

rine mammals, and on disciplines including marine genomics, marine environmental microbiology, ecological chemistry and conservation medicine.

(3) In selecting centers for funding, the Secretary will give priority to proposals with strong interdisciplinary scientific merit that encourage educational opportunities and provide for effective partnerships among the Administration, other Federal entities, State, academic, non-profit research organizations, medical, and industry participants.

**(d) Extramural research grants**

(1) The Secretary is authorized to provide grants of financial assistance to the scientific community for critical research and projects that explore the relationship between the oceans and human health and that complement or strengthen programs and activities of the National Oceanic and Atmospheric Administration related to the ocean's<sup>1</sup> role in human health. Officers and employees of Federal agencies may collaborate with, and participate in, such research and projects to the extent requested by the grant recipient. The Secretary shall consult with the oceans and human health advisory panel established under subsection (b) and may work cooperatively with other agencies participating in the interagency program to establish joint criteria for such research and projects.

(2) Grants under this subsection shall be awarded through a competitive peer-reviewed, merit-based process that may be conducted jointly with other agencies participating in the interagency program.

**(e) Traineeships**

The Secretary of Commerce is authorized to establish a program to provide traineeships, training, and experience to pre-doctoral and post-doctoral students and to scientists at the beginning of their careers who are interested in the oceans in human health research conducted under the NOAA initiative.

(Pub. L. 108-447, div. B, title IX, §903, Dec. 8, 2004, 118 Stat. 2933.)

**Editorial Notes**

REFERENCES IN TEXT

The Federal Advisory Committee Act, referred to in subsec. (b), is Pub. L. 92-463, Oct. 6, 1972, 86 Stat. 770, as amended, which is set out in the Appendix to Title 5, Government Organization and Employees.

**§ 3103. Public information and outreach**

The Secretary of Commerce, in consultation with other Federal agencies, and in cooperation with the National Sea Grant program, shall design and implement a program to disseminate information developed under the NOAA Oceans and Human Health Initiative, including research, assessments, and findings regarding the relationship between oceans and human health, on both a regional and national scale. The information, particularly with respect to potential health risks, shall be made available in a timely manner to appropriate Federal or State agen-

cies, involved industries, and other interested persons through a variety of means, including through the Internet.

(Pub. L. 108-447, div. B, title IX, §904, Dec. 8, 2004, 118 Stat. 2934; Pub. L. 114-327, title VI, §601, Dec. 16, 2016, 130 Stat. 1998.)

**Editorial Notes**

AMENDMENTS

2016—Pub. L. 114-327 struck out subsec. (a) designation and heading, realigned margins, and struck out subsec. (b) which related to NOAA Oceans and Human Health Initiative annual report.

**§ 3104. Authorization of appropriations**

There are authorized to be appropriated to the Secretary of Commerce to carry out the National Oceanic and Atmospheric Administration Oceans and Human Health Initiative, \$60,000,000 for fiscal years 2005 through 2008. Not less than 50 percent of the amounts appropriated to carry out the initiative shall be utilized in each fiscal year to support the extramural grant and traineeship programs of the Initiative.

(Pub. L. 108-447, div. B, title IX, §905, Dec. 8, 2004, 118 Stat. 2934.)

**CHAPTER 45—TSUNAMI WARNING AND EDUCATION**

Sec.	
3201.	Definitions.
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**§ 3201. Definitions**

In this chapter:

(1) The term “Administration” means the National Oceanic and Atmospheric Administration.

(2) The term “Administrator” means the Administrator of the National Oceanic and Atmospheric Administration.

(Pub. L. 109-424, §2, Dec. 20, 2006, 120 Stat. 2902; Pub. L. 109-479, title VIII, §802, Jan. 12, 2007, 120 Stat. 3653; Pub. L. 115-25, title V, §512(a), Apr. 18, 2017, 131 Stat. 128.)

**Editorial Notes**

CODIFICATION

Pub. L. 109-424 and title VIII of Pub. L. 109-479 enacted substantially identical sections. Pub. L. 109-424 was repealed by section 512(a) of Pub. L. 115-25.

**Statutory Notes and Related Subsidiaries**

SHORT TITLE OF 2017 AMENDMENT

Pub. L. 115-25, title V, §501, Apr. 18, 2017, 131 Stat. 115, provided that: “This title [enacting sections 3206a and 3208 of this title, amending this section and sections 3202 to 3207 of this title, and enacting and repealing provisions set out as notes under this section] may be

<sup>1</sup> So in original. Probably should be “oceans”.

cited as the ‘Tsunami Warning, Education, and Research Act of 2017.’”

#### SHORT TITLE

Pub. L. 109-479, title VIII, §801, Jan. 12, 2007, 120 Stat. 3653, provided that: “This title [enacting this chapter] may be cited as the ‘Tsunami Warning and Education Act.’”

Pub. L. 109-424, §1, Dec. 20, 2006, 120 Stat. 2902, which provided that Pub. L. 109-424 could be cited as the Tsunami Warning and Education Act, was repealed by Pub. L. 115-25, title V, §512(a), Apr. 18, 2017, 131 Stat. 128.

