

**Suspend the Rules and Pass the Bill, H.R. 4866, With Amendments**

**(The amendments strike all after the enacting clause and insert a new text and insert a new title)**

118<sup>TH</sup> CONGRESS  
2<sup>D</sup> SESSION

# H. R. 4866

To direct the Administrator of the National Oceanic and Atmospheric Administration to establish a program to improve fire weather and fire environment forecasting, detection, and local collaboration, and for other purposes.

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IN THE HOUSE OF REPRESENTATIVES

JULY 25, 2023

Mr. MIKE GARCIA of California (for himself, Ms. CARAVEO, and Mrs. KIM of California) introduced the following bill; which was referred to the Committee on Science, Space, and Technology

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## A BILL

To direct the Administrator of the National Oceanic and Atmospheric Administration to establish a program to improve fire weather and fire environment forecasting, detection, and local collaboration, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Fire Weather Develop-  
5 ment Act of 2024”.

1 **SEC. 2. FIRE WEATHER FORECASTING AND DETECTION.**

2 (a) ESTABLISHMENT.—The Administrator of the Na-  
3 tional Oceanic and Atmospheric Administration, shall es-  
4 tablish a program (in this Act referred to as the “Pro-  
5 gram”) to improve fire weather and fire environment fore-  
6 casting, detection, and delivery of products or services  
7 through collaboration with Federal and State agencies or  
8 departments, local emergency managers, and relevant enti-  
9 ties.

10 (b) GOALS.—The goals of the Program shall be to  
11 develop and improve accurate fire weather and fire envi-  
12 ronment forecasts and warnings in order to reduce loss  
13 of life, reduce injuries, protect property, and reduce dam-  
14 age to the economy from wildfires. The Program shall seek  
15 to improve the assessment of fire weather and fire environ-  
16 ments, the understanding and prediction of wildfires, and  
17 the communications regarding such assessments with  
18 State and local emergency officials in a timely and stream-  
19 lined fashion, with a focus on improving the following:

20 (1) The prediction of ignition, intensification  
21 and spread of wildfires.

22 (2) The observation and monitoring of fire  
23 weather and fire environments.

24 (3) The forecast and communication of smoke  
25 dispersion from wildfires.

1           (4) Information dissemination and risk commu-  
2           nication to develop more effective watch and warning  
3           products relating to wildfires.

4           (5) The early detection of wildfires, including  
5           pre-ignition analysis and ground condition character-  
6           izations.

7           (6) The development, testing, and deployment  
8           of novel tools and techniques related to under-  
9           standing, monitoring, and predicting fire weather  
10          and fire environments.

11          (7) The understanding and association of cli-  
12          mate change and its impacts on fire weather and  
13          fire environments.

14          (8) The unique characteristics, including obser-  
15          vation or modeling requirements, related to fires at  
16          the wildland-urban interface.

17          (9) The forecasting and understanding of the  
18          impacts of prescribed burns (as such term is defined  
19          in section 2 of the Prescribed Burn Approval Act of  
20          2016 (16 U.S.C. 551e–1 note)).

21          (c) COLLABORATION WITH STAKEHOLDERS.—In de-  
22          veloping the Program required under this section, the Ad-  
23          ministrators of the National Oceanic and Atmospheric Ad-  
24          ministration shall solicit and take into consideration input  
25          from the weather industry, such academic entities as the

1 Administrator considers appropriate, and other relevant  
2 stakeholders.

3 (d) ACTIVITIES.—To achieve the goals specified in  
4 subsection (b), the Administrator of the National Oceanic  
5 and Atmospheric Administration may conduct research,  
6 development, testing, demonstration, and operational  
7 transition activities related to fire weather and fire envi-  
8 ronments, including regarding the following:

9 (1) Tools and services to inform, support, and  
10 complement active land management, local emer-  
11 gency personnel, the United States Forest Service,  
12 and State, local, and Tribal entities during their re-  
13 sponse and mitigation efforts.

