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119TH CONGRESS }
1st Session

SENATE

{ REPORT
119-42

FIRE READY NATION ACT OF 2025

R E P O R T

OF THE

**COMMITTEE ON COMMERCE, SCIENCE, AND
TRANSPORTATION**

ON

S. 306



July 16, 2025.—Ordered to be printed

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SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED NINETEENTH CONGRESS

FIRST SESSION

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FIRE READY NATION ACT OF 2025

JULY, 16, 2025.—Ordered to be printed

Mr. CRUZ, from the Committee on Commerce, Science, and
Transportation, submitted the following

R E P O R T

[To accompany S. 306]

[Including cost estimate of the Congressional Budget Office]

The Committee on Commerce, Science, and Transportation, to which was referred the bill (S. 306) to establish and maintain a coordinated program within the National Oceanic and Atmospheric Administration that improves wildfire, fire weather, fire risk, and wildfire smoke related forecasting, detection, modeling, observations, and service delivery, and for other purposes, having considered the same, reports favorably thereon without amendment and recommends that the bill do pass.

PURPOSE OF THE BILL

The purpose of S. 306, the Fire Ready Nation Act of 2025, is to establish a fire weather services program and a fire weather testbed within the National Oceanic and Atmospheric Administration (NOAA) to coordinate data collection to improve fire weather forecasting, and for other purposes.

BACKGROUND AND NEEDS

In 2024, more than 61,000 wildfires burned over 8.8 million acres in the United States.¹ On average, each year, wildfires kill 30 people, destroy 2,800 homes, burn more than 7 million acres, and cause numerous health issues. The annual average cost for dam-

¹NOAA, National Centers for Environmental Information, *Monthly Wildfires Report for Annual 2024*, January 2025 (<https://www.ncei.noaa.gov/access/monitoring/monthly-report/fire/202413>).

ages and suppression of wildland fire is more than \$2 billion.² Wildfires can occur across the United States; more individual wildfires occur in the eastern portion of the country, but wildfires are larger and burn more acreage in the West.³

In February 2024, Texas saw the worst wildfire in the State's history, ranked 5th in the history of the United States. The Smokehouse Creek fire scorched almost 1.1 million acres over 3 weeks, and two individuals lost their lives.⁴ In January 2025, California faced one of its most devastating wildfires. The Palisades Fire in Los Angeles burned over 23,000 acres. The blaze destroyed large areas of Pacific Palisades, Topanga, and Malibu, causing mandatory evacuations and significant property loss. Estimated damages from the fire exceeded \$35 billion, including over 16,000 structures.⁵

Fire weather prediction involves using meteorological parameters, such as relative humidity, wind speed and direction, and soil moisture, to determine whether conditions favor fire growth and smoke dispersion.⁶ Drought decreases soil moisture, and large amounts of dry fuel naturally contribute to the start and spread of fires. Human causes, such as prescribed burns and cooking fires, also contribute to the start of fires. Fire Weather Watches and Red Flag Warnings are issued to the public when dry fuels and weather conditions support extreme fire danger.⁷ Smoke from fires can also contribute to other hazardous conditions such as decreased visibility on roadways, leading to traffic collisions.⁸ Smoke can travel thousands of miles from the source fire and worsen air quality for communities far from wildfires.⁹ Wildfire smoke contains harmful pollutants, including particle matter and polycyclic aromatic hydrocarbons, and exposure to wildfire smoke is linked to increased risk of cardiovascular and respiratory health events.¹⁰

NOAA forecasts, tracks, and provides on-the-ground support for wildfires through satellite data, the NOAA Incident Meteorologist (IMET) program, and computer modeling. High-resolution imagery and infrared data collected by satellite allow for the detection and monitoring of fires. Infrared imaging can detect fires at night and track wildfire movement when smoke obstructs the ground.¹¹ Satellite data also helps firefighting efforts from the air and enables better air quality forecasts.¹² The National Weather Service IMETs are deployed to the scenes of wildfire, where they work to support

²NOAA, National Weather Service, "Eyes on the Sky: A Day in the Life of an Incident Meteorologist (IMET) on the Front Lines of a Wildfire" (<https://www.weather.gov/news/imet-article>).

