116TH CONGRESS
2D SESSION

S. 914

AN ACT

To reauthorize the Integrated Coastal and Ocean Observation System Act of 2009, to clarify the authority of the Administrator of the National Oceanic and Atmospheric Administration with respect to post-storm assessments, and to require the establishment of a National Water Center, and for other purposes.

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 Observations and Research Act of 2020''.

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

TITLE I—REAUTHORIZATION OF INTEGRATED COASTAL AND OCEAN OBSERVATION SYSTEM ACT OF 2009

SEC. 101. 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 ocean, coastal, 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 to ensure the Nation can respond to opportunities to enhance food, economic, and national security; and

''(F) to monitor and model changes in the oceans and Great Lakes, including with respect to chemistry, harmful algal blooms, hypoxia, water levels, and other phenomena;

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

''(3) to sustain, upgrade, and modernize the Nation's ocean and Great Lakes observing infrastructure to detect changes and ensure delivery of reliable and timely information; and

''(4) 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 such as unmanned maritime systems 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. 102. DEFINITIONS.

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

(1) in paragraph (2), by striking ''section 7902'' and inserting ''section 8932'';

(2) 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 a regional coastal observing system, the National Oceanic and Atmospheric Administration, or the agencies participating in the Interagency Ocean Observation Committee'';

(3) 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 observing systems in order to ensure the provision of data and information that meet the needs of user groups from the respective regions.''; and

(4) in paragraph (7), by striking ''National Oceanic and Atmospheric Administration'' and inserting ''Administrator''.

SEC. 103. 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) observing, modeling, data management, and communication systems for the timely integration and dissemination of data and information products from the System, including 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;

"(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 such as unmanned maritime systems, 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 ocean, coastal, 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 na-

tional 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.

(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 ex-

pansion of the System to meet the objectives of this subtitle 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 coastal observing systems, 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 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 Federal agencies participating in the Interagency Ocean Observation Committee, 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 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 that—

''(I) utilizes, to the extent necessary, personnel from Federal agencies participating in 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 coastal observing systems, to support the purposes of this subtitle 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 national 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 coastal observing systems;

''(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 subtitle 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 described in the System Plan as a regional association 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 through the Program Office established under paragraph (3)(C)(i);

''(v) develops and operates under a strategic 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 subtitle, 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 coastal observing systems.''.

(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;

(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 coastal observing systems;

"(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 unmanned maritime systems for deployment and data

integration to fulfill the purposes of this subtitle;

''(iii) an integrative survey program for application of unmanned maritime systems 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 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'' each place it appears and inserting ''coastal observing system''; and

(2) by striking ''contract, lease, grant, or cooperative agreement under subsection (c)(3)(D)'' and inserting ''a memorandum of agreement of certification under subsection (c)(3)(C)(iii)''.

(e) CONFORMING AMENDMENTS.—The Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. 3601 et seq.) is amended by striking ''regional information coordination entities'' each place it appears and inserting ''regional coastal observing systems''.

SEC. 104. 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.—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. 105. 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 March 30, 2022, and every 5 years thereafter, the Administrator

shall prepare, and the President acting through the Council shall approve and transmit to 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 department or agency represented on the Council 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) unmanned maritime systems 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 coastal observing systems 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, if any, 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. 106. 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 coastal observing systems, 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 the 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 community, and the private sector in providing end-user communities environmental information, data products, technologies, and services related to the System.''.

SEC. 107. 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. 108. AUTHORIZATION OF APPROPRIATIONS.

Section 12311 of the Integrated Coastal and Ocean Observation System Act of 2009 (33 U.S.C. 3610) is amended to read as follows:

"SEC. 12311. AUTHORIZATION OF APPROPRIATIONS.

''There are authorized to be appropriated to the Secretary of Commerce to support the integrated oceans observations under this subtitle—

''(1) $48,000,000 for fiscal year 2021;

''(2) $50,000,000 for fiscal year 2022;

''(3) $52,000,000 for fiscal year 2023;

''(4) $54,000,000 for fiscal year 2024; and

''(5) $56,000,000 for fiscal year 2025.''.