14 (2) Sensing technologies, such as infrared,  
15 microwave, and active sensors suitable for potential  
16 deployment on spacecraft, aircraft, and unmanned  
17 aircraft systems, to improve the monitoring and  
18 forecasting of fire fuel and active wildfires, wildfire  
19 behavior models and forecasts, mapping efforts, and  
20 the prediction of wildfires and the impacts of such.

21 (3) Grid-based assessments and outlooks of fuel  
22 moisture and danger levels.

23 (4) Social and behavior sciences related to fire  
24 weather and fire environment warning products.

1           (5) Advanced satellite detection products cou-  
2           pled with atmosphere and fire weather modeling sys-  
3           tems.

4           (6) Education and training to expand the num-  
5           ber of students and researchers in areas of study  
6           and research related to wildfires, fire weather, and  
7           fire environments.

8           (7) Modeling systems to link long-term climate  
9           predictions to localized or general land management  
10          decisions.

11          (8) Communication and outreach to commu-  
12          nities, energy utilities, owners and operators of crit-  
13          ical infrastructure, and other relevant stakeholders  
14          regarding fire weather and fire environment risk.

15          (9) Stewardship and dissemination, to the ex-  
16          tent practicable, of National Oceanic and Atmos-  
17          pheric Administration scientific data and related  
18          products and services in formats meeting shared  
19          standards to enhance the interoperability, usability,  
20          and accessibility of such data in order to better meet  
21          the needs of the National Oceanic and Atmospheric  
22          Administration, other Federal agencies, and relevant  
23          stakeholders.

24          (10) Improvement of spatial and temporal reso-  
25          lution observations.

1           (11) Any other topic or activity the Adminis-  
2           trator determines relevant.

3           (e) NOVEL TOOLS FOR MONITORING AND PRE-  
4           DICTION.—The Administrator of the National Oceanic  
5           and Atmospheric Administration, in consultation with the  
6           heads of the agencies specified in section 3, or other ap-  
7           propriate stakeholders, including commercial partners,  
8           shall develop novel tools and technologies to support the  
9           activities of the Program and which may be applied to  
10          broader wildland fire research, monitoring, and mitigation  
11          activities, as practicable and appropriate.

12          (f) EXTRAMURAL RESEARCH.—The Administrator of  
13          the National Oceanic and Atmospheric Administration  
14          shall collaborate with and support the non-Federal  
15          wildland fire research community, which includes institu-  
16          tions of higher education, private sector entities, non-  
17          governmental organizations, and other relevant stake-  
18          holders, by making funds available through competitive  
19          grants, contracts, and cooperative agreements.

20          (g) COMMERCIAL DATA.—

21           (1) IN GENERAL.—Not later than one year  
22           after the date of the enactment of this Act, the Ad-  
23           ministrator of the National Oceanic and Atmos-  
24           pheric Administration, in consultation with the  
25           heads of other Federal agencies and relevant stake-

1 holders, may enter into contracts with one or more  
2 private sector entities to obtain additional airborne  
3 and space-based data and observations that may en-  
4 hance or supplement the understanding, monitoring,  
5 and prediction, of fire weather and fire environ-  
6 ments, and the relevant Program activities under  
7 this section.

8 (2) CONSULTATION.—In carrying out activities  
9 under paragraph (1), the Administrator of the Na-  
10 tional Oceanic and Atmospheric Administration shall  
11 consult with private sector entities through the Na-  
12 tional Advisory Committee on Wildfires under sec-  
13 tion 4 to identify needed tools and data that can be  
14 best provided by National Oceanic and Atmospheric  
15 Administration satellites and are most beneficial to  
16 wildfire and smoke detection and monitoring.

17 (h) NONDUPLICATION.—To the maximum extent  
18 practicable, the Administrator of the National Oceanic  
19 and Atmospheric Administration shall consult with the  
20 National Interagency Fire Center, including the Joint Fire  
21 Science Program, to avoid duplication of activities under  
22 this section and ensure the Administration's focus on  
23 unique research activities best suited for transition to op-  
24 erations.