³Congressional Research Service, *Wildfire Statistics*, May 2, 2022 (<https://sgp.fas.org/crs/misc/IF10244.pdf>).

⁴"10 Largest Wildfires in U.S. History," Western Fire Chiefs Association (<https://wfca.com/wildfire-articles/biggest-wildfires-in-us-history/>).

⁵CalFire, "The Department of Forestry and Fire Protection," January 28, 2025 (<https://www.fire.ca.gov/>).

⁶"Fire Weather FAQ," NOAA National Weather Service (<https://www.weather.gov/jan/fireweatherfaq#T1>).

⁷Ibid.

⁸"About Dense Fog and Smoke," NOAA National Weather Service (<https://www.weather.gov/mfl/visibility>).

⁹"Challenges in Predicting Smoke Concentrations," Environmental Protection Agency (<https://www.epa.gov/wildfire-smoke-course/challenges-predicting-smoke-concentrations>).

¹⁰"Why Wildfire Smoke Is a Health Concern," Environmental Protection Agency (<https://www.epa.gov/wildfire-smoke-course/why-wildfire-smoke-health-concern>).

¹¹NOAA National Environmental Satellite Data and Information Service, "Earth From Orbit: Tracking Fires From Space," March 11, 2021 (<https://www.nesdis.noaa.gov/news/earth-orbit-tracking-fires-space>).

¹²Ibid.

agencies and first responders on the front lines.¹³ Weather conditions influence how a fire may start, spread, and move, and IMETs are critical for reporting this information to keep fire crews safe. IMETs set up a fully functional portable forecasting office at the fire scene, where they communicate how current and future weather patterns will impact the intensity and movement of the fire.¹⁴

Federal agencies and private entities use computer modeling to predict fire formation, intensity, movement, and smoke. However, not every Federal agency performs the same type of modeling or considers all environmental factors that impact fires. Incorporating atmospheric information, weather, fuels, soil moisture, smoke, and other data collected by Department of Commerce and Department of Interior agencies would greatly improve prediction capabilities and better inform management practices.

SUMMARY OF PROVISIONS

S. 306 would do the following:

- Establish a comprehensive fire weather services program within NOAA to enhance risk communication and wildfire forecasting.
- Create a user-focused digital repository for fire-related tools, data, and information and set data management and sharing standards across NOAA.
- Establish a fire weather testbed to develop and operationalize technologies addressing fire hazards, including uncrewed systems.
- Coordinate ground-based data collection across Federal agencies to improve fire weather and smoke forecasting efficiency.
- Require GAO studies on NOAA's fire weather services program and an evaluation of interagency wildfire bodies, aiming to enhance coordination and efficiency.
- Require NOAA to conduct post-fire weather assessments to identify gaps and improve future forecasts.
- Codify the Incident Meteorologist Service, addressing deployment compensation and ensuring on-site decision support during extreme weather events.

LEGISLATIVE HISTORY

S. 306, the Fire Ready Nation Act of 2025, was introduced on January 29, 2025, by Senator Cantwell (for herself and Senators Sheehy, Cruz, Luján, Sullivan, Rosen, Murkowski, and Padilla) and was referred to the Committee on Commerce, Science, and Transportation of the Senate. Senator Schatz is an additional cosponsor. On February 5, 2025, the Committee met in open Executive Session and, by voice vote, ordered S. 306 to be reported favorably without amendment.

118th Congress

S. 4343, the Fire Ready Nation Act of 2024, was introduced on May 15, 2024, by Senator Cantwell (for herself and Senators Cruz, Luján, Sullivan, Rosen, Murkowski, Schatz, and Padilla) and was

¹³ NOAA National Weather Service, "Eyes on the Sky: A Day in the Life of an Incident Meteorologist (IMET) on the Front Lines of a Wildfire" (<https://www.weather.gov/news/imet-article>).

