

The bill (H.R. 3759) was passed.

Mr. MCCONNELL. Mr. President, I ask unanimous consent that the motion to reconsider be considered made and laid upon the table.

The PRESIDING OFFICER. Without objection, it is so ordered.

## COORDINATED OCEAN MONITORING AND RESEARCH ACT

Mr. MCCONNELL. Mr. President, I ask unanimous consent that the Senate proceed to the immediate consideration of Calendar No. 265, S. 1425.

The PRESIDING OFFICER. The clerk will report the bill by title.

The senior assistant legislative clerk read as follows:

A bill (S. 1425) to reauthorize the Integrated Coastal and Ocean Observation System Act of 2009, and for other purposes.

There being no objection, the Senate proceeded to consider the bill, which had been reported from the Committee on Commerce, Science, and Transportation, with an amendment to strike all after the enacting clause and insert in lieu thereof the following:

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

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

(b) **TABLE OF CONTENTS.**—The table of contents for 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.

### SEC. 2. PURPOSES.

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

#### “SEC. 12302. PURPOSES.

“The purposes of this subtitle are—

“(1) to establish and sustain a national integrated System of ocean, coastal, and Great Lakes observing systems, comprised of Federal and non-Federal components coordinated at the national level by the Council and at the regional level by a network of regional coastal observing systems, and that includes in situ, remote, and other coastal and ocean observation and modeling capabilities, technologies, data management systems, communication systems, and product development systems, and is designed to address regional and national needs for ocean and coastal information, to gather specific data on key coastal, ocean, and Great Lakes variables, and to ensure timely and sustained dissemination and availability of these data—

“(A) to the public;

“(B) to support national defense, search and rescue operations, marine commerce, navigation safety, weather, climate, and marine forecasting, energy siting and production, economic development, ecosystem-based marine, coastal, and Great Lakes resource management, public safety, and public outreach and education;

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

“(D) to provide easy access to ocean, coastal, and Great Lakes data and promote data sharing

between Federal and non-Federal sources and promote public data sharing;

“(E) to enable advances in scientific understanding to support the sustainable use, conservation, management, and understanding of healthy ocean, coastal, and Great Lakes resources; and

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

“(2) to improve the Nation’s capability to measure, track, observe, understand, and predict events related directly and indirectly to weather and climate change, natural climate variability, and interactions between the oceanic and atmospheric environments, including the Great Lakes; and

“(3) to authorize activities—

“(A) to promote basic and applied research to develop, test, and deploy innovations and improvements in coastal and ocean observation technologies, including advanced observing technologies needed to address critical data gaps, modeling systems, other scientific and technological capabilities to improve the understanding of weather and climate, ocean-atmosphere dynamics, global climate change, and the physical, chemical, and biological dynamics of the ocean, coastal and Great Lakes environments; and

“(B) to conserve healthy and restore degraded coastal ecosystems.”.

### SEC. 3. DEFINITIONS.

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

(1) in paragraph (5), by striking “integrated into the System and are managed through States, regional organizations, universities, nongovernmental organizations, or the private sector” and inserting “managed through States, regional organizations, universities, nongovernmental organizations, or the private sector and integrated into the system by the regional coastal ocean observing system, the National Oceanic and Atmospheric Administration, or the agencies on the Interagency Ocean Observation Committee”; and

(2) by amending paragraph (6) to read as follows:

“(6) **REGIONAL COASTAL OBSERVING SYSTEM.**—The term “regional coastal observing system” means an organizational body that is certified or established by contract or memorandum by the lead Federal agency designated in section 12304(c)(3) and coordinates State, Federal, local, tribal, and private interests at a regional level with the responsibility of engaging the private and public sectors in designing, operating, and improving regional coastal and ocean observing systems in order to ensure the provision of data and information that meet the needs of user groups from the respective regions.”; and

(3) in paragraph (7), by striking “National Oceanic and Atmospheric Administration” and inserting “Administrator”.

### SEC. 4. INTEGRATED COASTAL AND OCEAN OBSERVATION SYSTEM.

(a) **SYSTEM ELEMENTS.**—

(1) **IN GENERAL.**—Section 12304(b) of the Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. 3603(b)) is amended by striking paragraph (1) and inserting the following:

“(1) **IN GENERAL.**—In order to fulfill the purposes of this subtitle, the System shall be national in scope and consist of—

“(A) Federal assets to fulfill national and international observation missions and priorities;

“(B) non-Federal assets, including a network of regional coastal observing systems identified under subsection (c)(4), to fulfill regional and national observation missions and priorities;

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

“(D) a product development system to transform observations into products in a format that may be readily used and understood; and

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

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

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

“(II) to ensure improvement of operational assets and products, including related infrastructure, observing technologies, and information and data processing and management technologies;

“(ii) an advanced observing technology development program to fill gaps in technology;

“(iii) large scale computing resources and research to advance modeling of coastal, ocean, and Great Lakes processes;

“(iv) models to improve regional weather forecasting capabilities and regional weather forecasting products; and

“(v) reviews of data collection procedures across regions and programs to make recommendations for data collection standards across the System to meet national ocean, coastal, and Great Lakes observation, applied research, and weather forecasting needs.”.