SEC. 109. 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 Observations and Research Act of 2020, and every 6 years thereafter, the Subcommittee shall transmit to the 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 island communities, 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 National Integrated Coastal and Ocean Observation System assets, including unmanned maritime systems, may be leveraged as platforms for the deployment of new sensors or other applicable observing technologies;

"(ix) is written in collaboration with Federal agencies responsible for carrying out this subtitle, including representatives of—

"(I) the National Marine Fisheries Service and the Office for Coastal Management of the National Oceanic and Atmospheric Administration;

"(II) regional coastal observing systems established under section 12304(c)(4);

"(III) regional ocean acidification networks; and

"(IV) sea grant programs (as defined in section 203 of the National Sea Grant College Program Act (33 U.S.C. 1122)); and

"(x) is written in consultation with experts, including subsistence users, academia, and stakeholders familiar with the economic, social, ecological, geographic, and resource concerns of coastal communities in the United States.

"(B) FORM OF REPORT.—

"(i) INITIAL REPORT.—The initial report required under subparagraph (A) shall include the information described in clauses (i) through (viii) of that subparagraph 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 (viii) of that subparagraph 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 6-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 such as unmanned maritime systems—

''(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. 110. 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 Ocean Chemistry Coastal Community Vulnerability Assessment 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 the combined impact of changes in ocean chemistry and other stressors, including sediment delivery, hypoxia, and harmful algal blooms, on each other and on living marine resources, including aquaculture 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.''.

(c) PARTICIPATION.—Section 12405(e) of the Federal Ocean Acidification Research And Monitoring Act of 2009 (33 U.S.C. 3704(e)) is amended in the first sentence by inserting '', tribal governments, and subsistence users'' after ''groups''.

(d) REVISED STRATEGIC RESEARCH PLAN.—Not later than one year after the date of the enactment of this Act, the Joint Subcommittee on Ocean Science and Technology of the National Science and Technology Council shall submit to Congress a revised strategic research plan under section 12405 of the Federal Ocean Acidification Research And Monitoring Act of 2009 (33 U.S.C. 3704) that includes the matters required by the amendments made by this section.

SEC. 111. 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 ''; and''; and

(3) by adding at the end the following:

''(4) includes an ongoing mechanism that allows industry members, coastal stakeholders, fishery management councils and commissions, non-Federal resource managers, community acidification networks, indigenous knowledge groups, 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 and its impacts.''.

SEC. 112. 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, observation, and monitoring of ocean acidification and its impacts, including—

''(1) impacts on marine organisms, including species cultured for aquaculture, 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.''.

TITLE II—NAMED STORM EVENT MODEL AND POST-STORM ASSESSMENTS

SEC. 201. NAMED STORM EVENT MODEL AND POST-STORM ASSESSMENTS.

(a) AMENDMENTS TO THE OMNIBUS PUBLIC LAND MANAGEMENT ACT OF 2009.—Section 12312 of the Omnibus Public Land Management Act of 2009 (33 U.S.C. 3611) is amended—

(1) in subsection (a)—

(A) in paragraph (2), by striking the period at the end and inserting the following: '', except that the term shall not apply with re-

spect to a State or territory that has an operational wind and flood loss allocation system.'';

(B) in paragraph (6), by inserting ''sustained'' before ''winds''; and

(C) in paragraph (7), by striking ''that threaten any portion of a coastal State'' and inserting ''for which post-storm assessments are conducted'';

(2) in subsection (b)—

(A) in paragraph (1)—

(i) in subparagraph (A)—

(I) by striking ''540 days after the date of the enactment of the Consumer Option for an Alternative System to Allocate Losses Act of 2012'' and inserting ''December 31, 2020''; and

(II) by striking ''by regulation'';

(ii) in subparagraph (B), by striking ''every'' and inserting ''an''; and

(iii) by adding at the end the following:

''(C) PUBLIC REVIEW.—The Administrator shall seek input and suggestions from the public before the Named Storm Event Model, or any

modification to the Named Storm Event Model, takes effect.''; and

(B) in paragraph (2)—

(i) by redesignating subparagraphs (B) and (C) as subparagraphs (D) and (E), respectively;

(ii) by inserting after subparagraph (A) the following:

''(B) DATA COLLECTION.—

''(i) IN GENERAL.—Upon identification of a named storm under subparagraph (A), and pursuant to the protocol established under subsection (c), the Administrator may deploy sensors to enhance the collection of covered data in the areas in coastal States that the Administrator determines are at the highest risk of experiencing geophysical events that would cause indeterminate losses.

