stitutions, or non-profit research organizations of new technologies and approaches for detecting and reducing hazards to human health from ocean sources and to strengthen understanding of the value of marine biodiversity to biomedicine, including—

- (A) genomics and proteomics to develop genetic and immunological detection approaches and predictive tools and to discover new biomedical resources;
 - (B) biomaterials and bioengineering;
- (C) in situ and remote sensors used to detect, quantify, and predict the presence and spread of contaminants in marine waters and organisms and to identify new genetic resources for biomedical purposes:
- (D) techniques for supplying marine resources, including chemical synthesis, culturing and aquaculturing marine organisms, new fermentation methods and recombinant techniques; and
- (E) adaptation of equipment and technologies from human health fields.
- (4) Support for scholars, trainees and education opportunities that encourage an interdisciplinary and international approach to exploring the diversity of life in the oceans.

(d) Annual report

Beginning with the first year occurring more than 24 months after December 8, 2004, the National Science and Technology Council, through the Director of the Office of Science and Technology Policy shall prepare and submit to the President and the Congress not later than January 31st of each year an annual report on the activities conducted pursuant to this title during the preceding fiscal year, including—

- (1) a summary of the achievements of Federal oceans and human health research, including Federally supported external research, during the preceding fiscal year;
- (2) an analysis of the progress made toward achieving the goals and objectives of the plan developed under subsection (b), including identification of trends and emerging trends;
- (3) a copy or summary of the plan and any changes made in the plan;
- (4) a summary of agency budgets for oceans and human health activities for that preceding fiscal year; and
- (5) any recommendations regarding additional action or legislation that may be required to assist in achieving the purposes of this chapter

(Pub. L. 108-447, div. B, title IX, §902, Dec. 8, 2004, 118 Stat. 2930; Pub. L. 115-232, div. A, title VIII, §809(k)(1), Aug. 13, 2018, 132 Stat. 1843.)

Editorial Notes

References in Text

Section 4001 of this title, referred to in subsec. (b), was in the original "section 603 of the Harmful Algal Bloom and Hypoxia Research and Control Act of 1998 (16 U.S.C. 1451 note)", meaning section 603 of Pub. L. 105–383, which was set out in a note under section 1451 of Title 16, Conservation, prior to transfer to section 4001 of this title.

AMENDMENTS

2018—Subsec. (c)(2). Pub. L. 115–232 substituted ''(10 U.S.C. 8932(a))'' for ''(10 U.S.C. 7902(a))''.

Statutory Notes and Related Subsidiaries

EFFECTIVE DATE OF 2018 AMENDMENT

Amendment by Pub. L. 115–232 effective Feb. 1, 2019, with provision for the coordination of amendments and special rule for certain redesignations, see section 800 of Pub. L. 115–232, set out as a note preceding section 3001 of Title 10, Armed Forces.

SHORT TITLE

Pub. L. 108-447, div. B, title IX, §901, Dec. 8, 2004, 118 Stat. 2930, provided that: "This title [enacting this chapter] may be cited as the 'Oceans and Human Health Act'."

§ 3102. National Oceanic and Atmospheric Administration Oceans and Human Health Initiative

(a) Establishment

As part of the interagency oceans and human health research program, the Secretary of Commerce is authorized to establish an Oceans and Human Health Initiative to coordinate and implement research and activities of the National Oceanic and Atmospheric Administration related to the role of the oceans, the coasts, and the Great Lakes in human health. In carrying out this section, the Secretary shall consult with other Federal agencies conducting integrated oceans and human health research and research in related areas, including the National Science Foundation. The Oceans and Human Health Initiative is authorized to provide support for—

- (1) centralized program and research coordination:
 - (2) an advisory panel;
- (3) one or more National Oceanic and Atmospheric Administration national centers of excellence:
 - (4) research grants; and
 - (5) distinguished scholars and traineeships.

(b) Advisory panel

The Secretary is authorized to establish an oceans and human health advisory panel to assist in the development and implementation of the Oceans and Human Health Initiative. Membership of the advisory group shall provide for balanced representation of individuals with multi-disciplinary expertise in the marine and biomedical sciences. The Federal Advisory Committee Act (5 U.S.C. App.) shall not apply to the oceans and human health advisory panel.

(c) National centers

- (1) The Secretary is authorized to identify and provide financial support through a competitive process to develop, within the National Oceanic and Atmospheric Administration, for one or more centers of excellence that strengthen the capabilities of the National Oceanic and Atmospheric Administration to carry out its programs and activities related to the oceans' role in human health.
- (2) The centers shall focus on areas related to agency missions, including use of marine organisms as indicators for marine environmental health, ocean pollutants, marine toxins and pathogens, harmful algal blooms, hypoxia, seafood testing, identification of potential marine products, and biology and pathobiology of ma-

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 1 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, $\S 903$, 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.

3202. Purposes.

3203. Tsunami forecasting and warning program. 3204. National tsunami hazard mitigation program.

3205. Tsunami research program.

3206. Global tsunami warning and mitigation network.

3206a. Tsunami Science and Technology Advisory Panel.

3207. Authorization of appropriations.

3208. Outreach responsibilities.

§ 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

¹So in original. Probably should be "oceans".