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

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

(A) in the paragraph heading, by striking “NON-FEDERAL” and inserting “COORDINATION OF NON-FEDERAL”; and

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

(b) **POLICY OVERSIGHT, ADMINISTRATION, AND REGIONAL COORDINATION.**—Section 12304(c) of the Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. 3603(c)) is amended by striking paragraphs (2), (3), and (4), and inserting the following:

“(2) **INTERAGENCY OCEAN OBSERVATION COMMITTEE.**—

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

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

“(i) prepare annual and long-term plans for consideration and approval by the Council for the integrated design, operation, maintenance, enhancement, and expansion of the System to meet the objectives of this chapter and the System Plan;

“(ii) develop and transmit to Congress, along with the budget submitted by the President to Congress pursuant to section 1105(a) of title 31, United States Code, an annual coordinated, comprehensive budget—

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

“(II) to ensure continuity of data streams from Federal and non-Federal assets;

“(iii) establish requirements for observation data variables to be gathered by both Federal and non-Federal assets and identify, in consultation with regional information coordination entities, priorities for System observations;

“(iv) establish and define protocols and standards for System data processing, management, collection, configuration standards, formats, and communication for new and existing assets throughout the Integrated Ocean Observing System network;

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

“(I) to establish eligibility for integration into the System;

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

“(III) to ensure that regional observations are integrated into the System on a sustained basis;”

“(vi) identify gaps in observation coverage or needs for capital improvements of both Federal assets and non-Federal assets;

“(vii) subject to the availability of appropriations, establish through 1 or more participating Federal agencies, in consultation with the System advisory committee established under subsection (d), a competitive matching grant or other programs—

“(I) to promote intramural and extramural research and development of new, innovative, and emerging observation technologies including testing and field trials; and

“(II) to facilitate the migration of new, innovative, and emerging scientific and technological advances from research and development to operational deployment;

“(viii) periodically—

“(I) review the System Plan; and

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

“(ix) ensure collaboration among Federal agencies participating in the activities of the Interagency Ocean Observation Committee; and

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

“(3) LEAD FEDERAL AGENCY.—

“(A) IN GENERAL.—The National Oceanic and Atmospheric Administration shall function as the lead Federal agency for the implementation and administration of the System.

“(B) CONSULTATION REQUIRED.—In carrying out this paragraph, the Administrator shall consult with the Council, the Interagency Ocean Observation Committee, other Federal agencies that maintain portions of the System, and the regional coastal observing systems.

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

“(i) establish and operate an Integrated Ocean Observing System Program Office within the National Oceanic and Atmospheric Administration—

“(I) that utilizes, to the extent necessary, personnel from member agencies participating on the Interagency Ocean Observation Committee; and

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

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

“(iii) promulgate program guidelines—

“(I) to certify and integrate regional associations into the System; and

“(II) to provide regional coastal and ocean observation data that meet the needs of user groups from the respective regions;

“(iv) have the authority to enter into and oversee contracts, leases, grants, or cooperative agreements with non-Federal assets, including regional information coordination entities, to support the purposes of this chapter on such terms as the Administrator deems appropriate;

“(v) implement and maintain a merit-based, competitive funding process to support non-Federal assets, including the development and maintenance of a network of regional coastal observing systems, and develop and implement a process for the periodic review and evaluation of the regional associations;

“(vi) provide opportunities for competitive contracts and grants for demonstration projects to design, develop, integrate, deploy, maintain, and support components of the System;

“(vii) establish and maintain efficient and effective administrative procedures for the timely allocation of funds among contractors, grantees, and non-Federal assets, including regional associations;

“(viii) develop and implement a process for the periodic review and evaluation of the regional coastal observing systems;

“(ix) formulate an annual process by which gaps in observation coverage or needs for capital improvements of Federal assets and non-Federal assets of the System are—

“(I) identified by the regional associations described in the System Plan, the Administrator, or other members of the System; and

“(II) submitted to the Interagency Ocean Observation Committee;

“(x) develop and be responsible for a data management and communication system, in accordance with standards and protocols established by the Interagency Ocean Observation Committee, by which all data collected by the System regarding ocean and coastal waters of the United States including the Great Lakes, are processed, stored, integrated, and made available to all end-user communities;

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

“(xii) develop and periodically update a plan to efficiently integrate into the System new, innovative, or emerging technologies that have been demonstrated to be useful to the System and which will fulfill the purposes of this chapter and the System Plan; and

“(xiii) work with users and Regional Associations to develop products to enable real-time data sharing for decision makers, including with respect to weather forecasting and modeling, search and rescue operations, corrosive seawater forecasts, water quality monitoring and communication, and harmful algal bloom forecasting.

“(4) REGIONAL COASTAL OBSERVING SYSTEMS.—

“(A) IN GENERAL.—A regional coastal observing system operated by a Regional Association described in the System Plan may not be certified or established under this subtitle unless it—

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

“(ii) meets—

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

“(II) the information needs of user groups in the region while adhering to national standards;

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

“(I) gathering required System observation data;

“(II) supporting and integrating all aspects of coastal and ocean observing and information programs within a region; and

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

“(iv) identifies—

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

“(II) other recommendations to assist in the development of the annual and long-term plans prepared pursuant to paragraph (2)(B)(i) and transmits such information to the Interagency Ocean Observation Committee via the Program Office established under paragraph (3)(C)(i);

“(v) develops and operates under a strategic operational plan that will ensure the efficient and effective administration of programs and assets to support daily data observations for integration into the System, pursuant to the standards approved by the Council;

“(vi) works cooperatively with governmental and nongovernmental entities at all levels to identify and provide information products of the System for multiple users within the service area of the regional coastal observing system; and

“(vii) complies with all financial oversight requirements established by the Administrator, including requirements relating to audits.

