

NATIONAL WEATHER SERVICE INSTRUCTION 10-405

APRIL 28, 2023

Operations and Services

Products and Services to Support Fire and Other Incidents, NWSPD 10-4

FIRE WEATHER SERVICES TRAINING AND PROFESSIONAL DEVELOPMENT

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

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SUMMARY OF REVISIONS: This directive supersedes NWSI 10-405, “*Fire Weather Services Training and Professional Development*,” dated October 5, 2017.

The following revisions were made to this instruction:

- 1) Updated to accommodate restructuring of NWS Staffing to the 5-12 Meteorologist position.
- 2) Revision considers the presence of Deployment Ready guidance from other Directives.
- 3) Adjusted language to accommodate non-WFO fire weather-related positions and IMETs who may be assigned to Regional and National Centers.

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Fire Weather Services Training and Professional Development

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1. Training for Fire Weather

This training directive provides training requirements for the duties of Fire Weather Forecasters, Fire Weather Program Leaders, Deployment Ready Meteorologists qualified to for fire related deployments, and Incident Meteorologists (IMETs). The primary information source for Fire Weather Training will be the Professional Development Series (PDS).

<https://training.weather.gov/pds/firewx/>

The PDS addresses three specific categories of employees who provide Fire Weather support:

- a. Fire Weather Forecasters (NWS personnel who issue Fire Weather Products in any local office or regional or national center),
- b. Fire Weather Program Leaders and members of management teams, and
- c. Incident Meteorologists (IMETs) and those Deployment Ready meteorologists who may deploy to a wildfire non-incident command post assignment.

The Fire Weather PDS will be maintained by the Executive Producer under the guidance of the National Fire Weather Science and Dissemination Meteorologist in coordination with the National Fire Weather Operations Coordinator.

2. Fire Weather Forecasters

Any NWS meteorologist producing any of the core suite of fire weather products is trained as a Fire Weather Forecaster. Forecasters fulfill the following training requirement to work as a Fire Weather Forecaster:

- a. Fire Weather and Emergency Management Baseline Knowledge. Completion of Instructional Components within the Fire Weather PDS, Professional Competency Units (PCUs) 1-4.

The Meteorologist-In-Charge (MIC), the Science and Operations Officer (SOO) and their Regional Headquarters are responsible for properly training fire weather forecasters. At a minimum, forecasters will review the pertinent local, state, and regional Fire Weather Annual Operating Plans and remain proficient in issuing fire weather products each year. Additional requirements to achieve and maintain proficiency are allowed with Regional Headquarters' approval.

Forecasters who have not completed the training may produce products with supervision from a qualified Fire Weather Forecaster. In these circumstances, both forecasters' names should be included on Spot Forecasts.

3. Fire Weather Program Leaders (FWPL)

MICs of NWS Weather Forecast Offices (WFOs) assigned the responsibility to provide fire weather services, will designate a staff member as the FWPL. The FWPL is traditionally a non-management WFO meteorologist. The FWPL may be another WFO staff member with Regional Headquarters approval and assurance from the MIC that the FWPL meets all training requirements.

The FWPL need not be an IMET and vice versa.

The FWPL should be provided adequate time for personal and staff training, professional development, and customer liaison and assistance activities.

The FWPL will work with the MIC and SOO for the training and development of Fire Weather Forecasters and assisting IMETs (if applicable) as necessary.

The FWPL will meet the following training requirement in addition to those of the Fire Weather Forecaster (See Section 2):

- a. Fire Weather and Emergency Management Intermediate Knowledge. Completion of the Fire Weather PDS, PCUs 1-5. The Fire Weather PDS is available at: <https://training.weather.gov/pds/firewx/>. Also, complete any applicable FWPL training recommended by Regional Program managers.
- b. Completion of the [S-390 "Introduction to Wildland Fire Behavior Calculations"](#) course is recommended, but not required.

Regional Fire Weather Program Managers should also complete the training requirements listed above for FWPLs.

4. Deployment-Ready Meteorologists

Meteorologists trained as Fire Weather Forecasters and who maintain certification as Deployment-Ready may be called upon for fire-related assignments. These assignments may include deployments to Emergency Operations Centers, Geographic Area Coordination Centers (GACCs), Joint Field Operations, or Area Commands.

Deployment-Ready Fire Weather Forecasters are not expected to receive fire-line safety training and will not serve at Incident Command Posts for wildfires. Fire Weather Forecasters may be considered for familiarization visits to incidents given MIC/Supervisor, Regional Headquarters, and incident approval.

These forecasters are expected to meet the following requirements beyond those of a Fire Weather Forecaster (See Section 2)

- a. Per [NWS IDSS Deployment-Ready directives](#), requirements stated under the National Incident Management System (NIMS). The NIMS Training Guide can be found at:
https://www.fema.gov/sites/default/files/documents/fema_nims_training-program-may-2020_0.pdf
 - i. Department of Homeland Security/Federal Emergency Management Agency (FEMA) Courses IS-100, 200, 700, and 800. Training available online from the FEMA Emergency Management Institute at:
<https://training.fema.gov/IS/NIMS.aspx>.
 - ii. IS-300. Available through each state's Department of Emergency Services. A list of contact information for Emergency Management Agencies is available from the FEMA website at:
<https://www.fema.gov/emergency-management-agencies>.
 - iii. Certificates of Achievement issued by FEMA for successful completion of a course is proof of compliance with required emergency management training courses.
- b. Familiarity with Fire Weather PCU 5 is encouraged but not necessary.
- c. Maintain status as Tech Specialist in the Interagency Resource Ordering Capability (IROC).

