

NATIONAL WEATHER SERVICE INSTRUCTION 10-405

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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/>

OPR: W/AFS21 (R. Heffernan)

Certified by: W/AFS21 (M. Hawkins)

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SUMMARY OF REVISIONS: This directive supersedes NWSI 10-405, “*Fire Weather Services Training and Professional Development*,” dated March 27, 2014. This revision was made to reflect the NWS Headquarters reorganization effective on April 1, 2015.

The following revisions were made to this instruction:

- 1) Updated NWS organizational structure.
- 2) Sections 4 and 6 - Re-title Type 1 IMET as IMET, and Type 2 IMET as Deployment-Ready Fire Weather Meteorologist.
- 3) Sections 2, 3 and 4 - Remove detail of training requirements and refer to Fire Weather PDS.

Signed

9/21/2017

Andrew D. Stern

Date

Director

Analyze, Forecast and Support Office

Fire Weather Services Training and Professional Development

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1. National Incident Management System (NIMS). The National Oceanic and Atmospheric Administration (NOAA) National Weather Service (NWS) will comply with NIMS required training for all NWS wildland fire incident responders. The NIMS Training Guide can be found at: http://www.fema.gov/pdf/emergency/nims/nims_training_program.pdf .

1.1 Department of Homeland Security/Federal Emergency Management Agency (FEMA) Course Availability. IS-100, 200, 700 and 800 are available online from the FEMA Emergency Management Institute at: <https://training.fema.gov/IS/NIMS.aspx>. IS-300 is 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>. Certificates of Achievement issued by FEMA for successful completion of a course is proof of compliance with required emergency management training courses listed in Section 2.

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 requirement to work as a Fire Weather Forecaster:

Fire Weather and Emergency Management Baseline Knowledge. Completion of the Fire Weather Professional Development Series (PDS), Professional Competency Units (PCUs) 1-4. The Fire Weather PDS is available at: <https://sites.google.com/a/noaa.gov/nws-fire-weather-pds/>.

New requirements in the Fire Weather PDS are effective for newly trained Fire Weather Forecasters post the signing of this directive. The Meteorologist-In-Charge (MIC) and their Regional Headquarters are responsible for ensuring fire weather forecasters are properly trained. At a minimum, forecasters will review the Fire Weather Annual Operating Plan and remain proficient in issuing fire weather products each year. Additional requirements to achieve and maintain proficiency are allowed with Regional Headquarters' approval.

3. Fire Weather Program Leaders (FWPL). MICs of NWS Weather Forecast Offices (WFOs), assigned the responsibility to provide fire weather services, will designate a member of the staff as the FWPL. The MIC will ensure the FWPL is provided adequate time for personal and staff training, professional development, and customer liaison and assistance activities. The FWPL is traditionally a WFO meteorologist; however, the FWPL may be another WFO staff member with Regional Headquarters approval and assurance from the MIC that the non-meteorologist FWPL meets all training requirements.

The MIC, Science and Operations Officer (SOO) and FWPL will be responsible for training and development of fire weather forecasters and assisting the Incident Meteorologists (IMETs) (if one is assigned to the WFO), as necessary. The FWPL need not be an IMET and vice-versa. In addition to fire weather related training, the FWPL's duties may include developing and implementing new forecast products and techniques, and conducting climate and fire weather related studies. The extent of the duties of the FWPL will be determined by the depth of the local fire weather program requirements.

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

- a. Fire Weather and Emergency Management Intermediate Knowledge. Completion of the Fire Weather PDS, PCUs 1-6. The Fire Weather PDS is available at: <https://sites.google.com/a/noaa.gov/nws-fire-weather-pds/>. To learn more about wildland fire behavior, completion of the S-390 "Introduction to Wildland Fire Behavior Calculations" course is recommended, but not required.

New requirements in the Fire Weather PDS will become effective for FWPLs becoming newly trained post the signing of this directive. Regional Fire Weather Program Managers should also complete the requirements listed above for FWPLs.

4. IMET Certification and Training. The NWS Analyze, Forecast, and Support Office (AFSO) as well as the Office of the Chief Operating Officer (OCCO) Operations Division will ensure IMETs are properly trained and certified to work within an 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.