“(B) PARTICIPATION.—For the purposes of this title, employees of Federal agencies are permitted to be members of the governing body for the regional coastal observing systems and may participate in the functions of the regional information coordination entities.”

(c) SYSTEM ADVISORY COMMITTEE.—Section 12304(d) of the Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. 3603(d)) is amended—

(1) in paragraph (1), by striking “or the Interagency Ocean Observing Committee.” and inserting “or the Council under this subtitle”; and

(2) in paragraph (2)—

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

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

(C) by striking subparagraph (D) and inserting the following:

“(D) additional priorities, including—

“(i) a national surface current mapping network designed to improve fine scale sea surface mapping using high frequency radar technology and other emerging technologies to address national priorities, including Coast Guard search and rescue operation planning and harmful algal bloom forecasting and detection that—

“(I) is comprised of existing high frequency radar and other sea surface current mapping infrastructure operated by national programs and regional associations;

“(II) incorporates new high frequency radar assets or other fine scale sea surface mapping technology assets, and other assets needed to fill gaps in coverage on United States coastlines; and

“(III) follows a deployment plan that prioritizes closing gaps in high frequency radar infrastructure in the United States, starting with areas demonstrating significant sea surface current data needs, especially in areas where additional data will improve Coast Guard search and rescue models;

“(ii) fleet acquisition for autonomous underwater and surface vehicles for deployment and data integration to fulfill the purposes of this Act;

“(iii) an integrative survey program for application of manned and unmanned vehicles to the real-time or near real-time collection and transmission of sea floor, water column, and sea surface data on biology, chemistry, geology, physics, and hydrography;

“(iv) remote sensing and data assimilation to develop new analytical methodologies to assimilate data from the Integrated Ocean Observing System into hydrodynamic models;

“(v) integrated, multi-State monitoring to assess sources, movement, and fate of sediments in coastal regions;

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

“(I) planned in consultation with the Interagency Ocean Observation Committee, the National Oceanic and Atmospheric Administration, the Department of the Navy, and academic research institutions; and

“(II) developed, installed, and operated in coordination with the National Oceanic and Atmospheric Administration, the Department of the Navy, and academic research institutions; and

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

(D) in paragraph (3)(B), by inserting “The Administrator may stagger the terms of the System advisory committee members.” before “Members”; and

(E) in paragraph (4)—

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

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

(d) CIVIL LIABILITY.—Section 12304(e) of the Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. 3603(e)) is amended—

(1) by striking “information coordination entity” and inserting “coastal observing system”; and

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

#### SEC. 5. FINANCING AND AGREEMENTS.

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

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

#### SEC. 6. REPORTS TO CONGRESS.

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

##### “SEC. 12307. REPORT TO CONGRESS.

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

“(b) CONTENTS.—Each report required under subsection (a) shall include—

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

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

“(3) the identification of Federal and non-Federal assets as determined by the Council that have been integrated into the System, including assets essential to the gathering of required observation data variables necessary to meet the respective missions of Council agencies;

“(4) a review of procurements, planned or initiated, by each Council agency to enhance, expand, or modernize the observation capabilities and data products provided by the System, including data management and communication subsystems;

“(5) a summary of the existing gaps in observation infrastructure and monitoring data collection, including—

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

“(B) the national sea surface current mapping network;

“(C) coastal buoys;

“(D) ocean chemistry monitoring;

“(E) marine sound monitoring; and

“(F) autonomous underwater and surface vehicle technology gaps;

“(6) an assessment regarding activities to integrate Federal and non-Federal assets, nationally and on the regional level, and discussion of the performance and effectiveness of regional information coordination entities to coordinate regional observation operations;

“(7) a description of benefits of the program to users of data products resulting from the System (including the general public, industries, scientists, resource managers, emergency responders, policy makers, and educators);

“(8) recommendations concerning—

“(A) modifications to the System; and

“(B) funding levels for the System in subsequent fiscal years; and

“(9) the results of a periodic external independent programmatic audit of the System.”

#### SEC. 7. PUBLIC-PRIVATE USE POLICY.

Section 12308 of the Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. 3607) is amended to read as follows:

##### “SEC. 12308. PUBLIC-PRIVATE USE POLICY.

“The Council shall maintain a policy that defines processes for making decisions about the roles of the Federal Government, the States, regional information coordination entities, the

academic community, and the private sector in providing to end-user communities environmental information, products, technologies, and services related to the System. The Administrator shall ensure that National Oceanic and Atmospheric Administration adheres to the decision making process developed by the Council regarding the roles of the Federal Government, the States, the regional coastal observing systems, the academic communities, and the private sector in providing the end-user communities environmental information, data products, technologies, and services related to the System.”

#### SEC. 8. REPEAL OF INDEPENDENT COST ESTIMATE.

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

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

#### SEC. 9. AUTHORIZATION OF APPROPRIATIONS.

Section 12311 of the Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. 3610) is amended by striking “2013” and inserting “2019”.