25 (i) UNMANNED AIRCRAFT SYSTEMS.—

1           (1) IN GENERAL.—The Administrator of the  
2 National Oceanic and Atmospheric Administration  
3 shall—

4           (A) assess the role and potential benefits  
5 of unmanned aircraft systems to improve data  
6 collection in support of fire weather and fire en-  
7 vironment modeling, meteorological observa-  
8 tions, predictions, and forecasts;

9           (B) identify objectives for testing such sys-  
10 tems' use for obtaining fire weather and fire en-  
11 vironment observations, and other relevant ac-  
12 tivities; and

13           (C) transition unmanned aircraft systems  
14 technologies from research to operations as the  
15 Administrator considers appropriate.

16           (2) BRIEFING.—Not later than 270 days after  
17 the date of enactment of the Act, the Administrator  
18 of the National Oceanic and Atmospheric Adminis-  
19 tration shall brief the appropriate committees of  
20 Congress on the activities under paragraph (1).

21           (3) PILOT PROGRAMS.—Not later than 18  
22 months after the date of the enactment of this Act,  
23 the Administrator of the National Oceanic and At-  
24 mospheric Administration may conduct pilot pro-  
25 grams of unmanned aircraft systems for fire weather



1 and fire environment observations, including relating  
2 to the following:

3 (A) Testing of unmanned aircraft systems  
4 in approximations of real-world scenarios.

5 (B) Assessment of the utility of meteorological  
6 data collected from fire response and assessment  
7 aircraft.

8 (C) Input into appropriate models of collected  
9 data to predict fire behavior, including  
10 coupled atmosphere and fire models.

11 (D) Collection of best management practices  
12 for deployment of unmanned aircraft systems  
13 for fire weather and fire environment observations.  
14

15 (4) PROHIBITION.—

16 (A) IN GENERAL.—Except as provided  
17 under subparagraphs (B) and (C), the Administrator  
18 of the National Oceanic and Atmospheric  
19 Administration may not procure any unmanned  
20 aircraft system that is manufactured or assembled  
21 by an entity in a foreign country of concern.  
22

23 (B) EXEMPTION.—The prohibition under  
24 subparagraph (A) shall not apply to the Administrator  
25 of the National Oceanic and Atmos-

1           pheric Administration if the Administrator de-  
2           termines, in consultation with the Secretary of  
3           Homeland Security, that the procurement of an  
4           unmanned aircraft system is necessary for the  
5           sole purpose of marine or atmospheric science  
6           or management.

7           (C) WAIVER.—The Administrator of the  
8           National Oceanic and Atmospheric Administra-  
9           tion may waive the prohibition under subpara-  
10          graph (A) on a case-by-case basis—

11                   (i) with the approval of the Secretary  
12                   of Homeland Security; and

13                   (ii) upon written or electronic notifica-  
14                   tion to appropriate committees of Congress  
15                   not later than 30 days after any such waiv-  
16                   er.

17          (5) AIRSPACE OPERATIONS SYSTEM.—The Ad-  
18          ministrator of the National Oceanic and Atmos-  
19          pheric Administration, in cooperation with the Ad-  
20          ministrator of the National Aeronautics and Space  
21          Administration, shall utilize the capabilities of un-  
22          manned aircraft systems as appropriate for fire  
23          weather and fire environment observations, and may  
24          use a wildfire airspace operations system that ac-  
25          counts for piloted aircraft, unmanned aircraft sys-

1       tems, and other new and emerging capabilities after  
2       such airspace operations system is developed and de-  
3       termined ready for operational use by the Adminis-  
4       trator of the National Aeronautics and Space Ad-  
5       ministration.

6               (6) AUTHORIZATION OF APPROPRIATIONS.—

7       There is authorized to be appropriated \$5,000,000  
8       for fiscal year 2025 to carry out this subsection.

9       (j) DEFINITIONS.—In this section:

10               (1) APPROPRIATE COMMITTEES OF CON-

11       GRESS.—The term “appropriate committees of Con-  
12       gress” means the Committee on Science, Space, and  
13       Technology and the Committee on Homeland Secu-  
14       rity of the House of Representatives and the Com-  
15       mittee on Commerce, Science, and Transportation  
16       and the Committee on Homeland Security and Gov-  
17       ernmental Affairs of the Senate.