¹⁴ *Ibid.*

referred to the Committee on Commerce, Science, and Transportation in the Senate. On July 31, 2024, the Committee met in open Executive Session and, by voice vote, ordered S. 4343 to be reported favorably with an amendment (in the nature of a substitute).

117th Congress

S. 4237, the Fire Ready Nation Act of 2022, was introduced on May 17, 2022, by Senator Cantwell (for herself and Senator Sullivan) and was referred to the Committee on Commerce, Science, and Transportation in the Senate. Senators Luján, Padilla, Murkowski, and Rosen were additional cosponsors. On May 25, 2022, the Committee met in open Executive Session and, by voice vote, ordered S. 4237 to be reported favorably with an amendment (in the nature of a substitute).

ESTIMATED COSTS

In accordance with paragraph 11(a) of rule XXVI of the Standing Rules of the Senate and section 403 of the Congressional Budget Act of 1974, the Committee provides the following cost estimate, prepared by the Congressional Budget Office:

S. 306, Fire Ready Nation Act of 2025			
As ordered reported by the Senate Committee on Commerce, Science, and Transportation on February 5, 2025			
By Fiscal Year, Millions of Dollars	2025	2025-2030	2025-2035
Direct Spending (Outlays)	*	*	*
Revenues	0	0	0
Increase or Decrease (-) in the Deficit	*	*	*
Spending Subject to Appropriation (Outlays)	0	95	146
Increases <i>net direct spending</i> in any of the four consecutive 10-year periods beginning in 2036?	No	Statutory pay-as-you-go procedures apply? Yes	
		Mandate Effects	
Increases <i>on-budget deficits</i> in any of the four consecutive 10-year periods beginning in 2036?	No	Contains intergovernmental mandate?	No
		Contains private-sector mandate?	No
* = between zero and \$500,000.			

S. 306 would authorize the appropriation of specific amounts for each fiscal years from 2026 through 2030 for the National Oceanic and Atmospheric Administration (NOAA) to establish a fire weather services program to support wildfire forecasting, responsiveness, and local collaborations.

Under the bill, NOAA would be required to:

- Develop modeling and data systems for fire weather predictions,
- Maintain a public website to promote the program's services and data,
- Award grants to non-federal entities for program development,
- Conduct pilot projects and research on unmanned systems for fire weather observations,

- Establish an Incident Meteorologist Service within the National Weather Service, and
 - Report to the Congress on the program’s implementation.
- The costs of the legislation, detailed in Table 1, fall within budget function 300 (natural resources and environment).

TABLE 1.—ESTIMATED INCREASES IN SPENDING SUBJECT TO APPROPRIATION UNDER S. 306

	By fiscal year, millions of dollars—						
	2025	2026	2027	2028	2029	2030	2025–2030
Authorization	0	15	20	27	36	50	148
Estimated Outlays	0	4	12	18	26	35	95

Enacting the bill would increase direct spending by less than \$500,000 over the 2025–2035 period.

CBO assumes that the bill will be enacted in 2025 and that the authorized amounts will be provided in each year. Based on historical spending patterns, CBO estimates that implementing the bill would cost \$95 million over the 2025–2030 period and \$51 million after 2030.

The bill also would authorize additional premium pay in calendar year 2025 for Department of Commerce employees involved in emergency wildfire suppression and whose earnings, including premium pay, exceed a specified threshold. Under current law, employees can earn premium pay only to the extent that their combined base and premium pay does not exceed the greater of the GS–15 maximum or Executive Schedule Level V salary level. Because the additional pay would apply to work already completed, that spending is treated as direct spending. Using information from the Forest Service, CBO estimates that enacting S. 306 would increase direct spending by less than \$500,000 over the 2025–2030 period.

The CBO staff contact for this estimate is Kelly Durand. The estimate was reviewed by H. Samuel Papenfuss, Deputy Director of Budget Analysis.

PHILLIP L. SWAGEL,
Director, Congressional Budget Office.