#### SEC. 10. REPORTS AND RESEARCH PLANS.

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

“(4) ECONOMIC VULNERABILITY REPORT.—

“(A) IN GENERAL.—Not later than 2 years after the date of the enactment of the Coordinated Ocean Monitoring and Research Act, and every 5 years thereafter, the Subcommittee shall transmit to appropriate committees of Congress a report that—

“(i) is named ‘The Ocean Chemistry Coastal Community Vulnerability Assessment’;

“(ii) identifies gaps in ocean acidification monitoring by public, academic, and private assets in the network of regional coastal observing systems;

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

“(iv) identifies United States coastal communities, including fishing communities, low-population rural communities, tribal and subsistence communities, and island communities, that may be impacted by ocean acidification;

“(v) identifies impacts of changing ocean carbonate chemistry on the communities described in clause (iv), including impacts from changes in ocean and coastal marine resources that are not managed by the Federal Government;

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

“(vii) identifies habitats that may be particularly vulnerable to corrosive sea water, including areas experiencing multiple stressors such as hypoxia, sedimentation, and harmful algal blooms;

“(viii) identifies areas in which existing Integrated Ocean Observing System assets, including buoys and gliders, may be leveraged as platforms for the deployment of new sensors or other applicable observing technologies; and

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

“(B) FORM OF REPORT.—

“(i) INITIAL REPORT.—The initial report required under subparagraph (A) shall include the information described in clauses (i) through (ix) on a national level.

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

“(I) may describe the information described in clauses (i) through (ix) on a national level; or

“(II) may consist of separate reports for each region of the National Oceanic and Atmospheric Administration.

“(iii) REGIONAL REPORTS.—If the Subcommittee opts to prepare a report required under subparagraph (A) as separate regional reports under clause (ii)(II), the Subcommittee shall submit a report for each region of the National Oceanic and Atmospheric Administration not less frequently than once during each 5-year reporting period.

“(C) APPROPRIATE COMMITTEES OF CONGRESS DEFINED.—In this paragraph and in paragraph (5), the term ‘appropriate committees of Congress’ means the Committee on Commerce, Science, and Transportation of the Senate, the Committee on Science, Space, and Technology of the House of Representatives, and the Committee on Natural Resources of the House of Representatives.

“(5) MONITORING PRIORITIZATION PLAN.—Not later than 180 days after the date of the submission of the initial report under paragraph (4)(A), the Subcommittee shall transmit to the appropriate committees of Congress a report that develops a plan to deploy new sensors or other applicable observing technologies—

“(A) based on such initial report;

“(B) prioritized by—

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

“(ii) gaps in data; and

“(iii) research needs; and

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

#### SEC. 11. STRATEGIC RESEARCH PLAN.

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

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

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

(3) by adding at the end the following:

“(10) make recommendations for research to be conducted, including in the social sciences and economics, to address the key knowledge gaps identified in the economic vulnerability report conducted under section 12404(c)(4).”

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

“(6) Research to understand combined effects of changes in ocean chemistry, sediment delivery, hypoxia, and harmful algal blooms and the impact these processes have on each other, and how these multiple stressors impact living marine resources and coastal ecosystems.

“(7) Applied research to identify adaptation strategies for species impacted by changes in ocean chemistry including vegetation-based systems, shell recycling, species and genetic diversity, applied technologies, aquaculture methodologies, and management recommendations.”

#### SEC. 12. STAKEHOLDER INPUT ON MONITORING.

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

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

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

(3) by adding at the end the following:

“(4) includes an ongoing mechanism that allows potentially affected industry members, coastal stakeholders, fishery management councils and commissions, non-Federal resource managers, and scientific experts to provide input on monitoring needs that are necessary to support on the ground management, decision making, and adaptation related to ocean acidification.”

#### SEC. 13. RESEARCH ACTIVITIES.

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

“(a) *RESEARCH ACTIVITIES.*—The Director of the National Science Foundation shall continue to carry out research activities on ocean acidification which shall support competitive, merit-based, peer-reviewed proposals for research, observations and monitoring of ocean acidification and its impacts, including—

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

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

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

“(4) impacts of multiple stressors on ecosystems exhibiting hypoxia, harmful algal blooms, or sediment delivery, combined with changes in ocean chemistry.”.

Mr. McCONNELL. Mr. President, I ask unanimous consent that the Wicker amendment at the desk be considered and agreed to, the committee-reported substitute amendment, as amended, be agreed to, the bill, as amended, be considered read a third time and passed, and the motion to reconsider be considered made and laid upon the table.

The PRESIDING OFFICER. Without objection, it is so ordered.

The amendment (No. 1869) was agreed to, as follows:

(Purpose: To authorize an annual appropriation of \$40,200,000 through fiscal year 2021 to carry out the Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. 3601 et seq.)

On page 58, strike lines 1 through 4 and insert the following:

#### SEC. 9. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Secretary of Commerce \$40,200,000, for each of the fiscal years 2018 through 2021, which shall be used—

(1) to fulfill the purposes set forth in section 12302 of the Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. 3601); and

(2) to support activities identified in the annual coordinated National Integrated Coastal and Ocean Observation System budget developed by the Interagency Ocean Observation Committee and submitted to Congress.

The committee-reported amendment in the nature of a substitute, as amended, was agreed to.

The bill (S. 1425), as amended, was ordered to be engrossed for a third reading, was read the third time, and passed, as follows:

S. 1425

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

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

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

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

- Sec. 1. Short title; table of contents.
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- Sec. 10. Reports and research plans.
- Sec. 11. Strategic research plan.

Sec. 12. Stakeholder input on monitoring.

Sec. 13. Research activities.