18               (2) CRITICAL INFRASTRUCTURE.—The term

19       “critical infrastructure” has the meaning given such  
20       term in section 1016(e) of Public Law 107–56 (42  
21       U.S.C. 5195c(e)).

22               (3) FOREIGN COUNTRY OF CONCERN.—The

23       term “foreign country of concern” has the meaning  
24       given such term in section 9901 of the William M.

1 (Mac) Thornberry National Defense Authorization  
2 Act for Fiscal Year 2021 (15 U.S.C. 4651).

3 (4) INSTITUTION OF HIGHER EDUCATION.—The  
4 term “institution of higher education” has the  
5 meaning given such term in section 101 of the High-  
6 er Education Act of 1965 (20 U.S.C. 1001).

7 (5) UNMANNED AIRCRAFT SYSTEM.—The term  
8 “unmanned aircraft system” has the meaning given  
9 such term in section 44801 of title 49, United  
10 States Code.

11 (6) WEATHER INDUSTRY.—The term “weather  
12 industry” has the meaning given such term in sec-  
13 tion 2 of the Weather Research and Forecasting In-  
14 novation Act of 2017 (15 U.S.C. 8501).

15 **SEC. 3. INTERAGENCY COORDINATING COMMITTEE ON**  
16 **WILDFIRES.**

17 (a) ESTABLISHMENT.—Not later than 90 days after  
18 the date of the enactment of this Act, the Director of the  
19 Office of Science and Technology Policy shall establish an  
20 interagency coordinating committee to be known as the  
21 “Interagency Coordinating Committee on Wildfires” (in  
22 this section referred to as the “Committee”). The chair  
23 of the Committee shall be the Administrator of the Na-  
24 tional Oceanic and Atmospheric Administration.

1 (b) PURPOSE.—The Committee shall coordinate the  
2 development of accurate and timely wildfire forecasting,  
3 detection, monitoring, and delivery of related products or  
4 services that best assist State and local emergency officials  
5 while avoiding duplication of activities.

6 (c) MEMBERSHIP.—In addition to the chair, the  
7 Committee shall be composed of the heads or appropriate  
8 designees of the following program agencies:

9 (1) The Federal Emergency Management Agen-  
10 cy.

11 (2) The United States Fire Administration.

12 (3) The United States Forest Service.

13 (4) The National Aeronautics and Space Ad-  
14 ministration.

15 (5) The Department of the Interior.

16 (6) The Department of Agriculture.

17 (7) The United States Geological Survey.

18 (8) The Office of Science and Technology Pol-  
19 icy.

20 (9) Any other Federal department or agency  
21 the Director of the Office of Science and Technology  
22 Policy considers appropriate.

23 (d) STRATEGIC PLAN.—Not later than one year after  
24 the date of the enactment of this Act, the Committee shall

1 submit to Congress a strategic plan for the Program that  
2 includes the following:

3 (1) A description of short-term, mid-term, and  
4 long-term objectives to achieve the purpose specified  
5 in subsection (b).

6 (2) A description of how agencies specified in  
7 subsection (c) will collaborate with stakeholders and  
8 take into account stakeholder needs and rec-  
9 ommendations in developing such objectives.

10 (3) A description of existing and new observa-  
11 tional and data infrastructure needed to accomplish  
12 such objectives.

13 (4) A description of the role of each such agen-  
14 cy in achieving such objectives.

15 (5) Guidance regarding how the Committee's  
16 recommendations are best used in climate adapta-  
17 tion planning for Federal, State, local, Tribal, and  
18 territorial entities.

19 (e) INTERAGENCY AGREEMENTS.—The heads of  
20 agencies specified in subsection (c) may enter into one or  
21 more interagency agreements providing for cooperation  
22 and collaboration in the development of wildfire fore-  
23 casting, detection, and monitoring tools, instruments,  
24 technologies, and research to accomplish the purpose de-  
25 scribed in subsection (b).

