

trator. The Co-directors of the Center for Coastal and Ocean Mapping/Joint Hydrographic Center and no more than 2 employees of the National Oceanic and Atmospheric Administration appointed by the Administrator shall serve as nonvoting members of the panel. The voting members of the panel shall be individuals who, by reason of knowledge, experience, or training, are especially qualified in 1 or more of the disciplines and fields relating to hydrographic data and hydrographic services, marine transportation, port administration, vessel pilotage, coastal and fishery management, and other disciplines as determined appropriate by the Administrator.

(B) An individual may not be appointed as a voting member of the panel if the individual is a full-time officer or employee of the United States.

(C) Any voting member of the panel who is an applicant for, or beneficiary (as determined by the Secretary) of, any assistance under this subchapter shall disclose to the panel that relationship, and may not vote on any matter pertaining to that assistance.

(2) Terms

(A) The term of office of a voting member of the panel shall be 4 years, except that of the original appointees, five shall be appointed for a term of 2 years, five shall be appointed for a term of 3 years, and five shall be appointed for a term of 4 years, as specified by the Administrator at the time of appointment.

(B) Any individual appointed to a partial or full term may be reappointed for one additional full term. A voting member may serve after the date of the expiration of the term of office for which appointed until his or her successor has taken office.

(3) Nominations

At least once each year, the Secretary shall publish a notice in the Federal Register soliciting nominations for membership on the panel.

(4) Chairman and Vice Chairman

(A) The panel shall select one voting member to serve as the Chairman and another voting member to serve as the Vice Chairman.

(B) The Vice Chairman shall act as Chairman in the absence or incapacity of the Chairman.

(d) Compensation

Voting members of the panel shall—

(1) receive compensation at a rate established by the Secretary, not to exceed the maximum daily rate payable under section 5376 of title 5 when actually engaged in the performance of duties for such panel; and

(2) be reimbursed for actual and reasonable expenses incurred in the performance of such duties.

(e) Meetings

The panel shall meet on a biannual basis and, at any other time, at the call of the Chairman or upon the request of a majority of the voting members or of the Secretary.

(f) Powers

The panel may exercise such powers as are reasonably necessary in order to carry out its duties under subsection (b).

(Pub. L. 105-384, title III, §305, Nov. 13, 1998, 112 Stat. 3456; Pub. L. 105-383, title IV, §432(c), Nov. 13, 1998, 112 Stat. 3445; Pub. L. 107-372, title I, §105, Dec. 19, 2002, 116 Stat. 3080; Pub. L. 110-386, §4, Oct. 10, 2008, 122 Stat. 4107.)

REFERENCES IN TEXT

This subchapter, referred to in subsec. (c)(1)(C), was in the original “this Act”, and was translated, to reflect the probable intent of Congress, as reading “this title”, meaning title III of Pub. L. 105-384, Nov. 13, 1998, 112 Stat. 3454, known as the Hydrographic Services Improvement Act of 1998, which is classified principally to this subchapter. For complete classification of title III to the Code, see Short Title of 1998 Amendment note set out under section 851 of this title and Tables.

AMENDMENTS

2008—Subsec. (c)(1)(A). Pub. L. 110-386 amended subpar. (A) generally. Prior to amendment, subpar. (A) read as follows: “The panel shall consist of 15 voting members who shall be appointed by the Administrator. The Director of the Joint Hydrographic Institute and no more than 2 employees of the National Oceanic and Atmospheric Administration appointed by the Administrator shall serve as nonvoting members of the panel. The voting members of the panel shall be individuals who, by reason of knowledge, experience, or training, are especially qualified in one or more of the disciplines and fields relating to hydrographic surveying, tide, current geodetic and geospatial measurement, marine transportation, port administration, vessel pilotage, and coastal and fishery management.”

2002—Pub. L. 107-372 amended section generally, substituting provisions establishing Hydrographic Services Review Panel for provisions requiring report, not later than 6 months after November 13, 1998, on a plan to ensure maintenance of Federal competence and expertise in hydrographic surveying.