#### SEC. 2. PURPOSES.

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

##### “SEC. 12302. PURPOSES.

“The purposes of this subtitle are—

“(1) to establish and sustain a national integrated System of ocean, coastal, and Great Lakes observing systems, comprised of Federal and non-Federal components coordinated at the national level by the Council and at the regional level by a network of regional coastal observing systems, and that includes in situ, remote, and other coastal and ocean observation and modeling capabilities, technologies, data management systems, communication systems, and product development systems, and is designed to address regional and national needs for ocean and coastal information, to gather specific data on key coastal, ocean, and Great Lakes variables, and to ensure timely and sustained dissemination and availability of these data—

“(A) to the public;

“(B) to support national defense, search and rescue operations, marine commerce, navigation safety, weather, climate, and marine forecasting, energy siting and production, economic development, ecosystem-based marine, coastal, and Great Lakes resource management, public safety, and public outreach and education;

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

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

“(E) to enable advances in scientific understanding to support the sustainable use, conservation, management, and understanding of healthy ocean, coastal, and Great Lakes resources; and

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

“(2) to improve the Nation’s capability to measure, track, observe, understand, and predict events related directly and indirectly to weather and climate change, natural climate variability, and interactions between the oceanic and atmospheric environments, including the Great Lakes; and

“(3) to authorize activities—

“(A) to promote basic and applied research to develop, test, and deploy innovations and improvements in coastal and ocean observation technologies, including advanced observing technologies needed to address critical data gaps, modeling systems, other scientific and technological capabilities to improve the understanding of weather and climate, ocean-atmosphere dynamics, global climate change, and the physical, chemical, and biological dynamics of the ocean, coastal and Great Lakes environments; and

“(B) to conserve healthy and restore degraded coastal ecosystems.”.

#### SEC. 3. DEFINITIONS.

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

(1) in paragraph (5), by striking “integrated into the System and are managed through States, regional organizations, universities, nongovernmental organizations, or the private sector” and inserting “managed through States, regional organizations, universities, nongovernmental organizations, or the private sector and integrated into the system by the regional coastal ocean observing system, the National Oceanic and Atmospheric Administration, or the agencies on

the Interagency Ocean Observation Committee”;

(2) by amending paragraph (6) to read as follows:

“(6) *REGIONAL COASTAL OBSERVING SYSTEM.*—The term ‘regional coastal observing system’ means an organizational body that is certified or established by contract or memorandum by the lead Federal agency designated in section 12304(c)(3) and coordinates State, Federal, local, tribal, and private interests at a regional level with the responsibility of engaging the private and public sectors in designing, operating, and improving regional coastal and ocean observing systems in order to ensure the provision of data and information that meet the needs of user groups from the respective regions.”; and

(3) in paragraph (7), by striking “National Oceanic and Atmospheric Administration” and inserting “Administrator”.

#### SEC. 4. INTEGRATED COASTAL AND OCEAN OBSERVATION SYSTEM.

(a) *SYSTEM ELEMENTS.*—

(1) *IN GENERAL.*—Section 12304(b) of the Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. 3603(b)) is amended by striking paragraph (1) and inserting the following:

“(1) *IN GENERAL.*—In order to fulfill the purposes of this subtitle, the System shall be national in scope and consist of—

“(A) Federal assets to fulfill national and international observation missions and priorities;

“(B) non-Federal assets, including a network of regional coastal observing systems identified under subsection (c)(4), to fulfill regional and national observation missions and priorities;

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

“(D) a product development system to transform observations into products in a format that may be readily used and understood; and

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

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

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

“(II) to ensure improvement of operational assets and products, including related infrastructure, observing technologies, and information and data processing and management technologies;

“(ii) an advanced observing technology development program to fill gaps in technology;

“(iii) large scale computing resources and research to advance modeling of coastal, ocean, and Great Lakes processes;

“(iv) models to improve regional weather forecasting capabilities and regional weather forecasting products; and

“(v) reviews of data collection procedures across regions and programs to make recommendations for data collection standards across the System to meet national ocean, coastal, and Great Lakes observation, applied research, and weather forecasting needs.”.

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

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

(A) in the paragraph heading, by striking “NON-FEDERAL” and inserting “COORDINATION OF NON-FEDERAL”; and

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

(b) POLICY OVERSIGHT, ADMINISTRATION, AND REGIONAL COORDINATION.—Section 12304(c) of the Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. 3603(c)) is amended by striking paragraphs (2), (3), and (4), and inserting the following:

“(2) INTERAGENCY OCEAN OBSERVATION COMMITTEE.—

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

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

“(i) prepare annual and long-term plans for consideration and approval by the Council for the integrated design, operation, maintenance, enhancement, and expansion of the System to meet the objectives of this chapter and the System Plan;

“(ii) develop and transmit to Congress, along with the budget submitted by the President to Congress pursuant to section 1105(a) of title 31, United States Code, an annual coordinated, comprehensive budget—

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

“(II) to ensure continuity of data streams from Federal and non-Federal assets;

“(iii) establish requirements for observation data variables to be gathered by both Federal and non-Federal assets and identify, in consultation with regional information coordination entities, priorities for System observations;

“(iv) establish and define protocols and standards for System data processing, management, collection, configuration standards, formats, and communication for new and existing assets throughout the Integrated Ocean Observing System network;

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

“(I) to establish eligibility for integration into the System;

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

“(III) to ensure that regional observations are integrated into the System on a sustained basis;

“(vi) identify gaps in observation coverage or needs for capital improvements of both Federal assets and non-Federal assets;

“(vii) subject to the availability of appropriations, establish through 1 or more participating Federal agencies, in consultation with the System advisory committee established under subsection (d), a competitive matching grant or other programs—

“(I) to promote intramural and extramural research and development of new, innovative, and emerging observation technologies including testing and field trials; and

“(II) to facilitate the migration of new, innovative, and emerging scientific and technological advances from research and development to operational deployment;

“(viii) periodically—

“(I) review the System Plan; and

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

“(ix) ensure collaboration among Federal agencies participating in the activities of the Interagency Ocean Observation Committee; and

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

“(3) LEAD FEDERAL AGENCY.—

“(A) IN GENERAL.—The National Oceanic and Atmospheric Administration shall func-

tion as the lead Federal agency for the implementation and administration of the System.

