

MEMORANDUM OF UNDERSTANDING

between the

U.S. DEPARTMENT OF AGRICULTURE
U.S Forest Service

and the

U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

I. PARTIES

This document constitutes a Memorandum of Understanding (MOU) between the National Oceanic and Atmospheric Administration (NOAA), U.S. Department of Commerce, and the U.S. Forest Service (USFS), U.S. Department of Agriculture. Specifically, this MOU addresses collaborative research efforts in fire weather, fire behavior, fire danger, smoke and air quality forecasting, and fire-climate effects. Fire weather research is performed in NOAA by the National Weather Service (NWS) and Oceanic and Atmospheric Research (OAR) line offices. Interactive processes including fire weather/climate, wildland fire loading, fuel moisture, fire behavior, and smoke emission/dispersion are also researched by USFS Research and Development.

II. AUTHORITIES

The USFS and NOAA have the authority to participate in the contemplated collaborative research and development pursuant to:

- (1) 15 U.S.C. §313, which provides that the “Secretary of Commerce shall have charge of the forecasting of weather, the issue of storm warnings, the display weather and flood signals for the benefit of agriculture, commerce, and navigation, the gauging and reporting of rivers, the maintenance and operation of seacoast telegraph lines and the collection and transmission of marine intelligence for the benefit of commerce and navigation, the reporting of temperature and rainfall conditions for the cotton interests, the display of frost and cold-wave signals, the distribution of meteorological information in the interests agriculture and commerce, and the taking of such meteorological observations as may be necessary to establish and record the climatic conditions of the United States, or as are essential for the proper execution of the foregoing duties.”

- (2) 43 U.S.C. §1701 (a), (8) and (12), which provides that “the public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use” and “the public lands be managed in a manner which recognizes the Nation’s needs for domestic sources of minerals, food, timber, and fiber from the public lands.”

- (3) 33 U.S.C §883d, which authorizes NOAA to increase engineering and scientific knowledge by conducting developmental work for the improvement of surveying and cartographic methods, instruments, and equipment; and to conduct investigation and research in geophysical sciences (including geodesy, oceanography, seismology, and geomagnetism).

III. PURPOSE

This MOU is established to provide a framework for implementing and expanding existing research partnerships focused on weather and climate and their effect on fire potential, fire behavior, fire danger, and fire smoke products that support improved fire management and firefighting decisions. The parties recognize the importance of connecting improved weather elements such as numerical models, data assimilation, surface-based observing platforms, telecommunications, and aerial and satellite observations to improving operational forecasts in support of safe, reliable and sustainable USFS land management and firefighting operations. Objectives will include identification of current NOAA and USFS research efforts, collaborative project opportunities and clarification on the distinct activities of NOAA and USFS. These goals are considered essential by internal and external review documents, especially including the 2008 NOAA Science Advisory Board Report, “Fire Weather Research: A Burning Agenda for NOAA.”

As the NOAA National Weather Service (NWS) is legally mandated to issue weather forecasts and warnings for the protection of life, property, and public health, NOAA must be proactively involved in improving fire weather forecast information. The USFS is mandated to support all facets of land management of the National Forests as authorized by the Federal Forest Management Act of 1976.

This MOU specifically addresses goal # 2 of the June 2006 “Wildland Fire and Fuels Research and Development Strategic Plan: Meeting the Needs of the Present, Anticipating the Needs of the Future”, which calls for the development of improved mechanisms for moving predictive tools and decision support systems into the operational community. The collaboration under this MOU facilitates the process of using NOAA resources and established mechanisms for evaluating and selecting relevant fire weather smoke dispersion predictive tools.

The parties have determined that it is essential that this research be conducted in collaboration because of the interrelationship between forest fuels, climate, fire weather, fire danger, fire behavior, and smoke emissions. Furthermore, NOAA and the USFS are seeking closer working relationships to leverage and extend the research and development work they are already conducting. The USFS can more effectively

manage fire incidents and prescribed fire with NOAA's improved atmospheric information and NOAA can provide better fire weather information with fire potential, fire danger, behavior, and smoke management expertise from the USFS.