REGULATORY IMPACT STATEMENT

In accordance with paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee provides the following evaluation of the regulatory impact of the legislation, as reported:

Number of Persons Covered

S. 306, as reported, would create a fire weather services program and fire weather testbed. These programs would not impose any new regulatory requirements and therefore would not subject any individuals or businesses to new regulations. It would impact the individuals who are included as covered employees under the Departments of Commerce, Agriculture, and Interior, and who perform the covered services of wildland firefighter, fire management response official, incident meteorologist, or are on an incident management team by providing a waiver of limitations on pay for overtime during calendar year 2025.

Economic Impact

S. 306, as reported, is not expected to have a negative impact on the Nation's economy. It would impact the individuals who are included as covered employees under the Departments of Commerce, Agriculture, and Interior and who perform the covered services of wildland firefighter, fire management response official, incident meteorologist, or are on an incident management team by providing a waiver of limitations on pay for overtime during calendar year 2025. The bill aims to have an overall positive economic impact by reducing the loss of lives and property to wildfires.

Privacy

S. 306, as reported, is not expected to impact the personal privacy of individuals.

Paperwork

S. 306, as reported, would require a slight increase in paperwork burdens to Federal agencies. The bill would require the Under Secretary to submit several plans and reports to Congress providing details on the fire weather services program, incident meteorologist workforce needs, and national weather service workforce support, among others. It would also require the Under Secretary to conduct a yearly post-fire season survey and assessment and make the assessment publicly available. It would direct the newly established Fire Science and Technology Working Group to submit a strategic plan to Congress on interagency coordination, research, and development. It would also direct the Comptroller General to submit to Congress four reports regarding the fire weather services program, interagency bodies' activities and coordination, and the automated surface observing system.

CONGRESSIONALLY DIRECTED SPENDING

In compliance with paragraph 4(b) of rule XLIV of the Standing Rules of the Senate, the Committee provides that no provisions contained in the bill, as reported, meet the definition of congressionally directed spending items under the rule.

SECTION-BY-SECTION ANALYSIS

Section 1. Short title; table of contents.

This section would provide that the bill may be cited as the "Fire Ready Nation Act of 2025". It would include a table of contents for the bill.

Section 2. Definitions.

This section would define the terms "Administration", "appropriate committees of Congress", "Earth system model", "fire environment", "fire weather", "impact-based decision support services", "Indian tribe", "Native Hawaiian organization", "seasonal", "State", "Tribal organization", and "Under Secretary."

Section 3. Establishment of fire weather services program.

This section would establish a coordinated fire weather services program within NOAA to support readiness and resilience and dis-

seminate risk communications and wildfire forecasts. Program activities would support research, develop smoke and air quality forecasts, and provide data and tools for fire response, hazard communication, and mitigation. The program would be required to ensure parity of coverage for remote, isolated, and rural communities. To develop and implement the program, NOAA would be required to collaborate with relevant enterprises, academic institutions, Federal agencies, and local partners. It would allow NOAA to support non-Federal entities under this Act by using existing authorities to make funds available through grants, contracts, cooperative agreements, and co-location agreements.

Section 4. Fire weather testbed.

This section would establish a fire weather testbed to accelerate the research and implementation of new capabilities and technology for fire weather forecasting and support services. It would also require a research and development program on the use of uncrewed systems to improve data collection as well as implementation of pilot projects to test uncrewed systems for fire weather observations. The fire weather testbed would be required to conduct additional pilot projects that include elements such as products that detect fire from satellites. It would require annual reports to Congress on the NOAA Office of Oceanic and Atmospheric Research projects that are closest to operationalization to describe research that has transitioned into operations, including research at the fire weather testbed.

Section 5. Data management and technology modernization.

This section would require that data which NOAA has the legal right to distribute be open access. It would also require NOAA to collaborate with Federal and non-Federal partners to promote interoperability, usability, and accessibility of data as well as to leverage emerging technologies and commercial partnerships for proper data management.