4.1 Initial IMET Certification. To be certified initially as an IMET, the meteorologist will have at least attained the level of General Forecaster and will either be stationed in an office that has a national All Hazards Meteorological Response System (AMRS) or stationed in a NWS office that is collocated in the same city as an office that has an AMRS. The NFWOC has the discretion to waive the co-location of AMRS equipment requirement. Interns may complete any available training, such as the Fire Weather PCUs and NWCG fire courses, and may take a familiarization trip to a fire with Regional Headquarters and Incident Commander approval. The IMET trainee will acquire a high level of knowledge of fire weather meteorology and fire behavior. This includes the following: advanced knowledge of complex terrain and its impacts on fire weather parameters; mesoscale meteorology; intermediate to advanced knowledge of climatological patterns associated with fire activity; and intermediate to advanced knowledge of fire behavior, including knowledge of fuels and fire climatology. The prospective IMET will meet the following requirements in addition to all the requirements for FWPLs (Section 3):

- a. Fire Weather and Emergency Management Advanced Knowledge. Completion of the PDS, PCUs 1-7. The Fire Weather PDS is available at: <https://sites.google.com/a/noaa.gov/nws-fire-weather-pds/>. In addition, the trainee will have a knowledge and familiarization of S-490 “Advanced Wildland Fire Behavior Calculations,” by reviewing the S-490 Student Reference Text and slides.
- b. Incident Training Assignment. The IMET will complete at least two incident (on-site) training assignments with certified IMETs. The first assignment should focus on incident familiarization and learning appropriate IMET tasks. The second assignment 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. The IMET Task Book will be used during all training assignments, and progress will be assessed by the IMET trainer(s). Incident training will include: experience with dispatch and demobilization procedures and the ICS; set up, use, disassembly, and packing of the AMRS; ordering and use of incident RAWS (iRAWS); preparation of on-site forecasts; briefing incident teams; and working and coordinating with local forecast offices. 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 National Fire Weather Operations Coordinator (NFWOC) and the IMET’s MIC 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 try to complete as many of the IMET certification requirements (Sections 2 and 3) as possible before incident training, though it is recognized that completion of some requirements are controlled by course schedules. Regional Fire Weather Program Managers will determine when trainees are ready for incident training and will coordinate

this information with the NFWOC.

The IMET's MIC is the final certifying official. He/she should coordinate with the Regional Fire Weather Program Manager and the NFWOC, and ensure all required courses, study, and tasks specified in 4.1 are complete before signing the Task Book. The MIC's signature on the Task Book denotes official certification for the IMET.

4.2 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.

4.2.1 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 be either be noted as such on the IMET Google Sites website, or assigned to the IMET through the Commerce Learning Center (CLC):

- a. Be stationed at an office that has an AMRS or collocated in the same city as an office that has an AMRS. The NFWOC has the discretion to waive this 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.
- f. Complete any offered annual IMET business practices refresher training identified as mandatory.

4.2.2 Lapse of Certification. If a previously certified IMET does not meet the criteria in Section 4.2.1, 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 he/she deems re-certification should be approved. The IMET seeking re-certification

does not have to formally complete a Task Book, but the 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. If an IMET is transferred to an office that does not have an AMRS, that IMET can qualify to provide Deployment-Ready Fire Weather support to fire incidents not requiring an IMET.

5. Course Information. Contact the appropriate Regional Fire Weather Program Manager for information on obtaining course materials, dates of residence classes, etc. Information can be found online at: <http://www.nationalfiretraining.net/>.

6. Deployment-Ready Fire Weather Meteorologist. To be certified initially as a Deployment-Ready Fire Weather Meteorologist, the meteorologist will have at least attained the level of General Forecaster. However, an Intern may complete any available training such as COMET® modules and NWCG fire courses, and may take a familiarity trip to an Emergency Operations Center (EOC), Joint Field Office (JFO), or Area Command (AC) with Region Headquarters and Center Manager approval. Deployment-Ready Fire Weather Meteorologists will complete the same NIMS courses, and fire weather and fire behavior courses, as IMETs. Deployment-Ready Fire Weather Meteorologists will not be required to complete fireline safety training. Deployment-Ready Fire Weather Meteorologists will also complete the Deployment-Ready Task Book. This will allow Deployment-Ready Fire Weather Meteorologists to serve wildland fire management needs at EOCs, JFOs, or ACs. However, Deployment-Ready Fire Weather Meteorologists will not be able to serve on wildland fires at an Incident Command Post (ICP). IMETs are automatically Deployment-Ready qualified, but Deployment-Ready Fire Weather Meteorologists are not IMET qualified until the training process outlined in Section 4, above, is completed.

6.1 Deployment-Ready Fire Weather Lapse and Re-certification. Deployment-Ready Fire Weather Meteorologist maintenance of certification, lapse of certification, and re-certification will follow the same rules as all Deployment-Ready scientists, as outlined in the forthcoming Impact-based Decision Support Services (IDSS) Directive 10-2402. Directive 10-2402 is expected to become official in 2018.