1 (f) COLLABORATION.—The head of each agency spec-  
2 ified in subsection (e) shall, to the extent practicable, in-  
3 crease engagement and cooperation with international,  
4 academic, State, and local communities regarding the in-  
5 frastructure, data, and scientific research necessary to  
6 best advance the forecasting, detection, and monitoring of  
7 and preparation for wildfires.

8 **SEC. 4. NATIONAL ADVISORY COMMITTEE ON WILDFIRES.**

9 (a) ESTABLISHMENT.—

10 (1) IN GENERAL.—Not later than 90 days after  
11 the submission of the strategic plan required by sec-  
12 tion 3(d), the Director of the Office of Science and  
13 Technology Policy shall establish a national advisory  
14 committee to be known as the “National Advisory  
15 Committee on Wildfires” (in this section referred to  
16 as the “Advisory Committee”). The Advisory Com-  
17 mittee shall consist of not fewer than seven and not  
18 more than 15 members who are qualified to provide  
19 advice regarding wildfire forecasting, detection, mon-  
20 itoring, and delivery of related products or services,  
21 including from the following entities:

22 (A) Research and academic institutions.

23 (B) Public communication or broadcast en-  
24 tities.

25 (C) Emergency management agencies.

1 (D) State, local, or Tribal governments.

2 (E) The National Association of State For-  
3 esters.

4 (F) Business communities.

5 (G) Other entities as designated by the Di-  
6 rector of the Office of Science and Technology  
7 Policy.

8 (2) PROHIBITION.—Members of the Advisory  
9 Committee may not be employees of the Federal  
10 Government.

11 (b) ASSESSMENT.—The Advisory Committee shall  
12 offer assessments and recommendations relating to the  
13 following:

14 (1) Tailored forecasting, detection, and moni-  
15 toring products and tools.

16 (2) Communication and delivery methods of  
17 wildfire forecasting, detection, and monitoring infor-  
18 mation.

19 (3) Opportunities to streamline Federal fore-  
20 casting, monitoring, and detection information to  
21 local emergency personnel and communities.

22 (4) The management, coordination, implemen-  
23 tation, and activities of the Interagency Coordi-  
24 nating Committee on Wildfires under section 3.



1           (5) The effectiveness of the Interagency Coordi-  
2           nating Committee on Wildfires in meeting its pur-  
3           poses.

4           (c) COMPENSATION.—Members of the Advisory Com-  
5           mittee shall serve without compensation.

6           (d) REPORTS.—Not less frequently than biennially,  
7           the Advisory Committee shall report to the Director of the  
8           Office of Science and Technology Policy on the assess-  
9           ments carried out under subsection (b) and its rec-  
10          ommendations for ways to improve the coordination and  
11          dissemination of wildfire forecasts, warnings, and detec-  
12          tion and monitoring information.

13          (e) CHARTER.—Notwithstanding section 1013(b)(2)  
14          of title 5, United States Code, the Advisory Committee  
15          shall not be required to file a charter subsequent to its  
16          initial charter, filed under section 1008(c) of such title,  
17          before the termination date specified in subsection (f) of  
18          this section.

19          (f) TERMINATION.—The Advisory Committee shall  
20          terminate on September 30, 2028.

21          (g) CONFLICT OF INTEREST.—An Advisory Com-  
22          mittee member shall recuse himself or herself from any  
23          Advisory Committee activity in which he or she has an  
24          actual pecuniary interest.

1 **SEC. 5. ESTABLISHMENT OF FIRE WEATHER TESTBED.**

2 (a) IN GENERAL.—The Administrator of the Na-  
3 tional Oceanic and Atmospheric Administration shall es-  
4 tablish a fire weather testbed to enable engagement across  
5 the Federal Government, State and local governments,  
6 academia, private and federally funded research labora-  
7 tories, the private sector, and end-users in order to evalu-  
8 ate the accuracy and usability of technology, models, fire  
9 weather products and services, and other research to accel-  
10 erate the implementation, transition to operations, and use  
11 of new capabilities by the National Oceanic and Atmos-  
12 pheric Administration, Federal and land management  
13 agencies, and other relevant stakeholders.