It would require that other Federal agencies consult the Under Secretary of Commerce for Oceans and Atmosphere (Under Secretary) on development of impact-based decision support services (e.g., forecasts and risk communication) and associated and related technologies for fire-related activities as well as on systems to forecast and model wildfire smoke.

This section would direct the Under Secretary to develop and maintain a comprehensive, centralized, and publicly accessible fire weather database to improve understanding and historical analysis of wildfire and fire weather science and forecasts and to support the archiving and preservation of wildfire and fire weather data. The Under Secretary would be required to acquire high-performance computing resources and capacity to support data storage, research, and operational capabilities.

Section 6. Surveys and assessments.

This section would require NOAA to conduct a yearly post-fire season survey and assessment. Following the assessment, the Under Secretary would be required to investigate gaps in data collected in the evaluation, update systems and processes, and assess and refine measures as needed. The data and findings from each

assessment would be publicly available in a digital format. This section would allow the Under Secretary to conduct surveys and assessments of individual wildfire events. It would also require the Under Secretary to brief Congress annually on the previous fire season, the outlook for the following year's fire season, and fire weather forecasts.

This section would require the Under Secretary to collaborate with the Administrator of the Federal Aviation Administration and the Secretary of Defense to complete an assessment of the United States automated surface observing system and the resources, personnel, and activities needed to maximize its functionality. The Under Secretary would be required to implement a plan to address findings of this assessment, and report to Congress on the assessment and plan.

Section 7. Incident Meteorologist Service.

This section would codify the existing Incident Meteorologist Service within the National Weather Service. The Incident Meteorologist Service would provide on-site decision support services during extreme weather events and support seasonal planning and pre-fire mitigation activities by emergency response agencies and local stakeholders. The Under Secretary would provide resources and training to support the emotional and mental health of employees who respond to high-impact and extreme fire weather events.

Section 8. Emergency response activities.

This section would define the terms "basic pay", "covered employee", "covered services", "premium pay", "relevant congressional committees", and "Secretary concerned". This section would allow Federal firefighters and IMETS to receive overtime compensation when working on wildfire events and waive any premium pay or overtime limitations for emergency response personnel and incident meteorologists during long deployments for calendar year 2025.

This section would require the Secretary of Commerce, Secretary of Agriculture, and Secretary of the Interior with the Office of Management and Budget and Office of Personnel Management to jointly develop and implement a plan to ensure sufficient wildland firefighters, fire management response officials, regional fire directors, deputy regional fire directors, fire management officers, incident meteorologists, or members of incident management teams are available each fiscal year starting in fiscal year 2026.

Section 9. Submissions to Congress regarding the fire weather services program, incident meteorologist workforce needs, and National Weather Service workforce support.

This section would require the Under Secretary to submit a report to Congress no later than 18 months after enactment that includes the Fire Weather Services Program Plan, an Incident Meteorologist Workforce Needs Assessment, and a Support Services Assessment.

Section 10. Fire Science and Technology Working Group; strategic plan.

This section would establish a Fire Science and Technology Working Group under the Interagency Committee for Advancing

Weather Services (ICAWS), chaired by the Under Secretary, to build efficiencies among the various agencies involved with wildfire forecasting, prevention, planning, and management. It would also require the ICAWS to develop and submit to Congress no later than 18 months after enactment a strategic plan for interagency coordination, research, and development that will improve assessments of fire environments as well as knowledge and forecasting of wildfires and their impacts. It would sunset the working group not later than 1 year after enactment.

Section 11. Fire weather rating system.

This section would require the Under Secretary to collaborate with other agency chiefs to evaluate the system used to rate wildfire risk and determine if updates are needed.

Section 12. Government Accountability Office reports.

This section would direct the Comptroller General of the United States to submit to Congress the following reports:

- A report on the Fire Weather Services Program;
- A report on interagency bodies for wildfire forecasting, prevention, planning, and management;
- A report on interagency coordination related to wildfires; and
- A report on the automated surface observing system.

Section 13. Cooperation and coordination.