1998—Pub. L. 105-383, which directed the amendment of this section by striking out subsecs. (a) and (d), was executed by striking out subsec. (a), because no subsec. (d) has been enacted. Prior to amendment, subsec. (a) read as follows:

“(a) PORTS.—Not later than 6 months after November 13, 1998, the Administrator and the Commandant of the Coast Guard shall report to the Congress on—

“(1) the status of implementation of real-time tide and current data systems in United States ports;

“(2) existing safety and efficiency needs in United States ports that could be met by increased use of those systems; and

“(3) a plan for expanding those systems to meet those needs, including an estimate of the cost of implementing those systems in priority locations.”

EFFECTIVE DATE OF 1998 AMENDMENT

Pub. L. 105-383, title IV, §432(a), Nov. 13, 1998, 112 Stat. 3444, provided that: “Subsections (b) and (c) [amending this section and section 892d of this title] shall take effect immediately after the later of—

“(1) the enactment of the Hydrographic Services Improvement Act of 1998 [Pub. L. 105-384, title III, Nov. 13, 1998]; or

“(2) the enactment of this Act [Nov. 13, 1998].”

§ 892d. Authorization of appropriations

(a) In general

There are authorized to be appropriated to the Administrator the following:

(1) To carry out nautical mapping and charting functions under sections 892b and 892c of

this title, except for conducting hydrographic surveys, \$70,814,000 for each of fiscal years 2019 through 2023.

(2) To contract for hydrographic surveys under section 892b(b)(1) of this title, including the leasing or time chartering of vessels, \$25,000,000 for each of fiscal years 2019 through 2023.

(3) To operate hydrographic survey vessels owned by the United States and operated by the Administration, \$29,932,000 for each of fiscal years 2019 through 2023.

(4) To carry out geodetic functions under this subchapter, \$26,800,000 for each of fiscal years 2019 through 2023.

(5) To carry out tide and current measurement functions under this subchapter, \$30,564,000 for each of fiscal years 2019 through 2023.

(6) To acquire a replacement hydrographic survey vessel capable of staying at sea continuously for at least 30 days \$75,000,000.

(b) Arctic programs

Of the amount authorized by this section for each fiscal year—

(1) \$10,000,000 is authorized for use in the Arctic—

(A) to acquire hydrographic data;

(B) to provide hydrographic services;

(C) to conduct coastal change analyses necessary to ensure safe navigation;

(D) to improve the management of coastal change; and

(E) to reduce risks of harm to subsistence and coastal communities associated with increased international maritime traffic; and

(2) \$2,000,000 is authorized for use to acquire hydrographic data and provide hydrographic services in the Arctic necessary to delineate the United States extended Continental Shelf.

(c) Limitation on administrative expenses for surveys

Of amounts authorized by this section for each fiscal year for contract hydrographic surveys, not more than 5 percent is authorized for administrative costs associated with contract management.

(Pub. L. 105-384, title III, §306, Nov. 13, 1998, 112 Stat. 3457; Pub. L. 105-383, title IV, §432(b), Nov. 13, 1998, 112 Stat. 3445; Pub. L. 107-372, title I, §106, Dec. 19, 2002, 116 Stat. 3081; Pub. L. 110-386, §5, Oct. 10, 2008, 122 Stat. 4108; Pub. L. 115-282, title X, §1001, Dec. 4, 2018, 132 Stat. 4364.)

REFERENCES IN TEXT

This subchapter, referred to in subsec. (a)(4), (5), was in the original “this title”, meaning title III of Pub. L. 105-384, Nov. 13, 1998, 112 Stat. 3454, which is classified principally to this subchapter. For complete classification of this title to the Code, see Short Title of 1998 Amendment note set out under section 851 of this title and Tables.

AMENDMENTS

2018—Subsec. (a). Pub. L. 115-282, §1001(a)(1), designated existing provisions as subsec. (a) and inserted heading.

