

NATIONAL WEATHER SERVICE POLICY DIRECTIVE 10-4

MAY 29, 2023

Operations and Services

PRODUCTS AND SERVICES TO SUPPORT FIRE AND OTHER INCIDENTS

NOTICE: This publication is available at: <https://www.nws.noaa.gov/directives/>.

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SUMMARY OF REVISIONS: This directive supersedes NWSPD 10-4, “*Products and Services to Support Fire and Other Incidents*,” dated November 7, 2017. The following changes were made:

1. Added mention of forecast collaboration with Storm Prediction Center (SPC) for fire weather in sections 5.1.g and 5.1.h.
2. Added section 5.1.i to include relationships with Regional Operation Centers.
3. Added a section 5.3.h requesting Service Program Team information communication between NWS Regions and Weather Forecast Offices (WFOs).
4. Added a section 5.4.e describing procedures for disseminating emergency messages in partnership with external agencies.
5. Added a section to emphasize the maintenance of the forecast gridded database in section 5.4.f.
6. Added a section 5.7 to describe the Office of Dissemination high-level fire weather roles.
7. Added a section 5.8 to describe the Office of Central Processing high-level fire weather roles.
8. Added a section 5.9 to describe the Office of Observations high-level fire weather roles.

1. Fire, in a natural or prescribed form, is important to the maintenance and health of most ecosystems. However, wildfire can also present an urgent threat to life and property, especially in the wildland-urban interface and those fighting fires require expert meteorological decision support services. In addition, non-fire incidents including (but not limited to) hazardous materials spills, search and rescue operations and disaster recovery can also present immediate threats to life and property and require meteorological decision support services. Timely and accurate fire weather forecasts and warnings spanning minutes out to months in the future are used by land and fire management agencies for planning and fire suppression purposes.

2. This directive governs the National Oceanic and Atmospheric Administration’s (NOAA’s) National Weather Service’s (NWS’) provision of products and services to its users and partners for fire and non-fire events which pose threats to life and/or property. For non-fire events, this directive serves to complement decision support activities enabled by the unique qualifications of fire weather and/or emergency response specialists.

3. The objective of the NWS Fire Weather Program is to provide fire weather and other products and decision support services to the fire, land management and emergency response community for the protection of life and property, promotion of firefighter and emergency responder safety, and stewardship of America's public lands.
4. Due to the direct use of NWS Fire Weather Program Incident Meteorologist (IMET) and spot forecast services by emergency managers using the Incident Command System (ICS), the NWS Fire Weather Program is directly involved with issuing products and forecasts for fire and non-fire incidents and special events. As a result, NWS fire weather forecasters will provide products and decision support services that achieve the mission of the NWS, which is to provide weather, water, and climate data, forecasts and warnings for the protection of life and property and the enhancement of the national economy. Guidance on provision of forecasts to special events can be found in [NWS Instruction \(NWSI\) 10-1806](#), "*NWS Support for Special Events*". Also, guidance for appropriate issuance of spot forecasts is found in NWSI 10-401, "*Fire Weather Services Product Specification*".
5. This directive establishes the following authorities and responsibilities.
 - 5.1 The Analyze, Forecast and Support Office (AFSO) will:
 - a. Establish national policies and procedures for the provision of consistent forecasts and warnings to support all incidents as described above.
 - b. Consolidate, analyze, and oversee national performance and effectiveness indicators of its products and decision support services.
 - c. Provide outreach to national users to promote its products and decision support services.
 - d. Work with the NWS Operations Division (COO1) to dispatch and provide operational support to NWS staff who support incidents either on-site, from their home Weather Forecast Office (WFO), or at Emergency Operations Centers (EOCs).
 - e. Work with COO1 to configure and manage All-hazard Meteorological Response Systems (AMRS).
 - f. Lead a fire weather Service Program Team (SPT) with the purpose of proposing, vetting, and recommending Fire Weather Program requirements to the Mission Delivery Council.
 - g. Promotes forecast collaboration between the Storm Prediction Center (SPC) and WFOs. Additional guidelines can be found within the National Annual Operating Plan, posted on the https://www.weather.gov/fire_website under the Administrative section of the webpage.
 - h. Provides requirements with respect to fire weather grids produced by the National Blend of Models (NBM).

- i. Coordinates with each Regional Operations Center (ROC) on matters of policy related to operations, data collection and decision support response.

5.2 The Office of Science and Technology Integration (STI) will:

- a. Plan, develop, demonstrate, and integrate scientific techniques and system capabilities for the Fire Weather Program.
- b. Formulate and maintain a Fire Weather Program research and development plan.