“(B) CONSULTATION REQUIRED.—In carrying out this paragraph, the Administrator shall consult with the Council, the Interagency Ocean Observation Committee, other Federal agencies that maintain portions of the System, and the regional coastal observing systems.

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

“(i) establish and operate an Integrated Ocean Observing System Program Office within the National Oceanic and Atmospheric Administration—

“(I) that utilizes, to the extent necessary, personnel from member agencies participating on the Interagency Ocean Observation Committee; and

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

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

“(iii) promulgate program guidelines—

“(I) to certify and integrate regional associations into the System; and

“(II) to provide regional coastal and ocean observation data that meet the needs of user groups from the respective regions;

“(iv) have the authority to enter into and oversee contracts, leases, grants, or cooperative agreements with non-Federal assets, including regional information coordination entities, to support the purposes of this chapter on such terms as the Administrator deems appropriate;

“(v) implement and maintain a merit-based, competitive funding process to support non-Federal assets, including the development and maintenance of a network of regional coastal observing systems, and develop and implement a process for the periodic review and evaluation of the regional associations;

“(vi) provide opportunities for competitive contracts and grants for demonstration projects to design, develop, integrate, deploy, maintain, and support components of the System;

“(vii) establish and maintain efficient and effective administrative procedures for the timely allocation of funds among contractors, grantees, and non-Federal assets, including regional associations;

“(viii) develop and implement a process for the periodic review and evaluation of the regional coastal observing systems;

“(ix) formulate an annual process by which gaps in observation coverage or needs for capital improvements of Federal assets and non-Federal assets of the System are—

“(I) identified by the regional associations described in the System Plan, the Administrator, or other members of the System; and

“(II) submitted to the Interagency Ocean Observation Committee;

“(x) develop and be responsible for a data management and communication system, in accordance with standards and protocols established by the Interagency Ocean Observation Committee, by which all data collected by the System regarding ocean and coastal waters of the United States including the Great Lakes, are processed, stored, integrated, and made available to all end-user communities;

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

“(xii) develop and periodically update a plan to efficiently integrate into the System

new, innovative, or emerging technologies that have been demonstrated to be useful to the System and which will fulfill the purposes of this chapter and the System Plan; and

“(xiii) work with users and Regional Associations to develop products to enable real-time data sharing for decision makers, including with respect to weather forecasting and modeling, search and rescue operations, corrosive seawater forecasts, water quality monitoring and communication, and harmful algal bloom forecasting.

“(4) REGIONAL COASTAL OBSERVING SYSTEMS.—

“(A) IN GENERAL.—A regional coastal observing system operated by a Regional Association described in the System Plan may not be certified or established under this subtitle unless it—

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

“(ii) meets—

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

“(II) the information needs of user groups in the region while adhering to national standards;

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

“(I) gathering required System observation data;

“(II) supporting and integrating all aspects of coastal and ocean observing and information programs within a region; and

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

“(iv) identifies—

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

“(II) other recommendations to assist in the development of the annual and long-term plans prepared pursuant to paragraph (2)(B)(i) and transmits such information to the Interagency Ocean Observation Committee via the Program Office established under paragraph (3)(C)(i);

“(v) develops and operates under a strategic operational plan that will ensure the efficient and effective administration of programs and assets to support daily data observations for integration into the System, pursuant to the standards approved by the Council;

“(vi) works cooperatively with governmental and nongovernmental entities at all levels to identify and provide information products of the System for multiple users within the service area of the regional coastal observing system; and

“(vii) complies with all financial oversight requirements established by the Administrator, including requirements relating to audits.

“(B) PARTICIPATION.—For the purposes of this title, employees of Federal agencies are permitted to be members of the governing body for the regional coastal observing systems and may participate in the functions of the regional information coordination entities.”

(c) SYSTEM ADVISORY COMMITTEE.—Section 12304(d) of the Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. 3603(d)) is amended—

(1) in paragraph (1), by striking “or the Interagency Ocean Observing Committee.” and inserting “or the Council under this subtitle”; and

(2) in paragraph (2)—

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

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

(C) by striking subparagraph (D) and inserting the following:

“(D) additional priorities, including—

“(i) a national surface current mapping network designed to improve fine scale sea surface mapping using high frequency radar technology and other emerging technologies to address national priorities, including Coast Guard search and rescue operation planning and harmful algal bloom forecasting and detection that—

“(I) is comprised of existing high frequency radar and other sea surface current mapping infrastructure operated by national programs and regional associations;

“(II) incorporates new high frequency radar assets or other fine scale sea surface mapping technology assets, and other assets needed to fill gaps in coverage on United States coastlines; and

“(III) follows a deployment plan that prioritizes closing gaps in high frequency radar infrastructure in the United States, starting with areas demonstrating significant sea surface current data needs, especially in areas where additional data will improve Coast Guard search and rescue models;

“(ii) fleet acquisition for autonomous underwater and surface vehicles for deployment and data integration to fulfill the purposes of this Act;

“(iii) an integrative survey program for application of manned and unmanned vehicles to the real-time or near real-time collection and transmission of sea floor, water column, and sea surface data on biology, chemistry, geology, physics, and hydrography;

