



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

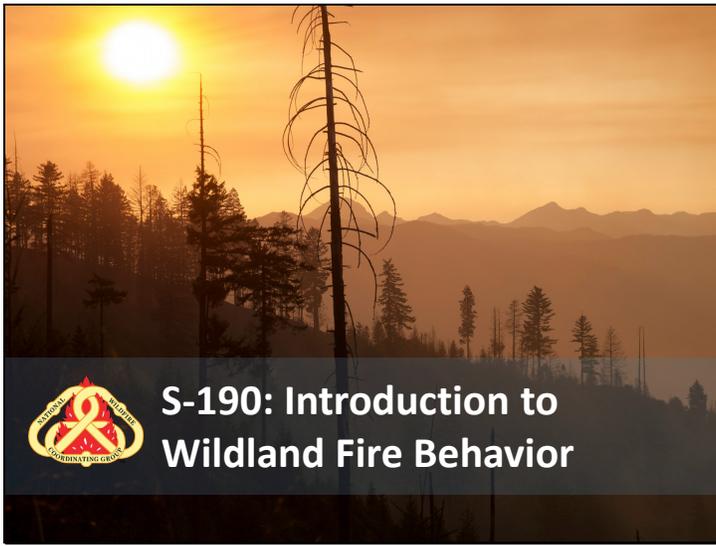
The presentations and instructor guides include notes to aid facilitators in instruction.

Key

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

S-190: Course Introduction

Slide 1



**S-190: Introduction to
Wildland Fire Behavior**

Slide 2

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.

S-190: Course Introduction 2

- Review course objectives.

Slide 3

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

Slide 4

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

S-190: Course Introduction

Slide 5

Course Materials

- *Incident Response Pocket Guide (IRPG)*, PMS 461
- **Notebook**
- S-190 Student Evaluation Task Sheet
- *Fire Weather Cloud Chart*, PMS 438
- *NWCG Fire Environment Poster*, PMS 439
- *NWCG Glossary of Wildland Fire*, PMS 205

S-190: Course Introduction 5

- *Incident Response Pocket Guide (IRPG)*, PMS 461, <https://www.nwcg.gov/publications/461>:
 - The *IRPG* is considered the student workbook and primary reference tool for this course.
 - The *IRPG* is the reference tool available to a FFT2 in the field.
- **Notebook**:
 - Students should be provided a notepad, writing pad, or even a stack of papers for the purpose of taking notes.
 - A notebook or notepad, commonly pocket size, is the tool available to a FFT2 in the field.
- S-190 Student Evaluation Task Sheet, <https://www.nwcg.gov/publications/training-courses/s-190/course-materials>:
 - Its intent is discussed on the next slide.
- *Fire Weather Cloud Chart*, PMS 438, <https://www.nwcg.gov/publications/438>:
 - This poster is a reference tool for Unit 5: Atmospheric Stability, Winds, and Clouds.
- *NWCG Fire Environment Poster*, PMS 439, <https://www.nwcg.gov/publications/439>:
 - This poster is a visual reference tool that represents overall course concept and objectives.
- *NWCG Glossary of Wildland Fire*, PMS 205, <https://www.nwcg.gov/glossary/a-z>:
 - The *Glossary* serves as the primary source for term or concept definitions used in the course.
 - Students are encouraged to access it via smart device during the course.

Slide 6

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.

S-190: Course Introduction

6

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.

Slide 7

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.**