This section would direct cooperation and coordination between Federal agencies in carrying out this Act. It would authorize NOAA to develop agreements with other Federal agencies and non-Federal entities to improve fire weather services. This section would require that NOAA establish and submit to Congress an annual process for coordinating with non-Federal partners to improve fire weather services.

It would also authorize the Under Secretary to develop collaborative relationships and agreements with foreign partners to address transboundary issues pertaining to wildfires, fire weather, smoke, air quality, and other hazards as appropriate. It also would require the Under Secretary to consult with the Department of State and other Federal partners as the Under Secretary considers relevant.

Section 14. General provisions.

This section would require the Under Secretary to coordinate with the Administration and with other Federal agency heads to ensure that the activities under this Act are not duplicative in nature.

Section 15. Authorization of appropriations.

This section would authorize the appropriation of \$15 million for fiscal year 2026; \$20 million for fiscal year 2027; \$27 million for fiscal year 2028; \$36 million for fiscal year 2029; and \$50 million for fiscal year 2030. Lastly, this section would prohibit amounts authorized to be used to unnecessarily duplicate activities funded under title VIII of division D of the Infrastructure Investment and Jobs Act.

CHANGES IN EXISTING LAW

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new material is printed in italic, existing law in which no change is proposed is shown in roman):

UNITED STATES CODE

* * * * *

**TITLE 5—GOVERNMENT ORGANIZATION
AND EMPLOYEES**

* * * * *

PART III—EMPLOYEES

* * * * *

Subpart D—Pay and Allowances

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CHAPTER 55—PAY ADMINISTRATION

* * * * *

SUBCHAPTER V—PREMIUM PAY

* * * * *

§ 5542. Overtime rates; computation

(a) For full-time, part-time and intermittent tours of duty, hours of work officially ordered or approved in excess of 40 hours in an administrative workweek, or (with the exception of an employee engaged in professional or technical engineering or scientific activities for whom the first 40 hours of duty in an administrative workweek is the basic workweek and an employee whose basic pay exceeds the minimum rate for GS-10 (including any applicable locality-based comparability payment under section 5304 or similar provision of law and any applicable special rate of pay under section 5305 or similar provision of law) for whom the first 40 hours of duty in an administrative workweek is the basic workweek) in excess of 8 hours in a day, performed by an employee are overtime work and shall be paid for, except as otherwise provided by this subchapter, at the following rates:

- (1) * * *
- (2) * * *
- (3) * * *
- (4) * * *

(5) Notwithstanding paragraphs (1) and (2), for an employee of the Department of the Interior, *the Department of Commerce*, or the United States Forest Service in the Department

of Agriculture engaged in emergency wildland fire suppression activities, the overtime hourly rate of pay is an amount equal to one and one-half times the hourly rate of basic pay of the employee, and all that amount is premium pay.

(6) * * *

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JOHN D. DINGELL, JR. CONSERVATION, MANAGEMENT, AND RECREATION ACT

* * * * *

[43 U.S.C. 1748b-1]

SEC. 1114. WILDFIRE TECHNOLOGY MODERNIZATION.

(a) * * *

(b) * * *

(c) UNMANNED AIRCRAFT SYSTEMS.—

(1) DEFINITIONS.—In this subsection, the terms “unmanned aircraft” and “unmanned aircraft system” have the meanings given those terms in section 44801 of title 49, United States Code.

(2) ESTABLISHMENT OF PROGRAM.—Not later than 180 days after the date of enactment of this Act, the Secretary, in consultation with the Secretary of Agriculture, shall establish a research, development, and testing program, or expand an applicable existing program, to assess unmanned aircraft system technologies, including optionally piloted aircraft, across the full range of wildland fire management operations in order to accelerate the deployment and integration of those technologies into the operations of the Secretaries.

(3) EXPANDING USE OF UNMANNED AIRCRAFT SYSTEMS ON WILDFIRES.—In carrying out the program established under paragraph (2), the Secretaries, in coordination with the Federal Aviation Administration, *the National Oceanic and Atmospheric Administration*, State wildland firefighting agencies, and other relevant Federal agencies, shall enter into an agreement under which the Secretaries shall develop consistent protocols and plans for the use on wildland fires of unmanned aircraft system technologies, including for the development of real-time maps of the location of wildland fires.