“(iv) remote sensing and data assimilation to develop new analytical methodologies to assimilate data from the Integrated Ocean Observing System into hydrodynamic models;

“(v) integrated, multi-State monitoring to assess sources, movement, and fate of sediments in coastal regions;

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

“(I) planned in consultation with the Interagency Ocean Observation Committee, the National Oceanic and Atmospheric Administration, the Department of the Navy, and academic research institutions; and

“(II) developed, installed, and operated in coordination with the National Oceanic and Atmospheric Administration, the Department of the Navy, and academic research institutions; and

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

(D) in paragraph (3)(B), by inserting “The Administrator may stagger the terms of the System advisory committee members.” before “Members”; and

(E) in paragraph (4)—

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

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

(d) CIVIL LIABILITY.—Section 12304(e) of the Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. 3603(e)) is amended—

(1) by striking “information coordination entity” and inserting “coastal observing system”; and

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

#### SEC. 5. FINANCING AND AGREEMENTS.

Section 12305(a) of the Integrated Coastal and Ocean Observation System Act of 2009

(33 U.S.C. 3604(a)) is amended to read as follows:

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

#### SEC. 6. REPORTS TO CONGRESS.

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

##### “SEC. 12307. REPORT TO CONGRESS.

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

“(b) CONTENTS.—Each report required under subsection (a) shall include—

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

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

“(3) the identification of Federal and non-Federal assets as determined by the Council that have been integrated into the System, including assets essential to the gathering of required observation data variables necessary to meet the respective missions of Council agencies;

“(4) a review of procurements, planned or initiated, by each Council agency to enhance, expand, or modernize the observation capabilities and data products provided by the System, including data management and communication subsystems;

“(5) a summary of the existing gaps in observation infrastructure and monitoring data collection, including—

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

“(B) the national sea surface current mapping network;

“(C) coastal buoys;

“(D) ocean chemistry monitoring;

“(E) marine sound monitoring; and

“(F) autonomous underwater and surface vehicle technology gaps;

“(6) an assessment regarding activities to integrate Federal and non-Federal assets, nationally and on the regional level, and discussion of the performance and effectiveness of regional information coordination entities to coordinate regional observation operations;

“(7) a description of benefits of the program to users of data products resulting from the System (including the general public, industries, scientists, resource managers, emergency responders, policy makers, and educators);

“(8) recommendations concerning—

“(A) modifications to the System; and

“(B) funding levels for the System in subsequent fiscal years; and

“(9) the results of a periodic external independent programmatic audit of the System.”.

#### SEC. 7. PUBLIC-PRIVATE USE POLICY.

Section 12308 of the Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. 3607) is amended to read as follows:

##### “SEC. 12308. PUBLIC-PRIVATE USE POLICY.

“The Council shall maintain a policy that defines processes for making decisions about the roles of the Federal Government, the States, regional information coordination entities, the academic community, and the private sector in providing to end-user communities environmental information, prod-

ucts, technologies, and services related to the System. The Administrator shall ensure that National Oceanic and Atmospheric Administration adheres to the decision making process developed by the Council regarding the roles of the Federal Government, the States, the regional coastal observing systems, the academic communities, and the private sector in providing the end-user communities environmental information, data products, technologies, and services related to the System.”.

#### SEC. 8. REPEAL OF INDEPENDENT COST ESTIMATE.

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

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

#### SEC. 9. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Secretary of Commerce \$40,200,000, for each of the fiscal years 2018 through 2021, which shall be used—

(1) to fulfill the purposes set forth in section 12302 of the Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. 3601); and

(2) to support activities identified in the annual coordinated National Integrated Coastal and Ocean Observation System budget developed by the Interagency Ocean Observation Committee and submitted to Congress.

#### SEC. 10. REPORTS AND RESEARCH PLANS.

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

“(4) ECONOMIC VULNERABILITY REPORT.—

“(A) IN GENERAL.—Not later than 2 years after the date of the enactment of the Coordinated Ocean Monitoring and Research Act, and every 5 years thereafter, the Subcommittee shall transmit to appropriate committees of Congress a report that—

“(i) is named ‘The Ocean Chemistry Coastal Community Vulnerability Assessment’;

“(ii) identifies gaps in ocean acidification monitoring by public, academic, and private assets in the network of regional coastal observing systems;

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

“(iv) identifies United States coastal communities, including fishing communities, low-population rural communities, tribal and subsistence communities, and island communities, that may be impacted by ocean acidification;

“(v) identifies impacts of changing ocean carbonate chemistry on the communities described in clause (iv), including impacts from changes in ocean and coastal marine resources that are not managed by the Federal Government;

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

“(vii) identifies habitats that may be particularly vulnerable to corrosive sea water, including areas experiencing multiple stressors such as hypoxia, sedimentation, and harmful algal blooms;

“(viii) identifies areas in which existing Integrated Ocean Observing System assets, including buoys and gliders, may be leveraged as platforms for the deployment of new sensors or other applicable observing technologies; and



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

“(B) FORM OF REPORT.—

“(i) INITIAL REPORT.—The initial report required under subparagraph (A) shall include the information described in clauses (i) through (ix) on a national level.

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

“(I) may describe the information described in clauses (i) through (ix) on a national level; or

“(II) may consist of separate reports for each region of the National Oceanic and Atmospheric Administration.

“(iii) REGIONAL REPORTS.—If the Subcommittee opts to prepare a report required under subparagraph (A) as separate regional reports under clause (ii)(II), the Subcommittee shall submit a report for each region of the National Oceanic and Atmospheric Administration not less frequently than once during each 5-year reporting period.

