

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

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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.)

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 L. 109-424 was repealed by section 512(a) of Pub.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.

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 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 L. 109-424 could be cited as the Tsunami Warning and Education Act, was repealed by Pub.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, out-

reach, 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 tsunami;

(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.)

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;

(F) digital elevation models and bathymetry; and

(G) newly developing tsunami detection methodologies using satellites and airborne remote sensing;

(6) maintain data quality and management systems to support the requirements of the program;

(7) include a cooperative effort among the Administration, the United States Geological Survey, and the National Science Foundation under which the Director of the United States Geological Survey and the Director of the National Science Foundation shall—

(A) provide rapid and reliable seismic information to the Administrator from international and domestic seismic networks; and

(B) support seismic stations installed before April 18, 2017, to supplement coverage in areas of sparse instrumentation;

(8) provide a capability for the dissemination of warnings, including graphical warning products, to at-risk States, territories, and tsu-

nami communities through rapid and reliable notification to government officials and the public, including utilization of and coordination with existing Federal warning systems, including the National Oceanic and Atmospheric Administration Weather Radio All Hazards Program and Wireless Emergency Alerts;

(9) provide and allow, as practicable, for integration of tsunami detection technologies with other environmental observing technologies and commercial and Federal undersea communications cables; and

(10) include any technology the Administrator considers appropriate to fulfill the objectives of the program under this section.

(c) Tsunami warning system

The program under this section shall operate a tsunami warning system that—

(1) is capable of forecasting tsunami, including forecasting tsunami arrival time and inundation estimates, anywhere in the Pacific and Arctic Ocean regions and providing adequate warnings;

(2) is capable of forecasting and providing adequate warnings, including tsunami arrival time and inundation models where applicable, in areas of the Atlantic Ocean, including the Caribbean Sea and Gulf of Mexico, that are determined—

(A) to be geologically active, or to have significant potential for geological activity; and

(B) to pose significant risks of tsunami for States along the coastal areas of the Atlantic Ocean, Caribbean Sea, or Gulf of Mexico; and

(3) supports other international tsunami forecasting and warning efforts.

(d) Tsunami warning centers

(1) In general

The Administrator shall support or maintain centers to support the tsunami warning system required by subsection (c). The Centers¹ shall include—

(A) the National Tsunami Warning Center, located in Alaska, which is primarily responsible for Alaska and the continental United States;

(B) the Pacific Tsunami Warning Center, located in Hawaii, which is primarily responsible for Hawaii, the Caribbean, and other areas of the Pacific not covered by the National Center; and

(C) any additional forecast and warning centers determined by the National Weather Service to be necessary.

(2) Responsibilities

The responsibilities of the centers supported or maintained under paragraph (1) shall include the following:

(A) Continuously monitoring data from seismological, deep ocean, coastal sea level, and tidal monitoring stations and other data sources as may be developed and deployed.

(B) Evaluating earthquakes, landslides, and volcanic eruptions that have the potential to generate tsunami.

¹ So in original.