Subsec. (a)(1). Pub. L. 115-282, §1001(a)(2)(A), substituted “surveys, \$70,814,000 for each of fiscal years 2019 through 2023.” for “surveys—

“(A) \$55,000,000 for fiscal year 2009;

“(B) \$56,000,000 for fiscal year 2010;

“(C) \$57,000,000 for fiscal year 2011; and

“(D) \$58,000,000 for fiscal year 2012.”

Subsec. (a)(2). Pub. L. 115-282, §1001(a)(2)(B), substituted “vessels, \$25,000,000 for each of fiscal years 2019 through 2023.” for “vessels—

“(A) \$32,130,000 for fiscal year 2009;

“(B) \$32,760,000 for fiscal year 2010;

“(C) \$33,390,000 for fiscal year 2011; and

“(D) \$34,020,000 for fiscal year 2012.”

Subsec. (a)(3). Pub. L. 115-282, §1001(a)(2)(C), substituted “Administration, \$29,932,000 for each of fiscal years 2019 through 2023.” for “Administration—

“(A) \$25,900,000 for fiscal year 2009;

“(B) \$26,400,000 for fiscal year 2010;

“(C) \$26,900,000 for fiscal year 2011; and

“(D) \$27,400,000 for fiscal year 2012.”

Subsec. (a)(4). Pub. L. 115-282, §1001(a)(2)(D), substituted “subchapter, \$26,800,000 for each of fiscal years 2019 through 2023.” for “subchapter—

“(A) \$32,640,000 for fiscal year 2009;

“(B) \$33,280,000 for fiscal year 2010;

“(C) \$33,920,000 for fiscal year 2011; and

“(D) \$34,560,000 for fiscal year 2012.”

Subsec. (a)(5). Pub. L. 115-282, §1001(a)(2)(E), substituted “subchapter, \$30,564,000 for each of fiscal years 2019 through 2023.” for “subchapter—

“(A) \$27,000,000 for fiscal year 2009;

“(B) \$27,500,000 for fiscal year 2010;

“(C) \$28,000,000 for fiscal year 2011; and

“(D) \$28,500,000 for fiscal year 2012.”

Subsec. (b). Pub. L. 115-282, §1001(a)(3), added subsec. (b).

Subsec. (c). Pub. L. 115-282, §1001(b), added subsec. (c). 2008—Pub. L. 110-386 amended section generally. Prior to amendment, section authorized appropriations for fiscal years 2003 through 2007.

2002—Pub. L. 107-372 reenacted section catchline without change and amended text generally. Prior to amendment, text read as follows: “There is authorized to be appropriated to the Administrator the following:

“(1) To carry out nautical mapping and charting functions under the Act of 1947 and sections 892a and 892b of this title, except for conducting hydrographic surveys, \$33,000,000 for fiscal year 1999, \$34,000,000 for fiscal year 2000, and \$35,000,000 for fiscal year 2001.

“(2) To conduct hydrographic surveys under section 892a(a)(1) of this title, including the leasing of ships, \$33,000,000 for fiscal year 1999, \$35,000,000 for fiscal year 2000, and \$37,000,000 for fiscal year 2001. Of these amounts, no more than \$16,000,000 is authorized for any one fiscal year to operate hydrographic survey vessels owned and operated by the Administration.

“(3) To carry out geodetic functions under the Act of 1947, \$25,000,000 for fiscal year 1999, \$30,000,000 for fiscal year 2000, and \$30,000,000 for fiscal year 2001.

“(4) To carry out tide and current measurement functions under the Act of 1947, \$22,500,000 for each of fiscal years 1999 through 2001. Of these amounts \$4,500,000 is authorized for each fiscal year to implement and operate a national quality control system for real-time tide and current and maintain the national tide network, and \$7,000,000 is authorized for each fiscal year to design and install real-time tide and current data measurement systems under section 892a(b)(4) of this title.”

1998—Pub. L. 105-383 amended section generally, substituting present provisions for substantially identical provisions.

EFFECTIVE DATE OF 1998 AMENDMENT

Amendment by Pub. L. 105-383 effective immediately after enactment of Pub. L. 105-384, Nov. 13, 1998, see section 432(a) of Pub. L. 105-383, set out as a note under section 892c of this title.

