

(B) the specific deep ocean or other monitoring equipment that detected the incident, as well as the deep ocean or other monitoring equipment that did not detect the incident due to malfunction or other reasons;

(C) the effectiveness of the warning communication, including the dissemination of warnings with State, territory, local, and tribal partners in the affected area under the jurisdiction of the National Weather Service; and

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

(Pub. L. 109-424, § 4, Dec. 20, 2006, 120 Stat. 2903; Pub. L. 109-479, title VIII, § 804, Jan. 12, 2007, 120 Stat. 3654; Pub. L. 115-25, title V, §§ 504, 512(a), Apr. 18, 2017, 131 Stat. 116, 128.)

Editorial Notes

REFERENCES IN TEXT

Section 3205 of this title, referred to in subsec. (e)(2), was in the original “section 6”, meaning section 6 of Pub. L. 109-424, and was translated as if it referred to section 806 of Pub. L. 109-479, which enacted a substantially identical section 3205 of this title. Section 6 of Pub. L. 109-424 was repealed by section 512(a) of Pub. L. 115-25.

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 L. 109-424 was repealed by section 512(a) of Pub.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—Subsec. (a). Pub. L. 115-25, § 504(a), substituted “Atlantic Ocean region, including the Caribbean Sea and the Gulf of Mexico” for “Atlantic Ocean, Caribbean Sea, and Gulf of Mexico region”.

Subsec. (b)(1). Pub. L. 115-25, § 504(b)(1), substituted “supported or maintained” for “established”.

Subsec. (b)(2). Pub. L. 115-25, § 504(b)(4), added par. (2). Former par. (2) redesignated (3).

Subsec. (b)(3), (4). Pub. L. 115-25, § 504(b)(3), redesignated pars. (2) and (3) as (3) and (4), respectively. Former par. (4) redesignated (5).

Subsec. (b)(5). Pub. L. 115-25, § 504(b)(5), amended par. (5) generally. Prior to amendment, par. (5) read as follows: “provide tsunami forecasting capability based on models and measurements, including tsunami inundation models and maps for use in increasing the preparedness of communities, including through the TsunamiReady program;”.

Pub. L. 115-25, § 504(b)(3), redesignated par. (4) as (5). Former par. (5) redesignated (6).

Subsec. (b)(6). Pub. L. 115-25, § 504(b)(3), redesignated par. (5) as (6). Former par. (6) redesignated (7).

Subsec. (b)(7). Pub. L. 115-25, § 504(b)(6), amended par. (7) generally. Prior to amendment, par. (7) read as follows: “include a cooperative effort among the Administration, the United States Geological Survey, and the National Science Foundation under which the Geological Survey and the National Science Foundation shall provide rapid and reliable seismic information to the Administration from international and domestic seismic networks;”.

Pub. L. 115-25, § 504(b)(3), redesignated par. (6) as (7). Former par. (7) redesignated (8).

Subsec. (b)(8). Pub. L. 115-25, § 504(b)(2), (7), redesignated par. (7) as (8) and inserted “, including graphical warning products,” after “warnings”, “, territories,” after “States” and “and Wireless Emergency Alerts” after “Hazards Program”. Former par. (8) redesignated (9).

Subsec. (b)(9). Pub. L. 115-25, § 504(b)(2), (8), redesignated par. (8) as (9) and inserted “provide and” before

“allow” and “and commercial and Federal undersea communications cables” after “observing technologies”. Former par. (9) redesignated (10).

Subsec. (b)(10). Pub. L. 115-25, § 504(b)(2), redesignated par. (9) as (10).

Subsec. (c). Pub. L. 115-25, § 504(c), amended subsec. (c) generally. Prior to amendment, subsec. (c) related to tsunami warning system areas.

Subsec. (d). Pub. L. 115-25, § 504(d), amended subsec. (d) generally. Prior to amendment, subsec. (d) related to the location of tsunami warning centers and the responsibilities of the centers.

Subsec. (e). Pub. L. 115-25, § 504(e), amended subsec. (e) generally. Prior to amendment, subsec. (e) related to the National Weather Service’s responsibilities regarding tsunami equipment and technology.

Subsec. (f). Pub. L. 115-25, § 504(f), amended subsec. (f) generally. Prior to amendment, text read as follows: “When deploying and maintaining tsunami detection technologies, the Administrator shall seek the assistance and assets of other appropriate Federal agencies.”

Subsec. (g). Pub. L. 115-25, § 504(h), designated existing provisions as par. (1) and inserted heading, redesignated former pars. (1) and (2) as subpars. (A) and (B), respectively, of par. (1) and realigned margins, added subpar. (C) of par. (1), and added par. (2).

Pub. L. 115-25, § 504(g)(1), (3), redesignated subsec. (h) as (g) and struck out former subsec. (g) which related to annual equipment certification.

Subsec. (h). Pub. L. 115-25, § 504(g)(3), redesignated subsec. (h) as (g).

