date of the enactment of this Act [Dec. 31, 2020], the Joint Subcommittee on Ocean Science and Technology of the National Science and Technology Council shall submit to Congress a revised strategic research plan under section 12405 of the Federal Ocean Acidification Research And Monitoring Act of 2009 (33 U.S.C. 3704) that includes the matters required by the amendments made by this section."

# § 3705. NOAA ocean acidification activities

#### (a) In general

The Secretary shall establish and maintain an ocean acidification program within the National Oceanic and Atmospheric Administration to conduct research, monitoring, and other activities consistent with the strategic research and implementation plan developed by the Subcommittee under section 3704 of this title that—

- (1) includes-
- (A) interdisciplinary research among the ocean and atmospheric sciences, and coordinated research and activities to improve understanding of ocean acidification;
- (B) the establishment of a long-term monitoring program of ocean acidification utilizing existing global and national ocean observing assets, and adding instrumentation and sampling stations as appropriate to the aims of the research program;
- (C) research to identify and develop adaptation strategies and techniques for effectively conserving marine ecosystems as they cope with increased ocean acidification;
- (D) as an integral part of the research programs described in this chapter, educational opportunities that encourage an interdisciplinary and international approach to exploring the impacts of ocean acidification;
- (E) as an integral part of the research programs described in this chapter, national public outreach activities to improve the understanding of current scientific knowledge of ocean acidification and its impacts on marine resources; and
- (F) coordination of ocean acidification monitoring and impacts research with other appropriate international ocean science bodies such as the International Oceanographic Commission, the International Council for the Exploration of the Sea, the North Pacific Marine Science Organization, and others:
- (2) provides grants for critical research projects that explore the effects of ocean acidification on ecosystems and the socioeconomic impacts of increased ocean acidification that are relevant to the goals and priorities of the strategic research plan;
- (3) incorporates a competitive merit-based process for awarding grants that may be conducted jointly with other participating agencies or under the National Oceanographic Partnership Program under section 8931 of title 10: and
- (4) includes an ongoing mechanism that allows industry members, coastal stakeholders, fishery management councils and commissions, non-Federal resource managers, community acidification networks, indigenous knowledge groups, and scientific experts to provide input on monitoring needs that are necessary

to support on the ground management, decision making, and adaptation related to ocean acidification and its impacts.

#### (b) Additional authority

In conducting the Program, the Secretary may enter into and perform such contracts, leases, grants, or cooperative agreements as may be necessary to carry out the purposes of this chapter on such terms as the Secretary considers appropriate.

(Pub. L. 111–11, title XII, §12406, Mar. 30, 2009, 123 Stat. 1440; Pub. L. 115–232, div. A, title VIII, §809(k)(2), Aug. 13, 2018, 132 Stat. 1843; Pub. L. 116–271, title I, §111, Dec. 31, 2020, 134 Stat. 3343.)

#### **Editorial Notes**

#### AMENDMENTS

2020—Subsec. (a)(4). Pub. L. 116–271 added par. (4). 2018—Subsec. (a)(3). Pub. L. 115–232 substituted "section 8931 of title 10" for "section 7901 of title 10".

### 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.

#### § 3706. NSF ocean acidification activities

#### (a) Research activities

The Director of the National Science Foundation shall continue to carry out research activities on ocean acidification which shall support competitive, merit-based, peer-reviewed proposals for research, observation, and monitoring of ocean acidification and its impacts, including—

- (1) impacts on marine organisms, including species cultured for aquaculture, and marine ecosystems;
- (2) impacts on ocean, coastal, and estuarine biogeochemistry;
- (3) the development of methodologies and technologies to evaluate ocean acidification and its impacts; and
- (4) impacts of multiple stressors on ecosystems exhibiting hypoxia, harmful algal blooms, or sediment delivery, combined with changes in ocean chemistry.

# (b) Consistency

The research activities shall be consistent with the strategic research plan developed by the Subcommittee under section 3704 of this title.

## (c) Coordination

The Director shall encourage coordination of the Foundation's ocean acidification activities with such activities of other nations and international organizations.

(Pub. L. 111–11, title XII, §12407, Mar. 30, 2009, 123 Stat. 1441; Pub. L. 116–271, title I, §112, Dec. 31, 2020, 134 Stat. 3344.)

# **Editorial Notes**

## AMENDMENTS

2020—Subsec. (a). Pub. L. 116–271 amended subsec. (a) generally. Prior to amendment, text read as follows: