

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.

(Pub. L. 111–11, title XII, § 12307, Mar. 30, 2009, 123 Stat. 1435; Pub. L. 116–271, title I, § 105, Dec. 31, 2020, 134 Stat. 3339.)

#### Editorial Notes

##### AMENDMENTS

2020—Pub. L. 116–271 amended section generally. Prior to amendment, section required that no later than 2 years after March 30, 2009, and every 2 years thereafter, the Administrator was to prepare and the President acting through the Council was to approve and transmit to Congress a report on progress made in implementing this chapter.

#### § 3607. 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.

(Pub. L. 111–11, title XII, § 12308, Mar. 30, 2009, 123 Stat. 1435; Pub. L. 116–271, title I, § 106, Dec. 31, 2020, 134 Stat. 3340.)

#### Editorial Notes

##### AMENDMENTS

2020—Pub. L. 116–271 amended section generally. Prior to amendment, section required the Council to develop a public-private use policy within 6 months after March 30, 2009.

#### § 3608. Repealed. Pub. L. 116–271, title I, § 107(a), Dec. 31, 2020, 134 Stat. 3341

Section, Pub. L. 111–11, title XII, § 12309, Mar. 30, 2009, 123 Stat. 1436, related to independent cost estimates to be sent to Congress within 1 year after Mar. 30, 2009.

#### § 3609. Intent of Congress

It is the intent of Congress that funding provided to agencies of the Council to implement this chapter shall supplement, and not replace, existing sources of funding for other programs. It is the further intent of Congress that agencies of the Council shall not enter into contracts or agreements for the development or procurement of new Federal assets for the System that are estimated to be in excess of \$250,000,000 in life-cycle costs without first providing adequate notice to Congress and opportunity for review and comment.

(Pub. L. 111–11, title XII, § 12310, Mar. 30, 2009, 123 Stat. 1436.)

#### § 3610. Authorization of appropriations

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

(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.

(Pub. L. 111–11, title XII, § 12311, Mar. 30, 2009, 123 Stat. 1436; Pub. L. 116–271, title I, § 108, Dec. 31, 2020, 134 Stat. 3341.)

#### Editorial Notes

##### AMENDMENTS

2020—Pub. L. 116–271 amended section generally. Prior to amendment, section related to authorization of appropriations for fiscal years 2009 to 2013.

#### § 3611. Assessing and modeling named storms over coastal States

##### (a) Definitions

In this section:

##### (1) COASTAL Formula

The term “COASTAL Formula” has the meaning given the term in section 4057(a) of title 42.

##### (2) Coastal State

The term “coastal State” has the meaning given the term “coastal state” in section 1453

of title 16, except that the term shall not apply with respect to a State or territory that has an operational wind and flood loss allocation system.

**(3) Coastal waters**

The term “coastal waters” has the meaning given the term in such section.

**(4) Covered data**

The term “covered data” means, with respect to a named storm identified by the Administrator under subsection (b)(2)(A), empirical data that are—

(A) collected before, during, or after such storm; and

(B) necessary to determine magnitude and timing of wind speeds, rainfall, the barometric pressure, river flows, the extent, height, and timing of storm surge, topographic and bathymetric data, and other measures required to accurately model and assess damage from such storm.

**(5) Indeterminate loss**

The term “indeterminate loss” has the meaning given the term in section 4057(a) of title 42.

**(6) Named storm**

The term “named storm” means any organized weather system with a defined surface circulation and maximum sustained winds of at least 39 miles per hour which the National Hurricane Center of the United States National Weather Service names as a tropical storm or a hurricane.

**(7) Named Storm Event Model**

The term “Named Storm Event Model” means the official meteorological and oceanographic computerized model, developed by the Administrator under subsection (b)(1)(A), which utilizes covered data to replicate the magnitude, timing, and spatial variations of winds, rainfall, and storm surges associated with named storms for which post-storm assessments are conducted.

**(8) Participant**

The term “participant” means a Federal, State, or private entity that chooses to cooperate with the Administrator in carrying out the provisions of this section by collecting, contributing, and maintaining covered data.

**(9) Post-storm assessment**

The term “post-storm assessment” means a scientific assessment produced and certified by the Administrator to determine the magnitude, timing, and spatial variations of winds, rainfall, and storm surges associated with a specific named storm to be used in the COASTAL Formula.

**(10) State**

The term “State” means a State of the United States, the District of Columbia, the Commonwealth of Puerto Rico, and any other territory or possession of the United States.

**(b) Named Storm Event Model and post-storm assessment**

**(1) Establishment of Named Storm Event Model**

**(A) In general**

Not later than December 31, 2020, the Administrator shall develop the Named Storm Event Model.