Subsecs. (i) to (k). Pub. L. 115-25, § 504(g)(2), struck out subsecs. (i) to (k) which related to Comptroller General report, external review by the National Academy of Sciences, and establishment of a process for monitoring and certifying contractor performance, respectively.

Statutory Notes and Related Subsidiaries

CHANGE OF NAME

Committee on Science of House of Representatives changed to Committee on Science and Technology of House of Representatives by House Resolution No. 6, One Hundred Tenth Congress, Jan. 5, 2007. Committee on Science and Technology of House of Representatives changed to Committee on Science, Space, and Technology of House of Representatives by House Resolution No. 5, One Hundred Twelfth Congress, Jan. 5, 2011.

§ 3204. National tsunami hazard mitigation program

(a) Program required

The Administrator, in coordination with the Administrator of the Federal Emergency Management Agency and the heads of such other agencies as the Administrator considers relevant, shall conduct a community-based tsunami hazard mitigation program to improve tsunami preparedness and resiliency of at-risk areas in the United States and the territories of the United States.

(b) Coordinating committee

In conducting the program under this section, the Administrator shall establish a coordinating committee comprising representatives of Federal, State, local, and tribal government officials. The Administrator may establish subcommittees to address region-specific issues. The committee shall—

(1) recommend how funds appropriated for carrying out the program under this section will be allocated;

(2) ensure that areas described in section 3203(c) of this title in the United States and its

territories can have the opportunity to participate in the program;

(3) provide recommendations to the National Weather Service on how to improve the TsunamiReady program, particularly on ways to make communities more tsunami resilient through the use of inundation maps and other mitigation practices; and

(4) ensure that all components of the program are integrated with ongoing hazard warning and risk management activities, emergency response plans, and mitigation programs in affected areas, including integrating information to assist in tsunami evacuation route planning.

(c) Program components

The Program conducted under subsection (a) shall include the following:

(1) Technical and financial assistance to coastal States, territories, tribes, and local governments to develop and implement activities under this section.

(2) Integration of tsunami preparedness and mitigation programs into ongoing State-based hazard warning, resilience planning, and risk management activities, including predisaster planning, emergency response, evacuation planning, disaster recovery, hazard mitigation, and community development and redevelopment planning programs in affected areas.

(3) Coordination with other Federal preparedness and mitigation programs to leverage Federal investment, avoid duplication, and maximize effort.

(4) Activities to promote the adoption of tsunami resilience, preparedness, warning, and mitigation measures by Federal, State, territorial, tribal, and local governments and non-governmental entities, including educational and risk communication programs to discourage development in high-risk areas.

(5) Activities to support the development of regional tsunami hazard and risk assessments. Such regional risk assessments may include the following:

(A) The sources, sizes, and other relevant historical data of tsunamis in the region, including paleotsunami data.

(B) Inundation models and maps of critical infrastructure and socioeconomic vulnerability in areas subject to tsunami inundation.

(C) Maps of evacuation areas and evacuation routes, including, when appropriate, traffic studies that evaluate the viability of evacuation routes.

(D) Evaluations of the size of populations that will require evacuation, including populations with special evacuation needs.

(E) Evaluations and technical assistance for vertical evacuation structure planning for communities where models indicate limited or no ability for timely evacuation, especially in areas at risk of near shore generated tsunami.

(F) Evaluation of at-risk ports and harbors.

(G) Evaluation of the effect of tsunami currents on the foundations of closely-spaced, coastal high-rise structures.

(6) Activities to promote preparedness in at-risk ports and harbors, including the following:

(A) Evaluation and recommendation of procedures for ports and harbors in the event of a distant or near-field tsunami.

(B) A review of readiness, response, and communication strategies to ensure coordination and data sharing with the Coast Guard.

(7) Activities to support the development of community-based outreach and education programs to ensure community readiness and resilience, including the following:

(A) The development, implementation, and assessment of technical training and public education programs, including education programs that address unique characteristics of distant and near-field tsunami.

(B) The development of decision support tools.

(C) The incorporation of social science research into community readiness and resilience efforts.

(D) The development of evidence-based education guidelines.

(8) Dissemination of guidelines and standards for community planning, education, and training products, programs, and tools, including—

(A) standards for—

(i) mapping products;

(ii) inundation models; and

(iii) effective emergency exercises; and

(B) recommended guidance for at-risk port and harbor tsunami warning, evacuation, and response procedures in coordination with the Coast Guard and the Federal Emergency Management Agency.

(d) Authorized activities

In addition to activities conducted under subsection (c), the program conducted under subsection (a) may include the following:

(1) Multidisciplinary vulnerability assessment research, education, and training to help integrate risk management and resilience objectives with community development planning and policies.

(2) Risk management training for local officials and community organizations to enhance understanding and preparedness.

(3) In coordination with the Federal Emergency Management Agency, interagency, Federal, State, tribal, and territorial intergovernmental tsunami response exercise planning and implementation in high risk areas.

(4) Development of practical applications for existing or emerging technologies, such as modeling, remote sensing, geospatial technology, engineering, and observing systems, including the integration of tsunami sensors into Federal and commercial submarine telecommunication cables if practicable.

(5) Risk management, risk assessment, and resilience data and information services, including—

(A) access to data and products derived from observing and detection systems; and

(B) development and maintenance of new integrated data products to support risk

management, risk assessment, and resilience programs.

(6) Risk notification systems that coordinate with and build upon existing systems and actively engage decisionmakers, State, local, tribal, and territorial governments and agencies, business communities, nongovernmental organizations, and the media.

(e) No preemption with respect to designation of at-risk areas

The establishment of national standards for inundation models under this section shall not prevent States, territories, tribes, and local governments from designating additional areas as being at risk based on knowledge of local conditions.

(f) No new regulatory authority

Nothing in this chapter may be construed as establishing new regulatory authority for any Federal agency.

(Pub. L. 109-424, § 5, Dec. 20, 2006, 120 Stat. 2906; Pub. L. 109-479, title VIII, § 805, Jan. 12, 2007, 120 Stat. 3657; Pub. L. 115-25, title V, §§ 505(a), (b), 512(a), Apr. 18, 2017, 131 Stat. 121, 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—Subsec. (a). Pub. L. 115-25, § 505(a), amended subsec. (a) generally. Prior to amendment, text read as follows: “The Administrator, through the National Weather Service and in consultation with other relevant Administration offices, shall conduct a community-based tsunami hazard mitigation program to improve tsunami preparedness of at-risk areas in the United States and its territories.”

Subsecs. (c) to (f). Pub. L. 115-25, § 505(b), added subsecs. (c) to (f) and struck out former subsecs. (c) and (d) which related to program components and provided a savings clause, respectively.

§ 3205. Tsunami research program

(a) In general

The Administrator shall, in consultation with such other Federal agencies, State, tribal, and territorial governments, and academic institutions as the Administrator considers appropriate, the coordinating committee under section 3204(d)¹ of this title, and the panel under section 3206a(a) of this title, support or maintain a tsunami research program to develop detection, forecast, communication, and mitigation science and technology, including advanced sensing techniques, information and communication technology, data collection, analysis, assessment for tsunami tracking and numerical forecast modeling, and standards development.

(b) Responsibilities

The research program supported or maintained under subsection (a) shall—

(1) consider other appropriate and cost effective solutions to mitigate the impact of tsu-

nami, including the improvement of near-field and distant tsunami detection and forecasting capabilities, which may include use of a new generation of the Deep-ocean Assessment and Reporting of Tsunamis array, integration of tsunami sensors into commercial and Federal telecommunications cables, and other real-time tsunami monitoring systems and super-computer capacity of the Administration to develop a rapid tsunami forecast for all United States coastlines;

(2) coordinate with the National Weather Service on technology to be transferred to operations;

(3) conduct social science research to develop and assess community warning, education, and evacuation materials;

(4) develop the technical basis for validation of tsunami maps, numerical tsunami models, digital elevation models, and forecasts; and

(5) ensure that research and findings are available to the public and the scientific community.

(Pub. L. 109-424, § 6, Dec. 20, 2006, 120 Stat. 2907; Pub. L. 109-479, title VIII, § 806, Jan. 12, 2007, 120 Stat. 3658; Pub. L. 115-25, title V, §§ 506, 512(a), Apr. 18, 2017, 131 Stat. 123, 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—Pub. L. 115-25, § 506(1), (2), designated first and second sentences of existing provisions as subsecs. (a) and (b), respectively, and inserted headings.

Subsec. (a). Pub. L. 115-25, § 506(1), (2), substituted “The Administrator shall, in consultation with such other Federal agencies, State, tribal, and territorial governments, and academic institutions as the Administrator considers appropriate, the coordinating committee under section 3204(d) of this title, and the panel under section 3206a(a) of this title, support or maintain” for “The Administrator shall, in consultation with other agencies and academic institutions, and with the coordinating committee established under section 3204(b) of this title, establish or maintain” and “assessment for tsunami tracking and numerical forecast modeling, and standards development.” for “and assessment for tsunami tracking and numerical forecast modeling.”

Subsec. (b). Pub. L. 115-25, § 506(2), substituted “The research program supported or maintained under subsection (a) shall—” for “Such research program shall—”.

Subsec. (b)(1). Pub. L. 115-25, § 506(3)(A), amended par. (1) generally. Prior to amendment, par. (1) read as follows: “consider other appropriate research to mitigate the impact of tsunami;”.

Subsec. (b)(3). Pub. L. 115-25, § 506(3)(B), substituted “conduct” for “include” and struck out “and” at end.

Subsec. (b)(4). Pub. L. 115-25, § 506(3)(D), added par. (4). Former par. (4) redesignated (5).

Subsec. (b)(5). Pub. L. 115-25, § 506(3)(C), (E), redesignated par. (4) as (5) and substituted “to the public and the scientific community” for “to the scientific community”.

¹ So in original. Probably should read “section 3204(b)”.