(1) consistent with the mission of the Earth Prediction Innovation Center, periodically review innovations and improvements made by persons not employed by the Administration as Federal employees to the operational models made available to the public pursuant to the plan under subsection (c)(1) in order to improve the accuracy and timeliness of forecasts of the Administration; and

(2) if the Administrator identifies an innovation for a suitable model, develop and implement a plan to use the innovation to improve the model.

(e) Report on implementation

(1) In general

Not later than 2 years after December 23, 2022, the Administrator shall submit to the appropriate congressional committees a report on the implementation of this section that includes a description of—

(A) the implementation of the plan required by subsection (c);

(B) the process of the Administration under subsection (d)—

(i) for engaging with interested stakeholders to learn what innovations those stakeholders have found;

(ii) for reviewing those innovations; and

(iii) for operationalizing innovations to improve suitable models; and

(C) the use of any Federal financial assistance, including under section 3719 of this title[2] or the Crowdsourcing and Citizen Science Act (15 U.S.C. 3724), in order to facilitate and incentivize the sharing of externally developed improvements for testing, evaluation, validation, and application to further improve the mission of the Administration, and any other Administration priorities.

(2) Appropriate congressional committees defined

In this subsection, the term ''appropriate congressional committees'' means—

(A) the Committee on Commerce, Science, and Transportation and the Committee on Appropriations of the Senate; and

(B) the Committee on Science, Space, and Technology and the Committee on Appropriations of the House of Representatives.

(f) Protection of national security interests

(1) In general

Notwithstanding any other provision of this section, for models developed in whole or in part with the Department of Defense, the Administrator, in consultation with the Secretary of Defense, as appropriate, shall withhold any model or data if the Administrator or the Secretary of Defense determines doing so to be necessary to protect the national security interests of the United States.

(2) Rule of construction

Nothing in this section shall be construed to supersede any other provision of law governing the protection of the national security interests of the United States.

(g) Authorization of appropriations

There is authorized to be appropriated to carry out this section $2,000,000 for each of fiscal years 2023 through 2027.

(Pub. L. 117–263, div. J, title CVI, §10601, Dec. 23, 2022, 136 Stat. 3995.)

Editorial Notes

REFERENCES IN TEXT

This title, referred to in subsec. (c)(6), means title CVI of div. J of Pub. L. 117–263, which enacted this section and amended section 8512 of this title.

Section 3719 of this title, referred to in subsec. (e)(1)(C), was in the original ''section 24 of the Stevenson-Wydler Technology Innovation Act of 1990'' and was translated as reading ''section 24 of the Stevenson-Wydler Technology Innovation Act of 1980'', to reflect the probable intent of Congress.

The Crowdsourcing and Citizen Science Act, referred to in subsec. (e)(1)(C), is section 402 of title IV of Pub. L. 114–329, Jan. 6, 2017, 130 Stat. 3019, which is classified to section 3724 of this title.

CODIFICATION

Section was enacted as part of the James M. Inhofe National Defense Authorization Act for Fiscal Year 2023, and not as part of the Weather Research and Forecasting Innovation Act of 2017 which comprises this chapter.

Section is comprised of section 10601 of div. J of Pub. L. 117–263. Subsec. (c)(8) of section 10601 of div. J of Pub. L. 117–263 amended section 8512 of this title.

§ 8513. Tornado warning improvement and extension program

(a) In general

The Under Secretary, in collaboration with the United States weather industry and academic partners, shall establish a tornado warning improvement and extension program.

(b) Goal

The goal of such program shall be to reduce the loss of life and economic losses from tornadoes through the development and extension of accurate, effective, and timely tornado forecasts, predictions, and warnings, including the prediction of tornadoes beyond 1 hour in advance.

(c) Innovative observations

The Under Secretary shall ensure that the program periodically examines the value of incorporating innovative observations, such as acoustic or infrasonic measurements, observations from phased array radars, and observations from mesonets, with respect to the improvement of tornado forecasts, predictions, and warnings.

(d) Program plan

Not later than 180 days after April 18, 2017, the Assistant Administrator for Oceanic and Atmospheric Research, in coordination with the Director of the National Weather Service, shall develop a program plan that details the specific research, development, and technology transfer activities, as well as corresponding resources and timelines, necessary to achieve the program goal.