**(B) Accuracy**

The Named Storm Event Model shall be designed to generate post-storm assessments, as provided in paragraph (2), that have a degree of accuracy of not less than 90 percent for an indeterminate loss for which a post-storm assessment is utilized.

**(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.

**(2) Post-storm assessment**

**(A) Identification of named storms threatening coastal States**

After the establishment of the COASTAL Formula, the Administrator shall, in consultation with the Secretary of Homeland Security, identify named storms that may reasonably constitute a threat to any portion of a coastal State.

**(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.

**(D) Post-storm assessment required**

Upon confirmation of indeterminate losses identified under subparagraph (C) with respect to a named storm, the Administrator shall develop a post-storm assessment for each coastal State that suffered such indeterminate losses as a result of the named

storm using the Named Storm Event Model and covered data collected for such named storm pursuant to the protocol established under subsection (c)(1).

**(E) Submittal of post-storm assessment**

Not later than 90 days after any indeterminate losses are identified under subparagraph (C), the Administrator shall submit to the Secretary of Homeland Security the post-storm assessment developed under subparagraph (D) for any coastal State that suffered such indeterminate losses.

**(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).

**(3) Accuracy**

The Administrator shall ensure, to the greatest extent practicable, that each post-storm assessment developed under paragraph (2) has a degree of accuracy of not less than 90 percent.

**(4) Certification**

For each post-storm assessment carried out under paragraph (2), the Administrator shall—

(A) certify the degree of accuracy for such assessment, including specific reference to any segments or geographic areas for which the assessment is less than 90 percent accurate; and

(B) report such certification to the Secretary of Homeland Security for the purposes of use with indeterminate loss claims under section 4057 of title 42.

**(5) Finality of determinations**

A certification of the degree of accuracy of a post-storm assessment under this subsection by the Administrator shall be final and shall not be subject to judicial review.

**(6) Availability**

The Administrator shall make available to the public the Named Storm Event Model and any post-storm assessment developed under this subsection.

**(c) Establishment of a protocol for post-storm assessment**

**(1) In general**

Not later than December 31, 2020, the Administrator shall establish a protocol, based on the plan submitted under subsection (d)(3), to collect and assemble all covered data required by the Administrator to produce post-storm assessments required by subsection (b), including assembling data collected by participants and stored in the database established under

subsection (f) and from such other sources as the Administrator considers appropriate.

**(2) Acquisition of sensors and structures**

If the Administrator is unable to use a public or private asset to obtain covered data as part of the protocol established under paragraph (1), the Administrator may acquire such sensors and structures for the placement of sensors as may, in the discretion of the Administrator, be necessary to obtain such data.

**(3) Use of Federal assets**

If the protocol requires placement of a sensor to develop assessments pursuant to subsection (b), the Administrator shall, to the extent practicable, use Federal assets for the placement of such sensors.

**(4) Use of acquired structures**

**(A) In general**

If the Administrator acquires a structure for the placement of a sensor for purposes of such protocol, the Administrator shall to the extent practical permit other public and private entities to place sensors on such structure to collect—

- (i) meteorological data;
- (ii) national security-related data;
- (iii) navigation-related data;
- (iv) hydrographic data; or
- (v) such other data as the Administrator considers appropriate.

**(B) Receipt of consideration**

The Administrator may receive and expend consideration for the placement of a sensor on a structure under subparagraph (A).

**(C) In-kind consideration**

Consideration received under subparagraph (B) may be received in-kind.

**(D) Use of consideration**

To the extent practicable, consideration received under subparagraph (B) shall be used for the maintenance of sensors used to collect covered data.

**(5) Coordinated deployments and data collection practices**

The Administrator shall, in consultation with the Office of the Federal Coordinator for Meteorology, coordinate the deployment of sensors as part of the protocol established under paragraph (1) and related data collection carried out by Federal, State, academic, and private entities who choose to cooperate with the Administrator in carrying out this subsection.

**(6) Priority acquisition and deployment**

The Administrator shall give priority in the acquisition for and deployment of sensors under the protocol required by paragraph (1) to areas of coastal States that have the highest risk of being harmed by named storms.

**(d) Assessment of systems and efforts to collect covered data**

**(1) Identification of systems and efforts to collect covered data**

Not later than 180 days after July 6, 2012, the Administrator shall, in consultation with the

Office of the Federal Coordinator for Meteorology—

(A) carry out a survey to identify all Federal and State efforts and systems that are capable of collecting covered data; and

(B) consult with private and academic sector entities to identify domestic private and academic systems that are capable of collecting covered data.

**(2) Identification of gaps**

The Administrator shall, in consultation with the Office of the Federal Coordinator for Meteorology and individuals and entities consulted under subsection (e)(3), assess the systems identified under paragraph (1) and identify which systems meet the needs of the National Oceanic and Atmospheric Administration for the collection of covered data, including with respect to the accuracy requirement for post-storm assessment under subsection (b)(3).

**(3) Plan**

Not later than 270 days after July 6, 2012, the Administrator shall, in consultation with the Office of the Federal Coordinator for Meteorology, submit to Congress a plan for the collection of covered data necessary to develop the Named Storm Event Model and post-storm assessment required by subsection (b) that addresses any gaps identified in paragraph (2).

**(e) Coordination of covered data collection and maintenance by participants**

**(1) In general**

The Administrator shall, in consultation with the Office of the Federal Coordinator for Meteorology, coordinate the collection and maintenance of covered data by participants under this section—

(A) to streamline the process of collecting covered data in accordance with the protocol established under subsection (c)(1); and

(B) to maintain transparency of such process and the database established under subsection (f).

**(2) Sharing information**

The Administrator shall establish a process for sharing among participants information relevant to collecting and using covered data for—

(A) academic research;

(B) private sector use;

(C) public outreach; and

(D) such other purposes as the Administrator considers appropriate.

**(3) Consultation**

In carrying out paragraphs (1) and (2), the Administrator shall consult with the following:

(A) The Commanding General of the Corps of Engineers.

(B) The Administrator of the Federal Emergency Management Agency.

(C) The Commandant of the Coast Guard.

(D) The Director of the United States Geological Survey.

(E) The Office of the Federal Coordinator for Meteorology.

(F) The Director of the National Science Foundation.

(G) The Administrator of the National Aeronautics and Space Administration.

(H) Such public, private, and academic sector entities as the Administrator considers appropriate for purposes of carrying out the provisions of this section.

**(f) Establishment of Coastal Wind and Water Event Database**

**(1) In general**

Not later than 1 year after July 6, 2012, the Administrator shall establish a database for the collection and compilation of covered data—

(A) to support the protocol established under subsection (c)(1); and

(B) for the purposes listed in subsection (e)(2).

**(2) Designation**

The database established under paragraph (1) shall be known as the “Coastal Wind and Water Event Database”.

**(g) Comptroller General study**

Not later than 1 year after July 6, 2012, the Comptroller General of the United States shall—

(1) complete an audit of Federal efforts to collect covered data for purposes of the Consumer Option for an Alternative System to Allocate Losses Act of 2012, which audit shall—

(A) examine duplicated Federal efforts to collect covered data; and

(B) determine the cost effectiveness of such efforts; and

(2) submit to the Committee on Banking, Housing, and Urban Affairs and the<sup>1</sup> Commerce, Science, and Transportation of the Senate and the Committee on Financial Services and the Committee on Science, Space, and Technology of the House of Representatives a report on the findings of the Comptroller General with respect to the audit completed under paragraph (1).

(Pub. L. 111–11, title XII, §12312, as added Pub. L. 112–141, div. F, title II, §100252, July 6, 2012, 126 Stat. 969; amended Pub. L. 116–271, title II, §201(a), Dec. 31, 2020, 134 Stat. 3344.)

**Editorial Notes**

**REFERENCES IN TEXT**

The Consumer Option for an Alternative System to Allocate Losses Act of 2012, referred to in subsec. (g)(1), is subtitle B (§§100251–100253) of title II of div. F of Pub. L. 112–141, which enacted this section, section 4057 of Title 42, the Public Health and Welfare, and provisions set out as a note under section 4001 of Title 42. For complete classification of this Act to the Code, see Short Title of 2012 Amendment note set out under section 4001 of Title 42 and Tables.

**AMENDMENTS**

2020—Subsec. (a)(2). Pub. L. 116–271, §201(a)(1)(A), inserted “, except that the term shall not apply with respect to a State or territory that has an operational wind and flood loss allocation system” before period at end.

<sup>1</sup>So in original. Probably should be followed by “Committee on”.

Subsec. (a)(6). Pub. L. 116–271, §201(a)(1)(B), inserted “sustained” before “winds”.

Subsec. (a)(7). Pub. L. 116–271, §201(a)(1)(C), substituted “for which post-storm assessments are conducted” for “that threaten any portion of a coastal State”.

Subsec. (b)(1)(A). Pub. L. 116–271, §201(a)(2)(A)(i), substituted “December 31, 2020” for “540 days after July 6, 2012” and struck out “by regulation” after “Administrator shall develop”.

Subsec. (b)(1)(B). Pub. L. 116–271, §201(a)(2)(A)(ii), substituted “an indeterminate loss” for “every indeterminate loss”.

Subsec. (b)(1)(C). Pub. L. 116–271, §201(a)(2)(A)(iii), added subpar. (C).