SUBCHAPTER V—RESEARCH, DEVELOPMENT, EDUCATION, AND INNOVATION

§ 893. Ocean and atmospheric research and development program

(a) In general

The Administrator of the National Oceanic and Atmospheric Administration, in consultation with the Director of the National Science Foundation and the Administrator of the National Aeronautics and Space Administration, shall establish a coordinated program of ocean, coastal, Great Lakes, and atmospheric research and development, in collaboration with academic institutions and other nongovernmental entities, that shall focus on the development of advanced technologies and analytical methods that will promote United States leadership in ocean and atmospheric science and competitiveness in the applied uses of such knowledge.

(b) Oceanic and atmospheric research and development program

The Administrator shall implement programs and activities—

(1) to identify emerging and innovative research and development priorities to enhance United States competitiveness, support development of new economic opportunities based on NOAA research, observations, monitoring modeling, and predictions that sustain ecosystem services;

(2) to promote United States leadership in oceanic and atmospheric science and competitiveness in the applied uses of such knowledge, including for the development and expansion of economic opportunities; and

(3) to advance ocean, coastal, Great Lakes, and atmospheric research and development, including potentially transformational research, in collaboration with other relevant Federal agencies, academic institutions, the private sector, and nongovernmental programs, consistent with NOAA's mission to understand, observe, and model the Earth's atmosphere and biosphere, including the oceans, in an integrated manner.

(c) Report

No later than 12 months after January 4, 2011, the Administrator, in consultation with the National Science Foundation or other such agencies with mature transformational research portfolios, shall develop and submit a report to the Senate Committee on Commerce, Science, and Transportation and the House of Representatives Committee on Science and Technology that describes NOAA's strategy for enhancing transformational research in its research and development portfolio to increase United States competitiveness in oceanic and atmospheric science and technology. The report shall—

(1) define "transformational research";

(2) identify emerging and innovative areas of research and development where transformational research has the potential to make significant and revolutionary⁻¹ advancements in both understanding and U.S. science leadership;

(3) describe how transformational research priorities are identified and appropriately⁻¹

balanced in the context of NOAA's broader research portfolio;

(4) describe NOAA's plan for developing a competitive peer review and priority-setting⁻¹ process, funding mechanisms, performance and evaluation measures, and transition-to-operation guidelines for transformational research; and

(5) describe partnerships with other agencies involved in transformational research.

(Pub. L. 110-69, title IV, §4001, Aug. 9, 2007, 121 Stat. 599; Pub. L. 111-358, title III, §301, Jan. 4, 2011, 124 Stat. 3996.)

AMENDMENTS

2011—Pub. L. 111-358 designated existing provisions as subsec. (a), inserted heading, and added subsecs. (b) and (c).

CHANGE OF NAME

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.

§ 893a. NOAA ocean and atmospheric science education programs

(a) In general

The Administrator of the National Oceanic and Atmospheric Administration shall conduct, develop, support, promote, and coordinate formal and informal educational activities at all levels to enhance public awareness and understanding of ocean, coastal, Great Lakes, and atmospheric science and stewardship by the general public and other coastal stakeholders, including underrepresented groups in ocean and atmospheric science and policy careers. In conducting those activities, the Administrator shall build upon the educational programs and activities of the agency, with consideration given to the goal of promoting the participation of individuals identified in sections 1885a and 1885b of title 42 in STEM fields and in promoting the acquisition and retention of highly qualified and motivated young scientists to complement and supplement workforce needs.

(b) Educational program goals

The education programs developed by NOAA shall, to the extent applicable—

(1) carry out and support research based programs and activities designed to increase student interest and participation in STEM;

(2) improve public literacy in STEM;

(3) employ proven strategies and methods for improving student learning and teaching in STEM;

(4) provide curriculum support materials and other resources that—

(A) are designed to be integrated with comprehensive STEM education;

(B) are aligned with national science education standards;

(C) are designed considering the unique needs of underrepresented groups, translating such materials and other resources;

(D) promote the adoption and implementation of high-quality education practices that build toward college and career-readiness; and

¹ So in original.