''(ii) RULE OF CONSTRUCTION.—If the Administrator takes action under clause (i), that action may not be construed as indicating that a post-storm assessment will be developed for any coastal State in which that action is taken.

"(C) IDENTIFICATION OF INDETERMINATE LOSSES IN COASTAL STATES.—Not later than 30 days after the first date on which sustained winds of not less than 39 miles per hour are measured in a coastal State during a named storm identified under subparagraph (A), the Secretary of Homeland Security shall notify the Administrator with respect to the existence of any indeterminate losses in that coastal State resulting from that named storm.";

(iii) in subparagraph (D), as so redesignated—

(I) by striking "identification of a named storm under subparagraph (A)" and inserting "confirmation of indeterminate losses identified under subparagraph (C) with respect to a named storm"; and

(II) by striking "assessment for such named storm" and inserting "assessment for each coastal State that suffered such indeterminate losses as a result of the named storm";

(iv) in subparagraph (E), as so redesignated—

(I) by striking ''an identification of a named storm is made under subparagraph (A)'' and inserting ''any indeterminate losses are identified under subparagraph (C)''; and

(II) by striking ''for such storm under subparagraph (B)'' and inserting ''under subparagraph (D) for any coastal State that suffered such indeterminate losses''; and

(v) by adding at the end the following:

''(F) SEPARATE POST-STORM ASSESSMENTS FOR A SINGLE NAMED STORM.—

''(i) IN GENERAL.—The Administrator may conduct a separate post-storm assessment for each coastal State in which indeterminate losses are identified under subparagraph (C).

''(ii) TIMELINE.—If the Administrator conducts a separate post-storm assessment under clause (i), the Administrator shall complete the assessment based on the dates of actions that the Administrator takes under subparagraph (D).''; and

(3) in subsection (c)—

(A) in paragraph (1), by striking ''540 days after the date of the enactment of the Consumer Option for an Alternative System to Allocate Losses Act of 2012'' and inserting ''December 31, 2020'';

(B) in paragraph (2), by inserting '', in the discretion of the Administrator,'' after ''of sensors as may''; and

(C) in paragraph (4)(B), by inserting ''and expend'' after ''receive''.

(b) AMENDMENTS TO THE NATIONAL FLOOD INSURANCE ACT OF 1968.—Section 1337 of the National Flood Insurance Act of 1968 (42 U.S.C. 4057) is amended—

(1) in subsection (a)—

(A) in paragraph (3), by striking the period at the end and inserting the following: '', except that the term shall not apply with respect to a State or territory that has an operational wind and flood loss allocation system.''; and

(B) in paragraph (5), by inserting ''sustained'' after ''maximum'';

(2) in subsection (b)—

(A) in paragraph (1), by striking ''establish by rule'' and inserting ''publish for comment in the Federal Register''; and

(B) in paragraph (2)(B), by inserting after ''Elevation Certificate'' the following: '', or other data or information used to determine a property's current risk of flood, as determined by the Administrator,'';

(3) in subsection (c)(3)(A)(i), by striking ''the issuance of the rule establishing the COASTAL Formula'' and inserting ''publication of the COASTAL Formula in the Federal Register as required by subsection (b)(1)'';

(4) in subsection (d), by striking ''section 12312(b)(2)(C)'' and inserting ''section 12312(b)(2)(E)'';

(5) in subsection (h)—

(A) by inserting ''that issues a standard flood insurance policy under the national flood insurance program'' after ''company''; and

(B) by striking ''or the COASTAL Formula'' and inserting '', the COASTAL Formula, or any other loss allocation or post-storm assessment arising under the laws or ordinances of any State'';

(6) in subsection (i), by striking ''after the date on which the Administrator issues the rule establishing the COASTAL Formula under subsection (b)'' and inserting ''60 days after publication of the COASTAL Formula in the Federal Register as required by subsection (b)(1)''; and

(7) by adding at the end the following:

''(k) RULE OF CONSTRUCTION.—Nothing in this section shall be construed to create a cause of action under this Act.''.