“(C) APPROPRIATE COMMITTEES OF CONGRESS DEFINED.—In this paragraph and in paragraph (5), the term ‘appropriate committees of Congress’ means the Committee on Commerce, Science, and Transportation of the Senate, the Committee on Science, Space, and Technology of the House of Representatives, and the Committee on Natural Resources of the House of Representatives.

“(5) MONITORING PRIORITIZATION PLAN.—Not later than 180 days after the date of the submission of the initial report under paragraph (4)(A), the Subcommittee shall transmit to the appropriate committees of Congress a report that develops a plan to deploy new sensors or other applicable observing technologies—

“(A) based on such initial report;

“(B) prioritized by—

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

“(ii) gaps in data; and

“(iii) research needs; and

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

#### SEC. 11. STRATEGIC RESEARCH PLAN.

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

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

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

(3) by adding at the end the following:

“(10) make recommendations for research to be conducted, including in the social sciences and economics, to address the key knowledge gaps identified in the economic vulnerability report conducted under section 12404(c)(4).”.

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

“(6) Research to understand combined effects of changes in ocean chemistry, sediment delivery, hypoxia, and harmful algal blooms and the impact these processes have on each other, and how these multiple stressors impact living marine resources and coastal ecosystems.

“(7) Applied research to identify adaptation strategies for species impacted by changes in ocean chemistry including vegetation-based systems, shell recycling, species and genetic diversity, applied technologies, aquaculture methodologies, and management recommendations.”.

#### SEC. 12. STAKEHOLDER INPUT ON MONITORING.

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

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

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

(3) by adding at the end the following:

“(4) includes an ongoing mechanism that allows potentially affected industry members, coastal stakeholders, fishery management councils and commissions, non-Federal resource managers, and scientific experts to provide input on monitoring needs that are necessary to support on the ground management, decision making, and adaptation related to ocean acidification.”.

#### SEC. 13. RESEARCH ACTIVITIES.

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

“(a) RESEARCH ACTIVITIES.—The Director of the National Science Foundation shall continue to carry out research activities on ocean acidification which shall support competitive, merit-based, peer-reviewed proposals for research, observatories and monitoring of ocean acidification and its impacts, including—

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

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

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

“(4) impacts of multiple stressors on ecosystems exhibiting hypoxia, harmful algal blooms, or sediment delivery, combined with changes in ocean chemistry.”.

#### ORDERS FOR TUESDAY, JANUARY 9, 2018

Mr. MCCONNELL. Mr. President, I ask unanimous consent that when the Senate completes its business today, it adjourn until 10 a.m., Tuesday, January 9; further, that following the prayer and pledge, the morning hour be deemed expired, the Journal of proceedings be approved to date, the time for the two leaders be reserved for their use later in the day, and morning business be closed; further, that following leader remarks, the Senate proceed to executive session and resume consideration of the Campbell nomination; further, that all time during adjournment, recess, morning business, and leader remarks count postcloture on the Campbell nomination; finally, that the Senate recess from 12:30 p.m. until 2:15 p.m. to allow for the weekly conference meetings.

The PRESIDING OFFICER. Without objection, it is so ordered.

#### ORDER FOR ADJOURNMENT

Mr. MCCONNELL. Mr. President, if there is no further business to come before the Senate, I ask unanimous consent that it stand adjourned under the previous order, following the remarks of Senator MERKLEY.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. MCCONNELL. I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The senior assistant legislative clerk proceeded to call the roll.

Mr. MERKLEY. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

#### CHILDREN'S HEALTH INSURANCE PROGRAM

Mr. MERKLEY. Mr. President, 100 days is a significant period of time—significant, particularly, because it involves the health of our children, which has been neglected over the last 3 months plus. How is it that this Chamber managed to go more than 3 months and not get in place a permanent expansion or a 5-year expansion of healthcare for our Nation's children?

Well, I can tell you why. It is because my colleagues on the majority side of the aisle here in this Chamber had a different bill that they were immersed in and that was a healthcare bill that would be better termed a health destruction bill because it would have wiped out healthcare for somewhere between 20 and 30 million Americans, and eventually version No. 5 of that bill died here in the Senate.

Then my colleagues across the aisle said: Well, we have another beautiful idea. We are going to do a tax bill that will deliver trillions of dollars to the richest Americans. Well, our Constitution was crafted around the vision of government of, by, and for the people, but my colleagues across the aisle like a different version of governance. They like governance by and for the powerful and the privileged.

So here they have this tax bill, and this tax bill has provisions like eliminating the dynasty loophole so wealthy families can pass their dynasty inheritances from one generation to the next without ever paying capital gains. They had a provision that they wanted to change the tax brackets for the wealthiest Americans. They wanted to have corporations, which have paid a smaller and smaller and smaller share of the costs of the infrastructure and the healthcare and the education of America, to pay even less. They had a provision where passthrough corporations would get a sweetheart rate. If you add up these provisions, they total over \$3 trillion. Now, not all of it goes to the wealthiest 1 percent, but most of it does, and most of it goes to the wealthiest 10 percent.

Let's just take and only count two-thirds of that \$2 trillion. Now, let's think about that number. That is a number that we really can't imagine. How many grains of sand are on this beach? You just can't get your hands around that kind of money—\$2 trillion to the richest Americans. So let's divide it by the number of American men, women, and children in our country, and what do you end up with? You end up with the fact that that bill that