(d) * * *

(e) WILDLAND FIRE DECISION SUPPORT.—

(1) PROTOCOL.—To the maximum extent practicable, the Secretaries shall ensure that wildland fire management activities conducted by the Secretaries, or conducted jointly by the Secretaries and State wildland firefighting agencies, achieve compliance with applicable incident management objectives in a manner that—

(A) minimizes firefighter exposure to the lowest level necessary; and

(B) reduces overall costs of wildfire incidents.

(2) WILDFIRE DECISION SUPPORT SYSTEM.—

(A) IN GENERAL.—The Secretaries, in coordination with State wildland firefighting agencies, shall establish a sys-

tem or expand an existing system to track and monitor decisions made by the Secretaries or State wildland fire-fighting agencies in managing wildfires.

(B) CONSULTATION.—

(i) IN GENERAL.—In carrying out subparagraph (A), the Secretaries shall consult with the Under Secretary of Commerce for Oceans and Atmosphere regarding any development of impact-based decision support services that relate to wildfire-related activities of the National Oceanic and Atmospheric Administration.

(ii) DEFINITION OF IMPACT-BASED DECISION SUPPORT SERVICES.—In this subparagraph, the term “impact-based decision support services” means scientific advice and interpretative services the National Oceanic and Atmospheric Administration provides to help core partners, such as emergency personnel and public safety officials, make decisions when the information impacts the lives and livelihoods of the people of the United States.

[(B)](C) COMPONENTS.—The system established or expanded under subparagraph (A) shall be able to alert the Secretaries if—

- (i) unusual costs are incurred;
- (ii) an action to be carried out would likely—
 - (I) endanger the safety of a firefighter; or
 - (II) be ineffective in meeting an applicable suppression or protection goal; or
- (iii) a decision regarding the management of a wildfire deviates from—
 - (I) an applicable protocol established by the Secretaries, including the requirement under paragraph (1); or
 - (II) an applicable spatial fire management plan or fire management plan of the Secretary concerned.

(f) SMOKE PROJECTIONS FROM ACTIVE WILDLAND FIRES.—[The Secretaries]

(1) IN GENERAL.—The Secretaries shall establish a program, to be known as the “Interagency Wildland Fire Air Quality Response Program”, under which the Secretary concerned—

[(1)](A) to the maximum extent practicable, shall assign 1 or more air resource advisors to a type 1 incident management team managing a Federal wildland fire; and

[(2)](B) may assign 1 or more air resource advisors to a type 2 incident management team managing a wildland fire.

(2) COLLABORATION.—In carrying out paragraph (1), the Secretaries shall collaborate with the Under Secretary of Commerce for Oceans and Atmosphere to improve coordination, utility of systems and assets, and interoperability of data for wildfire smoke prediction, forecasting, and modeling.

* * * * *

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION AUTHORIZATION ACT OF 1992

* * * * *

[15 U.S.C. 8520(a)(5)]

SEC. 108. UNITED STATES WEATHER RESEARCH PROGRAM.

(a) ESTABLISHMENT.—The Secretary of Commerce, in cooperation with the Federal Coordinating Council for Science, Engineering, and Technology through the Committee on Earth and Environmental Sciences, shall establish a United States Weather Research Program to—

- (1) * * *
- (2) * * *
- (3) * * *
- (4) * * *

(5) 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, not less frequently than once each year, a report, including—

- (A) a list of ongoing research projects;
- (B) project goals and a point of contact for each project;
- (C) the five projects related to weather observations, short-term weather, or subseasonal forecasts within Office of Oceanic and Atmospheric Research that are closest to operationalization; *and*

(D) for each project referred to in subparagraph (C)—

- (i) the potential benefit;
- (ii) any barrier to operationalization; **[and]**
- (iii) the plan for operationalization, including which line office will financially support the project and how much the line office intends to spend; *and*
- (iv) *a description of the research that has been transitioned into operations, including research at the fire weather testbed established under section 4(a) of the Fire Ready Nation Act of 2025;*

* * * * *

WEATHER RESEARCH AND FORECASTING INNOVATION ACT OF 2017

* * * * *

[15 U.S.C. 8531]

SEC. 301. NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION SATELLITE AND DATA MANAGEMENT.

