techniques and then evaluated for integration into operational use;

- (iii) how to guarantee public access to all forecast-critical data to ensure that the United States weather industry and the public continue to have access to information critical to their work; and
- (iv) in accordance with section 50503 of title 51, methods to address potential termination liability or cancellation costs associated with weather data or service contracts; and
- (C) an identification of any changes needed in the requirements development and approval processes of the Department of Commerce to facilitate effective and efficient implementation of such strategy.

(3) Authority for agreements

The Assistant Administrator for National¹ Environmental Satellite, Data, and Information Service may enter into multiyear agreements necessary to carry out the strategy developed under this subsection.

(c) Pilot program

(1) Criteria

Not later than 30 days after April 18, 2017, the Under Secretary shall publish data and metadata standards and specifications for space-based commercial weather data, including radio occultation data, and, as soon as possible, geostationary hyperspectral sounder data.

(2) Pilot contracts

(A) Contracts

Not later than 90 days after April 18, 2017, the Under Secretary shall, through an open competition, enter into at least one pilot contract with one or more private sector entities capable of providing data that meet the standards and specifications set by the Under Secretary for providing commercial weather data in a manner that allows the Under Secretary to calibrate and evaluate the data for its use in National Oceanic and Atmospheric Administration meteorological models.

(B) Assessment of data viability

Not later than the date that is 3 years after the date on which the Under Secretary enters into a contract under subparagraph (A), the Under Secretary shall assess and submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives the results of a determination of the extent to which data provided under the contract entered into under subparagraph (A) meet the criteria published under paragraph (1) and the extent to which the pilot program has demonstrated—

(i) the viability of assimilating the commercially provided data into National Oceanic and Atmospheric Administration meteorological models;

- (ii) whether, and by how much, the data add value to weather forecasts; and
- (iii) the accuracy, quality, timeliness, validity, reliability, usability, information technology security, and cost-effectiveness of obtaining commercial weather data from private sector providers.

(3) Authorization of appropriations

For each of fiscal years 2019 through 2023, there are authorized to be appropriated for procurement, acquisition, and construction at the National Environmental Satellite, Data, and Information Service, \$6,000,000 to carry out this subsection.

(d) Obtaining future data

- If an assessment under subsection (c)(2)(B) demonstrates the ability of commercial weather data to meet data and metadata standards and specifications published under subsection (c)(1), the Under Secretary shall—
 - (1) where appropriate, cost-effective, and feasible, obtain commercial weather data from private sector providers;
 - (2) as early as possible in the acquisition process for any future National Oceanic and Atmospheric Administration meteorological space system, consider whether there is a suitable, cost-effective, commercial capability available or that will be available to meet any or all of the observational requirements by the planned operational date of the system;
 - (3) if a suitable, cost-effective, commercial capability is or will be available as described in paragraph (2), determine whether it is in the national interest to develop a governmental meteorological space system; and
 - (4) submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a report detailing any determination made under paragraphs (2) and (3).

(e) Data sharing practices

The Under Secretary shall continue to meet the international meteorological agreements into which the Under Secretary has entered, including practices set forth through World Meteorological Organization Resolution 40.

(Pub. L. 115–25, title III, §302, Apr. 18, 2017, 131 Stat. 103; Pub. L. 115–423, §7(b), Jan. 7, 2019, 132 Stat. 5461.)

AMENDMENTS

2019—Subsec. (c)(3). Pub. L. 115–423 substituted "2019 through 2023" for "2017 through 2020" and inserted "the" before "National".

§8533. Unnecessary duplication

In meeting the requirements under this subchapter, the Under Secretary shall avoid unnecessary duplication between public and private sources of data and the corresponding expenditure of funds and employment of personnel.

(Pub. L. 115–25, title III, §303, Apr. 18, 2017, 131 Stat. 105.)

¹ So in original. Probably should be preceded by "the".