14 (b) RESOURCES.—In carrying out this section, the  
15 Administrator of the National Oceanic and Atmospheric  
16 Administration may not transfer or reprogram any funds,  
17 detail any personnel, or make use of any infrastructure  
18 from cooperative institutes of the National Oceanic and  
19 Atmospheric Administration in existence as of the date of  
20 the enactment of this Act for the fire weather testbed es-  
21 tablished under subsection (a).

22 (c) AUTHORIZATION OF APPROPRIATIONS.—There is  
23 authorized to be appropriated \$4,000,000 for each of fis-  
24 cal years 2025 through 2028 to carry out this section.

1 **SEC. 6. INCIDENT METEOROLOGIST WORKFORCE.**

2 (a) WORKFORCE AND TRAINING ASSESSMENT.—Not  
3 later than six months after the date of the enactment of  
4 this Act, the Administrator of the National Oceanic and  
5 Atmospheric Administration shall submit to the Com-  
6 mittee on Science, Space, and Technology of the House  
7 of Representatives and the Committee on Commerce,  
8 Science, and Transportation of the Senate the results of  
9 an assessment of National Weather Service workforce and  
10 training challenges for Incident Meteorologists, and a  
11 roadmap for overcoming such challenges. Such assessment  
12 shall take into consideration information technology sup-  
13 port, logistical and administrative operations, anticipated  
14 weather and climate conditions, and feedback from rel-  
15 evant stakeholders, and shall include, to the maximum ex-  
16 tent practicable, an identification by the National Weather  
17 Service of the following:

18 (1) The expected number of Incident Meteorolo-  
19 gists needed over the next five years.

20 (2) Potential hiring authorities necessary to  
21 overcome any identified workforce and training chal-  
22 lenges.

23 (3) Alternative services or assistance options  
24 the National Weather Service could provide to meet  
25 operational needs.

26 (b) OVERTIME PAY.—

1           (1) IN GENERAL.—Any premium pay for serv-  
2           ices performed by Incident Meteorologists of the Na-  
3           tional Weather Service that are determined by the  
4           Secretary of Commerce to be primarily related to  
5           emergency wildland fire suppression activities shall  
6           be disregarded in calculating the aggregate of such  
7           employee’s basic pay and premium pay for purposes  
8           of a limitation under section 5547 of title 5, United  
9           States Code, or under any other provision of law.

10           (2) RATES.—Section 5542(a)(5) of title 5,  
11           United States Code, is amended by inserting “, the  
12           National Weather Service,” after “Interior”.

13   **SEC. 7. RESEARCH ON WILDLAND FIRE COMMUNICATIONS**  
14                           **AND INFORMATION DISSEMINATION.**

15           (a) IN GENERAL.—

16           (1) PUBLIC SAFETY RESEARCH.—Not later  
17           than 60 days after the date of the enactment of this  
18           Act, the Director, acting through the head of the  
19           Public Safety and Communications Research Divi-  
20           sion and in consultation with the Fire Research Di-  
21           vision and technology manufacturers, shall carry out  
22           research on the following:

23                           (A) Public safety communication coordina-  
24                           tion standards among Federal, State, Tribal,

1 and local wildland firefighters, fire management  
2 response officials, and member agencies.

3 (B) Improving and integrating existing  
4 communications systems to transmit secure  
5 real-time data, alerts, and advisories to and  
6 from fire management response officials and  
7 wildland firefighters.

8 (2) FIELD TESTING AND MEASUREMENT OF IN-  
9 FORMATION DISSEMINATION AND TECHNOLOGY.—  
10 The Public Safety and Communications Research  
11 Division, in consultation with the Fire Research Di-  
12 vision and member agencies, shall conduct both live  
13 and virtual field testing of equipment, software, and  
14 other technologies to determine current times of in-  
15 formation dissemination and develop standards for  
16 the delivery of useful and secure real-time data  
17 among member agencies, fire management response  
18 officials, and wildland firefighters, based on findings  
19 from research under paragraph (1).