IV. SCOPE

This MOU is of mutual interest as the parties recognize that fire management and suppression in the Nation's wildlands and wildland-urban interface is an ongoing concern to the American public. Considerable cooperation and coordination among NOAA and USFS operations groups exists, which is critical to the success of fire management, suppression, and safety. The objectives of the parties are to define clear research directions and to determine an understanding of common, collaborative goals in fire weather research and development activities.

The parties agree to collaboratively pursue the following research activities in support of fire potential, fire weather forecasts, fire danger, and fire smoke behavior research goals. These activities will result in the early detection of anticipated extreme fire behavior, and more accurate fire spread projections, at the resolution of communities. In addition, these efforts will provide a scientific basis for the incorporation of climate information in long term fire planning. These activities include, but are not limited to:

- a. Identification of improvements needed in operational atmospheric model analysis, data assimilation, and forecast fields to achieve more accurate and reliable fire weather information.
- b. Development of collaborative structures to verify couple fire weather/fire and smoke behavior forecast models.
- c. Identification of technology frameworks to deliver improved forecast model data to operational and planning partners.
- d. Formation of an Inter-Agency Working Group, in accordance with applicable law, with specific roles focused on coordinating the interests of each party in addressing all aspects of fire weather, fire and smoke behavior, fuel moisture, wildland fuel loading, and fire-related climate research needs.
- e. Evaluation and selection of an earth system modeling approach that includes atmospheric and land surface processes to address climate change and atmosphere/biosphere feedbacks that affect fire and ecosystems management.
- f. Development of projects of interest to the USFS and NOAA pertaining to fire management such as regional, national, seasonal, and long-term fire potential, and fire-climate interaction assessments.
- g. Identification of joint agency field study opportunities to support the advancement of fire behavior and weather prediction understanding and in conjunction with the validation and evaluation of fire weather and fire behavior research models.

V. ROLES AND RESPONSIBILITIES

Reasonable efforts will be made to develop specific research tasks or initiatives, milestones under this MOU. Specific projects in furtherance of this MOU will be documented via Interagency Agreements (IAs) that are subject to available funds. IAs will identify appropriate authorities for any transfer of funds as well as current accounting data.

The roles and responsibilities of the parties under a specific task or initiative, including but not limited to schedules, resources, and milestones, will be articulated in separate IAs in furtherance of this MOU. Any obligation or transfer of funds by the parties in furtherance of this MOU will be accomplished only through these IAs.

It is the intent that the roles and responsibilities under IAs will be flexible, taking advantage of the strengths and capabilities of the parties while avoiding duplication and allowing for the inclusion of future partners who can bring new capabilities into the collaboration. Detailed schedule, resources, and milestones for the specific tasks under this MOU (i.e., tests and projects) shall be jointly determined by the parties in subsequent IAs.

VI. IMPLEMENTATION AND REVIEW OF ACTIVITIES

The parties will designate members of a task team, consisting of USFS and NOAA staff that are responsible for submitting an Action Plan to the signatories or their designees establishing goals and deliverables associated with the activities outlined in Article IV above. The task team may meet by teleconference or in person every 90 days to review progress towards meeting the goals and deliverables set forth in the Action Plan pending resources availability. The Action Plan will be adopted by the parties, and it may be amended only by mutual written agreement of the parties.

The parties will annually review opportunities for collaboration established under this MOU, evaluate their effectiveness, discuss ongoing and future cooperation, and identify promising areas for future collaboration.

VII. TERMS AND CONDITIONS

A. This MOU is to be construed in a manner consistent with all effective existing laws and regulations. This MOU neither expands nor detracts from those powers and authorities vested in the parties by applicable laws, statutes, or regulations. All agreements herein are subject to, and will be carried out in compliance with, all applicable laws, regulations, and other legal requirements.

B. This MOU is strictly for internal management purposes for each of the parties. It is not legally enforceable and shall not be construed to create any legal obligation on the part of either party. This MOU shall not be construed to provide a private right or cause of action for or by any person or entity.

C. This MOU is neither a fiscal nor a funds obligation document. Nothing in this MOU authorizes or is intended to obligate the parties to expend, exchange, or reimburse funds, services, or supplies, or transfer or receive anything of value.

D. This MOU may be amended by the mutual written agreement of the parties through issuance of a written supplemental document that is signed and dated by all parties.