(e) Annual budget for plan submittal

Following completion of the plan, the Under Secretary, acting through the Assistant Admin-

istrator for Oceanic and Atmospheric Research and in coordination with the Director of the National Weather Service, shall, not less frequently than once each year, submit to Congress a proposed budget corresponding with the activities identified in the plan.

(Pub. L. 115–25, title I, § 103, Apr. 18, 2017, 131 Stat. 94; Pub. L. 117–316, § 8, Dec. 27, 2022, 136 Stat. 4412.)

Editorial Notes

AMENDMENTS

2022—Subsecs. (c) to (e). Pub. L. 117–316 added subsec. (c) and redesignated former subsecs. (c) and (d) as (d) and (e), respectively.

§ 8514. Hurricane forecast improvement program

(a) In general

The Under Secretary, in collaboration with the United States weather industry and such academic entities as the Administrator considers appropriate, shall maintain a project to improve hurricane forecasting.

(b) Goal

The goal of the project maintained under subsection (a) shall be to develop and extend accurate hurricane forecasts and warnings in order to reduce loss of life, injury, and damage to the economy, with a focus on—

(1) improving the prediction of rapid intensification and track of hurricanes;

(2) improving the forecast and communication of storm surges from hurricanes;

(3) incorporating risk communication research to create more effective watch and warning products; and

(4) evaluating and incorporating, as appropriate, innovative observations, including acoustic or infrasonic measurements.

(c) Project plan

Not later than 1 year after April 18, 2017, the Under Secretary, acting through the Assistant Administrator for Oceanic and Atmospheric Research and in consultation with the Director of the National Weather Service, shall develop a plan for the project maintained under subsection (a) that details the specific research, development, and technology transfer activities, as well as corresponding resources and timelines, necessary to achieve the goal set forth in subsection (b).

(Pub. L. 115–25, title I, § 104, Apr. 18, 2017, 131 Stat. 94; Pub. L. 117–316, § 9, Dec. 27, 2022, 136 Stat. 4412.)

Editorial Notes

AMENDMENTS

2022—Subsec. (b)(4). Pub. L. 117–316 added par. (4).

§ 8515. Weather research and development planning

Not later than 1 year after April 18, 2017, and not less frequently than once each year thereafter, the Under Secretary, acting through the Assistant Administrator for Oceanic and Atmospheric Research and in coordination with the Director of the National Weather Service and the Assistant Administrator for Satellite and Information Services, shall issue a research and development and research to operations plan to restore and maintain United States leadership in numerical weather prediction and forecasting that—

(1) describes the forecasting skill and technology goals, objectives, and progress of the National Oceanic and Atmospheric Administration in carrying out the program conducted under section 8512 of this title;

(2) identifies and prioritizes specific research and development activities, and performance metrics, weighted to meet the operational weather and flood-event mission of the National Weather Service to achieve a weather-ready Nation;

(3) describes how the program will collaborate with stakeholders, including the United States weather industry and academic partners; and

(4) identifies, through consultation with the National Science Foundation, the United States weather industry, and academic partners, research necessary to enhance the integration of social science knowledge into weather forecast and warning processes, including to improve the communication of threat information necessary to enable improved severe weather planning and decision-making on the part of individuals and communities.

(Pub. L. 115–25, title I, § 105, Apr. 18, 2017, 131 Stat. 95; Pub. L. 117–316, § 10, Dec. 27, 2022, 136 Stat. 4413.)

Editorial Notes

AMENDMENTS

2022—Par. (2). Pub. L. 117–316 inserted ''and flood-event'' after ''operational weather''.

§ 8516. Observing system planning

The Under Secretary shall—

(1) develop and maintain a prioritized list of observation data requirements necessary to ensure weather forecasting capabilities to protect life and property to the maximum extent practicable;

(2) consistent with section 8517 of this title, utilize Observing System Simulation Experiments, Observing System Experiments, Analyses of Alternatives, and other appropriate assessment tools to ensure continuous systemic evaluations of the observing systems, data, and information needed to meet the requirements of paragraph (1), including options to maximize observational capabilities and their cost-effectiveness;

(3) identify current and potential future data gaps in observing capabilities related to the requirements listed under paragraph (1); and

(4) determine a range of options to address gaps identified under paragraph (3).

(Pub. L. 115–25, title I, § 106, Apr. 18, 2017, 131 Stat. 95.)