Subsec. (b)(2)(B), (C). Pub. L. 116–271, §201(a)(2)(B)(ii), added subpars. (B) and (C). Former subpars. (B) and (C) redesignated (D) and (E), respectively.

Subsec. (b)(2)(D). Pub. L. 116–271, §201(a)(2)(B)(iii), substituted “confirmation of indeterminate losses identified under subparagraph (C) with respect to a named storm” for “identification of a named storm under subparagraph (A)” and “assessment for each coastal State that suffered such indeterminate losses as a result of the named storm” for “assessment for such named storm”.

Pub. L. 116–271, §201(a)(2)(B)(i), redesignated subpar. (B) as (D).

Subsec. (b)(2)(E). Pub. L. 116–271, §201(a)(2)(B)(iv), substituted “any indeterminate losses are identified under subparagraph (C)” for “an identification of a named storm is made under subparagraph (A)” and “under subparagraph (D) for any coastal State that suffered such indeterminate losses” for “for such storm under subparagraph (B)”.

Pub. L. 116–271, §201(a)(2)(B)(i), redesignated subpar. (C) as (E).

Subsec. (b)(2)(F). Pub. L. 116–271, §201(a)(2)(B)(v), added subpar. (F).

Subsec. (c)(1). Pub. L. 116–271, §201(a)(3)(A), substituted “December 31, 2020” for “540 days after July 6, 2012”.

Subsec. (c)(2). Pub. L. 116–271, §201(a)(3)(B), inserted “, in the discretion of the Administrator,” after “of sensors as may”.

Subsec. (c)(4)(B). Pub. L. 116–271, §201(a)(3)(C), inserted “and expend” after “receive”.

## CHAPTER 50—FEDERAL OCEAN ACIDIFICATION RESEARCH AND MONITORING

Sec.	
3701.	Purposes.
3702.	Definitions.
3703.	Interagency Subcommittee.
3704.	Strategic research plan.
3705.	NOAA ocean acidification activities.
3706.	NSF ocean acidification activities.
3707.	NASA ocean acidification activities.
3708.	Authorization of appropriations.

### § 3701. Purposes

#### (a) Purposes

The purposes of this chapter are to provide for—

(1) development and coordination of a comprehensive interagency plan to—

(A) monitor and conduct research on the processes and consequences of ocean acidification on marine organisms and ecosystems; and

(B) establish an interagency research and monitoring program on ocean acidification;

(2) establishment of an ocean acidification program within the National Oceanic and Atmospheric Administration;

(3) assessment and consideration of regional and national ecosystem and socioeconomic impacts of increased ocean acidification; and

(4) research adaptation strategies and techniques for effectively conserving marine ecosystems as they cope with increased ocean acidification.

(Pub. L. 111–11, title XII, §12402, Mar. 30, 2009, 123 Stat. 1436.)

### Statutory Notes and Related Subsidiaries

#### SHORT TITLE

Pub. L. 111–11, title XII, §12401, Mar. 30, 2009, 123 Stat. 1436, provided that: “This subtitle [subtitle D (§§12401–12409) of title XII of Pub. L. 111–11, enacting this chapter] may be cited as the ‘Federal Ocean Acidification Research And Monitoring Act of 2009’ or the ‘FOARAM Act.’”

### § 3702. Definitions

In this chapter:

#### (1) Ocean acidification

The term “ocean acidification” means the decrease in pH of the Earth’s oceans and changes in ocean chemistry caused by chemical inputs from the atmosphere, including carbon dioxide.

#### (2) Secretary

The term “Secretary” means the Secretary of Commerce, acting through the Administrator of the National Oceanic and Atmospheric Administration.

#### (3) Subcommittee

The term “Subcommittee” means the Joint Subcommittee on Ocean Science and Technology of the National Science and Technology Council.

(Pub. L. 111–11, title XII, §12403, Mar. 30, 2009, 123 Stat. 1437.)

### § 3703. Interagency Subcommittee

#### (a) Designation

##### (1) In general

The Joint Subcommittee on Ocean Science and Technology of the National Science and Technology Council shall coordinate Federal activities on ocean acidification and establish an interagency working group.

##### (2) Membership

The interagency working group on ocean acidification shall be comprised of senior representatives from the National Oceanic and Atmospheric Administration, the National Science Foundation, the National Aeronautics and Space Administration, the United States Geological Survey, the United States Fish and Wildlife Service, and such other Federal agencies as appropriate.

##### (3) Chairman

The interagency working group shall be chaired by the representative from the National Oceanic and Atmospheric Administration.

#### (b) Duties

The Subcommittee shall—

(1) develop the strategic research and monitoring plan to guide Federal research on ocean