5.3 NWS Regional Headquarters offices will:

- a. Ensure WFOs are organized, trained, and equipped to fulfill product and decision support service obligations.
- b. Provide Fire Weather Program requirements to AFSO.
- c. Develop supplements to procedural directives for the Fire Weather Program.
- d. Provide technical and operational assistance to AFSO and WFOs.
- e. Provide outreach to regional users to promote products and decision support services.
- f. Evaluate performance and effectiveness of the Fire Weather Program.
- g. Ensure WFOs, IMETs and other NWS personnel comply with Fire Weather Program directives, reimbursement agreements, and regional supplements.
- h. Communicates national level information, gained primarily from information presented at SPT calls, to the WFOs in their respective Region.

5.4 WFOs will:

- a. Provide outreach to promote products and decision support services for their local service areas.
- b. Provide incident support forecasts and related products and decision support services to the local service area.
- c. Provide user outreach to promote and assess the success of their Fire Weather Program.
- d. Ensure Fire Weather Program products and decision support services supplied by the WFO are documented in appropriate Fire Weather Annual Operating Plans, and Emergency Response Plans of other jurisdictions in their County Warning Area (CWA).
- e. Work closely with local land management and emergency management partners to

define instances where the NWS may assist in disseminating messages alerting emergency managers or the public for active fires. These messages may take the form of Fire Warnings, Civil Emergency Messages or other products clearly defined in state emergency operation plans, and are issued at the request of local emergency officials. Policy governing non-weather warning products is found in section 3 of [NWSI 10-518](#).

- f. Focus on the content and accuracy of the forecast gridded database to ensure product consistency and availability of forecast grids to support wildland fire activities.
- 5.5** The National Centers for Environmental Prediction (NCEP) produce centralized guidance to support the Fire Weather Program.
- 5.6** The NCEP SPC issues forecast guidance for Day 1, Day 2 and Day 3-8 critical fire weather patterns and areas over the contiguous United States (CONUS).
- 5.7** The Office of Dissemination (DIS):
- a. Receives fire weather requirements from AFSSO's Fire Weather Program through the formal NWS requirements process as codified in governance.
 - b. Plans, develops, implements the NWS National Geographic Information System (GIS) Viewer (the "Viewer") application capabilities, including creating Open Geospatial Consortium (OGC) compliant web services from NWS fire weather products, for the Fire Weather Program.
 - c. Provides access to fire weather related data sets via the Viewer:
<https://viewer.geospatial.weather.gov/fire/>.
 - d. Trains designated Fire Weather Data Managers on how to upload fire weather data sets into the Viewer.
- 5.8** The Office of Central Processing (CP):
- a. Receives fire weather requirements from AFSSO's Fire Weather Program through the formal NWS requirements process as codified in governance.
 - b. Plans, develops, and implements Weather and Climate Operational Supercomputing System (WCOS) and Advanced Weather Interactive Processing System (AWIPS) support for the Fire Weather Program.
 - c. Provides access to necessary computing system to support field-deployed IMETs.
- 5.9** The Office of Observations (OBS):
- a. Receives fire weather requirements from AFSSO's Fire Weather Program through the formal NWS requirements process as codified in governance.

- b. Plans, develops, and maintains the Fire Weather Mission Service Area Requirements for the NOAA Observing System Council, with the assistance of AFSSO's Fire Weather Program.
- c. Works strategically to optimize observation networks necessary to deliver fire weather forecast services for the Nation.
- 6. The NWS measures the effectiveness of the Fire Weather Program using:
 - a. Red Flag Warning lead time and probability of detection.
 - b. Post-incident evaluation forms.
 - c. User response and feedback.
- 7. This policy directive is supported by the references listed in Appendix 1.

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Date

Appendix 1

REFERENCES AND DEFINITIONS

Procedural Directives:

- Instruction 10-401, [*Fire Weather Services Product Specification*](#)
- Instruction 10-402, [*IMET Services to Support Fire and Other Incidents*](#)
- Instruction 10-403, [*Fire Weather Services Coordination and Outreach*](#)
- Instruction 10-404, [*Fire Weather Services Annual Operating Plan and Report*](#)
- Instruction 10-405, [*Fire Weather Services Training and Professional Development*](#)

Definition:

Incidentⁱ - An occurrence either human-caused or natural phenomenon, that requires action or support by emergency service personnel to prevent or minimize loss of life or damage to property and/or natural resources.

ⁱSource: National Wildfire Coordinating Group Glossary of Wildland Fire Terminology, October 2015.