- (a) * * *
- (b) * * *
- (c) * * *
- (d) * * *
- (e) * * *

(f) *DATA AVAILABILITY AND MANAGEMENT.*—

(1) *IN GENERAL.*—*The Under Secretary shall—*

(A) *make data and metadata generated or collected by the National Oceanic and Atmospheric Administration that the Under Secretary has the legal right to redistribute fully and openly available, in accordance with chapter 35 of title 44, United States Code, and the Foundations for Evidence-Based Policymaking Act of 2018 (Public Law 115–435; 132 Stat. 5529) and the amendments made by that Act, and preserve and curate such data and metadata, in accordance with chapter 31 of title 44, United States Code (commonly known as the “Federal Records Act of 1950”), in order to maximize use of such data and metadata; and*

(B) *manage and steward the access, archival, and retrieval activities for the data and metadata described in subparagraph (A) by—*

(i) *using—*

(I) *enterprise-wide infrastructure, emerging technologies, commercial partnerships, and the skilled workforce needed to provide appropriate data management from collection to broad access; and*

(II) *associated information services; and*

(ii) *pursuing the maximum interoperability of data and information by—*

(I) *leveraging data, information, knowledge, and tools from across the Federal Government to support equitable access, cross-sectoral collaboration and innovation, and local planning and decision-making; and*

(II) *developing standards and practices for the adoption and citation of digital object identifiers for datasets, models, and analytical tools.*

(2) *COLLABORATION.*—*In carrying out this subsection, the Under Secretary shall collaborate with such Federal partners and stakeholders as the Under Secretary considers relevant—*

(A) *to develop standards to pursue maximum interoperability of data, information, knowledge, and tools across the Federal Government, convert historical records into common digital formats, and improve access and usability of data by partners and stakeholders;*

(B) *to identify and solicit relevant data from Federal and international partners and other relevant stakeholders, as the Under Secretary considers appropriate; and*

(C) *to develop standards and practices for the adoption and citation of digital object identifiers for datasets, models, and analytical tools.*

[(f)](g) *REPORTS.*—

(1) *IN GENERAL.*—*Not later than 90 days after September 30 of each fiscal year through September 30, 2023, 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 report on the use of additional transaction authority by the National Oceanic and Atmospheric Administration during the previous fiscal year.*

(2) *CONTENTS.*—*Each report shall include—*

(A) for each transaction agreement in effect during the fiscal year covered by the report—

(i) an indication of whether the transaction agreement is a reimbursable, non-reimbursable, or funded agreement;

(ii) a description of—

(I) the subject and terms;

(II) the parties;

(III) the responsible National Oceanic and Atmospheric Administration line office;

(IV) the value;

(V) the extent of the cost sharing among Federal Government and non-Federal sources;

(VI) the duration or schedule; and

(VII) all milestones;

(iii) an indication of whether the transaction agreement was renewed during the previous fiscal year;

(iv) the technology areas in which research projects were conducted under that agreement;

(v) the extent to which the use of that agreement—

(I) has contributed to a broadening of the technology and industrial base available for meeting National Oceanic and Atmospheric Administration needs; and

(II) has fostered within the technology and industrial base new relationships and practices that support the United States; and

(vi) the total value received by the Federal Government under that agreement for that fiscal year; and

(B) a list of all anticipated reimbursable, non-reimbursable, and funded transaction agreements for the upcoming fiscal year.

[(g)](h) RULE OF CONSTRUCTION.—Nothing in this section may be construed as limiting the authority of the National Oceanic and Atmospheric Administration to use cooperative research and development agreements, grants, procurement contracts, or cooperative agreements.

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