENTS.—Section 12405(b) of the Federal  
15 Ocean Acidification Research And Monitoring Act of 2009  
16 (33 U.S.C. 3704(b)) is amended—

17 (1) in paragraph (8), by striking “and” at the  
18 end;

19 (2) in paragraph (9), by striking the period at  
20 the end and inserting “; and”; and

21 (3) by adding at the end the following:

22 “(10) make recommendations for research to be  
23 conducted, including in the social sciences and eco-  
24 nomics, to address the key knowledge gaps identified



1 in the economic vulnerability report conducted under  
2 section 12404(c)(4).”.

3 (b) PROGRAM ELEMENTS.—Section 12405(c) of the  
4 Federal Ocean Acidification Research And Monitoring Act  
5 of 2009 (33 U.S.C. 3704(c)) is amended by adding at the  
6 end the following:

7 “(6) Research to understand combined effects  
8 of changes in ocean chemistry, sediment delivery, hy-  
9 poxia, and harmful algal blooms and the impact  
10 these processes have on each other, and how these  
11 multiple stressors impact living marine resources  
12 and coastal ecosystems.

13 “(7) Applied research to identify adaptation  
14 strategies for species impacted by changes in ocean  
15 chemistry including vegetation-based systems, shell  
16 recycling, species and genetic diversity, applied tech-  
17 nologies, aquaculture methodologies, and manage-  
18 ment recommendations.”.

19 **SEC. 12. STAKEHOLDER INPUT ON MONITORING.**

20 Section 12406(a) of the Federal Ocean Acidification  
21 Research And Monitoring Act of 2009 (33 U.S.C.  
22 3705(a)) is amended—

23 (1) in paragraph (2), by striking “and” at the  
24 end;

1           (2) in paragraph (3), by striking the period at  
2           the end and inserting a semicolon and “and”; and

3           (3) by adding at the end the following:

4           “(4) includes an ongoing mechanism that allows  
5           potentially affected industry members, coastal stake-  
6           holders, fishery management councils and commis-  
7           sions, non-Federal resource managers, and scientific  
8           experts to provide input on monitoring needs that  
9           are necessary to support on the ground manage-  
10          ment, decision making, and adaptation related to  
11          ocean acidification.”.

12 **SEC. 13. RESEARCH ACTIVITIES.**

13          Section 12407(a) of the Federal Ocean Acidification  
14          Research And Monitoring Act of 2009 (33 U.S.C.  
15          3706(a)) is amended to read as follows:

16          “(a) RESEARCH ACTIVITIES.—The Director of the  
17          National Science Foundation shall continue to carry out  
18          research activities on ocean acidification which shall sup-  
19          port competitive, merit-based, peer-reviewed proposals for  
20          research, observatories and monitoring of ocean acidifica-  
21          tion and its impacts, including—

22                 “(1) impacts on marine organisms and marine  
23                 ecosystems;

24                 “(2) impacts on ocean, coastal, and estuarine  
25                 biogeochemistry;

1           “(3) the development of methodologies and  
2 technologies to evaluate ocean acidification and its  
3 impacts; and

4           “(4) impacts of multiple stressors on eco-  
5 systems exhibiting hypoxia, harmful algal blooms, or  
6 sediment delivery, combined with changes in ocean  
7 chemistry.”.

Passed the Senate January 8, 2018.

Attest:

JULIE E. ADAMS,

*Secretary.*