5. IMET Certification and Training

The NWS Analyze, Forecast, and Support Office (AFSO) and the Office of the Chief Operating Officer (OCOO) Operations Division will ensure IMETs are properly trained and certified to work within the Incident Command System (ICS). IMET training and certification will be led by the National Fire Weather Science and Dissemination Meteorologist, the National Fire Weather Operations Coordinator (NFWOC), and the Regional Headquarters. Regional Fire Weather Program Managers will ensure that designated IMETs in their Region maintain certification. The NFWOC will ensure certification of individuals at national centers.

5.1 Initial IMET Certification

A meteorologist can only be certified as an IMET if the following requirements are met:

- a. Meet the requirements to be a Fire Weather Forecaster.
- b. Meet the requirements to be Deployment Ready.
- c. Attain level of GS-12 (with possible case-by-case exception to this requirement per Local, Regional, and NFWOC coordination).
- d. Either be stationed in an office with a national All Hazards Meteorological Response System (AMRS) or in an NWS office co-located in the same metro-area as an office with an AMRS. The NFWOC has the discretion to waive the co- location of AMRS equipment requirements.
- e. Attendance at an IMET Continuity in Excellence Exercise (CEE).
- f. Completion of all stated requirements within the Fire Weather PDS.
- g. Completion of S390.
- h. Knowledge and familiarization of [S-490 “Advanced Wildland Fire Behavior Calculations,”](#) by reviewing the S-490 Student Reference Text and slides.

Meteorologists may pursue the above requirements while seeking IMET certification. Regional Fire Weather Program Managers will determine when trainees are ready for incident training and will coordinate this information with the NFWOC. Contact the appropriate Regional Fire Weather Program Manager for information on obtaining course materials, dates of residence classes, etc.

i. IMET Training Assignments

The IMET will complete at least two incident (on-site) training assignments with certified IMETs.

- Initial assignment should focus on incident familiarization and learning appropriate IMET tasks.
- Subsequent assignment(s) should give the trainee a chance to demonstrate proficiency in these critical tasks under supervision of a certified IMET.

Trainees will complete at least 20 days of on-site training combined between the two assignments (not including travel days)

- One of the assignments will be at least five consecutive days.
- One assignment will be with a [Type I or Type II Wildland Fire](#) Incident Management Team.

Proficiency will be demonstrated and tracked using the IMET Task Book located on the [IMET Google Site](#).

- Progress can be tracked by IMET Trainers, other IMETs on station, SOOs, WCMs, MICs, or appropriate personnel at a regional or national center.
- Upon successful completion of the training assignments, the certified IMET providing the training will sign-off on the IMET Task Book.
- The IMET Task Book will be reviewed by the NFWOC and the IMET’s MIC or other supervisor for final approval.

A trainee will be certified as a Fire Weather Forecaster (see Section 2) before assignment for incident training. The trainee should also complete all virtual training before assignment to an

incident for training. However, it is recognized that course schedules control the completion of some requirements.

The IMET's MIC (or other appropriate supervisor) is the final certifying official. The MIC should coordinate with the Regional Fire Weather Program Manager and the NFWOC, and ensure all required courses, study, and tasks specified in Section 5.1 are completed before signing the Task Book. The MIC's signature on the Task Book denotes official certification for the IMET. The NFWOC will ensure the IMET's qualifications are updated in IROC.

5.2 IMET Re-certification

The status of IMET certification will be reviewed annually by the respective Regional Fire Weather Program Managers and MICs prior to delivering the pre-season list of certified IMETs to the NFWOC (required by January 31st of each year). To remain certified, IMETs will complete annual refresher training requirements, as determined by the National Fire Weather Science and Dissemination Meteorologist and approved by the Fire Weather Program Manager. Refresher training includes IMET meteorological support equipment familiarization and local Annual Fireline Safety Refresher Training ([RT-130](#)). The NFWOC will annually issue Red Cards each spring to IMETs that have completed certification requirements and update IROC.

5.2.1 IMET Re-certification Criteria

To remain certified as an IMET, the IMET will satisfy the criteria below. Please note that refresher training identified as "mandatory" will either be noted as such on the [IMET Google Sites website](#); or assigned through the Commerce Learning Center ([CLC](#)):

- a. Either be stationed in an office with a national All Hazards Meteorological Response System (AMRS) or in an NWS office co-located in the same metro area as an office that has an AMRS. The NFWOC has the discretion to waive the co-location of AMRS equipment requirement.
- b. Have responded to a wildland fire incident dispatch as a certified IMET using the AMRS within the previous five years.
- c. Attend annual fireline safety refresher training provided by the wildland fire agencies. This course is commonly known as the RT-130 Annual Fireline Safety Refresher Course.
- d. Complete any offered annual IMET equipment deployment refresher training identified as mandatory.
- e. Complete any offered annual IMET NOAA-NWS mandated safety refresher training. Complete any offered annual IMET business practices refresher training identified as mandatory.

5.2.2 Lapse of Certification

If a previously certified IMET does not meet the criteria in Section 5.2.1, re-certification can occur by completing a dispatch training session at an incident with a certified IMET. For a dispatch training session, the certified IMET will determine the necessary length of dispatch for re-certification. The certified IMET will notify the NFWOC if and when they deem re-certification should be approved. The IMET seeking re-certification does not have to complete a task book, but required tasks should be reviewed for re-certification purposes. The NFWOC will change the lapsed IMET's status from "trainee" to "qualified" and notify the respective Regional

Program Manager and MIC of the change in IMET certification.

5.2.3 Transfer to a non-AMRS Office

If an IMET is transferred to an office without AMRS or meet the requirements outlined in Section 5.1.d, the NFWOC can allow the IMET to remain in the program. The IMET can provide Deployment-Ready Fire Weather support to fire incidents not requiring an IMET.