



S-190: Course Introduction

Summary:

This course provides students with wildland fire behavior knowledge applicable for safe and effective fire management activities (wildfire or prescribed fire).

Students are introduced to characteristics and interactions of the wildland fire environment (fuels, weather, and topography) that affect wildland fire behavior for safety purposes.

Incident Position Description (IPD) Alignment:

This course aligns with the NWCG IPDs that serve as the single authoritative source for the essential duties and responsibilities of a NWCG incident position. IPDs ensure connection between the position and established operation standards. Each unit in this course will identify the related IPD statement.

For more information on IPDs visit, <https://www.nwcg.gov/nwcg-standards-management-cycle>.

Objectives:

Students will be able to:

- Upon completion of the course, the student will be able to:
- Describe the basic terminology used in wildland fire.
- Identify and discuss the fire triangle.
- Identify and discuss key characteristics of the primary wildland fire environment components - fuels, weather, and topography.
- Identify critical fire weather factors that, combined with receptive fuels, may result in extreme fire behavior.
- Recognize how alignment of fuels, weather, and topography can increase the potential for extreme fire behavior.



Course at a Glance:

Units	Method	Duration
Course Introduction	Presentation	30 Minutes
Basic Concepts of Wildland Fire	Presentation	60 Minutes
Fuels	Presentation	60 Minutes
Temperature and Moisture Relationships	Presentation	60 Minutes
Topography	Presentation	45 Minutes
Atmospheric Stability, Winds, and Clouds	Presentation	60 Minutes
Critical Fire Weather	Presentation	60 Minutes
Alignment	Presentation	45 Minutes
Total Course Duration		7 Hours

Materials:

For Each Participant

- *Incident Response Pocket Guide (IRPG)*, PMS 461, <https://www.nwcg.gov/publications/461>.
- Fire Weather Cloud Chart, PMS 438, <https://www.nwcg.gov/publications/438>.
- Psychrometric Table, <https://www.nwcg.gov/publications/pms437/weather/temp-rh-dp-tables#TOC-Elevation-6101-8500ft>.
- S-190 Student Evaluation Task Sheet, <https://www.nwcg.gov/publications/training-courses/s-190/course-materials>.
- Notebooks.

Classroom

- Ability to display images and video on large screen.
- White board or easel access for group breakout.
- *NWCG Glossary of Wildland Fire*, PMS 205, <https://www.nwcg.gov/glossary/a-z>.

Guides and Key

The presentations and instructor guides include notes to aid facilitators in instruction.

Key

- Indicates an action for the instructor to take.
- Indicates topics and information for the facilitator to use as they see fit.

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S-190: Introduction to Wildland Fire Behavior

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Course Objectives

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- Identify and discuss the fire triangle.
- Identify and discuss key characteristics of the primary wildland fire environment components - fuels, weather, and topography.
- Identify critical fire weather factors that, combined with receptive fuels, may result in extreme fire behavior.
- Recognize how alignment of fuels, weather, and topography can increase the potential for extreme fire behavior.

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- Review course objectives.

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Measurement of Objectives

Achievement of course and unit objectives is measured using one or more of the following methods:

- Class or group discussion
- Instructor or coach observation and feedback
- Knowledge checks
- Knowledge assessment
- Skill assessment
- Course Evaluation Task Sheet

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Course Overview

Unit 1: Basic Concepts of Wildland Fire

Unit 2: Fuels

Unit 3: Temperature and Moisture Relationships

Unit 4: Topography

Unit 5: Atmospheric Stability, Winds, and Clouds

Unit 6: Critical Fire Weather

Unit 7: Alignment

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Course Materials

- *Incident Response Pocket Guide (IRPG)*, PMS 461
- *NWCG Glossary of Wildland Fire*, PMS 205
- *Fire Weather Cloud Chart*, PMS 438
- **Notebook**
- **S-190 Student Evaluation Task Sheet**

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Evaluating Student Performance

S-190 Student Evaluation Task Sheet

- Completed throughout the class.
- Reviewed by instructors at end of class.
- Modeled after NWCG Position Task Books.

The S-190 Student Evaluation Task Sheet should be completed throughout the course. Instructors will review it with the students at the end of the course.

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Course Objectives

Student will be able to:

- **Describe the basic terminology used in wildland fire.**
- **Identify and discuss the fire triangle.**
- **Identify and discuss key characteristics of the primary wildland fire environment components - fuels, weather, and topography.**
- **Identify critical fire weather factors that, combined with receptive fuels, may result in extreme fire behavior.**
- **Recognize how alignment of fuels, weather, and topography can increase the potential for extreme fire behavior.**