20 (b) RECOMMENDATIONS.—

21 (1) IN GENERAL.—The Director shall develop  
22 and publish recommendations to improve public safe-  
23 ty communication coordination standards among  
24 wildland first responders and fire management re-  
25 sponse officials.

1           (2) TRANSMITTAL.—The Director shall trans-  
2           mit the recommendations under paragraph (1) to  
3           the Office of Management and Budget and the Of-  
4           fice of Science and Technology Policy for member  
5           agencies to implement.

6           (3) REPORTING REQUIREMENTS.—

7           (A) IN GENERAL.—The Director shall sub-  
8           mit to the Committee on Science, Space, and  
9           Technology of the House of Representatives  
10          and the Committee on Commerce, Science, and  
11          Transportation of the Senate a report con-  
12          taining the recommendations published under  
13          paragraph (1).

14          (B) IMPLEMENTATION.—Not later than 1  
15          year after the date of the publication of the Di-  
16          rector's recommendations under paragraph (1),  
17          the Comptroller General of the United States  
18          shall submit to the Committee on Science,  
19          Space, and Technology of the House of Rep-  
20          resentatives and the Committee on Commerce,  
21          Science, and Transportation of the Senate a re-  
22          port on the extent to which member agencies  
23          have implemented such recommendations.

24          (c) DEFINITIONS.—In this section:

1           (1) DIRECTOR.—The term “Director” means  
2           the Director of the National Institute of Standards  
3           and Technology.

4           (2) MEMBER AGENCY.—The term “member  
5           agency” means a member agency of the National  
6           Interagency Fire Center, including the Bureau of In-  
7           dian Affairs, Bureau of Land Management, National  
8           Park Service, National Oceanic and Atmospheric  
9           Administration, U.S. Fish and Wildlife Service, For-  
10          est Service, United States Fire Administration, and  
11          the Department of Defense.

12          (3) WILDLAND FIREFIGHTER.—The term  
13          “wildland firefighter” means any person who partici-  
14          pates in wildland firefighting activities.

15          (4) FIRE MANAGEMENT RESPONSE OFFI-  
16          CIALS.—The term “fire management response offi-  
17          cials” means regional fire directors, deputy regional  
18          fire directors, agency officials who directly oversee  
19          fire operations, fire management officers, and indi-  
20          viduals serving on incident management teams.

21          (5) TECHNOLOGY MANUFACTURERS.—The term  
22          “technology manufacturers” means private sector  
23          entities that manufacture communications tech-  
24          nologies used by Federal, State, Tribal, or local  
25          wildland fire authorities.

1 **SEC. 8. DEFINITIONS.**

2 In this Act:

3 (1) FIRE ENVIRONMENT.—The term “fire envi-  
4 ronment” means—

5 (A) the environmental conditions, such as  
6 soil moisture, vegetation, topography, snowpack,  
7 atmospheric temperature, moisture, and wind,  
8 that influence—

9 (i) fuel and fire behavior; and

10 (ii) smoke dispersion and transport;

11 and

12 (B) the associated environmental impacts  
13 occurring during and after fire events.

14 (2) FIRE WEATHER.—The term “fire weather”  
15 means the weather conditions that influence the  
16 start, spread, character, or behavior of wildfires or  
17 fires at the wildland-urban interface and relevant  
18 meteorological and chemical phenomena, including  
19 air quality, smoke, and meteorological parameters  
20 such as relative humidity, air temperature, wind  
21 speed and direction, and atmospheric composition  
22 and chemistry, including emissions and mixing  
23 heights.

Amend the title so as to read: “A bill to direct the  
Administrator of the National Oceanic and Atmospheric  
Administrator to improve fire weather and fire environ-



ment forecasting, detection, and local collaboration, and for other purposes.”.