SUBCHAPTER III—FEDERAL WEATHER COORDINATION

§ 8541. Environmental Information Services Working Group

(a) Establishment

The National Oceanic and Atmospheric Administration Science Advisory Board shall continue to maintain a standing working group named the Environmental Information Services Working Group (in this section referred to as the "Working Group")—

- (1) to provide advice for prioritizing weather research initiatives at the National Oceanic and Atmospheric Administration to produce real improvement in weather forecasting;
- (2) to provide advice on existing or emerging technologies or techniques that can be found in private industry or the research community that could be incorporated into forecasting at the National Weather Service to improve forecasting skill:
 - (3) to identify opportunities to improve—
 - (A) communications between weather forecasters, Federal, State, local, tribal, and other emergency management personnel, and the public; and
 - (B) communications and partnerships among the National Oceanic and Atmospheric Administration and the private and academic sectors; and
- (4) to address such other matters as the Science Advisory Board requests of the Working Group.

(b) Composition

(1) In general

The Working Group shall be composed of leading experts and innovators from all relevant fields of science and engineering including atmospheric chemistry, atmospheric physics, meteorology, hydrology, social science, risk communications, electrical engineering, and computer sciences. In carrying out this section, the Working Group may organize into subpanels.

(2) Number

The Working Group shall be composed of no fewer than 15 members. Nominees for the Working Group may be forwarded by the Working Group for approval by the Science Advisory Board. Members of the Working Group may choose a chair (or co-chairs) from among their number with approval by the Science Advisory Board.

(c) Annual report

Not less frequently than once each year, the Working Group shall transmit to the Science Advisory Board for submission to the Under Secretary a report on progress made by National Oceanic and Atmospheric Administration in adopting the Working Group's recommendations. The Science Advisory Board shall transmit this report to the Under Secretary. Within 30 days of receipt of such report, the Under Secretary shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives a copy of such report.

(Pub. L. 115–25, title IV, §401, Apr. 18, 2017, 131 Stat. 105.)

§8542. Interagency weather research and forecast innovation coordination

(a) Establishment

The Director of the Office of Science and Technology Policy shall establish an Interagency Committee for Advancing Weather Services to improve coordination of relevant weather research and forecast innovation activities across the Federal Government. The Interagency Committee shall—

- (1) include participation by the National Aeronautics and Space Administration, the Federal Aviation Administration, National Oceanic and Atmospheric Administration and its constituent elements, the National Science Foundation, and such other agencies involved in weather forecasting research as the President determines are appropriate;
- (2) identify and prioritize top forecast needs and coordinate those needs against budget requests and program initiatives across participating offices and agencies; and
- (3) share information regarding operational needs and forecasting improvements across relevant agencies.

(b) Co-chair

The Federal Coordinator for Meteorology shall serve as a co-chair of this panel.

(c) Further coordination

The Director of the Office of Science and Technology Policy shall take such other steps as are necessary to coordinate the activities of the Federal Government with those of the United States weather industry, State governments, emergency managers, and academic researchers.

(Pub. L. 115–25, title IV, §402, Apr. 18, 2017, 131 Stat. 106.)

§8543. Office of Oceanic and Atmospheric Research and National Weather Service exchange program

(a) In general

The Assistant Administrator for Oceanic and Atmospheric Research and the Director of National¹ Weather Service may establish a program to detail Office of Oceanic and Atmospheric Research personnel to the National Weather Service and National Weather Service personnel to the Office of Oceanic and Atmospheric Research.

(b) Goal

The goal of this program is to enhance forecasting innovation through regular, direct interaction between the Office of Oceanic and Atmospheric Research's world-class scientists and the National Weather Service's operational staff.

(c) Elements

The program shall allow up to 10 Office of Oceanic and Atmospheric Research staff and National Weather Service staff to spend up to 1 year on detail. Candidates shall be jointly se-

¹So in original. Probably should be preceded by "the".