TITLE III—WATER PREDICTION AND FORECASTING

SEC. 301. WATER PREDICTION AND FORECASTING.

(a) NATIONAL WATER CENTER.—

(1) ESTABLISHMENT.—

(A) IN GENERAL.—The Under Secretary of Commerce for Oceans and Atmosphere shall establish a center—

(i) to serve as the research and operational center of excellence for hydrologic analyses, forecasting, and related decision support services within the National Oceanic and Atmospheric Administration and the National Weather Service; and

(ii) to facilitate collaboration across Federal and State departments and agencies, academia, and the private sector on matters relating to water resources.

(B) DESIGNATION.—The center established under subparagraph (A) shall be known as the ''National Water Center''.

(2) FUNCTIONS.—The functions of the National Water Center shall include the following:

(A) Improving understanding of water resources, stakeholder needs regarding water resources, and identifying science and services gaps relating to water resources.

(B) Developing and implementing advanced water resources modeling capabilities.

(C) Facilitating the transition of hydrologic research into operations.

(D) Delivering analyses, forecasts, and inundation information and guidance for all hydrologic events in the United States, including flash flooding, riverine flooding, and water resources outlooks.

(E) In coordination with warning coordination meteorologists, providing decision-support

services to inform emergency management and water resources decisions.

(b) NATIONAL INSTRUCTIONS.—

(1) IN GENERAL.—Not later than one year after the date of the enactment of this Act, the Under Secretary, acting through the Director of the National Weather Service, shall make public an operations and services policy directive for the National Water Center.

(2) CONTENTS.—The directive required by paragraph (1) shall include national instructions to perform the functions of the National Water Center, including the following:

(A) Operational staff responsibilities.

(B) Guidelines for content, format, and provision of hydrologic and inundation products developed by the National Water Center.

(C) Procedures for cooperation and coordination between the National Water Center, the National Weather Service National Centers for Environmental Prediction, National Weather Service River Forecast Centers, and National Weather Service Weather Forecast Offices.

(c) TOTAL WATER PREDICTION.—The Under Secretary, acting through the Director of the Office of Water Prediction of the National Weather Service, shall—

(1) initiate and lead research and development activities to develop operational water resource prediction and related decision support products;

(2) collaborate with, and provide decision support regarding total water prediction to—

(A) the relevant Federal agencies represented on the National Science and Technology Council, Committee on Environment, Natural Resources, and Sustainability and the Subcommittee on Disaster Reduction;

(B) State water resource agencies; and

(C) State and local emergency management agencies; and

(3) in carrying out the responsibilities described in paragraphs (1) and (2), collaboratively develop capabilities necessary for total water predictive capacity, including observations, modeling, data management, supercomputing, social science, and communications.

(d) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out the activities under this section amounts as follows:

(1) $44,500,000 for fiscal year 2021.

(2) $45,000,000 for fiscal year 2022.

(3) $45,500,000 for fiscal year 2023.

(4) $46,000,000 for fiscal year 2024.

(e) DERIVATION OF FUNDS.—Amounts made available to carry out this section shall be derived from amounts appropriated or otherwise made available to the National Weather Service and the National Ocean Service.

Passed the Senate July 30, 2020.

Attest:

Secretary.

116TH CONGRESS
2D SESSION

S. 914

AN ACT

To reauthorize the Integrated Coastal and Ocean Observation System Act of 2009, to clarify the authority of the Administrator of the National Oceanic and Atmospheric Administration with respect to post-storm assessments, and to require the establishment of a National Water Center, and for other purposes.