#### CONSTRUCTION

Pub. L. 115-25, title V, §512(b), Apr. 18, 2017, 131 Stat. 128, provided that: “Nothing in this section [repealing Pub. L. 109-424] may be construed to repeal, or affect in any way, the Tsunami Warning and Education Act [this chapter] enacted as title VIII of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 (Public Law 109-479; 33 U.S.C. 3201 et seq.).”

### § 3202. Purposes

The purposes of this chapter are—

(1) to improve tsunami detection, forecasting, warnings, research, notification, outreach, and mitigation to protect life and property in the United States;

(2) to enhance and modernize the existing United States Tsunami Warning System to increase the accuracy of forecasts and warnings, to ensure full coverage of tsunami threats to the United States with a network of detection assets, and to reduce false alarms;

(3) to improve and develop standards and guidelines for mapping, modeling, and assessment efforts to improve tsunami detection, forecasting, warnings, notification, mitigation, resiliency, response, outreach, and recovery;

(4) to improve research efforts related to improving tsunami detection, forecasting, warnings, notification, mitigation, resiliency, response, outreach, and recovery;

(5) to improve, increase, and develop uniform standards and guidelines for education and outreach activities and ensure that those receiving tsunami warnings and the at-risk public know what to do when a tsunami is approaching, including the warning signs of locally generated tsunamis;

(6) to provide technical and other assistance to speed international efforts to establish regional tsunami warning systems in vulnerable areas worldwide;

(7) to foster resilient communities in the face of tsunami and other similar coastal hazards; and

(8) to improve Federal, State, and international coordination for detection, warnings, and outreach for tsunami and other coastal impacts.

(Pub. L. 109-424, §3, Dec. 20, 2006, 120 Stat. 2902; Pub. L. 109-479, title VIII, §803, Jan. 12, 2007, 120 Stat. 3653; Pub. L. 115-25, title V, §§503, 512(a), Apr. 18, 2017, 131 Stat. 115, 128.)

#### Editorial Notes

##### CODIFICATION

Pub. L. 109-424 and title VIII of Pub. L. 109-479 enacted substantially identical sections. Pub. L. 109-424 was repealed by section 512(a) of Pub. L. 115-25.

#### AMENDMENTS

2017—Par. (1). Pub. L. 115-25, §503(1), inserted “research,” after “warnings.”

Par. (2). Pub. L. 115-25, §503(2), amended par. (2) generally. Prior to amendment, par. (2) read as follows: “to enhance and modernize the existing Pacific Tsunami Warning System to increase coverage, reduce false alarms, and increase the accuracy of forecasts and warnings, and to expand detection and warning systems to include other vulnerable States and United States territories, including the Atlantic Ocean, Caribbean Sea, and Gulf of Mexico areas;”

Par. (3). Pub. L. 115-25, §503(3), amended par. (3) generally. Prior to amendment, par. (3) read as follows: “to improve mapping, modeling, research, and assessment efforts to improve tsunami detection, forecasting, warnings, notification, outreach, mitigation, response, and recovery;”

Par. (4). Pub. L. 115-25, §503(5), added par. (4). Former par. (4) redesignated (5).

Par. (5). Pub. L. 115-25, §503(4), (6), redesignated par. (4) as (5), substituted “, increase, and develop uniform standards and guidelines for” for “and increase”, and inserted “, including the warning signs of locally generated tsunami” after “approaching”. Former par. (5) redesignated (6).

Par. (6). Pub. L. 115-25, §503(4), (7), redesignated par. (5) as (6) and substituted semicolon at end for “, including the Indian Ocean; and”. Former par. (6) redesignated (8).

Par. (7). Pub. L. 115-25, §503(8), added par. (7).

Par. (8). Pub. L. 115-25, §503(4), redesignated par. (6) as (8).

### § 3203. Tsunami forecasting and warning program

#### (a) In general

The Administrator, through the National Weather Service and in consultation with other relevant Administration offices, shall operate a program to provide tsunami detection, forecasting, and warnings for the Pacific and Arctic Ocean regions and for the Atlantic Ocean region, including the Caribbean Sea and the Gulf of Mexico.

#### (b) Components

The program under this section shall—

(1) include the tsunami warning centers supported or maintained under subsection (d);

(2) to the degree practicable, maintain not less than 80 percent of the Deep-ocean Assessment and Reporting of Tsunamis buoy array at operational capacity to optimize data reliability;

(3) utilize and maintain an array of robust tsunami detection technologies;

(4) maintain detection equipment in operational condition to fulfill the detection, forecasting, and warning requirements of this chapter;

(5) provide tsunami forecasting capability based on models and measurements, including tsunami inundation models and maps for use in increasing the preparedness of communities and safeguarding port and harbor operations, that incorporate inputs, including—

(A) the United States and global ocean and coastal observing system;

(B) the global Earth observing system;

(C) the global seismic network;

(D) the Advanced National Seismic system;

(E) tsunami model validation using historical and paleotsunami data;