E. This MOU may be terminated by any party by providing 60 days written notice of such termination to all other parties.

F. The parties will consult with each other to resolve disputes at staff levels and elevate disputes through the respective organizational levels only if necessary. Notification of potential conflict or a dispute by any party must be in writing, and attempts to resolve the matter at the staff level should occur within 30 days. If the conflict or dispute is not resolved within 30 days, agency staff may elevate the issue to appropriate officials. Notwithstanding any such referral, NOAA reserves the right to make a final decision on any matter within NOAA's regulatory authority, and USFS reserves the same right for any matter within its authority.

G. Information exchanged pursuant to this MOU that is responsive to a valid request under the Freedom of Information Act (FOIA), 5 U.S.C. §552, will be returned to the originating Agency for a determination regarding release.

H. For all press releases, published advertisements, or other statements intended for the public that refer to this MOU or activities developed under this MOU, the parties will coordinate as necessary to ensure that each party concurs.

I. This MOU in no way restricts any party from participating in any activity with other public or private agencies, organizations, or individuals.

J. The parties will comply with the Federal Advisory Committee Act to the extent it applies.

K. All activities under or pursuant to this MOU are subject to the availability of appropriated funds, and no provision herein shall be interpreted to require obligation or payment of funds in violation of the Anti-Deficiency Act, 31 U.S.C. §1341.

L. Any contributions made under this agreement do not by direct reference or implication convey U.S. Forest Service endorsement of NOAA's products or activities.

M. Under 41 U.S.C. §22, no member of, or delegate to, Congress shall be admitted to any share or part of the MOU or to any benefit to arise therefrom.

N. Any communications affecting the operations covered by this agreement given by the USFS or NOAA is sufficient only if in writing and delivered in person, mailed or transmitted electronically by e-mail or fax to the USFS and NOAA contacts listed at the addresses specified in the MOU. Notices are effective when delivered in accordance with this provision, or on the effective date of the notice, whichever is later.

VIII. DURATION OF AGREEMENT AND AMENDMENTS

Unless terminated under Article VII.E, above, this MOU will expire five (5) years from the date of the last signature to this MOU. The MOU will become effective when signed by the parties. The period of performance for IAs executed in furtherance of this MOU shall not extend beyond the expiration of this MOU. The parties will review this MOU at least once every three years to determine whether it should be revised, renewed, or canceled.

IX. RESOLUTION OF DISAGREEMENTS

Disputes related to this MOU shall be resolved in accordance with instructions provided in the Treasury Financial Manual (TFM) Volume I, Chapter 4700, Appendix 10; Intragovernmental Business Rules.

Under the Inspector General Act of 1978, as amended, 5 U.S.C. App. 3, a review of this agreement may be conducted at any time. The Inspector General of the Department Commerce, or any of his or her duly authorized representatives, shall have access to any pertinent books, documents, papers, and records of the parties to this agreement, whether written, printed, recorded, produced, or reproduced by any mechanical, magnetic or other process or medium in order to make audits, inspections, excerpts, transcripts, or other examinations as authorized by law.

Nothing herein is intended to conflict with current Department of Commerce or Department of Agriculture directives. If the terms of this agreement are inconsistent with existing directives of either of the agencies entering into this agreement, then those portions of this agreement which are determined to be inconsistent shall be deemed invalid; but the remaining terms and conditions not affected by the inconsistency shall remain in full force and effect. At the first opportunity for review of the agreement, all necessary changes will be accomplished by either an amendment to this agreement or by entering into a new agreement, whichever is deemed expedient to the interest of the parties.

By signature below, each party certifies that the individuals listed in this document as representatives of the individual parties are authorized to act in their respective areas for matters related to this instrument. In witness whereof, the parties hereto have accepted and executed this MOU as of the last date written below.

The parties agree that if there is a change regarding the information in this section, the party making the change will notify the other party in writing of such change.

VIII. CONTACTS

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IX. SIGNATURES

FOR THE OFFICE OF OCEANIC AND
ATMOSPHERIC RESEARCH

FOR THE U.S. FOREST SERVICE
RESEARCH & DEVELOPMENT



David. Holst
Chief Financial Officer
DOC/NOAA/OAR

Date: 1/10/18



Dr. Carlos Rodriguez-Franco
Deputy chief

Date: 3/05/2018